TOWN OF KITTERY

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Visit us: www.kitteryme.gov/planning-board

Planning Board Meeting
January 25, 2024

ITEM 3 – 77 Bartlett Road – Conservation Subdivision Plan – Final Review
Action: Approve plan or continue review. Michael Tadema-Wielandt, on behalf of owner/applicant Geoff Bowley, is proposing to divide a 19.11-acre parcel into a conservation subdivision of 9 single-family residential building lots, a private street system, and an open space plot around identified wetlands, vernal pools, and a pre-existing cemetery. The proposed subdivision is located on the property of 77 Bartlett Road, Map 62 Lot 26, in the Residential-Rural (R-RL) and Resource Protection Overlay (OZ-RP) Zones.

PROCESS SUMMARY

REQ'D	ACTION	COMMENTS	STATUS
YES	Sketch Plan Acceptance/Approval	5/11/23	Accepted
YES	Planning board determination of completeness	8/24/23	Accepted
NO	Site Visit	8/21/23	Held
YES	Public Hearing	Scheduled for 9/28/23 Continued to 10/26/23 Rescheduled to 11/16/23	Held
YES	Preliminary Plan Approval	11/16/23	Approved
YES	Final Plan Review and Decision	Scheduled for 1/25/24	Pending
Applicant: Prior to the signing of the approved Plan any **Conditions of Approval related to the Findings of Fact along with waivers and variances (by the BOA) must be placed on the Final Plan and, when applicable, recorded at the York County Registry of Deeds. PLACE THE MAP AND LOT NUMBER IN 1/4" HIGH LETTERS AT LOWER RIGHT BORDER OF ALL PLAN SHEETS.** As per Section 16.4.4.L - Grading/Construction Final Plan Required. - Grading or construction of roads, grading of land or lots, or construction of buildings is prohibited until the original copy of the approved final plan endorsed has been duly recorded in the York County registry of deeds when applicable.			

PROJECT INTRODUCTION

This is the final review for a proposed 9-lot conservation subdivision located at 77 Bartlett Road in the R-RL (Residential-Rural) zoning district and partially within the OZ-RP Resource Protection Overlay Zone. The lots are proposed to be accessed from

Bartlett Road through a private street system ending in one cul-de-sac, designed to meet the standards of a Class II private street with a 3-foot widened shoulder and a painted strip on the west side for pedestrian movement. Nine proposed lots will all be accessed from the new road. Lot sizes range from approximately 21,000 square feet to 34,000 square feet. The property currently contains a single residential dwelling; the structure will remain on the lot after renovations, and the driveway currently providing access to Bartlett Road will be removed.

A private cemetery, located between proposed lots 1 and 2, will be maintained as open space with public access provided. Public water and sewage are unavailable to the property; the developer proposes installing private septic systems and wells for each individual lot. The site contains wetland areas around the proposed subdivision, including two vernal pools (that have not been deemed of significant size by the state) located east of the proposed development, and an area containing a wetland of special significance as well as a floodplain abutting the proposed subdivision to the southwest.

The planning board first reviewed this application on August 24th, where they accepted the application as complete, scheduled a site walk for September 21st, and scheduled a public hearing during the September 28th planning board meeting. After plan acceptance, a third-party engineer review of the drainage analysis identified several concerns and deemed the stormwater management report would have to be resubmitted, noting that additional stormwater treatment would likely be required. During the planning board's second review on September 28th, the planning board moved to continue the public hearing to the meeting of October 26th. Prior to the second hearing, the applicant submitted a revised site plan and stormwater management report incorporating the peer review engineer's feedback.

The peer review of the second stormwater management report found significant issues requiring a third submission. In response to this, the applicant requested the planning board move the hearing to November 16th to allow them enough time to revise their application. The third stormwater management report was found to be sufficient, and after holding a public hearing on 11/16/23, the planning board approved the preliminary application on the same meeting.

The final plan addressed concerns from the public hearing by indicating the driveway to be removed will be revegetated to avoid the spread of invasive species. Additionally, the plan vegetated the swales leading towards the wetland of special significance. Peer review from CMA engineers found no issues in the site plan design or drainage analysis.

Staff suggest final approval at this time. The planning board should vote on the requested waivers before entertaining approval.

Waivers Requested

1. Sidewalk modification request: Sidewalks are required for all Class II private streets. The applicant is proposing a modification to allow a 3-foot wide paved pedestrian travel way along one side of the road instead.

STAFF COMMENTS

1. Following feedback from the public hearing, the applicant has extended the vegetated buffer between Lot 9 and Bartlett Road.
2. There were multiple comments during the public hearing about a water body within the wetlands of special significance referred to as "Ken's Pond." The setback area between Lots 7-9 and the abutting wetland is now designated a forested stormwater buffer area, and the applicant has stated they are providing further treatment to any runoff from the proposed right-of-way to reduce impact.
3. Following feedback at the public hearing, the planning board requested revised calculations to determine whether the proposal meets the 1-acre threshold of disturbed soil to require a permit from Maine DEP. Because they were so close to the 1-acre threshold, the applicant has since submitted the required permit to DEP.
4. Following additional feedback from the public hearing, the applicant plans to loam and seed all drainage ditches leading to the wetland of special significance and water body known as "Ken's Pond," and provide double silt fence erosion control during construction.
5. Following feedback from the public hearing, the applicant now shows plans to revegetate the existing driveway when removed.
6. Because the conservation subdivision ordinance strongly recommends all buildings within the subdivision be designed for maximum energy efficiency per **§16.10.6.A.(4)**, it is suggested that buildings be designed as south-facing whenever possible in this subdivision.
7. The planning board requested the Homeowner's association documents also notate wetland "no-cut no disturb buffers." This has been added on page 9 of the draft HOA documents provided.
8. Snow will be stored in the center of the cul-de-sac.
9. To ensure the creation of the private road meets all drainage standards, public works will likely require a driveway entrance or road opening permit as part of the development process. This would happen after planning board approval.

PROJECT ANALYSIS

Code Ref.	§16.4 Land Use Zone Standards	
	Standard	Determination

§16.4.10.B	Permitted/Special Exception Uses	The proposed subdivision is a permitted use
§16.4.10.E.(2).(a).	Minimum area per dwelling: 40,000 sq ft.	It appears the standard is satisfied.
§16.4.10.E.(2).(b).	Lot size: 40,000 sq ft minimum	Not all lots meet this standard. Requirements need not be met in a conservation subdivision
§16.4.10.E.(2).(c).	Street frontage: 150 ft minimum	Not all lots meet this standard. Requirements may be modified in a conservation subdivision.
§16.4.10.E.(2).(d).	Front setback: 40 ft minimum	Not all lots meet this standard. Requirements may be modified in a conservation subdivision.
§16.4.10.E.(2).(e).	Building coverage: 15% maximum	Not all lots meet this standard. Requirements may be modified in a conservation subdivision.
§16.4.10.E.(2).(f).	Rear and side setbacks: 20 ft minimum.	Not all lots meet this standard. Requirements may be modified in a conservation subdivision.
§16.4.10.E.(2).(g).	Building height: 35 ft maximum	It appears the standard is satisfied.
§16.4.10.E.(2).(i).	Minimum water-body setbacks: up to 100 feet from high-water line of identified wetlands	The standard appears to be satisfied for all proposed building envelopes. The applicant has provided a design for the proposed septic systems, which will be reviewed by Code Enforcement if the

		subdivision plan is approved.
Code Ref.	§16.5 Performance Standards	
	Standard	Determination
§16.5.4	Affordable housing requirements	Not applicable, as the subdivision has less than 10 lots.
§16.5.9	Conservation of vernal pools	Identified vernal pools were not deemed significant. Standard setback applies determined by size.
§16.5.10	Essential services	Test pits and well locations have been notated. Underground utilities are proposed. Standards appear to be met
§16.5.11	Floodplain Management	The proposed development is outside of the indicated floodplain. Standards appear to be met.
§16.5.14.B	Lots	The flag-shaped lot proposed in the sketch review has been removed. Lot standards appear to be met, save for issues noted in the table above.
§16.5.18.	Net residential acreage	The standard appears to be satisfied.
§16.5.27	Street Standards	The proposed road appears to meet the standards of a class II private street. The proposed "pedestrian way" is a modification to sidewalk

		requirements and will require planning board approval.
§16.5.30	All wetlands of 501 sq ft.or greater trigger setbacks for certain uses	Delineation was submitted, and wetlands of special significance have been identified. Standards appear to be met, save for the missing setback mentioned above.
Code Ref.	§16.10 Additional Requirements for Conservation Subdivision	
	Standard	Determination
§16.10.4.B	Indicate any proposed public open space and Town Council approval	Standard is not required. Public access is not proposed by applicant, and the cemetery on the property would not be considered a public park.
§16.10.5.C	Proposed private and water systems must show: • adequate groundwater is available. • Proposed groundwater sources are safe from on-site and off-site contamination. • Proposed individual septic systems will not endanger drinking water supply. • The costs of a community water or wastewater system is prohibitively expensive	Standards appear to be met.
§16.10.5.D	Designated open space to be permanently preserved	Appears to meet minimum open space standards. Proposed configuration requires planning board approval

§16.10.5.E	Minimum lot size with private water/wastewater: 20,000 sq ft	The standard appears to be met
§16.10.5.F	No individual lot may have direct vehicular access onto a public road	All proposed lots will access the proposed private way. The driveway of the existing dwelling currently connecting to Bartlett Road will be removed. Standard appears to be met.
§16.10.5.G	All areas designated as Resource Protection must be protected as open space	The standard appears to be met.
§16.10.5.I	Wetlands designated as open space to have a “no-cut, no disturb” buffer	This is indicated on Note 23 of the site plan. Additionally, Note 22 indicates boundary markers will be placed in 50 feet intervals along all setback boundaries.
§16.10.5.J	Al utilities must be installed underground	The standard appears to be met.
§16.10.5.K	All subsurface wastewater disposal areas to be indicated on plan	The standard appears to be met
§16.10.6.F	Vegetated buffer located on front lot line, a minimum width of 40 feet	The standard appears to be met.
§16.10.6.H	Low-impact design must be incorporated into the plan whenever possible	The stormwater drainage plan proposes a forested stormwater

		buffer around lots 4, 5, 7, and 9. The standard appears to be met.
§16.10.7.A	Open space minimum: 60% of lot, with 40% of that consisting of net residential acreage. Example: in a parcel of 1,000,000 sq ft, 600,000 sq ft (60%) must be open space. Of that 600,000 sq ft, 240,000 (40% of open space, or 24% of total lot) must be included in the net residential acreage calculations.	The proposed development exceeds the minimum requirements of both open space and the net residential land requirements. The standard appears to be satisfied. The plan set appears to show a typo in the open space calculations. The applicant has submitted a revised plan set correcting this typo.
§16.10.7.B	All wetlands, water bodies, and floodplains must be located within open space boundaries	This standard appears to be met.
§16.10.7.C	Significant natural resources or wildlife habitat areas must be designated as open space	This standard appears to be met.
§16.10.7.D	Open space must include any notable features	This standard appears to be met.
§16.10.7.E	All historic, cultural, or archaeological resources must be included as open space	The Payne Cemetery is designated as open space. The standard appears to be met.
§16.10.7.F	Open space areas must be made contiguous to the greatest extent possible	Staff believe this standard has been met, but open space configuration is up to

		the decision of the planning board.
§16.10.7.G	Open space may not be mowed unless part of a public park/trail	This standard will be met with the addition of the above mentioned "no cut" buffers.
§16.10.10	The homeowner's association will be held responsible for: • Maintenance of open space • Maintenance public facilities such as road and stormwater systems • An initial capital fund required to cover expenses • Maintenance and replacement of plantings, including additional plantings required by the planning board	The plan indicates the subdivision will be maintained by a Homeowner's Association
§16.10.11	Prior to the beginning of any site work, the applicant must: • Define the limits of any proposed clearings. • File all required performance guarantees and inspection escrows in forms acceptable to the Town Manager	Not applicable until after final approval.
Code Ref.	§16.8.9.C Preliminary Subdivision Plan Requirements	
	Standard	Determination
§16.8.9.C.(5).(a-i).	* Paper plan sheets no smaller than 11" x 17" * Scale of drawing no greater than 1 inch = 30 feet * Code block in right-hand corner * Standard boundary survey of existing conditions * Compass with arrow pointing true north * Locus map of property * Vicinity map and aerial photograph * Surveyed acreage of parcel(s), rights-of-way, wetlands, and amount of street frontage	Provided

	* Names and addresses of owners of record abutting property	
§16.8.9.C.(5).(j).	Existing conditions survey including all identified structures, natural resources, rights-of-way, and utilities located on and within 100 feet of the property	Provided
§16.8.9.C.(5).(k).	Proposed development area including: * Location and detail of proposed structures and signs * Proposed utilities including power, water, and sewer * Sewage facilities type and placement * Domestic water source * Lot lines, rights-of-way, and street alignments * Road and other paved area plans * Existing and proposed setbacks * Storage areas for waste or hazardous materials * Topographic contours of existing contours and finished grade elevations * Locations and dimensions of artificial features such as pedestrian ways, sidewalks, curb cuts, driveways, fences, retaining walls,	Provided
§16.8.9.C.(6).(a).	Documents showing legal interest in the property	Provided
§16.8.9.C.(6).(b).	Identified property encumbrances	Provided
§16.8.9.C.(6).(c).	Kittery Water District approval letter	Private water proposed: hydrogeologist letter has been provided.

§16.8.9.C.(6).(d).	Erosion and sedimentation control plan	Provided
§16.8.9.C.(6).(e).	Stormwater management plan and drainage analysis	Provided
§16.8.9.C.(6).(f).	Soil survey	Provided
§16.8.9.C.(6).(g).	Vehicular traffic report	Provided
§16.8.9.C.(6).(h).	Traffic impact analysis	Not deemed applicable due to low traffic volume
§16.8.9.C.(6).(i).	Test pit analysis for proposed septic systems	Provided
§16.8.9.C.(6).(j).	Town sewage department confirmation	Not applicable.
§16.8.10.C.(6).(k).	Evaluation of development by Police, Fire, and Public Works department heads	Provided
§16.8.10.C.(6).(l).	Additional submissions as required	None proposed at this time
§16.8.10.D.(2).(a-f).	Additional final plan requirements including: • Proposed streets, pedestrian ways, lots, easements, and areas dedicated to public use • Location of any markers or permanent monuments • Location and description of all structures, including signs. • Floor plans and elevations of principal structures • Building materials and colors • Fences, retaining walls, and other artificial features • Stormwater management plan and drainage	Provided
§16.8.10.D.(2).(g).	Outdoor lighting and signage plan showing: • All buildings, parking areas, driveways, services areas,	No lighting is proposed. Not applicable

	proposed exteriors and snow storage areas • All proposed lighting fixture specifications • Photometric data, including cutoff fixtures and color rendering index • Mounting height of all external lights • Lighting analysis of proposed installation to show minimum, maximum, and average luminance	
§16.8.10.D.(2).(h).	Locations of machinery in permanently installed locations likely to cause noise along lot lines	Not applicable.
§16.8.10.D.(2).(i).	Storage areas for materials (raw, finished, or waste), and list of any types of toxic/hazardous materials stored on-site.	Not applicable.
§16.8.10.D.(2).(j).	Location of fences, retaining walls, and other artificial features	Provided. Mailboxes and stop sign are shown on the plan.
§16.8.10.D.(2).(k).	Landscaping plan including location, size, and type of plan material	Provided
§16.7.10.D.(2).(l).	Location of snow storage areas	Provided
§16.7.10.D.(2).(m).	Draft homeowners association documents showing who will maintain stormwater systems.	Provided.

DISCUSSION, NEXT STEPS, AND RECOMMENDATIONS

The purpose of final review is to allow the applicant to address any final outstanding issues that must be addressed before planning board approval can be granted. There are no outstanding issues at this time from either planning staff or the review engineer. Staff believe the applicant has sufficiently addressed the concerns raised

during the public comment portion of development, and believe the application is ready to receive final approval.

RECOMMENDED MOTIONS

Below are recommended motions for the Board's use and consideration:

Motion to approve the application

Move to approve the final subdivision plan by Michael Tadema-Wielandt, on behalf of owner/applicant Geoff Bowley.

Kittery Planning Board
Findings of Fact
77 Bartlett Road
Final Subdivision Review

DRAFT
M 62 L 26

Note: This approval by the Planning Board constitutes an agreement between the Town and the Developer incorporating the Development plan and supporting documentation, the Findings of Fact, and all waivers and/or conditions approved and required by the Planning Board.

WHEREAS: Michael Tadema-Wielandt, on behalf of owner/applicant Geoff Bowley, is proposing to divide a 19.11-acre parcel into a conservation subdivision of 9 single-family residential building lots on the property of 77 Bartlett Road, Map 62 Lot 26, in the Residential-Rural (R-RL) and Resource Protection Overlay (OZ-RP) Zones.

Pursuant to the Plan Review meetings conducted by the Planning Board as noted in the Plan Review Notes dated 1/11/24

REQ'D	ACTION	COMMENTS	STATUS
YES	Sketch plan acceptance	5/11/23	Accepted
YES	Preliminary determination of completeness	8/24/23	Accepted
NO	Site Visit	8/21/23	Held
YES	Public hearing	10/26/23 – 11/16/23	Held
YES	Preliminary plan approval	11/16/23	Approved
YES	Final plan approval	1/15/24	Approved

Pursuant to the application and plan and other documents considered to be a part of a plan review decision by the Planning Board in this Finding of Fact consisting of the following (hereinafter the "Plan"):

1. Final Conservation Subdivision Plan Modification received 12/28/23 from Terradyn Consultants
2. Stormwater Management report received 12/28/23 from Terradyn Consultants.

NOW THEREFORE, based on the entire record before the Planning Board and pursuant to the applicable standards in the Land Use and Development Code, the Planning Board makes the following factual findings and conclusions:

Chapter 16.8 SUBDIVISION REVIEW

16.8.9.D.(4).(b). Findings of Fact
Action by the Board shall be based upon findings of fact which certify or waive compliance with all the required standards of this title, and which certify that the development satisfies the following requirements:

[1] Development Conforms to Local Ordinances.

Standard: *The proposed development conforms to a duly adopted Comprehensive Plan as per adopted provisions in the Town Code, zoning ordinance, subdivision regulation or ordinance, development plan or land use plan, if any. In making this determination, the municipal reviewing authority may interpret these ordinances and plans.*

Finding: The proposed modification conforms to Title 16 and all dimensional standards in the applicable zone and overlay zones.

Conclusion: This standard appears to be met.

Vote of _ in favor _ against _ abstaining

[2] Freshwater Wetlands Identified

Standard: *All freshwater wetlands within the project area have been identified on any maps submitted as part of the application, regardless of the size of these wetlands.*

Finding: All wetlands and wetlands of special significance are notated on the plan.

Conclusion: This standard appears to be met.

Vote of _ in favor _ against _ abstaining

[3] River, Stream, or Brook Identified.

Standard: *Any river, stream or brook within or abutting the proposed project area has been identified on any maps submitted as part of the application. For purposes of this section, "river, stream or brook" has the same meaning as in 38 M.R.S.A. § 480-B, Subsection 9.*

Finding: All water bodies and vernal pools are notated on the plan set.

Conclusion: This standard appears to be met.

Vote of _ in favor _ against _ abstaining

[4] Water Supply Sufficient.

Standard: *The proposed development has sufficient water available for the needs of the development.*

Finding: The proposed plan has confirmation that the groundwater aquifers have adequate recharge capacity for the anticipated water usage.

Conclusion: This standard appears to be met.

Vote of _ in favor _ against _ abstaining

[5] Municipal Water Supply Available.

Standard: *The proposed development will:*

The proposed development will not cause an unreasonable burden on an existing water supply, if one is to be used.

Finding: The plan proposes private wells and will not utilize Town water utilities.

Conclusion: This standard does not appear applicable.

Vote of _ in favor _ against _ abstaining

[6] Sewage Disposal Adequate.

Standard: *The proposed development will provide for adequate sewage waste disposal and will not cause an unreasonable burden on municipal services, if they are utilized.*

Finding: The plan shows proposed test pit locations and septic design. Subsurface wastewater disposal applications will be reviewed by Code Enforcement after plan approval.

Conclusion: This standard appears to be met.

Vote of _ in favor _ against _ abstaining

[7] Municipal solid waste disposal available.

Standard: *The proposed development will not cause an unreasonable burden on the municipality's ability to dispose of solid waste, if municipal services are to be used.*

Finding: The proposed plan will not create unreasonable burden to solid waste services.

Conclusion: This standard appears to be met.

Vote of _ in favor _ against _ abstaining

[8] Water body quality and shoreline protected.

Standard: *Whenever situated entirely or partially within 250 feet of any wetland, the proposed development will not adversely affect the quality of that body of water or unreasonably affect the shoreline of that body of water..*

Finding: The proposed plan shows proposed development is outside of any relevant water body setbacks.

Conclusion: This standard appears to be met.

Vote of _ in favor _ against _ abstaining

[9] Groundwater protected.

Standard: *The proposed development will not, alone or in conjunction with existing activities, adversely affect the quality or quantity of groundwater.*

Finding: It appears the proposed modification will not cause any unreasonable adverse effects of the quantity or quality of groundwater.

Conclusion: This standard appears to be met.

Vote of _ in favor _ against _ abstaining

[10] Flood areas identified and development conditioned.

Standard: *All flood-prone areas within the project area have been identified on maps submitted as part of the application, based on the Federal Emergency Management Agency's Flood Boundary and Floodway Maps and Flood Insurance Rate Maps and information presented by the applicant. If the proposed development, or any part of it, is in such an area, the applicant must determine the 100-year flood elevation and flood hazard boundaries within the project area. The proposed plan must include a condition of plan approval requiring that principal structures in the development will be constructed with their lowest floor, including the basement, at least one foot above the 100-year flood elevation.*

Finding: All flood hazard areas are identified. Development will meet the requirements of the Town floodplain management regulations.

Conclusion: This standard appears to be met.

Vote of _ in favor _ against _ abstaining

[11] Stormwater Managed.

Standard: *The proposed development will provide for adequate stormwater management.*

Finding: The proposed plan has submitted a stormwater management plan that has been deemed sufficient by a peer review engineer.

Conclusion: This standard appears to be met.

Vote of _ in favor _ against _ abstaining

[12] Erosion Controlled.

Standard: *The proposed development will not cause unreasonable soil erosion or a reduction in the land's capacity to hold water so that a dangerous or unhealthy condition results.*

Finding: The proposed modification will meet all requirements for erosion control set by Town and state guidelines. The plan proposes double-silt fences around sensitive natural resources during development.

Conclusion: This standard appears to be met.

Vote of _ in favor _ against _ abstaining

[13] Traffic Managed.

Standard: *The proposed development will:*

[a] *Not cause unreasonable highway or public road congestion or unsafe conditions with respect to the use of the highways or public roads existing or proposed; and*

[b] *Provide adequate traffic circulation, both on-site and off-site.*

.

Finding: The proposed development is not anticipated to create congestion or undue burden along Bartlett Road.

Conclusion: This standard appears to be met..

Vote of _ in favor _ against _ abstaining

[14] Water and Air Pollution Minimized.

Standard: *The proposed development will not result in undue water or air pollution. In making this determination, the following must be considered:*

[a] *Elevation of the land above sea level and its relation to the floodplains:*

[b] *Nature of soils and subsoils and their ability to adequately support waste disposal;*

[c] *Slope of the land and its effect on effluents;*

[d] *Availability of streams for disposal of effluents;*

[e] *Applicable state and local health and water resource rules and regulations; and*

[f] *Safe transportation, disposal and storage of hazardous materials.*

Finding: The proposed modification utilizes low-impact development and green infrastructure to prevent the risk of pollution to the adjacent water bodies.

Conclusion: This standard does not appear applicable.

Vote of _ in favor _ against _ abstaining

[15] Aesthetic, cultural and natural values protected.

Standard: *The proposed development will not have an undue adverse effect on the scenic or natural beauty of the area, aesthetics, historic sites, significant wildlife habitat identified by the Department of Inland Fisheries and Wildlife or the municipality, or rare and irreplaceable natural areas, or any public rights for physical or visual access to the shoreline.*

Finding: It appears that the proposed development is designed in a manner that respects the natural capabilities of the lot.

Conclusion: This standard appears to be met.

Vote of _ in favor _ against _ abstaining

[16] Developer financially and technically capable.

Standard: *Developer is financially and technically capable to meet the standards of this section.*

Finding: The proposed modification will provide a cost estimate and letter of credit before issuance of a building or demolition permit.

Conclusion: This standard appears to be met.

Vote of _ in favor _ against _ abstaining

Based on the foregoing Findings, the Kittery Planning Board finds the applicant has satisfied each of the review standards for approval and, therefore, the Kittery Planning Board hereby grants final approval for the Development at the above referenced property, including any waivers granted or conditions as noted.

Waivers:

1. Waiver of a required sidewalk along the proposed street, to be replaced with a paves 3-foot pedestrian way on one side of the right-of-way.

Conditions of Approval (to be included as notes on the final plan):

1. Without prior approval, no changes, erasures, modifications or revisions may be made to any Planning Board approved final plan.

2. Applicant/contractor will follow Maine DEP Best Management Practices for all work associated with site and building construction to ensure adequate erosion control and slope stabilization.

3. Prior to the commencement of grading and/or construction within a building envelope, as shown on the Plan, the owner and/or developer must stake all corners of the envelope. These markers must remain in place until the Code Enforcement Officer determines construction is completed and there is no danger of damage to areas that are, per Planning Board approval, to remain undisturbed.

4. All Notices to Applicant contained in the Findings of Fact (dated: 1/25/24).

Conditions of Approval (Not to be included as notes on the final plan):

1. Incorporate any plan revisions on the site plan as recommended by Staff, Planning Board, or Peer Review Engineer, and submit for Staff review prior to endorsement and recording of the plan.

Notices to Applicant:

1. Prior to the release of the signed plans, the applicant must pay all outstanding fees associated with review, including, but not limited to, Town Attorney fees, peer review, newspaper advertisements and abutter notification.
2. State law requires all subdivision and shoreland development plans, and any plans receiving waivers or variances, be recorded at the York County Registry of Deeds within 90 days of the final approval.
3. Three (3) paper copies of the final recorded plan and any and all related state/federal permits or legal documents that may be required, must be submitted to the Town Planning Department. Date of Planning Board approval shall be included on the final plan in the Signature Block.
4. This approval by the Town Planning Board constitutes an agreement between the Town and the Developer, incorporating the Plan and supporting documentation, the Findings of Fact, and any Conditions of Approval.

The Planning Board authorizes the Planning Board Chair, or Vice Chair, to sign the Final Plan and the Findings of Fact upon confirmation of compliance with any conditions of approval.

Vote of _ in favor _ against _ abstaining

APPROVED BY THE KITTERY PLANNING BOARD ON 1/25/24

_____

Dutch Dunkelberger, Planning Board Chair

Per Title 16.2.12.B(1) - An aggrieved party with legal standing may appeal a final decision of the Planning Board to the York County Superior Court in accordance with Maine Rules of Civil Procedures Section 80B, within forty-five (45) days from the date the decision by the Planning Board was rendered.

SUBDIVISION PLANS

WASHBURN FARM SUBDIVISION

BARTLETT ROAD - KITTERY, MAINE

APPLICANT/OWNER:

BEACHWOOD DEVELOPMENT FUND LP
P.O. BOX 261
KENNEBUNK, MAINE 04043

PROJECT PARCEL SITE

TOWN OF KITTERY TAX ASSESSOR'S MAP, LOT NUMBERS & ZONING DISTRICTS

MAP	LOT	ZONING DISTRICTS
62	26	RESIDENTIAL-RURAL

LOCATION MAP
SCALE: 1"=500'

UTILITIES

SEWER
PRIVATE ONSITE SUBSURFACE WASTEWATER DISPOSAL

WATER
PRIVATE ONSITE WELLS

ELECTRIC
CENTRAL MAINE POWER CO.
162 CANCO ROAD
PORTLAND, ME 04103
(207) 842-2367

TELEPHONE
FAIRPOINT COMMUNICATIONS
P.O. BOX 11560
PORTLAND, MAINE 04104
1-888-984-1515

CABLE
CONSOLIDATED COMMUNICATIONS
24 HERSEY STREET
PORTLAND, MAINE 04103
(844) 986-7224

DIG SAFE SYSTEM, INC.
TEL. 1-888-DIG-SAFE (344-7233)
FAX 1-781-721-0047
WWW.DIGSAFE.COM

PERMITS

TYPE OF PERMIT	GOVERNING BODY	STATUS
SUBDIVISION APPROVAL	TOWN OF KITTERY, MAINE PLANNING BOARD 200 ROGERS ROAD KITTERY, ME 03904 TEL. 207-439-0452	PRELIMINARY APPROVAL NOVEMBER 16, 2023
STORMWATER PERMIT-BY RULE	MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION 312 CANCO ROAD PORTLAND, ME 04103 TEL: 207-822-6300	NOTIFICATION SUBMITTED DECEMBER 22, 2023

SHEET INDEX

PREPARED BY:

CIVIL ENGINEER:
TERRADYN CONSULTANTS, LLC
565 CONGRESS STREET, SUITE 201
PORTLAND, MAINE 04101
(207) 926-5111

SURVEYOR:
TERRADYN CONSULTANTS, LLC
79 MAIN STREET, SUITE 300
AUBURN, MAINE 04210
(207) 946-4480

SOIL SCIENTIST:
LONGVIEW PARTNERS, LLC
6 SECOND STREET
BUXTON, MAINE 04093
(207) 807-1739

GEOLOGIST:
MARK CENCI GEOLOGIC, INC.
93 MILL ROAD
NORTH YARMOUTH, MAINE 04097
(207) 329-3524

GENERAL NOTES

1. THE PROJECT WILL BE SUBJECT TO THE TERMS AND CONDITIONS OF ALL PERMITS ISSUED BY THE TOWN OF KITTERY, THE MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION, AND THE LOCAL UTILITY COMPANIES.
2. ALL NECESSARY INSPECTIONS AND/OR CERTIFICATIONS REQUIRED BY THE TOWN OF KITTERY OR THE LOCAL UTILITY COMPANIES SHALL BE COORDINATED BY THE CONTRACTOR.
3. THE LOCATION AND/OR ELEVATIONS OF THE EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THIS INFORMATION IS NOT TO BE RELIED UPON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY AND DIG SAFE AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION. IT SHALL BE THE RESPONSIBLE OF THE CONTRACTOR TO RELOCATE ANY EXISTING UTILITIES THAT CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.
4. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLING AND MAINTAINING ALL EROSION CONTROL MEASURES SHOWN ON THE PLANS. THE EROSION CONTROL MEASURES SHOWN ON THE PLANS ARE THE MINIMUM REQUIRED TO PREVENT EROSION AND SEDIMENTATION. ADDITIONAL MEASURES SHALL BE INSTALLED IF DEEMED NECESSARY BY THE OWNER, ENGINEER, OR REGULATING AGENCIES.
5. ALL MATERIAL SCHEDULES SHOWN ON THE PLANS ARE FOR GENERAL INFORMATION ONLY. THE CONTRACTOR SHALL PREPARE HIS OWN MATERIAL SCHEDULES BASED UPON HIS PLAN REVIEW. ALL SCHEDULES SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO ORDERING MATERIALS OR PERFORMING WORK.
6. ALL MATERIALS AND CONSTRUCTION METHODS SHALL CONFORM TO THE STRICTEST STANDARDS CONTAINED IN THE MAINE DEPARTMENT OF TRANSPORTATION SPECIFICATIONS, THE PROJECT SPECIFICATIONS, AND THE UTILITY COMPANY AND TOWN OF KITTERY REQUIREMENTS.
7. ALL DIMENSIONS, UNLESS OTHERWISE NOTED ARE TO THE EDGE OF PAVEMENT, FACE OF CURB, OR THE FACE OF THE BUILDING.
8. ALL SIGNAGE SHALL BE SUPPLIED AND INSTALLED IN COMPLIANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).

UTILITY NOTES

1. THE PROJECT WILL BE SERVED BY INDIVIDUAL WELLS AND SUBSURFACE WASTEWATER DISPOSAL SYSTEMS .
2. ALL STORM DRAIN PIPE SHALL BE SMOOTH BORE INTERIOR PROVIDING A MANNINGS ROUGHNESS COEFFICIENT OF n=0.012 OR LESS.

LEGEND

EXISTING PROPERTY LINE
PROJECT SITE BOUNDARY
EXISTING SETBACK LINE
PROPOSED EASEMENT
EXISTING MINOR CONTOUR
EXISTING MAJOR CONTOUR
PROPOSED CONTOUR
EXISTING STORMDRAIN
PROPOSED STORMDRAIN
EXISTING UNDERDRAIN
PROPSED UNDERDRAIN
EXISTING OVERHEAD ELECTRIC & TELEPHONE
PROPOSED OVERHEAD ELECTRIC & TELEPHONE
EXISTING UNDERGROUND ELECTRIC & TELEPHONE
PROPOSED UNDERGROUND ELECTRIC & TELEPHONE
EXISTING EDGE OF PAVEMENT
PROPOSED EDGE OF PAVEMENT
EXISTING EDGE OF GRAVEL
PROPOSED EDGE OF GRAVEL
EXISTING CURB
PROPOSED CURB
PROPOSED FENCE
SILT FENCE
TEST PIT
EXISTING VALVE
PROPOSED VALVE
EXISTING HYDRANT
EXISTING LIGHT POLE
PROPOSED LIGHT POLE
EXISTING UTILITY POLE
EXISTING CATCH BASIN
PROPOSED CATCH BASIN
EXISTING DRAIN MANHOLE
PROPOSED DRAIN MANHOLE
EXISTING SEWER MANHOLE
PROPOSED SEWER MANHOLE
EXISTING SPOT GRADE
PROPOSED SPOT GRADE
SURVEY CONTROL POINT
EXISTING MONUMENT
EXISTING IRON PIPE
EXISTING SIGN
PROPOSED SIGN
EXISTING BUILDING
PROPOSED BUILDING
PROPOSED CONCRETE
PROPOSED PAVEMENT
PROPOSED BUFFER

STATE OF MAINE
MICHAEL E. TADEMA-WIELANDT
LICENSED
PROFESSIONAL ENGINEER

DATE: 12/28/2023
P.E.: MICHAEL TADEMA-WIELANDT

NO.	DATE	REVISIONS	APP'D BY
4	12/28/2023	SUBMITTED TO KITTERY FOR FINAL SUBDIVISION REVIEW	MTW
3	10/24/2023	REVISED BASED ON PEER REVIEW COMMENTS	MTW
2	10/10/2023	REVISED BASED ON PEER REVIEW COMMENTS	MTW
1	8/3/2023	SUBMITTED TO KITTERY FOR PRELIMINARY SUBDIVISION REVIEW	MTW

TERRADYN CONSULTANTS, LLC
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PORTLAND, ME 04102
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Civil Engineering | Land Planning | Stormwater Design | Environmental Permitting

PERMIT DRAWING
NOT FOR CONSTRUCTION

PROJECT:
WASHBURN FARM SUBDIVISION
BARTLETT ROAD, KITTERY, MAINE

SHEET TITLE:
COVER SHEET

CLIENT:
BEACHWOOD DEVELOPMENT FUND
P.O. BOX 261
KENNEBUNK, MAINE 04043

DATE:	5/18/2023
SCALE:	AS NOTED
DESIGNED:	MTW
JOB NO:	22-145
SHEET	C-1.0

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Plan References:

A. ""Right of Way Map" Maine State Highway Commission, State Aid Highway No. 10, S.H.C File No. S-16-340, Dated December 1970 and recorded in Plan Book 57, Page 7.

B. "Plan Showing Land Surveyed for Barbara R Brown" by Rodger E Malmgren, drawn on January 17, 1980 and recorded in Plan Book 104, Page 8.

C. "Division of Land, Bartlett Road" for Dewain L & Gloria Jean Wallace, by Anderson Associates, dated September 1985 and recorded in Plan Book 143, Page 3.

D. "Plan of Lots, Bartlett Road" for Daniel O Lynch, by Anderson Associates, dated July 1985 and recorded in Plan Book 145, Page 8.

E. "Plan of Revised Road Right Of Way for the Estate of Daniel O Lynch" by Anderson-Livingston, dated October 1991 and recorded in Plan Book 204, Page 10.

F. "Subdivision of Land for Charles S Lynch" by Anderson Livingston Engineers, Inc., dated March 1992 and recorded in Plan Book 208, Page 49.

G. "Standard Boundary Survey for Charles S Lynch" by Anderson Livingston Engineers, Inc., dated March 1999 and recorded in Plan Book 250, Page 39.

Surveyor's Certification

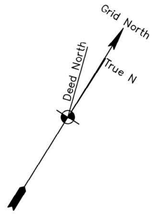
To the best of my knowledge, I have used ordinary and prudent conduct expected of Professional Land Surveyors and the results shown here represent the licensee's responsibility to the public as required under the Standards of Practice as defined by the Board of Licensure for Professional Land Surveyors (M.R.S.A Title 32, Chapter 141, Dated April 2001).

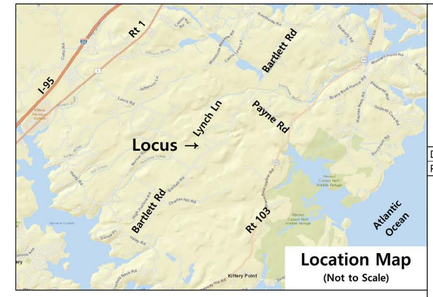
Except as Follows:

1. Survey Report Limited to Notes on the Plan
2. No Deed Description to Date
3. No Monuments Set

Plan Prepared by: Oct. 13, 2022

Jimmy C. Courbron PLS # 2532





General Notes:

1. The purpose of this plan is to depict the results of a Boundary Retracement Survey of the subject parcel.
2. All Book and Page numbers refer to the York County Registry of Deeds, unless otherwise noted.
3. The record owner of the subject parcel is Beachwood Development Fund LP by a deed dated August 29, 2022 and recorded in Book 19102 Page 372.
4. The subject parcel is shown on the Town of Kittery Tax Map 62 as Lot 26 and is located in the Residential- Rural (R-RL) District and Resource Protection Overlay Zone (OZ-RP).
5. Space and bulk standards for the R-RL District as of the date of this plan are as follows:

Min. Lot Size:	40,000 sq ft
Min. Frontage:	150 ft
Min. Front Yard:	40 ft
Min. Side Yard:	20 ft
Min. Rear Yard:	20 ft
Max. Building Height:	35 ft
Max. Building Coverage:	15%

6. Total area of the subject parcel is 19.30 acres.
7. Boundary and topographic information shown hereon is based on an on the ground survey conducted by Terradyn Consultants, LLC in October 2022. Lidar data was used to supplement topographic information in the undeveloped areas.
8. Plan orientation is Grid North, Maine State Plane Coordinate System, West Zone 1802-NAD83. Elevations depicted hereon are NAVD88, based on dual-frequency GPS observations.
9. A portion of the subject parcel is located within Zone A, a Special Flood Hazard Area Without Base Flood Elevation (BFE), as delineated on the Flood Insurance Rate Map for the Town of Kittery, York County, Community-Panel Number 23017100O2C, having an Effective Date of July 5, 1984. The remainder of the subject parcel is located within Zone C, Areas of Minimal Flood Hazard.
10. A wetland delineation was performed on this project site by Longview Partners, LLC on August 31, 2021. Wetlands flags were located using submeter Global Positioning System (GPS) technology.
11. The depth, size, location, existence or nonexistence of underground utilities and/or structures were not investigated as part of this survey. Utilities depicted hereon may not necessarily represent all existing utilities. Owners, contractors, and/or designers need to contact Dig-Safe Systems, Inc. (call 811) and field verify existing utilities prior to digging or breaking ground.

Legend:

- Record Property Line/R.O.W.
- Abutter Line/R.O.W.
- Deed/Plan Line/R.O.W.
- Building
- Deck/Steps
- Edge of Wetland
- Edge of Pavement
- 120 Major Contour
- 122 Minor Contour
- × 1213 Spot Elevation
- Stone Wall
- OHU Overhead Utilities
- Monument (as noted)
- Iron Pipe/Rod (as noted.)
- Wetlands
- Potential Vernal Pool
- TP-1 Test Pit
- Post
- W Well
- EM Electric Meter
- Utility Pole
- Guy Wire
- MB Mailbox

GRAPHIC SCALE
60 0 30 60 120
(IN FEET)
1 INCH = 60 FT.

JIMMY C. COURBRON
No. PLS2532
PROFESSIONAL LAND SURVEYOR
STATE OF MAINE

DATE: DATE
PLS: PLS

NO.	DATE	REVISIONS
3	08/03/2023	Misc. corrections ~ Jim
3	03/24/2023	Corrected total area in Note 6
2	11/22/2022	Updated Right-of-Way Boundary
1	11/7/2022	Released for client review

ADDRESS: 41 CAMPUS DRIVE, SUITE 301, NEW GLOUCESTER, ME 04260
PHONE: (207) 926-5111
WEB SITE: www.terradynconsultants.com
TERRADYN CONSULTANTS, LLC
Civil Engineering | Land Surveying | Geomatics
Stormwater Design | Land Planning | Environmental Permitting

PERMIT DRAWING
NOT FOR CONSTRUCTION

PROJECT: BARTLETT ROAD SUBDIVISION
77 BARTLETT ROAD, KITTERY MAINE

SHEET TITLE: EXISTING CONDITIONS PLAN

FOR RECORD OWNER: BEACHWOOD DEVELOPMENT FUND LP
PO BOX 360
KENNEBUNK, ME 04043

DATE: 10/13/2022
SCALE: 1" = 60'
JOB NO: 22-145
SHEET: 1 of 1

Sheet Size: 24" X 36"

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1. MINIMIZE IMPACT TO STONE WALLS. ALL REMOVED STONES TO REMAIN ON SITE.

N/F
Ted Ray Reed
Pinkhams Lane
Map 62, Lot 18
Bk 3163, Pg 104
100 YEAR FLOOD ZONE BOUNDARY
RESOURCE PROTECTION OVERLAY ZONE
N/F
Gretchen May
11 Lynch Lane
Map 68, Lot 4A-9
Bk 16501, Pg 20
N/F
Michael Fuller Trust
7 Lynch Lane
Map 68, Lot 4A-8
Bk 16912, Pg 291
(7824/166)
N/F
Michael Fuller Trust
7 Lynch Lane
Map 68, Lot 4A-3
Bk 16912, Pg 291
(5879/18)
N/F
Robert Kimball
67 Bartlett Road
Map 62, Lot 23-1
Bk 13485, Pg 334
N/F
Kenneth Recu Trust
69 Bartlett Road
Map 62, Lot 26A
Bk 13129, Pg 283
100' SETBACK FROM WETLAND > 1 ACRE IN SIZE, TYP.
REMOVE PORTION OF STONE WALL (APPROX. 138-LF) & STOCKPILE FOR RE-USE ON SITE
CLEARING LIMIT FOR ROADWAY, TYP.
REMOVE STORAGE SHED
1 STORY W/F DWELLING
EXISTING SEPTIC SYSTEM
EXISTING WELL
BENCHMARK MAG IN UTILITY POLE ELEVATION: 55.7'
REMOVE EXISTING DRIVE & REVEGETATE DISTURBED AREA
REMOVE EXISTING CULVERT
SEE SHEET C-3.2 FOR REVEGETATION PLAN WITHIN WETLAND SETBACK
REMOVE UTILITY POLE & OVERHEAD UTILITY LINES.
RELOCATE EXISTING MAILBOX
REMOVE PORTION OF STONE WALL (APPROX. 54-LF) & STOCKPILE FOR RE-USE ON SITE
REMOVE EXISTING CULVERT
REMOVE EXISTING MAILBOX
WETLAND OF SPECIAL SIGNIFICANCE
STONE WALL, TYP.
PAYNE CEMETERY 1858-1873
FRESHWATER WETLAND, TYP.
NON-SIGNIFICANT VERNAL POOL (2 TOTAL)
BARTLETT ROAD
66-FT. PUBLIC RIGHT-OF-WAY
LYNCH LANE
60-FT. PRIVATE RIGHT-OF-WAY
GRID NORTH
GRAPHIC SCALE
(IN FEET)
1 INCH = 60 FT.

STATE OF MAINE
MICHAEL E. TADEMA-WIELANDT
LICENSED
PROFESSIONAL ENGINEER

DATE: 12/28/2023
P.E.: MICHAEL TADEMA-WIELANDT

NO.	DATE	REVISIONS	APP'D BY
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Civil Engineering | Land Planning | Stormwater Design | Environmental Permitting

PERMIT DRAWING
NOT FOR CONSTRUCTION

PROJECT:
WASHBURN FARM SUBDIVISION
BARTLETT ROAD, KITTERY, MAINE

SHEET TITLE:
EXISTING CONDITIONS & CLEARING PLAN

CLIENT:
BEACHWOOD DEVELOPMENT FUND
P.O. BOX 261
KENNEBUNK, MAINE 04043

DATE:	5/18/2023
SCALE:	1" = 60'
DESIGNED:	MTW
JOB NO:	22-145
SHEET	C-2.0

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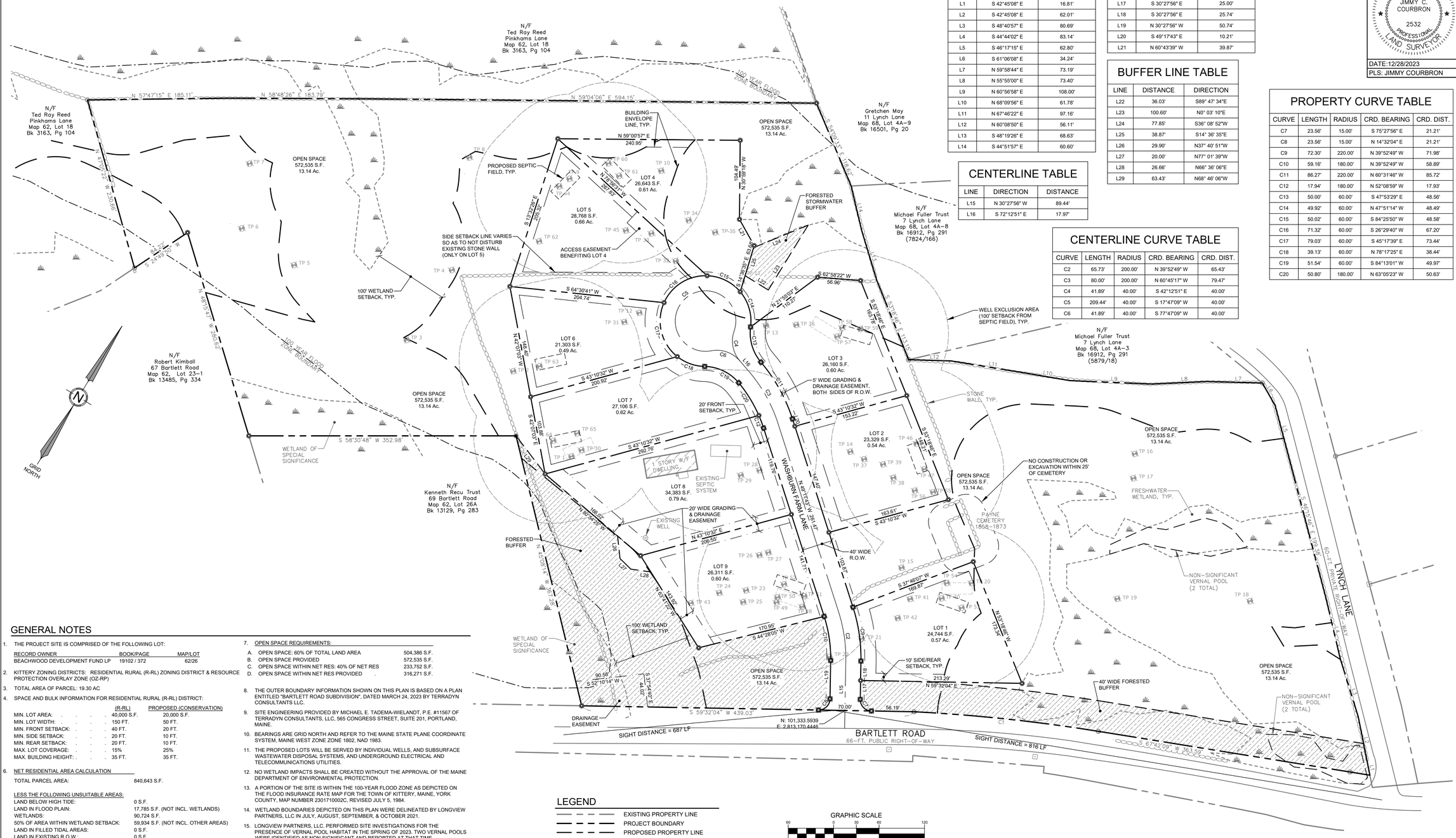


PROPERTY LINE TABLE

LINE	DIRECTION	DISTANCE
L1	S 42°45'08" E	16.81'
L2	S 42°45'08" E	62.01'
L3	S 48°40'57" E	80.69'
L4	S 44°44'02" E	83.14'
L5	S 46°17'15" E	62.80'
L6	S 61°06'08" E	34.24'
L7	N 59°58'44" E	73.19'
L8	N 55°55'00" E	73.40'
L9	N 60°56'58" E	108.00'
L10	N 68°09'56" E	61.78'
L11	N 67°46'22" E	97.16'
L12	N 60°08'50" E	56.11'
L13	S 48°19'26" E	68.63'
L14	S 44°51'57" E	60.60'

PROPERTY LINE TABLE

LINE	DIRECTION	DISTANCE
L17	S 30°27'56" E	25.00'
L18	S 30°27'56" E	25.74'
L19	N 30°27'56" W	50.74'
L20	S 49°17'43" E	10.21'
L21	N 60°43'39" W	39.87'

BUFFER LINE TABLE

LINE	DISTANCE	DIRECTION
L22	36.03'	S89° 47' 34"E
L23	100.60'	N0° 03' 10"E
L24	77.85'	S36° 08' 52"W
L25	38.87'	S14° 36' 35"E
L26	29.90'	N37° 40' 51"W
L27	20.00'	N77° 01' 39"W
L28	26.66'	N66° 36' 06"E
L29	63.43'	N68° 46' 06"W

CENTERLINE TABLE

LINE	DIRECTION	DISTANCE
L15	N 30°27'56" W	89.44'
L16	S 72°12'51" E	17.97'

CENTERLINE CURVE TABLE

CURVE	LENGTH	RADIUS	CRD. BEARING	CRD. DIST.
C2	65.73'	200.00'	N 39°52'49" W	65.43'
C3	80.00'	200.00'	N 60°45'17" W	79.47'
C4	41.89'	40.00'	S 42°12'51" E	40.00'
C5	209.44'	40.00'	S 17°47'09" W	40.00'
C6	41.89'	40.00'	S 77°47'09" W	40.00'

PROPERTY CURVE TABLE

CURVE	LENGTH	RADIUS	CRD. BEARING	CRD. DIST.
C7	23.56'	15.00'	S 75°27'56" E	21.21'
C8	23.56'	15.00'	N 14°32'04" E	21.21'
C9	72.30'	220.00'	N 39°52'49" W	71.98'
C10	59.16'	180.00'	N 39°52'49" W	58.89'
C11	86.27'	220.00'	N 60°31'46" W	85.72'
C12	17.94'	180.00'	N 52°08'59" W	17.93'
C13	50.00'	60.00'	S 47°53'29" E	48.56'
C14	49.92'	60.00'	N 47°51'14" W	48.49'
C15	50.02'	60.00'	S 84°25'50" W	48.58'
C16	71.32'	60.00'	S 26°29'40" W	67.20'
C17	79.03'	60.00'	S 45°17'39" E	73.44'
C18	39.13'	60.00'	N 78°17'25" E	38.44'
C19	51.54'	60.00'	S 84°13'01" W	49.97'
C20	50.80'	180.00'	N 63°05'23" W	50.63'

GENERAL NOTES

1. THE PROJECT SITE IS COMPRISED OF THE FOLLOWING LOT:

RECORD OWNER	BOOK/PAGE	MAP/LOT
BEACHWOOD DEVELOPMENT FUND LP	19102 / 372	62/26

2. KITTERY ZONING DISTRICTS: RESIDENTIAL RURAL (R-RL) ZONING DISTRICT & RESOURCE PROTECTION OVERLAY ZONE (OZ-RP)
3. TOTAL AREA OF PARCEL: 19.30 AC
4. SPACE AND BULK INFORMATION FOR RESIDENTIAL RURAL (R-RL) DISTRICT:

	(R-RL)	PROPOSED (CONSERVATION)
MIN. LOT AREA:	40,000 S.F.	20,000 S.F.
MIN. LOT WIDTH:	150 FT.	50 FT.
MIN. FRONT SETBACK:	40 FT.	20 FT.
MIN. SIDE SETBACK:	20 FT.	10 FT.
MIN. REAR SETBACK:	20 FT.	10 FT.
MAX. LOT COVERAGE:	15%	25%
MAX. BUILDING HEIGHT:	35 FT.	35 FT.

6. NET RESIDENTIAL AREA CALCULATION

TOTAL PARCEL AREA:	840,643 S.F.
LESS THE FOLLOWING UNSUITABLE AREAS:	
LAND BELOW HIGH TIDE:	0 S.F.
LAND IN FLOOD PLAIN:	17,785 S.F. (NOT INCL. WETLANDS)
WETLANDS:	90,724 S.F.
50% OF AREA WITHIN WETLAND SETBACK:	59,934 S.F. (NOT INCL. OTHER AREAS)
LAND IN FILLED TIDAL AREAS:	0 S.F.
LAND IN EXISTING R.O.W.:	0 S.F.
LAND IN PROPOSED R.O.W.:	31,737 S.F.
LAND ISOLATED BY BARRIER:	0 S.F.
LAND ZONED COMMERCIAL:	0 S.F.
STEEP SLOPES:	0 S.F.
BEDROCK & POORLY DRAINED SOILS:	2,436 S.F. (NOT INCL. WETLAND OR FLOOD)
50% SOMEWHAT POORLY DRAINED SOILS:	46,683 S.F. (NOT INCL. WETLAND OR FLOOD)
CEMETERY:	6,965 S.F.
ZONED COMMERCIAL FISHERIES:	0 S.F.
OPEN SPACE:	0 S.F.
TOTAL UNSUITABLE AREA:	256,264 S.F.
TOTAL NET RESIDENTIAL AREA:	584,379 S.F.
MIN LOT DENSITY	40,000 S.F.
MAXIMUM LOTS	14
PROPOSED LOTS	9

7. OPEN SPACE REQUIREMENTS:

A. OPEN SPACE: 60% OF TOTAL LAND AREA	504,386 S.F.
B. OPEN SPACE PROVIDED	572,535 S.F.
C. OPEN SPACE WITHIN NET RES: 40% OF NET RES	233,752 S.F.
D. OPEN SPACE WITHIN NET RES PROVIDED	316,271 S.F.

8. THE OUTER BOUNDARY INFORMATION SHOWN ON THIS PLAN IS BASED ON A PLAN ENTITLED "BARTLETT ROAD SUBDIVISION", DATED MARCH 24, 2023 BY TERRADYN CONSULTANTS LLC.
9. SITE ENGINEERING PROVIDED BY MICHAEL E. TADEMA-WIELANDT, P.E. #11567 OF TERRADYN CONSULTANTS, LLC, 565 CONGRESS STREET, SUITE 201, PORTLAND, MAINE.
10. BEARINGS ARE GRID NORTH AND REFER TO THE MAINE STATE PLANE COORDINATE SYSTEM, MAINE WEST ZONE ZONE 1802, NAD 1983.
11. THE PROPOSED LOTS WILL BE SERVED BY INDIVIDUAL WELLS, AND SUBSURFACE WASTEWATER DISPOSAL SYSTEMS, AND UNDERGROUND ELECTRICAL AND TELECOMMUNICATIONS UTILITIES.
12. NO WETLAND IMPACTS SHALL BE CREATED WITHOUT THE APPROVAL OF THE MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION.
13. A PORTION OF THE SITE IS WITHIN THE 100-YEAR FLOOD ZONE AS DEPICTED ON THE FLOOD INSURANCE RATE MAP FOR THE TOWN OF KITTERY, MAINE, YORK COUNTY, MAP NUMBER 23017100002C, REVISED JULY 5, 1984.
14. WETLAND BOUNDARIES DEPICTED ON THIS PLAN WERE DELINEATED BY LONGVIEW PARTNERS, LLC IN JULY, AUGUST, SEPTEMBER, & OCTOBER 2021.
15. LONGVIEW PARTNERS, LLC. PERFORMED SITE INVESTIGATIONS FOR THE PRESENCE OF VERNAL POOL HABITAT IN THE SPRING OF 2023. TWO VERNAL POOLS WERE IDENTIFIED AS NON SIGNIFICANT AND REPORTED AT THAT TIME.
16. LONGVIEW PARTNERS, LLC PREPARED A HIGH INTENSITY SOIL SURVEY ON THE SITE, DATED DECEMBER, 2022. TEST PITS WERE OBSERVED ON 10/19/2023.
17. THERE SHALL BE NO CONVEYANCE OF ANY LOT OR ISSUANCE OF ANY BUILDING PERMIT UNTIL A PERFORMANCE GUARANTEE(S) COVERING THE COST OF ALL REQUIRED IMPROVEMENTS IS PROVIDED AND APPROVED BY THE TOWN OF KITTERY.
18. THE DEVELOPMENT IS SUBJECT TO THE FINDINGS OF FACT, CONCLUSIONS, DECISIONS, AND CONDITION OF APPROVAL AS APPROVED BY THE TOWN OF KITTERY PLANNING BOARD AND RECORDED IN THE YORK COUNTY REGISTRY OF DEEDS.
19. THE NUMBERED LOTS SHOWN HEREON SHALL ONLY BE ACCESSED BY DRIVEWAYS OFF OF WASHBURN LANE.
20. WASHBURN LANE SHALL REMAIN PRIVATE AND SHALL BE MAINTAINED BY THE HOMEOWNERS ASSOCIATION.
21. SIGHT DISTANCE MEASUREMENTS WERE TAKEN IN THE FIELD BY TERRADYN CONSULTANTS, LLC ON SEPTEMBER 21, 2023.
22. WETLAND BOUNDARIES SHALL BE IDENTIFIED WITH PERMANENT SIGNAGE EVERY 50' ALONG BOUNDARY.
23. NO TREE CLEARING OR DISTURBANCE IS ALLOWED WITHIN 100' OF WETLANDS EXCEPT AS SHOWN ON THE APPROVED DRAWINGS AND AS NECESSARY TO CONSTRUCT THE ROAD AND STORMWATER MANAGEMENT INFRASTRUCTURE.

LEGEND

- EXISTING PROPERTY LINE
- PROJECT BOUNDARY
- PROPOSED PROPERTY LINE
- PROPOSED SETBACK LINE
- PROPOSED EASEMENT
- EXISTING EDGE OF PAVEMENT
- EXISTING UTILITY POLE
- EXISTING MONUMENT
- EXISTING IRON PIPE/SURVEY PIN
- PROPOSED GRANITE MONUMENT
- PROPOSED SURVEY PIN
- FRESHWATER WETLAND
- FORESTED / WOODED BUFFER
- TEST PIT
- SEPTIC FIELD

GRAPHIC SCALE
60 0 30 60 120
(IN FEET)
1 INCH = 60 FT.

TOWN OF KITTERY PLANNING BOARD SUBDIVISION APPROVAL

_____ DATE

_____ CHAIRPERSON

STATE OF MAINE
YORK COUNTY REGISTRY OF DEEDS
RECEIVED _____, 20___
AT ___h ___m ____M. AND RECORDED IN PLAN BOOK _____ PAGE _____
ATTEST _____ REGISTER

STATE OF MAINE
JIMMY C. COURBRON
2532
PROFESSIONAL LAND SURVEYOR
DATE: 12/28/2023
PLS: JIMMY COURBRON

STATE OF MAINE
MICHAEL E. TADEMA-WIELANDT
No. 11567
LICENSED PROFESSIONAL ENGINEER
DATE: 12/28/2023
P.E.: MICHAEL TADEMA-WIELANDT

NO.	DATE	REVISIONS	APP'D BY
4	12/28/2023	SUBMITTED TO KITTERY FOR FINAL SUBDIVISION REVIEW	MTW
3	10/24/2023	REVISED BASED ON PEER REVIEW COMMENTS	MTW
2	10/10/2023	REVISED BASED ON PEER REVIEW COMMENTS	MTW
1	8/3/2023	SUBMITTED TO KITTERY FOR PRELIMINARY SUBDIVISION REVIEW	MTW

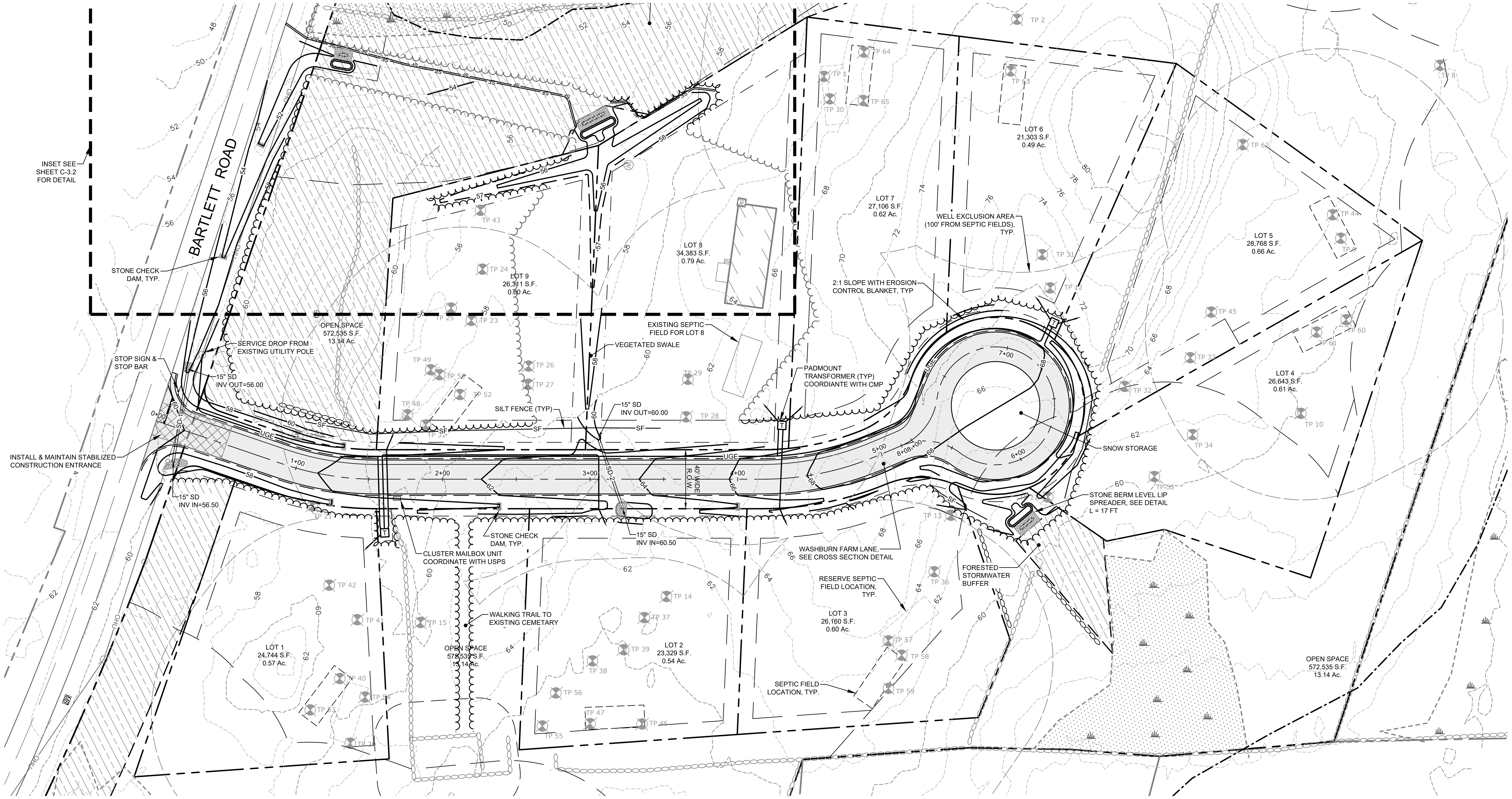
565 CONGRESS STREET
SUITE 201
PORTLAND, ME 04102
OFFICE: (207) 221-1317 FAX: (207) 221-1311
41 CAMPUS DRIVE
SUITE 305
NEW GLOUCESTER, ME 04260
OFFICE: (207) 926-5111 FAX: (207) 221-1317
www.terradynconsultants.com
TERRADYN CONSULTANTS, LLC
Civil Engineering | Land Planning | Stormwater Design | Environmental Permitting

PERMIT DRAWING
NOT FOR CONSTRUCTION

PROJECT: WASHBURN FARM SUBDIVISION
BARTLETT ROAD, KITTERY, MAINE
SHEET TITLE: SUBDIVISION PLAN
CLIENT: BEACHWOOD DEVELOPMENT FUND
P.O. BOX 261
KENNEBUNK, MAINE 04043

DATE:	5/18/2023
SCALE:	1" = 60'
DESIGNED:	MTW
JOB NO:	22-145
SHEET	C-3.0

C:\OD\Terradyn Consultants\Project Folders - Documents\2022 Jobs\22-145 Bartlett Road Subdivision\CAD\Permitting\22-145 S.dwg

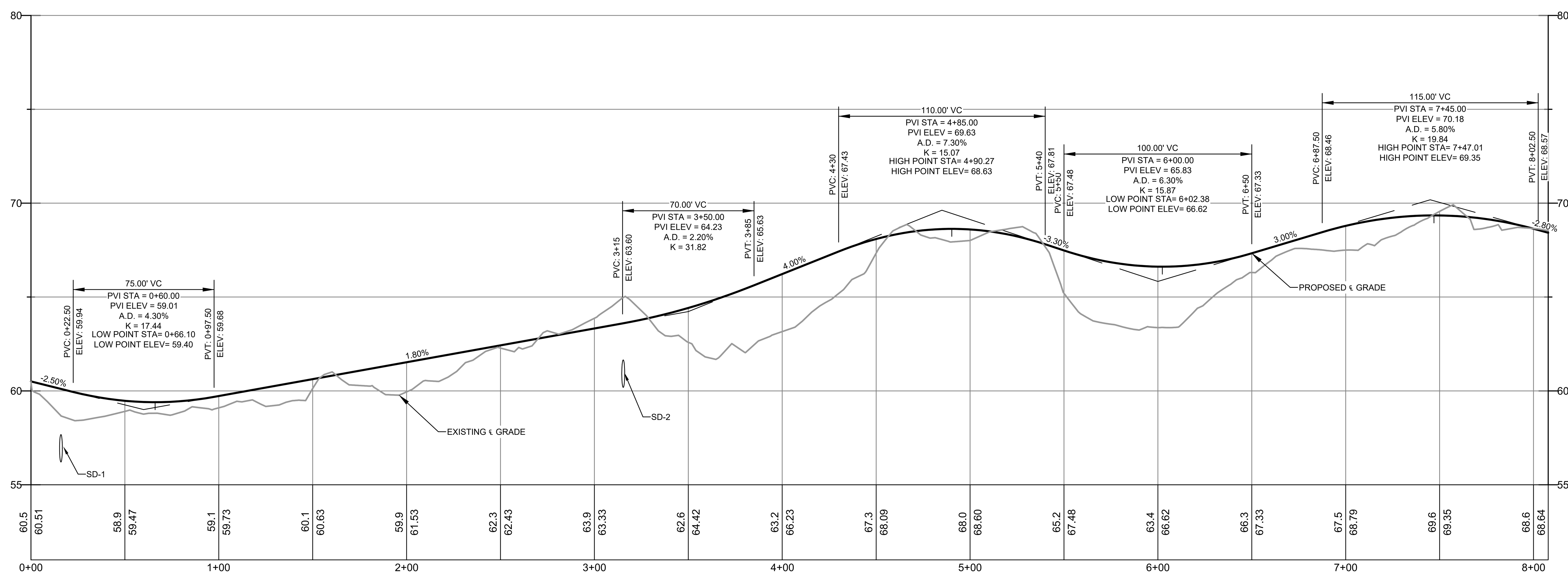


PLAN VIEW - WASHBURN FARM LANE STA. 0+00 TO 8+08

SCALE: 1" = 40'

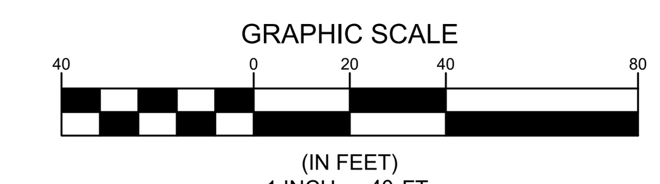
GENERAL NOTES

1. SITE DISTANCE FROM THE PROPOSED ENTRANCE ONTO BARTLETT ROAD WAS OBSERVED AS 816' (LEFT) AND 687' (RIGHT) BY TERRADYN CONSULTANTS ON SEPTEMBER 21, 2023.



PROFILE - WASHBURN FARM LANE STA. 0+00 TO 8+08

SCALE: 1" = 40' HORIZ.
1" = 4' VERT.



STATE OF MAINE — MICHAEL E. TADEMA-WIELANDT — LICENSED PROFESSIONAL ENGINEER

DATE: 12/28/2023
P.E.: MICHAEL TADEMA-WIELANDT

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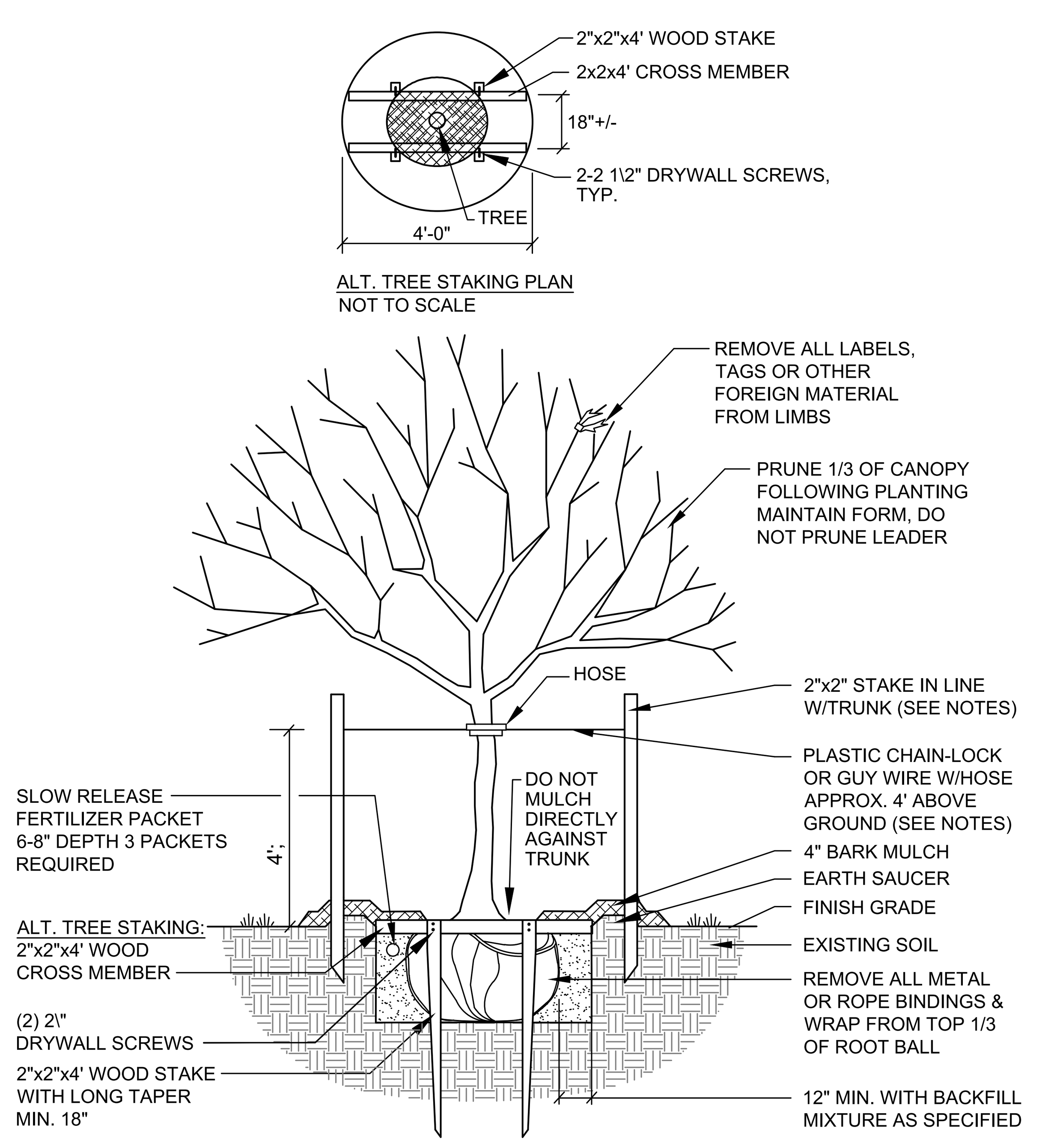
PROJECT:
WASHBURN FARM SUBDIVISION
BARTLETT ROAD, KITTERY, MAINE

SHEET TITLE:
PLAN & PROFILE, UTILITY, & EROSION CONTROL PLAN

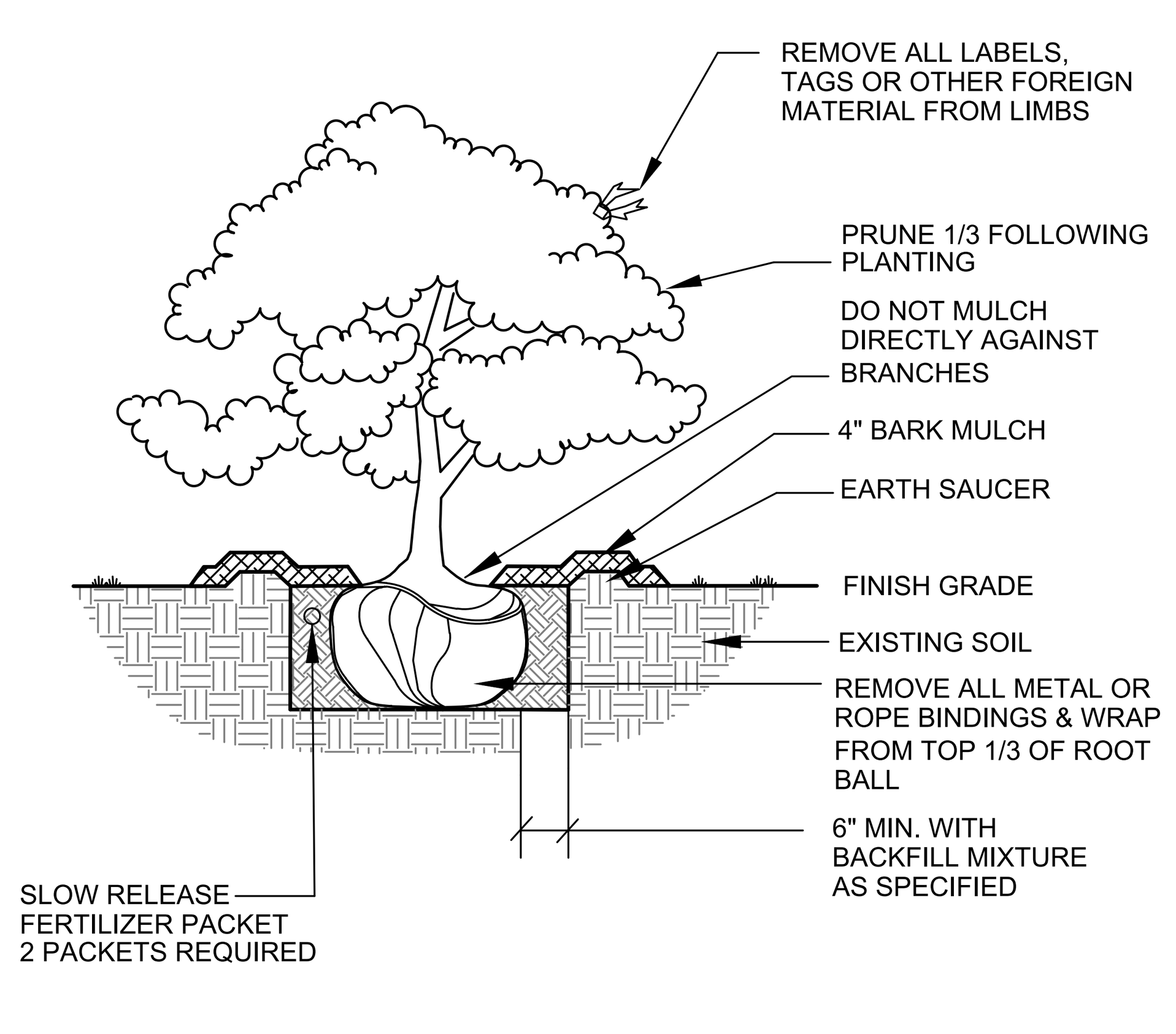
CLIENT:
BEACHWOOD DEVELOPMENT FUND
P.O. BOX 261
KENNEBUNK, MAINE 04043

DATE:	5/18/2023
SCALE:	1" = 40'
DESIGNED:	MTW
JOB NO:	22-145
SHEET	C-3.1

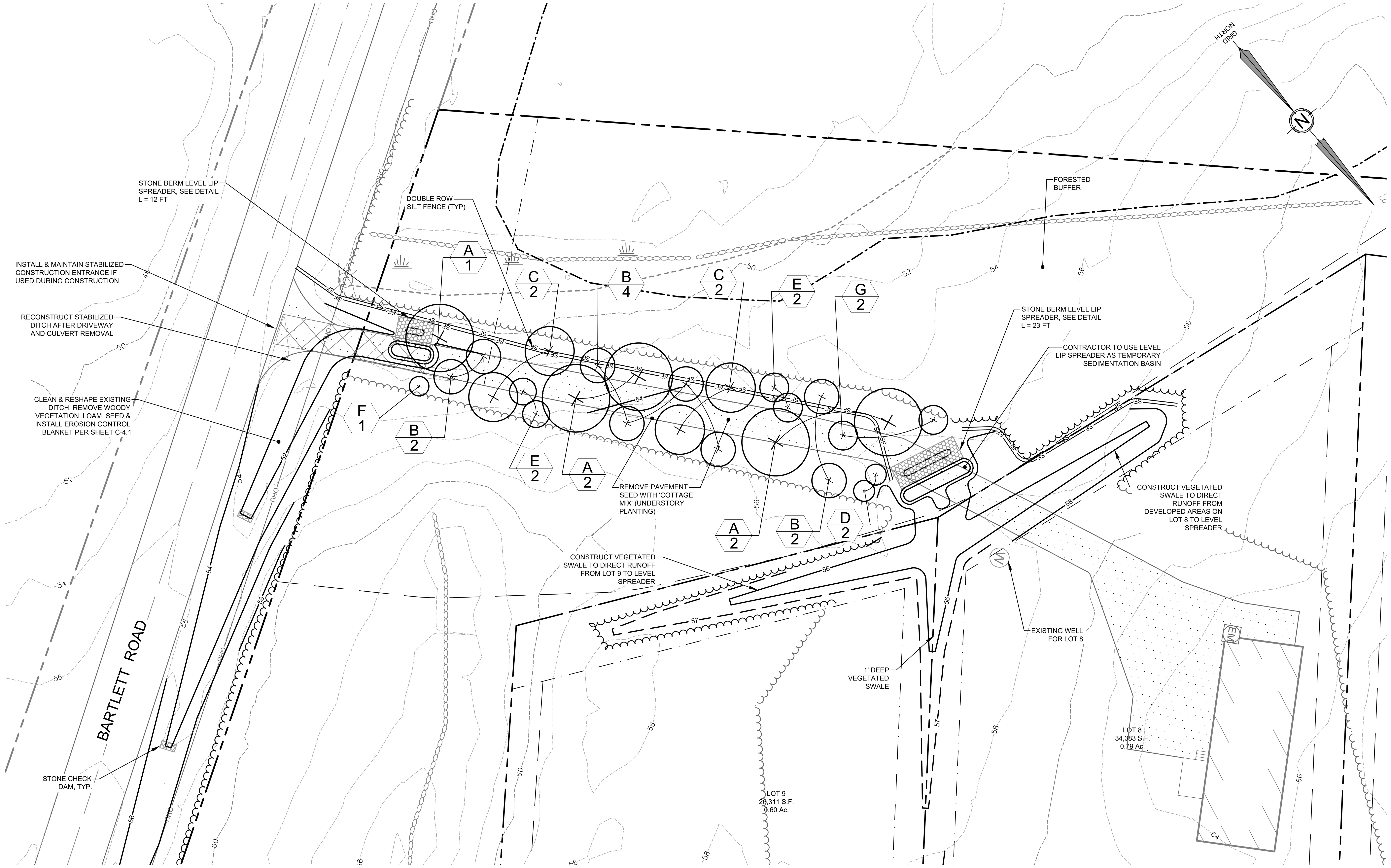


NOTES:
INSTALL STAKES AND GUYS TO TREES IF THE FOLLOWING APPLY:
1. THE TREE IS OF SUBSTANTIAL SIZE.
2. THE PLANTING LOCATION IS EXTREMELY WINDY, AS ON OPEN UNDEVELOPED SITES.
3. THE PLANTING LOCATION IS COMPRISED OF SAND OR OTHER LOOSE TEXTURED SOILS.
4. IF STAKES AND GUYS ARE REQUIRED, REMOVE AFTER ONE YEAR TIME.

DECIDUOUS TREES
2" TO 4" CALIPER
NOT TO SCALE



DECIDUOUS & EVERGREEN SHRUB
NOT TO SCALE



GENERAL NOTES
1. PLANTING PLAN BY:
ANTHONY MUENCH, RLA
94 COMMERCIAL STREET
PORTLAND, ME 04101
207-761-6621

PLANT LIST

77 BARTLETT ROAD

Key	Common & Botanical Name	Size	Root	Qty	Notes
A.	Red Maple Acer Rubrum	1.5 '' Dia.	B&B	5	
B.	Gray Dogwood C. Racemosa	4'-5' Ht.	B&B	8	
C.	Native Shadbush Amelanchier Canadensis	3'-4' Ht.	B&B	4	3 trunks
D.	Red Twig Dogwood C. Sericea 'Cardinal'	#3	B&B	2	
E.	Nannyberry Viburnum V. Lentago	3'-4'' Ht.	B&B	4	
F.	Blackhaw Viburnum V. Prunifoilium	30" Ht.	Cont.	1	3 Canes
G.	Arrowwood Viburnum V. Dentatum 'Christom'	3'-4' ht.	B&B	2	

GRAPHIC SCALE
20 0 10 20 40
(IN FEET)
1 INCH = 20 FT.

STATE OF MAINE
MICHAEL E. TADEMA-WIELANDT
LICENSED
PROFESSIONAL ENGINEER

DATE: 12/28/2023
P.E.: MICHAEL TADEMA-WIELANDT

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PROJECT:
WASHBURN FARM SUBDIVISION
BARTLETT ROAD, KITTERY, MAINE

SHEET TITLE:
EXISTING DRIVEWAY GRADING, PLANTING & EROSION CONTROL PLAN

CLIENT:
BEACHWOOD DEVELOPMENT FUND
P.O. BOX 261
KENNEBUNK, MAINE 04043

DATE:	5/18/2023
SCALE:	1" = 20'
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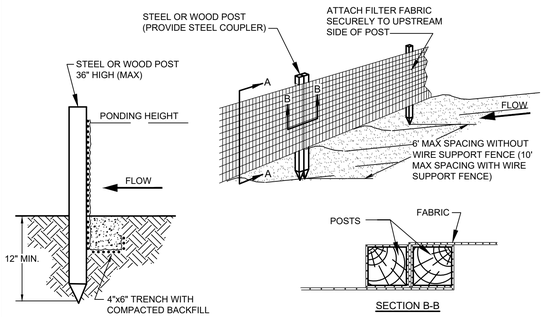
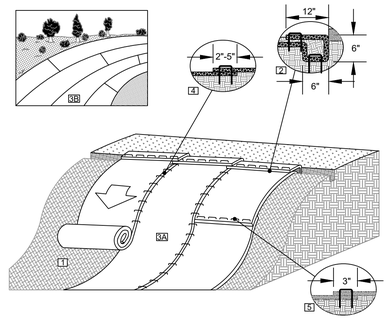
SHEET	C-3.2





EROSION AND SEDIMENT CONTROL PLAN

PRE-CONSTRUCTION PHASE

A PERSON WHO CONDUCTS, OR CAUSES TO BE CONDUCTED, AN ACTIVITY THAT INVOLVES FILLING, DISPLACING OR EXPOSING SOIL OR OTHER EARTHEN MATERIALS SHALL TAKE MEASURES TO PREVENT UNREASONABLE EROSION OF SOIL OR SEDIMENT BEYOND THE PROJECT SITE OR INTO A PROTECTED NATURAL RESOURCE AS DEFINED IN 38 MRSA § 480-B. EROSION CONTROL MEASURES MUST BE IN PLACE BEFORE THE ACTIVITY BEGINS. MEASURES MUST REMAIN IN PLACE AND FUNCTIONAL UNTIL THE SITE IS PERMANENTLY STABILIZED. ADEQUATE AND TIMELY TEMPORARY AND PERMANENT STABILIZATION MEASURES MUST BE TAKEN. THE SITE MUST BE MAINTAINED TO PREVENT UNREASONABLE EROSION AND SEDIMENTATION. MINIMIZE DISTURBED AREAS AND PROTECT NATURAL DOWNGRADIENT BUFFER AREAS TO THE EXTENT PRACTICABLE.

BMP CONSTRUCTION PHASE

A. SEDIMENT BARRIERS. PRIOR TO THE BEGINNING OF ANY CONSTRUCTION, PROPERLY INSTALL SEDIMENT BARRIERS AT THE EDGE OF ANY DOWNGRADIENT DISTURBED AREA AND ADJACENT TO ANY DRAINAGE CHANNELS WITHIN THE PROPOSED DISTURBED AREA. MAINTAIN THE SEDIMENT BARRIERS UNTIL THE DISTURBED AREA IS PERMANENTLY STABILIZED.

B. CONSTRUCTION ENTRANCE: PRIOR TO ANY CLEARING OR GRUBBING, A CONSTRUCTION ENTRANCE SHALL BE CONSTRUCTED AT THE INTERSECTION WITH THE PROPOSED ACCESS DRIVE AND THE EXISTING ROADWAY TO AVOID TRACKING OF MUD, DUST AND DEBRIS FROM THE SITE. TRACKED MUD OR SEDIMENT SHALL BE REMOVED PRIOR TO A STORM EVENT BY VACUUM SWEEPING.

C. RIPRAP: SINCE RIPRAP IS USED WHERE EROSION POTENTIAL IS HIGH, CONSTRUCTION MUST BE SEQUENCED SO THAT THE RIPRAP IS PUT IN PLACE WITH THE MINIMUM DELAY. DISTURBANCE OF AREAS WHERE RIPRAP IS TO BE PLACED SHOULD BE UNDERTAKEN ONLY WHEN FINAL PREPARATION AND PLACEMENT OF THE RIPRAP CAN FOLLOW IMMEDIATELY BEHIND THE INITIAL DISTURBANCE. WHERE RIPRAP IS USED FOR OUTLET PROTECTION, THE RIPRAP SHOULD BE PLACED BEFORE OR IN CONJUNCTION WITH THE CONSTRUCTION OF THE PIPE OR CHANNEL SO THAT IT IS IN PLACE WHEN THE PIPE OR CHANNEL BEGINS TO OPERATE. MAINTAIN TEMPORARY RIPRAP, SUCH AS TEMPORARY CHECK DAMS UNTIL THE DISTURBED AREA IS PERMANENTLY STABILIZED.

D. TEMPORARY STABILIZATION. STABILIZE WITH TEMPORARY SEEDING, MULCH, OR OTHER NON-ERODABLE COVER ANY EXPOSED SOILS THAT WILL REMAIN UNWORKED FOR MORE THAN 14 DAYS EXCEPT, STABILIZE AREAS WITHIN 100 FEET OF A WETLAND OR WATERBODY WITHIN 7 DAYS OR PRIOR TO A PREDICTED STORM EVENT, WHICHEVER COMES FIRST. IF HAY OR STRAW MULCH IS USED, THE APPLICATION RATE MUST BE 2 BALES (70-90 POUNDS) PER 1000 SF OR 1.5 TO 2 TONS (90-100 BALES) PER ACRE TO COVER 75 TO 90% OF THE GROUND SURFACE. HAY MULCH MUST BE KEPT MOIST OR ANCHORED TO PREVENT WIND BLOWING. AN EROSION CONTROL BLANKET OR MAT SHALL BE USED AT THE BASE OF GRASSED WATERWAYS, STEEP SLOPES (15% OR GREATER) AND ON ANY DISTURBED SOIL WITHIN 100 FEET OF LAKES, STREAMS AND WETLANDS. GRADING SHALL BE PLANNED SO AS TO MINIMIZE THE LENGTH OF TIME BETWEEN INITIAL SOIL EXPOSURE AND FINAL GRADING. ON LARGE PROJECTS THIS SHOULD BE ACCOMPLISHED BY PHASING THE OPERATION AND COMPLETING THE FIRST PHASE UP TO FINAL GRADING AND SEEDING BEFORE STARTING THE SECOND PHASE, AND SO ON.

E. EROSION CONTROL MIX SHALL CONTAIN A WELL-GRADED MIXTURE OF PARTICLE SIZES AND MAY CONTAIN ROCKS LESS THAN 4" IN DIAMETER. EROSION CONTROL MIX SHOULD BE FREE OF REFUSE, PHYSICAL CONTAMINANTS, AND MATERIAL TOXIC TO PLANT GROWTH SUCH AS FLY ASH OR YARD SCRAPING. LARGE PORTIONS OF SILTS, CLAYS OR FINE SANDS ARE NOT ACCEPTABLE IN THE MIX. THE MIX COMPOSITION SHOULD MEET THE FOLLOWING STANDARDS:

- THE ORGANIC MATTER CONTENT SHOULD BE BETWEEN 80% AND 100%, DRY WEIGHT BASIS.
- PARTICLE SIZE BY WEIGHT SHOULD BE 100% PASSING A 6" SCREEN AND 70% TO 85% PASSING A 0.75" SCREEN
- THE ORGANIC PORTION NEEDS TO BE FIBROUS AND ELONGATED
- SOLUBLE SALTS CONTENT SHALL BE <4.0 MMHOS/CM
- THE pH SHALL BE BETWEEN 5.0 AND 8.0

F. VEGETATED WATERWAY. UPON FINAL GRADING, THE DISTURBED AREAS SHALL BE IMMEDIATELY SEEDED TO PERMANENT VEGETATION AND MULCHED AND WILL NOT BE USED AS OUTLETS UNTIL A DENSE, VIGOROUS VEGETATIVE COVER HAS BEEN OBTAINED. ONCE SOIL IS EXPOSED FOR WATERWAY CONSTRUCTION, IT SHOULD BE IMMEDIATELY SHAPED, GRADED AND STABILIZED. VEGETATED WATERWAYS NEED TO BE STABILIZED EARLY DURING THE GROWING SEASON (PRIOR TO SEPTEMBER 15). IF FINAL SEEDING OF WATERWAYS IS DELAYED PAST SEPTEMBER 15, EMERGENCY PROVISIONS SUCH AS SOD OR RIPRAP MAY BE REQUIRED TO STABILIZE THE CHANNEL. WATERWAYS SHOULD BE FULLY STABILIZED PRIOR TO DIRECTING RUNOFF TO THEM.

PERMANENT STABILIZATION DEFINED

A. SEEDED AREAS. FOR SEEDED AREAS, PERMANENT STABILIZATION MEANS AN 90% COVER OF THE DISTURBED AREA WITH MATURE, HEALTHY PLANTS WITH NO EVIDENCE OF WASHING OR RILLING OF THE TOPSOIL.

B. SODDED AREAS. FOR SODDED AREAS, PERMANENT STABILIZATION MEANS THE COMPLETE BINDING OF THE SOD ROOTS INTO THE UNDERLYING SOIL WITH NO SLUMPING OF THE SOD OR DIE-OFF.

C. PERMANENT MULCH. FOR MULCHED AREAS, PERMANENT MULCHING MEANS TOTAL COVERAGE OF THE EXPOSED AREA WITH AN APPROVED MULCH MATERIAL. EROSION CONTROL MIX MAY BE USED AS MULCH FOR PERMANENT STABILIZATION ACCORDING TO THE APPROVED APPLICATION RATES AND LIMITATIONS.

D. RIPRAP. FOR AREAS STABILIZED WITH RIPRAP, PERMANENT STABILIZATION MEANS THAT SLOPES STABILIZED WITH RIPRAP HAVE AN APPROPRIATE BACKING OF A WELL-GRADED GRAVEL OR APPROVED GEOTEXTILE TO PREVENT SOIL MOVEMENT FROM BEHIND THE RIPRAP. STONE MUST BE SIZED APPROPRIATELY. IT IS RECOMMENDED THAT ANGULAR STONE BE USED.

E. AGRICULTURAL USE. FOR CONSTRUCTION PROJECTS ON LAND USED FOR AGRICULTURAL PURPOSES (E.G., PIPELINES ACROSS CROP LAND), PERMANENT STABILIZATION MAY BE ACCOMPLISHED BY RETURNING THE DISTURBED LAND TO AGRICULTURAL USE.

F. PAVED AREAS. FOR PAVED AREAS, PERMANENT STABILIZATION MEANS THE PLACEMENT OF THE COMPACTED GRAVEL SUBBASE IS COMPLETED.

G. DITCHES, CHANNELS, AND SWALES. FOR OPEN CHANNELS, PERMANENT STABILIZATION MEANS THE CHANNEL IS STABILIZED WITH MATURE VEGETATION AT LEAST THREE INCHES IN HEIGHT, WITH WELL-GRADED RIPRAP, OR WITH ANOTHER NON-EROSIVE LINING CAPABLE OF WITHSTANDING THE ANTICIPATED FLOW VELOCITIES AND FLOW DEPTHS WITHOUT RELIANCE ON CHECK DAMS TO SLOW FLOW. THERE MUST BE NO EVIDENCE OF SLUMPING OF THE LINING, UNDERCUTTING OF THE BANKS, OR DOWN-CUTTING OF THE CHANNEL.

GENERAL CONSTRUCTION PHASE

THE FOLLOWING EROSION CONTROL MEASURES SHALL BE FOLLOWED BY THE CONTRACTOR THROUGHOUT CONSTRUCTION OF THIS PROJECT:

A. ALL TOPSOIL SHALL BE COLLECTED, STOCKPILED, SEEDED WITH RYE AT 3 POUNDS/1,000 SF AND MULCHED, AND REUSED AS REQUIRED. SILT FENCING SHALL BE PLACED DOWN GRADIENT FROM THE STOCKPILED LOAM. STOCKPILE TO BE LOCATED BY DESIGNATION OF THE OWNER AND INSPECTING ENGINEER.

B. THE INSPECTING ENGINEER AT HIS/HER DISCRETION, MAY REQUIRE ADDITIONAL EROSION CONTROL MEASURES AND/OR SUPPLEMENTAL VEGETATIVE PROVISIONS TO MAINTAIN STABILITY OF EARTHWORKS AND FINISH GRADED AREAS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND INSTALLING ANY SUPPLEMENTAL MEASURES AS DIRECTED BY THE INSPECTING ENGINEER. FAILURE TO COMPLY WITH THE ENGINEER'S DIRECTIONS WILL RESULT IN DISCONTINUATION OF CONSTRUCTION ACTIVITIES.

C. EROSION CONTROL MESH SHALL BE APPLIED IN ACCORDANCE WITH THE PLANS OVER ALL FINISH SEEDED AREAS AS SPECIFIED ON THE DESIGN PLANS.

D. ALL GRADED OR DISTURBED AREAS INCLUDING SLOPES SHALL BE PROTECTED DURING CLEARING AND CONSTRUCTION IN ACCORDANCE WITH THE APPROVED EROSION AND SEDIMENT CONTROL PLAN UNTIL THEY ARE ADEQUATELY STABILIZED.

E. ALL EROSION, AND SEDIMENT CONTROL PRACTICES AND MEASURES SHALL BE CONSTRUCTED, APPLIED AND MAINTAINED IN ACCORDANCE WITH THE APPROVED EROSION AND SEDIMENT CONTROL PLAN.

F. AREAS TO BE FILLED SHALL BE CLEARED, GRUBBED AND STRIPPED OF TOPSOIL TO REMOVE TREES, VEGETATION, ROOTS OR OTHER OBJECTIONABLE MATERIALS.

G. AREAS SHALL BE SCARIFIED TO A MINIMUM DEPTH OF 3 INCHES PRIOR TO PLACEMENT OF TOPSOIL.

H. ALL FILLS SHALL BE COMPACTED AS REQUIRED TO REDUCE EROSION, SLIPPAGE, SETTLEMENT, SUBSIDENCE OR OTHER RELATED PROBLEMS. FILL INTENDED TO SUPPORT BUILDINGS, STRUCTURES AND CONDUITS, ETC., SHALL BE COMPACTED IN ACCORDANCE WITH LOCAL REQUIREMENTS OR CODES.

I. ALL FILLS SHALL BE PLACED AND COMPACTED IN LAYERS NOT TO EXCEED 8 INCHES IN THICKNESS.

J. EXCEPT FOR APPROVED LANDFILLS OR NON-STRUCTURAL FILLS, FILL MATERIAL SHALL BE FREE OF BRUSH, RUBBISH, ROCKS, LOGS, STUMPS, BUILDING DEBRIS AND OTHER OBJECTIONABLE MATERIALS THAT WOULD INTERFERE WITH OR PREVENT CONSTRUCTION OF SATISFACTORY LIFTS.

K. FROZEN MATERIAL OR SOFT, MUCKY OR HIGHLY COMPRESSIBLE MATERIALS SHALL NOT BE INCORPORATED INTO FILL SLOPES OR STRUCTURAL FILLS.

L. FILL SHALL NOT BE PLACED ON A FROZEN FOUNDATION.

M. SEEPS OR SPRINGS ENCOUNTERED DURING CONSTRUCTION SHALL BE HANDLED APPROPRIATELY.

N. ALL GRADED AREAS SHALL BE PERMANENTLY STABILIZED IMMEDIATELY FOLLOWING FINISHED GRADING.

O. REMOVE ANY TEMPORARY CONTROL MEASURES, SUCH AS SILT FENCE, WITHIN 30 DAYS AFTER PERMANENT STABILIZATION IS ATTAINED. REMOVE ANY ACCUMULATED SEDIMENTS AND STABILIZE.

PERMANENT VEGETATION

PERMANENT VEGETATIVE COVER SHOULD BE ESTABLISHED ON DISTURBED AREAS WHERE PERMANENT, LONG LIVED VEGETATIVE COVER IS NEEDED TO STABILIZE THE SOIL, TO REDUCE DAMAGES FROM SEDIMENT AND RUNOFF, AND TO ENHANCE THE ENVIRONMENT.

SEEDBED PREPARATION

A. GRADE AS FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION AND ANCHORING, AND MAINTENANCE.

B. APPLY LIMESTONE AND FERTILIZER ACCORDING TO SOIL TESTS SUCH AS THOSE OFFERED BY THE UNIVERSITY OF MAINE SOIL TESTING LABORATORY. SOIL SAMPLE MAILERS ARE AVAILABLE FROM THE LOCAL COOPERATIVE EXTENSION SERVICE OFFICE. IF SOIL TESTING IS NOT FEASIBLE ON SMALL OR VARIABLE SITES, OR WHERE TIMING IS CRITICAL, FERTILIZER MAY BE APPLIED AT THE RATE OF 800 POUNDS PER ACRE OR 18.4 POUNDS PER 1,000 SQUARE FEET USING 10-20-20 (N-P2O5-K2O) OR EQUIVALENT. APPLY GROUND LIMESTONE (EQUIVALENT TO 50% CALCIUM PLUS MAGNESIUM OXIDE) AT A RATE OF 3 TONS PER ACRE (138 LB. PER 1,000 SQ. FT).

C. WORK LIME AND FERTILIZER INTO THE SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES WITH A DISC, SPRING TOOTH HARROW OR OTHER SUITABLE EQUIPMENT. THE FINAL HARROWING OPERATION SHOULD BE ON THE GENERAL CONTOUR. CONTINUE TILLAGE UNTIL A REASONABLY UNIFORM, FINE SEEDBED IS PREPARED. ALL BUT CLAY OR SILTY SOILS AND COARSE SANDS SHOULD BE ROLLED TO FIRM THE SEEDBED WHEREVER FEASIBLE.D. REMOVE FROM THE SURFACE ALL STONES 2 INCHES OR LARGER IN ANY DIMENSION. REMOVE ALL OTHER DEBRIS, SUCH AS WIRE, CABLE, TREE ROOTS, CONCRETE, CLODS, LUMPS OR OTHER UNSUITABLE MATERIAL.

E. INSPECT SEEDBED JUST BEFORE SEEDING. IF TRAFFIC HAS LEFT THE SOIL COMPACTED; THE AREA MUST BE TILLED AND FIRMED AS ABOVE.

F. PERMANENT SEEDING SHOULD BE MADE 45 DAYS PRIOR TO THE FIRST KILLING FROST OR AS A DORMANT SEEDING WITH MULCH AFTER THE FIRST KILLING FROST AND BEFORE SNOWFALL. WHEN CROWN VETCH IS SEEDED IN LATER SUMMER, AT LEAST 35% OF THE SEED SHOULD BE HARD SEED (UNSCARIFIED). IF SEEDING CANNOT BE DONE WITHIN THE SEEDING DATES, MULCH ACCORDING TO THE TEMPORARY MULCHING BMP AND OVERWINTER STABILIZATION AND CONSTRUCTION TO PROTECT THE SITE AND DELAY SEEDING UNTIL THE NEXT RECOMMENDED SEEDING PERIOD.

G. FOLLOWING SEED BED PREPARTATION, SWALE AREAS, FILL AREAS AND BACK SLOPES SHALL BE SEEDED AT A RATE OF 3 LBS./1,000 S.F. WITH A MIXTURE OF 35% CREEPING RED FESCUE, 6% RED TOP, 24% KENTUCKY BLUEGRASS, 10% PERENNIAL RYEGRASS, 20% ANNUAL RYEGRASS AND 5% WHITE DUTCH CLOVER.

I. AREAS WHICH HAVE BEEN TEMPORARILY OR PERMANENTLY SEEDED SHALL BE MULCHED IMMEDIATELY FOLLOWING SEEDING.

J. AREAS WHICH CANNOT BE SEEDED WITHIN THE GROWING SEASON SHALL BE MULCHED FOR OVER-WINTER PROTECTION AND THE AREA SHOULD BE SEEDED AT THE BEGINNING OF THE GROWING SEASON.

WINTER CONSTRUCTION PHASE

IF AN AREA IS NOT STABILIZED WITH TEMPORARY OR PERMANENT MEASURES BY NOVEMBER 15, THEN THE SITE MUST BE PROTECTED WITH ADDITIONAL STABILIZATION MEASURES.

A. PERMANENT STABILIZATION CONSISTS OF AT LEAST 90% VEGETATION, PAVEMENT/GRAVEL BASE OR RIPRAP.

B. DO NOT EXPOSE SLOPES OR LEAVE SLOPES EXPOSED OVER THE WINTER OR FOR ANY OTHER EXTENDED TIME OF WORK SUSPENSION UNLESS FULLY PROTECTED WITH MULCH.

C. APPLY HAY MULCH AT TWICE THE STANDARD RATE (150 LBS. PER 1,000 SF). THE MULCH MUST BE THICK ENOUGH SUCH THAT THE GROUND SURFACE WILL NOT BE VISIBLE AND MUST BE ANCHORED.

D. USE MULCH AND MULCH NETTING OR AN EROSION CONTROL MULCH BLANKET OR ALL SLOPES GREATER THAN 8 % OR OTHER AREAS EXPOSED TO DIRECT WIND.

E. INSTALL AN EROSION CONTROL BLANKET IN ALL DRAINAGEWAYS (BOTTOM AND SIDES) WITH A SLOPE GREATER THAN 3 %.

F. SEE THE VEGETATION MEASURES FOR MORE INFORMATION ON SEEDING DATES AND TYPES.

G. WINTER EXCAVATION AND EARTHWORK SHALL BE COMPLETED SO THAT NO MORE THAN 1 ACRE OF THE SITE IS WITHOUT STABILIZATION AT ANY ONE TIME.

H. AN AREA WITHIN 100 FEET OF A PROTECTED NATURAL RESOURCE MUST BE PROTECTED WITH A DOUBLE ROW OF SEDIMENT BARRIER.

I. TEMPORARY MULCH MUST BE APPLIED WITHIN 7 DAYS OF SOIL EXPOSURE OR PRIOR TO ANY STORM EVENT, BUT AFTER EVERY WORKDAY IN AREAS WITHIN 100 FEET FROM A PROTECTED NATURAL RESOURCE.

J. AREAS THAT HAVE BEEN BROUGHT TO FINAL GRADE MUST BE PERMANENTLY MULCHED THAT SAME DAY.

K. IF SNOWFALL IS GREATER THAN 1 INCH (FRESH OR CUMULATIVE), THE SNOW SHALL BE REMOVED FROM THE AREAS DUE TO BE SEEDED AND MULCHED.

L. LOAM SHALL BE FREE OF FROZEN CLUMPS BEFORE IT IS APPLIED.

M. ALL VEGETATED DITCH LINES THAT HAVE NOT BEEN STABILIZED BY NOVEMBER 1, OR WILL BE WORKED DURING THE WINTER CONSTRUCTION PERIOD, MUST BE STABILIZED WITH AN APPROPRIATE STONE LINING BACKED BY AN APPROPRIATE GRAVEL BED OR GEOTEXTILE UNLESS SPECIFICALLY RELEASED FROM THIS STANDARD BY THE DEPARTMENT.

N. EROSION CONTROL MUST BE INSPECTED AFTER EACH RAINFALL, SNOW STORM, OR THAWING EVENT AND AT LEAST ONCE A WEEK BETWEEN NOVEMBER 15 AND APRIL 15.

MAINTENANCE AND INSPECTION PHASE

A. MINIMUM EROSION CONTROL MEASURES WILL NEED TO BE IMPLEMENTED AND THE APPLICANT 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

B. A LOG (REPORT) MUST BE KEPT SUMMARIZING THE SCOPE OF THE INSPECTION, NAME(S) AND QUALIFICATIONS OF THE PERSONNEL MAKING THE INSPECTION, THE DATE(S) OF THE INSPECTION, AND MAJOR OBSERVATIONS RELATING TO OPERATION OF EROSION AND SEDIMENTATION CONTROLS AND POLLUTION PREVENTION MEASURES. MAJOR OBSERVATIONS MUST INCLUDE: BMPS THAT NEED TO BE MAINTAINED; LOCATION(S) OF BMPS THAT FAILED TO OPERATE AS DESIGNED OR PROVED INADEQUATE FOR A PARTICULAR LOCATION; AND LOCATION(S) WHERE ADDITIONAL BMPS ARE NEEDED THAT DID NOT EXIST AT THE TIME OF INSPECTION. FOLLOW-UP TO CORRECT DEFICIENCIES OR ENHANCE CONTROLS MUST ALSO BE INDICATED IN THE LOG AND DATED, INCLUDING WHAT ACTION WAS TAKEN AND WHEN.

DEWATERING

A DEWATERING PLAN IS NEEDED 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.

GOOD HOUSEKEEPING NOTES:

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

NOTE: ANY SPILL OR RELEASE OF TOXIC OR HAZARDOUS SUBSTANCES MUST BE REPORTED TO THE DEPARTMENT. FOR OIL SPILLS, CALL 1-800-482-0777 WHICH IS AVAILABLE 24 HOURS A DAY. FOR SPILLS OF TOXIC OR HAZARDOUS MATERIAL, CALL 1-800-452-4664 WHICH IS AVAILABLE 24 HOURS A DAY. FOR MORE INFORMATION, VISIT THE DEPARTMENT'S WEBSITE AT : HTTP://WWW.MAINE.GOV/DEP/SPILLS/EMERGSPILLRESP/

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

SEE MAINE DEP CHAPTER 500 APPENDIX D FOR LICENSE BY RULE STANDARDS FOR INFILTRATION OF STORMWATER.

NOTE: LACK OF APPROPRIATE POLLUTANT REMOVAL BEST MANAGEMENT PRACTICES (BMPS) MAY RESULT IN VIOLATIONS OF THE GROUNDWATER QUALITY STANDARD ESTABLISHED BY 38 M.R.S.A. §465-C(1).

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

NOTE: DEWATERING A STREAM WITHOUT A PERMIT FROM THE DEPARTMENT MAY VIOLATE STATE WATER QUALITY STANDARDS AND THE *NATURAL RESOURCES PROTECTION ACT*.

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

NOTE: TO PREVENT THESE MATERIALS FROM BECOMING A SOURCE OF POLLUTANTS, CONSTRUCTION AND POST-CONSTRUCTION ACTIVITIES RELATED TO A PROJECT MAY BE REQUIRED TO COMPLY WITH APPLICABLE PROVISION OF RULES RELATED TO SOLID, UNIVERSAL, AND HAZARDOUS WASTE, INCLUDING, BUT NOT LIMITED TO, THE MAINE SOLID WASTE AND HAZARDOUS WASTE MANAGEMENT RULES; MAINE HAZARDOUS WASTE MANAGEMENT RULES; MAINE OIL CONVEYANCE AND STORAGE RULES; AND MAINE PESTICIDE REQUIREMENTS.

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

NOTE: DEWATERING CONTROLS ARE DISCUSSED IN THE “MAINE EROSION AND SEDIMENT CONTROL BMPS, MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION.”

6. AUTHORIZED NON-STORMWATER DISCHARGES. IDENTIFY AND PREVENT CONTAMINATION BY NON-STORMWATER DISCHARGES. WHERE ALLOWED NON-STORMWATER DISCHARGES EXIST, THEY MUST BE IDENTIFIED AND STEPS SHOULD BE TAKEN TO ENSURE THE IMPLEMENTATION OF APPROPRIATE POLLUTION PREVENTION MEASURES FOR THE NON-STORMWATER COMPONENT(S) OF THE DISCHARGE. AUTHORIZED NON-STORMWATER DISCHARGES ARE:

(a) DISCHARGES FROM FIREFIGHTING ACTIVITY;
(b) FIRE HYDRANT FLUSHINGS;
(c) VEHICLE WASHWATER IF DETERGENTS ARE NOT USED AND WASHING IS LIMITED TO THE EXTERIOR OF VEHICLES (ENGINE, UNDERCARRIAGE AND TRANSMISSION WASHING IS PROHIBITED);
(d) DUST CONTROL RUNOFF IN ACCORDANCE WITH PERMIT CONDITIONS AND APPENDIX (C)(3);
(e) ROUTINE EXTERNAL BUILDING WASHDOWN, NOT INCLUDING SURFACE PAINT REMOVAL, THAT DOES NOT INVOLVE DETERGENTS;
(f) PAVEMENT WASHWATER (WHERE SPILLS/LEAKS OF TOXIC OR HAZARDOUS MATERIALS HAVE NOT OCCURRED, UNLESS ALL SPILLED MATERIAL HAD BEEN REMOVED) IF DETERGENTS ARE NOT USED;
(g) UNCONTAMINATED AIR CONDITIONING OR COMPRESSOR CONDENSATE;
(h) UNCONTAMINATED GROUNDWATER OR SPRING WATER;
(i) FOUNDATION OR FOOTER DRAIN-WATER WHERE FLOWS ARE NOT CONTAMINATED;
(j) UNCONTAMINATED EXCAVATION DEWATERING (SEE REQUIREMENTS IN APPENDIX C(5));
(k) POTABLE WATER SOURCES INCLUDING WATERLINE FLUSHINGS; AND
(l) LANDSCAPE IRRIGATION.

7. UNAUTHORIZED NON-STORMWATER DISCHARGES. THE DEPARTMENT'S APPROVAL UNDER THIS CHAPTER DOES NOT AUTHORIZE A DISCHARGE THAT IS MIXED WITH A SOURCE OF NON-STORMWATER, OTHER THAN THOSE DISCHARGES IN COMPLIANCE WITH APPENDIX C (6). SPECIFICALLY, THE DEPARTMENT'S APPROVAL DOES NOT AUTHORIZE DISCHARGES OF THE FOLLOWING:

(a) WASTEWATER FROM THE WASHOUT OR CLEANOUT OF CONCRETE, STUCCO, PAINT, FORM RELEASE OILS, CURING COMPOUNDS OR OTHER CONSTRUCTION MATERIALS;
(b) FUELS, OILS OR OTHER POLLUTANTS USED IN VEHICLE AND EQUIPMENT OPERATION AND MAINTENANCE;
(c) SOAPS, SOLVENTS, OR DETERGENTS USED IN VEHICLE AND EQUIPMENT WASHING; AND
(d) TOXIC OR HAZARDOUS SUBSTANCES FROM A SPILL OR OTHER RELEASE.

8. ADDITIONAL REQUIREMENTS. ADDITIONAL REQUIREMENTS MAY BE APPLIED ON A SITE-SPECIFIC BASIS.

SILT FENCE

NOT TO SCALE

NOTE: IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6"(15CM) MAY BE NECESSARY TO PROPERLY SECURE THE RECP'S.

PHOTODEGRADABLE EROSION CONTROL BLANKET SELECTION

6:1 > 3:1 SLOPES	3:1 > 2:1 SLOPES	≥2:1 SLOPES
NA GREEN DS75	NA GREEN S150	NA GREEN SC150

PERMANENT TURF REINFORCEMENT

IF THE PLAN CALLS FOR PERMANENT TURF REINFORCEMENT, USE NORTH AMERICAN GREEN VMAX SC250

NOTES:

1. PREPARE SOIL BEFORE INSTALLING ROLLED EROSION CONTROL PRODUCTS (RECPS), INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED.
2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE RECPS IN A 6" DEEP X 6" WIDE TRENCH WITH APPROXIMATELY 12" OF RECPS EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE RECPS 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 THE COMPACTED SOIL AND FOLD THE REMAINING 12" PORTION OF RECPS BACK OVER THE SEED AND COMPACTED SOIL. SECURE RECPS OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE RECPS.
3. ROLL THE RECPS (A) DOWN OR (B) HORIZONTALLY ACROSS THE SLOPE. RECPS WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL RECPS 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 RECPS MUST BE STAPLED WITH APPROXIMATELY 2" - 5" OVERLAP DEPENDING ON THE RECPS TYPE.
5. CONSECUTIVE RECPS SPLICED DOWN THE SLOPE MUST BE END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART ACROSS ENTIRE RECPS WIDTH.

EROSION CONTROL FABRIC SLOPE INSTALLATION

NOT TO SCALE

NOTES:

1. DURING PERIODS OF WINTER CONSTRUCTION (NOV. 15 THROUGH APRIL 15), THE CONTRACTOR SHALL INSTALL EROSION CONTROL MIX BERMS IN LIEU OF SILT FENCE.
2. ECM BERMS ARE NOT TO BE USED AT THE BASE OF A SLOPE STEEPER THAN 8% OR WHERE WATER IS FLOWING WITHOUT THE SUPPORT OF ADDITIONAL MEASURES, SUCH AS SILT FENCE.

EROSION CONTROL MIX:

EROSION CONTROL MIX SHALL CONTAIN A WELL-GRADED MIXTURE OF PARTICLE SIZES & MAY CONTAIN ROCKS LESS THAN 4" IN DIAMETER. EROSION CONTROL MIX MUST BE FREE OF REFUSE, PHYSICAL CONTAMINANTS, AND MATERIAL TOXIC TO PLANT GROWTH. THE MIX COMPOSITION SHALL MEET THE FOLLOWING STANDARDS:

- THE ORGANIC MATTER CONTENT SHALL BE BETWEEN 80% - 100% DRY WEIGHT BASIS
- PARTICLE SIZE BY WEIGHT SHALL BE 100% PASSING A 6" SCREEN AND A MINIMUM OF 70%, MAXIMUM OF 85% PASSING A 0.75" SCREEN
- THE ORGANIC PORTION NEEDS TO BE FIBROUS AND ELONGATED
- LARGE PORTIONS OF SILTS, CLAYS OR FINE SANDS ARE NOT ACCEPTABLE IN THE MIX.
- SOLUBLE SALTS CONTENT SHALL BE < 4.0 mmhos/cm.
- ph SHALL FALL BETWEEN 5.0 - 8.0.

EROSION CONTROL MIX BERM

NOT TO SCALE

NOTES:

1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAYS. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEAN OUT OF ANY MEASURES USED TO TRAP SEDIMENT.

2. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY.

3. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.

STABILIZED CONSTRUCTION ENTRANCE

NOT TO SCALE

Inspection Notes for Lot Grading and Driveway location

Inspections by a professional engineer shall consist of a visit to the site prior to construction to consult with the earthwork contractor and a post construction meeting to confirm grading on lots and for all driveways to ensure runoff is directed according to plans and to oversee the re-stabilization of the lot into a vegetated cover.

TYPICAL EROSION CONTROL MEASURES FOR DWELLING UNITS

NOT TO SCALE

MICHAEL E. TADEMA-WIELANDT
No. 11567

Michael E W

DATE: 12/28/2023
P.E.: MICHAEL TADEMA-WIELANDT

NO.	DATE	REVISIONS	APP'D BY
4	12/28/2023	SUBMITTED TO KITTERY FOR FINAL SUBDIVISION REVIEW	MTW
3	10/24/2023	REVISED BASED ON PEER REVIEW COMMENTS	MTW
2	10/10/2023	REVISED BASED ON PEER REVIEW COMMENTS	MTW
1	8/3/2023	SUBMITTED TO KITTERY FOR PRELIMINARY SUBDIVISION REVIEW	MTW

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Civil Engineering | Land Planning | Stormwater Design | Environmental Permitting

PERMIT DRAWING
NOT FOR CONSTRUCTION

PROJECT:
WASHBURN FARM SUBDIVISION
BARTLETT ROAD, KITTERY, MAINE

SHEET TITLE:
EROSION CONTROL NOTES & DETAILS

CLIENT:
BEACHWOOD DEVELOPMENT FUND
P.O. BOX 261
KENNEBUNK, MAINE 04043

DATE: 5/18/2023
SCALE: AS NOTED
DESIGNED: MTW
JOB NO: 22-145
SHEET C-4.0

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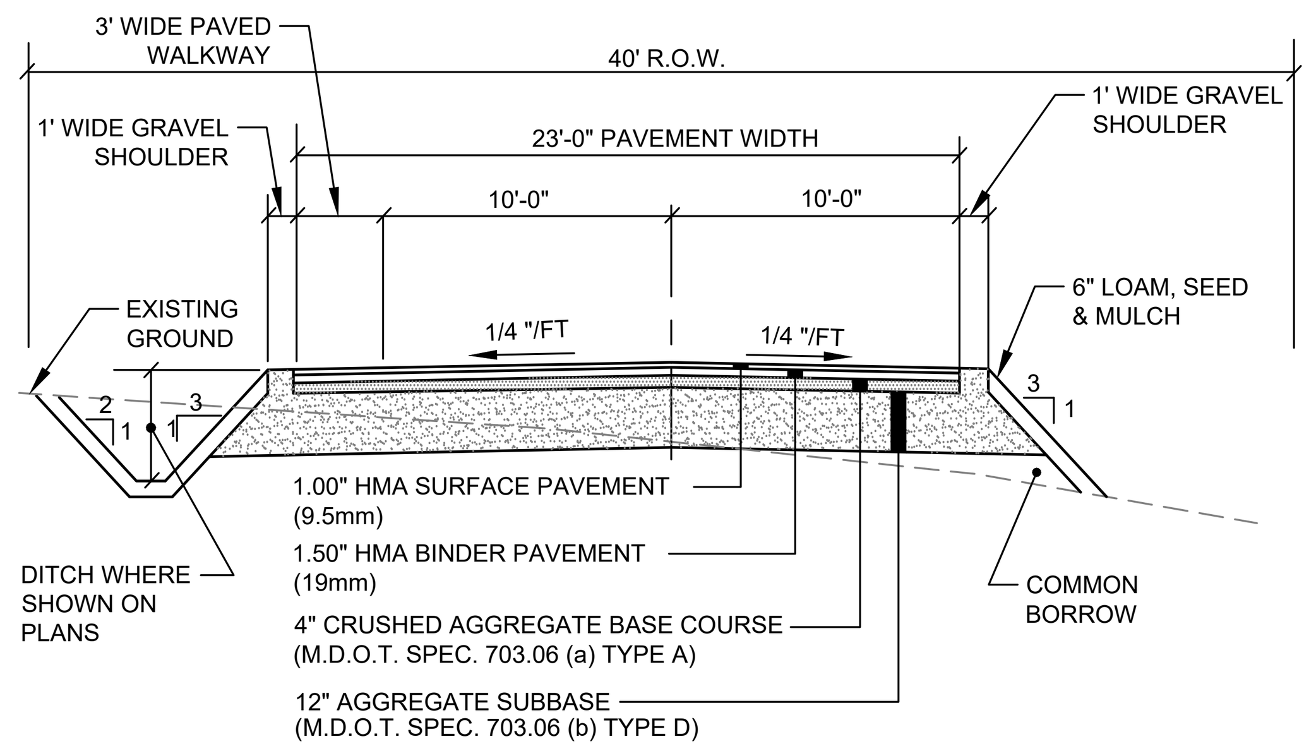
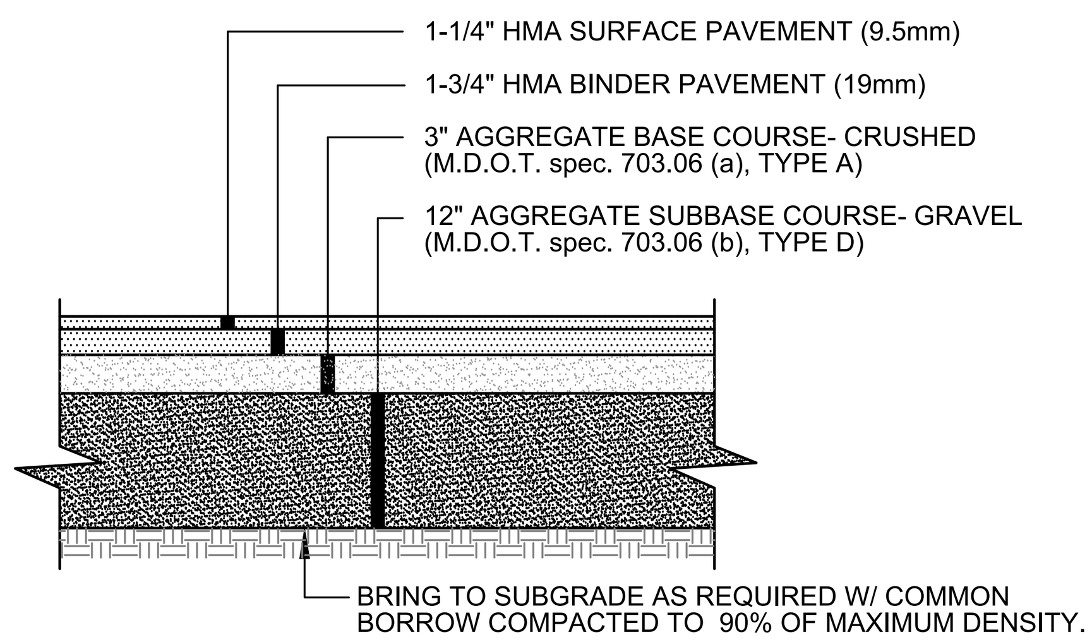


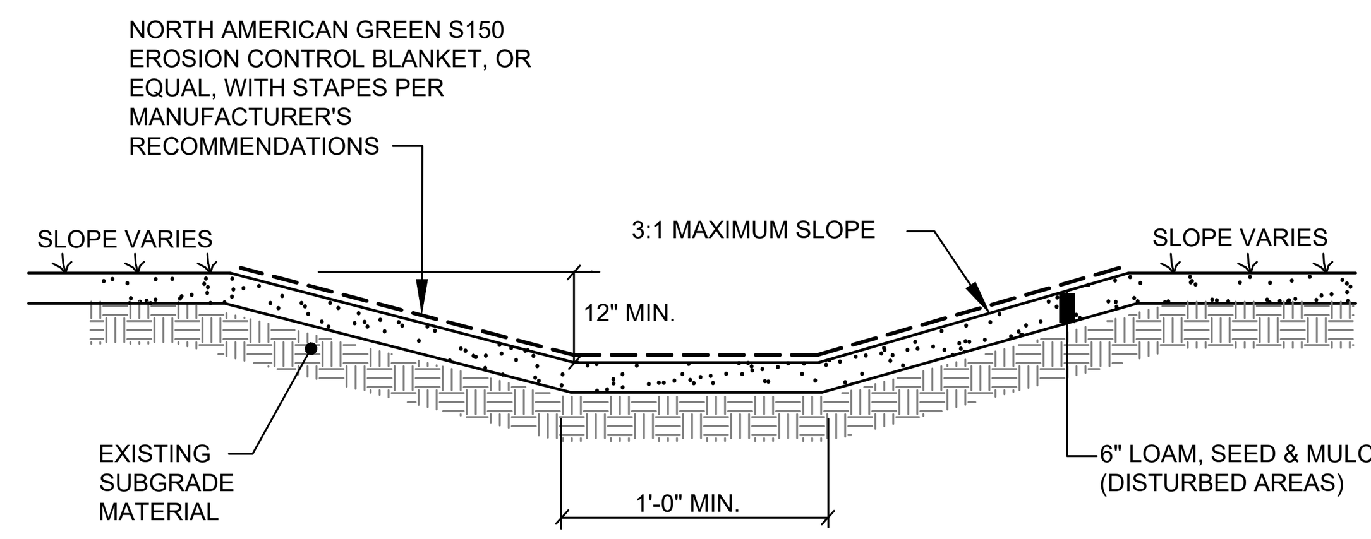
NOTES:
1. ROAD DESIGN ADAPTED FROM CLASS II PRIVATE STREET REQUIREMENTS IN TABLE 1 - "DESIGN AND CONSTRUCTION STANDARDS FOR STREETS AND PEDESTRIAN WAYS" LOCATED IN SECTION 16.8 OF THE KITTERY SUBDIVISION ORDINANCE.
2. SEE PLAN & PROFILE SHEETS FOR DEVIATIONS FROM TYPICAL SECTION.
3. A WHITE LINE SHALL BE PAINTED TO DELINEATE THE 3' WIDE PAVED WALKWAY.
4. ALL CONSTRUCTION MATERIALS AND METHODS SHALL ADHERE TO ARTICLE 16 OF THE TOWN OF KITTERY SUBDIVISION REGULATIONS AND MAINEDOT STANDARD SPECIFICATIONS.

TYPICAL ROAD SECTION
NOT TO SCALE



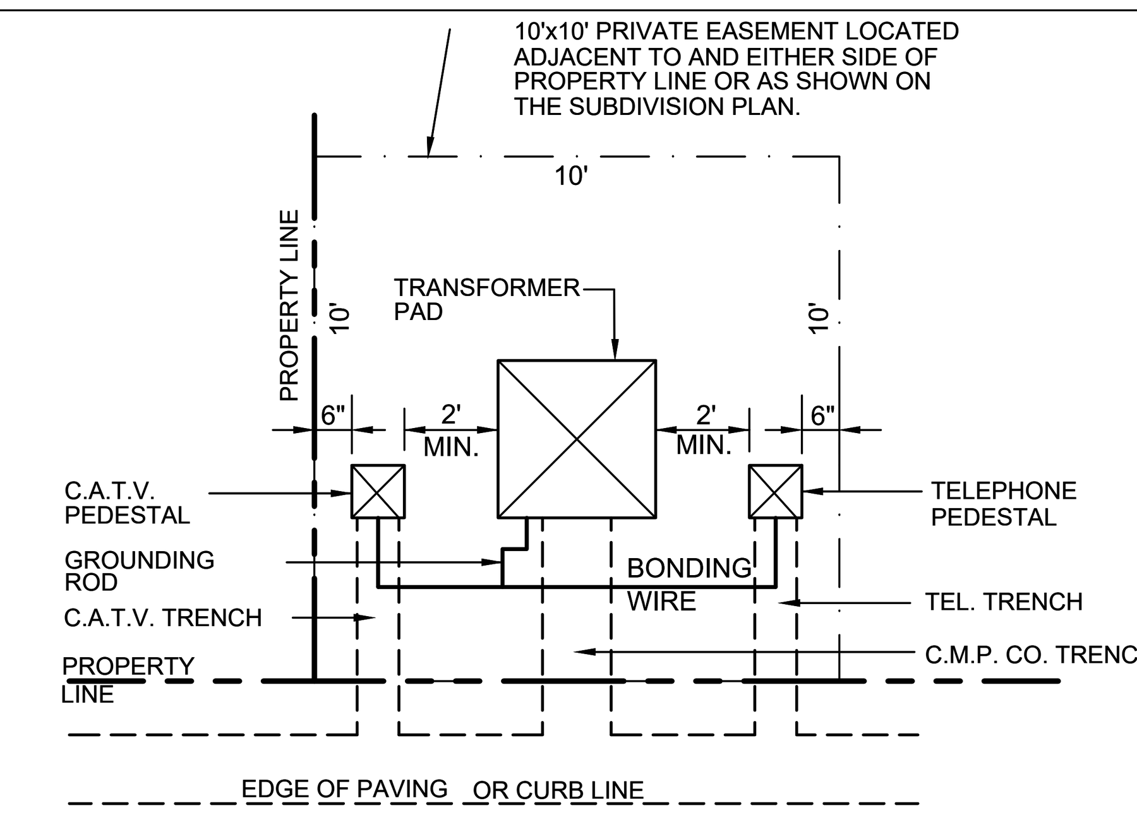
NOTES:
1. MDOT TYPE D AGGREGATE GRADATION SHALL BE MODIFIED FOR A MAXIMUM 4" STONE AND LIMIT #200 SIEVE TO 5% PASSING.

TYP. DRIVEWAY PAVEMENT SECTION
NOT TO SCALE



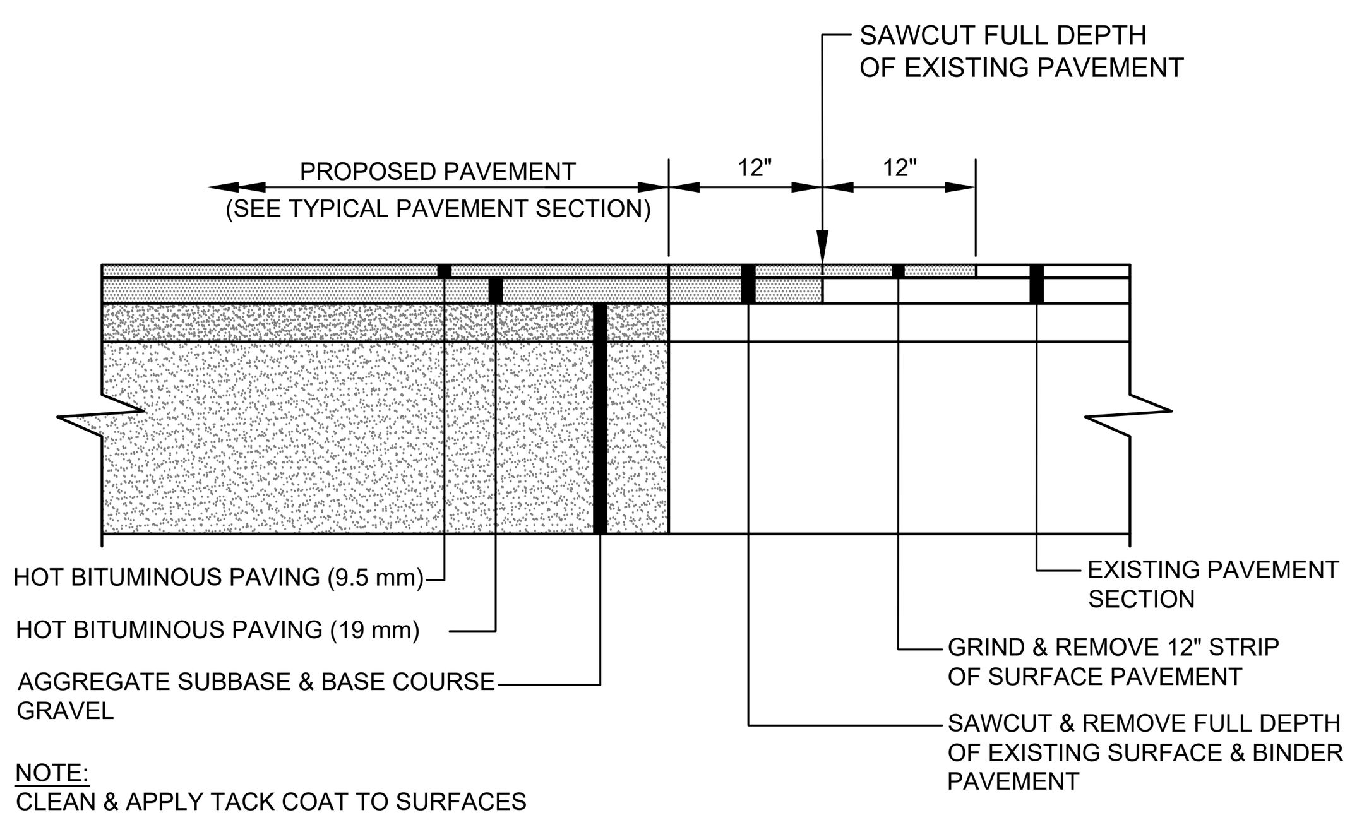
NOTE: REFER TO GRADING PLAN FOR DITCH WIDTH AND SIDE SLOPES

GRASSED SWALE
NOT TO SCALE



NOTE:
TRANSFORMER PAD AND COVER TO BE FIBERGLASS MEETING CENTRAL MAINE POWER SPECIFICATIONS.

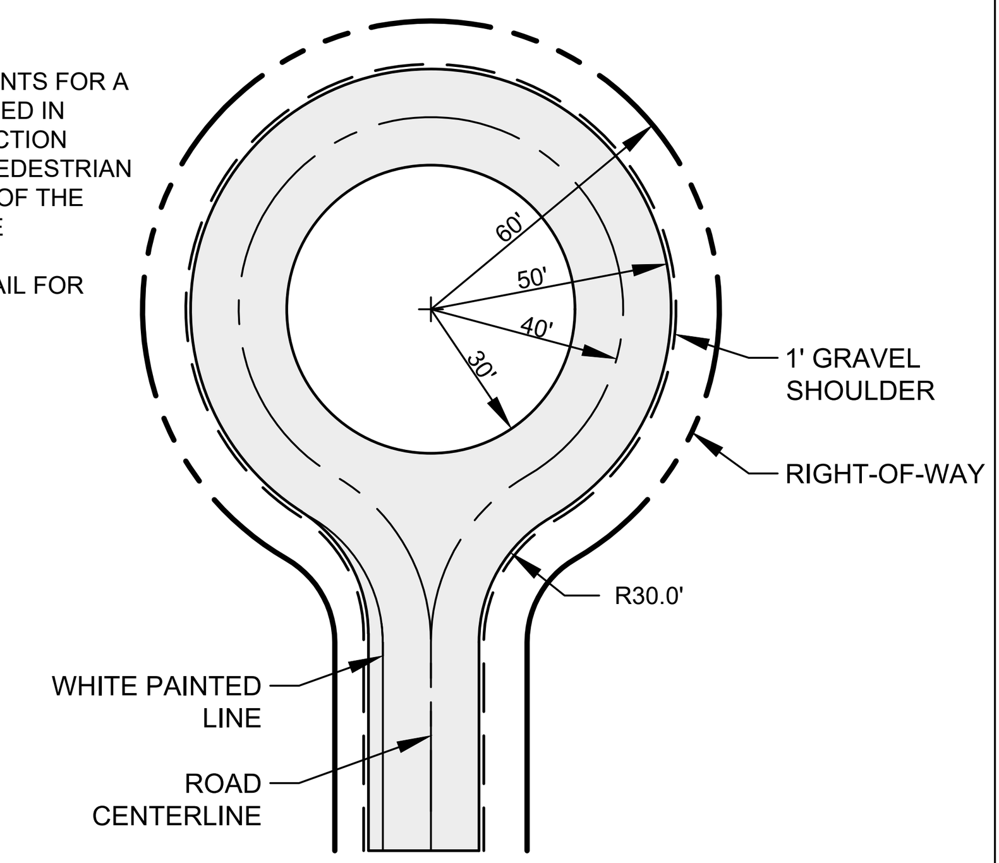
TRANSFORMER DETAIL
NOT TO SCALE



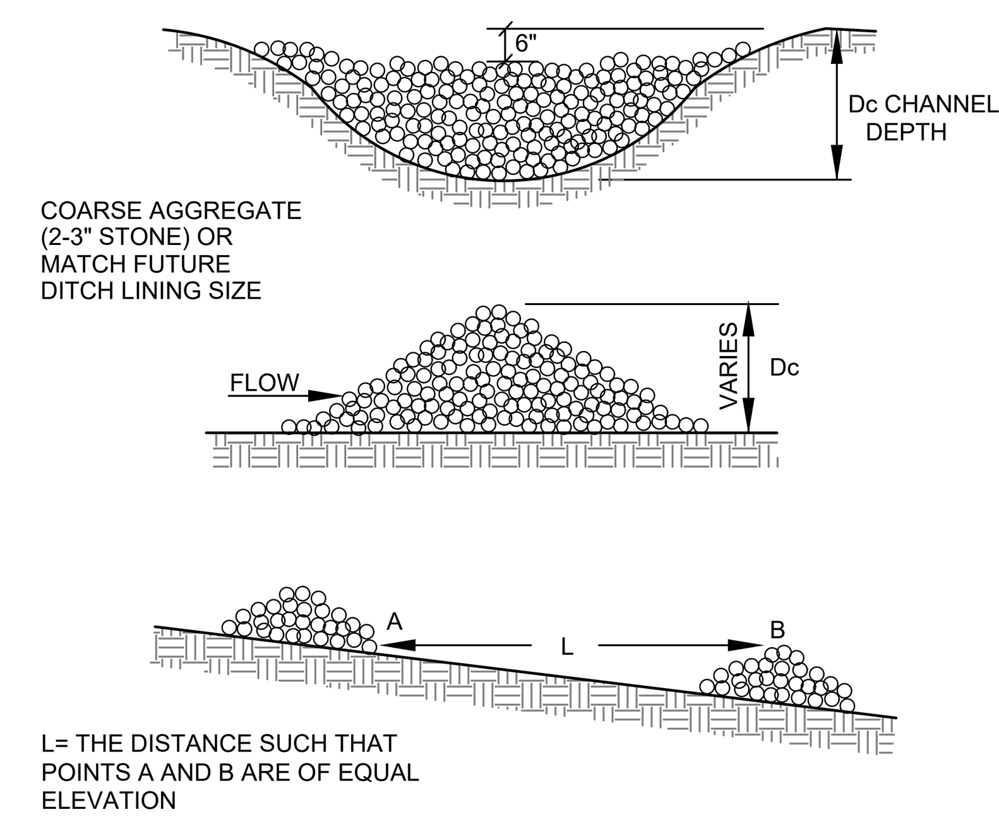
NOTE:
CLEAN & APPLY TACK COAT TO SURFACES WHERE NEW BIT. PAVEMENT IS INSTALLED

TYPICAL PAVEMENT JOINT
NOT TO SCALE

NOTES:
1. DIMENSIONS EXCEED REQUIREMENTS FOR A CLASS II PRIVATE STREET SPECIFIED IN TABLE 1 - "DESIGN AND CONSTRUCTION STANDARDS FOR STREETS AND PEDESTRIAN WAYS" LOCATED IN SECTION 16.8 OF THE KITTERY SUBDIVISION ORDINANCE
2. SEE TYPICAL ROAD SECTION DETAIL FOR ROAD SECTION INFORMATION

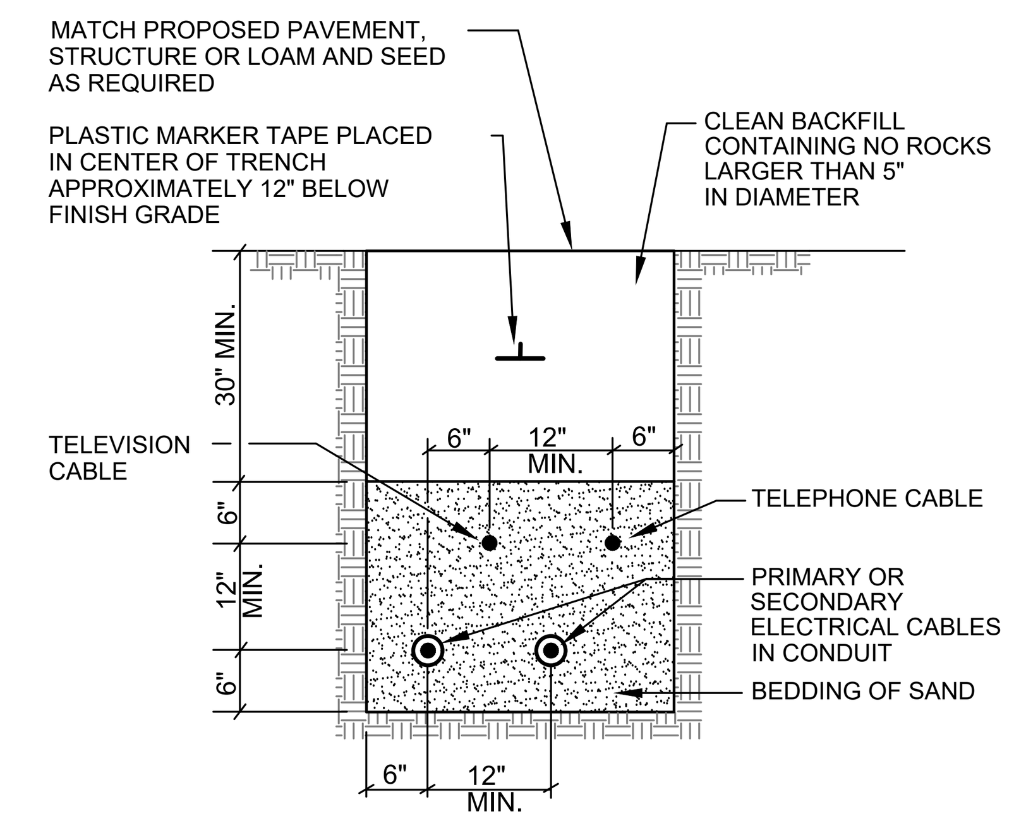


CUL-DE-SAC DIMENSIONS
NOT TO SCALE



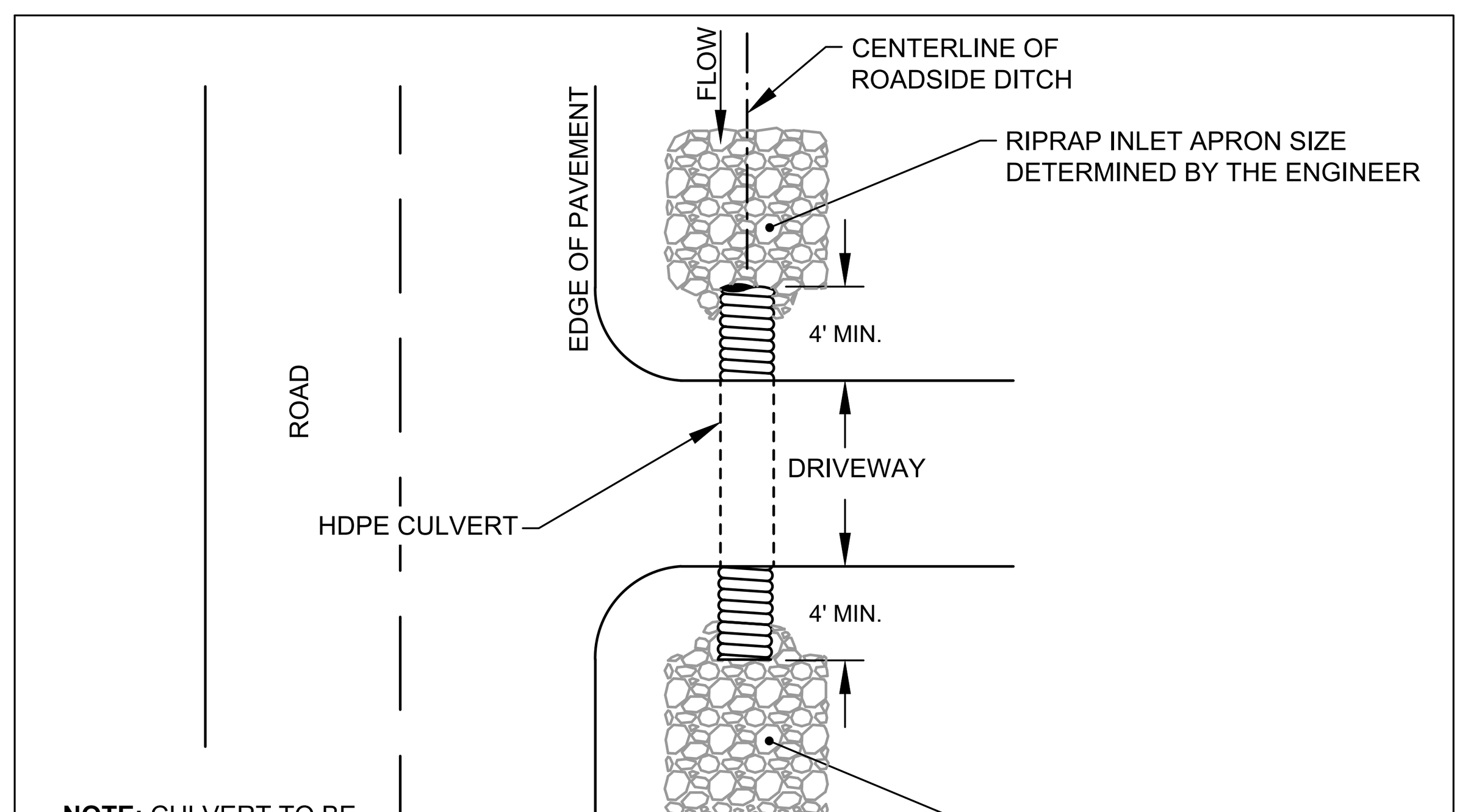
L= THE DISTANCE SUCH THAT POINTS A AND B ARE OF EQUAL ELEVATION

STONE CHECK DAM
NOT TO SCALE



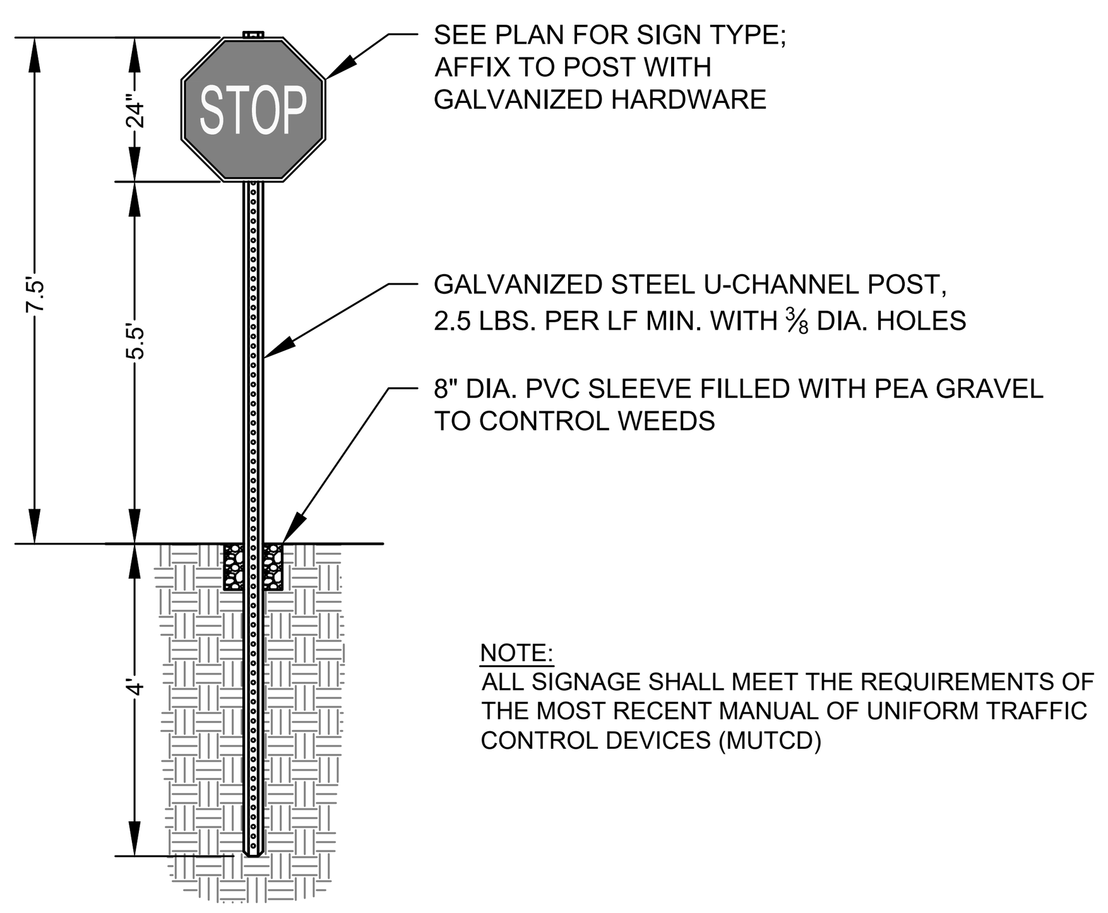
CABLES TO BE ENCASED IN SCHEDULE 40 PVC CONDUIT WHEN RUN BENEATH PAVED AREAS.

TYPICAL UNDERGROUND CABLE INSTALLATION
NOT TO SCALE



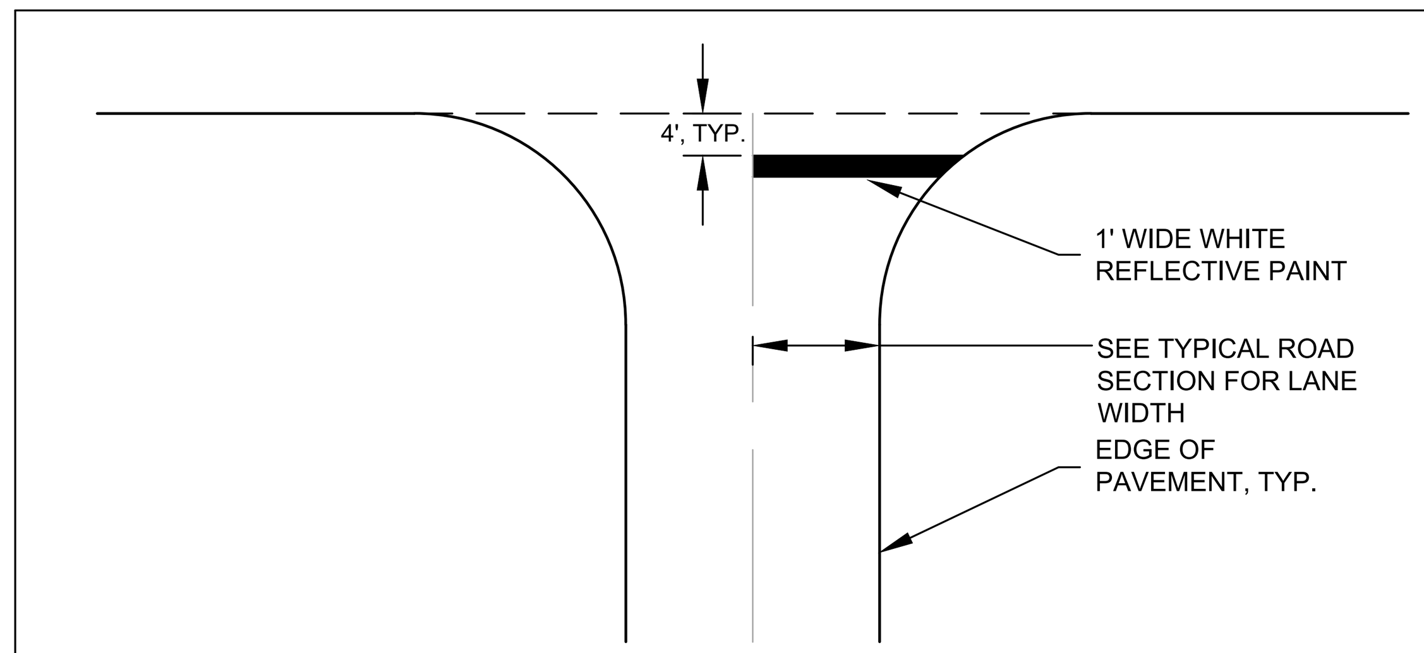
NOTE: CULVERT TO BE INSTALLED WITH A MINIMUM COVER OF 12".

DRIVEWAY CULVERT
NOT TO SCALE



NOTE:
ALL SIGNAGE SHALL MEET THE REQUIREMENTS OF THE MOST RECENT MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD)

STREET SIGN
NOT TO SCALE



STOP BAR DETAIL
NOT TO SCALE

STATE OF MAINE
MICHAEL E. TADEMA-WIELANDT
No. 11567
LICENSED
PROFESSIONAL ENGINEER

DATE: 12/28/2023
P.E.: MICHAEL TADEMA-WIELANDT

NO.	DATE	REVISIONS	APP'D BY
4	12/28/2023	SUBMITTED TO KITTERY FOR FINAL SUBDIVISION REVIEW	MTW
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PROJECT:
WASHBURN FARM SUBDIVISION
BARTLETT ROAD, KITTERY, MAINE

SHEET TITLE:
SITE DETAILS

CLIENT:
BEACHWOOD DEVELOPMENT FUND
P.O. BOX 261
KENNEBUNK, MAINE 04043

DATE:	5/18/2023
SCALE:	AS NOTED
DESIGNED:	MTW
JOB NO:	22-145
SHEET	C-4.1

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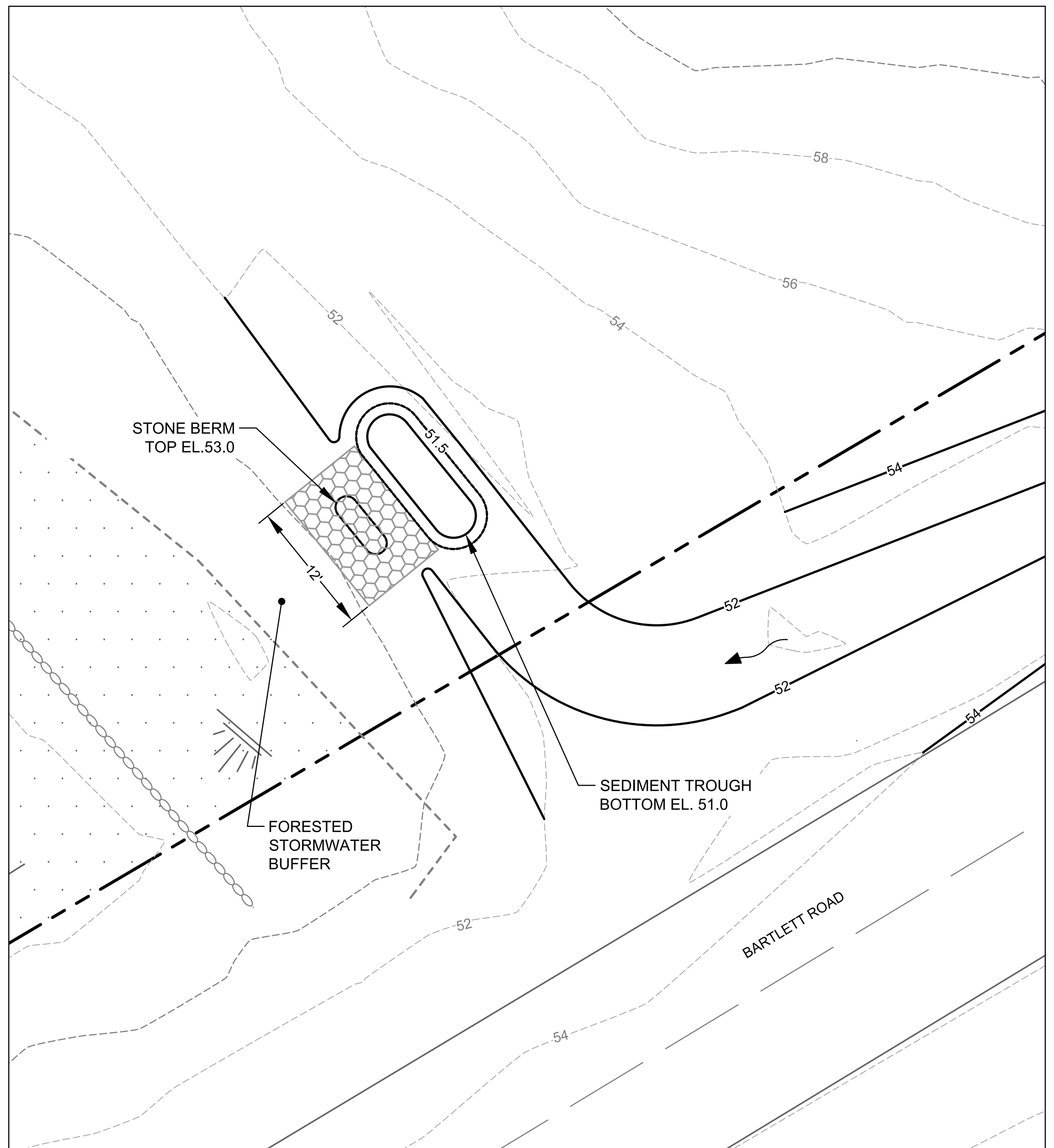
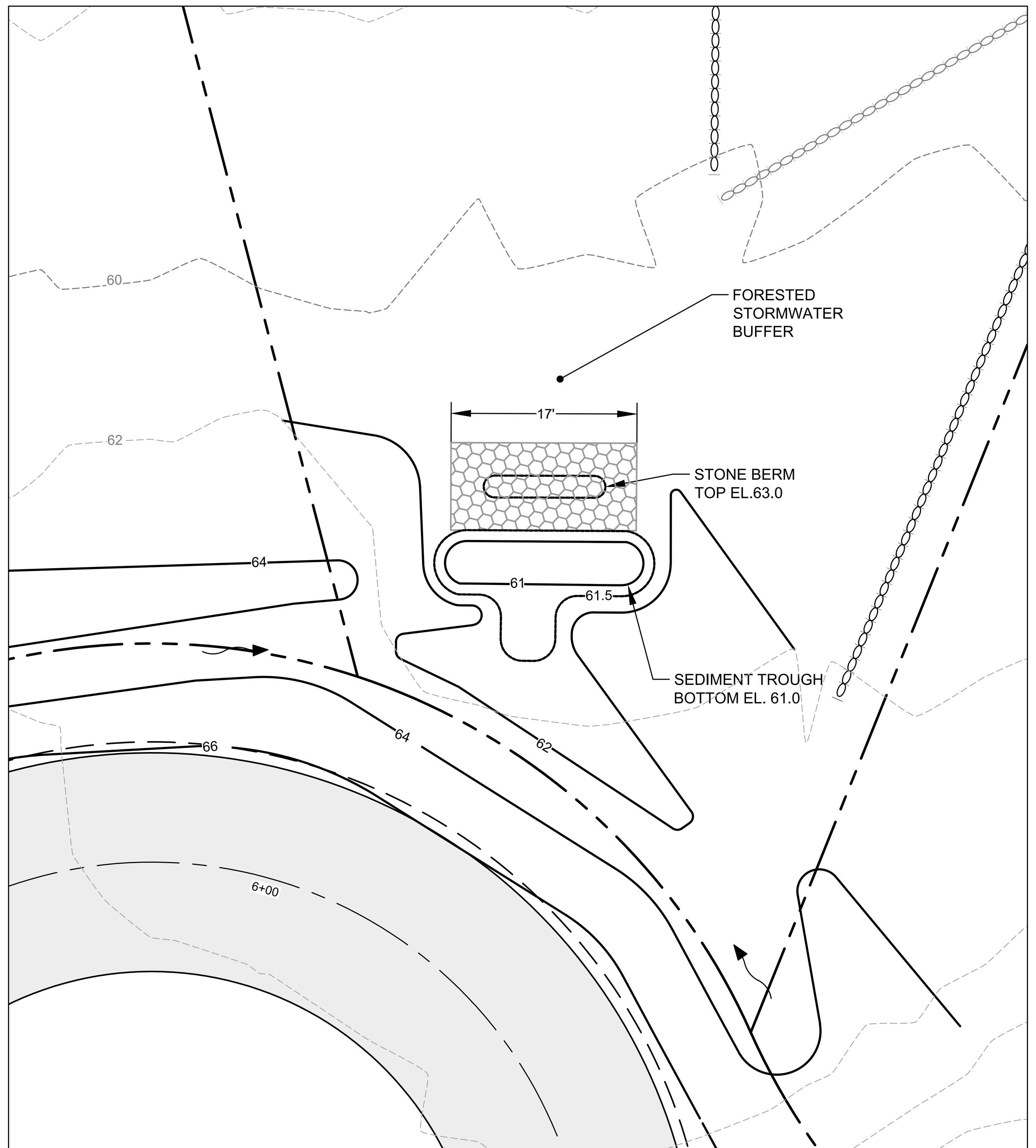


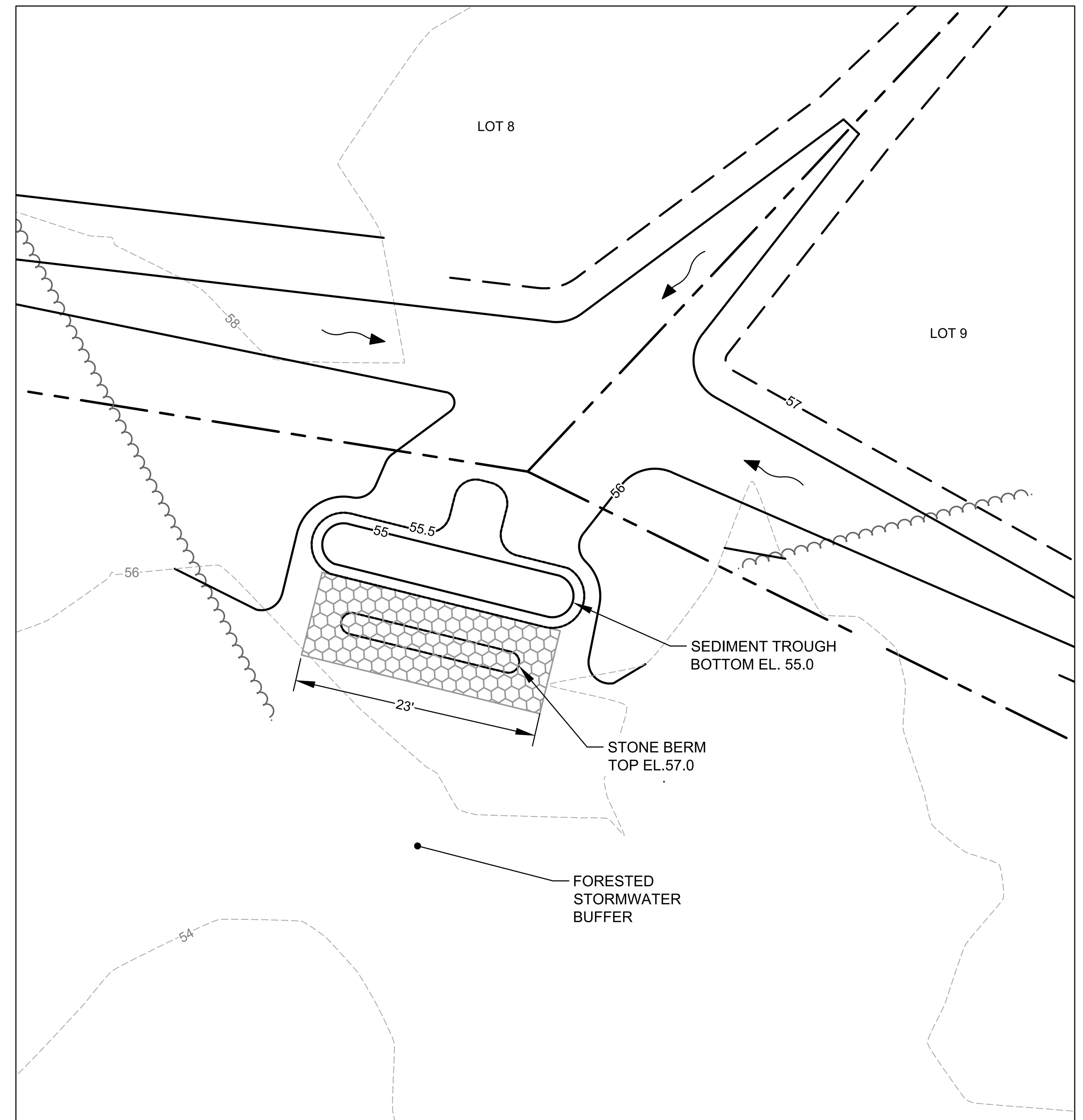
ROADSIDE DITCH STONE BERMED LEVEL LIP SPREADER DETAIL

1" = 10'



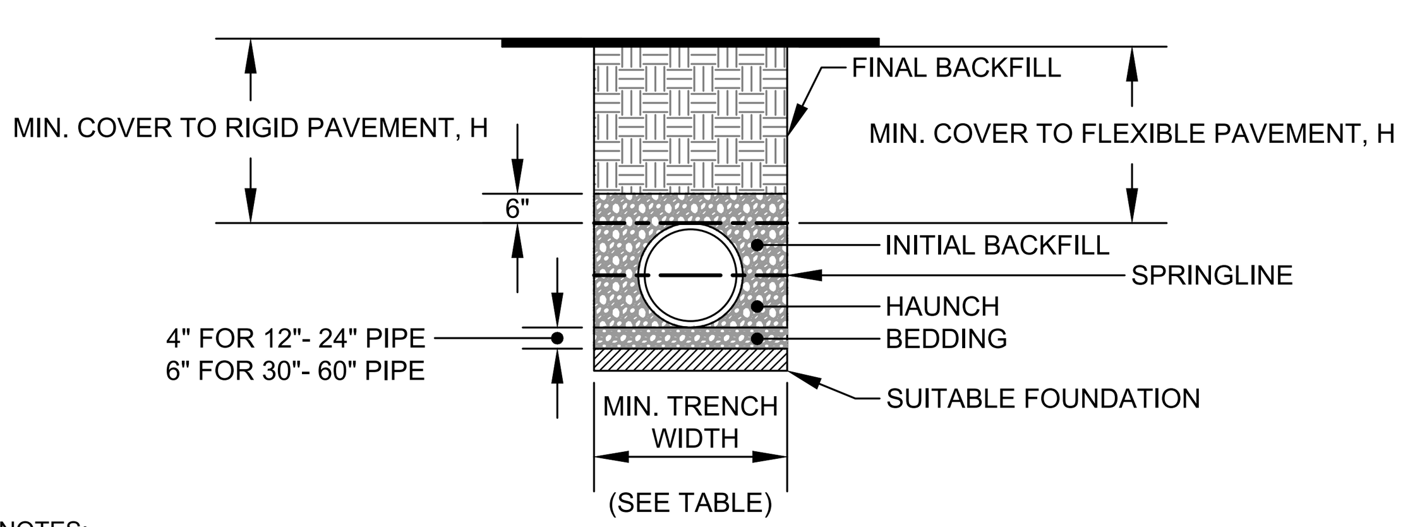
CUL-DE-SAC STONE BERMED LEVEL LIP SPREADER DETAIL

1" = 10'



LOT 8-9 STONE BERMED LEVEL LIP SPREADER DETAIL

1" = 10'



NOTES:

1. ALL PIPE SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2321, "STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY FLOW APPLICATIONS", LATEST ADDITION

2. MEASURES SHOULD BE TAKEN TO PREVENT MIGRATION OF NATIVE FINES INTO BACKFILL MATERIAL, WHEN REQUIRED.

3. FOUNDATION: WHERE THE TRENCH BOTTOM IS UNSTABLE, THE CONTRACTOR SHALL EXCAVATE TO A DEPTH REQUIRED BY THE ENGINEER AND REPLACE WITH SUITABLE MATERIAL AS SPECIFIED BY THE ENGINEER. AS AN ALTERNATIVE AND AT THE DISCRETION OF THE DESIGN ENGINEER, THE TRENCH BOTTOM MAY BE STABILIZED USING A GEOTEXTILE MATERIAL.

4. BEDDING: SUITABLE MATERIAL SHALL BE CLASS I, II OR III. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. UNLESS OTHERWISE NOTED BY THE ENGINEER, MINIMUM BEDDING THICKNESS SHALL BE 4" (100mm) FOR 4"-24" (100mm-600mm); 6" (150mm) FOR 30"-60" (750mm-900mm).

5. INITIAL BACKFILL: SUITABLE MATERIAL SHALL BE CLASS I, II OR III IN THE PIPE ZONE EXTENDING NOT LESS THAN 6" ABOVE CROWN OF PIPE. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. MATERIAL SHALL BE INSTALLED AS REQUIRED IN ASTM D2321, LATEST EDITION.

6. MINIMUM COVER: MINIMUM COVER, H, IN NON-TRAFFIC APPLICATIONS (GRASS OR LANDSCAPE AREAS) IS 12" FROM THE TOP OF PIPE TO GROUND SURFACE. ADDITIONAL COVER MAY BE REQUIRED TO PREVENT FLOATION. FOR TRAFFIC APPLICATIONS, MINIMUM COVER, H, IS 12" UP TO 48" DIAMETER PIPE AND 24" OF COVER FOR 54"-60" DIAMETER PIPE, MEASURED FROM TOP OF PIPE TO BOTTOM OF FLEXIBLE PAVEMENT OR TO TOP OF RIGID PAVEMENT.

RECOMMENDED MINIMUM TRENCH WIDTHS

PIPE DIAM.	MIN. TRENCH WIDTH
4"	21"
6"	23"
8"	26"
10"	28"
12"	30"
15"	34"
18"	39"
24"	48"
30"	56"
36"	64"
42"	72"
48"	80"
54"	88"
60"	96"

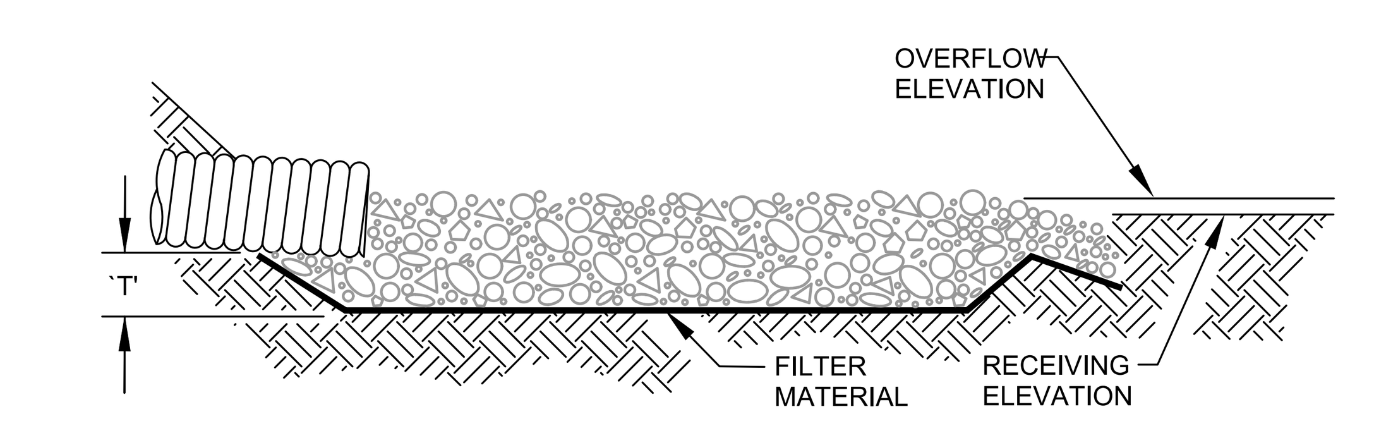
MINIMUM RECOMMENDED COVER BASED ON VECHICLE LOADING CONDITIONS

	SURFACE LIVE LOADING CONDITION	
PIPE DIAM.	H-25	HEAVY CONSTRUCTION (75T AXLE LOAD) *
12" - 48"	12"	48"
54" - 60"	24"	60"

* VEHICLES IN EXCESS OF 75T MAY REQUIRE ADDITIONAL COVER

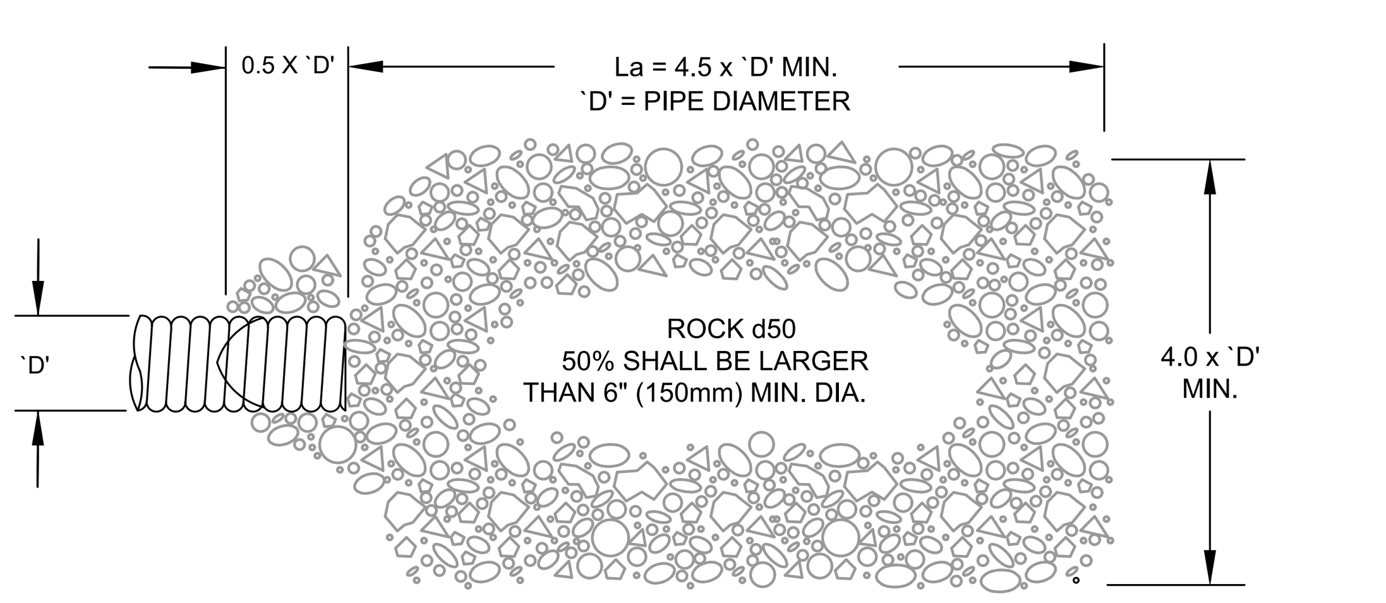
TYPICAL TRENCH DETAIL

NOT TO SCALE



THICKNESS (`T') = 1.5 x MAX. ROCK DIAMETER - 6" (150mm) MIN.

SECTION



PLAN

PIPE OUTLET PROTECTION SIZING TABLE

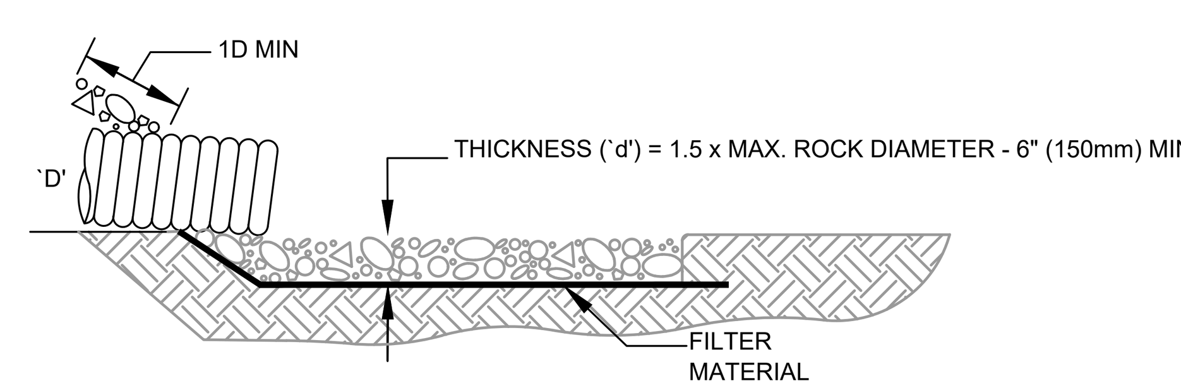
PIPE SIZE (IN)	LENGTH (FT)	WIDTH (FT)
6	2.5	2.0
12	5.0	4.0
15	6.25	5.0
18	7.5	6.0
24	10.0	8.0
30	13.0	10.0
36	15.0	12.0
42	17.5	14.0
48	20.0	16.0
60	25.0	20.0

NOTES:

1. `La' = LENGTH OF APRON. DISTANCE `La' SHALL BE OF SUFFICIENT LENGTH TO DISSIPATE ENERGY.
2. APRON SHALL BE SET AT A ZERO GRADE AND ALIGNED STRAIGHT.
3. FILTER MATERIAL SHALL BE FILTER FABRIC (MIRAFI 600X OR APPROVED EQUAL) OR 6" (150mm) THICK MINIMUM GRADED GRAVEL LAYER.

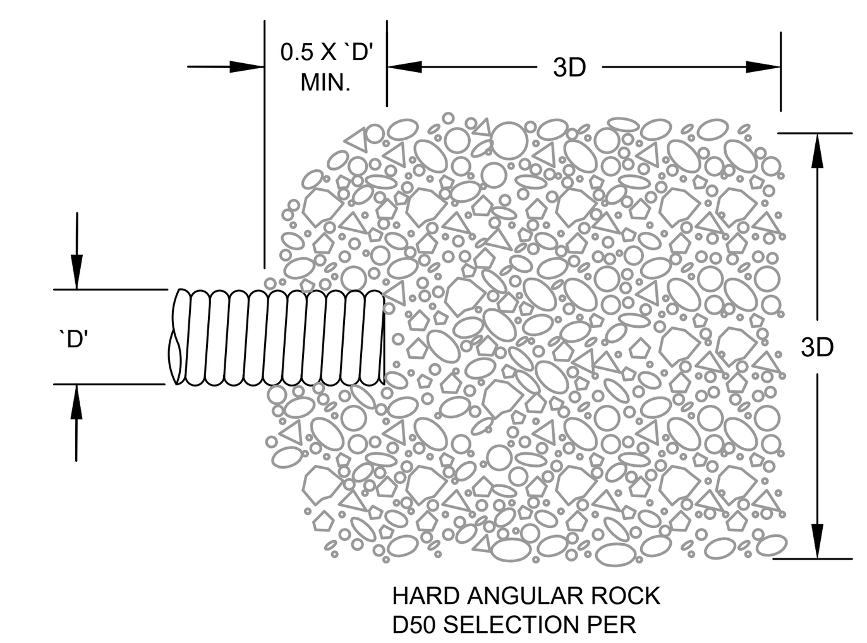
PIPE OUTLET PROTECTION

NOT TO SCALE



NOTE:
1. GEOTEXTILE FILTER FABRIC BENEATH STONE BASED ON UNDISTURBED SOILS, OR 6" OF 4" MINUS BAN RUN GRAVEL FREE OF FINES, CLAYS, SILTS.
2. GEOTEXTILE TO BE MIRAFI 600X OR APPROVED EQUAL.

SECTION



HARD ANGULAR ROCK
D50 SELECTION PER
CHART

PLAN

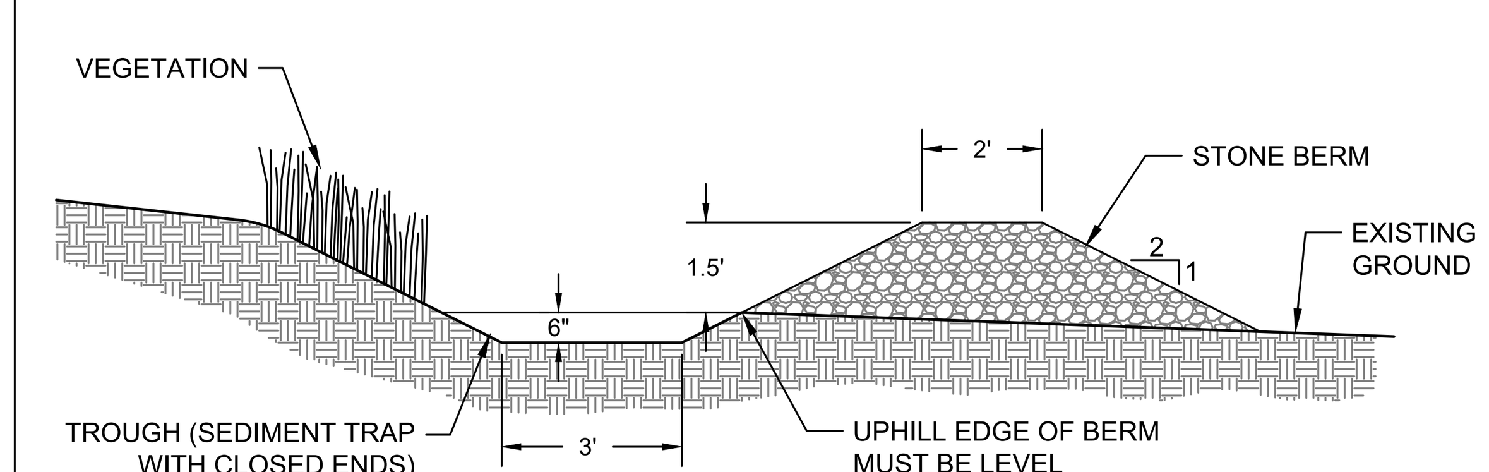
PIPE INLET PROTECTION SIZING TABLE

PIPE SIZE (IN)	LENGTH (FT)	WIDTH (FT)
6	2.0	1.5
12	3.5	3.0
15	4.5	3.75
18	5.25	4.5
24	7.0	6.0
30	8.75	7.5
36	10.5	9.0
42	12.25	10.5
48	14.0	12.0
60	17.5	15.0

NOTES:
1. IN DEFINED CHANNELS, APRON SHALL EXTEND FULL WIDTH OF BOTTOM AND ONE FOOT ABOVE MAX. HEADWATER OR UP TO BANK FULL, WHICHEVER IS LESS.

PIPE INLET PROTECTION

NOT TO SCALE



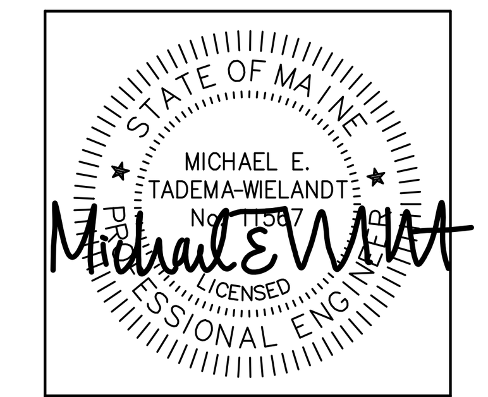
CROSS SECTION

BERM CONSTRUCTION
1. THE BERM MUST BE WELL-GRADED AND CONTAIN SOME SMALL STONE AND GRAVEL SO THAT FLOW THROUGHT THE BERM WILL BE RESTRICTED ENOUGH TO CAUSE IT TO SPREAD OUT BEHIND THE BERM.
2. A 6 INCH DEEP TRAPEZOIDAL TROUGH WITH A MINIMUM BOTTOM WIDTH OF 3 FEET MUST BE CONSTRUCTED WITH A LEVEL DOWNHILL EDGE EXCAVATED ALONG THE CONTOUR ON THE UPHILL EDGE OF THE STONE BERM.
3. THE STONE MUST BE COARSE ENOUGH THAT IT WILL NOT CLOG WITH SEDIMENT. STONE MUST CONSIST OF SOUND DURABLE ROCK THAT WILL NOT DISINTEGRATE BY EXPOSURE TO WATER OR WEATHER. FIELDSTONE, ROUGH QUARRIED STONE, BLASTED LEDGE ROCK OR TAILINGS MAY BE USED. THE ROCK MUST BE WELL GRADED WITH A MEDIAN SIZE OF APPROXIMATELY 3 INCHES AND A MAXIMUM SIZE OF 6 INCHES PER THE FOLLOWING TABLE.

BERM STONE SIZE	
SIEVE	% PASSING BY WEIGHT
12"	100%
6"	84% - 100%
3"	68% - 83%
1"	42% - 55%
NO. 4	8% - 12%

STONE BERMED LEVEL LIP SPREADER

NOT TO SCALE



DATE: 12/28/2023
P.E.: MICHAEL TADEMA-WIELANDT

NO.	DATE	REVISIONS	APP'D BY
4	12/28/2023	SUBMITTED TO KITTERY FOR FINAL SUBDIVISION REVIEW	MTW
3	10/24/2023	REVISED BASED ON PEER REVIEW COMMENTS	MTW
2	10/10/2023	REVISED BASED ON PEER REVIEW COMMENTS	MTW
1	8/3/2023	SUBMITTED TO KITTERY FOR PRELIMINARY SUBDIVISION REVIEW	MTW

TERRADYN CONSULTANTS, LLC
41 CAMPUS DRIVE
SUITE 301
NEW GLOUCESTER, ME 04260
565 CONGRESS STREET
SUITE 201
PORTLAND, ME 04102
OFFICE: (207) 926-5111 FAX: (207) 221-1317
www.terradynconsultants.com
Civil Engineering | Land Planning | Stormwater Design | Environmental Permitting

PERMIT DRAWING
NOT FOR CONSTRUCTION

PROJECT:
WASHBURN FARM SUBDIVISION
BARTLETT ROAD, KITTERY, MAINE

SHEET TITLE:
DRAINAGE & UTILITY DETAILS

CLIENT:
BEACHWOOD DEVELOPMENT FUND
P.O. BOX 261
KENNEBUNK, MAINE 04043

DATE:	5/18/2023
SCALE:	AS NOTED
DESIGNED:	MTW
JOB NO:	22-145
SHEET	C-4.2

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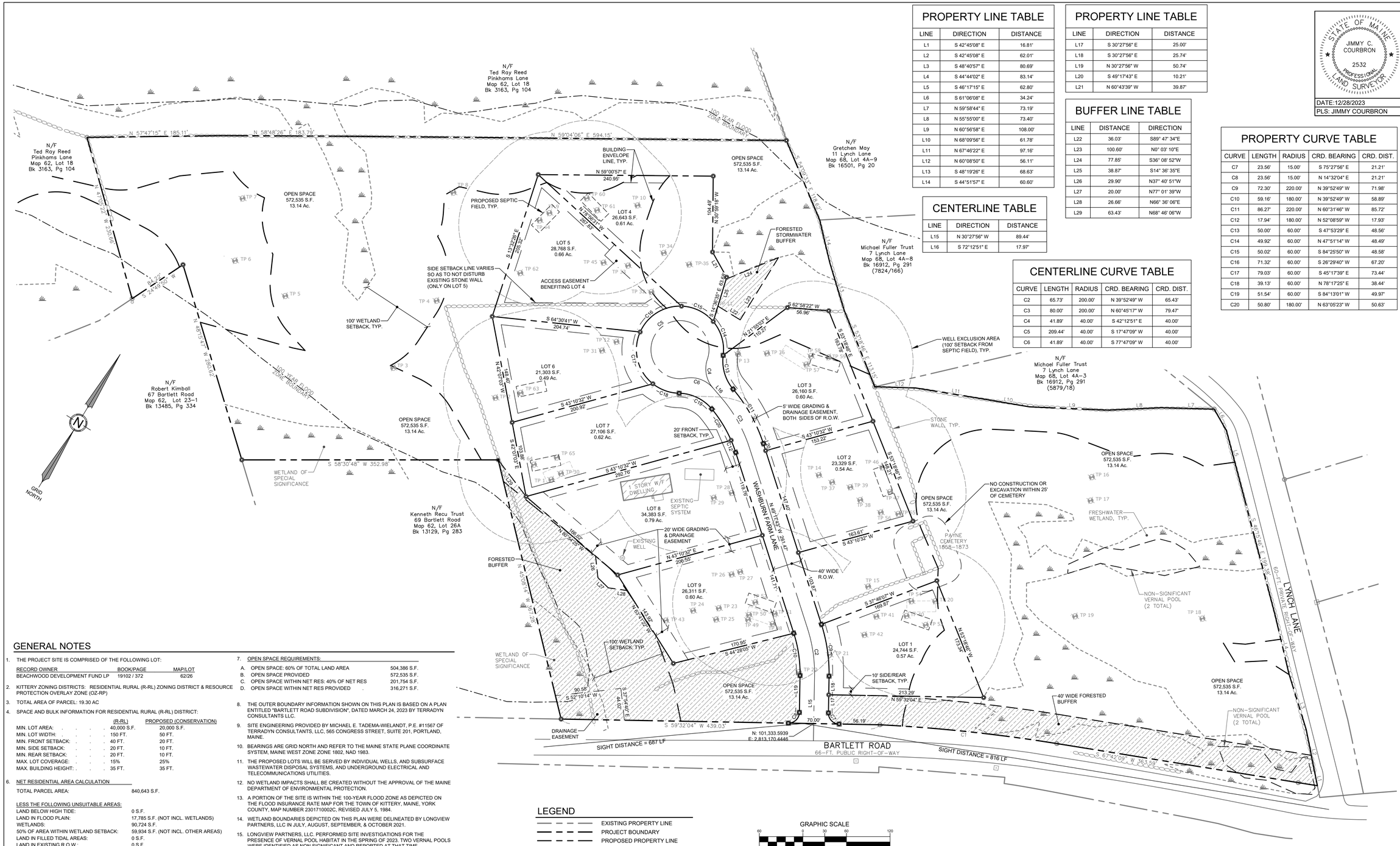

PROPERTY LINE TABLE

LINE	DIRECTION	DISTANCE
L1	S 42°45'08" E	16.81'
L2	S 42°45'08" E	62.01'
L3	S 48°40'57" E	80.69'
L4	S 44°44'02" E	83.14'
L5	S 46°17'15" E	62.80'
L6	S 61°06'08" E	34.24'
L7	N 59°58'44" E	73.19'
L8	N 55°55'00" E	73.40'
L9	N 60°56'58" E	108.00'
L10	N 68°09'56" E	61.78'
L11	N 67°46'22" E	97.16'
L12	N 60°08'50" E	56.11'
L13	S 48°19'26" E	68.63'
L14	S 44°51'57" E	60.60'

PROPERTY LINE TABLE

LINE	DIRECTION	DISTANCE
L17	S 30°27'56" E	25.00'
L18	S 30°27'56" E	25.74'
L19	N 30°27'56" W	50.74'
L20	S 49°17'43" E	10.21'
L21	N 60°43'39" W	39.87'

BUFFER LINE TABLE

LINE	DISTANCE	DIRECTION
L22	36.03'	S89° 47' 34"E
L23	100.60'	N0° 03' 10"E
L24	77.85'	S36° 08' 52"W
L25	38.87'	S14° 36' 35"E
L26	29.90'	N37° 40' 51"W
L27	20.00'	N77° 01' 39"W
L28	26.66'	N66° 36' 06"E
L29	63.43'	N68° 46' 06"W

CENTERLINE TABLE

LINE	DIRECTION	DISTANCE
L15	N 30°27'56" W	89.44'
L16	S 72°12'51" E	17.97'

CENTERLINE CURVE TABLE

CURVE	LENGTH	RADIUS	CRD. BEARING	CRD. DIST.
C2	65.73'	200.00'	N 39°52'49" W	65.43'
C3	80.00'	200.00'	N 60°45'17" W	79.47'
C4	41.89'	40.00'	S 42°12'51" E	40.00'
C5	209.44'	40.00'	S 17°47'09" W	40.00'
C6	41.89'	40.00'	S 77°47'09" W	40.00'

PROPERTY CURVE TABLE

CURVE	LENGTH	RADIUS	CRD. BEARING	CRD. DIST.
C7	23.56'	15.00'	S 75°27'56" E	21.21'
C8	23.56'	15.00'	N 14°32'04" E	21.21'
C9	72.30'	220.00'	N 39°52'49" W	71.98'
C10	59.16'	180.00'	N 39°52'49" W	58.89'
C11	86.27'	220.00'	N 60°31'46" W	85.72'
C12	17.94'	180.00'	N 52°08'59" W	17.93'
C13	50.00'	60.00'	S 47°53'29" E	48.56'
C14	49.92'	60.00'	N 47°51'14" W	48.49'
C15	50.02'	60.00'	S 84°25'50" W	48.58'
C16	71.32'	60.00'	S 26°29'40" W	67.20'
C17	79.03'	60.00'	S 45°17'39" E	73.44'
C18	39.13'	60.00'	N 78°17'25" E	38.44'
C19	51.54'	60.00'	S 84°13'01" W	49.97'
C20	50.80'	180.00'	N 63°05'23" W	50.63'

GENERAL NOTES

1. THE PROJECT SITE IS COMPRISED OF THE FOLLOWING LOT:

RECORD OWNER	BOOK/PAGE	MAP/LOT
BEACHWOOD DEVELOPMENT FUND LP	19102 / 372	62/26

2. KITTERY ZONING DISTRICTS: RESIDENTIAL RURAL (R-RL) ZONING DISTRICT & RESOURCE PROTECTION OVERLAY ZONE (OZ-RP)
3. TOTAL AREA OF PARCEL: 19.30 AC
4. SPACE AND BULK INFORMATION FOR RESIDENTIAL RURAL (R-RL) DISTRICT:

	(R-RL)	PROPOSED (CONSERVATION)
MIN. LOT AREA:	40,000 S.F.	20,000 S.F.
MIN. LOT WIDTH:	150 FT.	50 FT.
MIN. FRONT SETBACK:	40 FT.	20 FT.
MIN. SIDE SETBACK:	20 FT.	10 FT.
MIN. REAR SETBACK:	20 FT.	10 FT.
MAX. LOT COVERAGE:	15%	25%
MAX. BUILDING HEIGHT:	35 FT.	35 FT.

6. NET RESIDENTIAL AREA CALCULATION

TOTAL PARCEL AREA:	840,643 S.F.
LESS THE FOLLOWING UNSUITABLE AREAS:	
LAND BELOW HIGH TIDE:	0 S.F.
LAND IN FLOOD PLAIN:	17,785 S.F. (NOT INCL. WETLANDS)
WETLANDS:	90,724 S.F.
50% OF AREA WITHIN WETLAND SETBACK:	59,934 S.F. (NOT INCL. OTHER AREAS)
LAND IN FILLED TIDAL AREAS:	0 S.F.
LAND IN EXISTING R.O.W.:	0 S.F.
LAND IN PROPOSED R.O.W.:	31,737 S.F.
LAND ISOLATED BY BARRIER:	0 S.F.
LAND ZONED COMMERCIAL:	0 S.F.
STEEP SLOPES:	0 S.F.
BEDROCK & POORLY DRAINED SOILS:	2,436 S.F. (NOT INCL. WETLAND OR FLOOD)
50% SOMEWHAT POORLY DRAINED SOILS:	46,683 S.F. (NOT INCL. WETLAND OR FLOOD)
CEMETERY:	6,965 S.F.
ZONED COMMERCIAL FISHERIES:	0 S.F.
OPEN SPACE:	0 S.F.
TOTAL UNSUITABLE AREA:	256,264 S.F.
TOTAL NET RESIDENTIAL AREA:	584,379 S.F.
MIN LOT DENSITY	40,000 S.F.
MAXIMUM LOTS	14
PROPOSED LOTS	9

7. OPEN SPACE REQUIREMENTS:

A. OPEN SPACE: 60% OF TOTAL LAND AREA	504,386 S.F.
B. OPEN SPACE PROVIDED	572,535 S.F.
C. OPEN SPACE WITHIN NET RES: 40% OF NET RES	201,754 S.F.
D. OPEN SPACE WITHIN NET RES PROVIDED	316,271 S.F.

8. THE OUTER BOUNDARY INFORMATION SHOWN ON THIS PLAN IS BASED ON A PLAN ENTITLED "BARTLETT ROAD SUBDIVISION", DATED MARCH 24, 2023 BY TERRADYN CONSULTANTS LLC.
9. SITE ENGINEERING PROVIDED BY MICHAEL E. TADEMA-WIELANDT, P.E. #11567 OF TERRADYN CONSULTANTS, LLC, 565 CONGRESS STREET, SUITE 201, PORTLAND, MAINE.
10. BEARINGS ARE GRID NORTH AND REFER TO THE MAINE STATE PLANE COORDINATE SYSTEM, MAINE WEST ZONE ZONE 1802, NAD 1983.
11. THE PROPOSED LOTS WILL BE SERVED BY INDIVIDUAL WELLS, AND SUBSURFACE WASTEWATER DISPOSAL SYSTEMS, AND UNDERGROUND ELECTRICAL AND TELECOMMUNICATIONS UTILITIES.
12. NO WETLAND IMPACTS SHALL BE CREATED WITHOUT THE APPROVAL OF THE MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION.
13. A PORTION OF THE SITE IS WITHIN THE 100-YEAR FLOOD ZONE AS DEPICTED ON THE FLOOD INSURANCE RATE MAP FOR THE TOWN OF KITTERY, MAINE, YORK COUNTY, MAP NUMBER 23017100002C, REVISED JULY 5, 1984.
14. WETLAND BOUNDARIES DEPICTED ON THIS PLAN WERE DELINEATED BY LONGVIEW PARTNERS, LLC IN JULY, AUGUST, SEPTEMBER, & OCTOBER 2021.
15. LONGVIEW PARTNERS, LLC. PERFORMED SITE INVESTIGATIONS FOR THE PRESENCE OF VERNAL POOL HABITAT IN THE SPRING OF 2023. TWO VERNAL POOLS WERE IDENTIFIED AS NON SIGNIFICANT AND REPORTED AT THAT TIME.
16. LONGVIEW PARTNERS, LLC PREPARED A HIGH INTENSITY SOIL SURVEY ON THE SITE, DATED DECEMBER, 2022. TEST PITS WERE OBSERVED ON 10/19/2023.
17. THERE SHALL BE NO CONVEYANCE OF ANY LOT OR ISSUANCE OF ANY BUILDING PERMIT UNTIL A PERFORMANCE GUARANTEE(S) COVERING THE COST OF ALL REQUIRED IMPROVEMENTS IS PROVIDED AND APPROVED BY THE TOWN OF KITTERY.
18. THE DEVELOPMENT IS SUBJECT TO THE FINDINGS OF FACT, CONCLUSIONS, DECISIONS, AND CONDITION OF APPROVAL AS APPROVED BY THE TOWN OF KITTERY PLANNING BOARD AND RECORDED IN THE YORK COUNTY REGISTRY OF DEEDS.
19. THE NUMBERED LOTS SHOWN HEREON SHALL ONLY BE ACCESSED BY DRIVEWAYS OFF OF WASHBURN LANE.
20. WASHBURN LANE SHALL REMAIN PRIVATE AND SHALL BE MAINTAINED BY THE HOMEOWNERS ASSOCIATION.
21. SIGHT DISTANCE MEASUREMENTS WERE TAKEN IN THE FIELD BY TERRADYN CONSULTANTS, LLC ON SEPTEMBER 21, 2023.
22. WETLAND BOUNDARIES SHALL BE IDENTIFIED WITH PERMANENT SIGNAGE EVERY 50' ALONG BOUNDARY.
23. NO TREE CLEARING OR DISTURBANCE IS ALLOWED WITHIN 100' OF WETLANDS EXCEPT AS SHOWN ON THE APPROVED DRAWINGS AND AS NECESSARY TO CONSTRUCT THE ROAD AND STORMWATER MANAGEMENT INFRASTRUCTURE.

LEGEND

- EXISTING PROPERTY LINE
- PROJECT BOUNDARY
- PROPOSED PROPERTY LINE
- PROPOSED SETBACK LINE
- PROPOSED EASEMENT
- EXISTING EDGE OF PAVEMENT
- EXISTING UTILITY POLE
- EXISTING MONUMENT
- EXISTING IRON PIPE/SURVEY PIN
- PROPOSED GRANITE MONUMENT
- PROPOSED SURVEY PIN
- FRESHWATER WETLAND
- FORESTED / WOODED BUFFER
- TEST PIT
- SEPTIC FIELD

GRAPHIC SCALE
60 0 30 60 120
(IN FEET)
1 INCH = 60 FT.

TOWN OF KITTERY PLANNING BOARD SUBDIVISION APPROVAL

_____ DATE

_____ CHAIRPERSON

STATE OF MAINE
YORK COUNTY REGISTRY OF DEEDS
RECEIVED _____, 20___
AT ___h ___m ____M. AND RECORDED IN PLAN BOOK _____ PAGE _____
ATTEST _____ REGISTER

STATE OF MAINE
JIMMY C. COURBRON
2532
PROFESSIONAL LAND SURVEYOR
DATE: 12/28/2023
PLS: JIMMY COURBRON

STATE OF MAINE
MICHAEL E. TADEMA-WIELANDT
No. 11567
LICENSED PROFESSIONAL ENGINEER
DATE: 12/28/2023
P.E.: MICHAEL TADEMA-WIELANDT

NO.	DATE	REVISIONS	APP'D BY
4	12/28/2023	SUBMITTED TO KITTERY FOR FINAL SUBDIVISION REVIEW	MTW
3	10/24/2023	REVISED BASED ON PEER REVIEW COMMENTS	MTW
2	10/10/2023	REVISED BASED ON PEER REVIEW COMMENTS	MTW
1	8/3/2023	SUBMITTED TO KITTERY FOR PRELIMINARY SUBDIVISION REVIEW	MTW

565 CONGRESS STREET
SUITE 201
PORTLAND, ME 04102
FAX: (207) 221-1317

41 CAMPUS DRIVE
SUITE 305
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www.terradynconsultants.com

TERRADYN CONSULTANTS, LLC
Civil Engineering | Land Planning | Stormwater Design | Environmental Permitting

PERMIT DRAWING
NOT FOR CONSTRUCTION

PROJECT: WASHBURN FARM SUBDIVISION
BARTLETT ROAD, KITTERY, MAINE

SHEET TITLE: SUBDIVISION PLAN

CLIENT: BEACHWOOD DEVELOPMENT FUND
P.O. BOX 261
KENNEBUNK, MAINE 04043

DATE:	5/18/2023
SCALE:	1" = 60'
DESIGNED:	MTW
JOB NO:	22-145
SHEET	C-3.0

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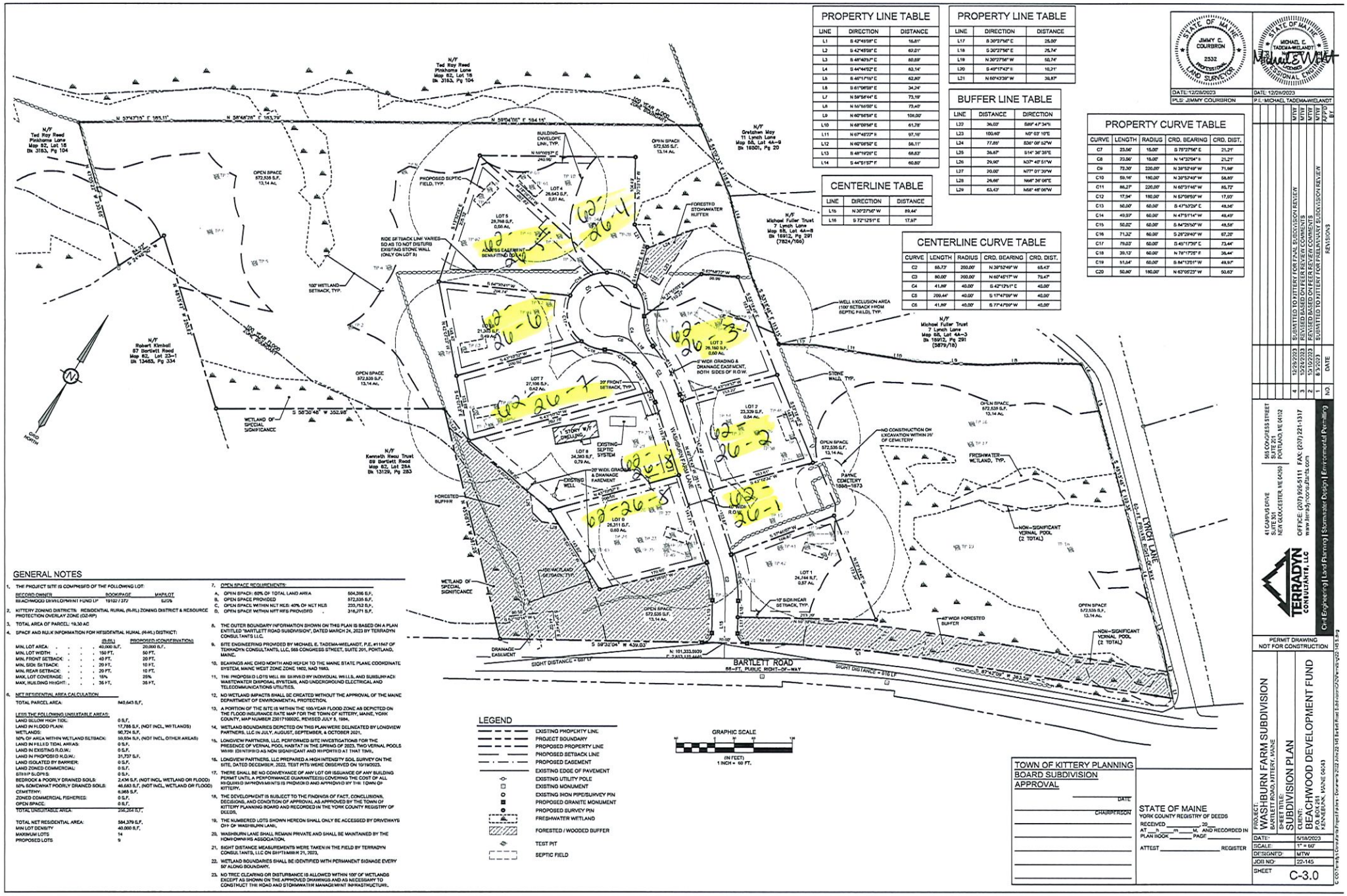


PROPERTY LINE TABLE		
LINE	DIRECTION	DISTANCE
L1	S 42°45'58" E	16.81'
L2	S 42°45'58" E	60.01'
L3	S 48°40'57" E	60.89'
L4	S 44°44'52" E	62.14'
L5	S 46°17'15" E	62.80'
L6	S 61°08'58" E	34.24'
L7	N 59°58'44" E	73.19'
L8	N 56°55'00" E	73.40'
L9	N 60°56'58" E	106.00'
L10	N 68°08'56" E	61.78'
L11	N 67°48'22" E	97.16'
L12	N 60°08'52" E	56.11'
L13	S 48°19'20" E	68.83'
L14	S 44°51'57" E	60.80'

PROPERTY LINE TABLE		
LINE	DIRECTION	DISTANCE
L17	S 30°27'56" E	25.00'
L18	S 30°27'56" E	25.74'
L19	N 30°27'56" W	50.74'
L20	S 49°17'42" E	10.21'
L21	N 60°43'39" W	39.87'

BUFFER LINE TABLE		
LINE	DISTANCE	DIRECTION
L22	36.03'	S89° 47' 34"E
L23	100.60'	N0° 03' 10"E
L24	77.89'	S36° 08' 52"W
L25	36.87'	S14° 36' 35"E
L26	29.90'	N37° 40' 51"W
L27	20.00'	N77° 01' 39"W
L28	26.66'	N66° 36' 08"E
L29	63.43'	N66° 48' 06"W

CENTERLINE TABLE		
LINE	DIRECTION	DISTANCE
L15	N 30°27'56" W	89.44'
L16	S 72°12'51" E	17.97'

CENTERLINE CURVE TABLE				
CURVE	LENGTH	RADIUS	CRD. BEARING	CRD. DIST.
C2	85.73'	200.00'	N 39°53'49" W	85.43'
C3	80.00'	200.00'	N 60°45'17" W	79.47'
C4	41.89'	40.00'	S 42°13'11" E	40.00'
C5	200.44'	40.00'	S 17°47'09" W	40.00'
C6	41.89'	40.00'	S 77°47'09" W	40.00'

PROPERTY CURVE TABLE				
CURVE	LENGTH	RADIUS	CRD. BEARING	CRD. DIST.
C7	23.56'	15.00'	S 75°27'56" E	21.21'
C8	23.56'	15.00'	N 14°32'04" E	21.21'
C9	72.30'	220.00'	N 38°52'49" W	71.98'
C10	59.16'	180.00'	N 39°52'49" W	58.89'
C11	86.27'	220.00'	N 60°31'46" W	85.72'
C12	17.94'	180.00'	N 67°09'59" W	17.93'
C13	50.00'	60.00'	S 47°53'26" E	48.56'
C14	49.97'	60.00'	N 47°51'14" W	48.49'
C15	50.02'	60.00'	S 84°25'50" W	48.56'
C16	71.32'	60.00'	S 26°29'40" W	67.20'
C17	79.03'	60.00'	S 45°17'39" E	73.44'
C18	39.13'	60.00'	N 76°17'25" E	38.44'
C19	51.64'	60.00'	S 84°12'51" W	49.97'
C20	50.80'	180.00'	N 63°06'23" W	50.63'

GENERAL NOTES

1. THE PROJECT SITE IS COMPRISED OF THE FOLLOWING LOT:

RECORD OWNER	BOOK/PAGE	MAP/LOT
BEACHWOOD DEVELOPMENT FUND LP	19107/ 372	82/6

2. KITTERY ZONING DISTRICTS: RESIDENTIAL RURAL (R-RL) ZONING DISTRICT & RESOURCE PROTECTION OVERLAY ZONE (OZ-RP)
3. TOTAL AREA OF PARCEL: 19.30 AC
4. SPACE AND BULK INFORMATION FOR RESIDENTIAL RURAL (R-RL) DISTRICT:

	(R-RL)	PROPOSED (CONSERVATION)
MIN. LOT AREA:	40,000 S.F.	20,000 S.F.
MIN. LOT WIDTH	150 FT.	50 FT.
MIN. FRONT SETBACK:	40 FT.	20 FT.
MIN. SIDE SETBACK:	20 FT.	10 FT.
MIN. REAR SETBACK:	20 FT.	10 FT.
MAX. LOT COVERAGE:	15%	25%
MAX. BUILDING HEIGHT:	35 FT.	35 FT.

6. NET RESIDENTIAL AREA CALCULATION

TOTAL PARCEL AREA:	840,645 S.F.
LESS THE FOLLOWING UNSUITABLE AREAS:	
LAND BELOW HIGH TIDE:	0 S.F.
LAND IN FLOOD PLAIN:	17,788 S.F. (NOT INCL. WETLANDS)
WETLANDS:	90,724 S.F.
50% OF AREA WITHIN WETLAND SETBACK:	58,004 S.F. (NOT INCL. OTHER AREAS)
LAND IN HILLSIDE TIDAL AREAS:	0 S.F.
LAND IN EXISTING R.O.W.:	0 S.F.
LAND IN PROPOSED R.O.W.:	31,737 S.F.
LAND ISOLATED BY BARRIER:	0 S.F.
LAND ZONED COMMERCIAL:	0 S.F.
STEEP SLOPES:	0 S.F.
BEDROCK & POORLY DRAINED SOILS:	2,436 S.F. (NOT INCL. WETLAND OR FLOOD)
50% SOMEWHAT POORLY DRAINED SOILS:	46,683 S.F. (NOT INCL. WETLAND OR FLOOD)
CEMETERY:	6,965 S.F.
ZONED COMMERCIAL FISHERIES:	0 S.F.
OPEN SPACE:	0 S.F.
TOTAL UNSUITABLE AREA:	256,264 S.F.
TOTAL NET RESIDENTIAL AREA:	584,379 S.F.
MIN LOT DENSITY	40,000 S.F.
MAXIMUM LOTS	14
PROPOSED LOTS	9

7. OPEN SPACE REQUIREMENTS:

A. OPEN SPACE: 60% OF TOTAL LAND AREA	504,386 S.F.
B. OPEN SPACE PROVIDED	572,535 S.F.
C. OPEN SPACE WITHIN NET RES: 40% OF NET RES	233,752 S.F.
D. OPEN SPACE WITHIN NFT RES PROVIDED	316,271 S.F.

8. THE OUTER BOUNDARY INFORMATION SHOWN ON THIS PLAN IS BASED ON A PLAN ENTITLED "BARTLETT ROAD SUBDIVISION", DATED MARCH 24, 2023 BY TERRADYN CONSULTANTS LLC.
9. SITE ENGINEERING PROVIDED BY MICHAEL E. TADEMA-WIELANDT, P.E. #11647 OF TEHMADYN CONSULTANTS, LLC, 565 CONGRESS STREET, SUITE 201, PORTLAND, MAINE.
10. BEARINGS ARE GRID NORTH AND REFER TO THE MAINE STATE PLANE COORDINATE SYSTEM, MAINE WEST ZONE ZONE 1802, NAD 1983.
11. THE PROPOSED LOTS WILL BE SERVED BY INDIVIDUAL WELLS, AND SUBSURFACE WASTEWATER DISPOSAL SYSTEMS, AND UNDERGROUND ELECTRICAL AND TELECOMMUNICATIONS UTILITIES.
12. NO WETLAND IMPACTS SHALL BE CREATED WITHOUT THE APPROVAL OF THE MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION.
13. A PORTION OF THE SITE IS WITHIN THE 100-YEAR FLOOD ZONE AS DEPICTED ON THE FLOOD INSURANCE RATE MAP FOR THE TOWN OF KITTERY, MAINE, YORK COUNTY, MAP NUMBER 23017100032C, REVISED JULY 9, 1984.
14. WETLAND BOUNDARIES DEPICTED ON THIS PLAN WERE DELINEATED BY LONGVIEW PARTNERS, LLC IN JULY, AUGUST, SEPTEMBER, & OCTOBER 2021.
15. LONGVIEW PARTNERS, LLC, PERFORMED SITE INVESTIGATIONS FOR THE PRESENCE OF VERNAL POOL HABITAT IN THE SPRING OF 2023. TWO VERNAL POOLS WERE IDENTIFIED AS NON SIGNIFICANT AND REPORTED AT THAT TIME.
16. LONGVIEW PARTNERS, LLC PREPARED A HIGH INTENSITY SOIL SURVEY ON THE SITE, DATED DECEMBER, 2022. TEST PITS WERE OBSERVED ON 10/19/2023.
17. THERE SHALL BE NO CONVEYANCE OF ANY LOT OR ISSUANCE OF ANY BUILDING PERMIT UNTIL A PERFORMANCE GUARANTEE(S) COVERING THE COST OF ALL REQUIRED IMPROVEMENTS IS PROVIDED AND APPROVED BY THE TOWN OF KITTERY.
18. THE DEVELOPMENT IS SUBJECT TO THE FINDINGS OF FACT, CONCLUSIONS, DECISIONS, AND CONDITION OF APPROVAL AS APPROVED BY THE TOWN OF KITTERY PLANNING BOARD AND RECORDED IN THE YORK COUNTY REGISTRY OF DEEDS.
19. THE NUMBERED LOTS SHOWN HEREON SHALL ONLY BE ACCESSED BY DRIVEWAYS OFF OF WASHBURN LANE.
20. WASHBURN LANE SHALL REMAIN PRIVATE AND SHALL BE MAINTAINED BY THE HOMEOWNERS ASSOCIATION.
21. SIGHT DISTANCE MEASUREMENTS WERE TAKEN IN THE FIELD BY TERRADYN CONSULTANTS, LLC ON SEPTEMBER 21, 2023.
22. WETLAND BOUNDARIES SHALL BE IDENTIFIED WITH PERMANENT SIGNAGE EVERY 50' ALONG BOUNDARY.
23. NO TREE CLEARING OR DISTURBANCE IS ALLOWED WITHIN 100' OF WETLANDS EXCEPT AS SHOWN ON THE APPROVED DRAWINGS AND AS NECESSARY TO CONSTRUCT THE ROAD AND STORMWATER MANAGEMENT INFRASTRUCTURE.

LEGEND

- EXISTING PROPERTY LINE
- PROJECT BOUNDARY
- PROPOSED PROPERTY LINE
- PROPOSED SETBACK LINE
- PROPOSED EASEMENT
- EXISTING EDGE OF PAVEMENT
- EXISTING UTILITY POLE
- EXISTING MONUMENT
- EXISTING IRON PIPE/SURVEY PIN
- PROPOSED GRANITE MONUMENT
- PROPOSED SURVEY PIN
- FRESHWATER WETLAND
- FORESTED / WOODED BUFFER
- TEST PIT
- SEPTIC FIELD

TOWN OF KITTERY PLANNING BOARD SUBDIVISION APPROVAL

DATE

CHAIRPERSON

STATE OF MAINE
YORK COUNTY REGISTRY OF DEEDS
RECEIVED _____, 20__
AT ___h ___m ___M, AND RECORDED IN PLAN BOOK ____ PAGE ____
ATTEST _____ REGISTER

STATE OF MAINE — JIMMY C. COURBRON — 2532 — PROFESSIONAL LAND SURVEYOR
DATE: 12/28/2023
PLS: JIMMY COURBRON

STATE OF MAINE — MICHAEL E. TADEMA-WIELANDT — 11647 — LICENSED PROFESSIONAL ENGINEER
DATE: 12/28/2023
P.E.: MICHAEL TADEMA-WIELANDT

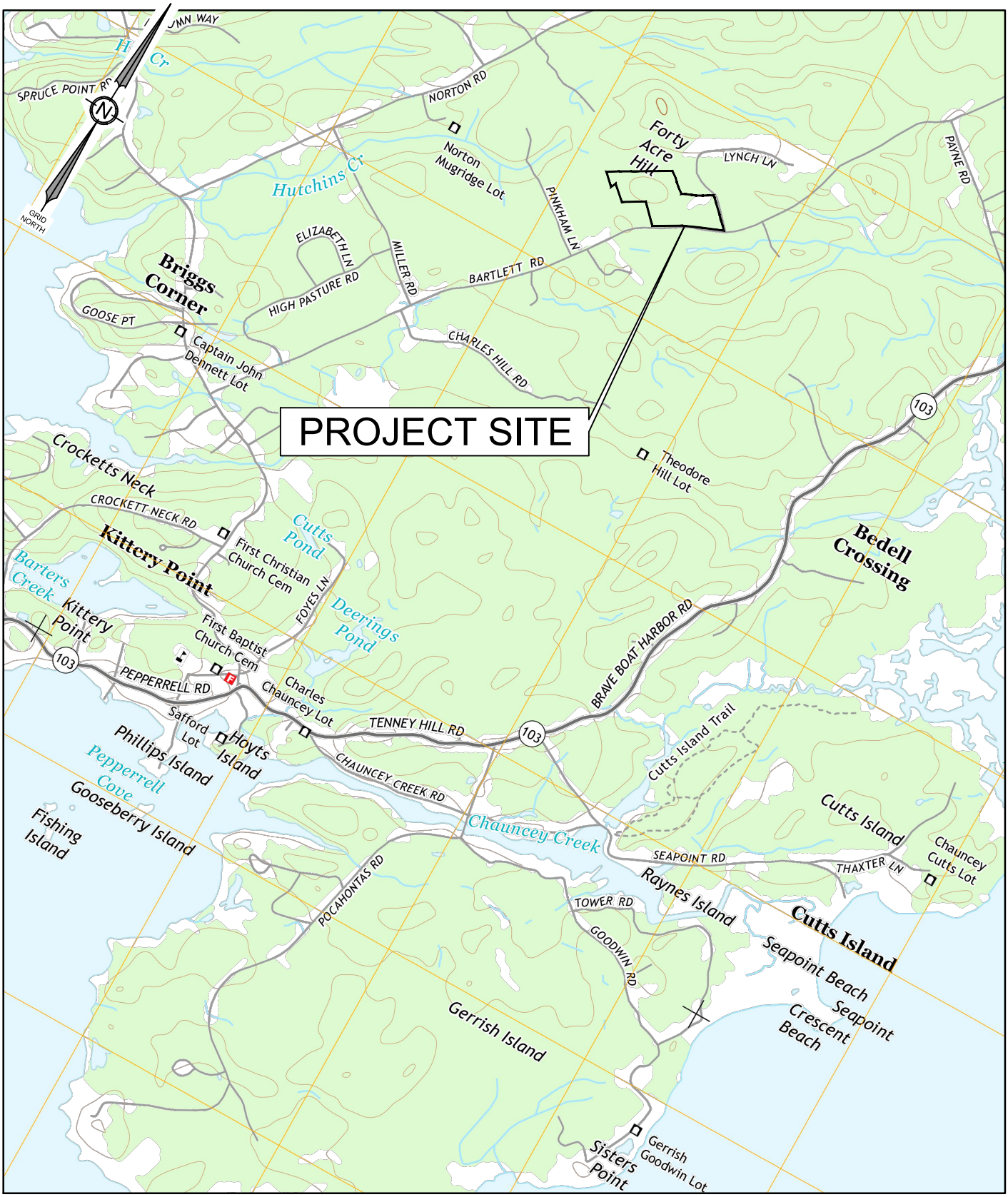
NO	DATE	REVISIONS
1	8/2/2023	SUBMITTED TO KITTERY FOR PRELIMINARY SUBDIVISION REVIEW
2	12/5/2023	REVISED BASED ON PEER REVIEW COMMENTS
3	12/22/2023	REVISED BASED ON PEER REVIEW COMMENTS
4	12/29/2023	SUBMITTED TO KITTERY FOR FINAL SUBDIVISION REVIEW

565 CONGRESS STREET SUITE 201 PORTLAND, ME 04102
41 CAMPUS DRIVE SUITE 301 NEW GLOUCESTER, ME 04260
OFFICE: (207) 926-5111 FAX: (207) 221-1317
www.terradyn-consultants.com
TERRADYN CONSULTANTS, LLC
Civil Engineering | Land Planning | Stormwater Design | Environmental Permitting

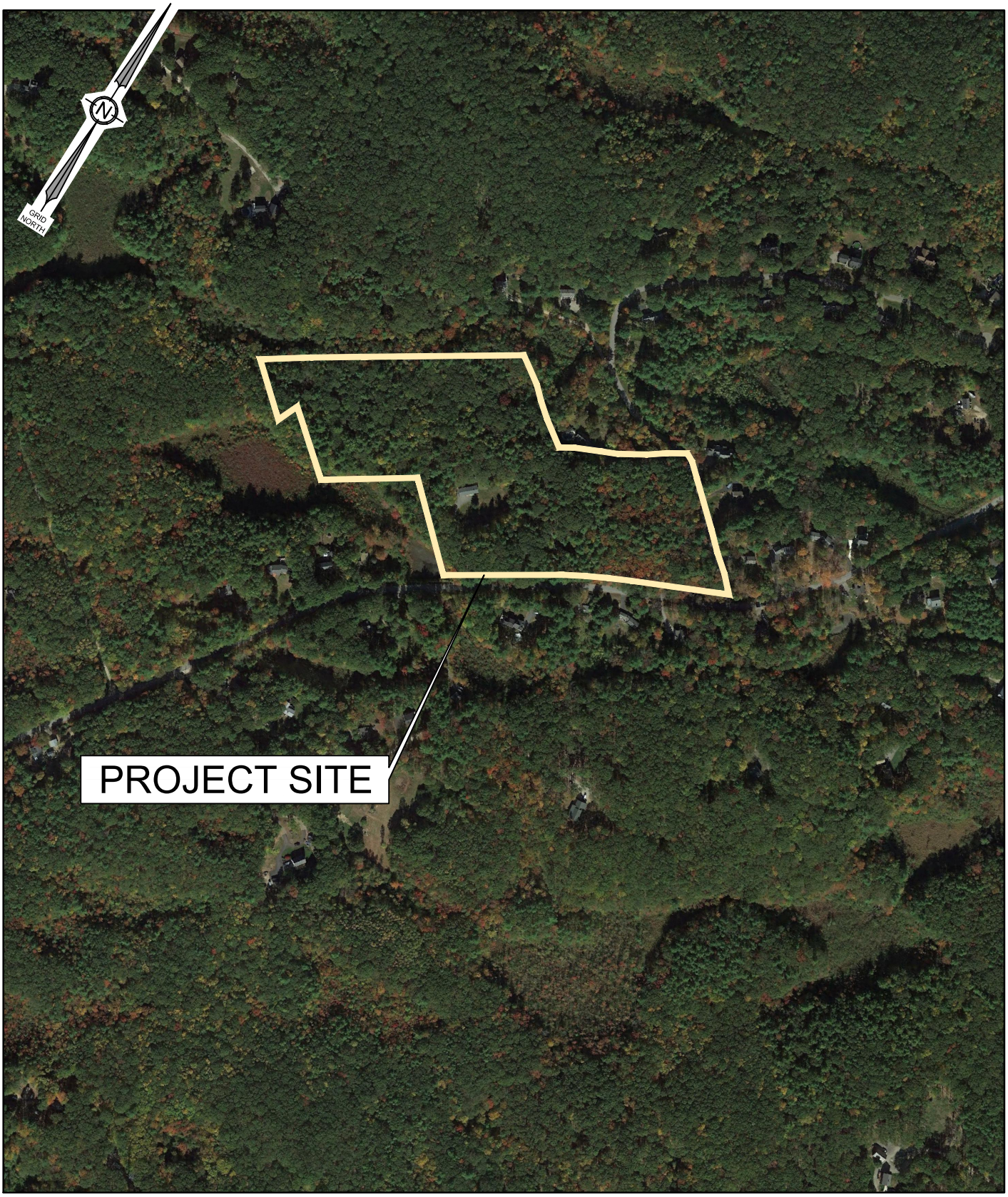
PERMIT DRAWING NOT FOR CONSTRUCTION

PROJECT: WASHBURN FARM SUBDIVISION
BARTLETT ROAD, KITTERY, MAINE
SHEET TITLE: SUBDIVISION PLAN
CLIENT: BEACHWOOD DEVELOPMENT FUND
P.O. BOX 43 KENNEBUNK, MAINE 04043

DATE:	5/18/2023
SCALE:	1" = 60'
DESIGNED:	MTW
JOB NO:	22-145
SHEET	C-3.0



USGS KITTERY QUADRANGLE	TERRADYN CONSULTANTS, LLC	ADDRESS: 41 CAMPUS DRIVE, SUITE 301 NEW GLOUCESTER, ME 04260 PHONE: (207) 926-5111 WEB SITE: www.terradynconsultants.com	PROJECT NO. 22-145	SHEET 1
PROJECT: BARTLETT ROAD SUBDIVISION 77 BARTLETT ROAD, KITTERY, MAINE	Civil Engineering | Land Surveying | Geomatics Stormwater Design | Land Planning | Environmental Permitting		DATE 3/20/2023	OF 5
PREPARED FOR: BEACHWOOD DEVELOPMENT FUND LP PO BOX 260 KENNEBUNK, MAINE 04043			SCALE 1" = 2,000'	



AERIAL MAP

PROJECT:
BARTLETT ROAD SUBDIVISION
77 BARTLETT ROAD, KITTERY, MAINE

PREPARED FOR:
BEACHWOOD DEVELOPMENT FUND LP
PO BOX 260
KENNEBUNK, MAINE 04043

TERRADYN CONSULTANTS, LLC

ADDRESS:
41 CAMPUS DRIVE, SUITE 301
NEW GLOUCESTER, ME 04260
PHONE:
(207) 926-5111
WEB SITE:
www.terradynconsultants.com

Civil Engineering | Land Surveying | Geomatics
Stormwater Design | Land Planning | Environmental Permitting

PROJECT NO. 22-145

DATE 3/20/2023

SCALE 1" = 500'

SHEET 2

OF 5

TERRADYN CONSULTANTS, LLC

207.926.5111
info@terradynconsultants.com
www.terradynconsultants.com

December 28, 2023 Project #22-145

Jason Garnham, Director of Planning & Development
Town of Kittery
200 Rogers Road
Kittery, ME 03904

SUBJECT: WASHBURN FARM SUBDIVISION
FINAL PLAN APPLICATION

Dear Jason:

On behalf of Beachwood Development Fund LP, attached is a Final Subdivision Plan application for Washburn Farm Subdivision, a proposed 9-lot single-family conservation subdivision located at 77 Bartlett Road in Kittery. The project received preliminary approval from the planning board on November 16, 2023. The subdivision application form is included in Attachment 1, and the current deed for the property is provided in Attachment 2. The applicant and owner of the property is Beachwood Development Fund LP.

EXISTING PROJECT SITE

The project site is approximately 19.30 acres in size and is identified as Lot 26 on Kittery Tax Map 62. The site is located in the Residential-Rural District with a small area in the Resource Protection Overlay Zone.

The parcel contains an existing single-family home with a paved driveway connecting to Bartlett Road and a small cemetery in the eastern part of the site. Most of the parcel is undeveloped woodland with pockets of freshwater wetlands. Several stone walls are located throughout the site.

A wetland and vernal pool study was conducted on the site by Longview Partners in the summer of 2022. There are approximately 2 acres of forested freshwater wetlands on the site. A wetland on the southern site boundary meets the Maine DEP's criteria for a "Wetland of Special Significance". The wetlands to the southwest and north of the site and the wetland located in the eastern portion of the site are greater than one acre in size and are subject to the applicable setback requirements of Table 16.5.30 in the Kittery Land Use and Development Code. A mapped flood zone is also located along the southern edge of the site.

Two potential vernal pools were identified on the site and studied in the spring of 2023 to determine if they have characteristics to be considered significant wildlife habitat by the Maine Department of Environmental Protection. The vernal pools were determined to be not significant

and are regulated as freshwater wetlands. More information on the vernal pools is located in Attachment 6.

Longview Partners also conducted a High Intensity Soil Survey of the site. Native soils are primarily loamy glacial till and bedrock outcrops in upland areas with wetland soils in low-lying areas. A copy of the High Intensity Soil Survey is provided in Attachment 4.

The net residential area of the parcel is 13.21 acres, and the minimum density in the R-RL district is 40,000 square feet per dwelling unit. According to these calculations, which are provided directly on the attached subdivision plans, the site can support up to 14 lots.

PROPOSED PROJECT

The applicant is proposing to develop a nine-lot conservation subdivision, including an 808 linear-foot road, stormwater management infrastructure, underground utilities, and pedestrian accommodations.

The proposed road and lots are located through the central portion of the site, preserving the wetlands and adjacent upland areas in the northern, western, and eastern areas of the site. Proposed lots were designed to avoid impacts to freshwater wetlands, the existing cemetery, and stone walls throughout the site.

The proposed road is approximately 808 linear feet in length, ending in a cul-de-sac. Nine proposed lots will all be accessed from the new road. Lot sizes range from approximately 21,000 square feet (Lot 6) to 29,000 square feet (Lot 5). The existing house on the property will be located on proposed Lot 8. The existing driveway from Bartlett Road will be removed, and a new driveway from the proposed road will be constructed to access the house on Lot 8. The previously existing driveway will be revegetated with a combination of native plants.

The proposed road has been designed to meet the town's Class II Private Street standard with a 3 foot widened shoulder designated with a painted stripe on the west side for pedestrian movement.

Approximately 13 acres will be preserved as open space, including the existing cemetery and all freshwater wetlands and vernal pools on the site. The majority of the existing stone walls on the site are located within the proposed open space. The lot line between lots 5 and 6 follows an existing stone wall that will be protected. Breaks in the existing stone walls will only be required for the proposed road and for driveways to lots 4 and 5.

Lots will be served by individual subsurface wastewater disposal fields and wells. The existing house on lot 8 is expected to continue to use the existing septic system and well. Electric and telecommunications services will be installed underground.

Longview Partners has completed test pits and prepared septic designs for each of the new lots, with the exception of Lot 8, in accordance with the performance standards of the Kittery Subdivision Ordinance. Information on soils, including test pit logs, HHE-200 forms, and a copy of the high-intensity soil survey are provided in Attachment 4.

Mark Cenci Geologic, Inc. has prepared a Ground Water Availability Assessment of the site and determined that the aquifer recharge capacity of the project site exceeds the expected groundwater withdrawal from the proposed wells. A copy of the report is provided in Attachment 5.

Stormwater runoff from the roadway will be managed with open ditches. The project was designed to meet the stormwater performance standards of the Town of Kittery Subdivision Regulations. Runoff from the cul-de-sac will be discharged to a level spreader and into the wetland system on the site's northern boundary. The remainder of the proposed road will drain to vegetated swales located on either side of the road, and into two level lip spreaders which discharge into the wetland system on the site's southern boundary. The stormwater management system will attenuate peak flow rates from the developed areas so peak discharge rates from the site will be limited to pre-development levels. A stormwater management report has been prepared for the project and is provided in Attachment 7.

UPDATES AND CHANGES TO FINAL PLANS

The following updates have been made to the project drawings and application materials to address final comments from the Planning Board and the town's peer review engineer.

1. A note has been added to the Subdivision Plan (Note 22) requiring that permanent signage be installed at 50' intervals along on-site wetland boundaries.

2. Notes have been added to the Subdivision Plan (Note 23) and the Homeowners Association Documents (Sections 3.20 & 4.06) prohibiting cutting or land disturbance with 100' of wetlands, except for areas shown on the approved plans for road construction and stormwater management infrastructure. Draft Homeowners Association Documents are provided in Attachment 12.

3. Sheet C-3.2 has been added to the plan set and shows the following information:

    - Proposed plant species and locations for the revegetation of the existing driveway have been specified by landscape architect Anthony Muench. Native species will be planted and are intended to "re-forest" the area and further buffer the open water wetland located at the southern boundary of the site.

    - The swale on the north side of Bartlett Road will be revegetated with loam, seed, and erosion control fabric. This will provide additional treatment for stormwater runoff before it enters the open water wetland south of the project site.

    - A level spreader has been added at the end of the Bartlett Road swale to slow runoff and convert it back to sheet flow before it enters the open water wetland.

    - The proposed silt barrier located adjacent to the open water wetland has been revised and is now a double row for extra sedimentation protection in this critical location.

    - The level spreader located at the back of lots 8 and 9 is now specified to be used as a temporary sedimentation basin during construction.

4. The Stormwater Management Report has been updated to address the final comments from the town's peer review engineer.

    - Time of Concentration flow paths have been updated on the Watershed Plans to be consistent with the stormwater model.

    - Culvert sizing analysis has been updated within the Stormwater Management Report. The updated analysis concludes that both proposed culverts have the capacity to convey the 25-year storm event without overtopping.

CLOSURE

In addition to the information provided above, additional materials are attached to meet the submission requirements of the Kittery Subdivision Regulations. We request to be added to the Planning Board's January 25th meeting agenda to present this information to the Board. If you have any questions or require additional information, please contact me at 207-632-9010 or mtw@terradynconsultants.com.

Sincerely,
TERRADYN CONSULTANTS, LLC

Michael Tadema-Wielandt, P.E.
Vice President

cc. Geoff Bowley, Beachwood Development LP

Attachments:
1 – Application Forms & Agent Authorization Letter
2 – Current Property Deed
3 – Existing Conditions Figures
4 – High Intensity Soil Survey, Test Pit Logs, & HHE 200 Forms
5 – Groundwater Assessment
6 – Vernal Pool Assessment Methodology & Summary
7 – Stormwater Management Report
8 – Vehicle Trip Generation Estimate
9 – Financial Capability
10 – Correspondence with State Agencies
11 – Abutter Notices
12 – Draft HOA Documents

Attachment 1

Application Form & Agent Authorization Letter

TOWN OF KITTERY MAINE
TOWN PLANNING AND DEVELOPMENT DEPARTMENT

200 Rogers Road, Kittery, Maine 03904
PHONE: (207) 475-1323
Fax: (207) 439-6806
www.kittery.org

APPLICATION: SUBDIVISION PLAN REVIEW

FEE FOR REVIEW:	☑ **$500. 00 PLUS**	☑ **$50.00/LOT OR DWELLING UNIT**	☐ **Minor Subdivision: not more than 4 lots** ☑ **Major Subdivision: 5 or more lots**	**Fee Paid:** $_____ Date: _____ **Escrow Fee Paid:** $_____ Date: _____

PROPERTY DESCRIPTION	**Parcel ID**	**Map**	62	**Lot**	26	**Zone(s): Base:** R-RL **Overlay** OZ-RP **MS4** Yes___No ✓		**Total Land Area**	19.11 acres
	Physical Address	77 Bartlett Road							

PROPERTY OWNER'S INFORMATION	**Name**	Beachwood Development Fund LP	**Mailing Address**	P.O. Box 261 Kennebunk ME 04043
	Phone	207-985-3646		
	Fax			
	Email	geoff@bowleybuilders.com		
APPLICANT'S AGENT INFORMATION	**Name**	Michael Tadema-Wielandt, P.E.	**Name of Business**	Terradyn Consultants, LLC
	Phone	207-632-9010	**Mailing Address**	565 Congress Street Suite 201 Portland ME 04101
	Fax			
	Email	mtw@terradynconsultants.com		

PROJECT DESCRIPTION

Existing Use(s): The existing parcel is wooded with pockets of freshwater wetlands, and contains a single family residential home with a paved driveway accessing Bartlett Road. An old cemetery is located centrally to the southern half of the site.

Number of Proposed Lots	9	**Subdivision Name**	Washburn Subdivision

Proposed Subdivision:

Design: (check)	___ **Conventional**	**Responsibilities: (check)**	___ **Total Development**	___ **Landscaping**
	✓ **Cluster Development**		___ **Other**	✓ **Road**
Ownership: (check)	✓ **Fee- Simple**		✓ **Post-Construction Storm Water Runoff System Maintenance**	
	___ **Condominium**			
Homeowner's Association	✓ **YES** ___ **NO**			

WAIVER REQUEST (Submittal Information or Development Standard)		
	Ordinance Section	**Describe why this request is being made**.
	****EXAMPLE**** 16.32.560 (B)- OFFSTREET PARKING.	****EXAMPLE**** Requesting a waiver of this ordinance since the proposed professional offices have a written agreement with the abutting Church owned property to share parking.
Waivers	Table 1 Design and Construction Standards	Waiver to provide a paved pedestrian way instead of sidewalk, there are no connecting sidewalks within the vicinity of the site.

Related Kittery Land Use and Development Code Provisions:

16.10.8.2.5 Conditions or Waivers.
Conditions required by the Planning Board at the final plan review phase must have been met before the final plan may be given final approval unless so specified in the condition or specifically waived, upon written request by the applicant, by formal Planning Board action wherein the character and extent of such waivers which may have been requested are such that they may be waived without jeopardy to the public health, safety and general welfare.

16.7.4.1 Objectives Met. In granting modifications or waivers, the Planning Board must require such conditions as will, in its judgment, substantially meet the objectives of the requirements so waived or modified.

ABUTTER NOTIFICATION

16.10.5.1.1. Preliminary Plan Application Filing and Completeness Review. … The application must be accompanied by a Plan and the required fee together with a certification the applicant has notified abutters by mail of the filing of the Plan application for approval.

Submitted Application must include a list showing the names and addresses of the abutters notified and date mailed.

The Abutter Notice must include a copy of page one and where applicable page 2 of a signed Application.

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's~~ Agent **Signature:** **Date:**	_____ _____	**~~Owner's~~** Agent **Signature:** **Date:**	_____ _____

Minimum Plan Submittal Requirements

☐ **15 COPIES OF THE SUBDIVISION PLAN APPLICATION AND PLAN – 5 PLAN COPIES MUST BE 24"X 36"**

☐ **1 PDF OF THE SUBDIVISION PLAN SHOWING GPS COORDINATES**

PRIOR TO STARTING THE REVIEW PROCESS, THE PLANNING BOARD WILL DECIDE WHETHER SUFFICIENT INFORMATION HAS BEEN PROVIDED AND WILL VOTE TO *DETERMINE COMPLETENESS/ACCEPTANCE*.

NOTE: THE APPLICANT IS RESPONSIBLE TO PRESENT A CLEAR UNDERSTANDING OF THE PROJECT.

A) Paper size:
☑ No less than 11" X 17" (reduced) or greater than 24" X 36" (full)

B) Scale size:
☐ Under 10 acres: no greater than 1" = 30'
☑ 10 + acres: 1" = 50'

C) Title block:
☑ Applicant's name and address
☑ Name of preparer of plans with professional information and professional seal
☑ Parcel's tax map identification (map – lot)
☑ Date of plan preparation

D) Boundary survey performed and sealed by licensed surveyor:
☑ Identify all existing boundary markers
☑ Show all proposed boundary monuments (per ordinance)

E) Provide orientation:
☑ Arrow showing true north and magnetic declination
☑ Graphic scale ☑ Parcel Owners and map and lot
☐ Deed docket and page numbers ☐ Draft Deed of Covenants
☐ Signature block for planning board

F) Show location and description of:
☐ Elevations of dwelling units. If applicable
☐ All structures and accesses within 100 feet

G) Show parcel data:
☑ Zoning District(s) ☑ Lots ☑ Lot Widths ☑ Lot Depths
☑ Street frontage ☑ Building setback lines ☑ Lot Areas
☑ Rights-of-way ☑ ROW area ☐ Exist. & new street names
☑ Wetlands ☑ Wetland area ☑ Wetland setbacks
☐ Common tracts ☐ Easements ☑ parcel areas
☐ Shoreland Zoning setbacks ☑ undisturbed areas
☐ Note on the subdivision plan regarding areas to be taped off and protected until project construction is completed.

H) ☑ Show names and addresses of all owners of record on abutting parcels and the assessor's map and lot numbers.

I) ☑ Label all zoning districts abutting the property boundaries.

J) ☑ Show locations of natural physical features such as water bodies, watercourses, forest cover, and ledge outcroppings.

K) Show the location of existing and proposed Utilities and identify which utilities are to be privately owned/ municipally owned:
☑ Overhead Electric ☑ underground electric
☐ Water mains ☑ Wells ☐ Gas mains ☐ Cable TV
☐ Sewer mains ☑ Test pits ☐ Septic tanks ☑ Leach fields
☑ Storm drain lines ☐ Catch basins ☑ Culverts ☐ Gutters
☐ Stormwater storage basins ☐ Rain gardens
☐ Nearest fire hydrant

L) Indicate required landscaping including:
☐ Type of plant material ☑ Plant/Tree sizes
☐ Placement ☐ Irrigation systems

M) Show natural and historical topography:
☑ Rock walls ☐ Railroad beds
☑ The location of all natural features or site elements to be preserved.

N) Provide a vicinity map and aerial photograph at a scale not more than **400 feet to the inch** showing the relation to other properties and geographic features and show:
☑ All the area within five hundred (500) feet of the boundary line of the proposed development including roads, geographic features, natural resources (wetlands, etc.), historic sites, applicable comprehensive plan features such as proposed park locations, land uses, Zones and other features;
☑ Any smaller area between the tract and all existing streets, provided any part of such a street used as part of the perimeter for the vicinity map is at least five hundred (500) feet from any boundary of the proposed development.

O) Show the locations of any:
☐ Parks ☑ Preserved Open space ☐ Conservation easements
☐ Note on the subdivision plan regarding areas to be dedicated for public use and conditions of such dedication.

P) Identify and locate each:
☐ Easements ☑ Rights-of-way ☐ Street alignments
☑ All intersecting property lines within 50 feet of the parcel.

Q) Include plans, profiles and typical sections of all roads and other paved ways, including all relevant street data.
☐ Intersections or ☐ Distance to nearest intersection
☐ Driveways onsite ☐ Distance to nearest driveway
☑ Sight visibility lines

R) Show all existing and proposed lighting
☐ Map of all street lighting, attached lighting, and area lighting
☐ Location of lighted signs ☐ Photo-metrics map

S) ☐ Indicate the location of any permanently installed machinery likely to cause appreciable noise at the lot lines.

T) Provide description of these materials stored on the property:
☐ Hazardous ☐ Toxic ☐ Raw Waste

U) ☑ Show existing contours and finished grade elevations onsite and sufficiently offsite to demonstrate how the project is situated in the surrounding environment.

V) Indicate the location and dimensions of:
☐ Sidewalks ☑ Curbs ☐ Driveways
☐ Fences ☐ Retaining walls ☐ Other artificial features

W) Copies of State and Local permit applications:
☐ Notice of Intent ☐ NRPA ☑ Permit by Rule
☑ All other applicable permits

X) ☑ Copy of FIRM Map showing the proposed subdivision boundary to scale.

NOTE TO APPLICANT: PRIOR TO THE SITE WALK, TEMPORARY MARKERS MUST BE ADEQUATELY PLACED THAT ENABLE THE PLANNING BOARD TO READILY LOCATE AND APPRAISE THE LAYOUT OF DEVELOPMENT.

SUBMITTALS THE TOWN PLANNER DEEMS SUFFICIENTLY LACKING IN CONTENT WILL NOT BE SCHEDULED FOR PLANNING BOARD REVIEW.

August 1, 2023

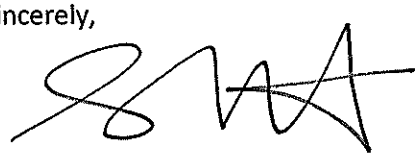
Michael Tadema-Wielandt, P.E.
Terradyn Consultants, LLC
565 Congress Street, Suite 201
Portland, ME 04101

Agent Authorization for Local, State and Federal Permitting
Bartlett Road Subdivision, Kittery, Maine

Dear Mike,

On behalf of Beachwood Development Fund LP, I hereby authorize Terradyn Consultants, LLC to act on my behalf as my agent in the processing of the required local, state, and federal permit applications related to the proposed subdivision of Bartlett Road in Kittery and to furnish, upon request, supplemental information in support of these applications.

Sincerely,



Geoff Bowley
Beachwood Development Fund LP

Attachment 2

Current Property Deed

NANCY E HAMMOND, REGISTER OF DEEDS
E-RECORDED **Bk 19102 PG 372**
Instr # 2022037435
08/30/2022 10:50:45 AM
Pages 2 YORK CO

1002240207920

After recording return to:

Space Above This Line For Recording Data

WARRANTY DEED

SHIRLEY B. WASHBURN, of 77 Bartlett Road, Kittery Point, ME , Maine 03909, for consideration paid, hereby grants to **BEACHWOOD DEVELOPMENT FUND LP**, with a mailing address of PO Box 261, Kennebunk ME 04043, with **WARRANTY COVENANTS**, a certain lot or parcel of land, together with any improvements thereon and all rights appurtenant thereto, in the Town of Kittery, York County, Maine, being more particularly described as follows:

SEE EXHIBIT A ATTACHED HERETO AND INCORPORATED HEREIN BY REFERENCE.

Maine R.E. Transfer Tax Paid

Witness my hand this 29th day of August, 2022.

WITNESS

Shirley B. Washburn

STATE OF MAINE
County of York, ss.

August 29, 2022

Personally appeared Cyndra Lea Grover, before me, as attorney in fact for Shirley B. Washburn, principal, and acknowledged the foregoing instrument to be her free act and deed.

Attorney at Law/Notary Public
Print Name:

Jeffrey S Zdunczyk
Notary Public, Maine
My Commission Expires
March 20, 2023

EXHIBIT A

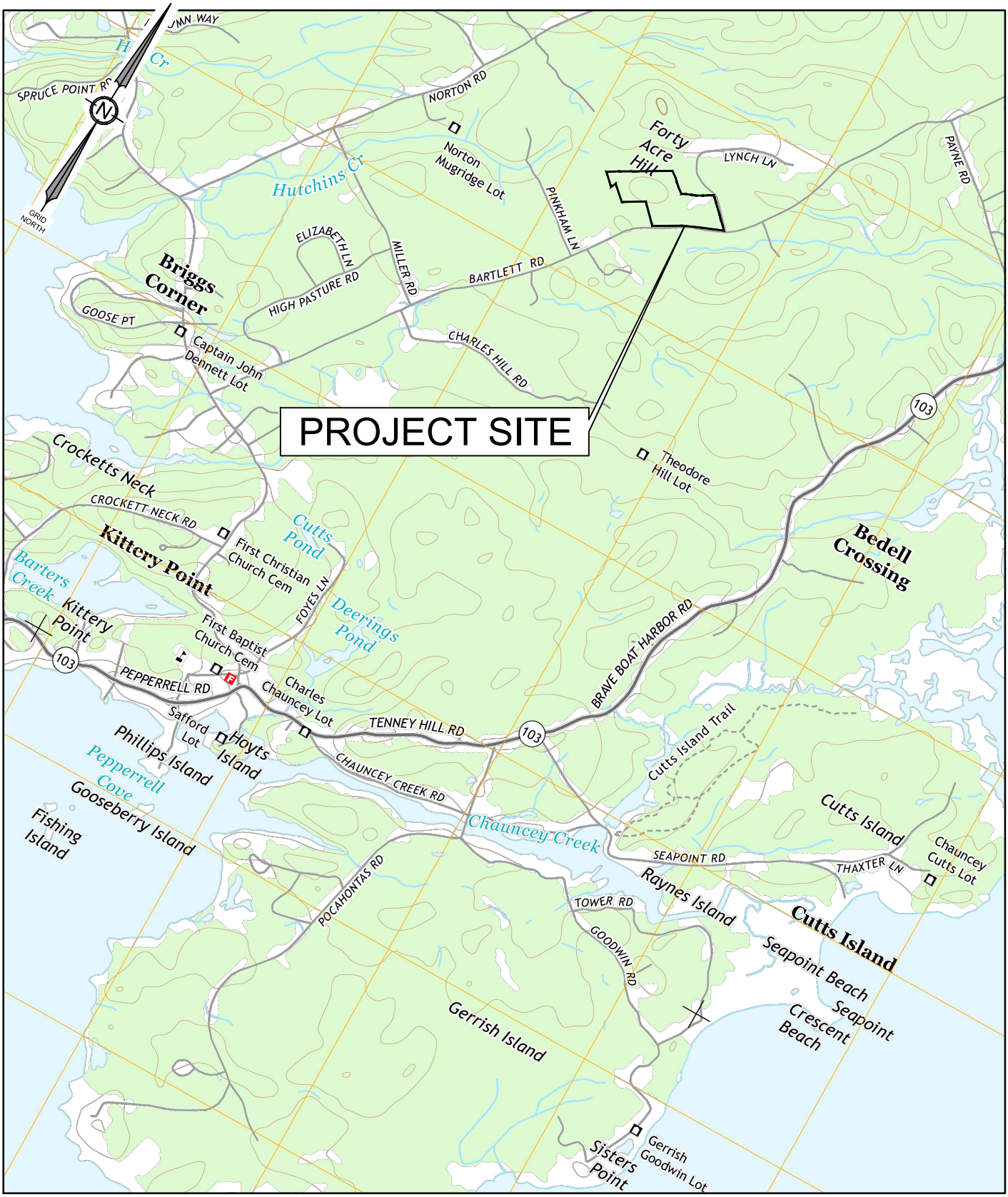
A certain lot or parcel of land with the buildings and improvements thereon, situated on the northerly side of the Bartlett Road, in the Town of Kittery, County of York and State of Maine and being more particularly bounded and described as follows:

Beginning at a point in the northerly sideline of the Bartlett Road, and in the easterly corner of the lot or parcel of land herein conveyed, thence running northwesterly by and along a stone wall and land now or formerly of Lynch for a distance of 557.53 feet to an intersection; thence turning and running southwesterly by and along a stone wall and land now or formerly of said Lynch for a distance of 468.49 feet to an intersection; thence turning and running northwesterly by and along a stone wall and land now or formerly of said Lynch for a distance of 360.91 feet to an intersection; thence turning and running southwesterly by and along a stone wall and land now or formerly of Reed for a distance 961.97 feet to an intersection; thence turning and running S 32° 03' 04" E partially by and along a stone wall and land now or formerly of Dyer for a distance of 231.01 feet to an iron pipe; thence turning and running N 41° 07' 27" E by and along said land of Dyer for a distance of 80.02 feet to an iron pipe; thence turning and running S 31° 58' 06" E by and along said land of Dyer for a distance of 282.04 feet to a point; thence turning and running N 74° 24' 21" E by and along land now or formerly of MacLeod for a distance of 351.35 feet to an iron pipe; thence turning and running S 31 °20' 04" E by and along said land of MacLeod for a distance of 385.46 feet to an iron put set in the northerly sideline of Bartlett Road; thence turning and running easterly by and along the northerly sideline of Bartlett Road for a distance of 685.08 feet to a point at the end of a stone wall; thence running easterly by and along said wall and the northerly sideline of Bartlett Road for a distance of 348.20 feet to the point of beginning. Containing 19.27 acres more or less.

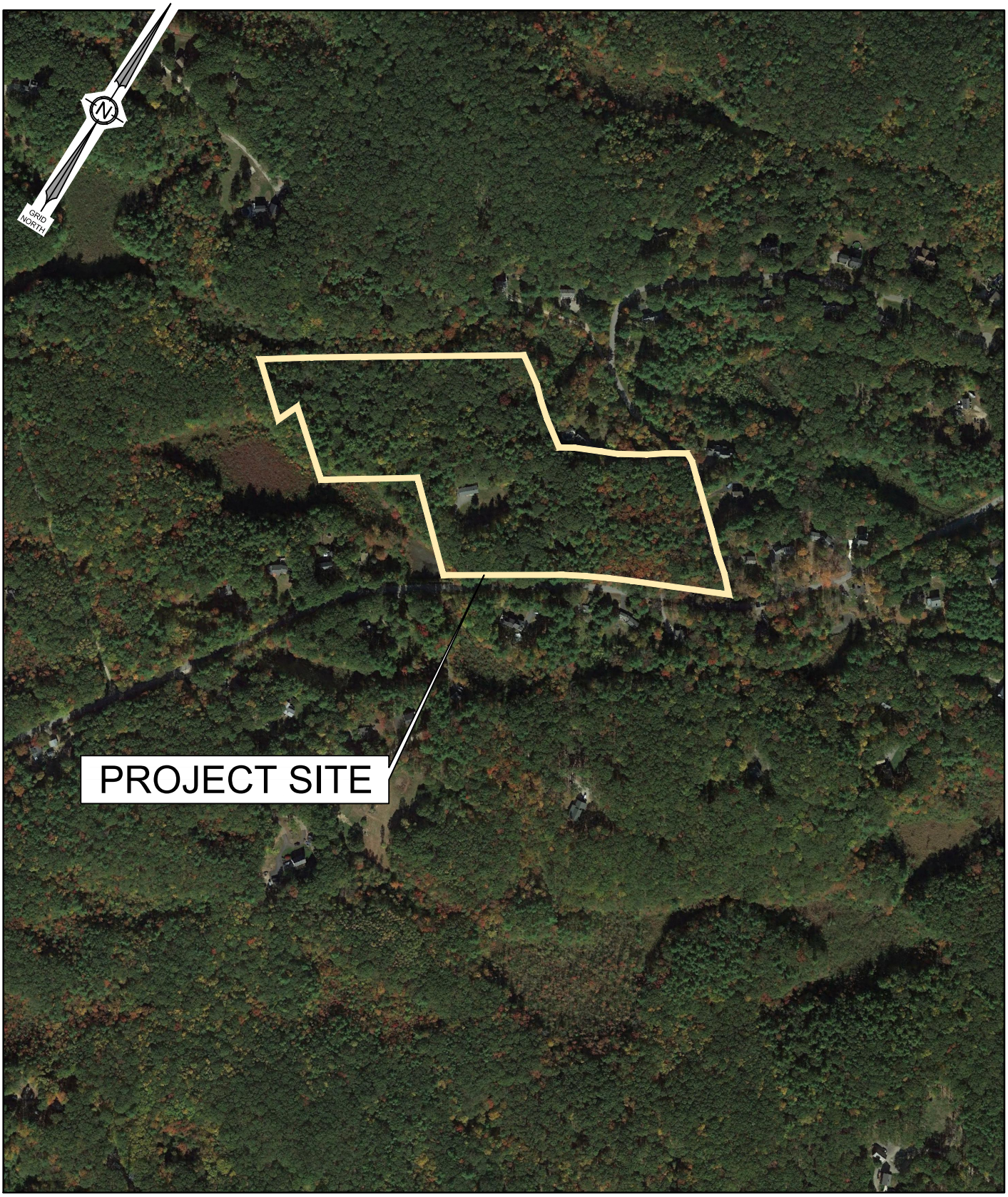
Meaning to describe and intending to convey the same premises described in the deed of Jean A. Strater to Shirley Washburn dated March 11, 1992 and recorded in the York County Registry of Deeds in Book 6021, Page 344.

Attachment 3

Existing Conditions Figures



USGS KITTERY QUADRANGLE	TERRADYN CONSULTANTS, LLC	ADDRESS: 41 CAMPUS DRIVE, SUITE 301 NEW GLOUCESTER, ME 04260 PHONE: (207) 926-5111 WEB SITE: www.terradynconsultants.com	PROJECT NO. 22-145	SHEET 1
PROJECT: BARTLETT ROAD SUBDIVISION 77 BARTLETT ROAD, KITTERY, MAINE	Civil Engineering | Land Surveying | Geomatics Stormwater Design | Land Planning | Environmental Permitting		DATE 3/20/2023	OF 5
PREPARED FOR: BEACHWOOD DEVELOPMENT FUND LP PO BOX 260 KENNEBUNK, MAINE 04043			SCALE 1" = 2,000'	



AERIAL MAP

PROJECT:
BARTLETT ROAD SUBDIVISION
77 BARTLETT ROAD, KITTERY, MAINE

PREPARED FOR:
BEACHWOOD DEVELOPMENT FUND LP
PO BOX 260
KENNEBUNK, MAINE 04043

TERRADYN CONSULTANTS, LLC

ADDRESS:
41 CAMPUS DRIVE, SUITE 301
NEW GLOUCESTER, ME 04260
PHONE:
(207) 926-5111
WEB SITE:
www.terradynconsultants.com

Civil Engineering | Land Surveying | Geomatics
Stormwater Design | Land Planning | Environmental Permitting

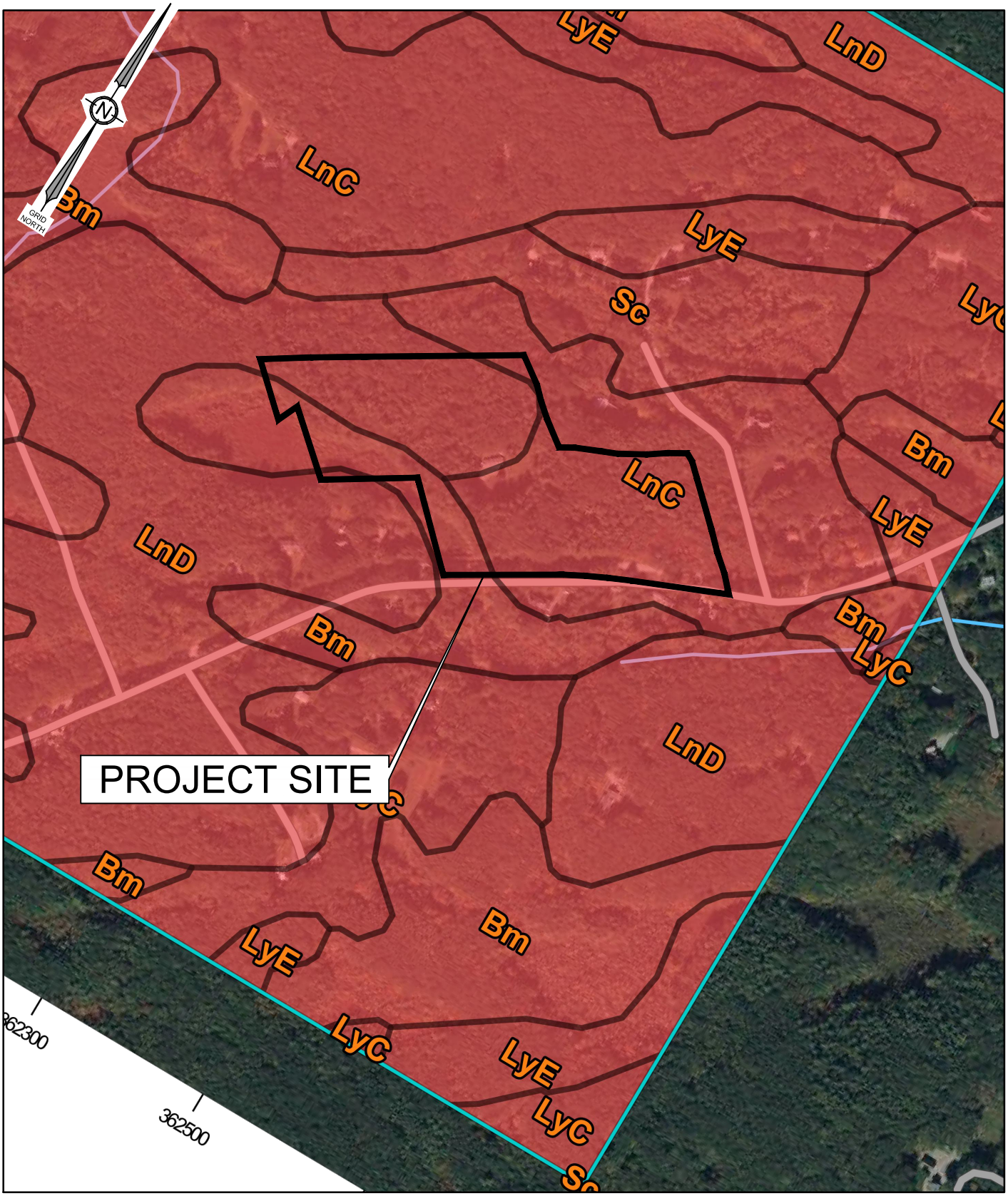
PROJECT NO. 22-145

DATE 3/20/2023

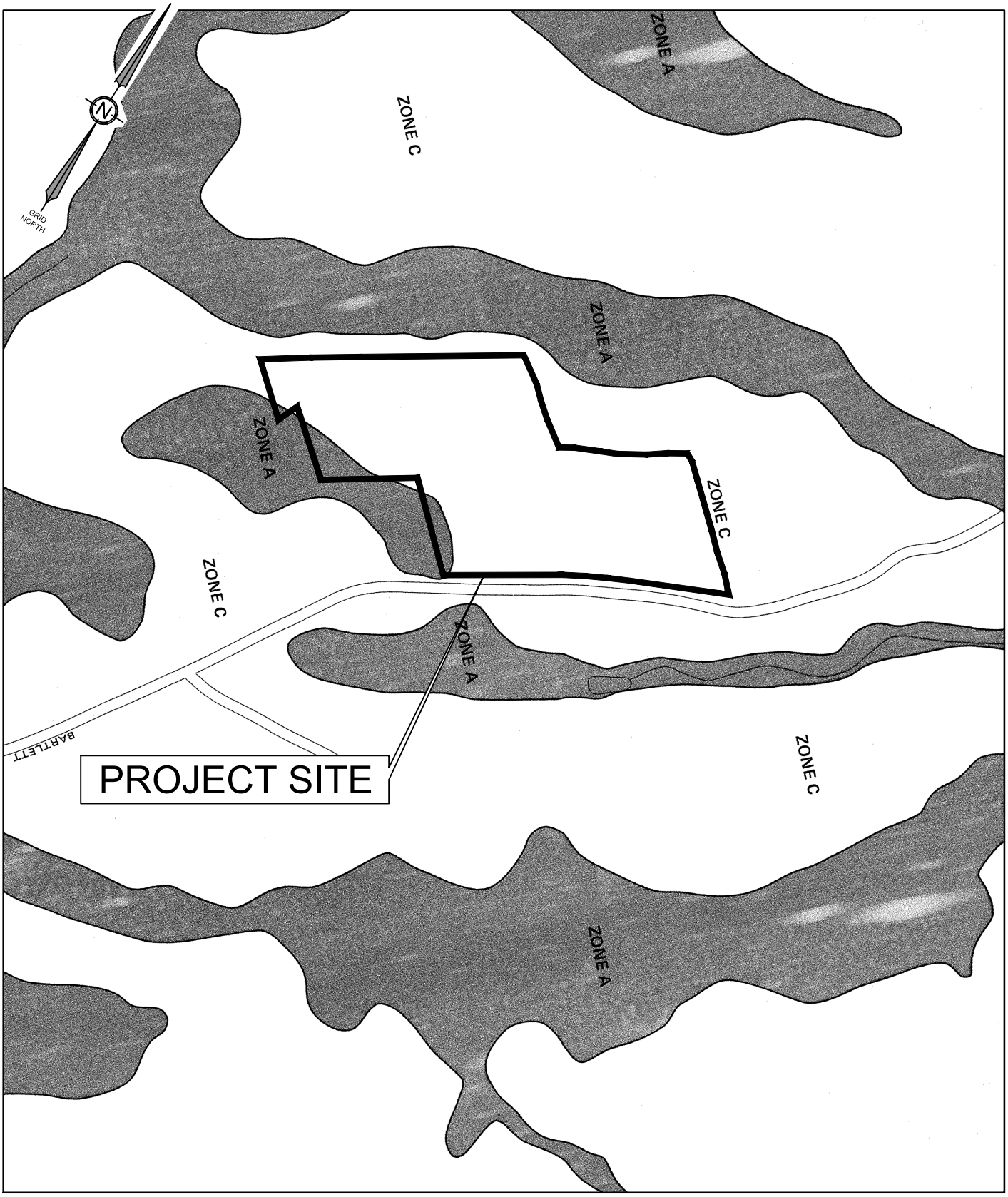
SCALE 1" = 500'

SHEET 2

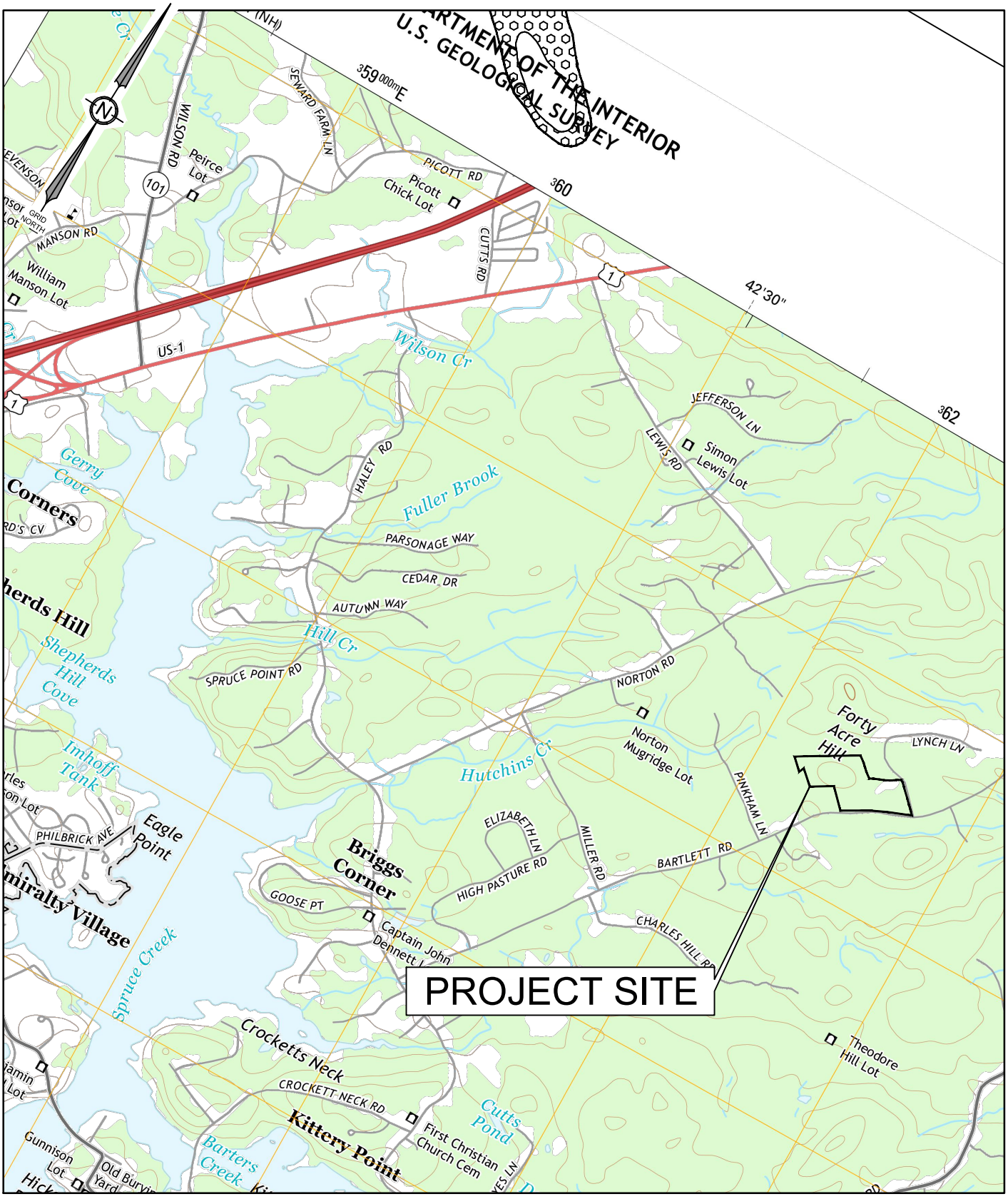
OF 5



MEDIUM INTENSITY SOIL SURVEY	TERRADYN CONSULTANTS, LLC Civil Engineering | Land Surveying | Geomatics Stormwater Design | Land Planning | Environmental Permitting	ADDRESS: 41 CAMPUS DRIVE, SUITE 301 NEW GLOUCESTER, ME 04260 PHONE: (207) 926-5111 WEB SITE: www.terradynconsultants.com	PROJECT NO. 22-145	SHEET 3
PROJECT: BARTLETT ROAD SUBDIVISION 77 BARTLETT ROAD, KITTERY, MAINE			DATE 3/20/2023	OF 5
PREPARED FOR: BEACHWOOD DEVELOPMENT FUND LP PO BOX 260 KENNEBUNK, MAINE 04043			SCALE 1" = 500'	



FLOOD INSURANCE RATE MAP	TERRADYN CONSULTANTS, LLC	ADDRESS: 41 CAMPUS DRIVE, SUITE 301 NEW GLOUCESTER, ME 04260 PHONE: (207) 926-5111 WEB SITE: www.terradynconsultants.com	PROJECT NO. 22-145	SHEET 4
PROJECT: BARTLETT ROAD SUBDIVISION 77 BARTLETT ROAD, KITTERY, MAINE			DATE 3/20/2023	OF 5
PREPARED FOR: BEACHWOOD DEVELOPMENT FUND LP PO BOX 260 KENNEBUNK, MAINE 04043	Civil Engineering | Land Surveying | Geomatics Stormwater Design | Land Planning | Environmental Permitting		SCALE 1" = 500'	



SIGNIFICANT SAND & GRAVEL AQUIFER MAP	TERRADYN CONSULTANTS, LLC	ADDRESS: 41 CAMPUS DRIVE, SUITE 301 NEW GLOUCESTER, ME 04260 PHONE: (207) 926-5111 WEB SITE: www.terradynconsultants.com	PROJECT NO. 22-145	SHEET 5
PROJECT: BARTLETT ROAD SUBDIVISION 77 BARTLETT ROAD, KITTERY, MAINE			DATE 3/20/2023	OF 5
PREPARED FOR: BEACHWOOD DEVELOPMENT FUND LP PO BOX 260 KENNEBUNK, MAINE 04043	Civil Engineering | Land Surveying | Geomatics Stormwater Design | Land Planning | Environmental Permitting		SCALE 1" = 500'	

Attachment 4

Soil Narrative Report

LONGVIEW PARTNERS, LLC

ENVIRONMENTAL PERMITTING SPECIALISTS

Soil Narrative Report

Prepared for

Terradyn Consultants, LLC

(N/F Bowley Builders)

77 Bartlett Road

Kittery, Maine

December 2022

Soil test pits observed October 19 and November 15, 2022

Map prepared for a residential subdivision utilizing private water wells and on-site wastewater disposal

Map scaled 1" = 60', base map provided by Terradyn Consultants, LLC

Mapping meets Maine Association of Professional Soil Scientists Class A High-Intensity mapping standards with minimum mapping units of 1/8 acre

BIDDEFORD
(Histic Humaquept)

SETTING

Parent Material: Derived from marine & lacustrine sediments.

Landform: Nearly level lowlands.

Position in Landscape: Usually occupies the lowest position within the landscape.

Slope Gradient Ranges: **(A)** 0-3%

COMPOSITION AND SOIL CHARACTERISTICS

Drainage Class: Biddeford soil is very poorly drained with a perched water table within 0.5 feet of the soil surface, and may be ponded at the surface for some portion of the year.

Typical Profile Description:
Surface layer: Very dark brown mucky peat, 0-12"
Subsurface layer: Gray silt loam, 12-16"
Subsoil layer: Olive gray/dark gray silty clay, 16-35"
Substratum: Gray silty clay & silty clay loam, 35-65"

Hydrologic Group: Group D

Surface Run Off: Very slow

Permeability: Moderate or moderately slow in upper horizons, slow or very slow in substratum.

Depth to Bedrock: Deep, more than 40 inches.

Hazard to Flooding: This soil is intermittently ponded, and may rarely flood in areas adjacent to streams and rivers during periods of prolonged wetness.

INCLUSIONS
(Within Mapping Unit)

Similar: Scantic, Whately, Roundabout, Bucksport
Dissimilar: Sebago, Chocorua, Wonsqueak

USE AND MANAGEMENT

Development with subsurface wastewater disposal: The limiting factor for building site development is wetness due to a high water table throughout the year. Biddeford soil has very low potential for dwellings with foundations and road construction due to ponding and low strength. Biddeford soil is unsuitable for subsurface wastewater disposal as defined by the State of Maine Subsurface Wastewater Disposal Rules. Biddeford soil is usually classified a wetland, based on the combined consideration of hydric conditions, hydrology, and vegetation.

DIXFIELD

(Typic Haplorthods)

SETTING

Parent Material: Compact loamy glacial till.

Landform: Glaciated uplands and drumlins.

Position in Landscape: Upper portions of landform.

Slope Gradient Ranges: **(B)** 3-8%

COMPOSITION AND SOIL CHARACTERISTICS

Drainage Class: Moderately well drained, with a perched water table 1.5 to 2.5 feet beneath the existing soil surface from November through April and during periods of excessive precipitation.

Typical Profile Description:

Surface layer: Grayish brown and dark brown fine sandy loam, 0-6"

Subsurface layer: Strong brown and dark yellowish brown fine sandy loam, 6-19"

Subsoil layer: Light olive brown gravelly fine sandy loam, 19-24"

Substratum: Light olive brown gravelly sandy loam, 24-65"

Hydrologic Group: Group C

Surface Runoff: Moderate in the solum, moderately slow or slow in the compact substratum.

Permeability: Moderate in the solum, moderately slow or slow in the compact substratum.

Depth to Bedrock: Very deep, greater than 60".

Hazard to Flooding: None

Erosion Factors: K: .17 - .24

INCLUSIONS
(Within Mapping Unit)

Similar: Hermon, Skerry, Becket, Croghan, Sunappe, Marlow

Dissimilar: Colonel, Tunbridge (20-40" to bedrock), Lyman, Hogback (10-20" to bedrock), Rawsonville (20-40" to bedrock)

USE AND MANAGEMENT

Development with subsurface wastewater disposal: The limiting factor for building site development is wetness due to the presence of a perched water table 1.5 to 2.5 feet beneath the existing soil surface for a significant portion of the year. Proper foundation drainage is recommended for construction. Dixfield soil is suitable for subsurface wastewater disposal and requires a 12-inch separation distance from the bottom of any disposal area to the seasonal high groundwater table. Dixfield soil also requires 3.3 and 1.7 sq.ft/gpd for disposal beds and chamber area, respectively. The Very Stony phase of Dixfield soil has up to 3% of the soil surface covered with stones.

Stormwater design: Dixfield soils are moderately well drained, with seasonal high groundwater table of approximately 1.5 to 3.5 feet beneath the soil surface. Dixfield soils generally exhibit permeabilities of 0.6-2.0 inches/hour in the upper horizons, and 0.06-0.6 inches/hour in the firm basal till horizons of 1.5'+ (approximately).

Soil limitations for proposed use: The soil limiting factor for construction is wetness, due to the presence of a seasonal water table for some time during the year. Diversion of upslope drainage from work areas, or importation of coarse granular fill can help overcome these limitations. Stony soil map units have stony or boulder surfaces, which have limitations for vehicular traffic. Large excavation equipment or blasting of large glacial erratics may be necessary for excavation and/or site preparation.

LYMAN-TUNBRIDGE COMPLEX

SETTING

Parent Material: Loamy glacial till.

Landform: Glaciated uplands.

Position in Landscape: Upper positions on landform.

Slope Gradient Ranges: **(B)** 3-8% **(C)** 8-20%

COMPOSITION AND SOIL CHARACTERISTICS

Drainage Class: Somewhat excessively to well drained, with no evidence of a water table, or only inches from the bedrock surface during spring and periods of heavy precipitation.

Typical Profile Description:

Surface layer: Black & reddish brown loam & fine sandy loam, 0-4"
Subsurface layer: Very dusky red loam, 4-6"
Subsoil layer: Dark red loam, 6-10"
Substratum layer: Dark brown to brown loam, 10-20"

Hydrologic Group: Group C/D

Surface Run Off: Rapid

Permeability: Moderate or moderately rapid.

Depth to Bedrock: Shallow (Lyman, 10-20") to moderately deep (Tunbridge, 20-40").

Hazard to Flooding: None

Erosion Factors: K: .20 - .32

INCLUSIONS
(Within Mapping Unit)

Similar: Dixfield, Skerry (deeper than 40" to bedrock)

Dissimilar: Naskeag (in depressional areas), Colonel, Brayton

USE AND MANAGEMENT

Development with subsurface wastewater disposal: The limiting factors for building site development is shallow to bedrock. Blasting or ripping of the more fractured and weathered bedrock is required for deep excavation. Portions of these map units are suitable for subsurface wastewater disposal, where the depth to limiting factor is greater than 15" from the mineral soil surface within Shoreland Zoned areas, and 9"-15" in non-Shoreland Zoned areas. This soil requires a 24-inch separation distance between the bottom of any disposal area and the bedrock surface , and 3.3 sq.ft/gpd and 1.7 sq.ft/gpd for bed disposal area and chamber area, respectively.

For stormwater design: Limiting factor for stormwater design is bedrock, which is generally less than 20". These soils are generally well drained, with no seasonal water table except for short durations on the bedrock surface. Permeabilities are 2-6 inches per hour in all horizons.

LYMAN-TUNBRIDGE-ROCK OUTCROP COMPLEX

SETTING

Parent Material: Loamy glacial till.

Landform: Glaciated uplands.

Position in Landscape: Uppermost locations on landform; sideslopes, shoulders, and crests of ridges.

Slope Gradient Ranges: **(B)** 3-8% **(C)** 8-20% **(D)** 20%+

COMPOSITION AND SOIL CHARACTERISTICS

Drainage Class: Somewhat excessively drained (Lyman) to well drained (Tunbridge) with no apparent water table other than run off across the bedrock surface occasionally, during spring and periods of heavy precipitation. These soils occur in a non-repeating pattern with exposed bedrock outcrop, and cannot be separated in mapping.

Typical Profile Description:

Surface layer:	Black & reddish brown loam & fine sandy loam, 0-4"
Subsurface layer:	Very dusky red loam, 4-6"
Subsoil layer:	Dark red loam, 6-10"
Substratum layer:	Dark brown to brown loam, 10-20"

Hydrologic Group: Group C/D

Surface Run Off: Slow to rapid depending on slope and bedrock exposure.

Permeability: Moderately rapid.

Depth to Bedrock: Shallow (Lyman 10-20") to moderately deep (Tunbridge 20-40").

Hazard to Flooding: None

INCLUSIONS
(Within Mapping Unit)

Similar: Dixfield, Skerry (deeper than 40" to bedrock)

Dissimilar: Colonel (greater than 40" to bedrock), Naskeag (in microdepressions)

USE AND MANAGEMENT

Development with subsurface wastewater disposal: The limiting factor for building site development is depth to bedrock, which ranges from 0" to 40" within this complex. Blasting or ripping of the more fractured bedrock is necessary for deep excavation. Tunbridge and Lyman (9"-15" deep to bedrock outside shoreland zone areas) soils are suitable for subsurface wastewater disposal in accordance with State of Maine Subsurface Wastewater Disposal Rules. These soils require a 24-inch separation distance between the bedrock surface and the bottom of any disposal system. These soils also require 3.3 and 1.7 sq.ft/gpd for disposal beds and chamber area, respectively.

NASKEAG
(Aeric Haplaquods)

SETTING

Parent Material: Loamy and sandy glacial till.

Landform: Depressions of glaciated bedrock ridges.

Position in Landscape: Lowest positions in depressions or concavities in landform.

Slope Gradient Ranges: **(A)** 0-3% **(B)** 3-8%

COMPOSITION AND SOIL CHARACTERISTICS

Drainage Class: Somewhat poorly to poorly drained, with a perched water table 0-1.5 feet beneath the soil surface.

Typical Profile Description:

Surface layer: Very dusky red muck, 0-5"
Subsurface layer: Light brownish gray and brown sandy loam or loamy sand, 5-16"
Subsoil layer: Dusky red loamy sand, 10-26"
Substratum: Light yellowish brown gravelly sandy loam to loamy sand, 26-38"

Hydrologic Group: Group C

Surface Run Off: Moderate or moderately rapid (across bedrock surface)

Permeability: Rapid

Depth to Bedrock: Moderately deep, 20-40" to bedrock surface.

Hazard to Flooding: None, but may be ponded for short duration in spring and during periods of excessive rainfall.

Erosion Factors: .10

INCLUSIONS
(Within Mapping Unit)

Similar: Lyman, Tunbridge, Colonel, Brayton, Swanton,Pillsbury

Dissimilar: Rock Outcrop, Peacham, Naskeag (Variant-V.P.D.)

USE AND MANAGEMENT

Development with subsurface wastewater disposal: The limiting factor of this soil for building site development are depth to bedrock less than 40" in Naskeag and wetness due to a water table perched above the bedrock surface or hardpan. Proper foundation drainage is recommended for construction. Naskeag does not meet the minimum requirements for subsurface wastewater disposal as defined by the State of Maine Subsurface Wastewater Disposal Rules. This soil (poorly drained) may be classified as wetlands, based on the combined consideration of hydric conditions, hydrology, and vegetation.

SCANTIC
(Typic Haplaquepts)

SETTING

Parent Material: Marine or lacustrine sediments.

Landform: Level or gently sloping marine or lake plains.

Position in Landscape: Lower to intermediate positions.

Slope Gradient Ranges: **(A)** 0-3% **(B)** 3-8%

COMPOSITION AND SOIL CHARACTERISTICS

Drainage Class: Poorly drained, with a perched water table 0.5 to 1.0 feet beneath the soil surface.

Typical Profile Description:

Surface layer: Dark grayish brown silt loam, 0-9"
Subsurface layer: Olive gray silt loam, 9-11"
Subsoil layer: Olive gray, silty clay loam, 11-16"
Substratum: Olive gray clay, 16-65"

Hydrologic Group: Group D

Surface Run Off: Slow

Permeability: Moderate or moderately slow in upper profile, slow to very slow in dense substratum.

Depth to Bedrock: Very deep, greater than 60".

Hazard to Flooding: May flood occasionally on lowest fringes during spring and periods of excessive precipitation.

INCLUSIONS
(Within Mapping Unit)

Similar: Lamoine, Enosburg (Swanton)

Dissimilar: Naskeag, Biddeford, Whately

USE AND MANAGEMENT

Development with subsurface wastewater disposal: The limiting factor for building site development is wetness due to the presence of a shallow water table throughout most of the year. Proper foundation drainage or site modification is recommended for construction. Scantic soil does not meet the minimum requirements for subsurface wastewater disposal, as defined by State of Maine Rules for Subsurface Wastewater Disposal. Scantic soil may be classified as wetlands, based on the combined consideration of hydrology, hydric conditions, and vegetation.

Development for stormwater: Scantic soils are poorly drained with a high perched water table 0.5 to 1.0 feet beneath the soil surface and exhibit permeabilities of 0.2 to 2.0 inches/hr. in the upper 10 inches, and less than 0.2 inches/hr. below 10 inches.

SOIL TEST PIT PROFILE DESCRIPTIONS

LONGVIEW PARTNERS, LLC
6 SECOND STREET BUXTON, MAINE

Town, City, Plantation: **KITTERY**

Street, Road, Subdivision: **77 BARTLETT ROAD**

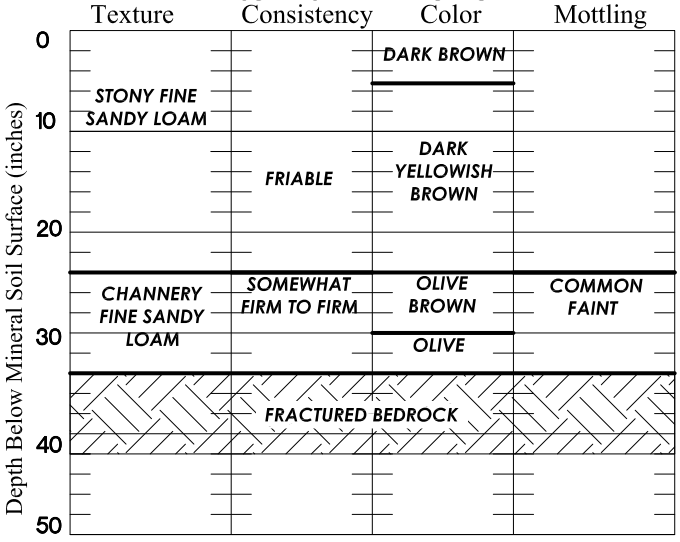
Owner's Name: **BOWLEY BUILDERS**

SOIL DESCRIPTION AND CLASSIFICATION (PER STATE OF MAINE SUBSURFACE WASTEWATER DISPOSAL RULES)

Observation Hole **TP 1** ■ Test Pit □ Boring

_____ " Depth of Organic Horizon Above Mineral Soil

SOIL TEST PIT BY BACKHOE

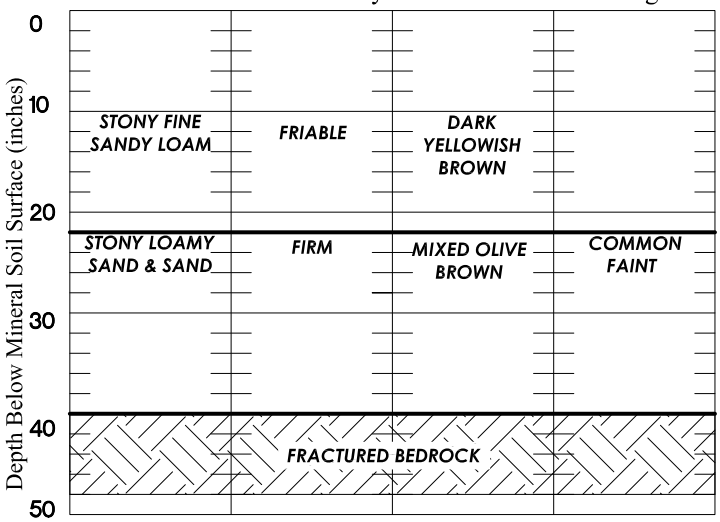


Soil Classification	Slope	Limiting Factor	
3 / Profile; AIII/C / Condition; TUNBRIDGE	_____ %	34 "	[ ] Ground Water [ ] Restrictive Layer [X] Bedrock [ ] Pit Depth

Observation Hole **TP 2** ■ Test Pit □ Boring

_____ " Depth of Organic Horizon Above Mineral Soil

SOIL TEST PIT BY BACKHOE



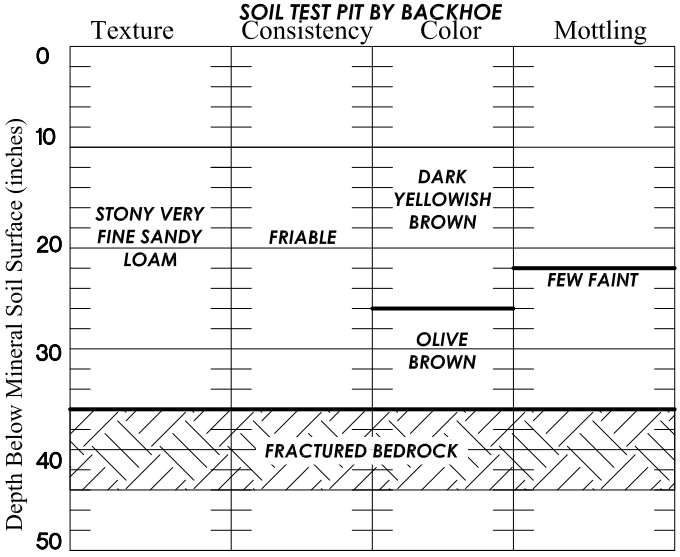
Soil Classification	Slope	Limiting Factor	
3 / Profile; AIII/C / Condition; TUNBRIDGE	_____ %	22 "	[X] Ground Water [X] Restrictive Layer [ ] Bedrock [ ] Pit Depth

SOIL DESCRIPTION AND CLASSIFICATION (PER STATE OF MAINE SUBSURFACE WASTEWATER DISPOSAL RULES)

Observation Hole **TP 3** ■ Test Pit □ Boring

_____ " Depth of Organic Horizon Above Mineral Soil

SOIL TEST PIT BY BACKHOE

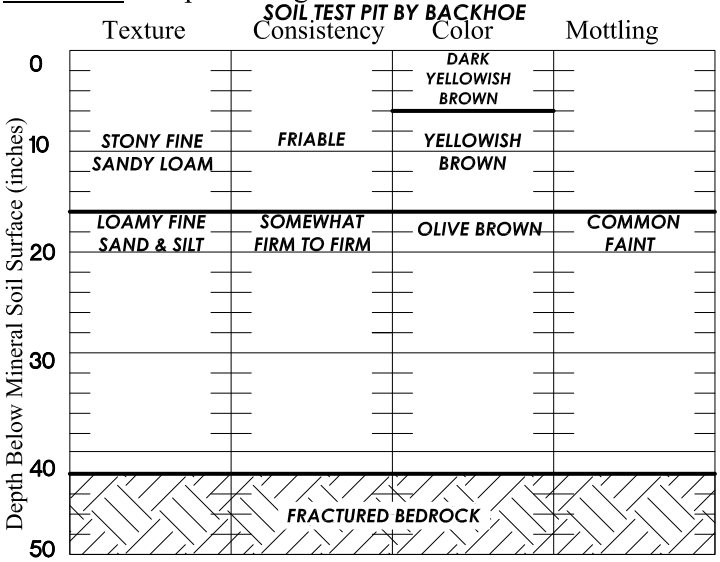


Soil Classification	Slope	Limiting Factor	
2 / Profile; AIII/C / Condition; TUNBRIDGE	_____ %	22 "	[X] Ground Water [ ] Restrictive Layer [ ] Bedrock [ ] Pit Depth

Observation Hole **TP 4** ■ Test Pit □ Boring

_____ " Depth of Organic Horizon Above Mineral Soil

SOIL TEST PIT BY BACKHOE



Soil Classification	Slope	Limiting Factor	
8 / Profile; AIII/C / Condition; TUNBRIDGE (VARIANT)	_____ %	16 "	[X] Ground Water [ ] Restrictive Layer [ ] Bedrock [ ] Pit Depth

James Logan
SIGNATURE

237/213
LSE/CSS #

10/19/22
DATE

SOIL TEST PIT PROFILE DESCRIPTIONS

LONGVIEW PARTNERS, LLC
6 SECOND STREET BUXTON, MAINE

Town, City, Plantation: **KITTERY**

Street, Road, Subdivision: **77 BARTLETT ROAD**

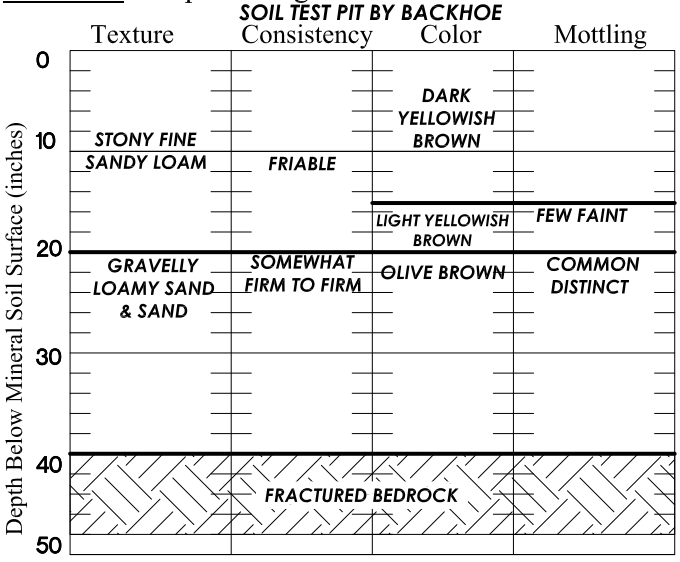
Owner's Name: **BOWLEY BUILDERS**

SOIL DESCRIPTION AND CLASSIFICATION (PER STATE OF MAINE SUBSURFACE WASTEWATER DISPOSAL RULES)

Observation Hole **TP 5** ■ Test Pit □ Boring

_____ " Depth of Organic Horizon Above Mineral Soil

SOIL TEST PIT BY BACKHOE

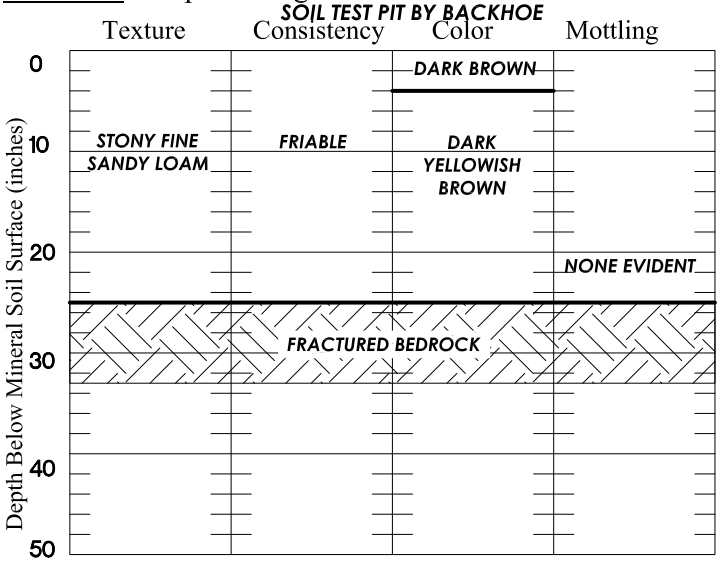


Soil Classification	Slope	Limiting Factor	
3 / AIII/C (Profile / Condition) TUNBRIDGE	_____ %	15 "	[X] Ground Water [ ] Restrictive Layer [ ] Bedrock [ ] Pit Depth

Observation Hole **TP 6** ■ Test Pit □ Boring

_____ " Depth of Organic Horizon Above Mineral Soil

SOIL TEST PIT BY BACKHOE



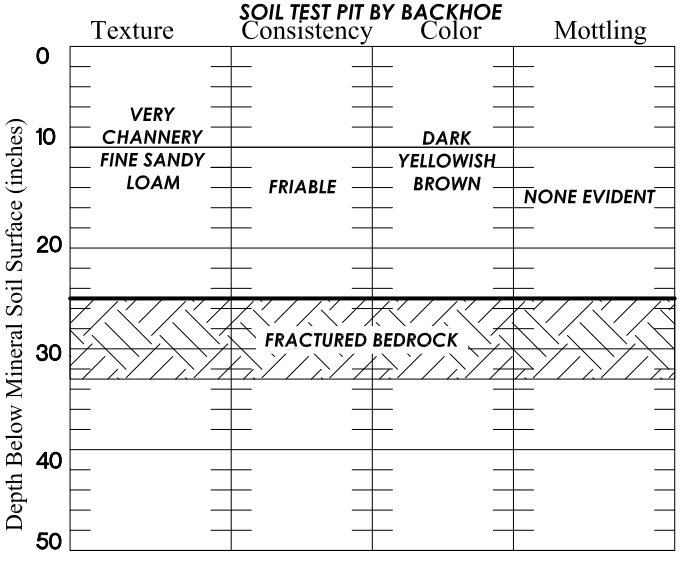
Soil Classification	Slope	Limiting Factor	
2 / AIII (Profile / Condition) TUNBRIDGE	_____ %	25 "	[ ] Ground Water [ ] Restrictive Layer [X] Bedrock [ ] Pit Depth

SOIL DESCRIPTION AND CLASSIFICATION (PER STATE OF MAINE SUBSURFACE WASTEWATER DISPOSAL RULES)

Observation Hole **TP 7** ■ Test Pit □ Boring

_____ " Depth of Organic Horizon Above Mineral Soil

SOIL TEST PIT BY BACKHOE

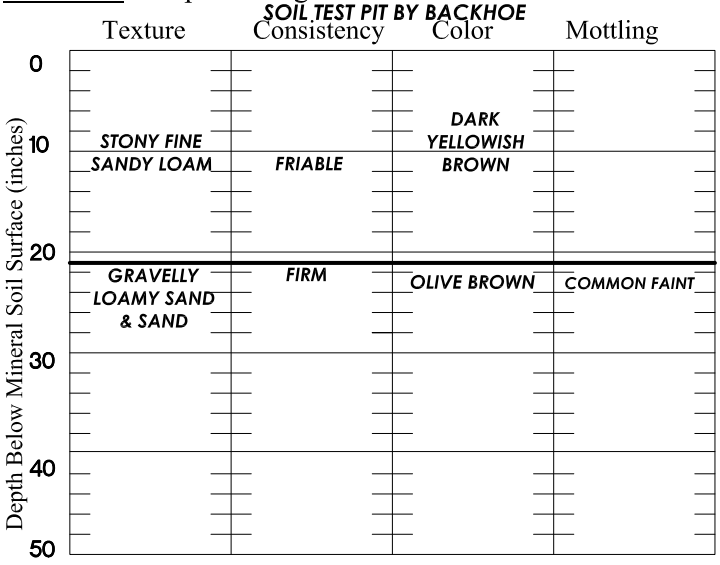


Soil Classification	Slope	Limiting Factor	
2 / AIII (Profile / Condition) TUNBRIDGE	_____ %	25 "	[ ] Ground Water [ ] Restrictive Layer [X] Bedrock [ ] Pit Depth

Observation Hole **TP 8** ■ Test Pit □ Boring

_____ " Depth of Organic Horizon Above Mineral Soil

SOIL TEST PIT BY BACKHOE



Soil Classification	Slope	Limiting Factor	
3 / AIII/C (Profile / Condition) TUNBRIDGE	_____ %	21 "	[X] Ground Water [X] Restrictive Layer [ ] Bedrock [ ] Pit Depth

James Logan
SIGNATURE

237/213
LSE/CSS #

10/19/22
DATE

SOIL TEST PIT PROFILE DESCRIPTIONS

LONGVIEW PARTNERS, LLC
6 SECOND STREET BUXTON, MAINE

Town, City, Plantation: **KITTERY**

Street, Road, Subdivision: **77 BARTLETT ROAD**

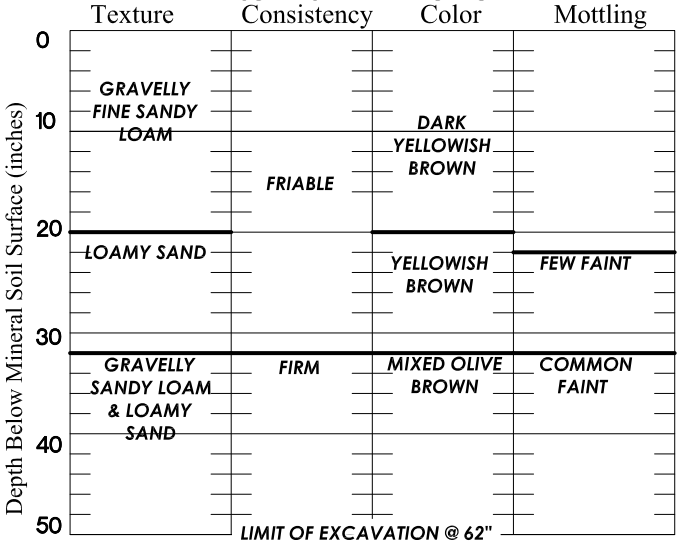
Owner's Name: **BOWLEY BUILDERS**

SOIL DESCRIPTION AND CLASSIFICATION (PER STATE OF MAINE SUBSURFACE WASTEWATER DISPOSAL RULES)

Observation Hole **TP 9** ■ Test Pit □ Boring

_____ " Depth of Organic Horizon Above Mineral Soil

SOIL TEST PIT BY BACKHOE

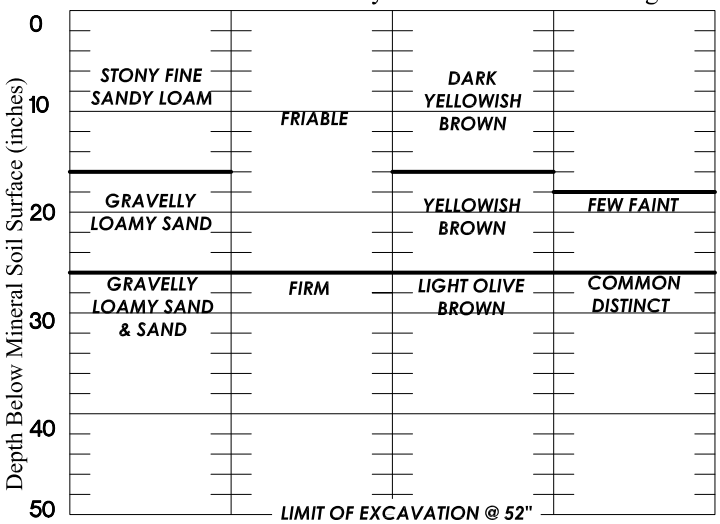


Soil Classification	Slope	Limiting Factor	
3 C (Profile / Condition) DIXFIELD	_____ %	22 "	[X] Ground Water [ ] Restrictive Layer [ ] Bedrock [ ] Pit Depth

Observation Hole **TP 10** ■ Test Pit □ Boring

_____ " Depth of Organic Horizon Above Mineral Soil

SOIL TEST PIT BY BACKHOE



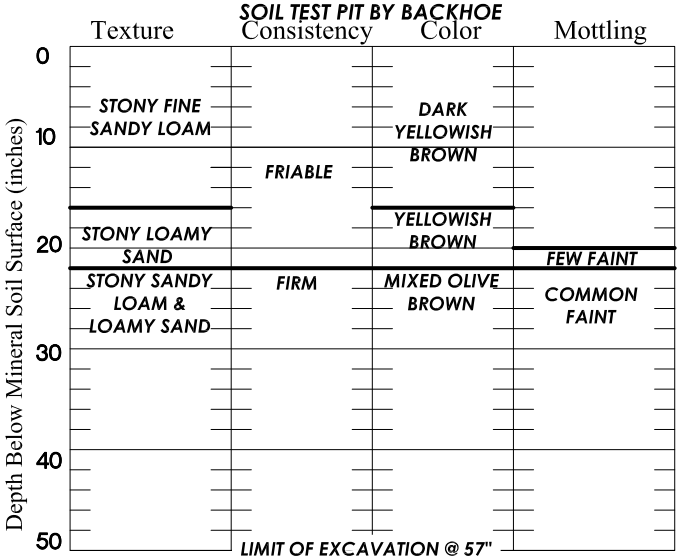
Soil Classification	Slope	Limiting Factor	
3 C (Profile / Condition) DIXFIELD	_____ %	18 "	[X] Ground Water [ ] Restrictive Layer [ ] Bedrock [ ] Pit Depth

SOIL DESCRIPTION AND CLASSIFICATION (PER STATE OF MAINE SUBSURFACE WASTEWATER DISPOSAL RULES)

Observation Hole **TP 11** ■ Test Pit □ Boring

_____ " Depth of Organic Horizon Above Mineral Soil

SOIL TEST PIT BY BACKHOE

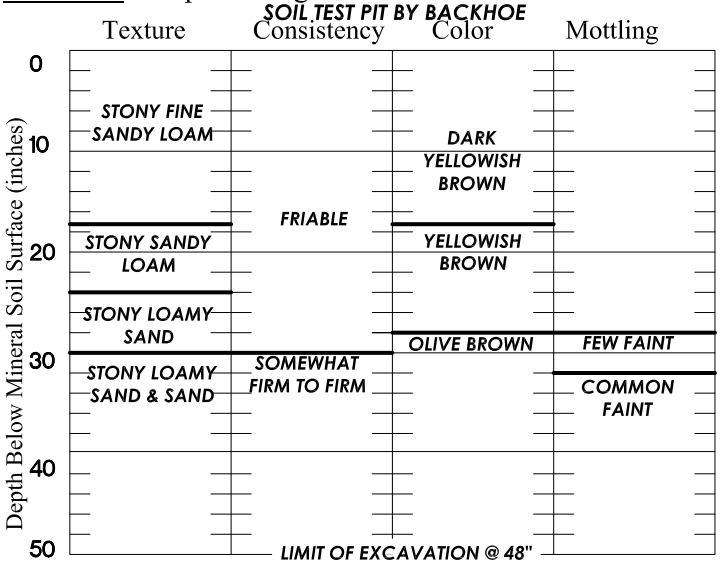


Soil Classification	Slope	Limiting Factor	
3 C (Profile / Condition) DIXFIELD	_____ %	20 "	[X] Ground Water [ ] Restrictive Layer [ ] Bedrock [ ] Pit Depth

Observation Hole **TP 12** ■ Test Pit □ Boring

_____ " Depth of Organic Horizon Above Mineral Soil

SOIL TEST PIT BY BACKHOE



Soil Classification	Slope	Limiting Factor	
3 C (Profile / Condition) DIXFIELD	_____ %	28 "	[X] Ground Water [ ] Restrictive Layer [ ] Bedrock [ ] Pit Depth

James Logan
SIGNATURE

237/213
LSE/CSS #

10/19/22
DATE

SOIL TEST PIT PROFILE DESCRIPTIONS

LONGVIEW PARTNERS, LLC
6 SECOND STREET BUXTON, MAINE

Town, City, Plantation: **KITTERY**

Street, Road, Subdivision: **77 BARTLETT ROAD**

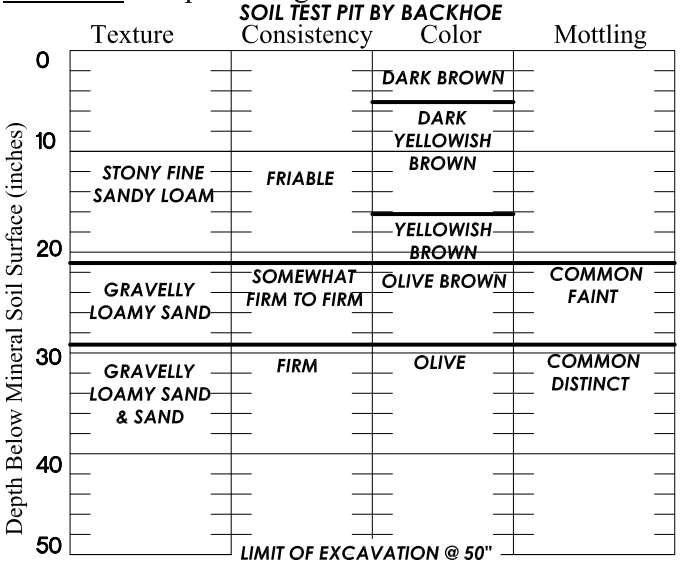
Owner's Name: **BOWLEY BUILDERS**

SOIL DESCRIPTION AND CLASSIFICATION (PER STATE OF MAINE SUBSURFACE WASTEWATER DISPOSAL RULES)

Observation Hole **TP 13** ■ Test Pit □ Boring

_____ " Depth of Organic Horizon Above Mineral Soil

SOIL TEST PIT BY BACKHOE

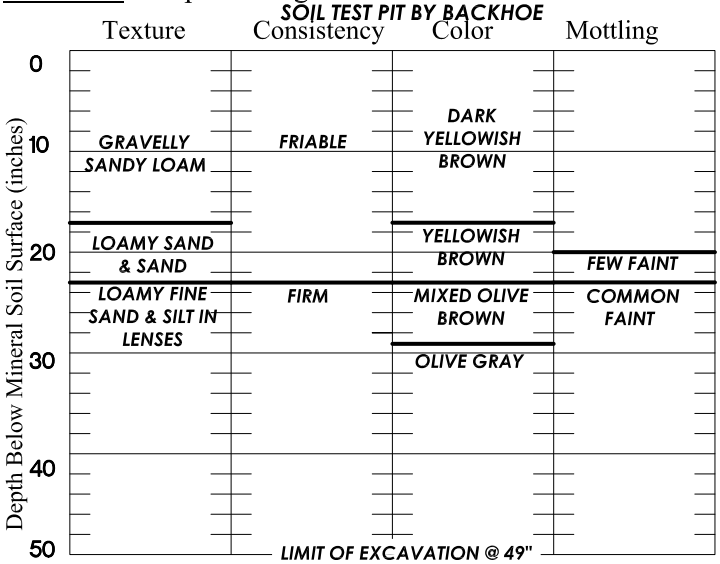


Soil Classification	Slope	Limiting Factor	
3 / C (Profile / Condition)	_____ %	21 "	[X] Ground Water [ ] Restrictive Layer [ ] Bedrock [ ] Pit Depth
DIXFIELD			

Observation Hole **TP 14** ■ Test Pit □ Boring

_____ " Depth of Organic Horizon Above Mineral Soil

SOIL TEST PIT BY BACKHOE



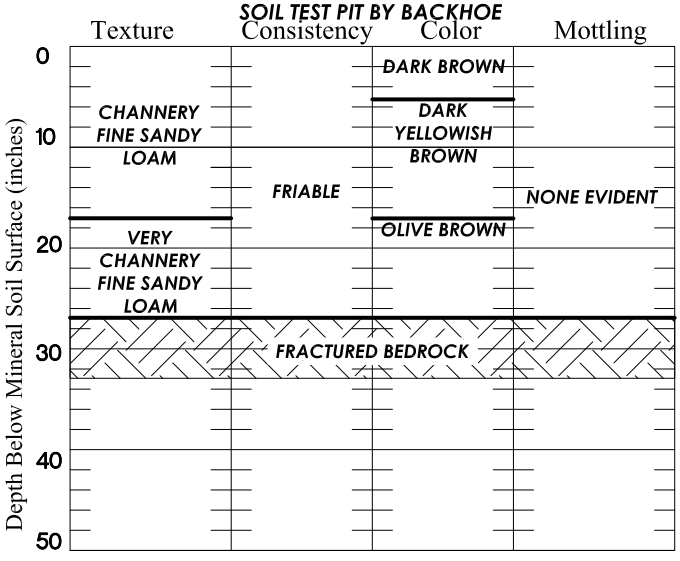
Soil Classification	Slope	Limiting Factor	
3 / C (Profile / Condition)	_____ %	20 "	[X] Ground Water [ ] Restrictive Layer [ ] Bedrock [ ] Pit Depth
DIXFIELD			

SOIL DESCRIPTION AND CLASSIFICATION (PER STATE OF MAINE SUBSURFACE WASTEWATER DISPOSAL RULES)

Observation Hole **TP 15** ■ Test Pit □ Boring

_____ " Depth of Organic Horizon Above Mineral Soil

SOIL TEST PIT BY BACKHOE

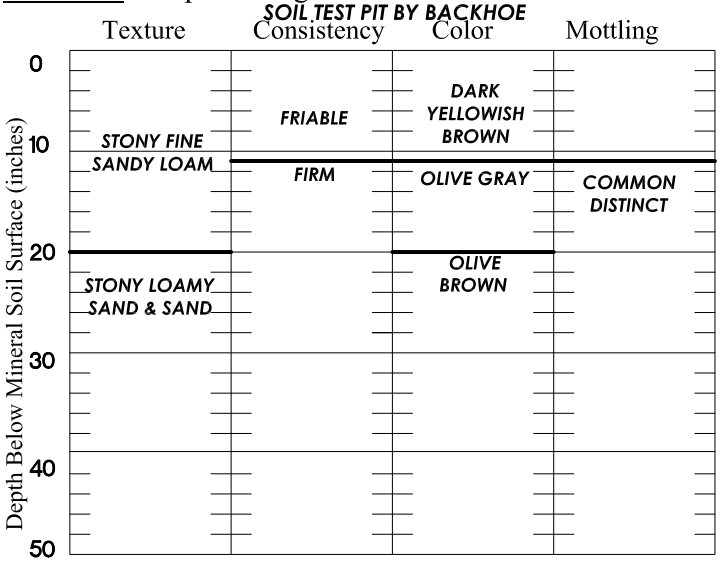


Soil Classification	Slope	Limiting Factor	
2 / AIII (Profile / Condition)	_____ %	27 "	[ ] Ground Water [ ] Restrictive Layer [X] Bedrock [ ] Pit Depth
TUNBRIDGE			

Observation Hole **TP 16** ■ Test Pit □ Boring

_____ " Depth of Organic Horizon Above Mineral Soil

SOIL TEST PIT BY BACKHOE



Soil Classification	Slope	Limiting Factor	
3 / D (Profile / Condition)	_____ %	11 "	[X] Ground Water [ ] Restrictive Layer [ ] Bedrock [ ] Pit Depth
COLONEL			

James Logan
SIGNATURE

237/213
LSE/CSS #

10/19/22
DATE

SOIL TEST PIT PROFILE DESCRIPTIONS

LONGVIEW PARTNERS, LLC
6 SECOND STREET BUXTON, MAINE

Town, City, Plantation: **KITTERY**

Street, Road, Subdivision: **77 BARTLETT ROAD**

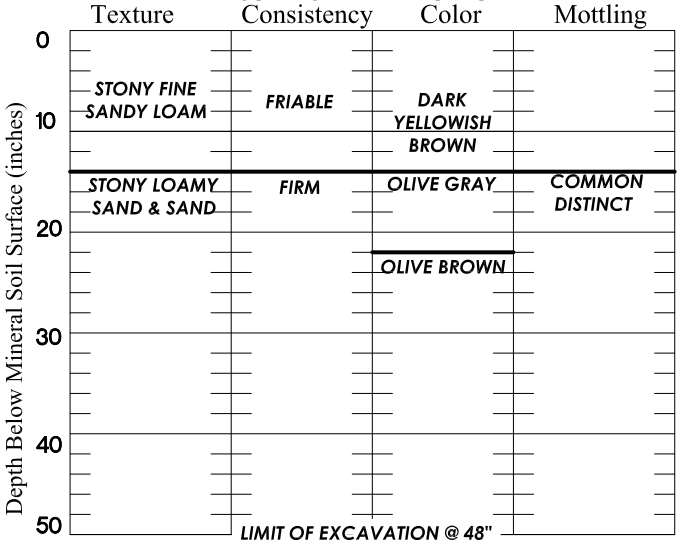
Owner's Name: **BOWLEY BUILDERS**

SOIL DESCRIPTION AND CLASSIFICATION (PER STATE OF MAINE SUBSURFACE WASTEWATER DISPOSAL RULES)

Observation Hole **TP 17** ■ Test Pit □ Boring

_____ " Depth of Organic Horizon Above Mineral Soil

SOIL TEST PIT BY BACKHOE

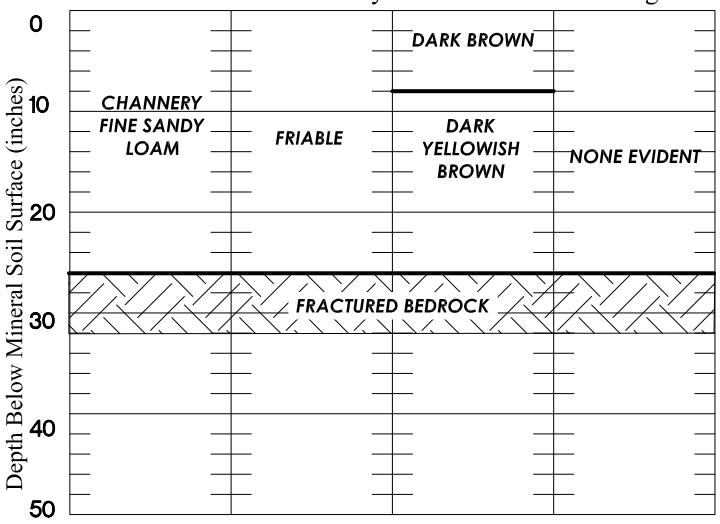


Soil Classification	Slope	Limiting Factor	
3 (Profile) D (Condition) COLONEL	_____ %	14 "	[X] Ground Water [ ] Restrictive Layer [ ] Bedrock [ ] Pit Depth

Observation Hole **TP 18** ■ Test Pit □ Boring

_____ " Depth of Organic Horizon Above Mineral Soil

SOIL TEST PIT BY BACKHOE



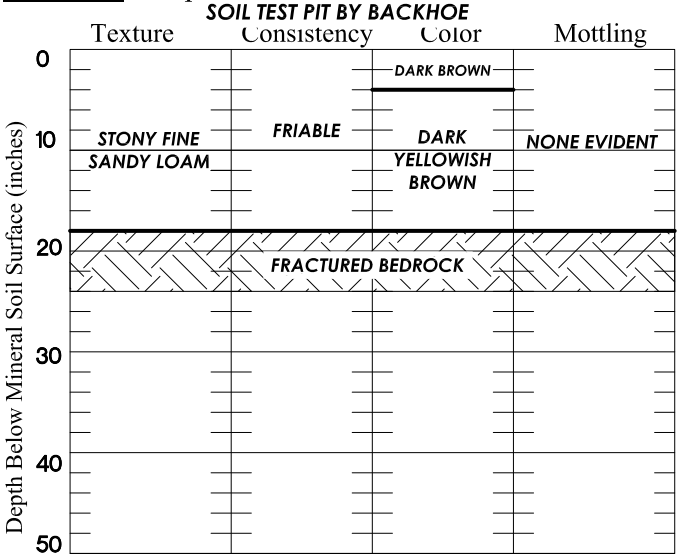
Soil Classification	Slope	Limiting Factor	
2 (Profile) AIII (Condition) TUNBRIDGE	_____ %	26 "	[ ] Ground Water [ ] Restrictive Layer [X] Bedrock [ ] Pit Depth

SOIL DESCRIPTION AND CLASSIFICATION (PER STATE OF MAINE SUBSURFACE WASTEWATER DISPOSAL RULES)

Observation Hole **TP 19** ■ Test Pit □ Boring

_____ " Depth of Organic Horizon Above Mineral Soil

SOIL TEST PIT BY BACKHOE

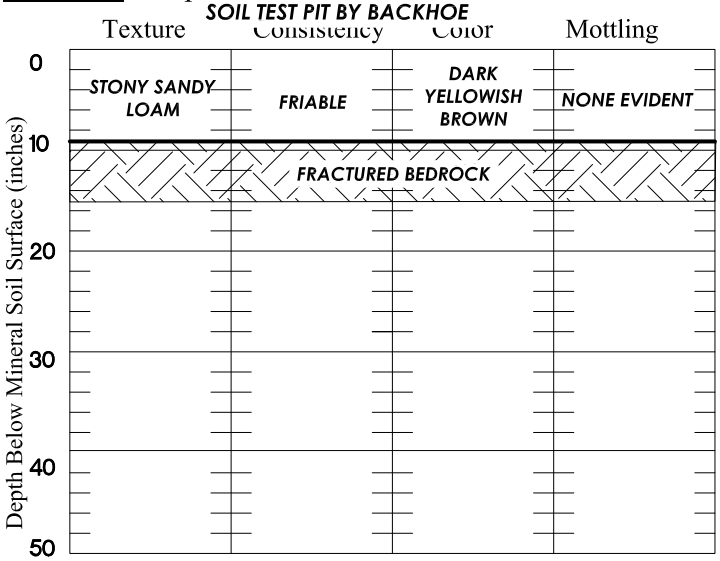


Soil Classification	Slope	Limiting Factor	
2 (Profile) AIII (Condition) LYMAN	_____ %	18 "	[ ] Ground Water [ ] Restrictive Layer [X] Bedrock [ ] Pit Depth

Observation Hole **TP 20** ■ Test Pit □ Boring

_____ " Depth of Organic Horizon Above Mineral Soil

SOIL TEST PIT BY BACKHOE



Soil Classification	Slope	Limiting Factor	
2 (Profile) AII (Condition) LYMAN	_____ %	9 "	[ ] Ground Water [ ] Restrictive Layer [X] Bedrock [ ] Pit Depth

James Logan
SIGNATURE

237/213
LSE/CSS #

10/19/22
DATE

SOIL TEST PIT PROFILE DESCRIPTIONS

LONGVIEW PARTNERS, LLC
6 SECOND STREET BUXTON, MAINE

Town, City, Plantation: **KITTERY**

Street, Road, Subdivision: **77 BARTLETT ROAD**

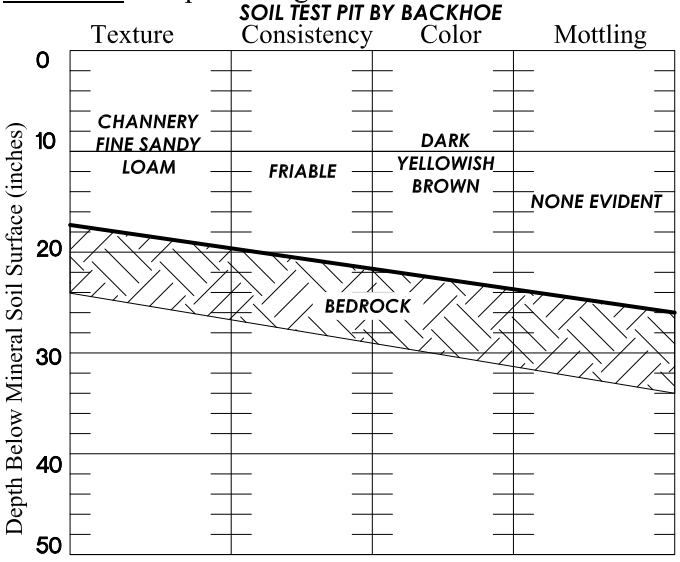
Owner's Name: **BOWLEY BUILDERS**

SOIL DESCRIPTION AND CLASSIFICATION (PER STATE OF MAINE SUBSURFACE WASTEWATER DISPOSAL RULES)

Observation Hole **TP 21** ■ Test Pit □ Boring

_____ " Depth of Organic Horizon Above Mineral Soil

SOIL TEST PIT BY BACKHOE

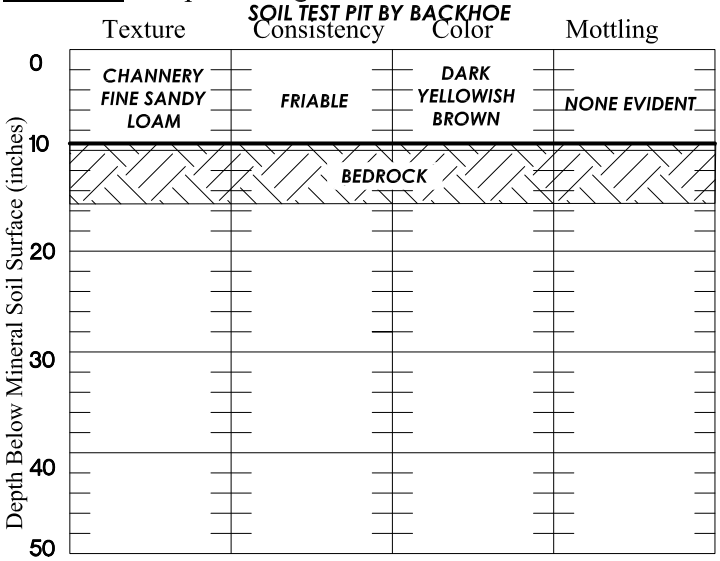


Soil Classification	Slope	Limiting Factor	
2 / AIII (Profile / Condition)	_____ %	17-26 "	[ ] Ground Water [ ] Restrictive Layer [X] Bedrock [ ] Pit Depth
LYMAN/TUNBRIDGE			

Observation Hole **TP 22** ■ Test Pit □ Boring

_____ " Depth of Organic Horizon Above Mineral Soil

SOIL TEST PIT BY BACKHOE



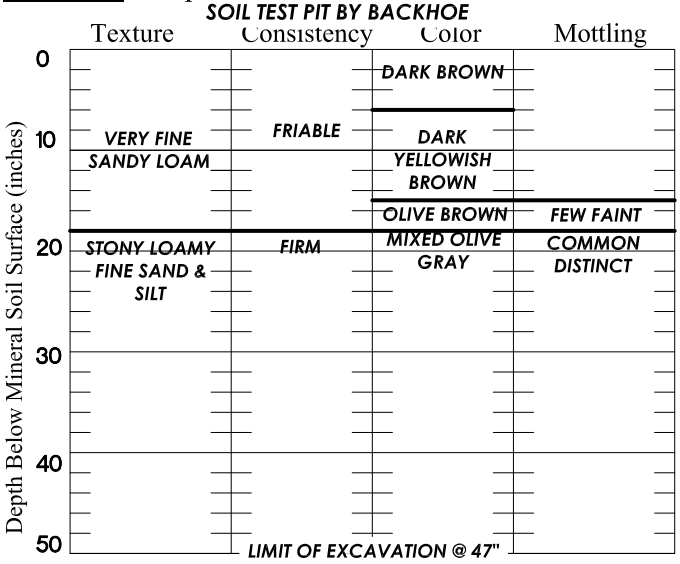
Soil Classification	Slope	Limiting Factor	
2 / AII (Profile / Condition)	_____ %	9 "	[ ] Ground Water [ ] Restrictive Layer [X] Bedrock [ ] Pit Depth
LYMAN			

SOIL DESCRIPTION AND CLASSIFICATION (PER STATE OF MAINE SUBSURFACE WASTEWATER DISPOSAL RULES)

Observation Hole **TP 23** ■ Test Pit □ Boring

_____ " Depth of Organic Horizon Above Mineral Soil

SOIL TEST PIT BY BACKHOE

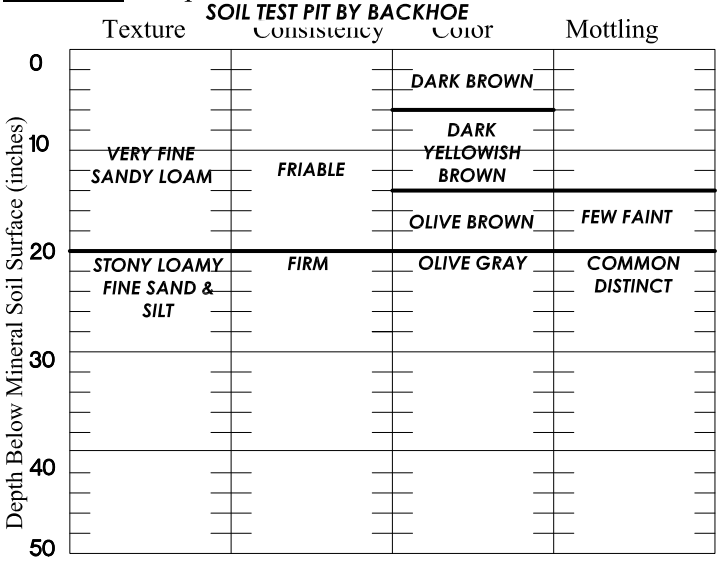


Soil Classification	Slope	Limiting Factor	
8 / C (Profile / Condition)	_____ %	15 "	[X] Ground Water [ ] Restrictive Layer [ ] Bedrock [ ] Pit Depth
DIXFIELD (VARIANT)			

Observation Hole **TP 24** ■ Test Pit □ Boring

_____ " Depth of Organic Horizon Above Mineral Soil

SOIL TEST PIT BY BACKHOE



Soil Classification	Slope	Limiting Factor	
8 / C (Profile / Condition)	_____ %	14 "	[X] Ground Water [ ] Restrictive Layer [ ] Bedrock [ ] Pit Depth
DIXFIELD (VARIANT)			

James Logan
SIGNATURE

237/213
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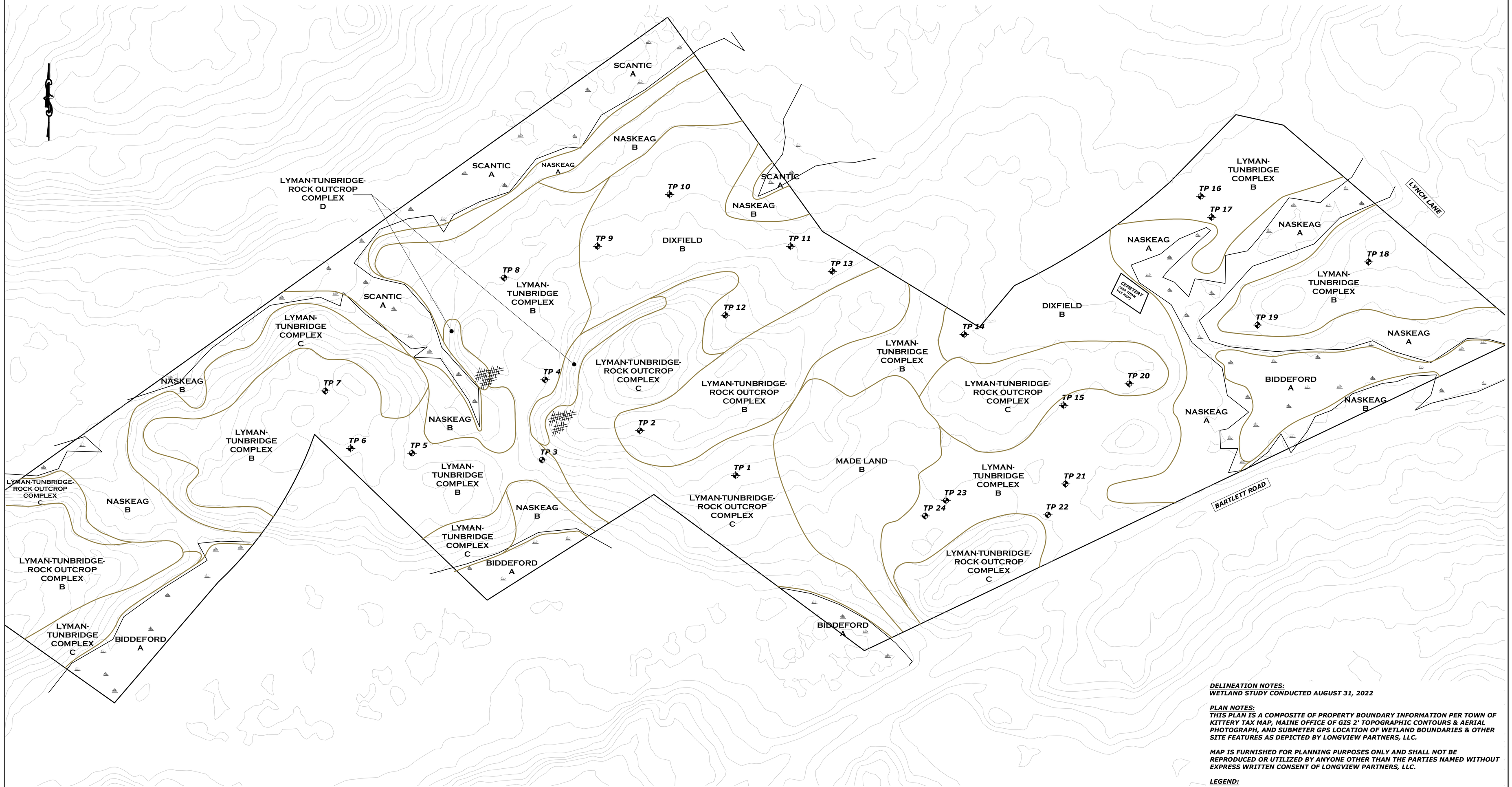
10/19/22
DATE



DELINEATION NOTES:
WETLAND STUDY CONDUCTED AUGUST 31, 2022

PLAN NOTES:
THIS PLAN IS A COMPOSITE OF PROPERTY BOUNDARY INFORMATION PER TOWN OF KITTERY TAX MAP, MAINE OFFICE OF GIS 2' TOPOGRAPHIC CONTOURS & AERIAL PHOTOGRAPH, AND SUBMETER GPS LOCATION OF WETLAND BOUNDARIES & OTHER SITE FEATURES AS DEPICTED BY LONGVIEW PARTNERS, LLC.

LEGEND:

- ***FRESHWATER WETLAND AREA*** *(LOCATED BY LONGVIEW PARTNERS, LLC SUBMETER GPS)*
- TP — ***SOIL TEST PIT*** *(LOCATED BY LONGVIEW PARTNERS, LLC SUBMETER GPS)*
- ***BEDROCK OUTCROP*** *(LOCATED BY LONGVIEW PARTNERS, LLC SUBMETER GPS)*

SOILS MAP LEGEND:

- TP — ***SOIL TEST PIT*** *(LOCATED BY LONGVIEW PARTNERS, LLC SUBMETER GPS)*
- ***SOIL BOUNDARY LINE***
- ***WETLAND BOUNDARY*** *(LOCATED BY LONGVIEW PARTNERS, LLC SUBMETER GPS)*
- ***BEDROCK OUTCROPPING*** *(LOCATED BY LONGVIEW PARTNERS, LLC SUBMETER GPS)*

GRAPHIC SCALE

60 0 30 60 120

(IN FEET)
1 inch = 60 ft.

SLOPE DESIGNATION

A	0 – 3%
B	3 – 8%
C	8 – 20%
D	20%+

NOTES: SEE ACCOMPANYING SOIL NARRATIVE REPORT, DATED DECEMBER, 2022
ALL SOIL TEST PITS EXCAVATED BY BACKHOE

THE ACCOMPANYING SOILS SURVEY WAS DONE IN ACCORDANCE WITH THE STANDARDS ADOPTED BY THE MAINE ASSOCIATION OF PROFESSIONAL SOIL SCIENTISTS, FEBRUARY 1995, AS AMENDED.

STATE OF MAINE
JAMES LOGAN #213
CERTIFIED SOIL SCIENTIST

CLASS A HIGH-INTENSITY SOIL SURVEY

PREPARED FOR
BOWLEY BUILDERS
77 BARTLETT ROAD
(MAP 62, LOT 26)
KITTERY, MAINE

LONGVIEW PARTNERS, LLC
ENVIRONMENTAL PERMITTING SPECIALISTS

DRAFT:	SCALE:	CHECKED:	PLAN DATE:
BO	1" = 60'	JL	12/7/22

SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Maine Dept.Health & Human Services
Div of Environmental Health , 11 SHS
(207) 287-5672 Fax: (207) 287-4172

PROPERTY LOCATION

City, Town, or Plantation	KITTERY
Street or Road	R.O.W. off BARTLETT ROAD
Subdivision, Lot #	WASHBURN FARM, LOT 1

OWNER/APPLICANT INFORMATION

Name (last, first, MI): BEACHWOOD DEVELOPMENT FUND ☐ Owner ☐ Applicant

Mailing Address of Owner/Applicant: P.O. BOX 261, KENNEBUNK, ME 04043

Daytime Tel. #:

OWNER OR APPLICANT STATEMENT

I state and acknowledge that the information submitted is correct to the best of my knowledge and understand that any falsification is reason for the Department and/or Local Plumbing Inspector to deny a Permit.

Signature of Owner or Applicant _____ Date _____

>> CAUTION: LPI APPROVAL REQUIRED <<

Town/City _____ Permit # _____

Date Permit Issued ____/____/____ Fee: $_____ Double Fee Charged

Local Plumbing Inspector Signature _____ LPI. # _____

☐ Owner ☐ Town ☐ State

The Subsurface Wastewater Disposal System shall not be installed until a Permit is issued by the Local Plumbing Inspector. The Permit shall authorize the owner or installer to install the disposal system in accordance with this application and the Maine Subsurface Wastewater Disposal Rules.

Municipal Tax Map # 62 Lot # P/O 26

CAUTION: INSPECTION REQUIRED

I have inspected the installation authoirzed above and found it to be in compliance with the Subsurface Wastewater Disposal Rules Application. _____ (1st) date approved

Local Plumbing Inspector Signature _____ (2nd) date approved

PERMIT INFORMATION

TYPE OF APPLICATION

1. First Time System
2. Replacement System
   Type replaced: _____
   Year installed: _____
3. Expanded System
   a. <25% Expansion
   b. >25% Expansion
4. Experimental System
5. Seasonal Conversion

THIS APPLICATION REQUIRES

1. No Rule Variance
2. First Time System Variance
   a. Local Plumbing Inspector Approval
   b. State & Local Plumbing Inspector Approval
3. Replacement System Variance
   a. Local Plumbing Inspector Approval
   b. State & Local Plumbing Inspector Approval
4. Minimum Lot Size Variance
5. Seasonal Conversion Permit

DISPOSAL SYSTEM COMPONENTS

1. Complete Non-engineered System
2. Primitive System (graywater & alt. toilet)
3. Alternative Toilet, specify: _____
4. Non-engineered Treatment Tank (only)
5. Holding Tank, _____ gallons
6. Non-engineered Disposal Field (only)
7. Separated Laundry System
8. Complete Engineered System (2000 gpd or more)
9. Engineered Treatment Tank (only)
10. Engineered Disposal Field (only)
11. Pre-treatment, specify: _____
12. Miscellaneous Components

SIZE OF PROPERTY

0.57+/- SQ. FT. ACRES

SHORELAND ZONING

Yes No

DISPOSAL SYSTEM TO SERVE

1. Single Family Dwelling Unit, No. of Bedrooms: 4
2. Multiple Family Dwelling, No. of Units: _____
3. Other: _____ (specify)

Current Use Seasonal Year Round Undeveloped

TYPE OF WATER SUPPLY

PROPOSED

1. Drilled Well 2. Dug Well 3. Private
4. Public 5. Other

DESIGN DETAILS (SYSTEM LAYOUT SHOWN ON PAGE 3)

TREATMENT TANKS

1. Concrete
   a. Regular
   b. Low Profile
2. Plastic
3. Other: _____

CAPACITY: 1000 GAL.

DISPOSAL FIELD TYPE & SIZE

1. Stone Bed 2. Stone Trench
3. Proprietary Device
   a. cluster array c. Linear
   b. regular load d. H-20 load
4. Other: _____

SIZE: 1536 sq. ft. lin. ft.

32 ELJEN GSF UNITS

GARBAGE DISPOSAL UNIT

1. No 2. Yes 3. Maybe

If Yes or Maybe, specify one below:

a. multi-compartment tank
b. ___ tanks in series
c. increase in tank capacity
d. Filter on Tank Outlet

REQUIRED

DESIGN FLOW

360 gallons per day

BASED ON:

1. Table 4A (dwelling unit(s))
2. Table 4C(other facilities)

SHOW CALCULATIONS for other facilites

-SINGLE FAMILY DWELLING-
4 BEDROOMS @ 90 GPD EACH

SOIL DATA & DESIGN CLASS

PROFILE / CONDITION

2 / AII

at Observation Hole # TP 53

Depth 11 "

of Most Limiting Soil Factor

DISPOSAL FIELD SIZING

1. Medium---2.6 sq. ft. / gpd
2. Medium---Large 3.3 sq. f.t / gpd
3. Large---4.1 sq. ft. / gpd
4. Extra Large---5.0 sq. ft. / gpd

EFFLUENT/EJECTOR PUMP

1. Not Required
2. May Be Required — SEE NOTE PAGE 3
3. Required

Specify only for engineered systems:

DOSE: _____ gallons

3. Section 4G (meter readings)
   ATTACH WATER METER DATA

LATITUDE AND LONGITUDE

at center of disposal area

Lat. 43 d 06 m 39 s
Lon. 70 d 41 m 21 s
if g.p.s, state margin of error: _____

SITE EVALUATOR STATEMENT

I certify that on 11/28/23 (date) I completed a site evaluation on this property and state that the data reported are accurate and that the proposed system is in compliance with the State of Maine Subsurface Wastewater Disposal Rules (10-144A CMR 241).

James Logan

Site Evaluator Signature | SE # 237 | Date 11/30/23

JAMES LOGAN | Telephone Number 207-693-8799 | E-mail Address longviewpartners213@gmail.com

Site Evaluator Name Printed

Note : Changes to or deviations from the design should be confirmed with the Site Evaluator.

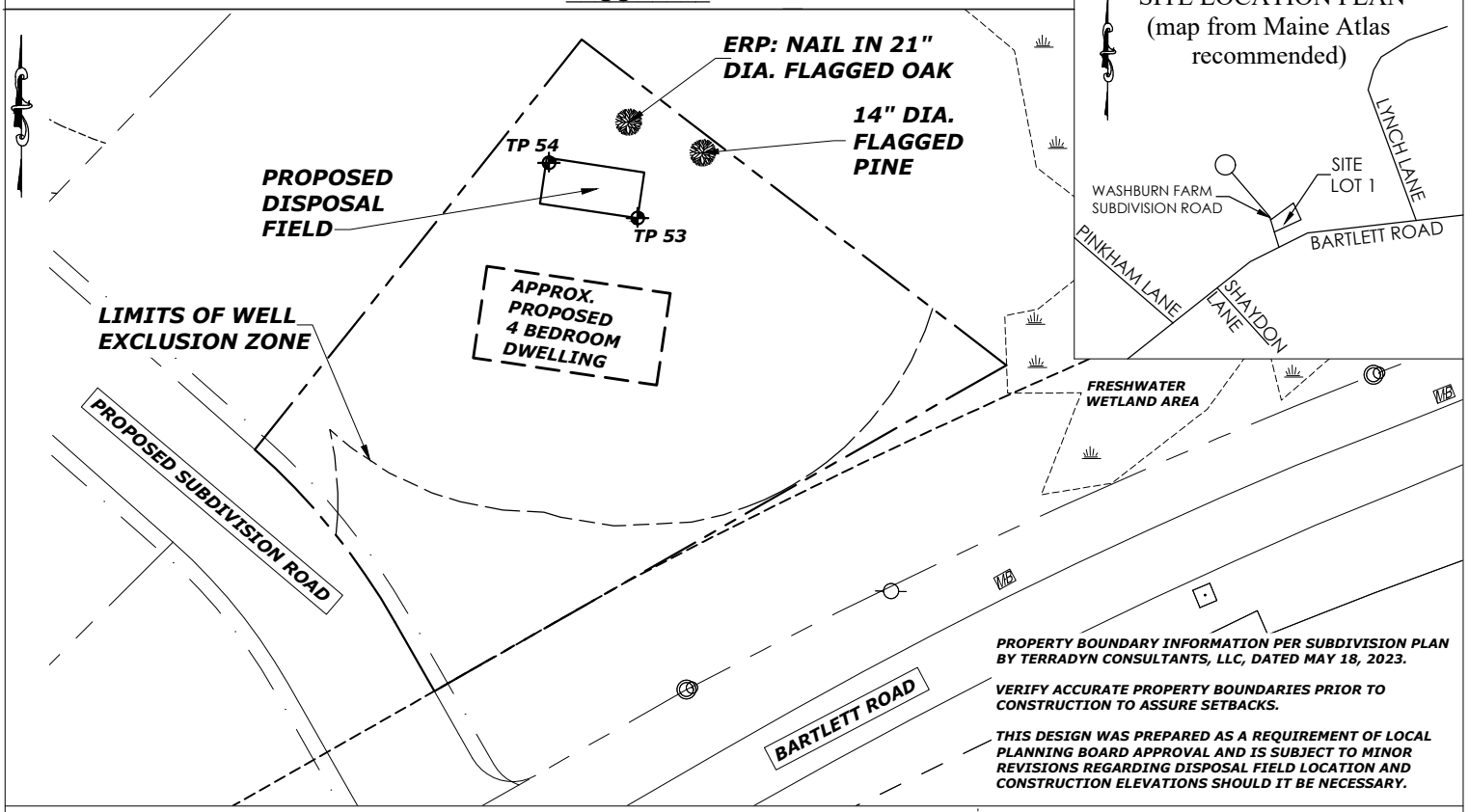
HHE-200 Rev. 08/2011

SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Department of Human Services
Division of Health Engineering
(207) 287-5672 Fax: (207) 287-3165

Town, City, Plantation	Street, Road, Subdivision	Owner's Name
KITTERY	***WASHBURN FARM SUBDIVISION, LOT 1***	***BEACHWOOD DEVELOPMENT FUND***

SITE PLAN Scale 1" = ***60*** ft. or as shown



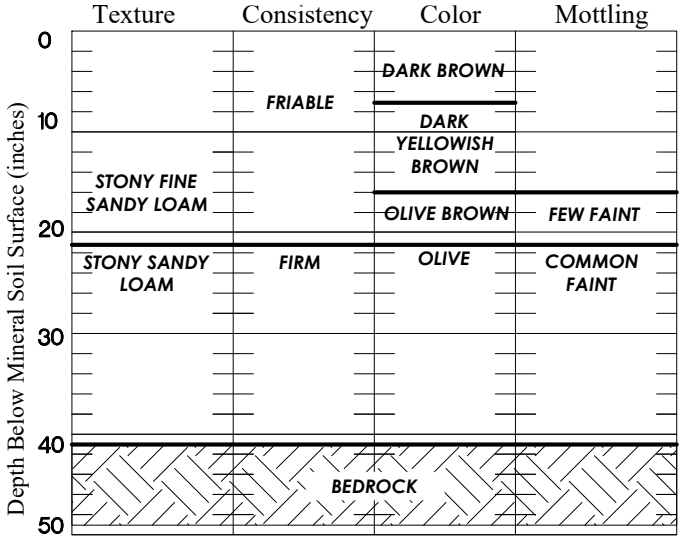
SITE LOCATION PLAN
(map from Maine Atlas recommended)

SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)

Observation Hole ***TP 53*** ■ Test Pit □ Boring

_____ " Depth of Organic Horizon Above Mineral Soil

SOIL TEST PIT BY BACKHOE

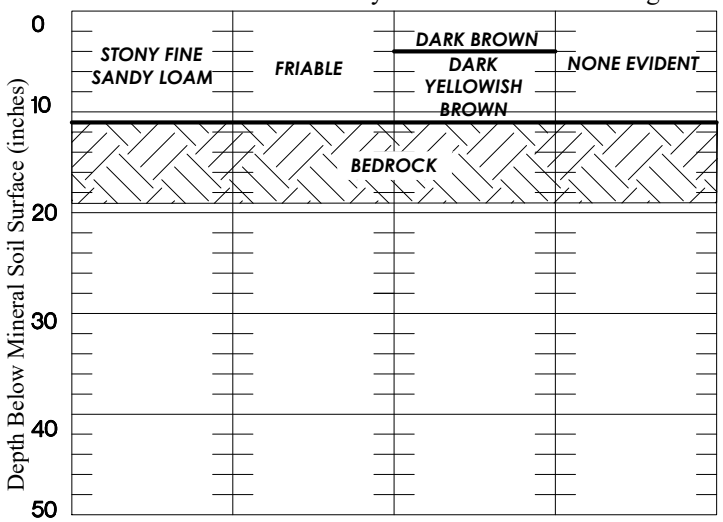


Soil Classification	Slope	Limiting Factor	
3 Profile ***AIII/C*** Condition	***6-7*** %	***16*** "	[X] Ground Water [ ] Restrictive Layer [ ] Bedrock [ ] Pit Depth

Observation Hole ***TP 54*** ■ Test Pit □ Boring

_____ " Depth of Organic Horizon Above Mineral Soil

SOIL TEST PIT BY BACKHOE



Soil Classification	Slope	Limiting Factor	
2 Profile ***AII*** Condition	***6-7*** %	***11*** "	[ ] Ground Water [ ] Restrictive Layer [X] Bedrock [ ] Pit Depth

James Logan
Site Evaluator Signature

237
SE #

11/30/23
Date

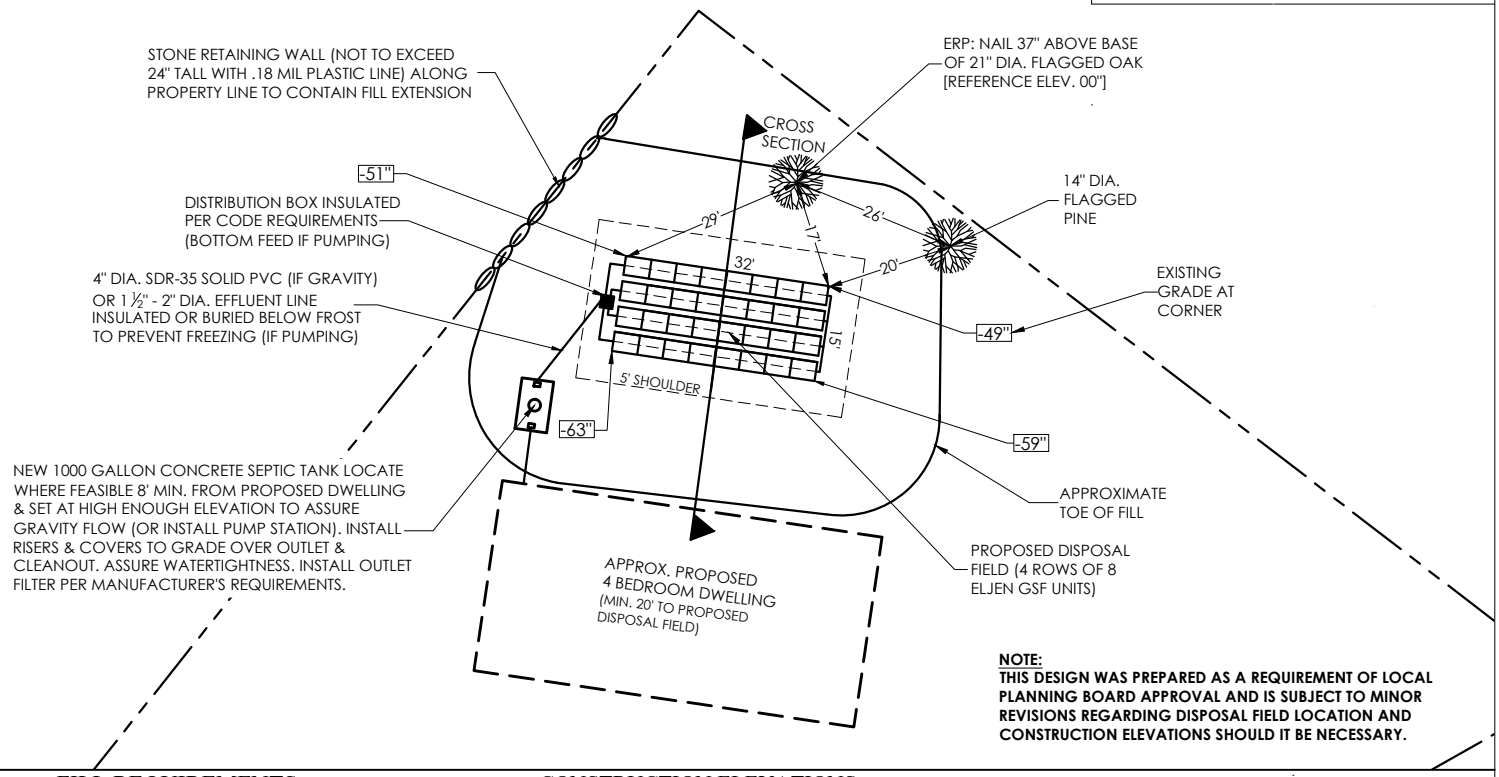
SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Department of Human Services
Division of Health Engineering
(207) 287-5672 Fax: (207) 287-3165

Town, City, Plantation	Street, Road, Subdivision	Owner's Name
KITTERY	***WASHBURN FARM SUBDIVISION, LOT 1***	***BEACHWOOD DEVELOPMENT FUND***

SUBSURFACE WASTEWATER DISPOSAL PLAN

SCALE: 1" = ***30*** FT.



NOTE:
THIS DESIGN WAS PREPARED AS A REQUIREMENT OF LOCAL PLANNING BOARD APPROVAL AND IS SUBJECT TO MINOR REVISIONS REGARDING DISPOSAL FIELD LOCATION AND CONSTRUCTION ELEVATIONS SHOULD IT BE NECESSARY.

FILL REQUIREMENTS

Depth of Fill (Upslope) ***36"- 38"***

Depth of Fill (Downslope) ***46"- 50"***

CONSTRUCTION ELEVATIONS

Finished Grade Elevation — ***SEE DETAIL BELOW***

Top of Distribution Pipe or Proprietary Device

Bottom of Disposal Area

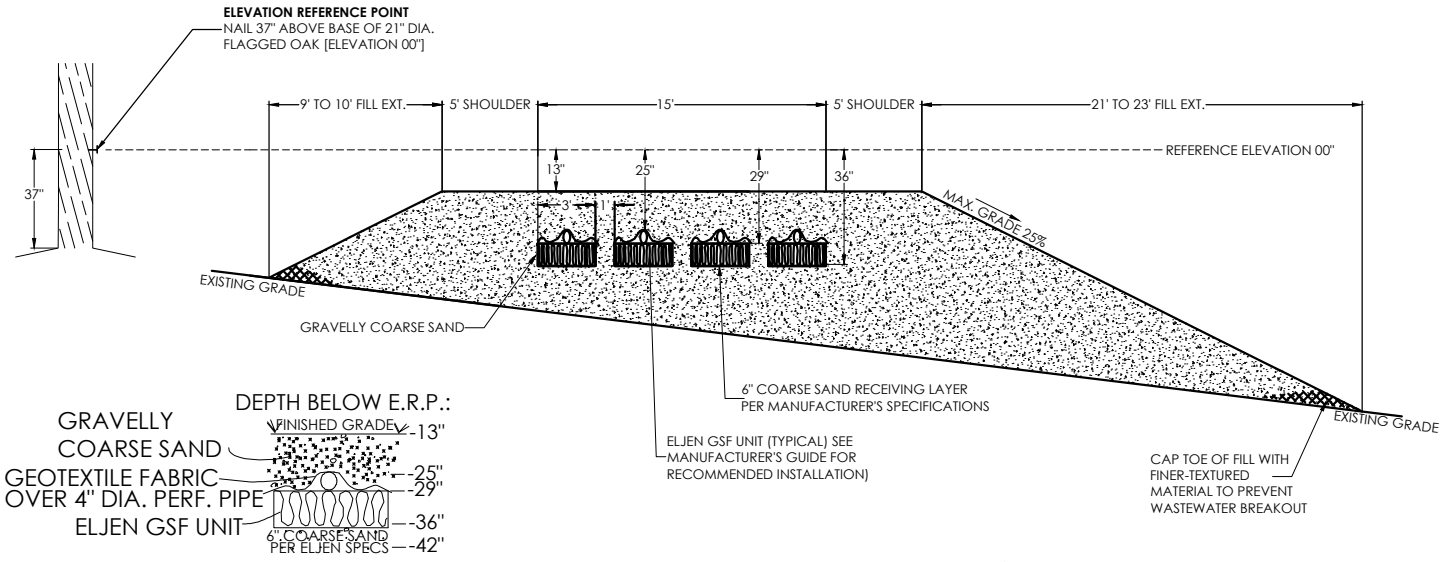
ELEVATION REFERENCE POINT

Location & Description: ***NAIL 37" ABOVE BASE OF 21" DIA. FLAGGED OAK***

Reference Elevation: ***00"***

DISPOSAL AREA CROSS SECTION

Scale
Horizontal 1" = ***10*** ft.
Vertical 1" = ***5*** ft.



James Logan
Site Evaluator Signature

237
SE #

11/30/23
Date

DISPOSAL SYSTEM INSTALLATION NOTES

1. The State of Maine *Subsurface Wastewater Disposal Rules (10-144 Chapter 241* the *Rules*) are incorporated by reference and made a part of this application. These shall be consulted by the owner/applicant, the system installer and/or building contractor for further construction details and material specifications. The system installer shall contact Longview Partners, LLC (207-693-8799) if there are any questions concerning materials, procedures or the design. The system installer and/or building contractor installing the system shall be solely responsible for compliance with the *Rules* and with all State and municipal laws and ordinances pertaining to the permitting, construction, and inspection of subsurface wastewater disposal systems.

2. This application is intended to represent facts pertinent to the *Rules* only. It shall be the responsibility of the owner/applicant, system installer and/or building contractor to determine compliance with and to obtain other permits under all applicable local, State and/or Federal laws and regulations before installing the system or considering the property on which the system is to be installed a "buildable" lot. It is recommended that a wetland scientist be consulted regarding wetland regulations, should wet areas exist. Prior to commencement of construction/installation, the Local Plumbing Inspector or Code Enforcement Officer shall inform the owner/applicant and Longview Partners, LLC or any local ordinances which are more restrictive than the *Rules* in order that the design may be amended. All designs are subject to review by local, State and/or Federal authorities. Longview Partners, LLC's liability shall be limited to revisions required by regulatory agencies and based on laws or regulations in effect at the time of preparation of this application.

3. All information shown on this application relating to property lines, well locations, subsurface structures, and underground facilities (such as utility lines, drains, septic systems, water lines, etc.) are based upon information provided by the owner/applicant and has been relied upon by Longview Partners, LLC in preparing this application. The owner/applicant shall review this application prior to the start of construction and confirm this information. Well locations on abutting properties not readily visible above-grade (such as well points) should be confirmed by the owner/applicant prior to system installation to assure minimum setbacks.

4. Installation of a garbage (grinder) disposal is **not recommended**. If one is installed, an additional 1,000 gallon septic tank shall be connected in series to the proposed septic tank or a septic tank outlet filter shall be installed in the tank outlet. Risers and covers should be installed over the septic tank cleanout and outlet per the *Rules* for easy maintenance of the filter.

5. The septic tank should be pumped within 2 years of installation and subsequently as recommended by the pump service. **In no event should the septic tank be pumped less often than every 3 years**. The system use shall avoid introducing kitchen grease or fats into the system. Chemicals such as septic tank cleaners and/or chlorine (such as from water treatment units) and controlled or hazardous substances shall not be disposed of in this system. Additives such as yeast or enzymes are discouraged, since they have not been proven to extend system life or performance.

6. All septic tanks, pump stations and additional treatment tanks shall be installed to prevent ground water and surface water infiltration. Risers and covers should be properly installed to provide access while preventing surface water intrusion within 6" of a finished ground surface. Vehicular traffic over disposal system is prohibited unless specifically designed with H-20 rated components.

DISPOSAL SYSTEM INSTALLATION NOTES

7. The daily wastewater flow, number of bedrooms, or use of structure shall not exceed the design criteria indicated on this application without a re-evaluation of the system as proposed.

8. The general minimum setbacks between a well (public or private) and septic system serving a single family residence are 100-300 feet, unless the local municipality has a more stringent requirement or a liner seal is installed in the well. A well installed by an abutter within the minimum setback distances prior to the issuance of a permit for the proposed disposal system may void this design.

9. When a gravity flow is anticipated, **before construction/installation begins**, the system installer or building contractor shall review the elevation of all points given in this application and the elevation of the existing and/or proposed building drain and septic tank inverts for compatibility to minimum pipe pitch requirements.

10. When an effluent pump is required, pump stations should be sized per manufacturer's specifications to meet lift requirements and friction/head loss. Provisions shall be made to make certain that surface and ground water does not enter the septic tank or pump station, by sealing/grouting all seams and connections, and by placement of a riser and cover at or above grade. An alarm device warning of a pump failure shall be installed. Bottom-feed distribution box is specified to prevent freezing. Insulate distribution boxes per the *Rules*.

11. On all systems, remove the vegetation, organic duff and roots, and old fill material from under the disposal area and any fill extension. Additional fill beyond indicated on the plan may be necessary to replace organic matter and/or stumps. On sites where the proposed disposal area is to be installed in natural soil, scarify the bottom and sides of the excavated disposal area with a rake. Do not use wheeled equipment on the scarified soil surface. For systems installed in fill, scarify the native soil by roto-tilling or scarifying with teeth of backhoe to a depth of at least 8 inches over the entire disposal field and fill extension are to prevent glazing and to promote fill bonding. Place fill in loose layers no deeper than 8 inches and compact before placing more fill (this ensures that voids and loose pockets are eliminated to minimize the chance of leakage or different settling). Do not use wheeled equipment on the scarified soil are until after 12 inches of fill is in place. Keep equipment off of proprietary leaching devices. Divert surface water away from the disposal area by ditching or shallow landscape swales.

12. Unless noted otherwise, fill shall be gravelly coarse sand, which contains no more than 5% fines (silt and clay). Crushed stone shall be clean and free of any rock dust from the crushing process. Refer to the *Rules* for more specific information regarding fill and stone.

13. Seed all filled and disturbed surfaces with perennial grass seed, with 4 inches minimum soil or soil amendment mix suitable for growing, then mulch with hay or equivalent material to prevent erosion. Alternatively, bark or permanent landscape mulch may be used to cover the system. Woody trees or shrubs are not permitted on the disposal field or fill extensions.

14. If an advanced wastewater treatment unit is part of this design, the system shall be operated and maintained per manufacturer's specifications.

15. Effluent (backwash) from water treatment units **SHALL NOT** be disposed of within this disposal system and **MUST** be redirected away from the disposal field

SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Maine Dept.Health & Human Services
Div of Environmental Health , 11 SHS
(207) 287-5672 Fax: (207) 287-4172

PROPERTY LOCATION

City, Town, or Plantation	KITTERY
Street or Road	R.O.W. off BARTLETT ROAD
Subdivision, Lot #	WASHBURN FARM, LOT 2

OWNER/APPLICANT INFORMATION

Name (last, first, MI): BEACHWOOD DEVELOPMENT FUND ☐ Owner ☐ Applicant

Mailing Address of Owner/Applicant: P.O. BOX 261, KENNEBUNK, ME 04043

Daytime Tel. #:

OWNER OR APPLICANT STATEMENT

I state and acknowledge that the information submitted is correct to the best of my knowledge and understand that any falsification is reason for the Department and/or Local Plumbing Inspector to deny a Permit.

Signature of Owner or Applicant _____ Date _____

>> CAUTION: LPI APPROVAL REQUIRED <<

Town/City _____ Permit # _____

Date Permit Issued ____/____/____ Fee: $_____ Double Fee Charged

Local Plumbing Inspector Signature _____ LPI. # _____

☐ Owner ☐ Town ☐ State

The Subsurface Wastewater Disposal System shall not be installed until a Permit is issued by the Local Plumbing Inspector. The Permit shall authorize the owner or installer to install the disposal system in accordance with this application and the Maine Subsurface Wastewater Disposal Rules.

Municipal Tax Map # 62 Lot # P/O 26

CAUTION: INSPECTION REQUIRED

I have inspected the installation authoirzed above and found it to be in compliance with the Subsurface Wastewater Disposal Rules Application. _____ (1st) date approved

Local Plumbing Inspector Signature _____ (2nd) date approved

PERMIT INFORMATION

TYPE OF APPLICATION

1. First Time System
2. Replacement System
   Type replaced: _____
   Year installed: _____
3. Expanded System
   a. <25% Expansion
   b. >25% Expansion
4. Experimental System
5. Seasonal Conversion

THIS APPLICATION REQUIRES

1. No Rule Variance
2. First Time System Variance
   a. Local Plumbing Inspector Approval
   b. State & Local Plumbing Inspector Approval
3. Replacement System Variance
   a. Local Plumbing Inspector Approval
   b. State & Local Plumbing Inspector Approval
4. Minimum Lot Size Variance
5. Seasonal Conversion Permit

DISPOSAL SYSTEM COMPONENTS

1. Complete Non-engineered System
2. Primitive System (graywater & alt. toilet)
3. Alternative Toilet, specify: _____
4. Non-engineered Treatment Tank (only)
5. Holding Tank, _____ gallons
6. Non-engineered Disposal Field (only)
7. Separated Laundry System
8. Complete Engineered System (2000 gpd or more)
9. Engineered Treatment Tank (only)
10. Engineered Disposal Field (only)
11. Pre-treatment, specify: _____
12. Miscellaneous Components

SIZE OF PROPERTY

0.54+/- SQ. FT. ACRES

SHORELAND ZONING

Yes No

DISPOSAL SYSTEM TO SERVE

1. Single Family Dwelling Unit, No. of Bedrooms: 4
2. Multiple Family Dwelling, No. of Units: _____
3. Other: _____ (specify)

Current Use Seasonal Year Round Undeveloped

TYPE OF WATER SUPPLY

PROPOSED

1. Drilled Well 2. Dug Well 3. Private
4. Public 5. Other

DESIGN DETAILS (SYSTEM LAYOUT SHOWN ON PAGE 3)

TREATMENT TANKS

1. Concrete
   a. Regular
   b. Low Profile
2. Plastic
3. Other: _____

CAPACITY: 1000 GAL.

DISPOSAL FIELD TYPE & SIZE

1. Stone Bed 2. Stone Trench
3. Proprietary Device
   a. cluster array c. Linear
   b. regular load d. H-20 load
4. Other: _____

SIZE: 1536 sq. ft. lin. ft.

32 ELJEN GSF UNITS

GARBAGE DISPOSAL UNIT

1. No 2. Yes 3. Maybe

If Yes or Maybe, specify one below:

a. multi-compartment tank
b. ___ tanks in series
c. increase in tank capacity
d. Filter on Tank Outlet

REQUIRED

DESIGN FLOW

360 gallons per day

BASED ON:

1. Table 4A (dwelling unit(s))
2. Table 4C(other facilities)

SHOW CALCULATIONS for other facilites

-SINGLE FAMILY DWELLING-
4 BEDROOMS @ 90 GPD EACH

3. Section 4G (meter readings)
   ATTACH WATER METER DATA

SOIL DATA & DESIGN CLASS

PROFILE 3 / CONDITION C

at Observation Hole # TP 47

Depth 25 "

of Most Limiting Soil Factor

DISPOSAL FIELD SIZING

1. Medium---2.6 sq. ft. / gpd
2. Medium---Large 3.3 sq. f.t / gpd
3. Large---4.1 sq. ft. / gpd
4. Extra Large---5.0 sq. ft. / gpd

EFFLUENT/EJECTOR PUMP

1. Not Required
2. May Be Required — SEE NOTE PAGE 3
3. Required

Specify only for engineered systems:

DOSE: _____ gallons

LATITUDE AND LONGITUDE

at center of disposal area

Lat. 43 d 06 m 40 s

Lon. 70 d 41 m 23 s

if g.p.s, state margin of error: _____

SITE EVALUATOR STATEMENT

I certify that on 11/28/23 (date) I completed a site evaluation on this property and state that the data reported are accurate and that the proposed system is in compliance with the State of Maine Subsurface Wastewater Disposal Rules (10-144A CMR 241).

James Logan

Site Evaluator Signature | 237 SE # | 11/30/23 Date

JAMES LOGAN Site Evaluator Name Printed | 207-693-8799 Telephone Number | longviewpartners213@gmail.com E-mail Address

Note : Changes to or deviations from the design should be confirmed with the Site Evaluator.

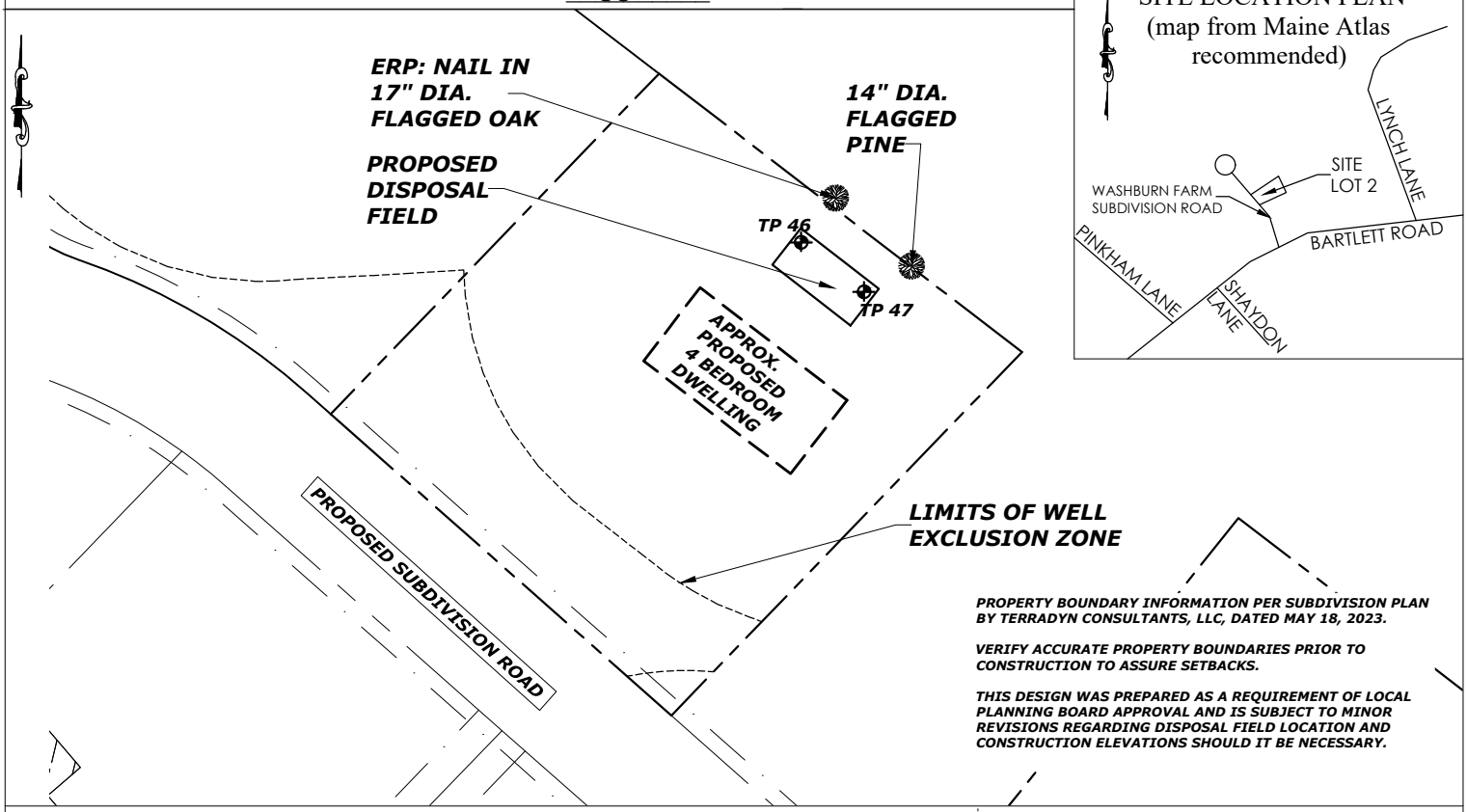
HHE-200 Rev. 08/2011

SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Department of Human Services
Division of Health Engineering
(207) 287-5672 Fax: (207) 287-3165

Town, City, Plantation	Street, Road, Subdivision	Owner's Name
KITTERY	***WASHBURN FARM SUBDIVISION, LOT 2***	***BEACHWOOD DEVELOPMENT FUND***

SITE PLAN Scale 1" = ***60*** ft. or as shown



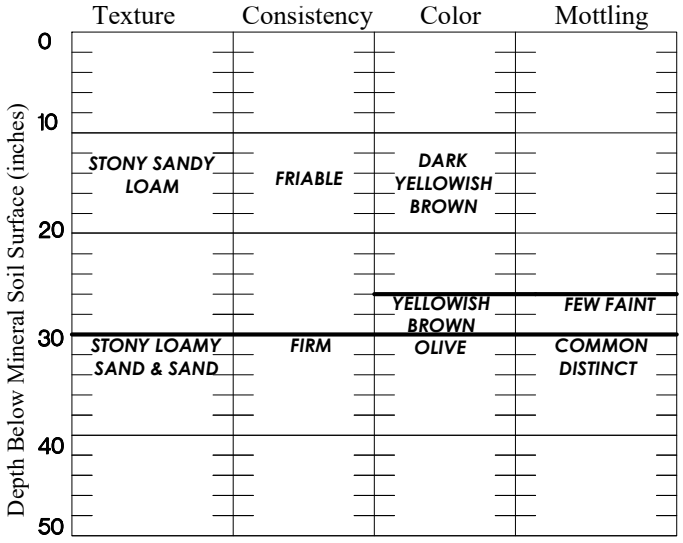
SITE LOCATION PLAN
(map from Maine Atlas recommended)

SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)

Observation Hole ***TP 46*** ■ Test Pit □ Boring

_____ " Depth of Organic Horizon Above Mineral Soil

SOIL TEST PIT BY BACKHOE

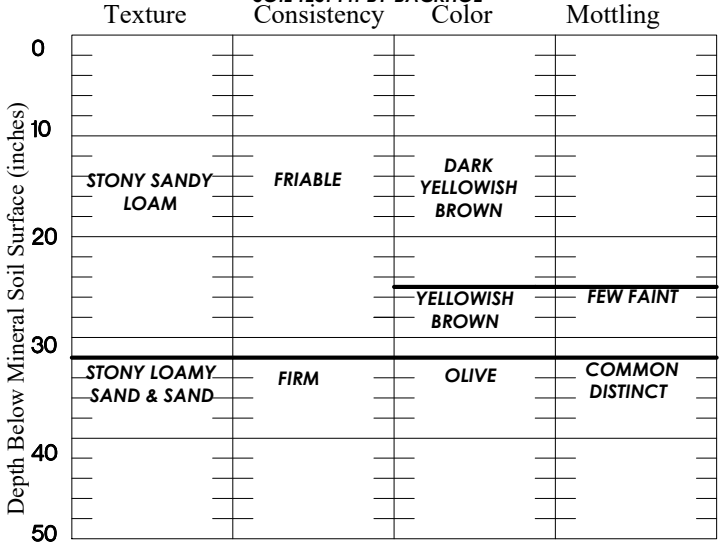


Soil Classification	Slope	Limiting Factor	
3 Profile ***C*** Condition	***0-5*** %	***26*** "	[X] Ground Water [ ] Restrictive Layer [ ] Bedrock [ ] Pit Depth

Observation Hole ***TP 47*** ■ Test Pit □ Boring

_____ " Depth of Organic Horizon Above Mineral Soil

SOIL TEST PIT BY BACKHOE



Soil Classification	Slope	Limiting Factor	
3 Profile ***C*** Condition	***0-5*** %	***25*** "	[X] Ground Water [ ] Restrictive Layer [ ] Bedrock [ ] Pit Depth

James Logan
Site Evaluator Signature

237
SE #

11/30/23
Date

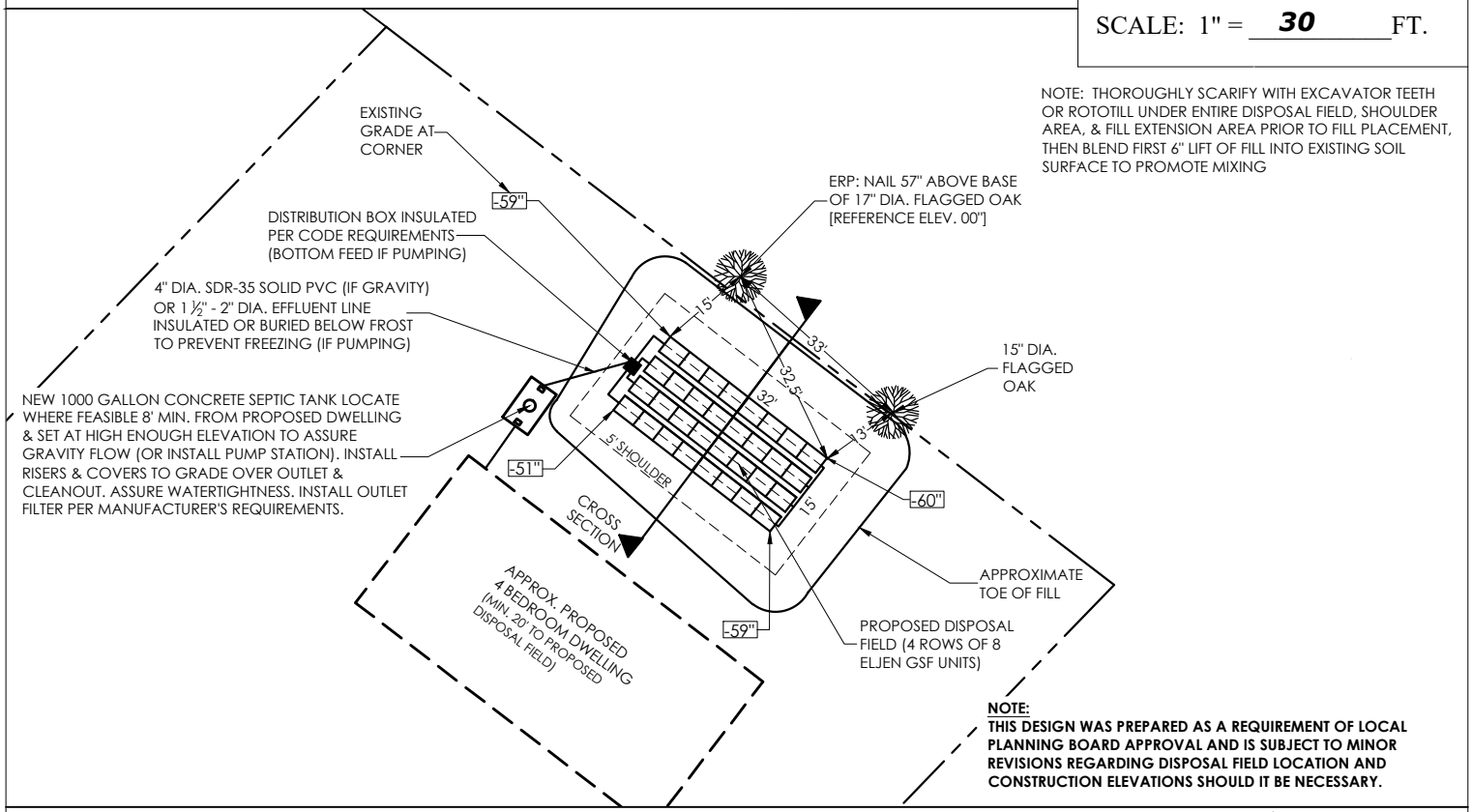
SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Department of Human Services
Division of Health Engineering
(207) 287-5672 Fax: (207) 287-3165

Town, City, Plantation	Street, Road, Subdivision	Owner's Name
KITTERY	***WASHBURN FARM SUBDIVISION, LOT 2***	***BEACHWOOD DEVELOPMENT FUND***

SUBSURFACE WASTEWATER DISPOSAL PLAN

SCALE: 1" = ***30*** FT.

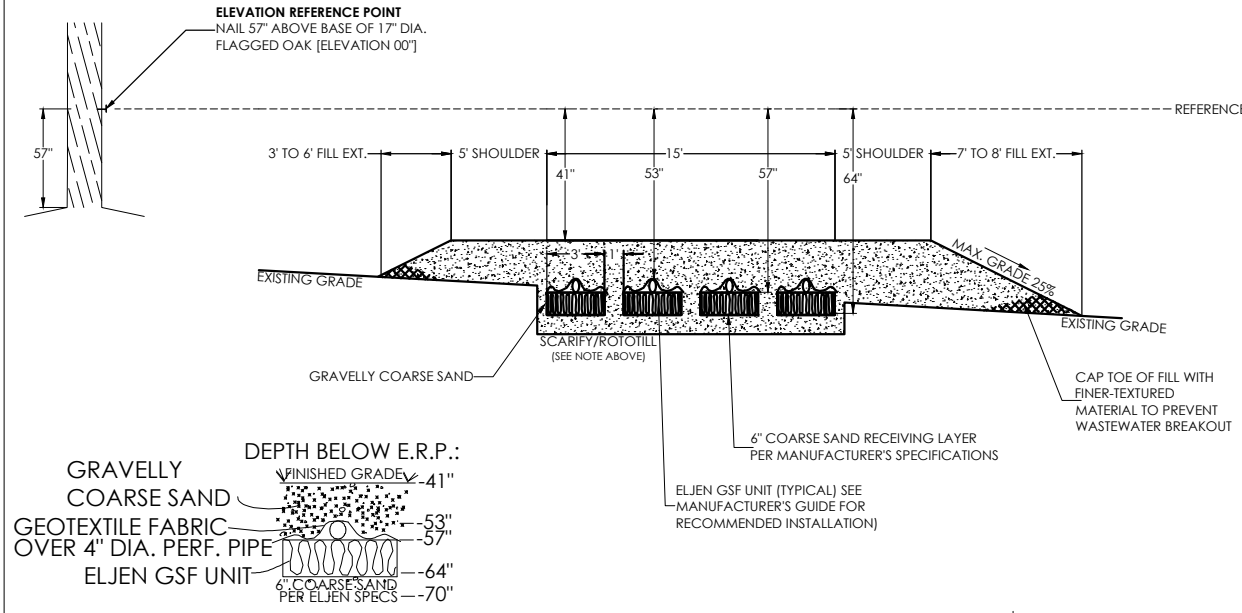


NOTE:
THIS DESIGN WAS PREPARED AS A REQUIREMENT OF LOCAL PLANNING BOARD APPROVAL AND IS SUBJECT TO MINOR REVISIONS REGARDING DISPOSAL FIELD LOCATION AND CONSTRUCTION ELEVATIONS SHOULD IT BE NECESSARY.

FILL REQUIREMENTS		CONSTRUCTION ELEVATIONS		ELEVATION REFERENCE POINT
Depth of Fill (Upslope)	***10"- 18"***	Finished Grade Elevation	***SEE***	Location & Description: ***NAIL 57" ABOVE BASE OF 17" DIA. FLAGGED OAK***
		Top of Distribution Pipe or Proprietary Device	***DETAIL***	
Depth of Fill (Downslope)	***18"- 19"***	Bottom of Disposal Area	***BELOW***	Reference Elevation: ***00"***

DISPOSAL AREA CROSS SECTION

Scale
Horizontal 1" = ***10*** ft.
Vertical 1" = ***5*** ft.



Site Evaluator Signature	SE #	Date
James Logan	***237***	***11/30/23***

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15. Effluent (backwash) from water treatment units **SHALL NOT** be disposed of within this disposal system and **MUST** be redirected away from the disposal field

SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Maine Dept.Health & Human Services
Div of Environmental Health , 11 SHS
(207) 287-5672 Fax: (207) 287-4172

PROPERTY LOCATION

City, Town, or Plantation	KITTERY
Street or Road	R.O.W. off BARTLETT ROAD
Subdivision, Lot #	WASHBURN FARM, LOT 3

OWNER/APPLICANT INFORMATION

Name (last, first, MI): BEACHWOOD DEVELOPMENT FUND ☐ Owner ☐ Applicant

Mailing Address of Owner/Applicant: P.O. BOX 261, KENNEBUNK, ME 04043

Daytime Tel. #:

OWNER OR APPLICANT STATEMENT

I state and acknowledge that the information submitted is correct to the best of my knowledge and understand that any falsification is reason for the Department and/or Local Plumbing Inspector to deny a Permit.

Signature of Owner or Applicant _____ Date _____

>> CAUTION: LPI APPROVAL REQUIRED <<

Town/City _____ Permit # _____

Date Permit Issued ____/____/____ Fee: $_____ Double Fee Charged

Local Plumbing Inspector Signature _____ LPI. # _____

☐ Owner ☐ Town ☐ State

The Subsurface Wastewater Disposal System shall not be installed until a Permit is issued by the Local Plumbing Inspector. The Permit shall authorize the owner or installer to install the disposal system in accordance with this application and the Maine Subsurface Wastewater Disposal Rules.

Municipal Tax Map # 62 Lot # P/O 26

CAUTION: INSPECTION REQUIRED

I have inspected the installation authoirzed above and found it to be in compliance with the Subsurface Wastewater Disposal Rules Application. _____ (1st) date approved

Local Plumbing Inspector Signature _____ (2nd) date approved

PERMIT INFORMATION

TYPE OF APPLICATION

- [1. First Time System]
- ☐ 2. Replacement System
  - Type replaced: _____
  - Year installed: _____
- ☐ 3. Expanded System
  - ☐ a. <25% Expansion
  - ☐ b. >25% Expansion
- ☐ 4. Experimental System
- ☐ 5. Seasonal Conversion

THIS APPLICATION REQUIRES

- [1. No Rule Variance]
- ☐ 2. First Time System Variance
  - ☐ a. Local Plumbing Inspector Approval
  - ☐ b. State & Local Plumbing Inspector Approval
- ☐ 3. Replacement System Variance
  - ☐ a. Local Plumbing Inspector Approval
  - ☐ b. State & Local Plumbing Inspector Approval
- ☐ 4. Minimum Lot Size Variance
- ☐ 5. Seasonal Conversion Permit

DISPOSAL SYSTEM COMPONENTS

- [1. Complete Non-engineered System]
- ☐ 2. Primitive System (graywater & alt. toilet)
- ☐ 3. Alternative Toilet, specify: _____
- ☐ 4. Non-engineered Treatment Tank (only)
- ☐ 5. Holding Tank, _____ gallons
- ☐ 6. Non-engineered Disposal Field (only)
- ☐ 7. Separated Laundry System
- ☐ 8. Complete Engineered System (2000 gpd or more)
- ☐ 9. Engineered Treatment Tank (only)
- ☐ 10. Engineered Disposal Field (only)
- ☐ 11. Pre-treatment, specify: _____
- ☐ 12. Miscellaneous Components

SIZE OF PROPERTY

0.67+/- [SQ. FT.] [ACRES]

SHORELAND ZONING

☐ Yes [☐ No]

DISPOSAL SYSTEM TO SERVE

- ☐ 1. Single Family Dwelling Unit, No. of Bedrooms: 4
- ☐ 2. Multiple Family Dwelling, No. of Units: _____
- ☐ 3. Other: _____ (specify)

Current Use ☐ Seasonal ☐ Year Round [Undeveloped]

TYPE OF WATER SUPPLY

PROPOSED

[1. Drilled Well] ☐ 2. Dug Well ☐ 3. Private

☐ 4. Public ☐ 5. Other

DESIGN DETAILS (SYSTEM LAYOUT SHOWN ON PAGE 3)

TREATMENT TANKS

- ☐ 1. Concrete
  - [a. Regular]
  - ☐ b. Low Profile
- ☐ 2. Plastic
- ☐ 3. Other: _____

CAPACITY: 1000 GAL.

DISPOSAL FIELD TYPE & SIZE

- ☐ 1. Stone Bed ☐ 2. Stone Trench
- [3. Proprietary Device]
  - ☐ a. cluster array [c. Linear]
  - [b. regular load] ☐ d. H-20 load
- ☐ 4. Other: _____

SIZE: 1536 [sq. ft.] ☐ lin. ft.

32 ELJEN GSF UNITS

GARBAGE DISPOSAL UNIT

[1. No] ☐ 2. Yes ☐ 3. Maybe

If Yes or Maybe, specify one below:

- ☐ a. multi-compartment tank
- ☐ b. ___ tanks in series
- ☐ c. increase in tank capacity
- [d. Filter on Tank Outlet] REQUIRED

DESIGN FLOW

360 gallons per day

BASED ON:

- [1. Table 4A (dwelling unit(s))]
- ☐ 2. Table 4C(other facilities)

SHOW CALCULATIONS for other facilites

-SINGLE FAMILY DWELLING-
4 BEDROOMS @ 90 GPD EACH

- ☐ 3. Section 4G (meter readings)

ATTACH WATER METER DATA

SOIL DATA & DESIGN CLASS

PROFILE 2 / CONDITION AII

at Observation Hole # TP 58

Depth 13 "

of Most Limiting Soil Factor

DISPOSAL FIELD SIZING

- ☐ 1. Medium---2.6 sq. ft. / gpd
- [2. Medium---Large 3.3 sq. f.t / gpd]
- ☐ 3. Large---4.1 sq. ft. / gpd
- ☐ 4. Extra Large---5.0 sq. ft. / gpd

EFFLUENT/EJECTOR PUMP

- ☐ 1. Not Required
- [2. May Be Required] SEE NOTE PAGE 3
- ☐ 3. Required

Specify only for engineered systems:

DOSE: _____ gallons

LATITUDE AND LONGITUDE

at center of disposal area

Lat. 43 d 06 m 41 s

Lon. 70 d 41 m 25 s

if g.p.s, state margin of error: _____

SITE EVALUATOR STATEMENT

I certify that on 11/28/23 (date) I completed a site evaluation on this property and state that the data reported are accurate and that the proposed system is in compliance with the State of Maine Subsurface Wastewater Disposal Rules (10-144A CMR 241).

James Logan

Site Evaluator Signature | 237 SE # | 11/30/23 Date

JAMES LOGAN Site Evaluator Name Printed | 207-693-8799 Telephone Number | longviewpartners213@gmail.com E-mail Address

Note : Changes to or deviations from the design should be confirmed with the Site Evaluator.

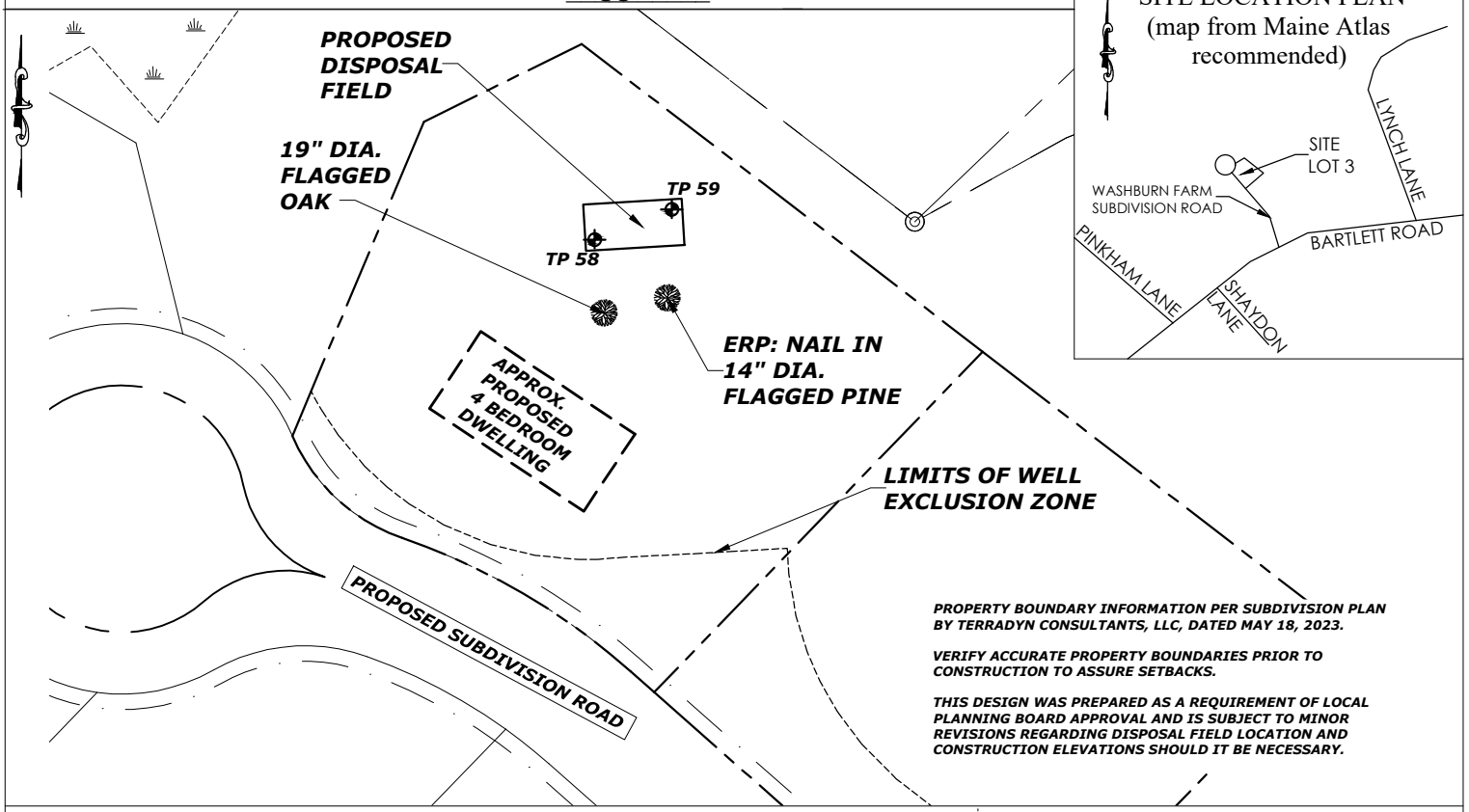
HHE-200 Rev. 08/2011

SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Department of Human Services
Division of Health Engineering
(207) 287-5672 Fax: (207) 287-3165

Town, City, Plantation	Street, Road, Subdivision	Owner's Name
KITTERY	***WASHBURN FARM SUBDIVISION, LOT 3***	***BEACHWOOD DEVELOPMENT FUND***

SITE PLAN Scale 1" = ***60*** ft. or as shown



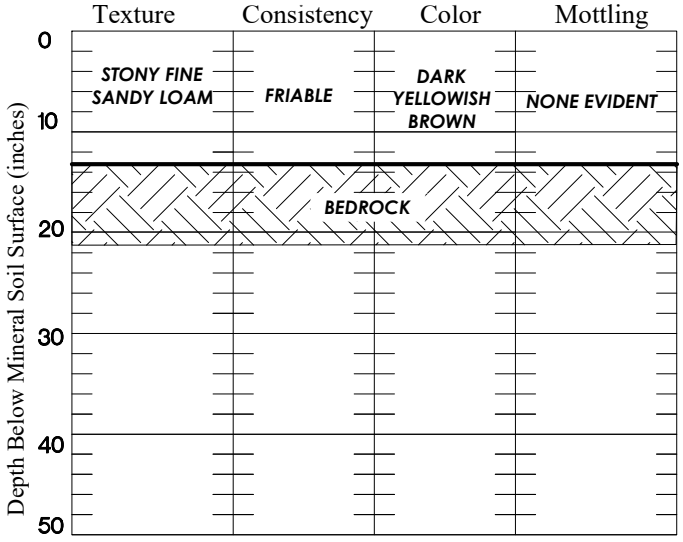
SITE LOCATION PLAN
(map from Maine Atlas recommended)

SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)

Observation Hole ***TP 58*** ■ Test Pit □ Boring

_____ " Depth of Organic Horizon Above Mineral Soil

SOIL TEST PIT BY BACKHOE



Soil Classification		Slope	Limiting Factor	
2 Profile	***All*** Condition	***6-7*** %	***13*** "	[ ] Ground Water [ ] Restrictive Layer [X] Bedrock [ ] Pit Depth

Observation Hole ***TP 59*** ■ Test Pit □ Boring

_____ " Depth of Organic Horizon Above Mineral Soil

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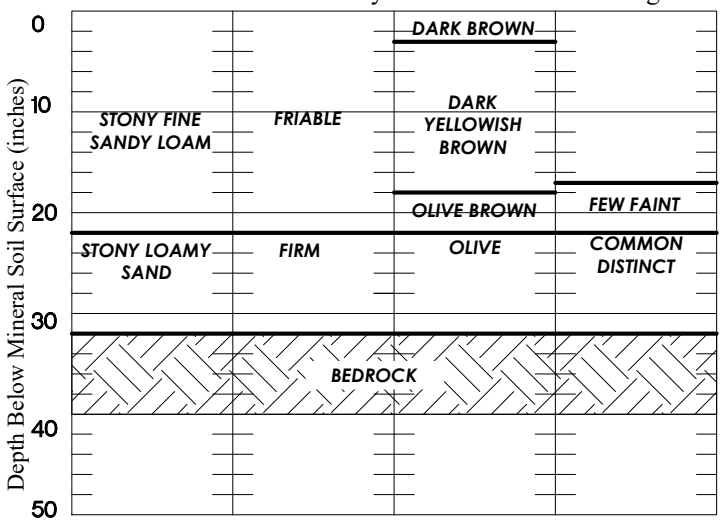


Soil Classification		Slope	Limiting Factor	
3 Profile	***AIII/C*** Condition	***6-7*** %	***17*** "	[X] Ground Water [ ] Restrictive Layer [ ] Bedrock [ ] Pit Depth

James Logan
Site Evaluator Signature

237
SE #

11/30/23
Date

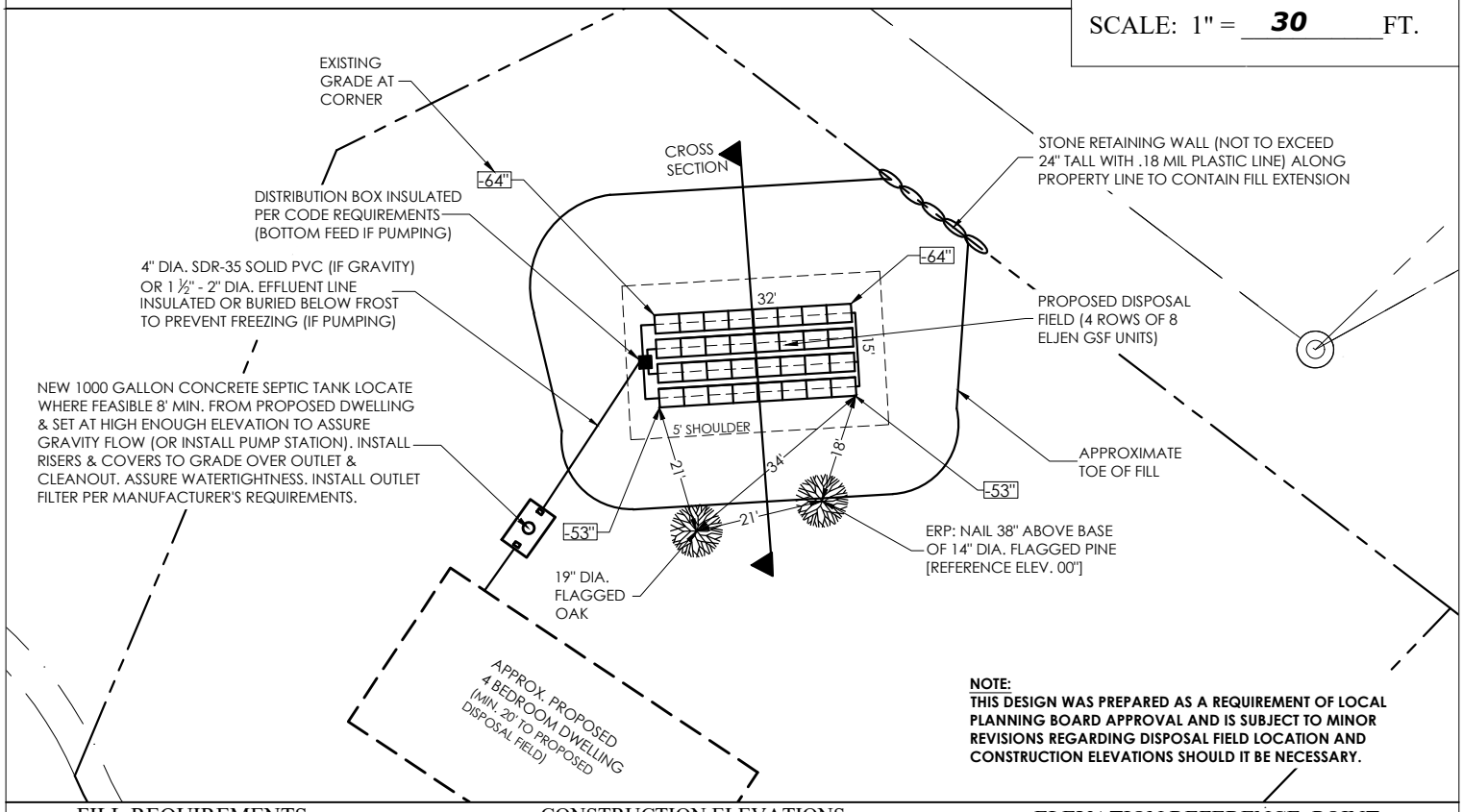
SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Department of Human Services
Division of Health Engineering
(207) 287-5672 Fax: (207) 287-3165

Town, City, Plantation	Street, Road, Subdivision	Owner's Name
KITTERY	***WASHBURN FARM SUBDIVISION, LOT 3***	***BEACHWOOD DEVELOPMENT FUND***

SUBSURFACE WASTEWATER DISPOSAL PLAN

SCALE: 1" = ***30*** FT.

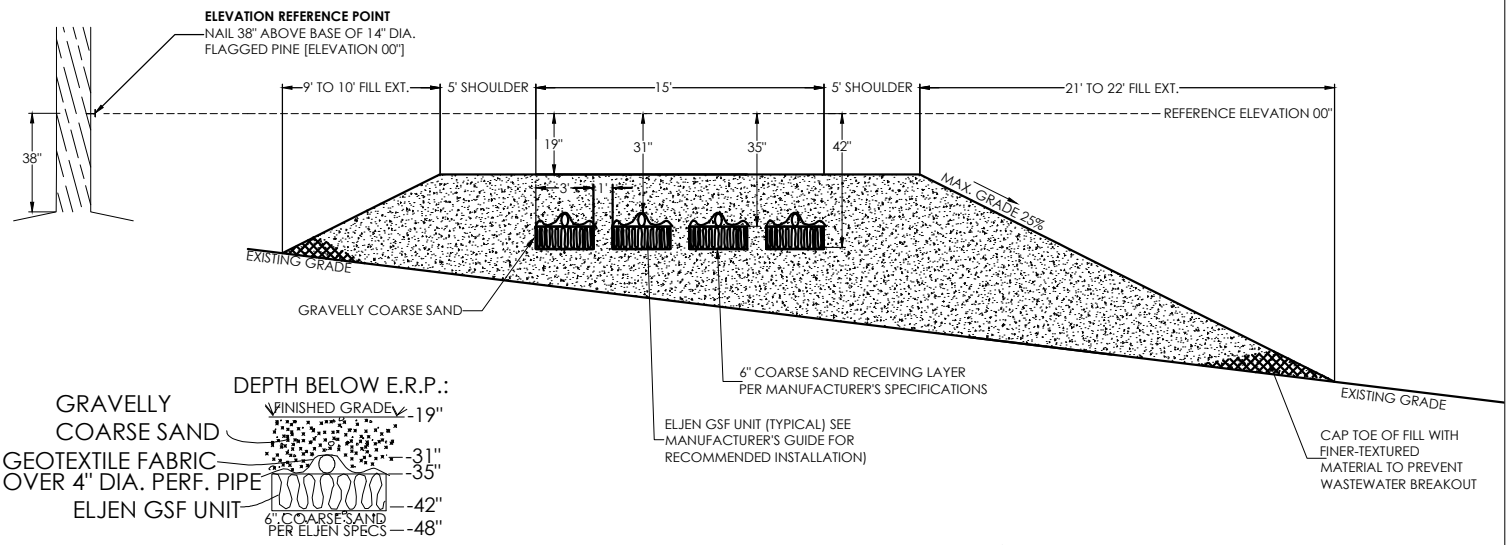


NOTE:
THIS DESIGN WAS PREPARED AS A REQUIREMENT OF LOCAL PLANNING BOARD APPROVAL AND IS SUBJECT TO MINOR REVISIONS REGARDING DISPOSAL FIELD LOCATION AND CONSTRUCTION ELEVATIONS SHOULD IT BE NECESSARY.

FILL REQUIREMENTS		CONSTRUCTION ELEVATIONS		ELEVATION REFERENCE POINT
Depth of Fill (Upslope)	***34"***	Finished Grade Elevation	***SEE***	Location & Description: ***NAIL 38" ABOVE BASE OF 14" DIA. FLAGGED PINE***
Depth of Fill (Downslope)	***45"***	Top of Distribution Pipe or Proprietary Device	***DETAIL***	Reference Elevation: ***00"***
		Bottom of Disposal Area	***BELOW***	

DISPOSAL AREA CROSS SECTION

Scale
Horizontal 1" = ***10*** ft.
Vertical 1" = ***5*** ft.



Site Evaluator Signature	SE #	Date	Page 3 of 3
James Logan	***237***	***11/30/23***	HHE-200 Rev. 8/01

DISPOSAL SYSTEM INSTALLATION NOTES

1. The State of Maine *Subsurface Wastewater Disposal Rules (10-144 Chapter 241* the *Rules*) are incorporated by reference and made a part of this application. These shall be consulted by the owner/applicant, the system installer and/or building contractor for further construction details and material specifications. The system installer shall contact Longview Partners, LLC (207-693-8799) if there are any questions concerning materials, procedures or the design. The system installer and/or building contractor installing the system shall be solely responsible for compliance with the *Rules* and with all State and municipal laws and ordinances pertaining to the permitting, construction, and inspection of subsurface wastewater disposal systems.

2. This application is intended to represent facts pertinent to the *Rules* only. It shall be the responsibility of the owner/applicant, system installer and/or building contractor to determine compliance with and to obtain other permits under all applicable local, State and/or Federal laws and regulations before installing the system or considering the property on which the system is to be installed a "buildable" lot. It is recommended that a wetland scientist be consulted regarding wetland regulations, should wet areas exist. Prior to commencement of construction/installation, the Local Plumbing Inspector or Code Enforcement Officer shall inform the owner/applicant and Longview Partners, LLC or any local ordinances which are more restrictive than the *Rules* in order that the design may be amended. All designs are subject to review by local, State and/or Federal authorities. Longview Partners, LLC's liability shall be limited to revisions required by regulatory agencies and based on laws or regulations in effect at the time of preparation of this application.

3. All information shown on this application relating to property lines, well locations, subsurface structures, and underground facilities (such as utility lines, drains, septic systems, water lines, etc.) are based upon information provided by the owner/applicant and has been relied upon by Longview Partners, LLC in preparing this application. The owner/applicant shall review this application prior to the start of construction and confirm this information. Well locations on abutting properties not readily visible above-grade (such as well points) should be confirmed by the owner/applicant prior to system installation to assure minimum setbacks.

4. Installation of a garbage (grinder) disposal is **not recommended**. If one is installed, an additional 1,000 gallon septic tank shall be connected in series to the proposed septic tank or a septic tank outlet filter shall be installed in the tank outlet. Risers and covers should be installed over the septic tank cleanout and outlet per the *Rules* for easy maintenance of the filter.

5. The septic tank should be pumped within 2 years of installation and subsequently as recommended by the pump service. **In no event should the septic tank be pumped less often than every 3 years**. The system use shall avoid introducing kitchen grease or fats into the system. Chemicals such as septic tank cleaners and/or chlorine (such as from water treatment units) and controlled or hazardous substances shall not be disposed of in this system. Additives such as yeast or enzymes are discouraged, since they have not been proven to extend system life or performance.

6. All septic tanks, pump stations and additional treatment tanks shall be installed to prevent ground water and surface water infiltration. Risers and covers should be properly installed to provide access while preventing surface water intrusion within 6" of a finished ground surface. Vehicular traffic over disposal system is prohibited unless specifically designed with H-20 rated components.

DISPOSAL SYSTEM INSTALLATION NOTES

7. The daily wastewater flow, number of bedrooms, or use of structure shall not exceed the design criteria indicated on this application without a re-evaluation of the system as proposed.

8. The general minimum setbacks between a well (public or private) and septic system serving a single family residence are 100-300 feet, unless the local municipality has a more stringent requirement or a liner seal is installed in the well. A well installed by an abutter within the minimum setback distances prior to the issuance of a permit for the proposed disposal system may void this design.

9. When a gravity flow is anticipated, **before construction/installation begins**, the system installer or building contractor shall review the elevation of all points given in this application and the elevation of the existing and/or proposed building drain and septic tank inverts for compatibility to minimum pipe pitch requirements.

10. When an effluent pump is required, pump stations should be sized per manufacturer's specifications to meet lift requirements and friction/head loss. Provisions shall be made to make certain that surface and ground water does not enter the septic tank or pump station, by sealing/grouting all seams and connections, and by placement of a riser and cover at or above grade. An alarm device warning of a pump failure shall be installed. Bottom-feed distribution box is specified to prevent freezing. Insulate distribution boxes per the *Rules*.

11. On all systems, remove the vegetation, organic duff and roots, and old fill material from under the disposal area and any fill extension. Additional fill beyond indicated on the plan may be necessary to replace organic matter and/or stumps. On sites where the proposed disposal area is to be installed in natural soil, scarify the bottom and sides of the excavated disposal area with a rake. Do not use wheeled equipment on the scarified soil surface. For systems installed in fill, scarify the native soil by roto-tilling or scarifying with teeth of backhoe to a depth of at least 8 inches over the entire disposal field and fill extension are to prevent glazing and to promote fill bonding. Place fill in loose layers no deeper than 8 inches and compact before placing more fill (this ensures that voids and loose pockets are eliminated to minimize the chance of leakage or different settling). Do not use wheeled equipment on the scarified soil are until after 12 inches of fill is in place. Keep equipment off of proprietary leaching devices. Divert surface water away from the disposal area by ditching or shallow landscape swales.

12. Unless noted otherwise, fill shall be gravelly coarse sand, which contains no more than 5% fines (silt and clay). Crushed stone shall be clean and free of any rock dust from the crushing process. Refer to the *Rules* for more specific information regarding fill and stone.

13. Seed all filled and disturbed surfaces with perennial grass seed, with 4 inches minimum soil or soil amendment mix suitable for growing, then mulch with hay or equivalent material to prevent erosion. Alternatively, bark or permanent landscape mulch may be used to cover the system. Woody trees or shrubs are not permitted on the disposal field or fill extensions.

14. If an advanced wastewater treatment unit is part of this design, the system shall be operated and maintained per manufacturer's specifications.

15. Effluent (backwash) from water treatment units **SHALL NOT** be disposed of within this disposal system and **MUST** be redirected away from the disposal field

SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Maine Dept.Health & Human Services
Div of Environmental Health , 11 SHS
(207) 287-5672 Fax: (207) 287-4172

PROPERTY LOCATION

City, Town, or Plantation	KITTERY
Street or Road	R.O.W. off BARTLETT ROAD
Subdivision, Lot #	WASHBURN FARM, LOT 4

OWNER/APPLICANT INFORMATION

Name (last, first, MI): BEACHWOOD DEVELOPMENT FUND ☐ Owner ☐ Applicant

Mailing Address of Owner/Applicant: P.O. BOX 261, KENNEBUNK, ME 04043

Daytime Tel. #:

OWNER OR APPLICANT STATEMENT

I state and acknowledge that the information submitted is correct to the best of my knowledge and understand that any falsification is reason for the Department and/or Local Plumbing Inspector to deny a Permit.

Signature of Owner or Applicant _____ Date _____

>> CAUTION: LPI APPROVAL REQUIRED <<

Town/City _____ Permit # _____

Date Permit Issued ____/____/____ Fee: $_____ Double Fee Charged

Local Plumbing Inspector Signature _____ LPI. # _____

☐ Owner ☐ Town ☐ State

The Subsurface Wastewater Disposal System shall not be installed until a Permit is issued by the Local Plumbing Inspector. The Permit shall authorize the owner or installer to install the disposal system in accordance with this application and the Maine Subsurface Wastewater Disposal Rules.

Municipal Tax Map # 62 Lot # P/O 26

CAUTION: INSPECTION REQUIRED

I have inspected the installation authoirzed above and found it to be in compliance with the Subsurface Wastewater Disposal Rules Application. _____ (1st) date approved

Local Plumbing Inspector Signature _____ (2nd) date approved

PERMIT INFORMATION

TYPE OF APPLICATION

☐ 1. First Time System
☐ 2. Replacement System
Type replaced: _____
Year installed: _____
☐ 3. Expanded System
☐ a. <25% Expansion
☐ b. >25% Expansion
☐ 4. Experimental System
☐ 5. Seasonal Conversion

THIS APPLICATION REQUIRES

☐ 1. No Rule Variance
☐ 2. First Time System Variance
☐ a. Local Plumbing Inspector Approval
☐ b. State & Local Plumbing Inspector Approval
☐ 3. Replacement System Variance
☐ a. Local Plumbing Inspector Approval
☐ b. State & Local Plumbing Inspector Approval
☐ 4. Minimum Lot Size Variance
☐ 5. Seasonal Conversion Permit

DISPOSAL SYSTEM COMPONENTS

☐ 1. Complete Non-engineered System
☐ 2. Primitive System (graywater & alt. toilet)
☐ 3. Alternative Toilet, specify: _____
☐ 4. Non-engineered Treatment Tank (only)
☐ 5. Holding Tank, _____ gallons
☐ 6. Non-engineered Disposal Field (only)
☐ 7. Separated Laundry System
☐ 8. Complete Engineered System (2000 gpd or more)
☐ 9. Engineered Treatment Tank (only)
☐ 10. Engineered Disposal Field (only)
☐ 11. Pre-treatment, specify: _____
☐ 12. Miscellaneous Components

SIZE OF PROPERTY

0.61+/- ☐ SQ. FT. ☐ ACRES

SHORELAND ZONING

☐ Yes ☐ No

DISPOSAL SYSTEM TO SERVE

☐ 1. Single Family Dwelling Unit, No. of Bedrooms: 4
☐ 2. Multiple Family Dwelling, No. of Units: _____
☐ 3. Other: _____ (specify)

Current Use ☐ Seasonal ☐ Year Round ☐ Undeveloped

TYPE OF WATER SUPPLY

PROPOSED
☐ 1. Drilled Well ☐ 2. Dug Well ☐ 3. Private
☐ 4. Public ☐ 5. Other

DESIGN DETAILS (SYSTEM LAYOUT SHOWN ON PAGE 3)

TREATMENT TANKS

☐ 1. Concrete
☐ a. Regular
☐ b. Low Profile
☐ 2. Plastic
☐ 3. Other: _____
CAPACITY: 1000 GAL.

DISPOSAL FIELD TYPE & SIZE

☐ 1. Stone Bed ☐ 2. Stone Trench
☐ 3. Proprietary Device
☐ a. cluster array ☐ c. Linear
☐ b. regular load ☐ d. H-20 load
☐ 4. Other: _____
SIZE: 1536 ☐ sq. ft. ☐ lin. ft.
32 ELJEN GSF UNITS

GARBAGE DISPOSAL UNIT

☐ 1. No ☐ 2. Yes ☐ 3. Maybe
If Yes or Maybe, specify one below:
☐ a. multi-compartment tank
☐ b. ___ tanks in series
☐ c. increase in tank capacity
☐ d. Filter on Tank Outlet
REQUIRED

DESIGN FLOW

360 gallons per day
BASED ON:
☐ 1. Table 4A (dwelling unit(s))
☐ 2. Table 4C(other facilities)
SHOW CALCULATIONS for other facilites
-SINGLE FAMILY DWELLING-
4 BEDROOMS @ 90 GPD EACH

SOIL DATA & DESIGN CLASS

PROFILE 3 / CONDITION C
at Observation Hole # TP 60
Depth 20 "
of Most Limiting Soil Factor

DISPOSAL FIELD SIZING

☐ 1. Medium---2.6 sq. ft. / gpd
☐ 2. Medium---Large 3.3 sq. f.t / gpd
☐ 3. Large---4.1 sq. ft. / gpd
☐ 4. Extra Large---5.0 sq. ft. / gpd

EFFLUENT/EJECTOR PUMP

☐ 1. Not Required
☐ 2. May Be Required SEE NOTE PAGE 3
☐ 3. Required
Specify only for engineered systems:
DOSE: _____ gallons

☐ 3. Section 4G (meter readings)
ATTACH WATER METER DATA

LATITUDE AND LONGITUDE

at center of disposal area
Lat. 43 d 06 m 41 s
Lon. 70 d 41 m 30 s
if g.p.s, state margin of error: _____

SITE EVALUATOR STATEMENT

I certify that on 11/28/23 (date) I completed a site evaluation on this property and state that the data reported are accurate and that the proposed system is in compliance with the State of Maine Subsurface Wastewater Disposal Rules (10-144A CMR 241).

James Logan
Site Evaluator Signature

237
SE #

11/30/23
Date

JAMES LOGAN
Site Evaluator Name Printed

207-693-8799
Telephone Number

longviewpartners213@gmail.com
E-mail Address

Note : Changes to or deviations from the design should be confirmed with the Site Evaluator.

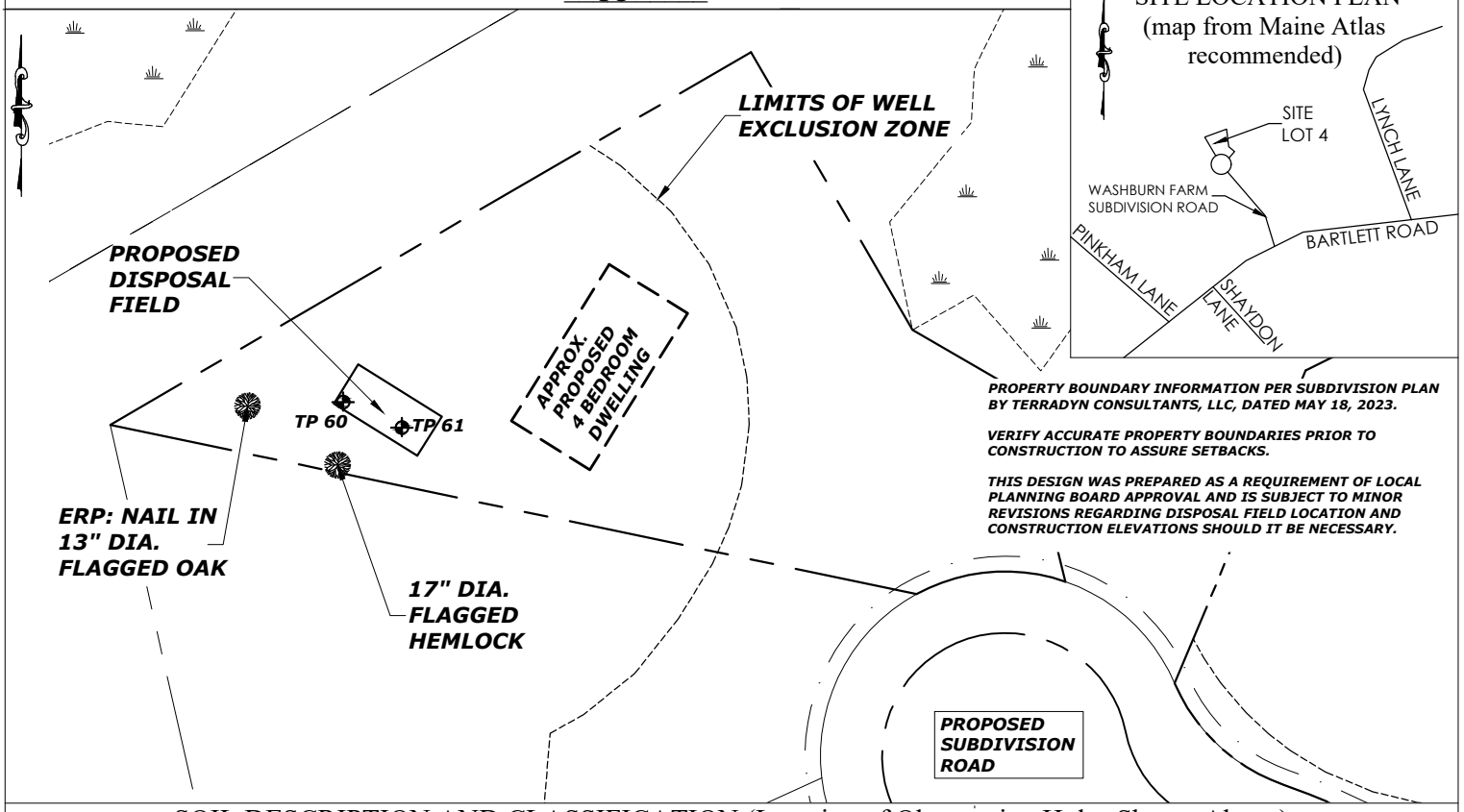
HHE-200 Rev. 08/2011

SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Department of Human Services
Division of Health Engineering
(207) 287-5672 Fax: (207) 287-3165

Town, City, Plantation	Street, Road, Subdivision	Owner's Name
KITTERY	***WASHBURN FARM SUBDIVISION, LOT 4***	***BEACHWOOD DEVELOPMENT FUND***

SITE PLAN Scale 1" = ***60*** ft. or as shown



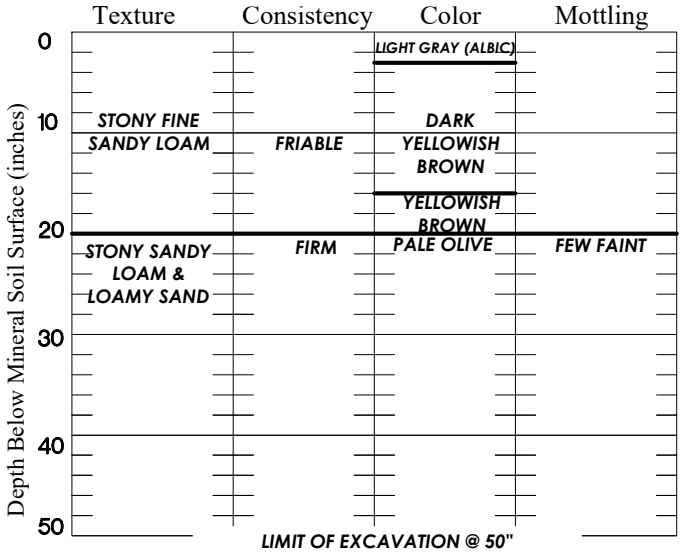
SITE LOCATION PLAN
(map from Maine Atlas recommended)

SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)

Observation Hole ***TP 60*** ■ Test Pit □ Boring

_____ " Depth of Organic Horizon Above Mineral Soil

SOIL TEST PIT BY BACKHOE



Soil Classification		Slope	Limiting Factor	
3 Profile	***C*** Condition	***3-5-*** %	***20*** "	[X] Ground Water [ ] Restrictive Layer [ ] Bedrock [ ] Pit Depth

Observation Hole ***TP 61*** ■ Test Pit □ Boring

_____ " Depth of Organic Horizon Above Mineral Soil

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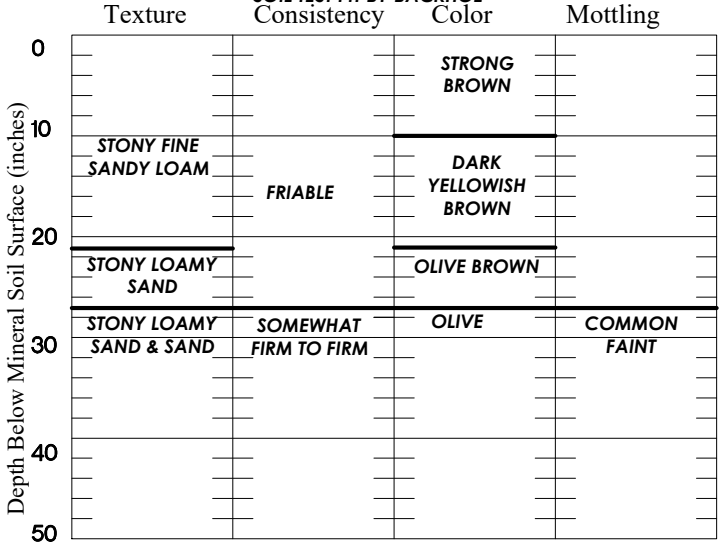

Soil Classification		Slope	Limiting Factor	
3 Profile	***C*** Condition	***3-5*** %	***27*** "	[X] Ground Water [X] Restrictive Layer [ ] Bedrock [ ] Pit Depth

James Logan
Site Evaluator Signature

237
SE #

11/30/23
Date

SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Department of Human Services
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Town, City, Plantation	Street, Road, Subdivision	Owner's Name
KITTERY	***WASHBURN FARM SUBDIVISION, LOT 4***	***BEACHWOOD DEVELOPMENT FUND***

SUBSURFACE WASTEWATER DISPOSAL PLAN

SCALE: 1" = ***30*** FT.

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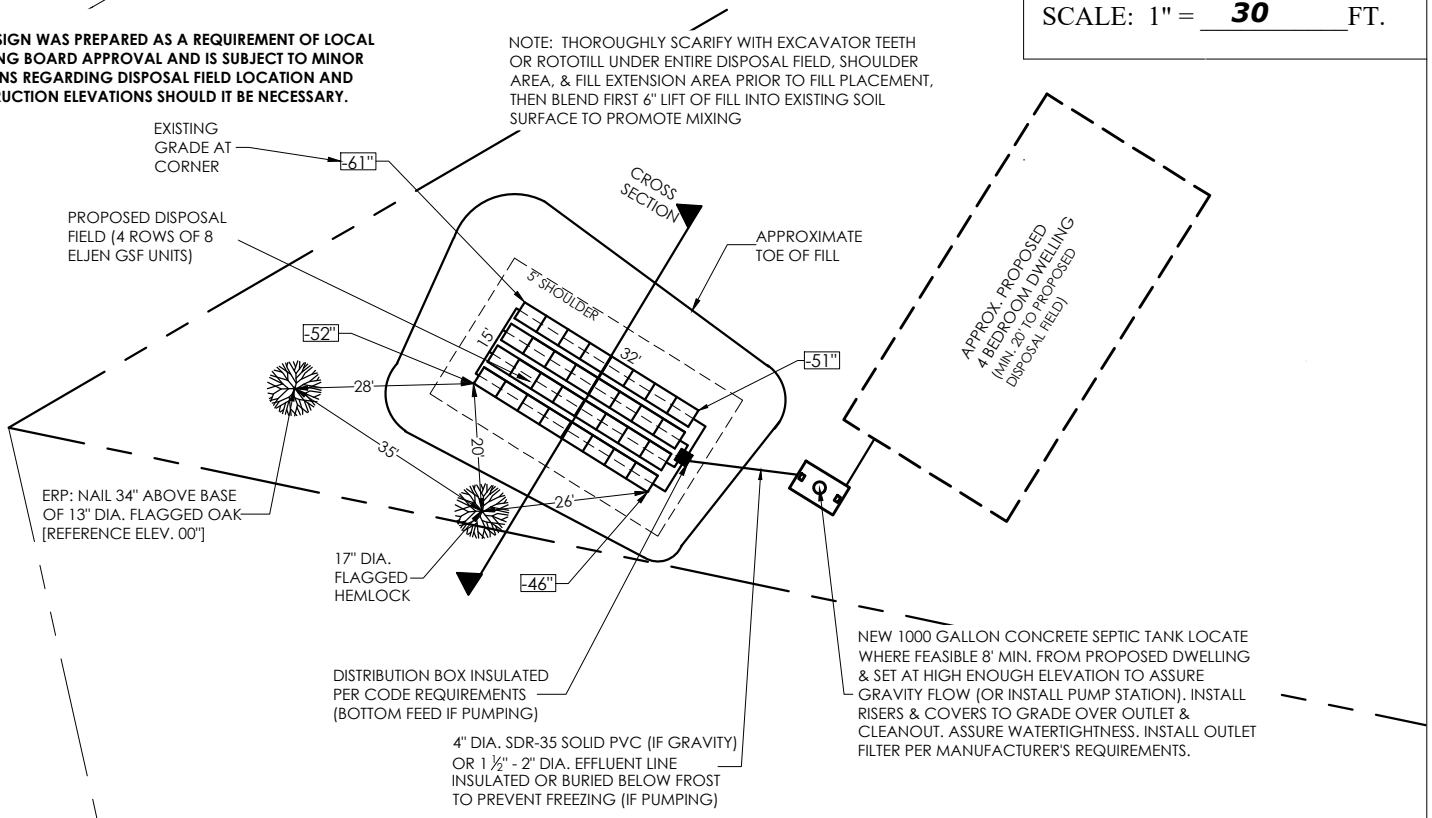

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		Top of Distribution Pipe or Proprietary Device	***DETAIL***	Reference Elevation: ***00"***
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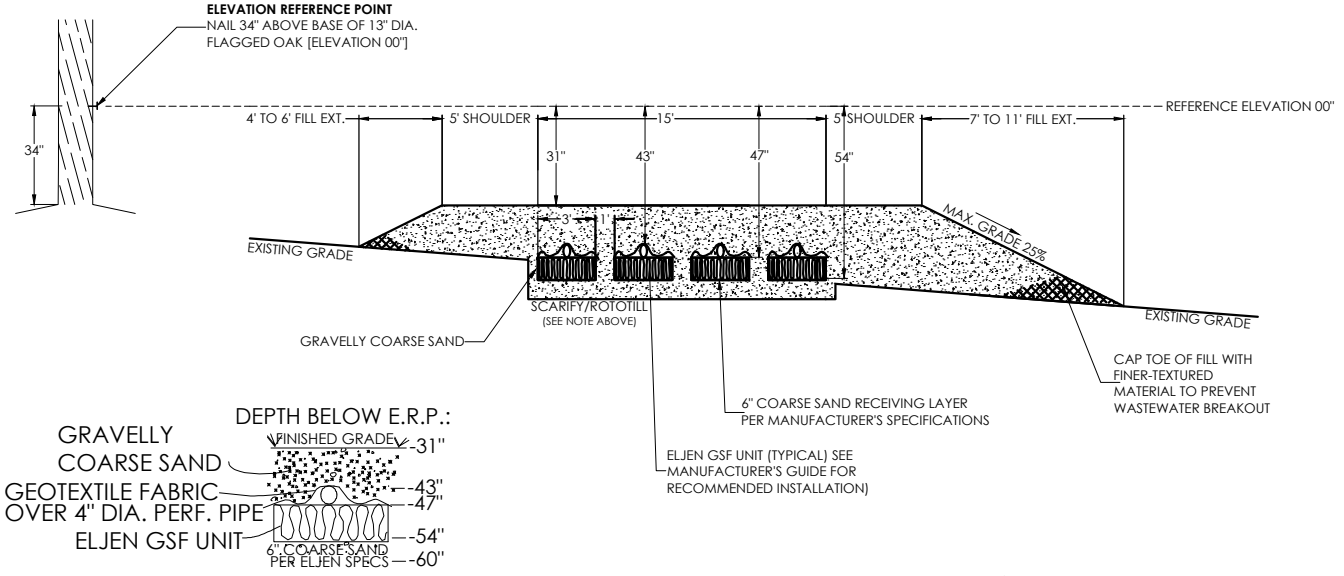

Site Evaluator Signature	SE #	Date
James Logan	***237***	***11/30/23***

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SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Maine Dept.Health & Human Services
Div of Environmental Health , 11 SHS
(207) 287-5672 Fax: (207) 287-4172

PROPERTY LOCATION

City, Town, or Plantation	KITTERY
Street or Road	R.O.W. off BARTLETT ROAD
Subdivision, Lot #	WASHBURN FARM, LOT 5

OWNER/APPLICANT INFORMATION

Name (last, first, MI): BEACHWOOD DEVELOPMENT FUND ☐ Owner ☐ Applicant

Mailing Address of Owner/Applicant: P.O. BOX 261, KENNEBUNK, ME 04043

Daytime Tel. #:

OWNER OR APPLICANT STATEMENT

I state and acknowledge that the information submitted is correct to the best of my knowledge and understand that any falsification is reason for the Department and/or Local Plumbing Inspector to deny a Permit.

Signature of Owner or Applicant _____ Date _____

>> CAUTION: LPI APPROVAL REQUIRED <<

Town/City _____ Permit # _____

Date Permit Issued ____/____/____ Fee: $_____ Double Fee Charged

Local Plumbing Inspector Signature _____ LPI. # _____

☐ Owner ☐ Town ☐ State

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Municipal Tax Map # 62 Lot # P/O 26

CAUTION: INSPECTION REQUIRED

I have inspected the installation authoirzed above and found it to be in compliance with the Subsurface Wastewater Disposal Rules Application. _____ (1st) date approved

Local Plumbing Inspector Signature _____ (2nd) date approved

PERMIT INFORMATION

TYPE OF APPLICATION

- [1. First Time System]
- ☐ 2. Replacement System
  - Type replaced: _____
  - Year installed: _____
- ☐ 3. Expanded System
  - ☐ a. <25% Expansion
  - ☐ b. >25% Expansion
- ☐ 4. Experimental System
- ☐ 5. Seasonal Conversion

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- ☐ 4. Non-engineered Treatment Tank (only)
- ☐ 5. Holding Tank, _____ gallons
- ☐ 6. Non-engineered Disposal Field (only)
- ☐ 7. Separated Laundry System
- ☐ 8. Complete Engineered System (2000 gpd or more)
- ☐ 9. Engineered Treatment Tank (only)
- ☐ 10. Engineered Disposal Field (only)
- ☐ 11. Pre-treatment, specify: _____
- ☐ 12. Miscellaneous Components

SIZE OF PROPERTY

0.66+/- [SQ. FT.] [ACRES]

SHORELAND ZONING

☐ Yes [No]

DISPOSAL SYSTEM TO SERVE

- ☐ 1. Single Family Dwelling Unit, No. of Bedrooms: 4
- ☐ 2. Multiple Family Dwelling, No. of Units: _____
- ☐ 3. Other: _____ (specify)

Current Use ☐ Seasonal ☐ Year Round [Undeveloped]

TYPE OF WATER SUPPLY

PROPOSED

[1. Drilled Well] ☐ 2. Dug Well ☐ 3. Private ☐ 4. Public ☐ 5. Other

DESIGN DETAILS (SYSTEM LAYOUT SHOWN ON PAGE 3)

TREATMENT TANKS

- ☐ 1. Concrete
  - [a. Regular]
  - ☐ b. Low Profile
- ☐ 2. Plastic
- ☐ 3. Other: _____

CAPACITY: 1000 GAL.

DISPOSAL FIELD TYPE & SIZE

- ☐ 1. Stone Bed ☐ 2. Stone Trench
- [3. Proprietary Device]
  - ☐ a. cluster array [c. Linear]
  - [b. regular load] ☐ d. H-20 load
- ☐ 4. Other: _____

SIZE: 1536 [sq. ft.] ☐ lin. ft.

32 ELJEN GSF UNITS

GARBAGE DISPOSAL UNIT

[1. No] ☐ 2. Yes ☐ 3. Maybe

If Yes or Maybe, specify one below:

- ☐ a. multi-compartment tank
- ☐ b. ___ tanks in series
- ☐ c. increase in tank capacity
- [d. Filter on Tank Outlet] REQUIRED

DESIGN FLOW

360 gallons per day

BASED ON:

- [1. Table 4A (dwelling unit(s))]
- ☐ 2. Table 4C(other facilities)

SHOW CALCULATIONS for other facilites

-SINGLE FAMILY DWELLING-
4 BEDROOMS @ 90 GPD EACH

- ☐ 3. Section 4G (meter readings)

ATTACH WATER METER DATA

SOIL DATA & DESIGN CLASS

PROFILE 3 / CONDITION C

at Observation Hole # TP 9

Depth 22 "

of Most Limiting Soil Factor

DISPOSAL FIELD SIZING

- ☐ 1. Medium---2.6 sq. ft. / gpd
- [2. Medium---Large 3.3 sq. f.t / gpd]
- ☐ 3. Large---4.1 sq. ft. / gpd
- ☐ 4. Extra Large---5.0 sq. ft. / gpd

EFFLUENT/EJECTOR PUMP

- ☐ 1. Not Required
- [2. May Be Required] SEE NOTE PAGE 3
- ☐ 3. Required

Specify only for engineered systems:

DOSE: _____ gallons

LATITUDE AND LONGITUDE

at center of disposal area

Lat. 43 d 06 m 41 s

Lon. 70 d 41 m 31 s

if g.p.s, state margin of error: _____

SITE EVALUATOR STATEMENT

I certify that on 11/28/23 (date) I completed a site evaluation on this property and state that the data reported are accurate and that the proposed system is in compliance with the State of Maine Subsurface Wastewater Disposal Rules (10-144A CMR 241).

James Logan

Site Evaluator Signature | 237 SE # | 11/30/23 Date

JAMES LOGAN Site Evaluator Name Printed | 207-693-8799 Telephone Number | longviewpartners213@gmail.com E-mail Address

Note : Changes to or deviations from the design should be confirmed with the Site Evaluator.

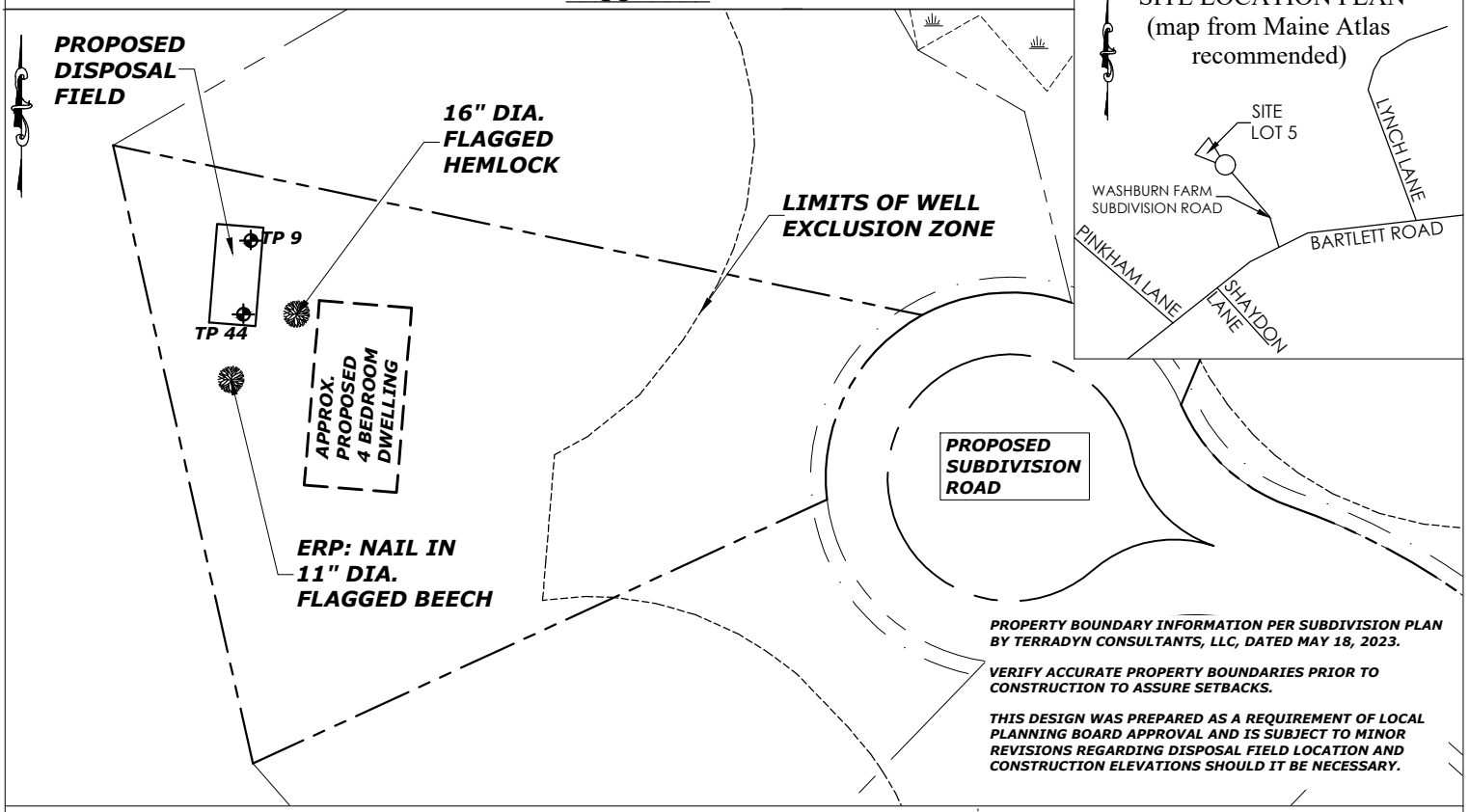
HHE-200 Rev. 08/2011

SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Department of Human Services
Division of Health Engineering
(207) 287-5672 Fax: (207) 287-3165

Town, City, Plantation	Street, Road, Subdivision	Owner's Name
KITTERY	***WASHBURN FARM SUBDIVISION, LOT 5***	***BEACHWOOD DEVELOPMENT FUND***

SITE PLAN Scale 1" = ***60*** ft. or as shown



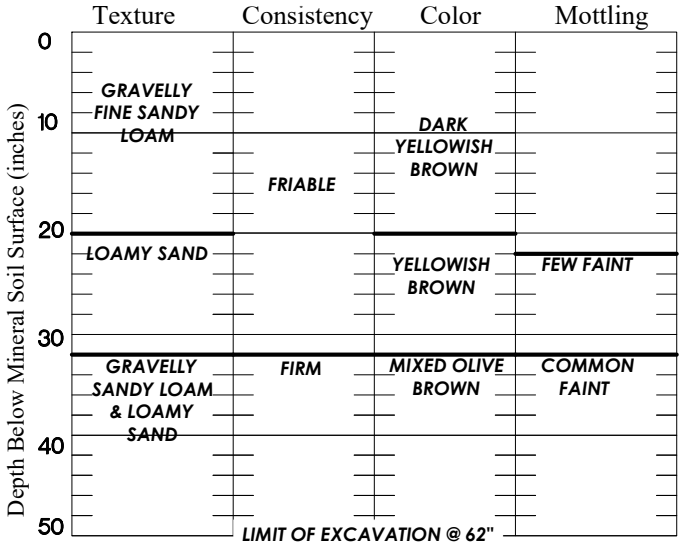
SITE LOCATION PLAN
(map from Maine Atlas recommended)

SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)

Observation Hole ***TP 9*** ■ Test Pit □ Boring

_____ " Depth of Organic Horizon Above Mineral Soil

SOIL TEST PIT BY BACKHOE

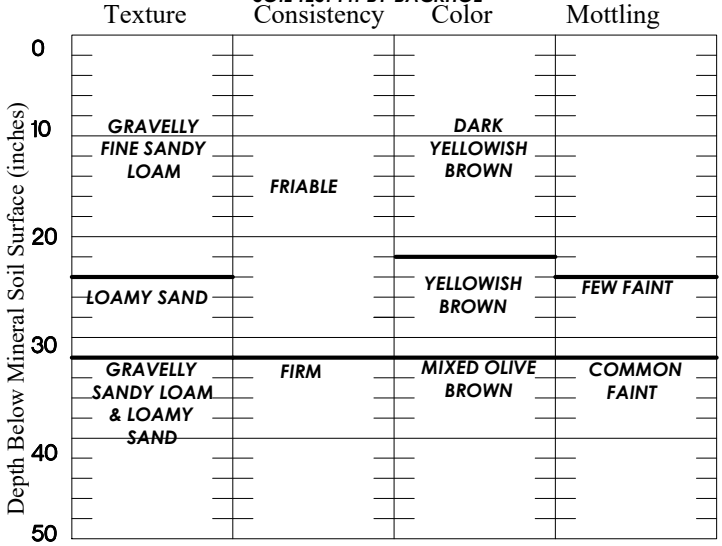


Soil Classification	Slope	Limiting Factor	[X] Ground Water [ ] Restrictive Layer [ ] Bedrock [ ] Pit Depth
3 Profile ***C*** Condition	***5-8*** %	***22*** "	

Observation Hole ***TP 44*** ■ Test Pit □ Boring

_____ " Depth of Organic Horizon Above Mineral Soil

SOIL TEST PIT BY BACKHOE



Soil Classification	Slope	Limiting Factor	[X] Ground Water [ ] Restrictive Layer [ ] Bedrock [ ] Pit Depth
3 Profile ***C*** Condition	***5-8*** %	***24*** "	

Site Evaluator Signature | ***237*** SE # | ***11/30/23*** Date

SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Department of Human Services
Division of Health Engineering
(207) 287-5672 Fax: (207) 287-3165

Town, City, Plantation	Street, Road, Subdivision	Owner's Name
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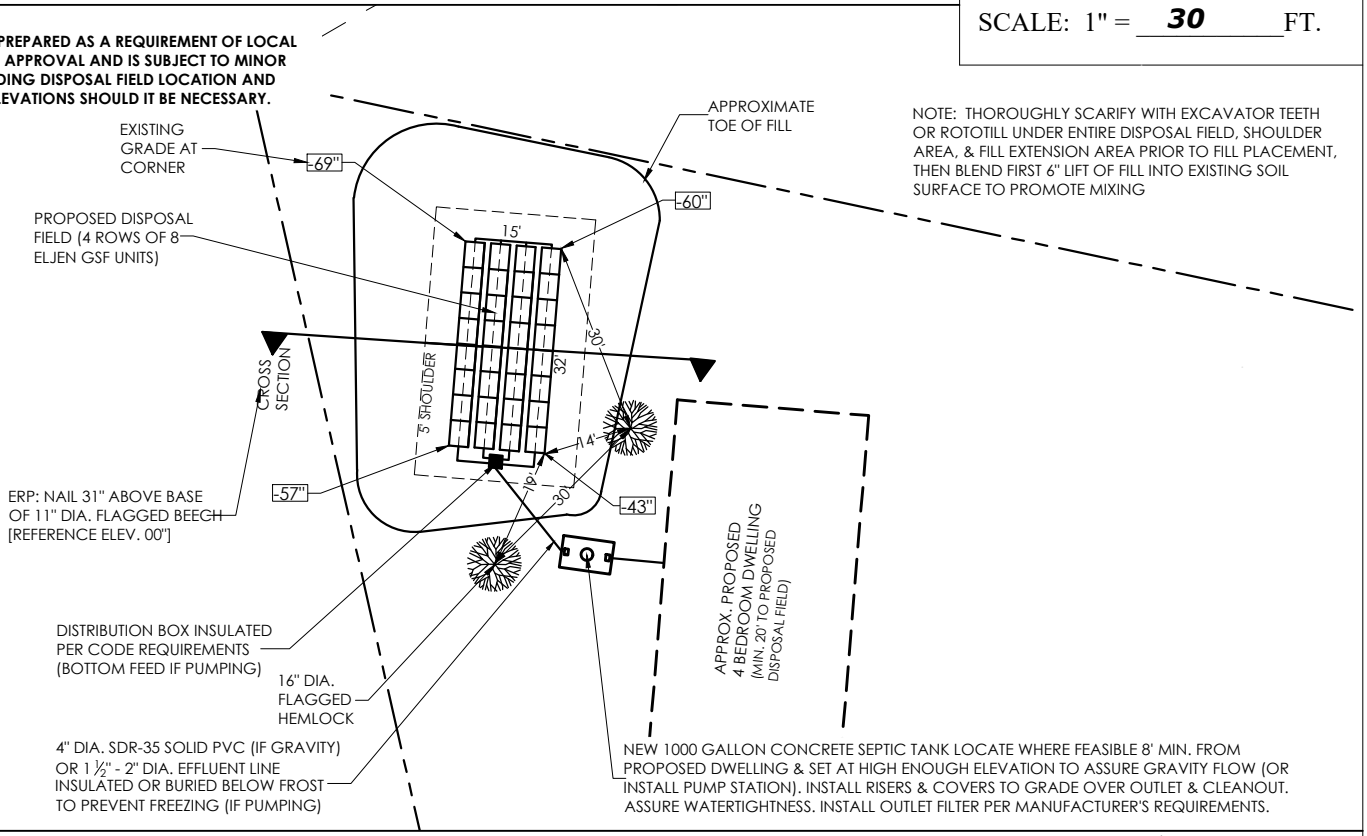
SUBSURFACE WASTEWATER DISPOSAL PLAN

SCALE: 1" = ***30*** FT.

NOTE:
THIS DESIGN WAS PREPARED AS A REQUIREMENT OF LOCAL PLANNING BOARD APPROVAL AND IS SUBJECT TO MINOR REVISIONS REGARDING DISPOSAL FIELD LOCATION AND CONSTRUCTION ELEVATIONS SHOULD IT BE NECESSARY.

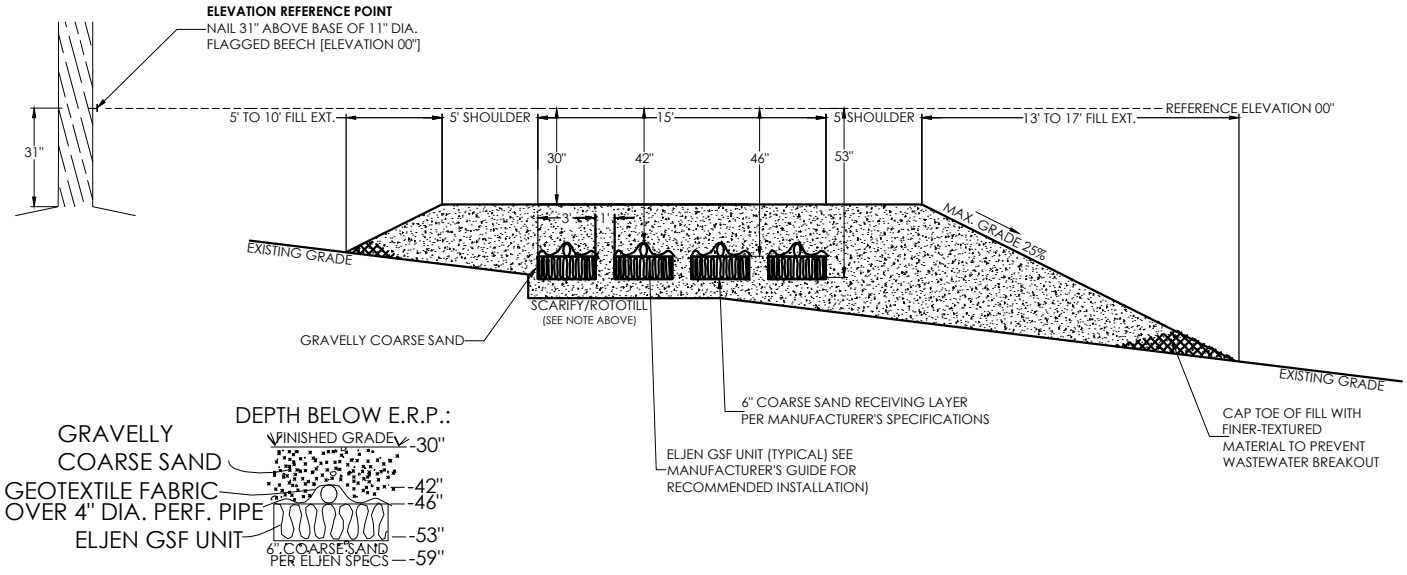


FILL REQUIREMENTS		CONSTRUCTION ELEVATIONS	
Depth of Fill (Upslope)	***13"- 30"***	Finished Grade Elevation	***SEE***
		Top of Distribution Pipe or Proprietary Device	***DETAIL***
Depth of Fill (Downslope)	***27"- 39"***	Bottom of Disposal Area	***BELOW***

ELEVATION REFERENCE POINT
Location & Description: ***NAIL 31" ABOVE BASE OF 11" DIA. FLAGGED BEECH***
Reference Elevation: ***00"***

DISPOSAL AREA CROSS SECTION

Scale
Horizontal 1" = ***10*** ft.
Vertical 1" = ***5*** ft.



Site Evaluator Signature	SE #	Date
James Logan	***237***	***11/30/23***

DISPOSAL SYSTEM INSTALLATION NOTES

1. The State of Maine *Subsurface Wastewater Disposal Rules (10-144 Chapter 241* the *Rules*) are incorporated by reference and made a part of this application. These shall be consulted by the owner/applicant, the system installer and/or building contractor for further construction details and material specifications. The system installer shall contact Longview Partners, LLC (207-693-8799) if there are any questions concerning materials, procedures or the design. The system installer and/or building contractor installing the system shall be solely responsible for compliance with the *Rules* and with all State and municipal laws and ordinances pertaining to the permitting, construction, and inspection of subsurface wastewater disposal systems.

2. This application is intended to represent facts pertinent to the *Rules* only. It shall be the responsibility of the owner/applicant, system installer and/or building contractor to determine compliance with and to obtain other permits under all applicable local, State and/or Federal laws and regulations before installing the system or considering the property on which the system is to be installed a "buildable" lot. It is recommended that a wetland scientist be consulted regarding wetland regulations, should wet areas exist. Prior to commencement of construction/installation, the Local Plumbing Inspector or Code Enforcement Officer shall inform the owner/applicant and Longview Partners, LLC or any local ordinances which are more restrictive than the *Rules* in order that the design may be amended. All designs are subject to review by local, State and/or Federal authorities. Longview Partners, LLC's liability shall be limited to revisions required by regulatory agencies and based on laws or regulations in effect at the time of preparation of this application.

3. All information shown on this application relating to property lines, well locations, subsurface structures, and underground facilities (such as utility lines, drains, septic systems, water lines, etc.) are based upon information provided by the owner/applicant and has been relied upon by Longview Partners, LLC in preparing this application. The owner/applicant shall review this application prior to the start of construction and confirm this information. Well locations on abutting properties not readily visible above-grade (such as well points) should be confirmed by the owner/applicant prior to system installation to assure minimum setbacks.

4. Installation of a garbage (grinder) disposal is **not recommended**. If one is installed, an additional 1,000 gallon septic tank shall be connected in series to the proposed septic tank or a septic tank outlet filter shall be installed in the tank outlet. Risers and covers should be installed over the septic tank cleanout and outlet per the *Rules* for easy maintenance of the filter.

5. The septic tank should be pumped within 2 years of installation and subsequently as recommended by the pump service. **In no event should the septic tank be pumped less often than every 3 years**. The system use shall avoid introducing kitchen grease or fats into the system. Chemicals such as septic tank cleaners and/or chlorine (such as from water treatment units) and controlled or hazardous substances shall not be disposed of in this system. Additives such as yeast or enzymes are discouraged, since they have not been proven to extend system life or performance.

6. All septic tanks, pump stations and additional treatment tanks shall be installed to prevent ground water and surface water infiltration. Risers and covers should be properly installed to provide access while preventing surface water intrusion within 6" of a finished ground surface. Vehicular traffic over disposal system is prohibited unless specifically designed with H-20 rated components.

DISPOSAL SYSTEM INSTALLATION NOTES

7. The daily wastewater flow, number of bedrooms, or use of structure shall not exceed the design criteria indicated on this application without a re-evaluation of the system as proposed.

8. The general minimum setbacks between a well (public or private) and septic system serving a single family residence are 100-300 feet, unless the local municipality has a more stringent requirement or a liner seal is installed in the well. A well installed by an abutter within the minimum setback distances prior to the issuance of a permit for the proposed disposal system may void this design.

9. When a gravity flow is anticipated, **before construction/installation begins**, the system installer or building contractor shall review the elevation of all points given in this application and the elevation of the existing and/or proposed building drain and septic tank inverts for compatibility to minimum pipe pitch requirements.

10. When an effluent pump is required, pump stations should be sized per manufacturer's specifications to meet lift requirements and friction/head loss. Provisions shall be made to make certain that surface and ground water does not enter the septic tank or pump station, by sealing/grouting all seams and connections, and by placement of a riser and cover at or above grade. An alarm device warning of a pump failure shall be installed. Bottom-feed distribution box is specified to prevent freezing. Insulate distribution boxes per the *Rules*.

11. On all systems, remove the vegetation, organic duff and roots, and old fill material from under the disposal area and any fill extension. Additional fill beyond indicated on the plan may be necessary to replace organic matter and/or stumps. On sites where the proposed disposal area is to be installed in natural soil, scarify the bottom and sides of the excavated disposal area with a rake. Do not use wheeled equipment on the scarified soil surface. For systems installed in fill, scarify the native soil by roto-tilling or scarifying with teeth of backhoe to a depth of at least 8 inches over the entire disposal field and fill extension are to prevent glazing and to promote fill bonding. Place fill in loose layers no deeper than 8 inches and compact before placing more fill (this ensures that voids and loose pockets are eliminated to minimize the chance of leakage or different settling). Do not use wheeled equipment on the scarified soil are until after 12 inches of fill is in place. Keep equipment off of proprietary leaching devices. Divert surface water away from the disposal area by ditching or shallow landscape swales.

12. Unless noted otherwise, fill shall be gravelly coarse sand, which contains no more than 5% fines (silt and clay). Crushed stone shall be clean and free of any rock dust from the crushing process. Refer to the *Rules* for more specific information regarding fill and stone.

13. Seed all filled and disturbed surfaces with perennial grass seed, with 4 inches minimum soil or soil amendment mix suitable for growing, then mulch with hay or equivalent material to prevent erosion. Alternatively, bark or permanent landscape mulch may be used to cover the system. Woody trees or shrubs are not permitted on the disposal field or fill extensions.

14. If an advanced wastewater treatment unit is part of this design, the system shall be operated and maintained per manufacturer's specifications.

15. Effluent (backwash) from water treatment units **SHALL NOT** be disposed of within this disposal system and **MUST** be redirected away from the disposal field

SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Maine Dept.Health & Human Services
Div of Environmental Health , 11 SHS
(207) 287-5672 Fax: (207) 287-4172

PROPERTY LOCATION

City, Town, or Plantation	KITTERY
Street or Road	R.O.W. off BARTLETT ROAD
Subdivision, Lot #	WASHBURN FARM, LOT 6

OWNER/APPLICANT INFORMATION

Name (last, first, MI): BEACHWOOD DEVELOPMENT FUND ☐ Owner ☐ Applicant

Mailing Address of Owner/Applicant: P.O. BOX 261, KENNEBUNK, ME 04043

Daytime Tel. #:

OWNER OR APPLICANT STATEMENT

I state and acknowledge that the information submitted is correct to the best of my knowledge and understand that any falsification is reason for the Department and/or Local Plumbing Inspector to deny a Permit.

Signature of Owner or Applicant _____ Date _____

>> CAUTION: LPI APPROVAL REQUIRED <<

Town/City _____ Permit # _____

Date Permit Issued ____/____/____ Fee: $_____ Double Fee Charged

Local Plumbing Inspector Signature _____ LPI. # _____

☐ Owner ☐ Town ☐ State

The Subsurface Wastewater Disposal System shall not be installed until a Permit is issued by the Local Plumbing Inspector. The Permit shall authorize the owner or installer to install the disposal system in accordance with this application and the Maine Subsurface Wastewater Disposal Rules.

Municipal Tax Map # 62 Lot # P/O 26

CAUTION: INSPECTION REQUIRED

I have inspected the installation authoirzed above and found it to be in compliance with the Subsurface Wastewater Disposal Rules Application. _____ (1st) date approved

Local Plumbing Inspector Signature _____ (2nd) date approved

PERMIT INFORMATION

TYPE OF APPLICATION

☐ 1. First Time System
☐ 2. Replacement System
Type replaced: _____
Year installed: _____
☐ 3. Expanded System
☐ a. <25% Expansion
☐ b. >25% Expansion
☐ 4. Experimental System
☐ 5. Seasonal Conversion

THIS APPLICATION REQUIRES

☐ 1. No Rule Variance
☐ 2. First Time System Variance
☐ a. Local Plumbing Inspector Approval
☐ b. State & Local Plumbing Inspector Approval
☐ 3. Replacement System Variance
☐ a. Local Plumbing Inspector Approval
☐ b. State & Local Plumbing Inspector Approval
☐ 4. Minimum Lot Size Variance
☐ 5. Seasonal Conversion Permit

DISPOSAL SYSTEM COMPONENTS

☐ 1. Complete Non-engineered System
☐ 2. Primitive System (graywater & alt. toilet)
☐ 3. Alternative Toilet, specify: _____
☐ 4. Non-engineered Treatment Tank (only)
☐ 5. Holding Tank, _____ gallons
☐ 6. Non-engineered Disposal Field (only)
☐ 7. Separated Laundry System
☐ 8. Complete Engineered System (2000 gpd or more)
☐ 9. Engineered Treatment Tank (only)
☐ 10. Engineered Disposal Field (only)
☐ 11. Pre-treatment, specify: _____
☐ 12. Miscellaneous Components

SIZE OF PROPERTY

0.49+/- ☐ SQ. FT. ☐ ACRES

SHORELAND ZONING

☐ Yes ☐ No

DISPOSAL SYSTEM TO SERVE

☐ 1. Single Family Dwelling Unit, No. of Bedrooms: 4
☐ 2. Multiple Family Dwelling, No. of Units: _____
☐ 3. Other: _____ (specify)

Current Use ☐ Seasonal ☐ Year Round ☐ Undeveloped

TYPE OF WATER SUPPLY

PROPOSED
☐ 1. Drilled Well ☐ 2. Dug Well ☐ 3. Private
☐ 4. Public ☐ 5. Other

DESIGN DETAILS (SYSTEM LAYOUT SHOWN ON PAGE 3)

TREATMENT TANKS

☐ 1. Concrete
☐ a. Regular
☐ b. Low Profile
☐ 2. Plastic
☐ 3. Other: _____
CAPACITY: 1000 GAL.

DISPOSAL FIELD TYPE & SIZE

☐ 1. Stone Bed ☐ 2. Stone Trench
☐ 3. Proprietary Device
☐ a. cluster array ☐ c. Linear
☐ b. regular load ☐ d. H-20 load
☐ 4. Other: _____
SIZE: 1536 ☐ sq. ft. ☐ lin. ft.
32 ELJEN GSF UNITS

GARBAGE DISPOSAL UNIT

☐ 1. No ☐ 2. Yes ☐ 3. Maybe
If Yes or Maybe, specify one below:
☐ a. multi-compartment tank
☐ b. ___ tanks in series
☐ c. increase in tank capacity
☐ d. Filter on Tank Outlet
REQUIRED

DESIGN FLOW

360 gallons per day
BASED ON:
☐ 1. Table 4A (dwelling unit(s))
☐ 2. Table 4C(other facilities)
SHOW CALCULATIONS for other facilites
-SINGLE FAMILY DWELLING-
4 BEDROOMS @ 90 GPD EACH

SOIL DATA & DESIGN CLASS

PROFILE 3 / CONDITION C
at Observation Hole # TP 63
Depth 25 "
of Most Limiting Soil Factor

DISPOSAL FIELD SIZING

☐ 1. Medium---2.6 sq. ft. / gpd
☐ 2. Medium---Large 3.3 sq. f.t / gpd
☐ 3. Large---4.1 sq. ft. / gpd
☐ 4. Extra Large---5.0 sq. ft. / gpd

EFFLUENT/EJECTOR PUMP

☐ 1. Not Required
☐ 2. May Be Required SEE NOTE PAGE 3
☐ 3. Required
Specify only for engineered systems:
DOSE: _____ gallons

☐ 3. Section 4G (meter readings)
ATTACH WATER METER DATA

LATITUDE AND LONGITUDE

at center of disposal area
Lat. 43 d 06 m 38 s
Lon. 70 d 41 m 30 s
if g.p.s, state margin of error: _____

SITE EVALUATOR STATEMENT

I certify that on 11/28/23 (date) I completed a site evaluation on this property and state that the data reported are accurate and that the proposed system is in compliance with the State of Maine Subsurface Wastewater Disposal Rules (10-144A CMR 241).

James Logan
Site Evaluator Signature

237
SE #

11/30/23
Date

JAMES LOGAN
Site Evaluator Name Printed

207-693-8799
Telephone Number

longviewpartners213@gmail.com
E-mail Address

Note : Changes to or deviations from the design should be confirmed with the Site Evaluator.

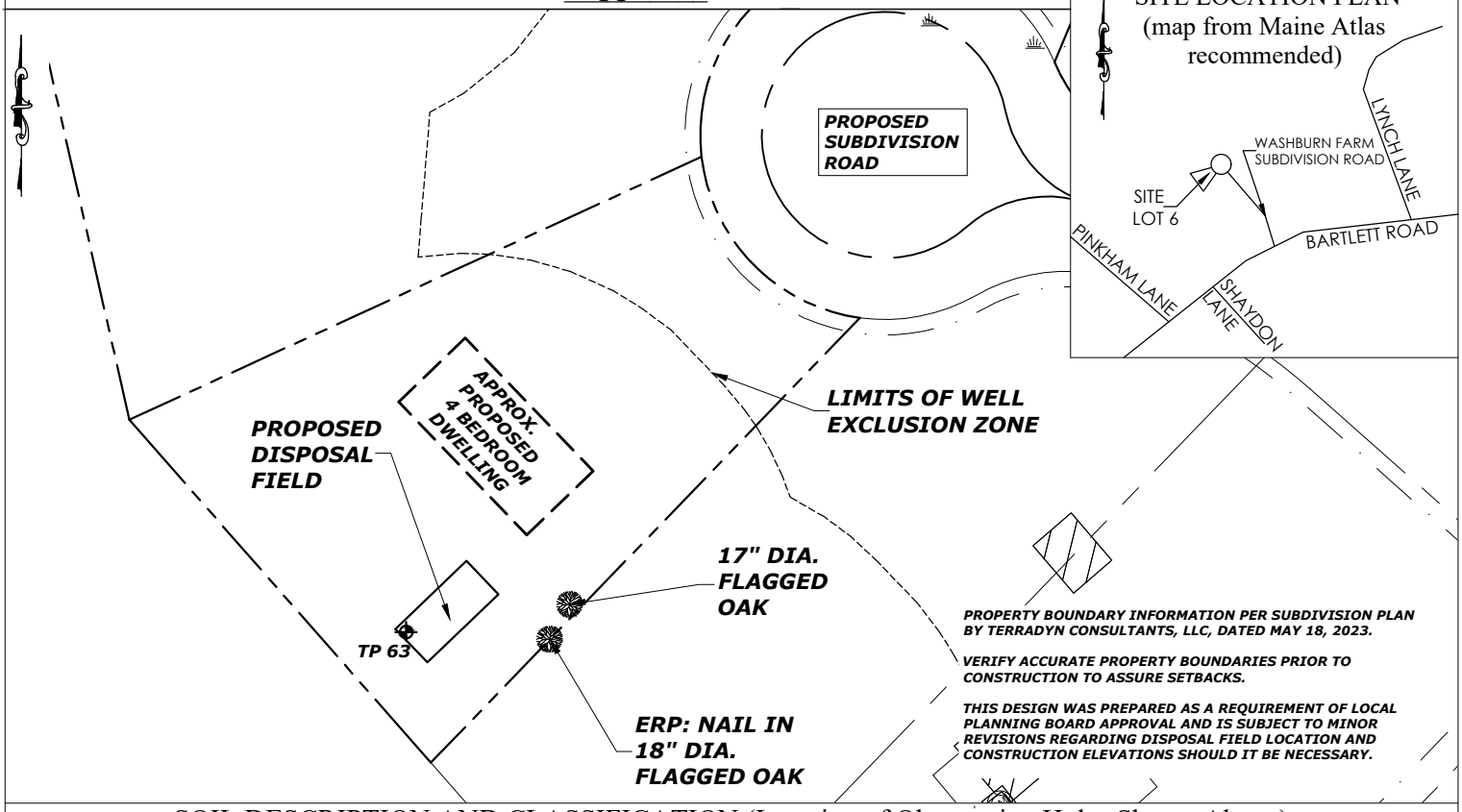
HHE-200 Rev. 08/2011

SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Department of Human Services
Division of Health Engineering
(207) 287-5672 Fax: (207) 287-3165

Town, City, Plantation	Street, Road, Subdivision	Owner's Name
KITTERY	***WASHBURN FARM SUBDIVISION, LOT 6***	***BEACHWOOD DEVELOPMENT FUND***

SITE PLAN Scale 1" = ***60*** ft. or as shown



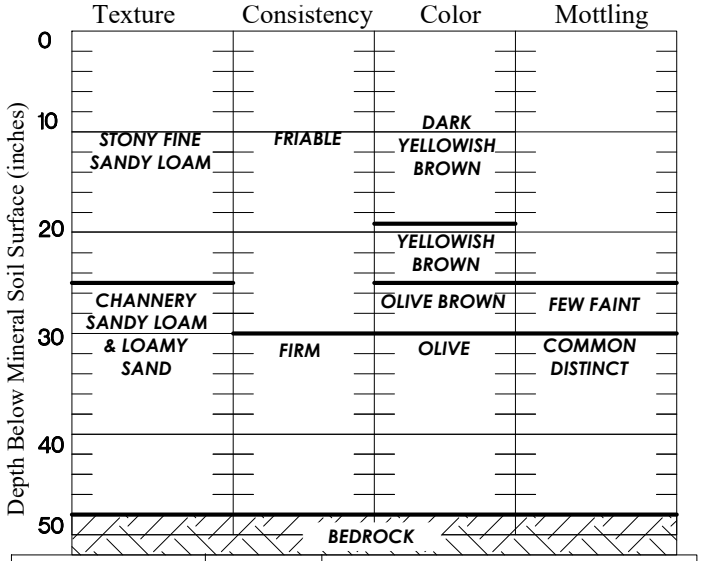
SITE LOCATION PLAN
(map from Maine Atlas recommended)

SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)

Observation Hole ***TP 63*** ■ Test Pit □ Boring

_____ " Depth of Organic Horizon Above Mineral Soil

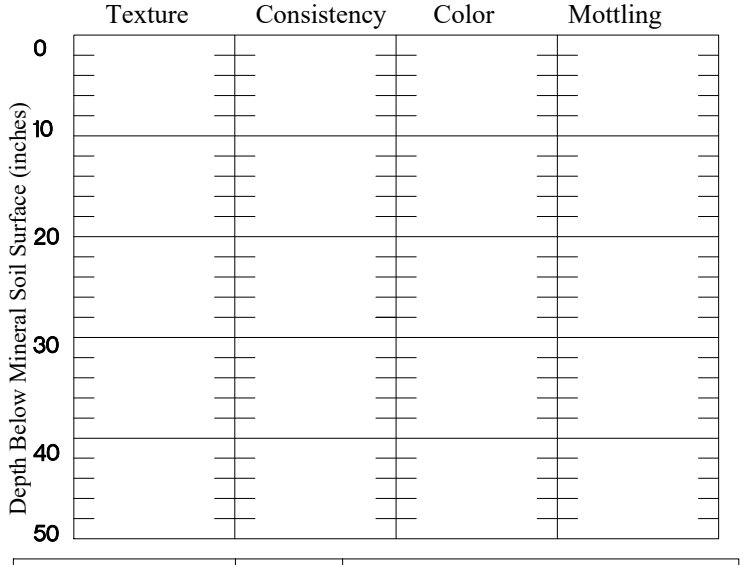
SOIL TEST PIT BY BACKHOE



Soil Classification	Slope	Limiting Factor	
3 Profile ***AIII/C*** Condition	***3-13*** %	***25*** "	[X] Ground Water [ ] Restrictive Layer [ ] Bedrock [ ] Pit Depth

Observation Hole _____ □ Test Pit □ Boring

_____ " Depth of Organic Horizon Above Mineral Soil



Soil Classification	Slope	Limiting Factor	
_____ Profile _____ Condition	_____ %	_____ "	[ ] Ground Water [ ] Restrictive Layer [ ] Bedrock [ ] Pit Depth

Site Evaluator Signature | ***237*** SE # | ***11/30/23*** Date

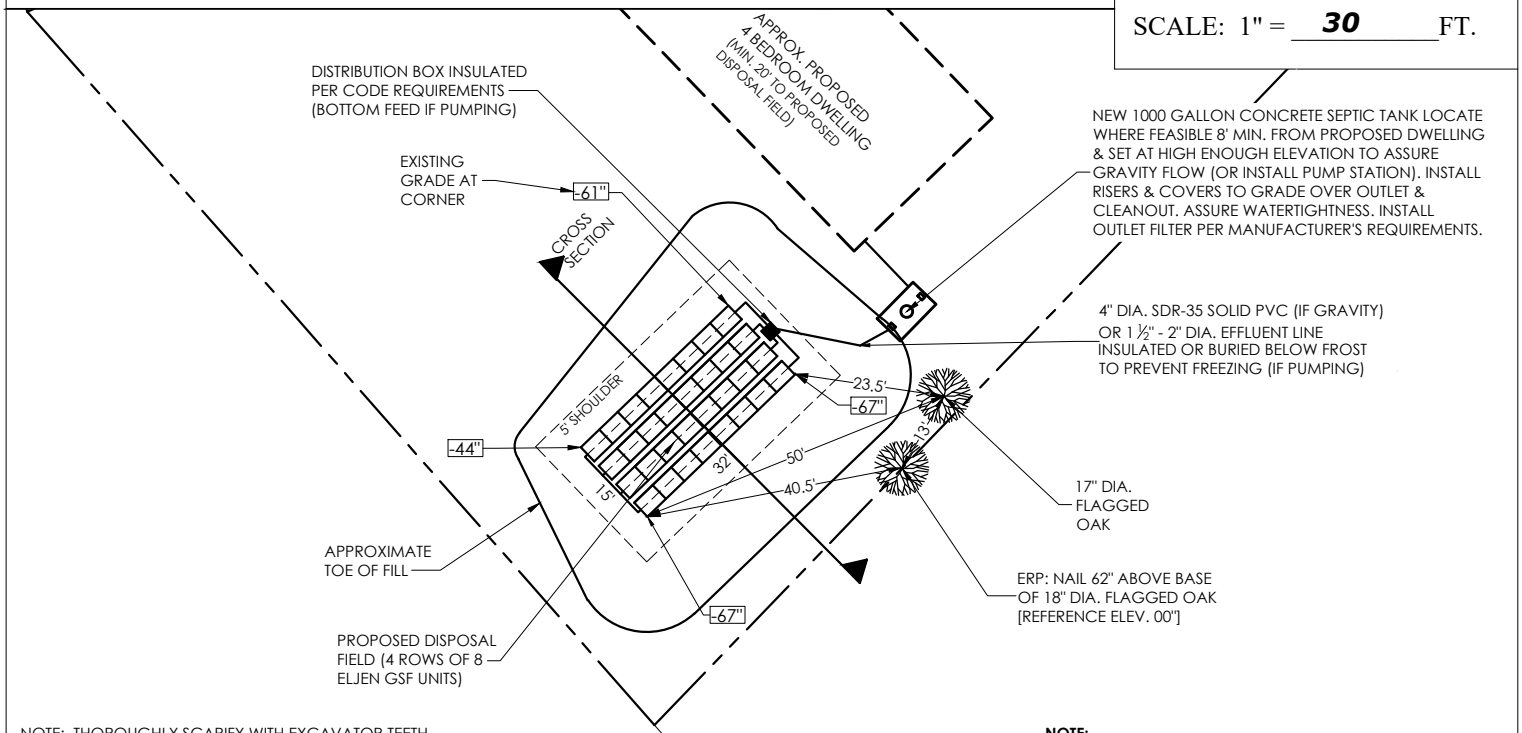
SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Department of Human Services
Division of Health Engineering
(207) 287-5672 Fax: (207) 287-3165

Town, City, Plantation	Street, Road, Subdivision	Owner's Name
KITTERY	***WASHBURN FARM SUBDIVISION, LOT 6***	***BEACHWOOD DEVELOPMENT FUND***

SUBSURFACE WASTEWATER DISPOSAL PLAN

SCALE: 1" = ***30*** FT.



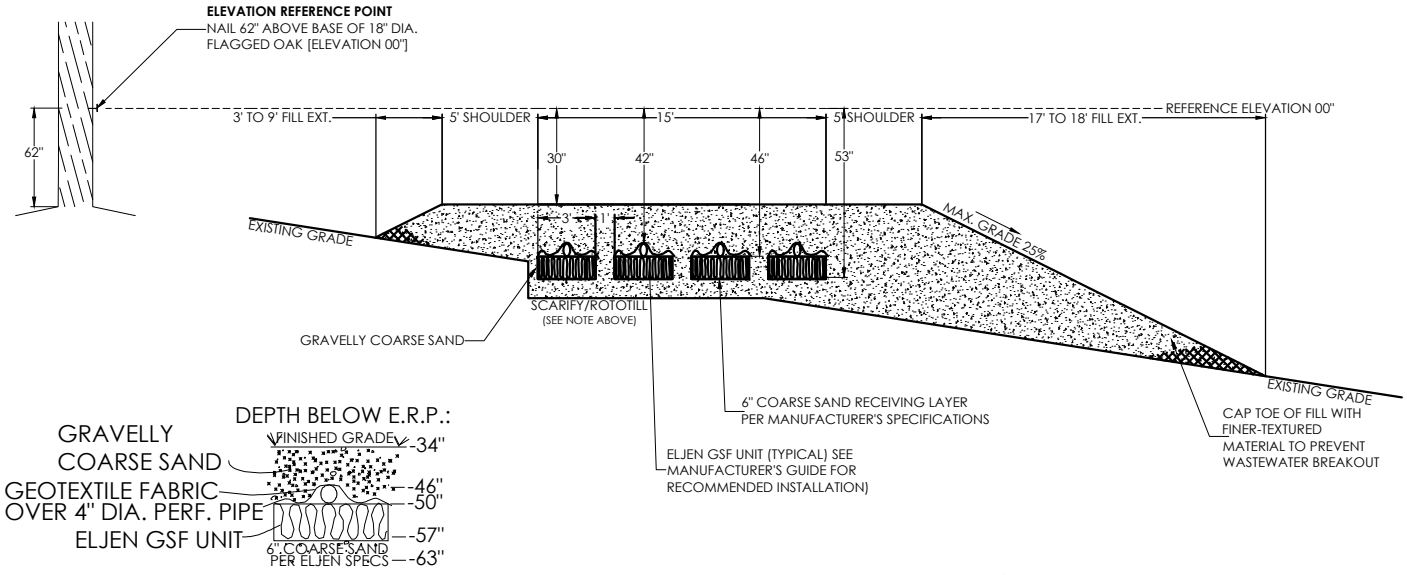
NOTE: THOROUGHLY SCARIFY WITH EXCAVATOR TEETH OR ROTOTILL UNDER ENTIRE DISPOSAL FIELD, SHOULDER AREA, & FILL EXTENSION AREA PRIOR TO FILL PLACEMENT, THEN BLEND FIRST 6" LIFT OF FILL INTO EXISTING SOIL SURFACE TO PROMOTE MIXING

NOTE:
THIS DESIGN WAS PREPARED AS A REQUIREMENT OF LOCAL PLANNING BOARD APPROVAL AND IS SUBJECT TO MINOR REVISIONS REGARDING DISPOSAL FIELD LOCATION AND CONSTRUCTION ELEVATIONS SHOULD IT BE NECESSARY.

FILL REQUIREMENTS		CONSTRUCTION ELEVATIONS		ELEVATION REFERENCE POINT
Depth of Fill (Upslope)	***10"- 27"***	Finished Grade Elevation	***SEE***	Location & Description: ***NAIL 62" ABOVE BASE OF 18" DIA. FLAGGED OAK***
Depth of Fill (Downslope)	***33"***	Top of Distribution Pipe or Proprietary Device	***DETAIL***	Reference Elevation: ***00"***
		Bottom of Disposal Area	***BELOW***	

DISPOSAL AREA CROSS SECTION

Scale
Horizontal 1" = ***10*** ft.
Vertical 1" = ***5*** ft.



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7. The daily wastewater flow, number of bedrooms, or use of structure shall not exceed the design criteria indicated on this application without a re-evaluation of the system as proposed.

8. The general minimum setbacks between a well (public or private) and septic system serving a single family residence are 100-300 feet, unless the local municipality has a more stringent requirement or a liner seal is installed in the well. A well installed by an abutter within the minimum setback distances prior to the issuance of a permit for the proposed disposal system may void this design.

9. When a gravity flow is anticipated, **before construction/installation begins**, the system installer or building contractor shall review the elevation of all points given in this application and the elevation of the existing and/or proposed building drain and septic tank inverts for compatibility to minimum pipe pitch requirements.

10. When an effluent pump is required, pump stations should be sized per manufacturer's specifications to meet lift requirements and friction/head loss. Provisions shall be made to make certain that surface and ground water does not enter the septic tank or pump station, by sealing/grouting all seams and connections, and by placement of a riser and cover at or above grade. An alarm device warning of a pump failure shall be installed. Bottom-feed distribution box is specified to prevent freezing. Insulate distribution boxes per the *Rules*.

11. On all systems, remove the vegetation, organic duff and roots, and old fill material from under the disposal area and any fill extension. Additional fill beyond indicated on the plan may be necessary to replace organic matter and/or stumps. On sites where the proposed disposal area is to be installed in natural soil, scarify the bottom and sides of the excavated disposal area with a rake. Do not use wheeled equipment on the scarified soil surface. For systems installed in fill, scarify the native soil by roto-tilling or scarifying with teeth of backhoe to a depth of at least 8 inches over the entire disposal field and fill extension are to prevent glazing and to promote fill bonding. Place fill in loose layers no deeper than 8 inches and compact before placing more fill (this ensures that voids and loose pockets are eliminated to minimize the chance of leakage or different settling). Do not use wheeled equipment on the scarified soil are until after 12 inches of fill is in place. Keep equipment off of proprietary leaching devices. Divert surface water away from the disposal area by ditching or shallow landscape swales.

12. Unless noted otherwise, fill shall be gravelly coarse sand, which contains no more than 5% fines (silt and clay). Crushed stone shall be clean and free of any rock dust from the crushing process. Refer to the *Rules* for more specific information regarding fill and stone.

13. Seed all filled and disturbed surfaces with perennial grass seed, with 4 inches minimum soil or soil amendment mix suitable for growing, then mulch with hay or equivalent material to prevent erosion. Alternatively, bark or permanent landscape mulch may be used to cover the system. Woody trees or shrubs are not permitted on the disposal field or fill extensions.

14. If an advanced wastewater treatment unit is part of this design, the system shall be operated and maintained per manufacturer's specifications.

15. Effluent (backwash) from water treatment units **SHALL NOT** be disposed of within this disposal system and **MUST** be redirected away from the disposal field

SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Maine Dept.Health & Human Services
Div of Environmental Health , 11 SHS
(207) 287-5672 Fax: (207) 287-4172

PROPERTY LOCATION

City, Town, or Plantation	KITTERY
Street or Road	R.O.W. off BARTLETT ROAD
Subdivision, Lot #	WASHBURN FARM, LOT 7

OWNER/APPLICANT INFORMATION

Name (last, first, MI): BEACHWOOD DEVELOPMENT FUND ☐ Owner ☐ Applicant

Mailing Address of Owner/Applicant: P.O. BOX 261, KENNEBUNK, ME 04043

Daytime Tel. #:

OWNER OR APPLICANT STATEMENT

I state and acknowledge that the information submitted is correct to the best of my knowledge and understand that any falsification is reason for the Department and/or Local Plumbing Inspector to deny a Permit.

Signature of Owner or Applicant _____ Date _____

>> CAUTION: LPI APPROVAL REQUIRED <<

Town/City _____ Permit # _____

Date Permit Issued ____/____/____ Fee: $_____ Double Fee Charged

Local Plumbing Inspector Signature _____ LPI. # _____

☐ Owner ☐ Town ☐ State

The Subsurface Wastewater Disposal System shall not be installed until a Permit is issued by the Local Plumbing Inspector. The Permit shall authorize the owner or installer to install the disposal system in accordance with this application and the Maine Subsurface Wastewater Disposal Rules.

Municipal Tax Map # 62 Lot # P/O 26

CAUTION: INSPECTION REQUIRED

I have inspected the installation authoirzed above and found it to be in compliance with the Subsurface Wastewater Disposal Rules Application. _____ (1st) date approved

Local Plumbing Inspector Signature _____ (2nd) date approved

PERMIT INFORMATION

TYPE OF APPLICATION

1. First Time System
2. Replacement System
   Type replaced: _____
   Year installed: _____
3. Expanded System
   a. <25% Expansion
   b. >25% Expansion
4. Experimental System
5. Seasonal Conversion

THIS APPLICATION REQUIRES

1. No Rule Variance
2. First Time System Variance
   a. Local Plumbing Inspector Approval
   b. State & Local Plumbing Inspector Approval
3. Replacement System Variance
   a. Local Plumbing Inspector Approval
   b. State & Local Plumbing Inspector Approval
4. Minimum Lot Size Variance
5. Seasonal Conversion Permit

DISPOSAL SYSTEM COMPONENTS

1. Complete Non-engineered System
2. Primitive System (graywater & alt. toilet)
3. Alternative Toilet, specify: _____
4. Non-engineered Treatment Tank (only)
5. Holding Tank, _____ gallons
6. Non-engineered Disposal Field (only)
7. Separated Laundry System
8. Complete Engineered System (2000 gpd or more)
9. Engineered Treatment Tank (only)
10. Engineered Disposal Field (only)
11. Pre-treatment, specify: _____
12. Miscellaneous Components

SIZE OF PROPERTY

0.62+/- SQ. FT. ACRES

SHORELAND ZONING

Yes No

DISPOSAL SYSTEM TO SERVE

1. Single Family Dwelling Unit, No. of Bedrooms: 4
2. Multiple Family Dwelling, No. of Units: _____
3. Other: _____ (specify)

Current Use Seasonal Year Round Undeveloped

TYPE OF WATER SUPPLY

PROPOSED

1. Drilled Well 2. Dug Well 3. Private
4. Public 5. Other

DESIGN DETAILS (SYSTEM LAYOUT SHOWN ON PAGE 3)

TREATMENT TANKS

1. Concrete
   a. Regular
   b. Low Profile
2. Plastic
3. Other: _____

CAPACITY: 1000 GAL.

DISPOSAL FIELD TYPE & SIZE

1. Stone Bed 2. Stone Trench
3. Proprietary Device
   a. cluster array c. Linear
   b. regular load d. H-20 load
4. Other: _____

SIZE: 1536 sq. ft. lin. ft.

32 ELJEN GSF UNITS

GARBAGE DISPOSAL UNIT

1. No 2. Yes 3. Maybe

If Yes or Maybe, specify one below:

a. multi-compartment tank
b. ___ tanks in series
c. increase in tank capacity
d. Filter on Tank Outlet

REQUIRED

DESIGN FLOW

360 gallons per day

BASED ON:

1. Table 4A (dwelling unit(s))
2. Table 4C(other facilities)

SHOW CALCULATIONS for other facilites

-SINGLE FAMILY DWELLING-
4 BEDROOMS @ 90 GPD EACH

3. Section 4G (meter readings)
   ATTACH WATER METER DATA

SOIL DATA & DESIGN CLASS

PROFILE 2 / CONDITION AIII

at Observation Hole # TP 64

Depth 22 "

of Most Limiting Soil Factor

DISPOSAL FIELD SIZING

1. Medium---2.6 sq. ft. / gpd
2. Medium---Large 3.3 sq. f.t / gpd
3. Large---4.1 sq. ft. / gpd
4. Extra Large---5.0 sq. ft. / gpd

EFFLUENT/EJECTOR PUMP

1. Not Required
2. May Be Required — SEE NOTE PAGE 3
3. Required

Specify only for engineered systems:

DOSE: _____ gallons

LATITUDE AND LONGITUDE

at center of disposal area

Lat. 43 d 06 m 38 s

Lon. 70 d 41 m 29 s

if g.p.s, state margin of error: _____

SITE EVALUATOR STATEMENT

I certify that on 11/28/23 (date) I completed a site evaluation on this property and state that the data reported are accurate and that the proposed system is in compliance with the State of Maine Subsurface Wastewater Disposal Rules (10-144A CMR 241).

James Logan

Site Evaluator Signature | 237 SE # | 11/30/23 Date

JAMES LOGAN Site Evaluator Name Printed | 207-693-8799 Telephone Number | longviewpartners213@gmail.com E-mail Address

Note : Changes to or deviations from the design should be confirmed with the Site Evaluator.

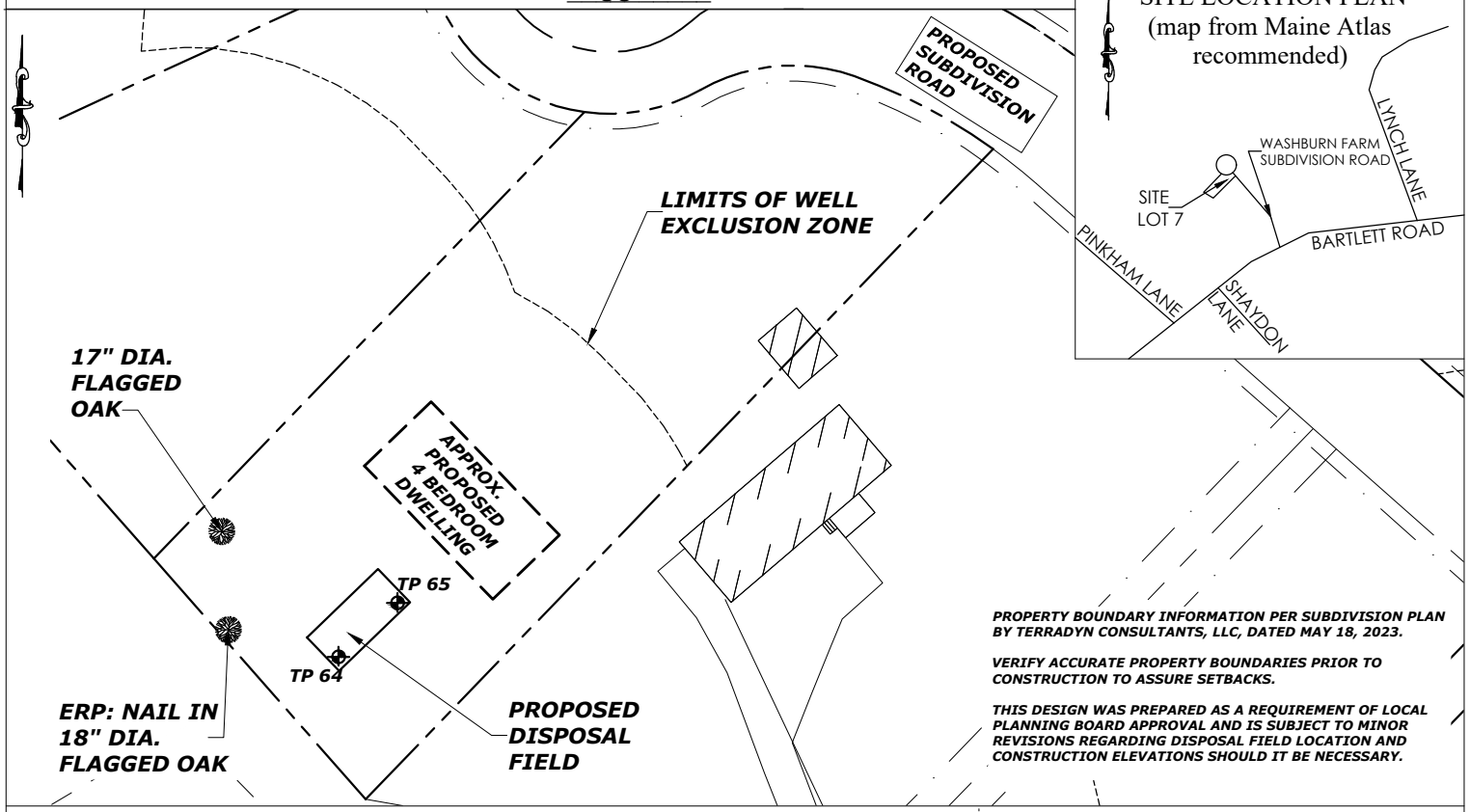
HHE-200 Rev. 08/2011

SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Department of Human Services
Division of Health Engineering
(207) 287-5672 Fax: (207) 287-3165

Town, City, Plantation	Street, Road, Subdivision	Owner's Name
KITTERY	***WASHBURN FARM SUBDIVISION, LOT 7***	***BEACHWOOD DEVELOPMENT FUND***

SITE PLAN Scale 1" = ***60*** ft. or as shown



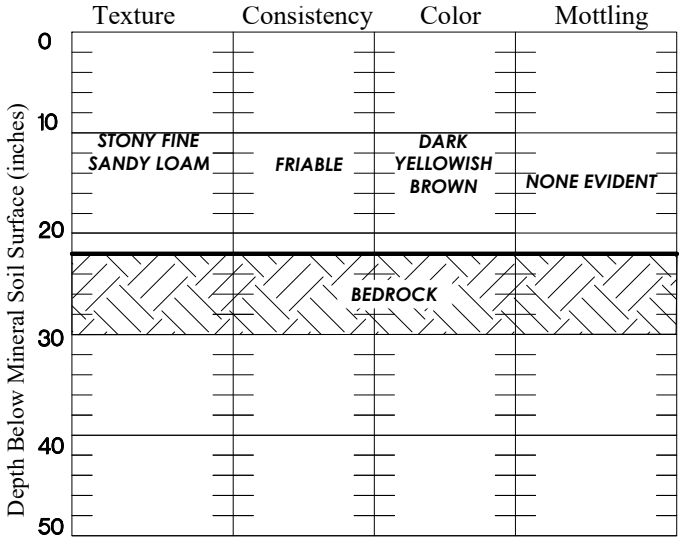
SITE LOCATION PLAN
(map from Maine Atlas recommended)

SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)

Observation Hole ***TP 64*** ■ Test Pit □ Boring

_____ " Depth of Organic Horizon Above Mineral Soil

SOIL TEST PIT BY BACKHOE

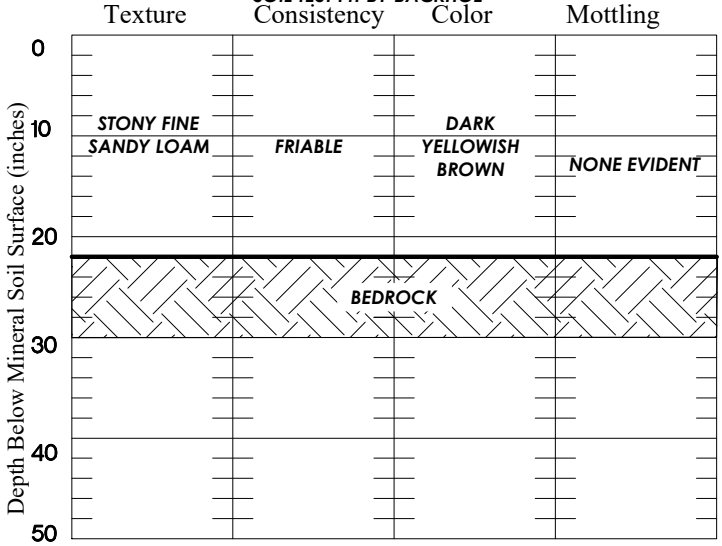


Soil Classification		Slope	Limiting Factor	
2 Profile	***AIII*** Condition	***7-8*** %	***22*** "	[ ] Ground Water [ ] Restrictive Layer [X] Bedrock [ ] Pit Depth

Observation Hole ***TP 65*** ■ Test Pit □ Boring

_____ " Depth of Organic Horizon Above Mineral Soil

SOIL TEST PIT BY BACKHOE



Soil Classification		Slope	Limiting Factor	
2 Profile	***AIII*** Condition	***7-8*** %	***22*** "	[ ] Ground Water [ ] Restrictive Layer [X] Bedrock [ ] Pit Depth

James Logan
Site Evaluator Signature

237
SE #

11/30/23
Date

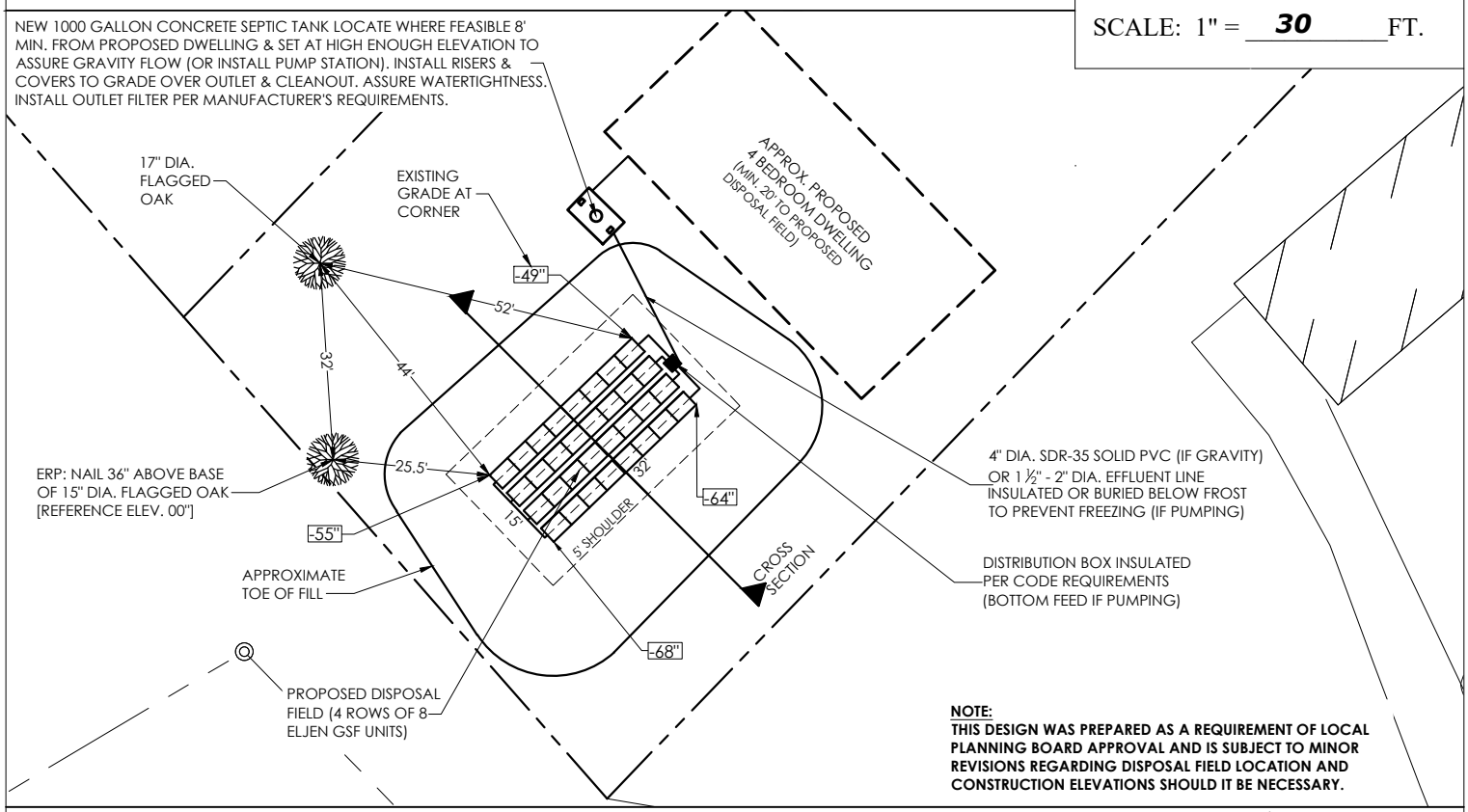
SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Department of Human Services
Division of Health Engineering
(207) 287-5672 Fax: (207) 287-3165

Town, City, Plantation	Street, Road, Subdivision	Owner's Name
KITTERY	***WASHBURN FARM SUBDIVISION, LOT 7***	***BEACHWOOD DEVELOPMENT FUND***

SUBSURFACE WASTEWATER DISPOSAL PLAN

SCALE: 1" = ***30*** FT.

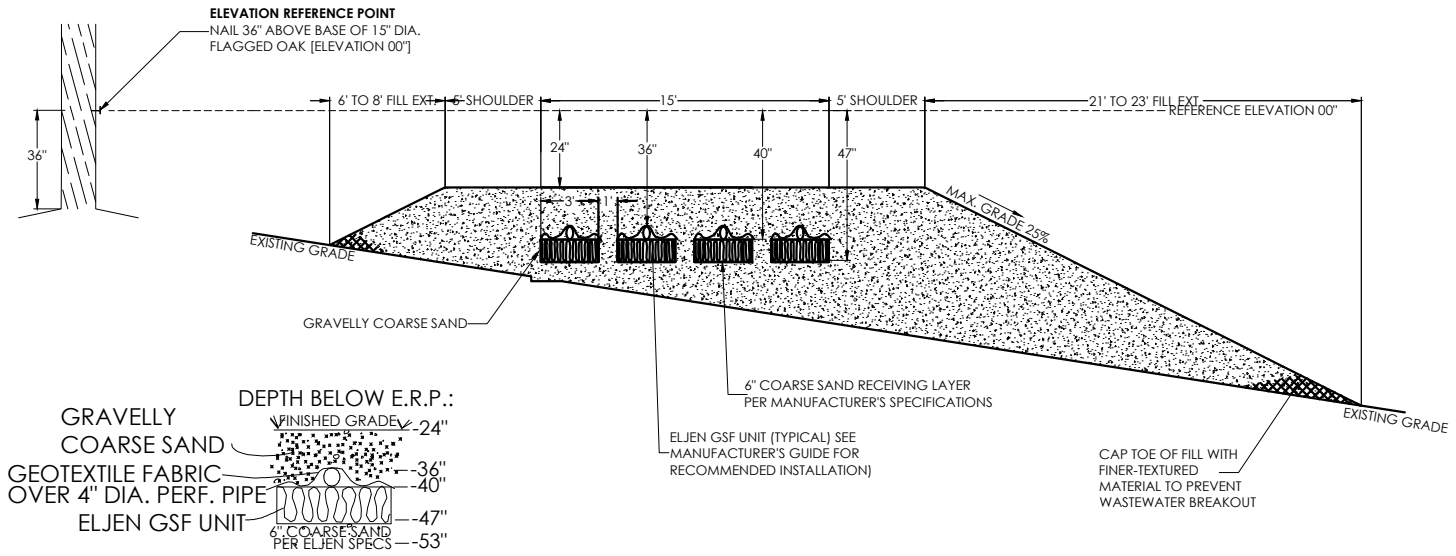


NOTE:
THIS DESIGN WAS PREPARED AS A REQUIREMENT OF LOCAL PLANNING BOARD APPROVAL AND IS SUBJECT TO MINOR REVISIONS REGARDING DISPOSAL FIELD LOCATION AND CONSTRUCTION ELEVATIONS SHOULD IT BE NECESSARY.

FILL REQUIREMENTS		CONSTRUCTION ELEVATIONS		ELEVATION REFERENCE POINT
Depth of Fill (Upslope)	***25"- 30"***	Finished Grade Elevation	***SEE***	Location & Description: ***NAIL 36" ABOVE BASE OF 15" DIA. FLAGGED OAK***
		Top of Distribution Pipe or Proprietary Device	***DETAIL***	
Depth of Fill (Downslope)	***40"- 44"***	Bottom of Disposal Area	***BELOW***	Reference Elevation: ***00"***

DISPOSAL AREA CROSS SECTION

Scale
Horizontal 1" = ***10*** ft.
Vertical 1" = ***5*** ft.



Site Evaluator Signature	SE #	Date
James Logan	***237***	***11/30/23***

DISPOSAL SYSTEM INSTALLATION NOTES

1. The State of Maine *Subsurface Wastewater Disposal Rules (10-144 Chapter 241* the *Rules*) are incorporated by reference and made a part of this application. These shall be consulted by the owner/applicant, the system installer and/or building contractor for further construction details and material specifications. The system installer shall contact Longview Partners, LLC (207-693-8799) if there are any questions concerning materials, procedures or the design. The system installer and/or building contractor installing the system shall be solely responsible for compliance with the *Rules* and with all State and municipal laws and ordinances pertaining to the permitting, construction, and inspection of subsurface wastewater disposal systems.

2. This application is intended to represent facts pertinent to the *Rules* only. It shall be the responsibility of the owner/applicant, system installer and/or building contractor to determine compliance with and to obtain other permits under all applicable local, State and/or Federal laws and regulations before installing the system or considering the property on which the system is to be installed a "buildable" lot. It is recommended that a wetland scientist be consulted regarding wetland regulations, should wet areas exist. Prior to commencement of construction/installation, the Local Plumbing Inspector or Code Enforcement Officer shall inform the owner/applicant and Longview Partners, LLC or any local ordinances which are more restrictive than the *Rules* in order that the design may be amended. All designs are subject to review by local, State and/or Federal authorities. Longview Partners, LLC's liability shall be limited to revisions required by regulatory agencies and based on laws or regulations in effect at the time of preparation of this application.

3. All information shown on this application relating to property lines, well locations, subsurface structures, and underground facilities (such as utility lines, drains, septic systems, water lines, etc.) are based upon information provided by the owner/applicant and has been relied upon by Longview Partners, LLC in preparing this application. The owner/applicant shall review this application prior to the start of construction and confirm this information. Well locations on abutting properties not readily visible above-grade (such as well points) should be confirmed by the owner/applicant prior to system installation to assure minimum setbacks.

4. Installation of a garbage (grinder) disposal is **not recommended**. If one is installed, an additional 1,000 gallon septic tank shall be connected in series to the proposed septic tank or a septic tank outlet filter shall be installed in the tank outlet. Risers and covers should be installed over the septic tank cleanout and outlet per the *Rules* for easy maintenance of the filter.

5. The septic tank should be pumped within 2 years of installation and subsequently as recommended by the pump service. **In no event should the septic tank be pumped less often than every 3 years**. The system use shall avoid introducing kitchen grease or fats into the system. Chemicals such as septic tank cleaners and/or chlorine (such as from water treatment units) and controlled or hazardous substances shall not be disposed of in this system. Additives such as yeast or enzymes are discouraged, since they have not been proven to extend system life or performance.

6. All septic tanks, pump stations and additional treatment tanks shall be installed to prevent ground water and surface water infiltration. Risers and covers should be properly installed to provide access while preventing surface water intrusion within 6" of a finished ground surface. Vehicular traffic over disposal system is prohibited unless specifically designed with H-20 rated components.

DISPOSAL SYSTEM INSTALLATION NOTES

7. The daily wastewater flow, number of bedrooms, or use of structure shall not exceed the design criteria indicated on this application without a re-evaluation of the system as proposed.

8. The general minimum setbacks between a well (public or private) and septic system serving a single family residence are 100-300 feet, unless the local municipality has a more stringent requirement or a liner seal is installed in the well. A well installed by an abutter within the minimum setback distances prior to the issuance of a permit for the proposed disposal system may void this design.

9. When a gravity flow is anticipated, **before construction/installation begins**, the system installer or building contractor shall review the elevation of all points given in this application and the elevation of the existing and/or proposed building drain and septic tank inverts for compatibility to minimum pipe pitch requirements.

10. When an effluent pump is required, pump stations should be sized per manufacturer's specifications to meet lift requirements and friction/head loss. Provisions shall be made to make certain that surface and ground water does not enter the septic tank or pump station, by sealing/grouting all seams and connections, and by placement of a riser and cover at or above grade. An alarm device warning of a pump failure shall be installed. Bottom-feed distribution box is specified to prevent freezing. Insulate distribution boxes per the *Rules*.

11. On all systems, remove the vegetation, organic duff and roots, and old fill material from under the disposal area and any fill extension. Additional fill beyond indicated on the plan may be necessary to replace organic matter and/or stumps. On sites where the proposed disposal area is to be installed in natural soil, scarify the bottom and sides of the excavated disposal area with a rake. Do not use wheeled equipment on the scarified soil surface. For systems installed in fill, scarify the native soil by roto-tilling or scarifying with teeth of backhoe to a depth of at least 8 inches over the entire disposal field and fill extension are to prevent glazing and to promote fill bonding. Place fill in loose layers no deeper than 8 inches and compact before placing more fill (this ensures that voids and loose pockets are eliminated to minimize the chance of leakage or different settling). Do not use wheeled equipment on the scarified soil are until after 12 inches of fill is in place. Keep equipment off of proprietary leaching devices. Divert surface water away from the disposal area by ditching or shallow landscape swales.

12. Unless noted otherwise, fill shall be gravelly coarse sand, which contains no more than 5% fines (silt and clay). Crushed stone shall be clean and free of any rock dust from the crushing process. Refer to the *Rules* for more specific information regarding fill and stone.

13. Seed all filled and disturbed surfaces with perennial grass seed, with 4 inches minimum soil or soil amendment mix suitable for growing, then mulch with hay or equivalent material to prevent erosion. Alternatively, bark or permanent landscape mulch may be used to cover the system. Woody trees or shrubs are not permitted on the disposal field or fill extensions.

14. If an advanced wastewater treatment unit is part of this design, the system shall be operated and maintained per manufacturer's specifications.

15. Effluent (backwash) from water treatment units **SHALL NOT** be disposed of within this disposal system and **MUST** be redirected away from the disposal field

SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Maine Dept.Health & Human Services
Div of Environmental Health , 11 SHS
(207) 287-5672 Fax: (207) 287-4172

PROPERTY LOCATION

City, Town, or Plantation	KITTERY
Street or Road	R.O.W. off BARTLETT ROAD
Subdivision, Lot #	WASHBURN FARM, LOT 9

OWNER/APPLICANT INFORMATION

Name (last, first, MI): BEACHWOOD DEVELOPMENT FUND ☐ Owner ☐ Applicant

Mailing Address of Owner/Applicant: P.O. BOX 261, KENNEBUNK, ME 04043

Daytime Tel. #:

OWNER OR APPLICANT STATEMENT

I state and acknowledge that the information submitted is correct to the best of my knowledge and understand that any falsification is reason for the Department and/or Local Plumbing Inspector to deny a Permit.

Signature of Owner or Applicant _____ Date _____

>> CAUTION: LPI APPROVAL REQUIRED <<

Town/City _____ Permit # _____

Date Permit Issued ____/____/____ Fee: $_____ Double Fee Charged

Local Plumbing Inspector Signature _____ LPI. # _____

☐ Owner ☐ Town ☐ State

The Subsurface Wastewater Disposal System shall not be installed until a Permit is issued by the Local Plumbing Inspector. The Permit shall authorize the owner or installer to install the disposal system in accordance with this application and the Maine Subsurface Wastewater Disposal Rules.

Municipal Tax Map # 62 Lot # P/O 26

CAUTION: INSPECTION REQUIRED

I have inspected the installation authoirzed above and found it to be in compliance with the Subsurface Wastewater Disposal Rules Application. _____ (1st) date approved

Local Plumbing Inspector Signature _____ (2nd) date approved

PERMIT INFORMATION

TYPE OF APPLICATION

☐ 1. First Time System
☐ 2. Replacement System
Type replaced: _____
Year installed: _____
☐ 3. Expanded System
☐ a. <25% Expansion
☐ b. >25% Expansion
☐ 4. Experimental System
☐ 5. Seasonal Conversion

THIS APPLICATION REQUIRES

☐ 1. No Rule Variance
☐ 2. First Time System Variance
☐ a. Local Plumbing Inspector Approval
☐ b. State & Local Plumbing Inspector Approval
☐ 3. Replacement System Variance
☐ a. Local Plumbing Inspector Approval
☐ b. State & Local Plumbing Inspector Approval
☐ 4. Minimum Lot Size Variance
☐ 5. Seasonal Conversion Permit

DISPOSAL SYSTEM COMPONENTS

☐ 1. Complete Non-engineered System
☐ 2. Primitive System (graywater & alt. toilet)
☐ 3. Alternative Toilet, specify: _____
☐ 4. Non-engineered Treatment Tank (only)
☐ 5. Holding Tank, _____ gallons
☐ 6. Non-engineered Disposal Field (only)
☐ 7. Separated Laundry System
☐ 8. Complete Engineered System (2000 gpd or more)
☐ 9. Engineered Treatment Tank (only)
☐ 10. Engineered Disposal Field (only)
☐ 11. Pre-treatment, specify: _____
☐ 12. Miscellaneous Components

SIZE OF PROPERTY

0.59+/- ☐ SQ. FT. ☐ ACRES

SHORELAND ZONING

☐ Yes ☐ No

DISPOSAL SYSTEM TO SERVE

☐ 1. Single Family Dwelling Unit, No. of Bedrooms: 4
☐ 2. Multiple Family Dwelling, No. of Units: _____
☐ 3. Other: _____ (specify)

Current Use ☐ Seasonal ☐ Year Round ☐ Undeveloped

TYPE OF WATER SUPPLY

PROPOSED
☐ 1. Drilled Well ☐ 2. Dug Well ☐ 3. Private
☐ 4. Public ☐ 5. Other

DESIGN DETAILS (SYSTEM LAYOUT SHOWN ON PAGE 3)

TREATMENT TANKS

☐ 1. Concrete
☐ a. Regular
☐ b. Low Profile
☐ 2. Plastic
☐ 3. Other: _____
CAPACITY: 1000 GAL.

DISPOSAL FIELD TYPE & SIZE

☐ 1. Stone Bed ☐ 2. Stone Trench
☐ 3. Proprietary Device
☐ a. cluster array ☐ c. Linear
☐ b. regular load ☐ d. H-20 load
☐ 4. Other: _____
SIZE: 1536 ☐ sq. ft. ☐ lin. ft.
32 ELJEN GSF UNITS

GARBAGE DISPOSAL UNIT

☐ 1. No ☐ 2. Yes ☐ 3. Maybe
If Yes or Maybe, specify one below:
☐ a. multi-compartment tank
☐ b. ___ tanks in series
☐ c. increase in tank capacity
☐ d. Filter on Tank Outlet
REQUIRED

DESIGN FLOW

360 gallons per day
BASED ON:
☐ 1. Table 4A (dwelling unit(s))
☐ 2. Table 4C(other facilities)
SHOW CALCULATIONS for other facilites
-SINGLE FAMILY DWELLING-
4 BEDROOMS @ 90 GPD EACH

SOIL DATA & DESIGN CLASS

PROFILE CONDITION
8 / AIII/C
at Observation Hole # TP 50
Depth 16 "
of Most Limiting Soil Factor

DISPOSAL FIELD SIZING

☐ 1. Medium---2.6 sq. ft. / gpd
☐ 2. Medium---Large 3.3 sq. f.t / gpd
☐ 3. Large---4.1 sq. ft. / gpd
☐ 4. Extra Large---5.0 sq. ft. / gpd

EFFLUENT/EJECTOR PUMP

☐ 1. Not Required
☐ 2. May Be Required SEE NOTE PAGE 3
☐ 3. Required
Specify only for engineered systems:
DOSE: _____ gallons

☐ 3. Section 4G (meter readings)
ATTACH WATER METER DATA

LATITUDE AND LONGITUDE

at center of disposal area
Lat. 43 d 06 m 38 s
Lon. 70 d 41 m 24 s
if g.p.s, state margin of error: _____

SITE EVALUATOR STATEMENT

I certify that on 11/28/23 (date) I completed a site evaluation on this property and state that the data reported are accurate and that the proposed system is in compliance with the State of Maine Subsurface Wastewater Disposal Rules (10-144A CMR 241).

James Logan
Site Evaluator Signature

237
SE #

11/30/23
Date

JAMES LOGAN
Site Evaluator Name Printed

207-693-8799
Telephone Number

longviewpartners213@gmail.com
E-mail Address

Note : Changes to or deviations from the design should be confirmed with the Site Evaluator.

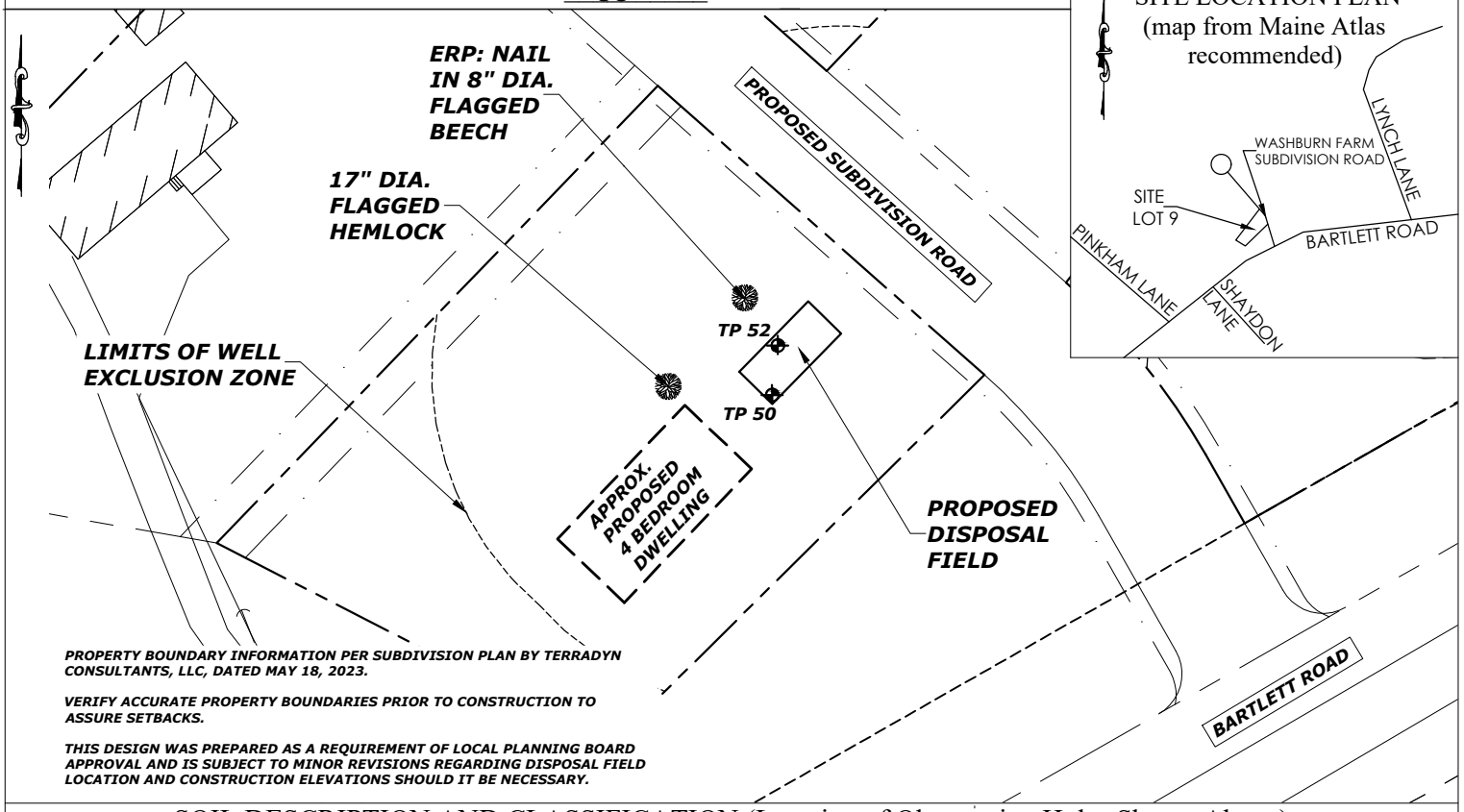
HHE-200 Rev. 08/2011

SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Department of Human Services
Division of Health Engineering
(207) 287-5672 Fax: (207) 287-3165

Town, City, Plantation	Street, Road, Subdivision	Owner's Name
KITTERY	***WASHBURN FARM SUBDIVISION, LOT 9***	***BEACHWOOD DEVELOPMENT FUND***

SITE PLAN Scale 1" = ***60*** ft. or as shown



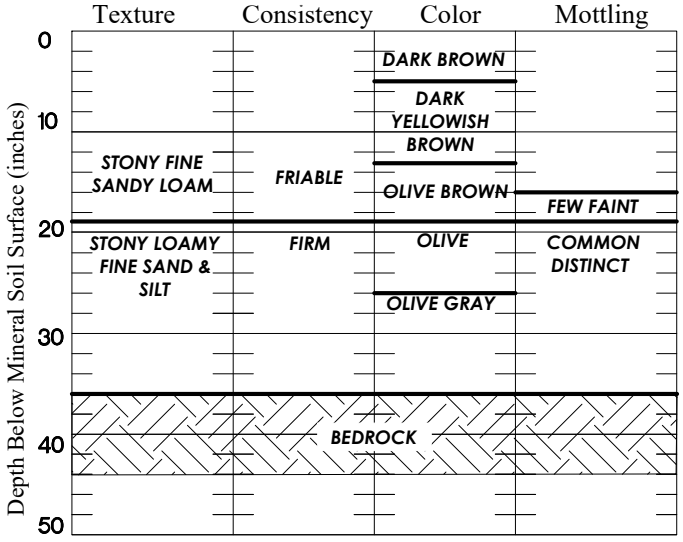
SITE LOCATION PLAN
(map from Maine Atlas recommended)

SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)

Observation Hole ***TP 50*** ■ Test Pit □ Boring

_____ " Depth of Organic Horizon Above Mineral Soil

SOIL TEST PIT BY BACKHOE

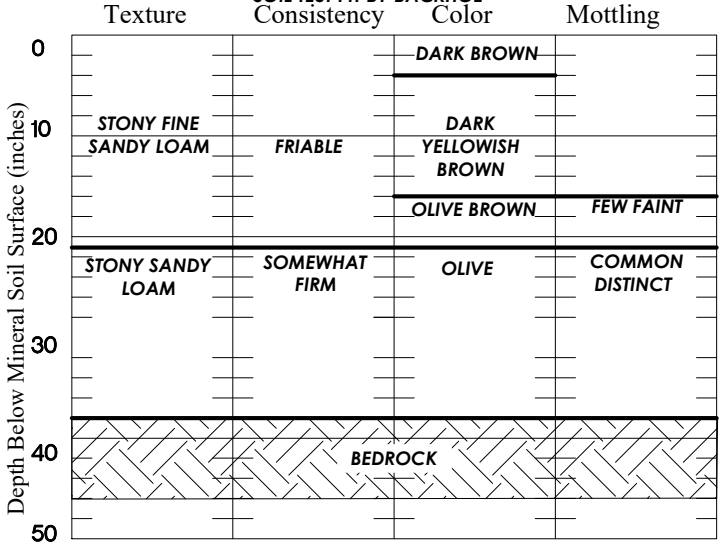


Soil Classification	Slope	Limiting Factor	[X] Ground Water [ ] Restrictive Layer [ ] Bedrock [ ] Pit Depth
8 Profile ***AIII/C*** Condition	***4-8*** %	***16*** "	

Observation Hole ***TP 52*** ■ Test Pit □ Boring

_____ " Depth of Organic Horizon Above Mineral Soil

SOIL TEST PIT BY BACKHOE



Soil Classification	Slope	Limiting Factor	[X] Ground Water [ ] Restrictive Layer [ ] Bedrock [ ] Pit Depth
3 Profile ***AIII/C*** Condition	***4-8*** %	***16*** "	

James Logan
Site Evaluator Signature

237
SE #

11/30/23
Date

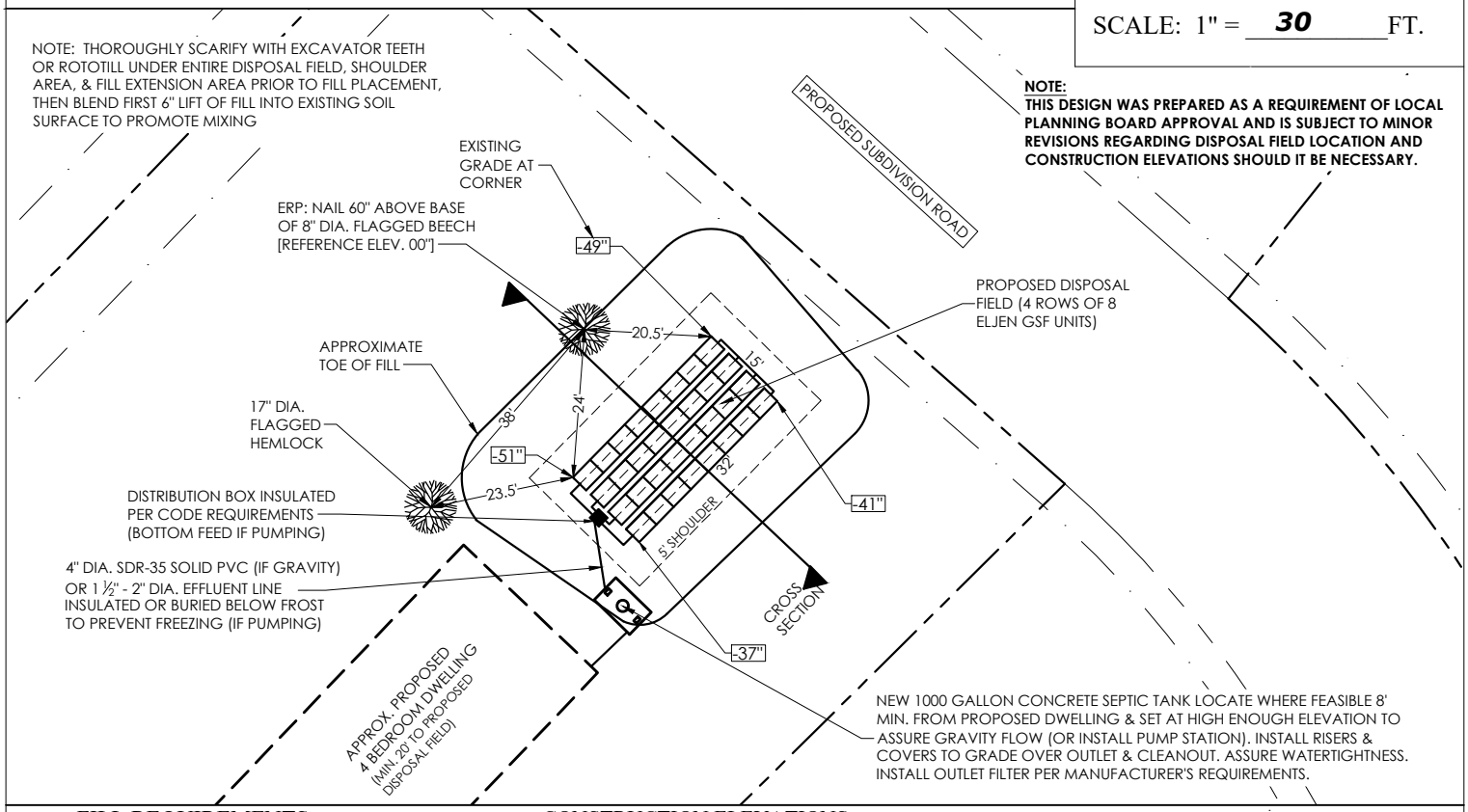
SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Department of Human Services
Division of Health Engineering
(207) 287-5672 Fax: (207) 287-3165

Town, City, Plantation	Street, Road, Subdivision	Owner's Name
KITTERY	***WASHBURN FARM SUBDIVISION, LOT 9***	***BEACHWOOD DEVELOPMENT FUND***

SUBSURFACE WASTEWATER DISPOSAL PLAN

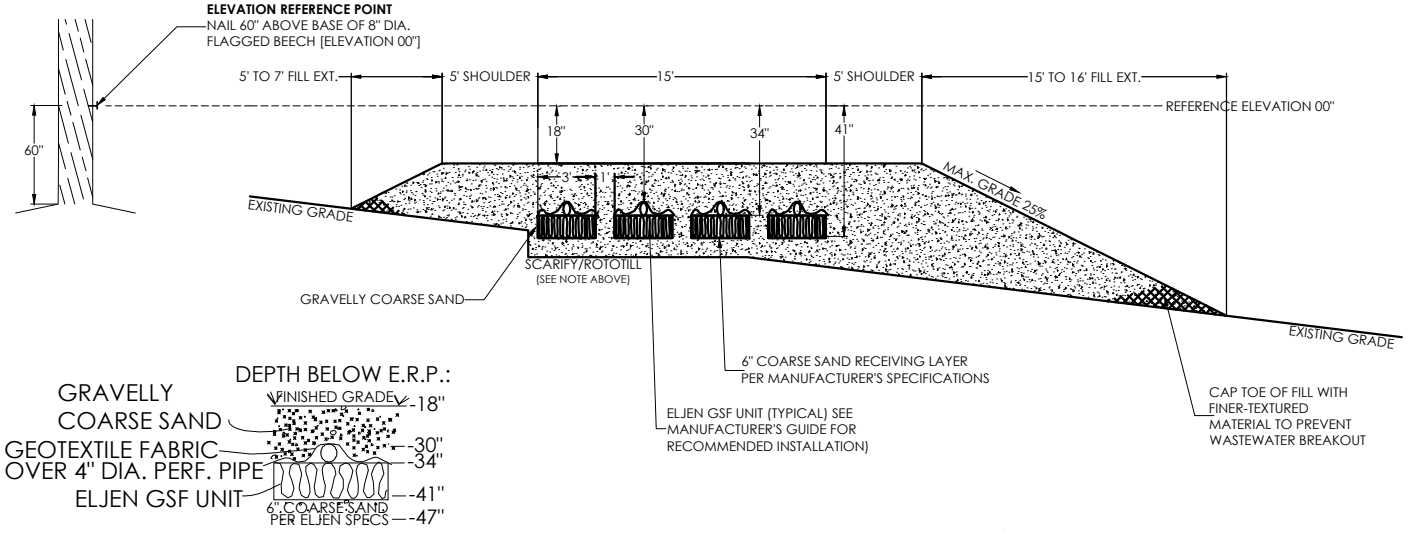
SCALE: 1" = ***30*** FT.



FILL REQUIREMENTS		CONSTRUCTION ELEVATIONS		ELEVATION REFERENCE POINT
Depth of Fill (Upslope)	***19"- 23"***	Finished Grade Elevation	***SEE***	Location & Description: ***NAIL 60" ABOVE BASE OF 8" DIA. FLAGGED BEECH***
		Top of Distribution Pipe or Proprietary Device	***DETAIL***	Reference Elevation: ***00"***
Depth of Fill (Downslope)	***31"- 33"***	Bottom of Disposal Area	***BELOW***	

DISPOSAL AREA CROSS SECTION

Scale
Horizontal 1" = ***10*** ft.
Vertical 1" = ***5*** ft.



Site Evaluator Signature	SE #	Date
James Logan	***237***	***11/30/23***

DISPOSAL SYSTEM INSTALLATION NOTES

1. The State of Maine *Subsurface Wastewater Disposal Rules (10-144 Chapter 241* the *Rules*) are incorporated by reference and made a part of this application. These shall be consulted by the owner/applicant, the system installer and/or building contractor for further construction details and material specifications. The system installer shall contact Longview Partners, LLC (207-693-8799) if there are any questions concerning materials, procedures or the design. The system installer and/or building contractor installing the system shall be solely responsible for compliance with the *Rules* and with all State and municipal laws and ordinances pertaining to the permitting, construction, and inspection of subsurface wastewater disposal systems.

2. This application is intended to represent facts pertinent to the *Rules* only. It shall be the responsibility of the owner/applicant, system installer and/or building contractor to determine compliance with and to obtain other permits under all applicable local, State and/or Federal laws and regulations before installing the system or considering the property on which the system is to be installed a "buildable" lot. It is recommended that a wetland scientist be consulted regarding wetland regulations, should wet areas exist. Prior to commencement of construction/installation, the Local Plumbing Inspector or Code Enforcement Officer shall inform the owner/applicant and Longview Partners, LLC or any local ordinances which are more restrictive than the *Rules* in order that the design may be amended. All designs are subject to review by local, State and/or Federal authorities. Longview Partners, LLC's liability shall be limited to revisions required by regulatory agencies and based on laws or regulations in effect at the time of preparation of this application.

3. All information shown on this application relating to property lines, well locations, subsurface structures, and underground facilities (such as utility lines, drains, septic systems, water lines, etc.) are based upon information provided by the owner/applicant and has been relied upon by Longview Partners, LLC in preparing this application. The owner/applicant shall review this application prior to the start of construction and confirm this information. Well locations on abutting properties not readily visible above-grade (such as well points) should be confirmed by the owner/applicant prior to system installation to assure minimum setbacks.

4. Installation of a garbage (grinder) disposal is **not recommended**. If one is installed, an additional 1,000 gallon septic tank shall be connected in series to the proposed septic tank or a septic tank outlet filter shall be installed in the tank outlet. Risers and covers should be installed over the septic tank cleanout and outlet per the *Rules* for easy maintenance of the filter.

5. The septic tank should be pumped within 2 years of installation and subsequently as recommended by the pump service. **In no event should the septic tank be pumped less often than every 3 years**. The system use shall avoid introducing kitchen grease or fats into the system. Chemicals such as septic tank cleaners and/or chlorine (such as from water treatment units) and controlled or hazardous substances shall not be disposed of in this system. Additives such as yeast or enzymes are discouraged, since they have not been proven to extend system life or performance.

6. All septic tanks, pump stations and additional treatment tanks shall be installed to prevent ground water and surface water infiltration. Risers and covers should be properly installed to provide access while preventing surface water intrusion within 6" of a finished ground surface. Vehicular traffic over disposal system is prohibited unless specifically designed with H-20 rated components.

DISPOSAL SYSTEM INSTALLATION NOTES

7. The daily wastewater flow, number of bedrooms, or use of structure shall not exceed the design criteria indicated on this application without a re-evaluation of the system as proposed.

8. The general minimum setbacks between a well (public or private) and septic system serving a single family residence are 100-300 feet, unless the local municipality has a more stringent requirement or a liner seal is installed in the well. A well installed by an abutter within the minimum setback distances prior to the issuance of a permit for the proposed disposal system may void this design.

9. When a gravity flow is anticipated, **before construction/installation begins**, the system installer or building contractor shall review the elevation of all points given in this application and the elevation of the existing and/or proposed building drain and septic tank inverts for compatibility to minimum pipe pitch requirements.

10. When an effluent pump is required, pump stations should be sized per manufacturer's specifications to meet lift requirements and friction/head loss. Provisions shall be made to make certain that surface and ground water does not enter the septic tank or pump station, by sealing/grouting all seams and connections, and by placement of a riser and cover at or above grade. An alarm device warning of a pump failure shall be installed. Bottom-feed distribution box is specified to prevent freezing. Insulate distribution boxes per the *Rules*.

11. On all systems, remove the vegetation, organic duff and roots, and old fill material from under the disposal area and any fill extension. Additional fill beyond indicated on the plan may be necessary to replace organic matter and/or stumps. On sites where the proposed disposal area is to be installed in natural soil, scarify the bottom and sides of the excavated disposal area with a rake. Do not use wheeled equipment on the scarified soil surface. For systems installed in fill, scarify the native soil by roto-tilling or scarifying with teeth of backhoe to a depth of at least 8 inches over the entire disposal field and fill extension are to prevent glazing and to promote fill bonding. Place fill in loose layers no deeper than 8 inches and compact before placing more fill (this ensures that voids and loose pockets are eliminated to minimize the chance of leakage or different settling). Do not use wheeled equipment on the scarified soil are until after 12 inches of fill is in place. Keep equipment off of proprietary leaching devices. Divert surface water away from the disposal area by ditching or shallow landscape swales.

12. Unless noted otherwise, fill shall be gravelly coarse sand, which contains no more than 5% fines (silt and clay). Crushed stone shall be clean and free of any rock dust from the crushing process. Refer to the *Rules* for more specific information regarding fill and stone.

13. Seed all filled and disturbed surfaces with perennial grass seed, with 4 inches minimum soil or soil amendment mix suitable for growing, then mulch with hay or equivalent material to prevent erosion. Alternatively, bark or permanent landscape mulch may be used to cover the system. Woody trees or shrubs are not permitted on the disposal field or fill extensions.

14. If an advanced wastewater treatment unit is part of this design, the system shall be operated and maintained per manufacturer's specifications.

15. Effluent (backwash) from water treatment units **SHALL NOT** be disposed of within this disposal system and **MUST** be redirected away from the disposal field

SOIL TEST PIT PROFILE DESCRIPTIONS

LONGVIEW PARTNERS, LLC
6 SECOND STREET BUXTON, MAINE

Town, City, Plantation: **KITTERY**

Street, Road, Subdivision: **77 BARTLETT ROAD**

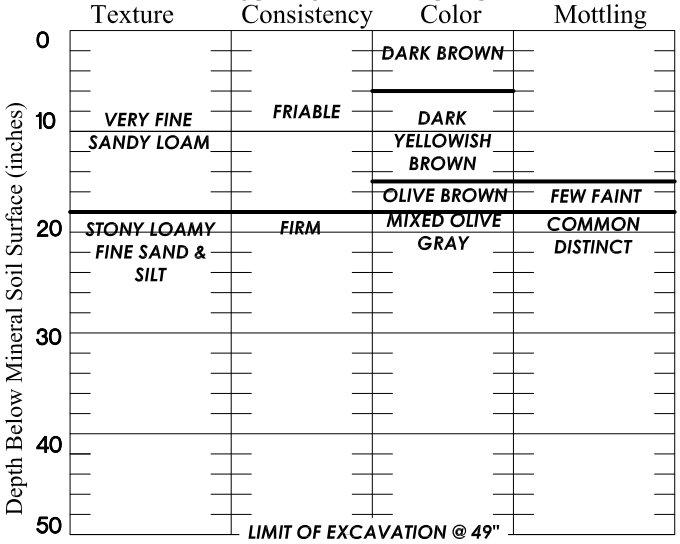
Owner's Name: **BOWLEY BUILDERS**

SOIL DESCRIPTION AND CLASSIFICATION (PER STATE OF MAINE SUBSURFACE WASTEWATER DISPOSAL RULES)

Observation Hole **TP 25** ■ Test Pit □ Boring

_____ " Depth of Organic Horizon Above Mineral Soil

SOIL TEST PIT BY BACKHOE

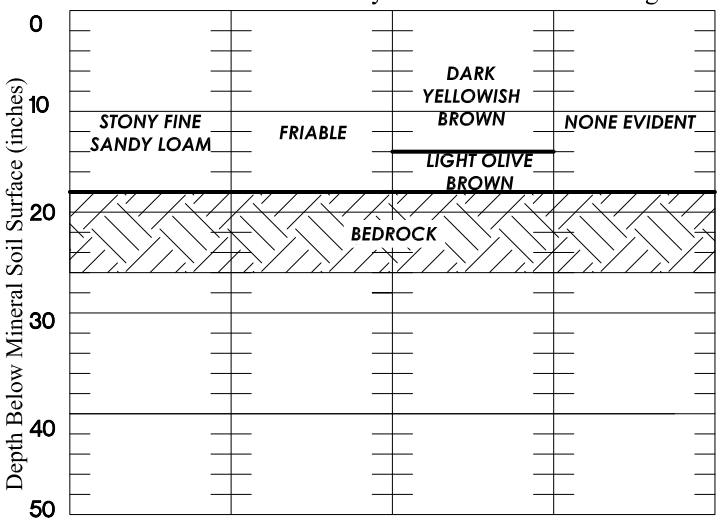


Soil Classification	Slope	Limiting Factor	
8 / C (Profile / Condition)	_____ %	15 "	[X] Ground Water [ ] Restrictive Layer [ ] Bedrock [ ] Pit Depth
DIXFIELD (VARIANT)			

Observation Hole **TP 26** ■ Test Pit □ Boring

_____ " Depth of Organic Horizon Above Mineral Soil

SOIL TEST PIT BY BACKHOE



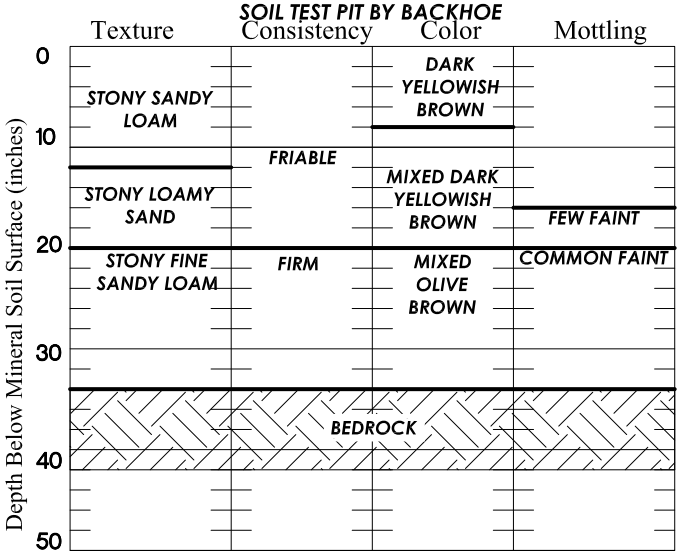
Soil Classification	Slope	Limiting Factor	
2 / AIII (Profile / Condition)	_____ %	18 "	[ ] Ground Water [ ] Restrictive Layer [X] Bedrock [ ] Pit Depth
LYMAN			

SOIL DESCRIPTION AND CLASSIFICATION (PER STATE OF MAINE SUBSURFACE WASTEWATER DISPOSAL RULES)

Observation Hole **TP 27** ■ Test Pit □ Boring

_____ " Depth of Organic Horizon Above Mineral Soil

SOIL TEST PIT BY BACKHOE

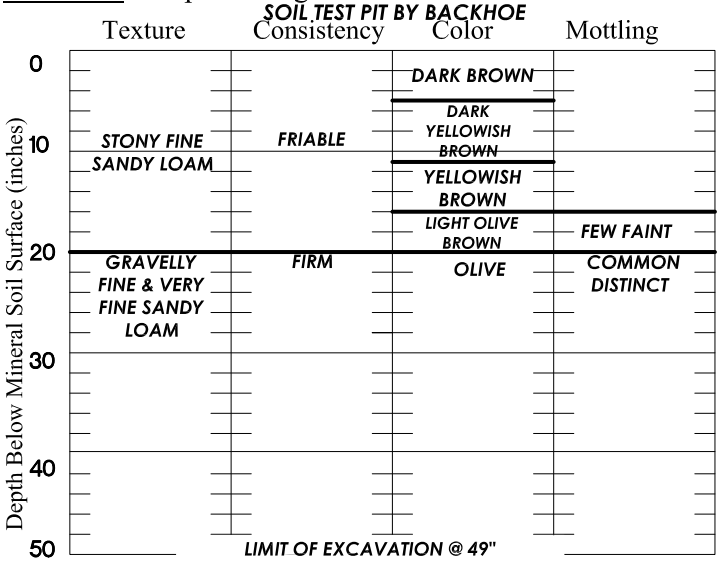


Soil Classification	Slope	Limiting Factor	
3 / AIII/C (Profile / Condition)	_____ %	16 "	[X] Ground Water [ ] Restrictive Layer [ ] Bedrock [ ] Pit Depth
TUNBRIDGE			

Observation Hole **TP 28** ■ Test Pit □ Boring

_____ " Depth of Organic Horizon Above Mineral Soil

SOIL TEST PIT BY BACKHOE



Soil Classification	Slope	Limiting Factor	
3/8 / C (Profile / Condition)	_____ %	16 "	[X] Ground Water [ ] Restrictive Layer [ ] Bedrock [ ] Pit Depth
DIXFIELD (VARIANT)			

James Logan

SIGNATURE

237/213

LSE/CSS #

6/15/23

DATE

SOIL TEST PIT PROFILE DESCRIPTIONS

LONGVIEW PARTNERS, LLC
6 SECOND STREET BUXTON, MAINE

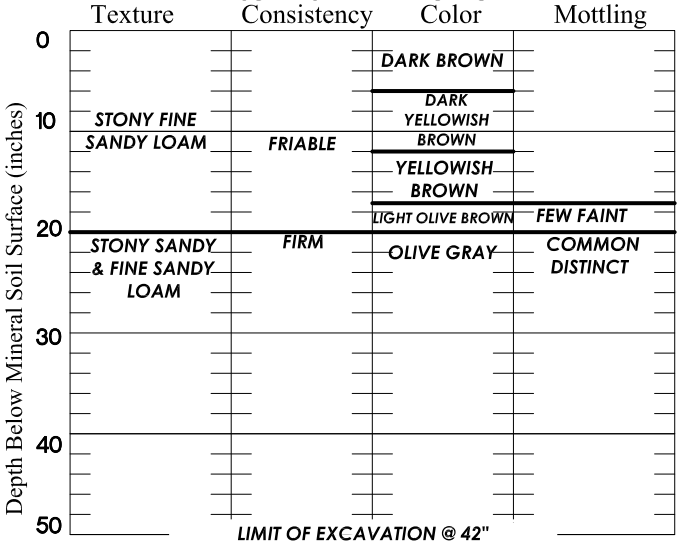
Town, City, Plantation	Street, Road, Subdivision	Owner's Name
KITTERY	**77 BARTLETT ROAD**	**BOWLEY BUILDERS**

SOIL DESCRIPTION AND CLASSIFICATION (PER STATE OF MAINE SUBSURFACE WASTEWATER DISPOSAL RULES)

Observation Hole **TP 29** ■ Test Pit □ Boring

_____ " Depth of Organic Horizon Above Mineral Soil

SOIL TEST PIT BY BACKHOE

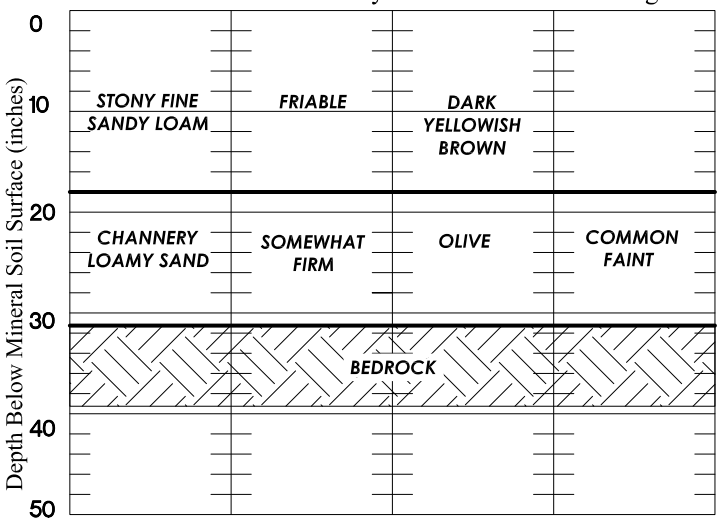


Soil Classification	Slope	Limiting Factor	
3 / C (Profile / Condition)	_____ %	17 "	[X] Ground Water [ ] Restrictive Layer [ ] Bedrock [ ] Pit Depth
DIXFIELD			

Observation Hole **TP 30** ■ Test Pit □ Boring

_____ " Depth of Organic Horizon Above Mineral Soil

SOIL TEST PIT BY BACKHOE



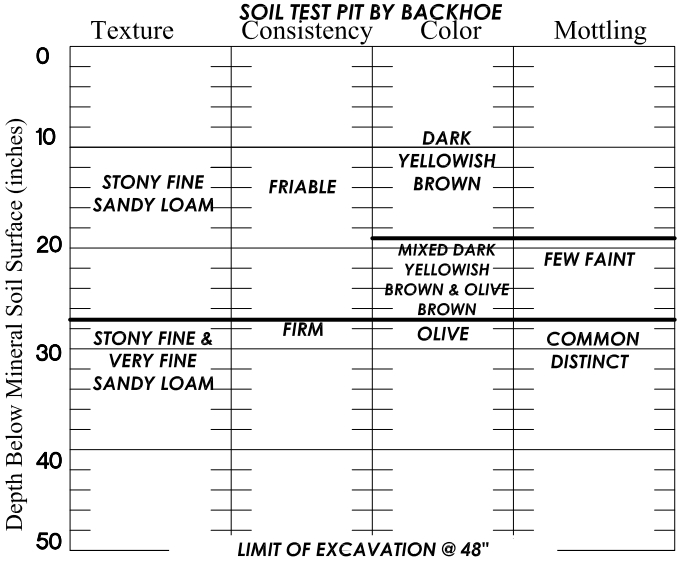
Soil Classification	Slope	Limiting Factor	
3 / AIII/C (Profile / Condition)	_____ %	18 "	[X] Ground Water [X] Restrictive Layer [ ] Bedrock [ ] Pit Depth
TUNBRIDGE			

SOIL DESCRIPTION AND CLASSIFICATION (PER STATE OF MAINE SUBSURFACE WASTEWATER DISPOSAL RULES)

Observation Hole **TP 31** ■ Test Pit □ Boring

_____ " Depth of Organic Horizon Above Mineral Soil

SOIL TEST PIT BY BACKHOE

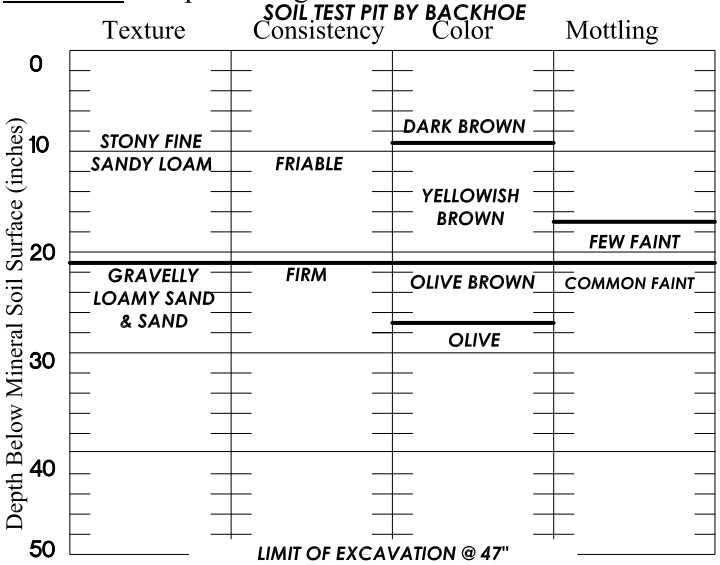


Soil Classification	Slope	Limiting Factor	
3 / C (Profile / Condition)	_____ %	19 "	[X] Ground Water [ ] Restrictive Layer [ ] Bedrock [ ] Pit Depth
DIXFIELD			

Observation Hole **TP 32** ■ Test Pit □ Boring

_____ " Depth of Organic Horizon Above Mineral Soil

SOIL TEST PIT BY BACKHOE



Soil Classification	Slope	Limiting Factor	
3 / C (Profile / Condition)	_____ %	17 "	[X] Ground Water [X] Restrictive Layer [ ] Bedrock [ ] Pit Depth
DIXFIELD			

SIGNATURE	LSE/CSS #	DATE
James Logan	237/213	6/15/23

SOIL TEST PIT PROFILE DESCRIPTIONS

LONGVIEW PARTNERS, LLC
6 SECOND STREET BUXTON, MAINE

Town, City, Plantation: **KITTERY**

Street, Road, Subdivision: **77 BARTLETT ROAD**

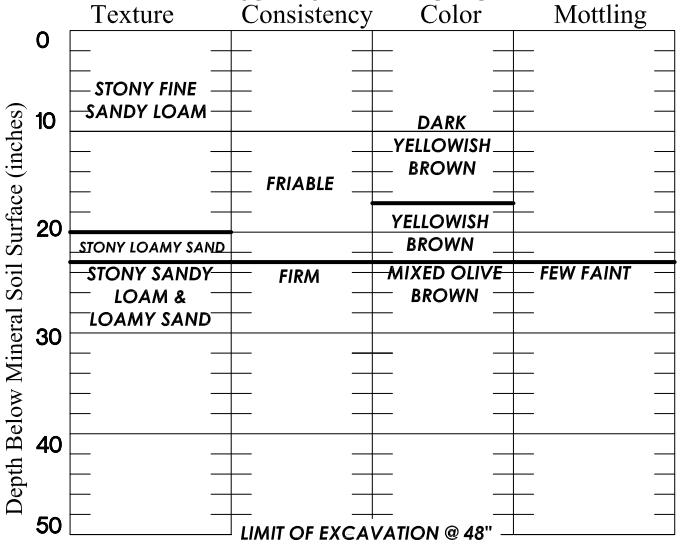
Owner's Name: **BOWLEY BUILDERS**

SOIL DESCRIPTION AND CLASSIFICATION (PER STATE OF MAINE SUBSURFACE WASTEWATER DISPOSAL RULES)

Observation Hole **TP 33** ■ Test Pit □ Boring

_____ " Depth of Organic Horizon Above Mineral Soil

SOIL TEST PIT BY BACKHOE

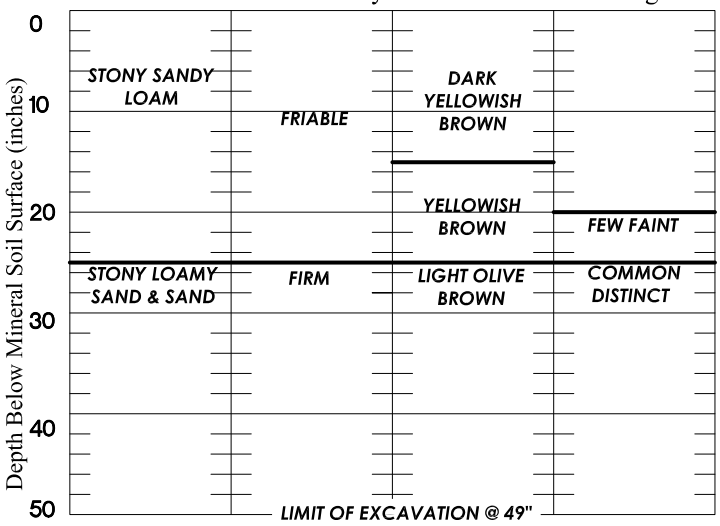


Soil Classification	Slope	Limiting Factor	
3 C (Profile / Condition) DIXFIELD	_____ %	23 "	[X] Ground Water [ ] Restrictive Layer [ ] Bedrock [ ] Pit Depth

Observation Hole **TP 34** ■ Test Pit □ Boring

_____ " Depth of Organic Horizon Above Mineral Soil

SOIL TEST PIT BY BACKHOE



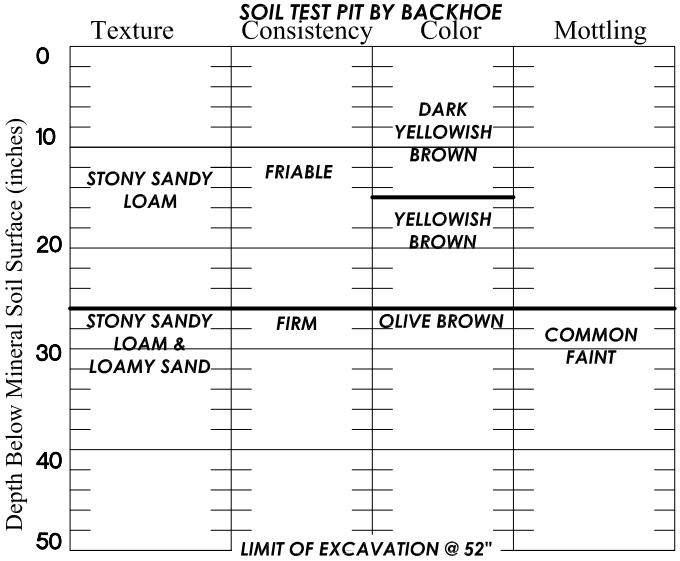
Soil Classification	Slope	Limiting Factor	
3 C (Profile / Condition) DIXFIELD	_____ %	20 "	[X] Ground Water [ ] Restrictive Layer [ ] Bedrock [ ] Pit Depth

SOIL DESCRIPTION AND CLASSIFICATION (PER STATE OF MAINE SUBSURFACE WASTEWATER DISPOSAL RULES)

Observation Hole **TP 35** ■ Test Pit □ Boring

_____ " Depth of Organic Horizon Above Mineral Soil

SOIL TEST PIT BY BACKHOE

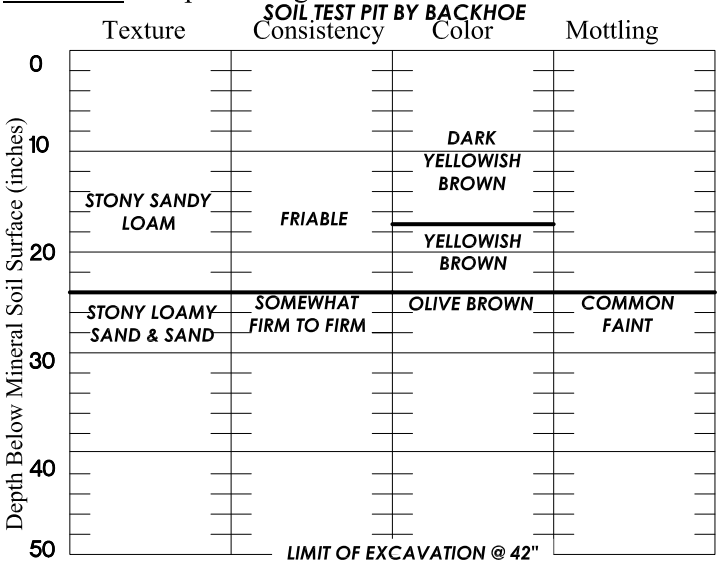


Soil Classification	Slope	Limiting Factor	
3 C (Profile / Condition) DIXFIELD	_____ %	26 "	[X] Ground Water [ ] Restrictive Layer [ ] Bedrock [ ] Pit Depth

Observation Hole **TP 36** ■ Test Pit □ Boring

_____ " Depth of Organic Horizon Above Mineral Soil

SOIL TEST PIT BY BACKHOE



Soil Classification	Slope	Limiting Factor	
3 C (Profile / Condition) DIXFIELD	_____ %	24 "	[X] Ground Water [ ] Restrictive Layer [ ] Bedrock [ ] Pit Depth

James Logan

SIGNATURE

237/213
LSE/CSS #

6/15/23
DATE

SOIL TEST PIT PROFILE DESCRIPTIONS

LONGVIEW PARTNERS, LLC
6 SECOND STREET BUXTON, MAINE

Town, City, Plantation: **KITTERY**

Street, Road, Subdivision: **77 BARTLETT ROAD**

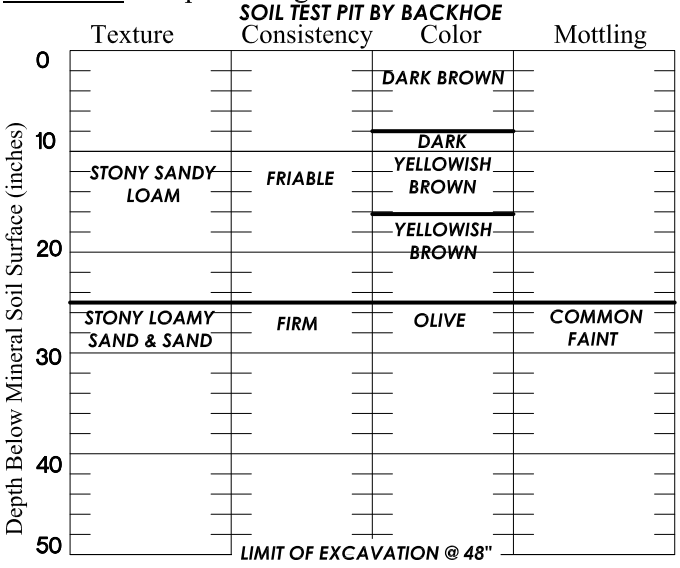
Owner's Name: **BOWLEY BUILDERS**

SOIL DESCRIPTION AND CLASSIFICATION (PER STATE OF MAINE SUBSURFACE WASTEWATER DISPOSAL RULES)

Observation Hole **TP 37** ■ Test Pit □ Boring

_____ " Depth of Organic Horizon Above Mineral Soil

SOIL TEST PIT BY BACKHOE

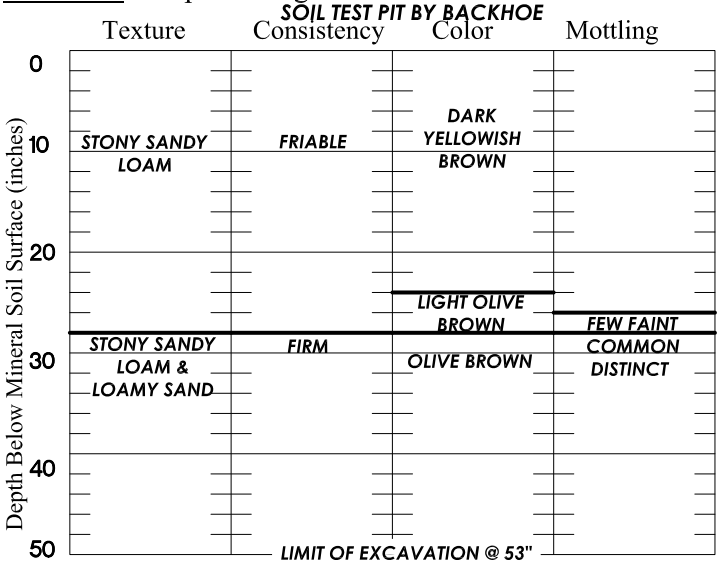


Soil Classification	Slope	Limiting Factor	
3 / C (Profile / Condition)	_____ %	25 "	[X] Ground Water [ ] Restrictive Layer [ ] Bedrock [ ] Pit Depth
DIXFIELD			

Observation Hole **TP 38** ■ Test Pit □ Boring

_____ " Depth of Organic Horizon Above Mineral Soil

SOIL TEST PIT BY BACKHOE



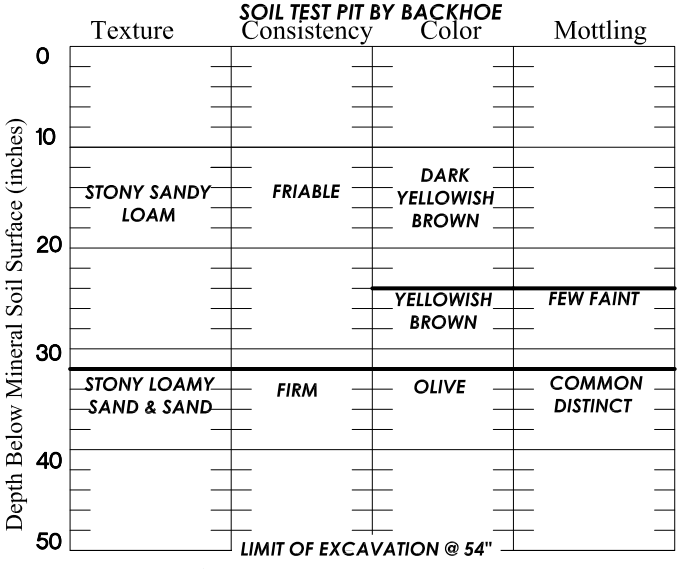
Soil Classification	Slope	Limiting Factor	
3 / C (Profile / Condition)	_____ %	26 "	[X] Ground Water [ ] Restrictive Layer [ ] Bedrock [ ] Pit Depth
DIXFIELD			

SOIL DESCRIPTION AND CLASSIFICATION (PER STATE OF MAINE SUBSURFACE WASTEWATER DISPOSAL RULES)

Observation Hole **TP 39** ■ Test Pit □ Boring

_____ " Depth of Organic Horizon Above Mineral Soil

SOIL TEST PIT BY BACKHOE

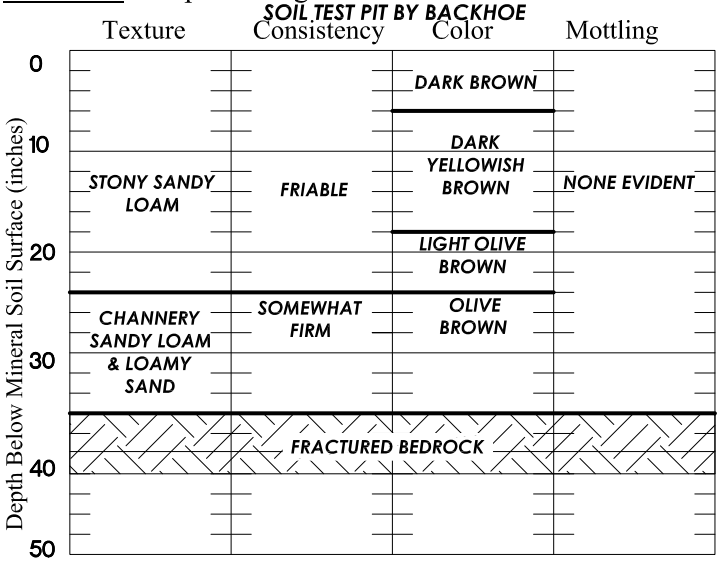


Soil Classification	Slope	Limiting Factor	
3 / C (Profile / Condition)	_____ %	24 "	[X] Ground Water [ ] Restrictive Layer [ ] Bedrock [ ] Pit Depth
DIXFIELD			

Observation Hole **TP 40** ■ Test Pit □ Boring

_____ " Depth of Organic Horizon Above Mineral Soil

SOIL TEST PIT BY BACKHOE



Soil Classification	Slope	Limiting Factor	
3 / AIII/C (Profile / Condition)	_____ %	24 "	[ ] Ground Water [X] Restrictive Layer [ ] Bedrock [ ] Pit Depth
TUNBRIDGE			

James Logan
SIGNATURE

237/213
LSE/CSS #

10/19/22
DATE

SOIL TEST PIT PROFILE DESCRIPTIONS

LONGVIEW PARTNERS, LLC
6 SECOND STREET BUXTON, MAINE

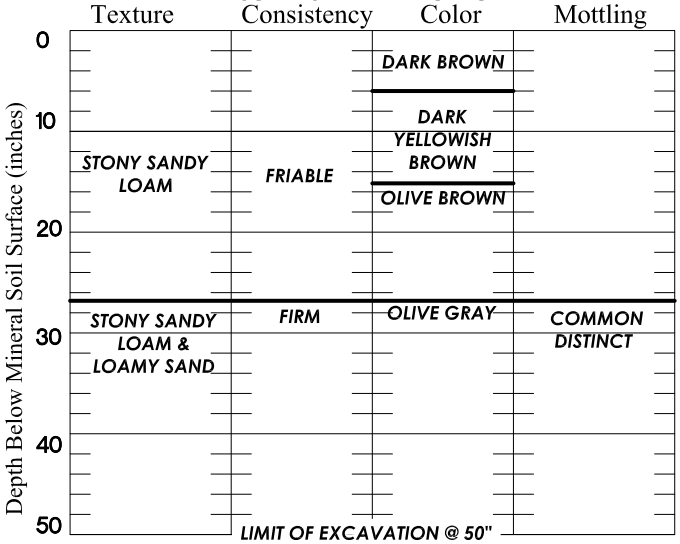
Town, City, Plantation	Street, Road, Subdivision	Owner's Name
KITTERY	**77 BARTLETT ROAD**	**BOWLEY BUILDERS**

SOIL DESCRIPTION AND CLASSIFICATION (PER STATE OF MAINE SUBSURFACE WASTEWATER DISPOSAL RULES)

Observation Hole **TP 41** ■ Test Pit □ Boring

_____ " Depth of Organic Horizon Above Mineral Soil

SOIL TEST PIT BY BACKHOE

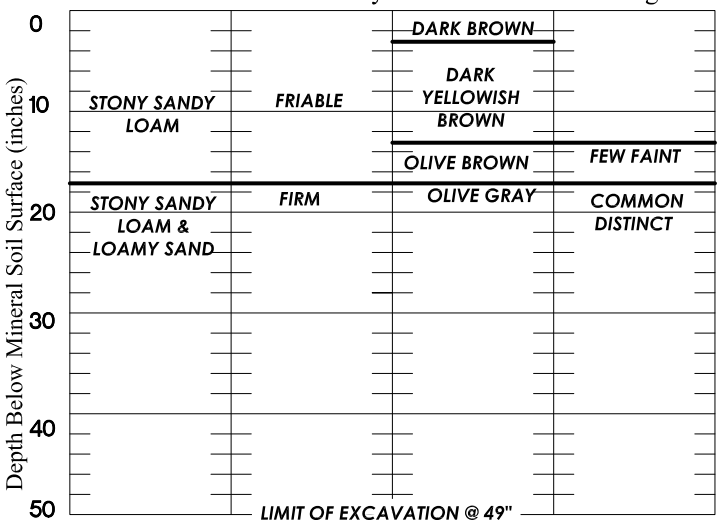


Soil Classification	Slope	Limiting Factor	
3 / C (Profile / Condition)	_____ %	27 "	[X] Ground Water [ ] Restrictive Layer [ ] Bedrock [ ] Pit Depth
DIXFIELD/SKERRY			

Observation Hole **TP 42** ■ Test Pit □ Boring

_____ " Depth of Organic Horizon Above Mineral Soil

SOIL TEST PIT BY BACKHOE

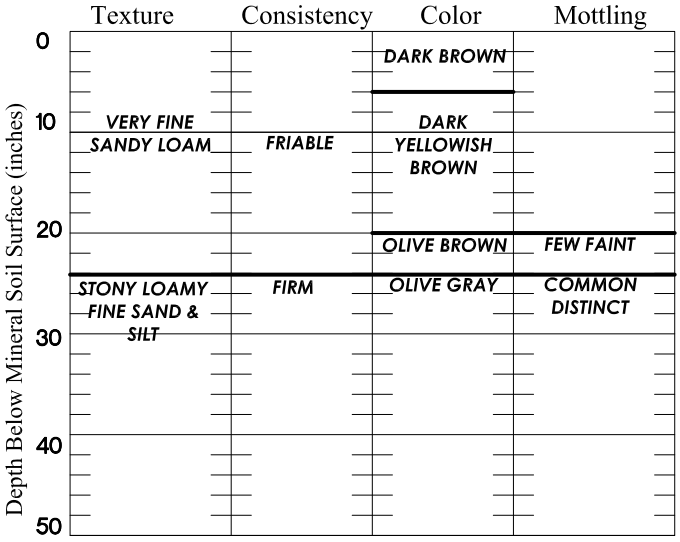


Soil Classification	Slope	Limiting Factor	
3 / D (Profile / Condition)	_____ %	13 "	[X] Ground Water [ ] Restrictive Layer [ ] Bedrock [ ] Pit Depth
COLONEL (SWP)			

SOIL DESCRIPTION AND CLASSIFICATION (PER STATE OF MAINE SUBSURFACE WASTEWATER DISPOSAL RULES)

Observation Hole **TP 43** ■ Test Pit □ Boring

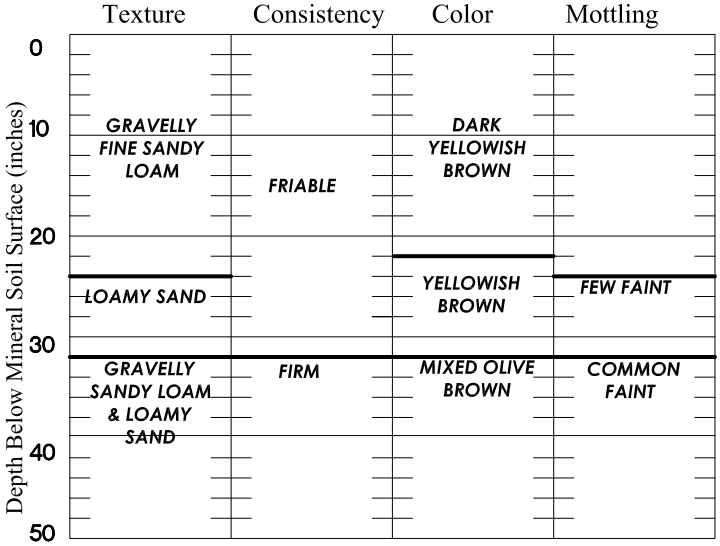
_____ " Depth of Organic Horizon Above Mineral Soil



Soil Classification	Slope	Limiting Factor	
8 / C (Profile / Condition)	_____ %	20 "	[X] Ground Water [ ] Restrictive Layer [ ] Bedrock [ ] Pit Depth
DIXFIELD			

Observation Hole **TP 44** ■ Test Pit □ Boring

_____ " Depth of Organic Horizon Above Mineral Soil



Soil Classification	Slope	Limiting Factor	
3 / C (Profile / Condition)	_____ %	24 "	[X] Ground Water [ ] Restrictive Layer [ ] Bedrock [ ] Pit Depth
DIXFIELD			

SIGNATURE	LSE/CSS #	DATE
James Logan	237/213	6/15 & 7/25/23

SOIL TEST PIT PROFILE DESCRIPTIONS

LONGVIEW PARTNERS, LLC
6 SECOND STREET BUXTON, MAINE

Town, City, Plantation: **KITTERY**

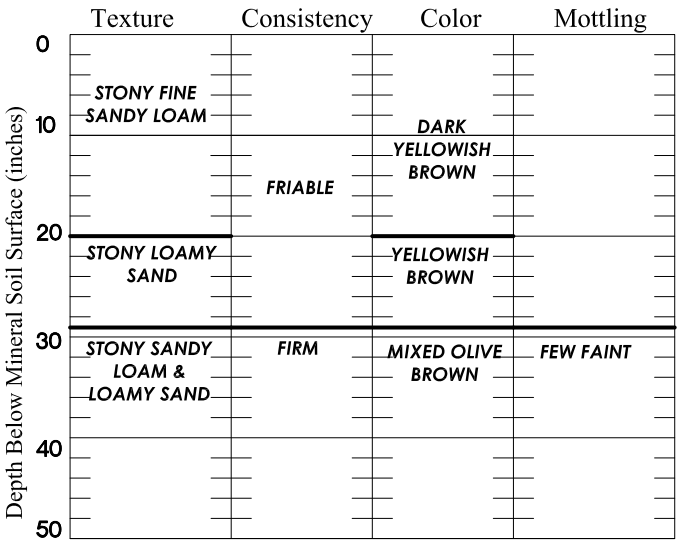
Street, Road, Subdivision: **77 BARTLETT ROAD**

Owner's Name: **BOWLEY BUILDERS**

SOIL DESCRIPTION AND CLASSIFICATION (PER STATE OF MAINE SUBSURFACE WASTEWATER DISPOSAL RULES)

Observation Hole **TP 45** ■ Test Pit □ Boring

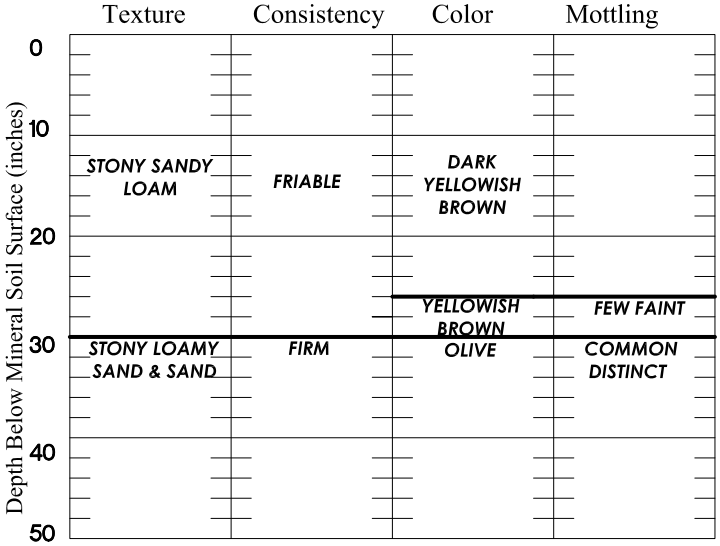
_____ " Depth of Organic Horizon Above Mineral Soil



Soil Classification	Slope	Limiting Factor	
3 C (Profile / Condition) DIXFIELD	_____ %	29 "	[X] Ground Water [ ] Restrictive Layer [ ] Bedrock [ ] Pit Depth

Observation Hole **TP 46** ■ Test Pit □ Boring

_____ " Depth of Organic Horizon Above Mineral Soil

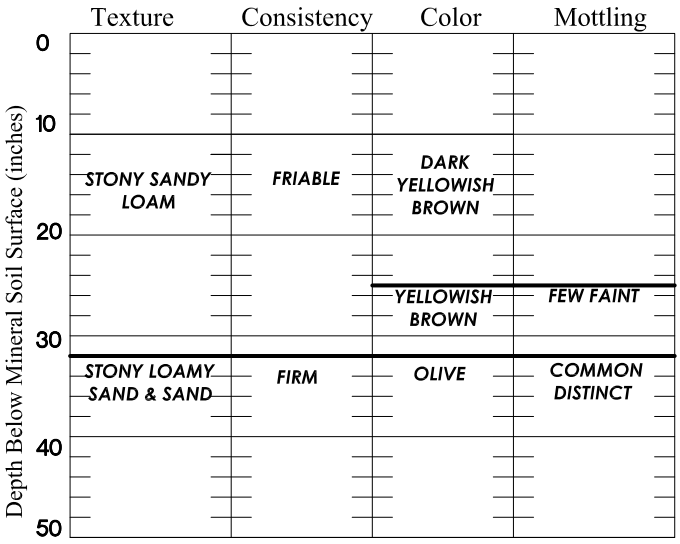


Soil Classification	Slope	Limiting Factor	
3 C (Profile / Condition) DIXFIELD	_____ %	26 "	[X] Ground Water [ ] Restrictive Layer [ ] Bedrock [ ] Pit Depth

SOIL DESCRIPTION AND CLASSIFICATION (PER STATE OF MAINE SUBSURFACE WASTEWATER DISPOSAL RULES)

Observation Hole **TP 47** ■ Test Pit □ Boring

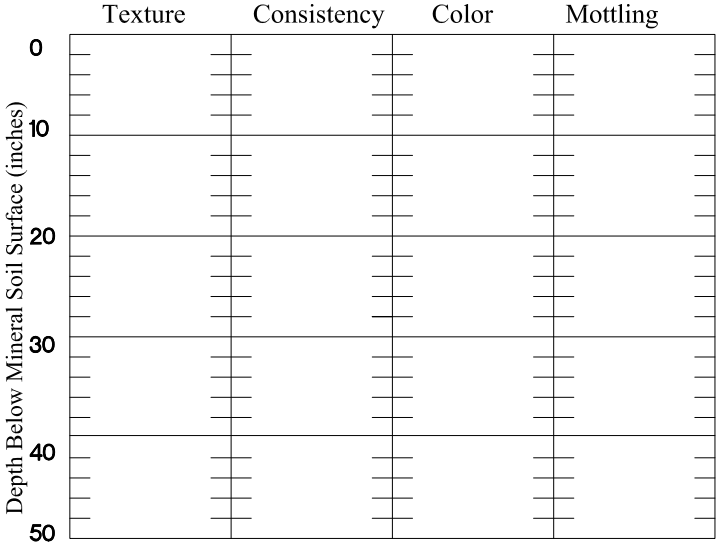
_____ " Depth of Organic Horizon Above Mineral Soil



Soil Classification	Slope	Limiting Factor	
3 C (Profile / Condition) DIXFIELD	_____ %	25 "	[X] Ground Water [ ] Restrictive Layer [ ] Bedrock [ ] Pit Depth

Observation Hole _____ ■ Test Pit □ Boring

_____ " Depth of Organic Horizon Above Mineral Soil



Soil Classification	Slope	Limiting Factor	
_____ _____ (Profile / Condition)	_____ %	_____ "	[ ] Ground Water [ ] Restrictive Layer [ ] Bedrock [ ] Pit Depth

James Logan
SIGNATURE

237/213
LSE/CSS #

7/25/23
DATE

Attachment 5

Groundwater Availability Letter

Mark Cenci
Geologic, Inc.

CERTIFIED GEOLOGIST/LICENSED SITE EVALUATOR

93 Mill Road • North Yarmouth, Maine 04097
Cell: 207.329.3524 • mark@markcenci.com
www.markcenci.com

Ground Water Availability Assessment of the Bartlett Road Subdivision, Kittery

Date: July 25, 2023

Summary of the Assessment:

The proposed subdivision of nine residential lots satisfies the requirements of the Town of Kittery Subdivision Ordinance regarding effects on ground water quantity.

Purpose of the Assessment:

The purpose of the assessment is to predict the possible effects on ground water from water wells planned for the project to satisfy the requirements of the Town of Kittery.

Information used:

Information used in this assessment includes the *Sketch Plan Conservation Subdivision* by Terradyn Consultants dated 5/18/23 and library research of published geologic, hydrogeologic and soils information.

Project summary:

The project is a subdivision of nine residential lots on19.3 acres. One existing home occupies one lot. The residences will be single family homes, served by private, drilled bedrock water wells. The homes are assumed to be four-bedrooms in size.

Summary of geology:

The property is located (see Figure 1) on the dissected coastal plain of Kittery, south of Forty Acre Hill. Surface slopes are gentle.

The site is mapped (see Figure 2) as a marine nearshore deposit (Pmn) on the *Surficial Geology of the Kittery 7.5 Quadrangle, York County Maine* (ME Geol. Surv. Open-File Map 99-88). Marine nearshore deposits are defined as "thin, discontinuous and water laid sediments overlying shallow bedrock".

Depths to bedrock are reported from water wells in the area to be 4 to 10 feet below the surface (see Figure 6). The bedrock is mapped as metamorphosed sandstones and siltstones of the Kittery Formation (SOk) by Arthur Hussey (see Figure 3) on the *Bedrock Geology of the Kittery Quadrangle, Maine (*ME Geol. Surv, Geologic Map 12-28).

Summary of hydrogeology:

The source of ground water on this site is precipitation. Precipitation falling on this site seeps into the soil and descends until restrictive soil layers, the water table or bedrock is encountered, where a portion seeps into the open fractures of the bedrock.

On this site the soils are sandy loam to loamy sand in texture. Surface slopes are gentle. Soil recharge is average to above average on the property.

Based on the recommendations of the Maine DEP for hydrogeologic assessments, 30% of all precipitation can be expected to recharge the soil.

Impact on ground water quantity:

An estimated 3,600 gallons of water will be removed from the bedrock aquifer per day, assuming each of the single-family residences uses 400 gallons per day.

Water occurs in fractures and partings in a rock body. The openness and spacing of the fractures and partings differs from rock body to rock body and within the rock body as well. It is extremely difficult to predict the well yield and well depth at any specific location, but general trends can be discerned by looking at well drilling results.

There are two variables to consider when evaluating a water well. One is the depth of the borehole into the rock and the other is the amount of water that can be delivered to the borehole from the bedrock fractures. Where the yield of the well is low, a deep borehole can act as a storage container. The typical drilled, bedrock water well in Maine is 300 feet deep and has a yield of 3 gallons per minute.

To investigate the capacity of the site to deliver water from the bedrock aquifer to the proposed homes, while complying with the Ordinance, research of existing published information was made.

No test wells were drilled and evaluated on the property, but the Maine Water Well Database of the Maine Geological Survey provides published information of existing water wells that are searchable. These are presented in a map format (see Figures 4 and 5).

Twenty-one bedrock wells within 3,500 feet of the property, drilled into the same Kittery Formation that underlies the property, were tallied regarding depth and yield of well.

Well depths range from 72 feet to 520 feet deep. The average well depth is 260 feet, and the median well depth is 240 feet deep. Well yields range from 2 gpm to 100 gpm. The average yield is 22.8 gpm and the median is 6 gpm. These results suggest the Kittery Formation in this area is a body of rock offering above average aquifer characteristics regarding depth and yield.

To better understand the capacity of the bedrock aquifer to deliver the quantity of water required by nine residences without depleting the stored water in the ground, an analysis of the recharge capacity of the property was made.

Precipitation recharges the bedrock aquifer, and typical rates of recharge are known from studies of bedrock in Maine. Rocks like the Kittery Formation typically recharge 9 inches (0.75 feet) of precipitation per year into the bedrock. This is regardless of drought conditions.

A simple Mass-Balance equation can be done to evaluate the capacity of the subject property to supply sufficient water to the bedrock aquifer. Calculations are attached as Table 1 and indicate the property itself supplies more water to the bedrock than will be withdrawn by the proposed wells.

Conclusions:

The bedrock aquifer recharge capacity of the parcel is greater than the ground water withdrawal from the proposed water wells. The Kittery Formation beneath the site is a good bedrock aquifer, as shown by a review of the nearest bedrock water wells in the Maine Water Well Database.

Mark Cenci, LG # 467

TABLE 1

Bedrock Aquifer Mass-Balance Calculations

Assumptions:

19.3-acre parcel

9 single family residences pumping 400 gallons per day, (3,600 gpd total)

4 feet per year of precipitation

9 inches recharge (0.75 ft) to the bedrock per year, at a recharge rate of 21%

Calculations:

19.3 acres x 43,540 sq ft/acre x 0.75 ft/ year x 7.481 gal/sq ft / 365 days per year = 51.693 gallons per day, average, recharged into the bedrock aquifer on this parcel.

Conclusions:

Recharge to the bedrock aquifer on the property exceeds the withdrawal from the combined total of existing and new wells.

Attachment 6

Vernal Pool Assessment Methodology & Summary

STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

JANET T. MILLS
GOVERNOR

MELANIE LOYZIM
COMMISSIONER

July 5, 2023

Bowley Builders
86 York Street, Suite 3
Kennebunk, ME 04043

Re: Vernal Pool Significance Determination, Pool ID #s 5156, 5157–Kittery

To Whom It May Concern:

Vernal pools are temporary to semi-permanent wetlands occurring in shallow depressions that typically fill during the spring and dry during the summer or in drought years. They provide important breeding and foraging habitat for a wide variety of specialized wildlife species including several rare, threatened, and endangered species.

After conducting a field survey at your request, it has been determined that the vernal pools identified above on your property are NOT SIGNIFICANT because either: 1. the features do not meet the definition of a vernal pool under the Significant Wildlife Habitat rules, 06-096 CMR 335(9) or 2. the vernal pools do not meet the biological standards for exceptional wildlife use of the Significant Wildlife Habitat rules, 06-096 CMR 335(9)(B). Therefore, activities within 250 feet of the pools are not regulated under the Natural Resources Protection Act (NRPA) unless there are other protected natural resources nearby such as streams or freshwater wetlands. I have attached a copy of the database printout that verifies the State's findings with respect to your survey.

I want to also advise you that the pool areas on your property can be considered freshwater wetlands and therefore direct pool alterations may require permitting under the NRPA.

If you have any questions or need further clarification, please contact Mark Stebbins at 207-592-4810 or email at: Mark.N.Stebbins@maine.gov

Sincerely,

Robert Wood
Director, Bureau of Land Resources

cc. town file

AUGUSTA
17 STATE HOUSE STATION
AUGUSTA, MAINE 04333-0017
(207) 287-7688 FAX: (207) 287-7826

BANGOR
106 HOGAN ROAD, SUITE 6
BANGOR, MAINE 04401
207-941-4570 FAX: (207) 941-4584

PORTLAND
312 CANCO ROAD
PORTLAND, MAINE 04103
(207) 822-6300 FAX: (207) 822-6303

PRESQUE ISLE
1235 CENTRAL DRIVE, SKYWAY PARK
PRESQUE ISLE, MAINE 04769
(207) 764-0477 FAX: (207) 760-3143

WEBSITE: www.maine.gov/dep

IFW Recommendations for Significant Vernal Pool Determinations

The following is a list of pools and IFW's recommendations for whether or not they qualify as Significant Vernal Pools, one of Maine's Significant Wildlife Habitats.

Data current as of: Wednesday, July 05, 2023

IFW's Pool ID: 5156 Twp: Kittery
Observer's ID: Pool 1

UTM Coordinates of Pool Center: 4774569 E, 4774569 N
ProjectType: 77 BARTLETT ROAD

Landowner:	Contact:
Bowley Builders	James Logan - Longview Partners, LLC
86 York Street, Suite 3	6 Second Street
Kennebunk, ME 04043	Buxton, ME 04093
geoff@bowleybuilders.com	(207) 693-8799 longviewpartners213@gmail.com

Survey Date: 4/4/2023 Additional Survey Dates: 04/26/2023, 05/03/2023

IFW's Recommendation: RED: NOT SIGNIFICANT, does not meet the biological criteria

IFW Comments: pool provides some habitat for spotted salamanders but does not meet biological criteria for significance.

IFW's Pool ID: 5157 Twp: Kittery
Observer's ID: Pool 2

UTM Coordinates of Pool Center: 4774518 E, 4774518 N
ProjectType: 77 BARTLETT ROAD

Landowner:	Contact:
Bowley Builders	James Logan - Longview Partners, LLC
86 York Street, Suite 3	6 Second Street
Kennebunk, ME 04043	Buxton, ME 04093
geoff@bowleybuilders.com	(207) 693-8799 longviewpartners213@gmail.com

Survey Date: 4/4/2023 Additional Survey Dates: 04/26/2023, 05/03/2023

IFW's Recommendation: RED: NOT SIGNIFICANT, does not meet the biological criteria

IFW Comments: pool provides some habitat for wood frogs but does not meet biological criteria for significance.

Maine State Vernal Pool Assessment Form

INSTRUCTIONS:

- **Complete all 3 pages of form thoroughly. Most fields are required for pool registration.**
- **Clear photographs of a) the pool AND b) the indicators (one example of each species egg mass) are required for all observers.**

Observer's Pool ID: ***POOL 1*** **MDIFW Pool ID:** _____

1. PRIMARY OBSERVER INFORMATION

a. Observer name: ***LONGVIEW PARTNERS*** ***(J. LOGAN & W. O'CONNOR)***

b. Contact and credentials previously provided? ○ No (submit Addendum 1) ○ Yes

2. PROJECT CONTACT INFORMATION

a. Contact name: ○ same as observer ○ other _____

b. Contact and credentials previously provided? ○ No (submit Addendum 1) ○ Yes

c. Project Name: ***77 BARTLETT ROAD***

3. LANDOWNER CONTACT INFORMATION

a. Are you the landowner? ○ Yes ○ No If no, was landowner permission obtained for survey? ○ Yes ○ No

b. Landowner's contact information (required)

Name: ***BOWLEY BUILDERS*** Phone: _____ E-mail: ***geoff@bowleybuilders.com***

Street Address: ***86 YORK STREET, SUITE 3*** City: ***KENNEBUNK*** State: ***ME*** Zip: ***04043***

c. ☐ Large Projects: check if separate project landowner data file submitted

The Maine Department of Environmental Protection will e-mail official status letters to the project contact and landowner. Please check these data for completeness and accuracy to prevent delay in mailings. E-mail is the preferred method of notification; please provide e-mail addresses for the project contact and the landowner when available.

4. VERNAL POOL LOCATION INFORMATION

a. Location Township: ***KITTERY***

Brief site directions to the pool (using mapped landmarks):

PLEASE SEE ATTACHED

b. Mapping Requirements

i. USGS topographic map OR aerial photograph with pool clearly marked.

ii. GPS location of vernal pool (use Datum NAD83 / WGS84)

Longitude/Easting: ***70 41' 18.08"W*** Latitude/Northing: ***43 06' 41.04"N***

Coordinate system: ***WGS 1984***

Check one:

○ GIS shapefile
- send to VernalPool.MDIFW@maine.gov; observer has reviewed shape accuracy

○ (Best) The pool perimeter is delineated by multiple GPS points. (Excellent)
- Include map or spreadsheet with coordinates.

○ The above GPS point is at the center of the pool. (Good)

5. VERNAL POOL HABITAT INFORMATION

a. Habitat survey date (only if different from indicator survey dates on page 3): _____

b. Wetland habitat characterization

■ Choose the best descriptor for the landscape setting:

- ○ Isolated depression
- ○ Floodplain depression
- ○ Pool associated with larger wetland complex
- ○ Other: _____

■ Check all wetland types that best apply to this pool:

- ☑ Forested swamp
- ☑ Shrub swamp
- ☐ Peatland (fen or bog)
- ☐ Emergent marsh
- ☐ Wet meadow
- ☐ Lake or pond cove
- ☐ Abandoned beaver flowage
- ☐ Active beaver flowage
- ☑ Slow stream
- ☐ Floodplain
- ☐ Mostly unvegetated pool
- ☐ ATV or skidder rut
- ☐ Dug pond or borrow pit
- ☐ Roadside ditch
- ☐ Other: _____

c. Vernal pool status under the Natural Resources Protection Act (NRPA)

i. Pool Origin: ○ Natural ○ Natural-Modified ○ Unnatural ○ Unknown

If modified, unnatural or unknown, describe any modern or historic human impacts to the pool (**required**):

ii. Pool Hydrology

■ Select the pool's estimated hydroperiod AND provide rationale in box (**required**):

- ○ Permanent
- ○ Semi-permanent (drying partially in all years and completely in drought years)
- ○ Ephemeral (drying out completely in most years)
- ○ Unknown

Explain:

SLOW-MOVING DRAINAGE FLOWS THROUGH POOL

■ Maximum depth at survey: ○ 0-12" (0-1 ft.) ○ 12-36" (1-3 ft.) ○ 36-60" (3-5 ft.) ○ >60" (>5 ft.)

■ Approximate size of pool (at spring highwater): Width: 50' ○ m ○ ft Length: 119' ○ m ○ ft

■ Predominate substrate in order of increasing hydroperiod:

- ○ Mineral soil (bare, leaf-litter bottom, or upland mosses present)
- ○ Mineral soil (sphagnum moss present)
- ○ Organic matter (peat/muck) shallow or restricted to deepest portion
- ○ Organic matter (peat/muck) deep and widespread

■ Pool vegetation indicators in order of increasing hydroperiod (check all that apply):

- ☐ Terrestrial nonvascular spp. (e.g. haircap moss, lycopodium spp.)
- ☐ Dry site ferns (e.g. spinulose wood fern, lady fern, bracken fern)
- ☑ Moist site ferns (e.g. sensitive fern, cinnamon fern, interrupted fern, New York fern)
- ☑ Moist site vasculars (e.g. skunk cabbage, jewelweed, blue flag iris, swamp candle)
- ☑ Sphagnum moss (anchored or suspended)
- ☐ Wet site ferns (e.g. royal fern, marsh fern)
- ☑ Wet site shrubs (e.g. highbush blueberry, maleberry, winterberry, mountain holly)
- ☐ Wet site graminoids (e.g. blue-joint grass, tussock sedge, cattail, bulrushes)
- ☐ Aquatic vascular spp. (e.g. pickerelweed, arrowhead)
- ☐ Floating or submerged aquatics (e.g. water lily, water shield, pond weed, bladderwort)
- ☐ No vegetation in pool

■ Faunal indicators (check all that apply):

- ☐ Fish
- ☐ Bullfrog or Green Frog tadpoles
- ☐ Other: _____

iii. Inlet/Outlet Flow Permanency

Type of inlet or outlet (a seasonal or permanent channel providing water flowing into or out of the pool):

- ○ No inlet or outlet
- ○ Intermittent inlet or outlet
- ○ Permanent inlet or outlet (channel with well-defined banks and permanent flow)
- ○ Other or Unknown (explain): _____

6. VERNAL POOL INDICATOR INFORMATION

a. Indicator survey dates: ***APRIL 4 & 26, & MAY 3, 2023***

b. Indicator abundance criteria and pool survey effort

- Is pool depression bisected by 2 ownerships (straddler pool)? ◉ Yes ○ No
- Was the entire pool surveyed for egg masses? ○ Yes ◉ No; what % of entire pool surveyed? _____
- For each indicator species, indicate the exact number of egg masses, confidence level for species determination, and egg mass maturity. Separate cells are provided for separate survey dates.

INDICATOR SPECIES	Egg Masses (or adult Fairy Shrimp)									Tadpoles/Larvae[4]					
	Visit #1	Visit #2	Visit #3	Confidence Level[1]			Egg Mass Maturity[2]			Observed			Confidence Level[1]		
Wood Frog	0	0	0	3	3	3									
Spotted Salamander	0	0	4	3	3	3			M						
Blue-spotted Salamander	0	0	0	3	3	3									
Fairy Shrimp[3]	0	0	0	3	3	3									

1-Confidence level: 1 = <60%, 2 = 60-95%, 3 = >95%

2-Egg mass maturity: F= Fresh (<24 hrs), M= Mature (round embryos), A= Advanced (loose matrix, curved embryos), H= Hatched or Hatching

3-Fairy shrimp: X = present

4-Tadpoles/larvae: X = present

c. Rarity criteria

- Note any rare species associated with vernal pools. Observations should be accompanied by photographs.

SPECIES	Method of Verification*			CL**	SPECIES	Method of Verification*			CL**
	P	H	S			P	H	S	
Blanding's Turtle	☐	☐	☐		Wood Turtle	☐	☐	☐	
Spotted Turtle	☐	☐	☐		Ribbon Snake	☐	☐	☐	
Ringed Boghaunter	☐	☐	☐		Other:	☐	☐	☐	

*Method of verification: P = Photographed, H = Handled, S = Seen

**CL - Confidence level in species determination: 1= <60%, 2= 60-95%, 3= >95%

d. Optional observer recommendation:

☐ SVP ☐ Potential SVP ☑ Non Significant VP ☐ Indicator Breeding Area

e. General vernal pool comments and/or observations of other wildlife:

POOL LACKS SUFFICIENT SUBMERGED WOODY VEGETATION TO SUPPORT SIGNIFICANT NUMBERS OF EGG MASSES. SLOW MOVING DRAINAGE.

Send completed form and supporting documentation to: VernalPool.MDIFW@maine.gov

NOTE: Digital submissions are preferred but if not possible, please mail to: Maine Department of Inland Fisheries and Wildlife
Attn: Vernal Pools
106 Hogan Road, Suite 1
Bangor, ME 04401

For MDIFW use only Reviewed by MDIFW Date: _____ Initials: _____

This pool is: ☐ **Significant** ☐ **Potentially Significant** but lacking critical data ☐ **Not Significant** due to: ○ does not meet biological criteria. ○ does not meet MDEP vernal pool criteria.

Comments:

106 Hogan Rd
to **77 Bartlett Rd**

2 hr 40 min
180.7 miles

IRS reimbursement: **$105.68**

Head toward Hogan Rd. Go for 0.1 mi.

Then 0.11 miles

Turn left onto Hogan Rd. Go for 1.0 mi.

Then 0.99 miles

Turn sharp left and take ramp onto I-95 S toward Newport/Augusta. Go for 84.1 mi.

Then 84.15 miles

Take exit 103 toward I-295 S/Gardiner/ME-9/Brunswick/ME-126. Go for 0.7 mi.

Then 0.66 miles

Keep left onto I-295. Go for 51.6 mi.

Then 51.63 miles

Take the exit onto I-95 (Gold Star Memorial Hwy). Go for 37.0 mi.

Then 37.00 miles

Take exit 7 toward Yorks/US-1/The Berwicks/ME-91. Go for 0.3 mi.

Then 0.26 miles

Turn left onto Spur Rd. Go for 0.5 mi.

Then 0.46 miles

Turn right onto Blue Star Memorial Hwy (US-1). Go for 0.3 mi.

Then 0.33 miles

Turn left onto York St (US-1A). Go for 1.3 mi.

Then 1.34 miles

Turn right onto Lilac Ln (ME-103). Go for 2.2 mi.

Then 2.21 miles

Turn right onto Payne Rd. Go for 0.6 mi.

Then 0.62 miles

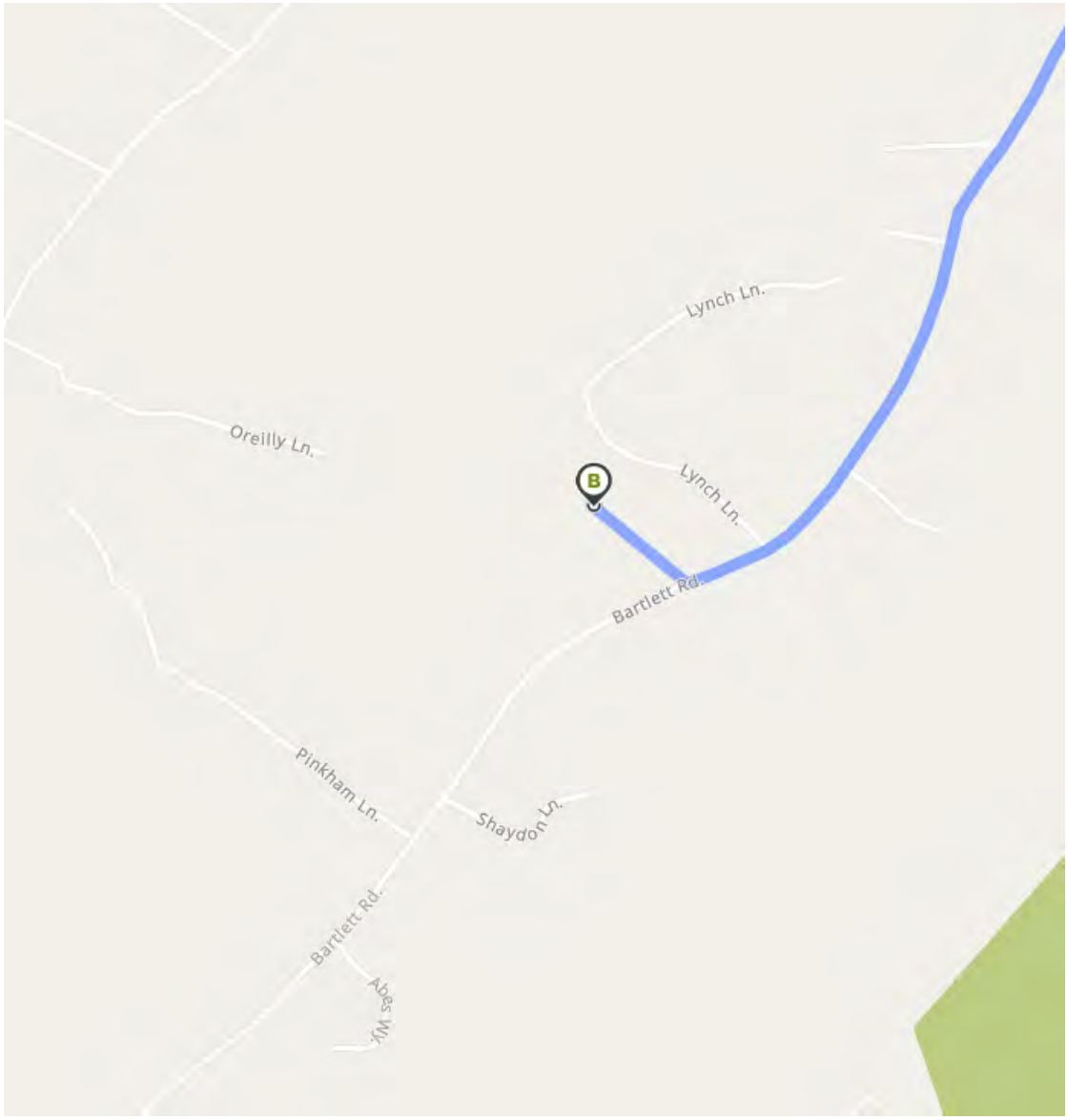
Turn left onto Bartlett Rd. Go for 0.8 mi.

Then 0.79 miles

Turn right. Go for 0.1 mi.

Then 0.11 miles

77 Bartlett Rd
Kittery, ME 03905-5640


Lynch Ln.
Oreilly Ln.
B
Lynch Ln.
Bartlett Rd.
Pinkham Ln.
Shaydon Ln.
Bartlett Rd.
Abes Wy

Bowley Builders property
77 Bartlett Road
Kittery, Maine
Spring 2023 Vernal Pool Study-Pool 1

Pool 1, April 4, 2023

Pool 1, April 4, 2023

Bowley Builders property
77 Bartlett Road
Kittery, Maine
Spring 2023 Vernal Pool Study-Pool 1

Pool 1, April 26, 2023

Pool 1, April 26, 2023

Bowley Builders property
77 Bartlett Road
Kittery, Maine
Spring 2023 Vernal Pool Study-Pool 1

Pool 1, May 3, 2023

Spotted Salamander egg mass in Pool 1, May 3, 2023

Bowley Builders property
77 Bartlett Road
Kittery, Maine
Spring 2023 Vernal Pool Study-Pool 1

Pool 1, May 3, 2023

FORESTED FRESHWATER WETLAND AREA

FORESTED FRESHWATER WETLAND AREA

FORESTED FRESHWATER WETLAND AREA

FORESTED FRESHWATER WETLAND AREA

FORESTED FRESHWATER WETLAND AREA

TP 1

TP 2

TP 3

TP 4

TP 5

TP 6

TP 7

TP 8

TP 9

TP 10

TP 11

TP 12

TP 13

TP 14

TP 15

TP 16

TP 17

TP 18

TP 19

TP 20

TP 21

TP 22

TP 23

TP 24

75' SETBACK

75' SETBACK

MDEP "WETLAND OF SPECIAL SIGNIFICANCE"

MDEP "WETLAND OF SPECIAL SIGNIFICANCE"

MDEP "WETLAND OF SPECIAL SIGNIFICANCE"

MAN-MADE POND

CEMETERY (NOT SHOWN ON TAX MAP)

VERNAL POOL #1

VERNAL POOL #2

FORESTED FRESHWATER WETLAND AREA

LYNCH LANE

BARTLETT ROAD

GRAPHIC SCALE

60 0 30 60 120

(IN FEET)

1 inch = 60 ft.

DELINEATION NOTES:

WETLAND STUDY CONDUCTED AUGUST 31, 2022

PLAN NOTES:

THIS PLAN IS A COMPOSITE OF PROPERTY BOUNDARY INFORMATION PER TOWN OF KITTERY TAX MAP, MAINE OFFICE OF GIS 2' TOPOGRAPHIC CONTOURS & AERIAL PHOTOGRAPH, AND SUBMETER GPS LOCATION OF WETLAND BOUNDARIES & OTHER SITE FEATURES AS DEPICTED BY LONGVIEW PARTNERS, LLC.

LEGEND:

- ***FRESHWATER WETLAND AREA*** *(LOCATED BY LONGVIEW PARTNERS, LLC SUBMETER GPS)*
- ***POTENTIAL VERNAL POOL*** *(LOCATED BY LONGVIEW PARTNERS, LLC SUBMETER GPS)*
- TP ***SOIL TEST PIT*** *(LOCATED BY LONGVIEW PARTNERS, LLC SUBMETER GPS)*
- ***POTENTIAL WASTEWATER DISPOSAL SITE***
- ***BEDROCK OUTCROP*** *(LOCATED BY LONGVIEW PARTNERS, LLC SUBMETER GPS)*

WETLAND DELINEATION & VERNAL POOL LOCATION PLAN

PREPARED FOR

BOWLEY BUILDERS
77 BARTLETT ROAD
(MAP 62, LOT 26)
KITTERY, MAINE

LONGVIEW PARTNERS, LLC

ENVIRONMENTAL PERMITTING SPECIALISTS

DRAFT:	SCALE:	CHECKED:	PLAN DATE:
BO	1" = 60'	JL	5/15/23

Maine State Vernal Pool Assessment Form

INSTRUCTIONS:

- **Complete all 3 pages of form thoroughly. Most fields are required for pool registration.**
- **Clear photographs of a) the pool AND b) the indicators (one example of each species egg mass) are required for all observers.**

Observer's Pool ID: ***POOL 2*** **MDIFW Pool ID:** _____

1. PRIMARY OBSERVER INFORMATION

a. Observer name: ***LONGVIEW PARTNERS*** ***(J. LOGAN & W. O'CONNOR)***

b. Contact and credentials previously provided? ○ No (submit Addendum 1) ○ Yes

2. PROJECT CONTACT INFORMATION

a. Contact name: ○ same as observer ○ other _____

b. Contact and credentials previously provided? ○ No (submit Addendum 1) ○ Yes

c. Project Name: ***77 BARTLETT ROAD***

3. LANDOWNER CONTACT INFORMATION

a. Are you the landowner? ○ Yes ○ No If no, was landowner permission obtained for survey? ○ Yes ○ No

b. Landowner's contact information (required)

Name: ***BOWLEY BUILDERS*** Phone: _____ E-mail: ***geoff@bowleybuilders.com***

Street Address: ***86 YORK STREET, SUITE 3*** City: ***KENNEBUNK*** State: ***ME*** Zip: ***04043***

c. ☐ Large Projects: check if separate project landowner data file submitted

The Maine Department of Environmental Protection will e-mail official status letters to the project contact and landowner. Please check these data for completeness and accuracy to prevent delay in mailings. E-mail is the preferred method of notification; please provide e-mail addresses for the project contact and the landowner when available.

4. VERNAL POOL LOCATION INFORMATION

a. Location Township: ***KITTERY***

Brief site directions to the pool (using mapped landmarks):

PLEASE SEE ATTACHED

b. Mapping Requirements

i. USGS topographic map OR aerial photograph with pool clearly marked.

ii. GPS location of vernal pool (use Datum NAD83 / WGS84)

Longitude/Easting: ***70 41' 13.88"W*** Latitude/Northing: ***43 06' 39.44"N***

Coordinate system: ***WGS 1984***

Check one:

○ GIS shapefile
- send to VernalPool.MDIFW@maine.gov; observer has reviewed shape accuracy

○ (Best) The pool perimeter is delineated by multiple GPS points. (Excellent)
- Include map or spreadsheet with coordinates.

○ The above GPS point is at the center of the pool. (Good)

5. VERNAL POOL HABITAT INFORMATION

a. Habitat survey date (only if different from indicator survey dates on page 3): _____

b. Wetland habitat characterization

■ Choose the best descriptor for the landscape setting:

- ○ Isolated depression
- ○ Floodplain depression
- ○ Pool associated with larger wetland complex
- ○ Other: _____

■ Check all wetland types that best apply to this pool:

- ☑ Forested swamp
- ☑ Shrub swamp
- ☐ Peatland (fen or bog)
- ☐ Emergent marsh
- ☐ Wet meadow
- ☐ Lake or pond cove
- ☐ Abandoned beaver flowage
- ☐ Active beaver flowage
- ☑ Slow stream
- ☐ Floodplain
- ☐ Mostly unvegetated pool
- ☐ ATV or skidder rut
- ☐ Dug pond or borrow pit
- ☐ Roadside ditch
- ☐ Other: _____

c. Vernal pool status under the Natural Resources Protection Act (NRPA)

i. Pool Origin: ○ Natural ○ Natural-Modified ○ Unnatural ○ Unknown

If modified, unnatural or unknown, describe any modern or historic human impacts to the pool (**required**):

POOLING OF WATER WITHIN WETLAND HAS BEEN CAUSED BY THE TRAVEL SURFACE OF BARTLETT ROAD.

ii. Pool Hydrology

■ Select the pool's estimated hydroperiod AND provide rationale in box (**required**):

- ○ Permanent
- ○ Semi-permanent (drying partially in all years and completely in drought years)
- ○ Ephemeral (drying out completely in most years)
- ○ Unknown

Explain:

SLOW-MOVING DRAINAGE FLOWS THROUGH POOL. POOL HAS BEEN OBSERVED IN ALL SEASONS OVER THE PAST 2 CALENDAR YEARS.

■ Maximum depth at survey: ○ 0-12" (0-1 ft.) ○ 12-36" (1-3 ft.) ○ 36-60" (3-5 ft.) ○ >60" (>5 ft.)

■ Approximate size of pool (at spring highwater): Width: 50' ○ m ○ ft Length: 119' ○ m ○ ft

■ Predominate substrate in order of increasing hydroperiod:

- ○ Mineral soil (bare, leaf-litter bottom, or upland mosses present)
- ○ Mineral soil (sphagnum moss present)
- ○ Organic matter (peat/muck) shallow or restricted to deepest portion
- ○ Organic matter (peat/muck) deep and widespread

■ Pool vegetation indicators in order of increasing hydroperiod (check all that apply):

- ☐ Terrestrial nonvascular spp. (e.g. haircap moss, lycopodium spp.)
- ☐ Dry site ferns (e.g. spinulose wood fern, lady fern, bracken fern)
- ☑ Moist site ferns (e.g. sensitive fern, cinnamon fern, interrupted fern, New York fern)
- ☑ Moist site vasculars (e.g. skunk cabbage, jewelweed, blue flag iris, swamp candle)
- ☑ Sphagnum moss (anchored or suspended)
- ☐ Wet site ferns (e.g. royal fern, marsh fern)
- ☑ Wet site shrubs (e.g. highbush blueberry, maleberry, winterberry, mountain holly)
- ☐ Wet site graminoids (e.g. blue-joint grass, tussock sedge, cattail, bulrushes)
- ☐ Aquatic vascular spp. (e.g. pickerelweed, arrowhead)
- ☐ Floating or submerged aquatics (e.g. water lily, water shield, pond weed, bladderwort)
- ☐ No vegetation in pool

■ Faunal indicators (check all that apply):

- ☐ Fish
- ☐ Bullfrog or Green Frog tadpoles
- ☐ Other: _____

iii. Inlet/Outlet Flow Permanency

Type of inlet or outlet (a seasonal or permanent channel providing water flowing into or out of the pool):

- ○ No inlet or outlet
- ○ Intermittent inlet or outlet
- ○ Permanent inlet or outlet (channel with well-defined banks and permanent flow)
- ○ Other or Unknown (explain): _____

6. VERNAL POOL INDICATOR INFORMATION

a. Indicator survey dates: ***APRIL 4 & 26, & MAY 3, 2023***

b. Indicator abundance criteria and pool survey effort

- Is pool depression bisected by 2 ownerships (straddler pool)? ○ Yes ○ No
- Was the entire pool surveyed for egg masses? ○ Yes ○ No; what % of entire pool surveyed? _____
- For each indicator species, indicate the exact number of egg masses, confidence level for species determination, and egg mass maturity. Separate cells are provided for separate survey dates.

INDICATOR SPECIES	Egg Masses (or adult Fairy Shrimp)									Tadpoles/Larvae[4]					
	Visit #1	Visit #2	Visit #3	Confidence Level[1]			Egg Mass Maturity[2]			Observed			Confidence Level[1]		
Wood Frog	0	1	4	3	3	3		M	H						
Spotted Salamander	0	0	0	3	3	3									
Blue-spotted Salamander	0	0	0	3	3	3									
Fairy Shrimp[3]	0	0	0	3	3	3									

1-Confidence level: 1 = <60%, 2 = 60-95%, 3 = >95%

2-Egg mass maturity: F= Fresh (<24 hrs), M= Mature (round embryos), A= Advanced (loose matrix, curved embryos), H= Hatched or Hatching

3-Fairy shrimp: X = present

4-Tadpoles/larvae: X = present

c. Rarity criteria

- Note any rare species associated with vernal pools. Observations should be accompanied by photographs.

SPECIES	Method of Verification*			CL**	SPECIES	Method of Verification*			CL**
	P	H	S			P	H	S	
Blanding's Turtle	☐	☐	☐		Wood Turtle	☐	☐	☐	
Spotted Turtle	☐	☐	☐		Ribbon Snake	☐	☐	☐	
Ringed Boghaunter	☐	☐	☐		Other:	☐	☐	☐	

*Method of verification: P = Photographed, H = Handled, S = Seen

**CL - Confidence level in species determination: 1= <60%, 2= 60-95%, 3= >95%

d. Optional observer recommendation:

☐ SVP ☐ Potential SVP ☑ Non Significant VP ☐ Indicator Breeding Area

e. General vernal pool comments and/or observations of other wildlife:

POOL LACKS SUFFICIENT SUBMERGED WOODY VEGETATION TO SUPPORT SIGNIFICANT NUMBERS OF EGG MASSES. SLOW MOVING DRAINAGE.

Send completed form and supporting documentation to: VernalPool.MDIFW@maine.gov

NOTE: Digital submissions are preferred but if not possible, please mail to: Maine Department of Inland Fisheries and Wildlife
Attn: Vernal Pools
106 Hogan Road, Suite 1
Bangor, ME 04401

For MDIFW use only Reviewed by MDIFW Date: _____ Initials: _____

This pool is: ☐ **Significant** ☐ **Potentially Significant** but lacking critical data ☐ **Not Significant** due to: ○ does not meet biological criteria. ○ does not meet MDEP vernal pool criteria.

Comments:

106 Hogan Rd
to **77 Bartlett Rd**

2 hr 40 min
180.7 miles

IRS reimbursement: **$105.68**

Head toward Hogan Rd. Go for 0.1 mi.

Then 0.11 miles

Turn left onto Hogan Rd. Go for 1.0 mi.

Then 0.99 miles

Turn sharp left and take ramp onto I-95 S toward Newport/Augusta. Go for 84.1 mi.

Then 84.15 miles

Take exit 103 toward I-295 S/Gardiner/ME-9/Brunswick/ME-126. Go for 0.7 mi.

Then 0.66 miles

Keep left onto I-295. Go for 51.6 mi.

Then 51.63 miles

Take the exit onto I-95 (Gold Star Memorial Hwy). Go for 37.0 mi.

Then 37.00 miles

Take exit 7 toward Yorks/US-1/The Berwicks/ME-91. Go for 0.3 mi.

Then 0.26 miles

Turn left onto Spur Rd. Go for 0.5 mi.

Then 0.46 miles

Turn right onto Blue Star Memorial Hwy (US-1). Go for 0.3 mi.

Then 0.33 miles

Turn left onto York St (US-1A). Go for 1.3 mi.

Then 1.34 miles

Turn right onto Lilac Ln (ME-103). Go for 2.2 mi.

Then 2.21 miles

Turn right onto Payne Rd. Go for 0.6 mi.

Then 0.62 miles

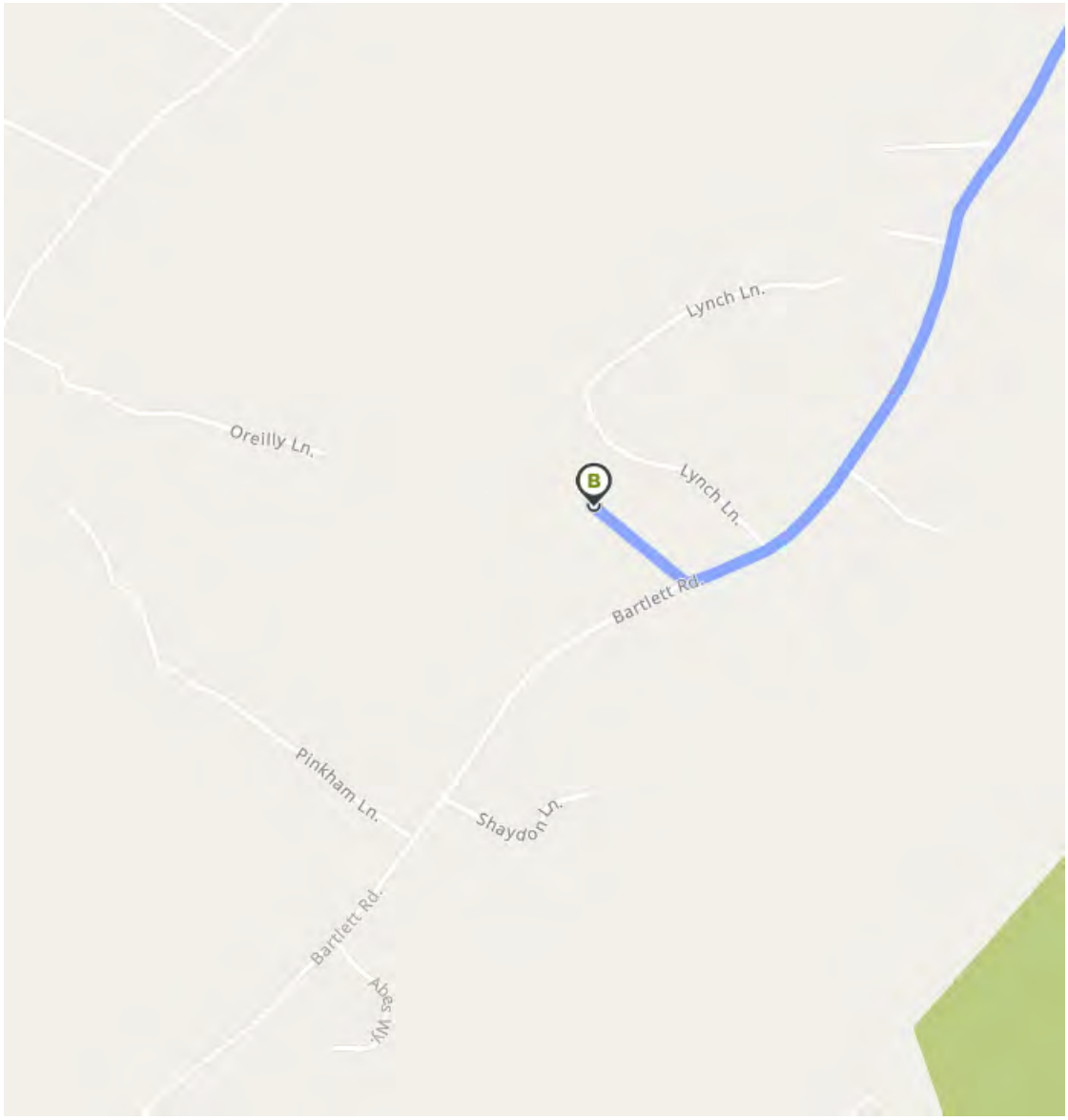
Turn left onto Bartlett Rd. Go for 0.8 mi.

Then 0.79 miles

Turn right. Go for 0.1 mi.

Then 0.11 miles

77 Bartlett Rd
Kittery, ME 03905-5640


Lynch Ln.
Oreilly Ln.
B
Lynch Ln.
Bartlett Rd.
Pinkham Ln.
Shaydon Ln.
Bartlett Rd.
Abes Wy

Bowley Builders property
77 Bartlett Road
Kittery, Maine
Spring 2023 Vernal Pool Study-Pool 2

Pool 2, April 4, 2023

Pool 2, April 26, 2023

Bowley Builders property
77 Bartlett Road
Kittery, Maine
Spring 2023 Vernal Pool Study-Pool 2

Pool 2, April 26, 2023

Wood frog egg mass in Pool 2, April 26, 2023

Bowley Builders property
77 Bartlett Road
Kittery, Maine
Spring 2023 Vernal Pool Study-Pool 2

Pool 2, May 26, 2023

Pool 2, May 3, 2023

Bowley Builders property
77 Bartlett Road
Kittery, Maine
Spring 2023 Vernal Pool Study-Pool 2

Wood frog egg mass in Pool 2, May 3, 2023

Pool 2, May 3, 2023

FORESTED FRESHWATER WETLAND AREA

FORESTED FRESHWATER WETLAND AREA

FORESTED FRESHWATER WETLAND AREA

FORESTED FRESHWATER WETLAND AREA

FORESTED FRESHWATER WETLAND AREA

TP 1

TP 2

TP 3

TP 4

TP 5

TP 6

TP 7

TP 8

TP 9

TP 10

TP 11

TP 12

TP 13

TP 14

TP 15

TP 16

TP 17

TP 18

TP 19

TP 20

TP 21

TP 22

TP 23

TP 24

75' SETBACK

75' SETBACK

MDEP "WETLAND OF SPECIAL SIGNIFICANCE"

MDEP "WETLAND OF SPECIAL SIGNIFICANCE"

MDEP "WETLAND OF SPECIAL SIGNIFICANCE"

MAN-MADE POND

CEMETERY (NOT SHOWN ON TAX MAP)

VERNAL POOL #1

VERNAL POOL #2

FORESTED FRESHWATER WETLAND AREA

LYNCH LANE

BARTLETT ROAD

GRAPHIC SCALE

60 0 30 60 120

(IN FEET)

1 inch = 60 ft.

DELINEATION NOTES:

WETLAND STUDY CONDUCTED AUGUST 31, 2022

PLAN NOTES:

THIS PLAN IS A COMPOSITE OF PROPERTY BOUNDARY INFORMATION PER TOWN OF KITTERY TAX MAP, MAINE OFFICE OF GIS 2' TOPOGRAPHIC CONTOURS & AERIAL PHOTOGRAPH, AND SUBMETER GPS LOCATION OF WETLAND BOUNDARIES & OTHER SITE FEATURES AS DEPICTED BY LONGVIEW PARTNERS, LLC.

LEGEND:

- ***FRESHWATER WETLAND AREA*** *(LOCATED BY LONGVIEW PARTNERS, LLC SUBMETER GPS)*
- ***POTENTIAL VERNAL POOL*** *(LOCATED BY LONGVIEW PARTNERS, LLC SUBMETER GPS)*
- TP ***SOIL TEST PIT*** *(LOCATED BY LONGVIEW PARTNERS, LLC SUBMETER GPS)*
- ***POTENTIAL WASTEWATER DISPOSAL SITE***
- ***BEDROCK OUTCROP*** *(LOCATED BY LONGVIEW PARTNERS, LLC SUBMETER GPS)*

WETLAND DELINEATION & VERNAL POOL LOCATION PLAN

PREPARED FOR

BOWLEY BUILDERS
77 BARTLETT ROAD
(MAP 62, LOT 26)
KITTERY, MAINE

LONGVIEW PARTNERS, LLC

ENVIRONMENTAL PERMITTING SPECIALISTS

DRAFT:	SCALE:	CHECKED:	PLAN DATE:
BO	1" = 60'	JL	5/15/23

Attachment 7

Stormwater Management Report

207.926.5111
info@terradynconsultants.com
www.terradynconsultants.com

WASHBURN FARM SUBDIVISION

77 BARTLETT ROAD, KITTERY, MAINE

STORMWATER MANAGEMENT REPORT

PREPARED FOR:

BEACHWOOD DEVELOPMENT FUND LP
P.O. BOX 261
KENNEBUNK, MAINE 04043

PREPARED BY:

TERRADYN CONSULTANTS LLC
565 CONGRESS STREET, SUITE 201
PORTLAND, MAINE 04101

December 2023

Introduction

The following Stormwater Management Plan has been prepared for Washburn Farm Subdivision to evaluate stormwater runoff and erosion control for the proposed 9-lot subdivision.

Site Calculations

Below is a summary of existing and proposed impervious and developed areas on the project site.

Total Property Area	19.30 Ac (+/-)
Existing Impervious Area	0.18 Ac
Existing Developed Area	0.44 Ac
Proposed New Impervious	0.43 Ac
Proposed New Developed	0.93 Ac
Total Impervious Area	0.56 Ac
Total Developed Area	1.19 Ac

Existing Conditions

The project site is approximately 19.30 acres in size and is identified as Lot 26 on Kittery Tax Map 62. The site is located in the Residential-Rural District with a small area in the Resource Protection Overlay Zone.

The parcel contains an existing single-family home with a paved driveway connecting to Bartlett Road and a small cemetery in the eastern part of the site. Most of the parcel is undeveloped woodland with pockets of freshwater wetlands. Several stone walls are located throughout the site.

A wetland and vernal pool study was conducted on the site by Longview Partners in the summer of 2022. There are approximately 2 acres of forested freshwater wetlands on the site. A wetland on the southern site boundary meets the Maine DEP's criteria for a "Wetland of Special Significance". This wetland also has a mapped flood zone associated with it.

Two potential vernal pools were identified on the site and studied in the spring of 2023 to determine if they have characteristics to be considered significant wildlife habitat by the Maine Department of Environmental Protection. The vernal pools were determined to be not significant and are regulated as freshwater wetlands.

Longview Partners also conducted a High Intensity Soil Survey of the site. Native soils are primarily loamy glacial till and bedrock outcrops in upland areas with wetland soils in low-lying areas. A copy of the High Intensity Soil Survey is attached herein.

The site is generally bisected by two ridgelines, sloping gradually at approximately 2%. Stormwater from the site is split by the ridges and flows in four directions toward the on site wetlands.

The following existing conditions figures are provided in Appendix 1:

Figure 1	USGS Topographic Map
Figure 2	Aerial Photograph
Figure 3	NRCS Medium Intensity Soil Survey
Figure 4	Federal Insurance Rate Map
Figure 5	Aquifer Map

Proposed Project

The proposed project includes of a 808' long dead-end road with 9 proposed house lots. The project will have 13.14 acres of open space surrounding the development. Each proposed lot ranges in size from 0.49 acres to 0.79 acres and meets all dimensional standards of the town's zoning ordinance. The existing house will occupy Lot 8 and will be accessed from the proposed road.

Lots will be served by public water and individual subsurface wastewater disposal systems.

Applicable Design Standards

The Town of Kittery's Ordinance Title 16, Part E, Section 4-a Stormwater runoff requires: *All components of the stormwater management system must be designed to limit peak discharge to predevelopment levels for the two-year and twenty-five-year, twenty-four-hour duration, frequencies, based on the rainfall data for Portsmouth, NH.*

The project includes 0.43 Ac. of new impervious area and 0.93 Ac. of new developed area and does not require a stormwater permit-by rule in compliance with MDEP Chapter 500. The project is close to the threshold, conservatively a stormwater permit-by-rule has been filed with MDEP.

Stormwater Quantity Control

Stormwater Quantity control is required as part of town requirements for this project; the proposed development has been designed to minimize stormwater runoff from the site in excess of the natural pre-development conditions. A hydrologic analysis of pre-development and post-development conditions was conducted based upon the methodology contained in the USDA Soil Conservation Service's Technical Releases No. 20 and 55 (SCS TR-20 and TR-55). For Portsmouth, New Hampshire a 24-hour SCS Type III Storm distribution was used for the analysis using the following storm frequencies and rainfall amounts, per Maine DEP Chapter 500:

Storm Event	24-Hour Rainfall
2–Year Storm	3.3 inches
10–Year Storm	4.9 inches
25–Year Storm	6.2 inches

Runoff curve numbers, time of concentration, and travel time data were established based on methods outlined in the USDA TR-55 manual.

A minimum time of concentration of 5 minutes and a maximum sheet flow distance of 150 linear feet was used in the models.

Pre-Development Conditions

The pre-development HydroCAD model includes five (5) subcatchments and five (5) study points. Below is a summary of the study points:

Study Point SP1 – Study Point 1 is the eastern parcel boundary where on site flow travels through culvert under the southern section of Lynch Lane and to Brave Boat Harbor.

Study Point SP2 – Study Point 2 is the southern parcel boundary outletting through a culvert under Bartlett Road, to Smith Brook and to Brave Boat Harbor.

Study Point SP3 – Study Point 3 is the southern boundary where on site flow collects in a wetland and travels through a culvert under Bartlett Road and to Brave Boat Harbor.

Study Point SP4 – Study Point 4 is the western site boundary where on site flow collects in a wetland and travels to Spruce Creek.

Study Point SP5 – Study Point 5 is the eastern parcel boundary where on site flow travels through culvert under the northern section of Lynch Lane and to Brave Boat Harbor.

A Pre-Development Watershed Map, showing sub-watershed boundaries, time of concentration flow paths, and Study Points is provided in Appendix 5. The Pre-development HydroCAD model is attached in Appendix 6.

The pre-development peak rates of runoff are a baseline used for comparison to the post-development condition.

Post-Development Conditions

Stormwater runoff from the roadway will be managed with open ditches and level lip spreaders. The project was designed to meet the stormwater performance standards of the Town of Kittery Subdivision Regulations. Runoff from the cul-de-sac will be discharged to a level spreader and forested stormwater buffer for treatment. From the high point located at the cul-de-sac runoff down to approximate station 3+15 stormwater is treated by a level spreader, distributing flow to a forested buffer. The remainder of the proposed road will drain to vegetated swales located on either side of the road, collecting in the Bartlett Road ditch which outlets through a ditch turnout level spreader to a forested buffer. The stormwater management system will attenuate peak flow rates from the developed areas so peak discharge rates from the site will be limited to pre-development levels.

The proposed post-development HydroCAD model includes eight (8) subcatchments and five (5) study points. The study points remain the same from the pre-development model. A Post-development Watershed Map showing sub-watershed boundaries, time of concentration flow paths, and Study Points is provided in Appendix 5. The Post-development HydroCAD model is attached in Appendix 7.

Peak Flow Analysis

The results of the pre-development and post-development models were analyzed at the defined Study Points described above. The direct comparison of the pre-development and post-development conditions at the Study Points are as follows:

Peak Runoff Flow Rates Comparison		
Storm Event	**Pre-Development (cfs)**	**Post-Development (cfs)**
	Study Point SP1	
2-Year	1.98	1.76
10-Year	4.21	3.74
25-Year	5.60	4.97
	Study Point SP2	
2-Year	2.52	2.41
10-Year	5.48	5.25
25-Year	7.34	7.03
	Study Point SP3	
2-Year	8.49	8.32
10-Year	18.54	17.83
25-Year	24.82	23.74
	Study Point SP4	
2-Year	5.15	5.12
10-Year	11.27	11.21
25-Year	15.09	15.01
	Study Point SP5	
2-Year	6.12	5.83
10-Year	13.00	12.57
25-Year	17.26	16.78

The peak rates of runoff at all five study points are expected to decrease slightly in the 2, 10 & 25-year storm events. The reduction in peak flow rates is believed to be the result of modified timing of the peak rates of runoff from different tributary areas resulting from the proposed development. The relatively small amount of impervious area to be constructed, and the associated increase in runoff volume and peak runoff rates from these areas of the site, is expected to be offset by the modified timing of peak runoff rates.

Summary

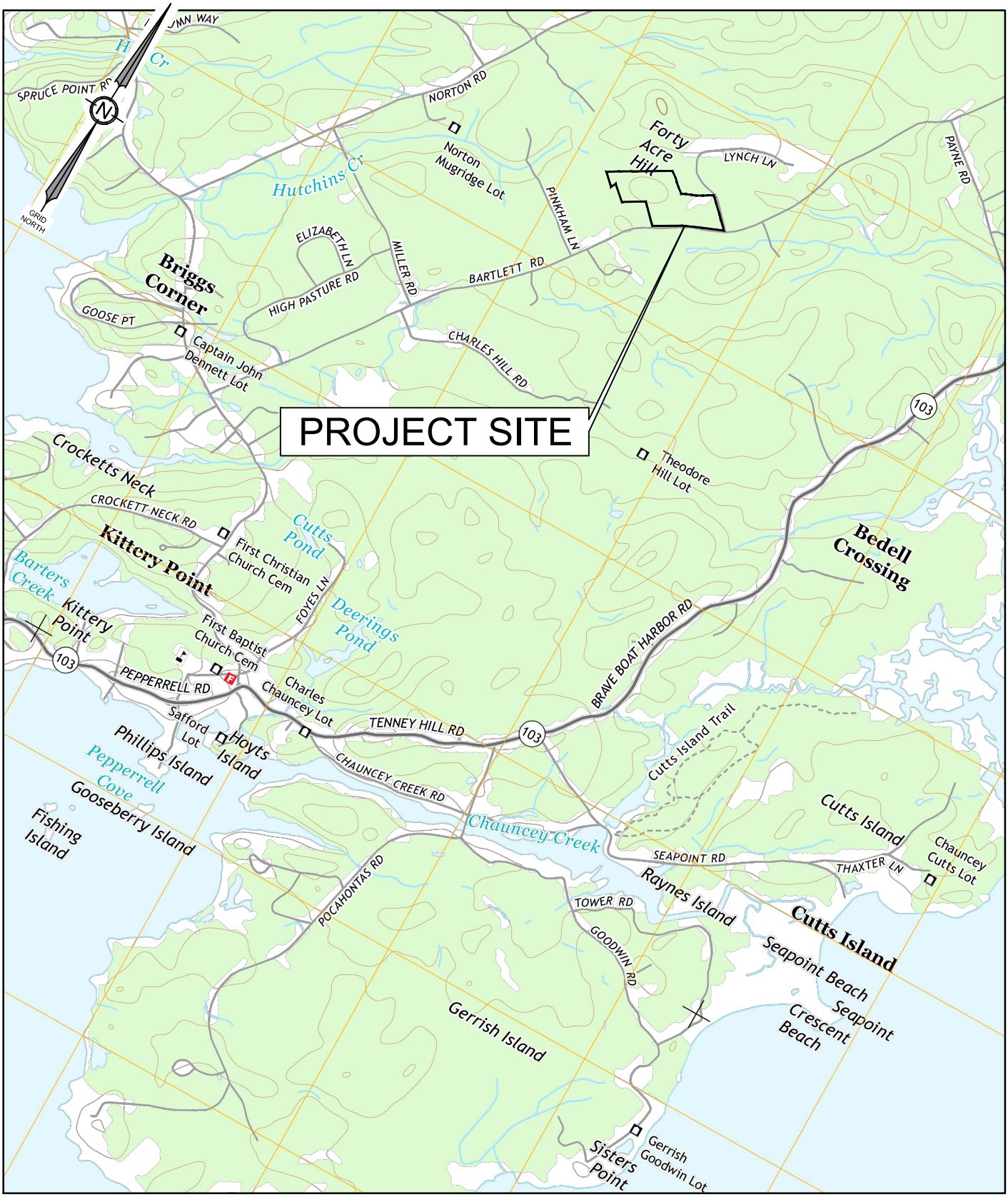
Based upon the results of this evaluation, the proposed project is not expected to cause flooding, erosion, or other significant adverse effects downstream of the site.

Appendices

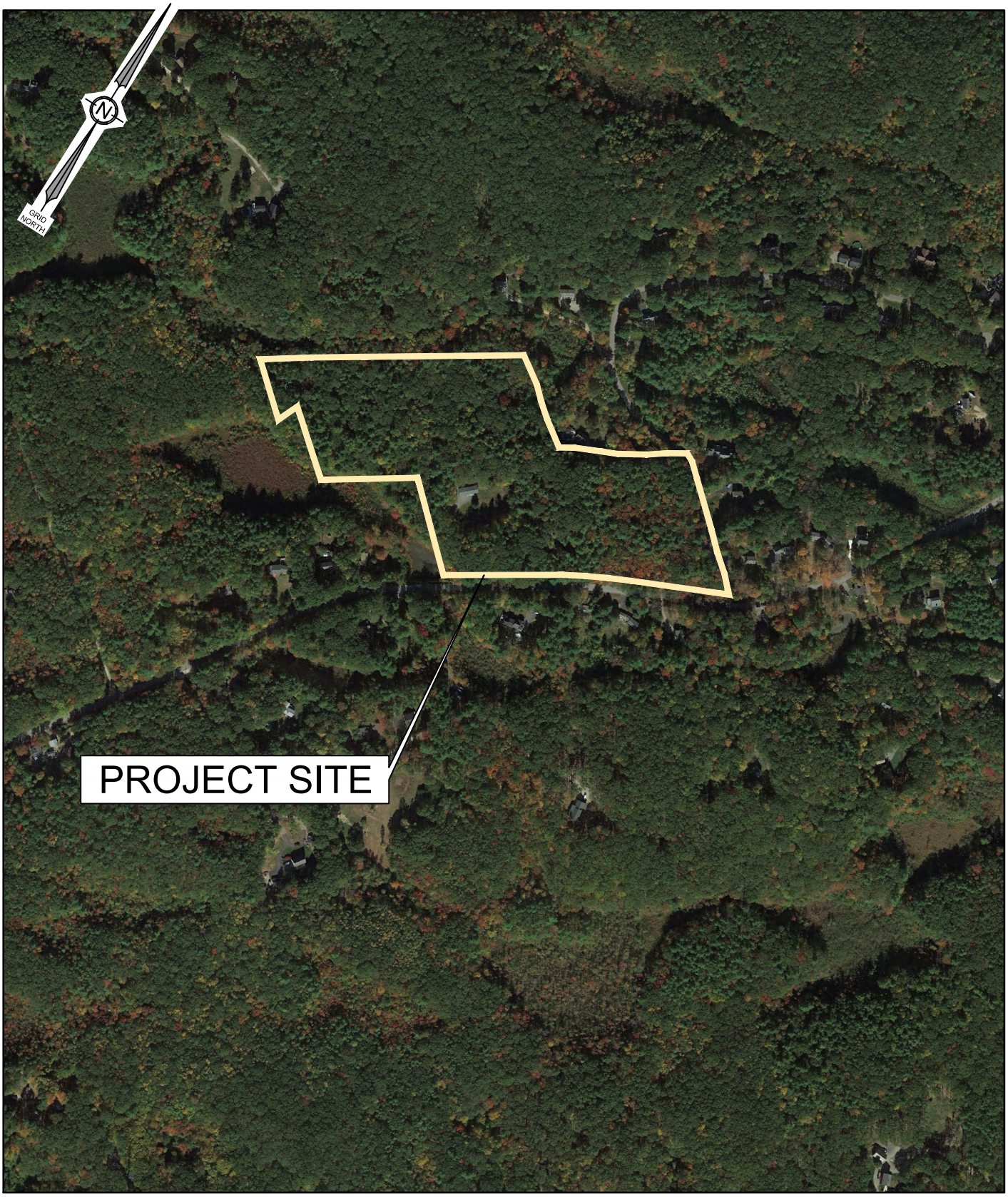
1 – Existing Conditions Figures
2 – Watershed Maps
3 – Pre-Development HydroCAD Model
4 – Post-Development HydroCAD Model
5 – Cross Culvert Sizing Calculations
6 – Housekeeping
7 – Inspection and Maintenance Manual

APPENDIX 1

EXISTING CONDITIONS FIGURES



USGS KITTERY QUADRANGLE	TERRADYN CONSULTANTS, LLC	ADDRESS: 41 CAMPUS DRIVE, SUITE 301 NEW GLOUCESTER, ME 04260 PHONE: (207) 926-5111 WEB SITE: www.terradynconsultants.com	PROJECT NO. 22-145	SHEET 1
PROJECT: BARTLETT ROAD SUBDIVISION 77 BARTLETT ROAD, KITTERY, MAINE	Civil Engineering | Land Surveying | Geomatics Stormwater Design | Land Planning | Environmental Permitting		DATE 3/20/2023	OF 5
PREPARED FOR: BEACHWOOD DEVELOPMENT FUND LP PO BOX 260 KENNEBUNK, MAINE 04043			SCALE 1" = 2,000'	



AERIAL MAP

PROJECT:
BARTLETT ROAD SUBDIVISION
77 BARTLETT ROAD, KITTERY, MAINE

PREPARED FOR:
BEACHWOOD DEVELOPMENT FUND LP
PO BOX 260
KENNEBUNK, MAINE 04043

TERRADYN CONSULTANTS, LLC

ADDRESS:
41 CAMPUS DRIVE, SUITE 301
NEW GLOUCESTER, ME 04260
PHONE:
(207) 926-5111
WEB SITE:
www.terradynconsultants.com

Civil Engineering | Land Surveying | Geomatics
Stormwater Design | Land Planning | Environmental Permitting

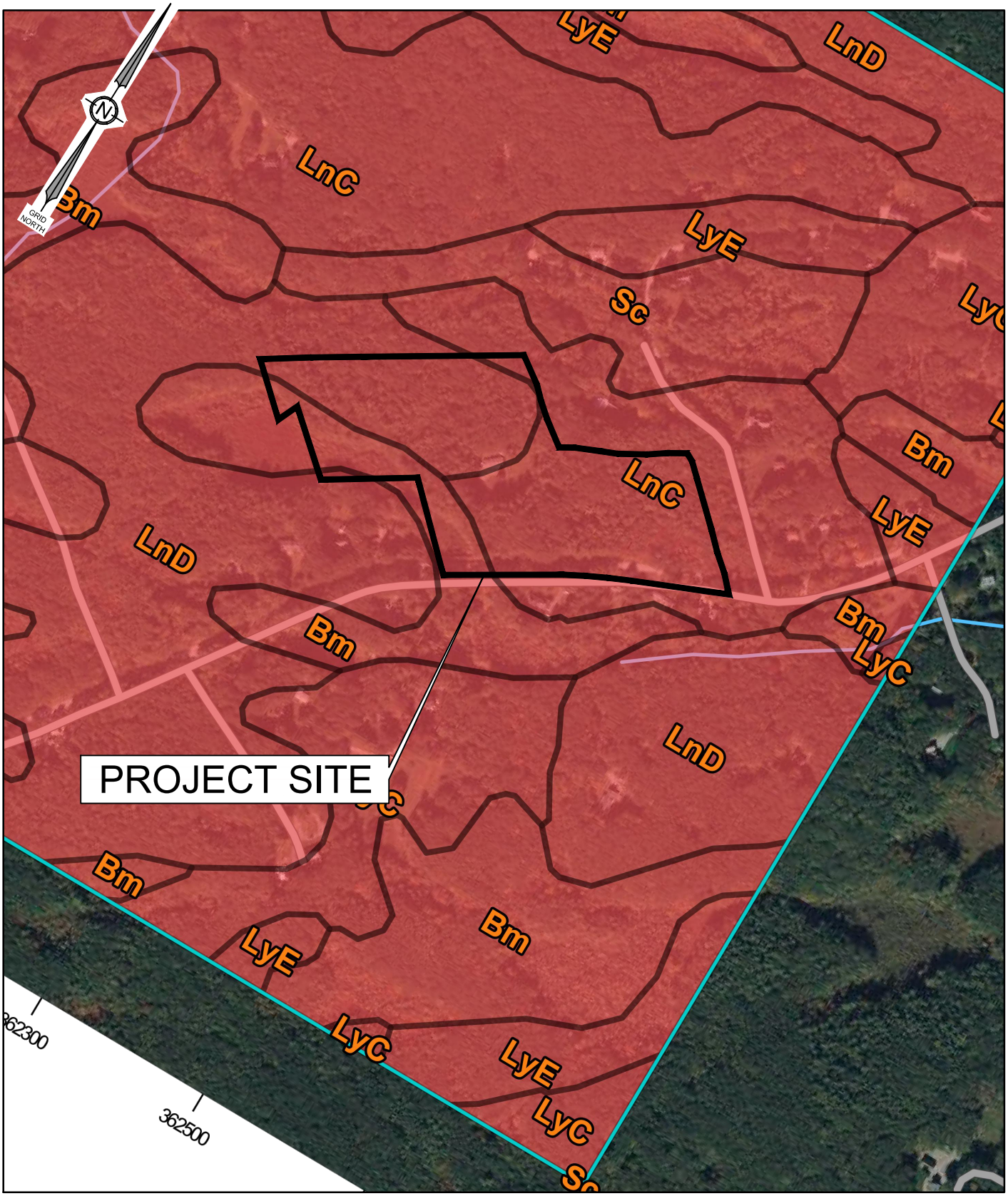
PROJECT NO. 22-145

DATE 3/20/2023

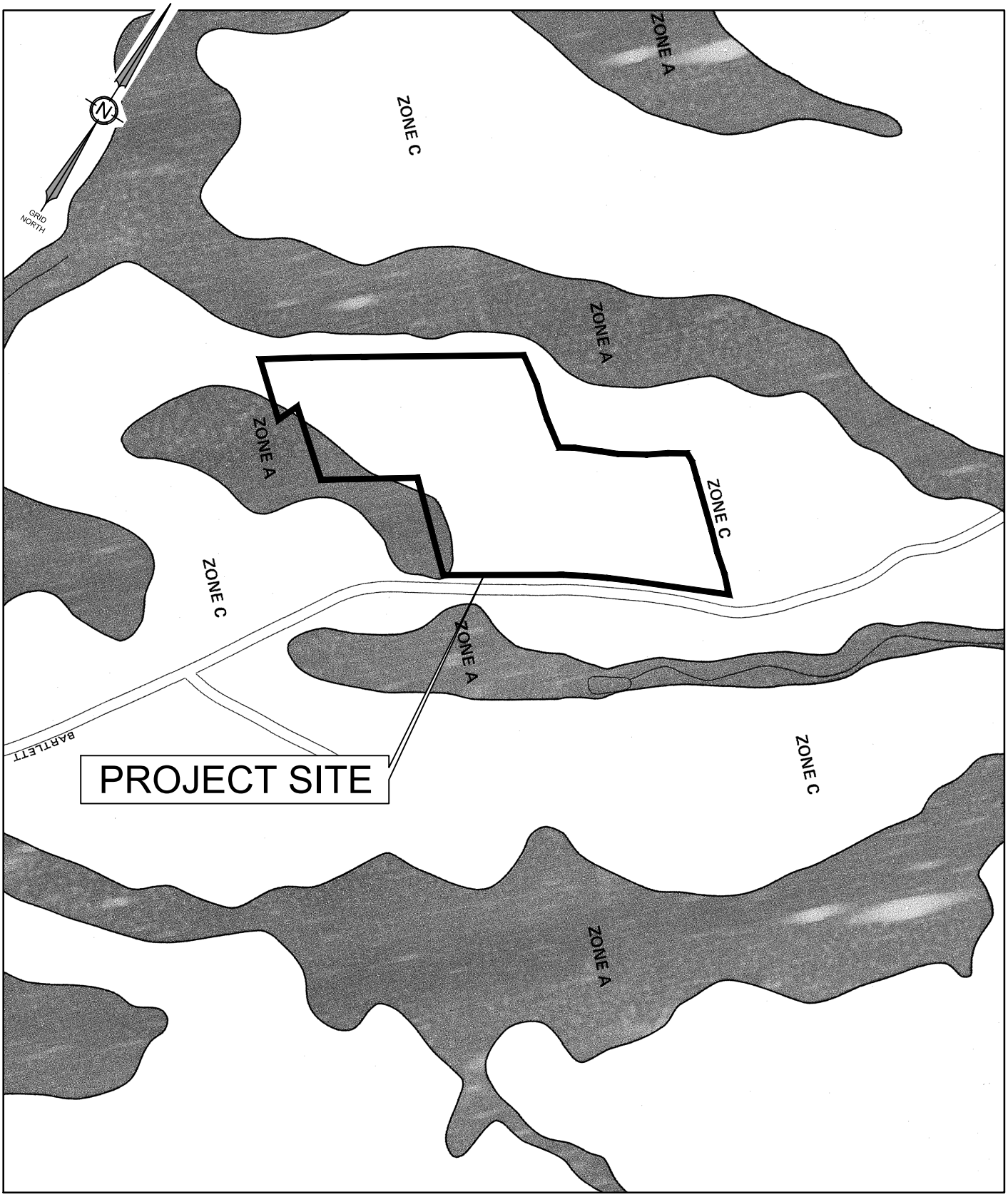
SCALE 1" = 500'

SHEET 2

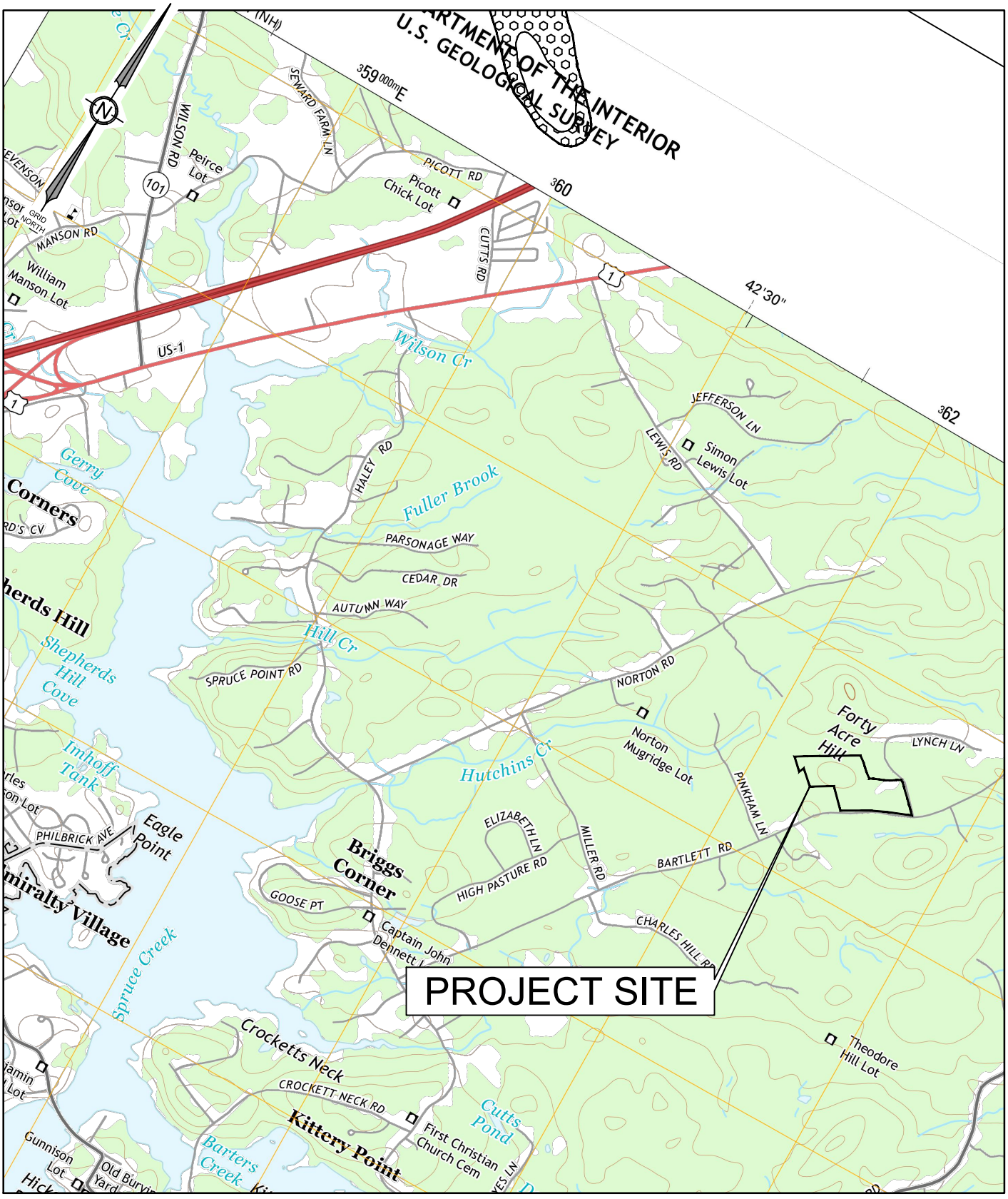
OF 5



MEDIUM INTENSITY SOIL SURVEY	TERRADYN CONSULTANTS, LLC Civil Engineering | Land Surveying | Geomatics Stormwater Design | Land Planning | Environmental Permitting	ADDRESS: 41 CAMPUS DRIVE, SUITE 301 NEW GLOUCESTER, ME 04260 PHONE: (207) 926-5111 WEB SITE: www.terradynconsultants.com	PROJECT NO. 22-145	SHEET 3
PROJECT: BARTLETT ROAD SUBDIVISION 77 BARTLETT ROAD, KITTERY, MAINE			DATE 3/20/2023	OF 5
PREPARED FOR: BEACHWOOD DEVELOPMENT FUND LP PO BOX 260 KENNEBUNK, MAINE 04043			SCALE 1" = 500'	



FLOOD INSURANCE RATE MAP	TERRADYN CONSULTANTS, LLC	ADDRESS: 41 CAMPUS DRIVE, SUITE 301 NEW GLOUCESTER, ME 04260 PHONE: (207) 926-5111 WEB SITE: www.terradynconsultants.com	PROJECT NO. 22-145	SHEET 4
PROJECT: BARTLETT ROAD SUBDIVISION 77 BARTLETT ROAD, KITTERY, MAINE			DATE 3/20/2023	OF 5
PREPARED FOR: BEACHWOOD DEVELOPMENT FUND LP PO BOX 260 KENNEBUNK, MAINE 04043	Civil Engineering | Land Surveying | Geomatics Stormwater Design | Land Planning | Environmental Permitting		SCALE 1" = 500'	



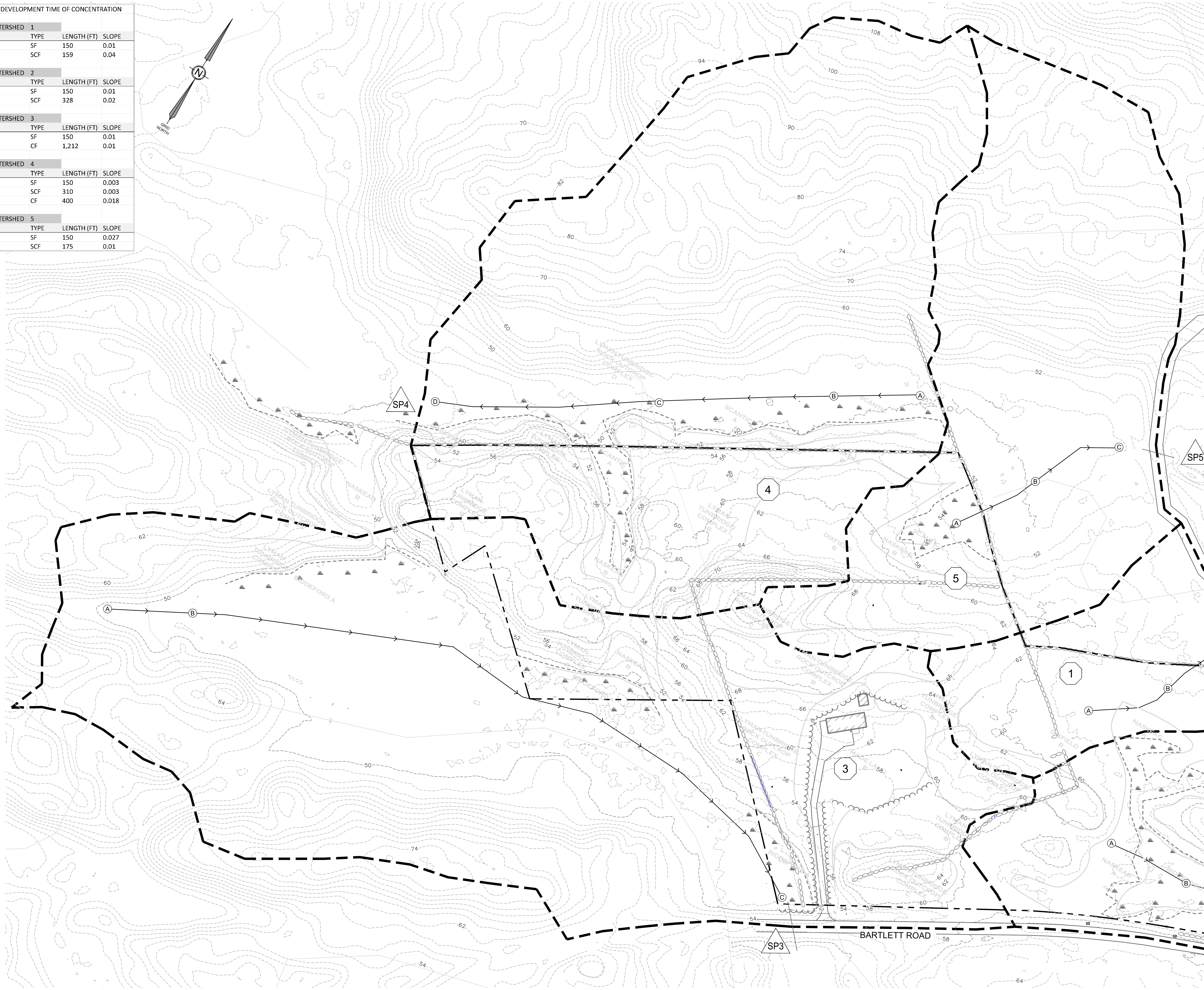
SIGNIFICANT SAND & GRAVEL AQUIFER MAP	TERRADYN CONSULTANTS, LLC Civil Engineering | Land Surveying | Geomatics Stormwater Design | Land Planning | Environmental Permitting	ADDRESS: 41 CAMPUS DRIVE, SUITE 301 NEW GLOUCESTER, ME 04260 PHONE: (207) 926-5111 WEB SITE: www.terradynconsultants.com	PROJECT NO. 22-145	SHEET 5
PROJECT: BARTLETT ROAD SUBDIVISION 77 BARTLETT ROAD, KITTERY, MAINE			DATE 3/20/2023	OF 5
PREPARED FOR: BEACHWOOD DEVELOPMENT FUND LP PO BOX 260 KENNEBUNK, MAINE 04043			SCALE 1" = 500'	

APPENDIX 2

WATERSHED MAPS

PRE DEVELOPMENT TIME OF CONCENTRATION

WATERSHED 1			
	TYPE	LENGTH (FT)	SLOPE
A-B	SF	150	0.01
B-C	SCF	159	0.04
WATERSHED 2			
	TYPE	LENGTH (FT)	SLOPE
A-B	SF	150	0.01
B-C	SCF	328	0.02
WATERSHED 3			
	TYPE	LENGTH (FT)	SLOPE
A-B	SF	150	0.01
B-C	CF	1,212	0.01
WATERSHED 4			
	TYPE	LENGTH (FT)	SLOPE
A-B	SF	150	0.003
B-C	SCF	310	0.003
C-D	CF	400	0.018
WATERSHED 5			
	TYPE	LENGTH (FT)	SLOPE
A-B	SF	150	0.027
B-C	SCF	175	0.01



WATERSHED LEGEND

PREDEVELOPMENT

- WATERSHED BOUNDARY
- Tc FLOWPATH
- MEDIUM INTENSITY SOILS BOUNDARY
- HIGH INTENSITY SOILS BOUNDARY
- 000 SUBCATCHMENT
- 000 POND
- 000 REACH

NOTES:

- SOILS WITHIN THE WATERSHED AREAS ARE PRIMARILY MAPPED AS LYMAN-TUNBRIDGE COMPLEX (HSG C/D) & NASKEAG (HSG C) BY A CLASS A HIGH INTENSITY SOIL SURVEY CONDUCTED BY LONGVIEW PARTNERS IN OCTOBER 2022 .
- STUDY POINT 1 IS THE EASTERN PARCEL BOUNDARY WHERE ON SITE FLOW TRAVELS THROUGH CULVERTS UNDER LYNCH LANE AND TO BRAVE BOAT HARBOR.
- STUDY POINT 2 IS THE SOUTHERN PARCEL BOUNDARY OUTLETTING THROUGH A CULVERT UNDER BARTLETT ROAD TO SMITH BROOK AND TO BRAVE BOAT HARBOR.
- STUDY POINT 3 IS THE SOUTHERN BOUNDARY WHERE ON SITE FLOW COLLECTS IN A WETLAND AND TRAVELS THROUGH A CULVERT UNDER BARTLETT ROAD TO BRAVE BOAT HARBOR.
- STUDY POINT 4 IS THE WESTERN SITE BOUNDARY WHERE ON SITE FLOW COLLECTS IN A WETLAND AND TRAVELS TO SPRUCE CREEK.
- STUDY POINT 5 IS THE EASTERN PARCEL BOUNDARY WHERE ON SITE FLOW TRAVELS THROUGH CULVERTS UNDER LYNCH LANE AND TO BRAVE BOAT HARBOR.

GRAPHIC SCALE
80 0 40 80 160
(IN FEET)
1 INCH = 80 FT.

STATE OF MAINE
MICHAEL E. TADEMA-WIELANDT
No. 11567
LICENSED
PROFESSIONAL ENGINEER

DATE: 12/28/2023
P.E.: MICHAEL TADEMA-WIELANDT

NO.	DATE	REVISIONS	APP'D BY
4	12/28/2023	SUBMITTED TO KITTERY FOR FINAL SUBDIVISION REVIEW	MTW
3	10/24/2023	REVISED BASED ON PEER REVIEW COMMENTS	MTW
2	10/10/2023	REVISED BASED ON PEER REVIEW COMMENTS	MTW
1	8/3/2023	SUBMITTED TO KITTERY FOR PRELIMINARY SUBDIVISION REVIEW	MTW

TERRADYN CONSULTANTS, LLC
41 CAMPUS DRIVE
SUITE 301
NEW GLOUCESTER, ME 04260
565 CONGRESS STREET
SUITE 201
PORTLAND, ME 04102
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www.terradynconsultants.com
Civil Engineering | Land Planning | Stormwater Design | Environmental Permitting

PERMIT DRAWING
NOT FOR CONSTRUCTION

PROJECT:
WASHBURN FARM SUBDIVISION
BARTLETT ROAD, KITTERY, MAINE

SHEET TITLE:
PREDEVELOPMENT WATERSHED PLAN

CLIENT:
BEACHWOOD DEVELOPMENT FUND
P.O. BOX 261
KENNEBUNK, MAINE 04043

DATE:	5/18/2023
SCALE:	1" = 80'
DESIGNED:	MTW
JOB NO:	22-145
SHEET	WS-1.0

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POST DEVELOPMENT TIME OF CONCENTRATION			
WATERSHED	10		
	TYPE	LENGTH (FT)	SLOPE
A-B	SF	150	1
B-C	SCF	159	0.04
WATERSHED	20		
	TYPE	LENGTH (FT)	SLOPE
A-B	SF	150	0.01
B-C	SCF	328	0.02
WATERSHED	30		
	TYPE	LENGTH (FT)	SLOPE
A-B	SF	150	0.01
B-C	CF	1,212	0.01
WATERSHED	31	LENGTH (FT)	SLOPE
A-B	SF	75	0.08
B-C	SCF	120	0.06
C-D	CF	65	0.02
WATERSHED	32		
	TYPE	LENGTH (FT)	SLOPE
A-B	SF	80	0.04
B-C	CF	147	0.02
WATERSHED	40		
	TYPE	LENGTH (FT)	SLOPE
A-B	SF	150	0.003
B-C	SCF	310	0.003
C-D	CF	400	0.018
WATERSHED	50		
	TYPE	LENGTH (FT)	SLOPE
A-B	SF	150	0.027
B-C	SCF	175	0.01
WATERSHED	51		
MINIMUM 5 MINUTES)			

WATERSHED LEGEND

POSTDEVELOPMENT

- WATERSHED BOUNDARY
- Tc FLOWPATH
- MEDIUM INTENSITY SOILS BOUNDARY
- HIGH INTENSITY SOILS BOUNDARY
- 000 SUBCATCHMENT
- 000 POND
- 000 REACH

NOTES:

- SOILS WITHIN THE WATERSHED AREAS ARE PRIMARILY MAPPED AS LYMAN-TUNBRIDGE COMPLEX (HSG C/D) & NASKEAG (HSG C) BY A CLASS A HIGH INTENSITY SOIL SURVEY CONDUCTED BY LONGVIEW PARTNERS IN OCTOBER 2022 .
- STUDY POINT 1 IS THE EASTERN PARCEL BOUNDARY WHERE ON SITE FLOW TRAVELS THROUGH CULVERTS UNDER LYNCH LANE AND TO BRAVE BOAT HARBOR.
- STUDY POINT 2 IS THE SOUTHERN PARCEL BOUNDARY OUTLETTING THROUGH A CULVERT UNDER BARTLETT ROAD TO SMITH BROOK AND TO BRAVE BOAT HARBOR.
- STUDY POINT 3 IS THE SOUTHERN BOUNDARY WHERE ON SITE FLOW COLLECTS IN A WETLAND AND TRAVELS THROUGH A CULVERT UNDER BARTLETT ROAD TO BRAVE BOAT HARBOR.
- STUDY POINT 4 IS THE WESTERN SITE BOUNDARY WHERE ON SITE FLOW COLLECTS IN A WETLAND AND TRAVELS TO SPRUCE CREEK.
- STUDY POINT 5 IS THE EASTERN PARCEL BOUNDARY WHERE ON SITE FLOW TRAVELS THROUGH CULVERTS UNDER LYNCH LANE AND TO BRAVE BOAT HARBOR.

GRAPHIC SCALE

80 0 40 80 160

(IN FEET)
1 INCH = 80 FT.

STATE OF MAINE
MICHAEL E. TADEMA-WIELANDT
No. 11357
LICENSED
PROFESSIONAL ENGINEER

DATE: 12/28/2023
P.E.: MICHAEL TADEMA-WIELANDT

NO.	DATE	REVISIONS	APP'D BY
4	12/28/2023	SUBMITTED TO KITTERY FOR FINAL SUBDIVISION REVIEW	MTW
3	10/24/2023	REVISED BASED ON PEER REVIEW COMMENTS	MTW
2	10/10/2023	REVISED BASED ON PEER REVIEW COMMENTS	MTW
1	8/3/2023	SUBMITTED TO KITTERY FOR PRELIMINARY SUBDIVISION REVIEW	MTW

TERRADYN CONSULTANTS, LLC

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PROJECT:
WASHBURN FARM SUBDIVISION
BARTLETT ROAD, KITTERY, MAINE

SHEET TITLE:
POSTDEVELOPMENT WATERSHED MAP

CLIENT:
BEACHWOOD DEVELOPMENT FUND
P.O. BOX 261
KENNEBUNK, MAINE 04043

DATE:	5/18/2023
SCALE:	1" = 80'
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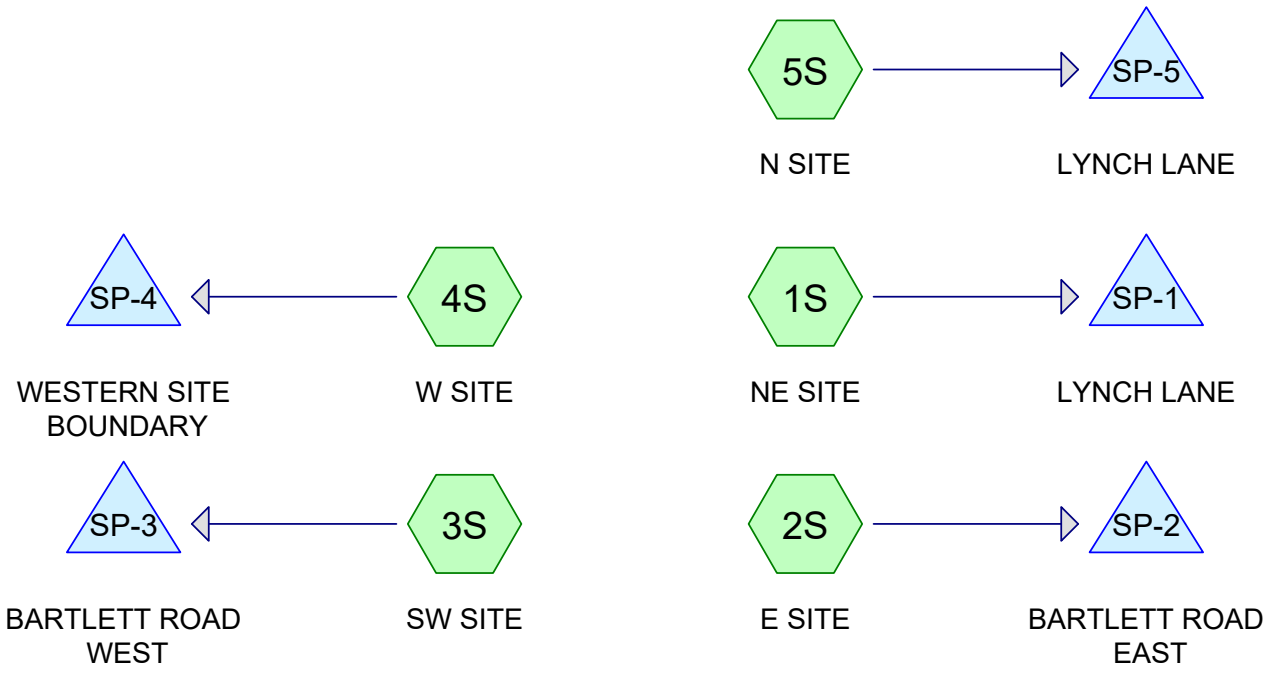
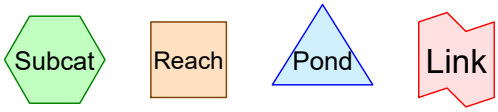
APPENDIX 3

PRE-DEVELOPMENT HYDROCAD MODEL





Routing Diagram for PRE
Prepared by Terradyn Consultants, Printed 12/12/2023

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.230	80	1/2 acre lots, 25% imp, HSG C (1S)
1.607	85	1/2 acre lots, 25% imp, HSG D (3S, 5S)
0.365	98	BARTLETT ROAD (2S, 3S)
0.052	98	EXISTING HOUSE (3S)
0.344	74	EXISTING LAWN (3S)
0.126	98	LOT DRIVEWAY (3S)
0.171	98	Lynch Ln (1S, 2S, 5S)
10.711	70	Woods, Good, HSG C (1S, 2S, 3S, 4S, 5S)
41.669	77	Woods, Good, HSG D (1S, 2S, 3S, 4S, 5S)
55.275	**76**	**TOTAL AREA**

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1S: NE SITE Runoff Area=158,935 sf 3.69% Impervious Runoff Depth>0.90"
Flow Length=309' Tc=41.3 min CN=77 Runoff=1.98 cfs 0.274 af

Subcatchment 2S: E SITE Runoff Area=229,278 sf 3.81% Impervious Runoff Depth>0.85"
Flow Length=478' Tc=46.3 min CN=76 Runoff=2.52 cfs 0.373 af

Subcatchment 3S: SW SITE Runoff Area=869,700 sf 3.03% Impervious Runoff Depth>0.84"
Flow Length=1,362' Slope=0.0100 '/' Tc=56.8 min CN=76 Runoff=8.49 cfs 1.406 af

Subcatchment 4S: W SITE Runoff Area=718,114 sf 0.00% Impervious Runoff Depth>0.83"
Flow Length=860' Tc=91.5 min CN=76 Runoff=5.15 cfs 1.140 af

Subcatchment 5S: N SITE Runoff Area=431,736 sf 2.34% Impervious Runoff Depth>0.91"
Flow Length=325' Tc=31.9 min CN=77 Runoff=6.12 cfs 0.749 af

Pond SP-1: LYNCH LANE Inflow=1.98 cfs 0.274 af
Primary=1.98 cfs 0.274 af

Pond SP-2: BARTLETT ROAD EAST Inflow=2.52 cfs 0.373 af
Primary=2.52 cfs 0.373 af

Pond SP-3: BARTLETT ROAD WEST Inflow=8.49 cfs 1.406 af
Primary=8.49 cfs 1.406 af

Pond SP-4: WESTERN SITE BOUNDARY Inflow=5.15 cfs 1.140 af
Primary=5.15 cfs 1.140 af

Pond SP-5: LYNCH LANE Inflow=6.12 cfs 0.749 af
Primary=6.12 cfs 0.749 af

Total Runoff Area = 55.275 ac Runoff Volume = 3.941 af Average Runoff Depth = 0.86"
97.88% Pervious = 54.102 ac 2.12% Impervious = 1.173 ac

Summary for Subcatchment 1S: NE SITE

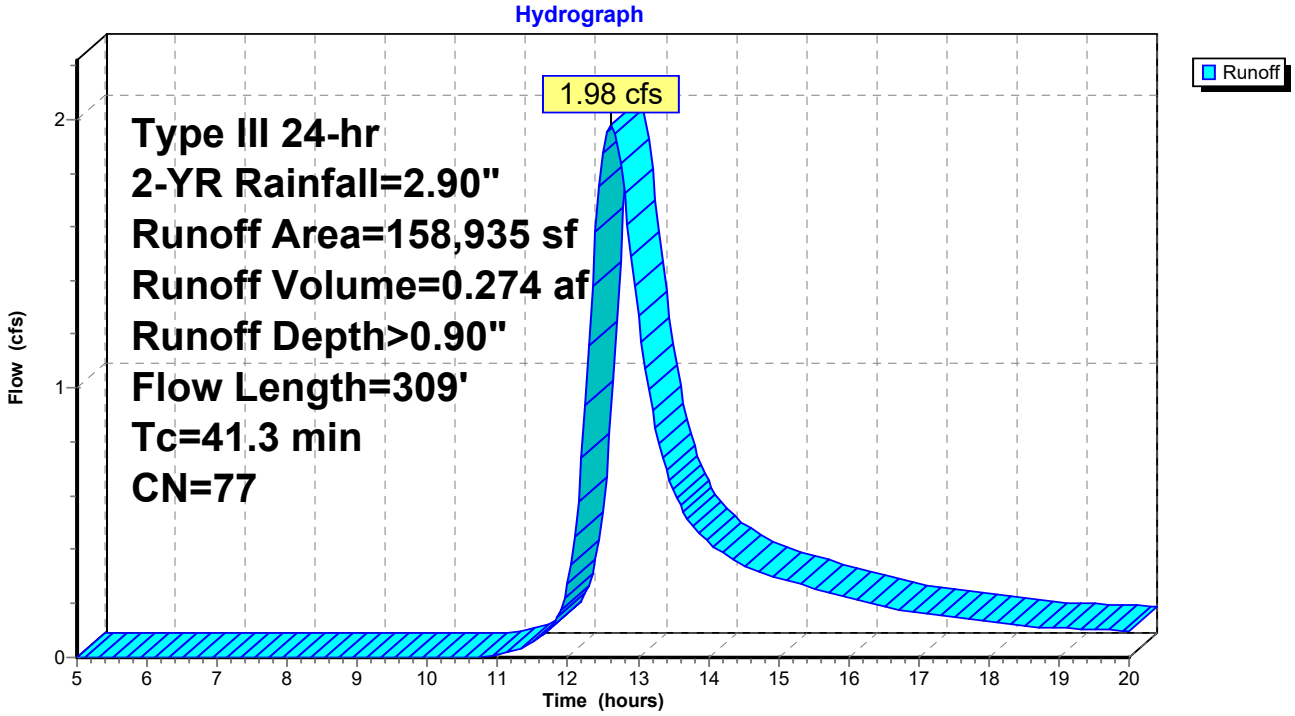
Runoff = 1.98 cfs @ 12.61 hrs, Volume= 0.274 af, Depth> 0.90"
Routed to Pond SP-1 : LYNCH LANE

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-YR Rainfall=2.90"

	Area (sf)	CN	Description
*	3,368	98	Lynch Ln
	10,000	80	1/2 acre lots, 25% imp, HSG C
	20,000	70	Woods, Good, HSG C
	125,567	77	Woods, Good, HSG D
	158,935	77	Weighted Average
	153,067		96.31% Pervious Area
	5,868		3.69% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
38.6	150	0.0100	0.06		**Sheet Flow, A-B** Woods: Light underbrush n= 0.400 P2= 3.30"
2.6	159	0.0400	1.00		**Shallow Concentrated Flow, B-C** Woodland Kv= 5.0 fps
41.3	309	Total			

Subcatchment 1S: NE SITE



Summary for Subcatchment 2S: E SITE

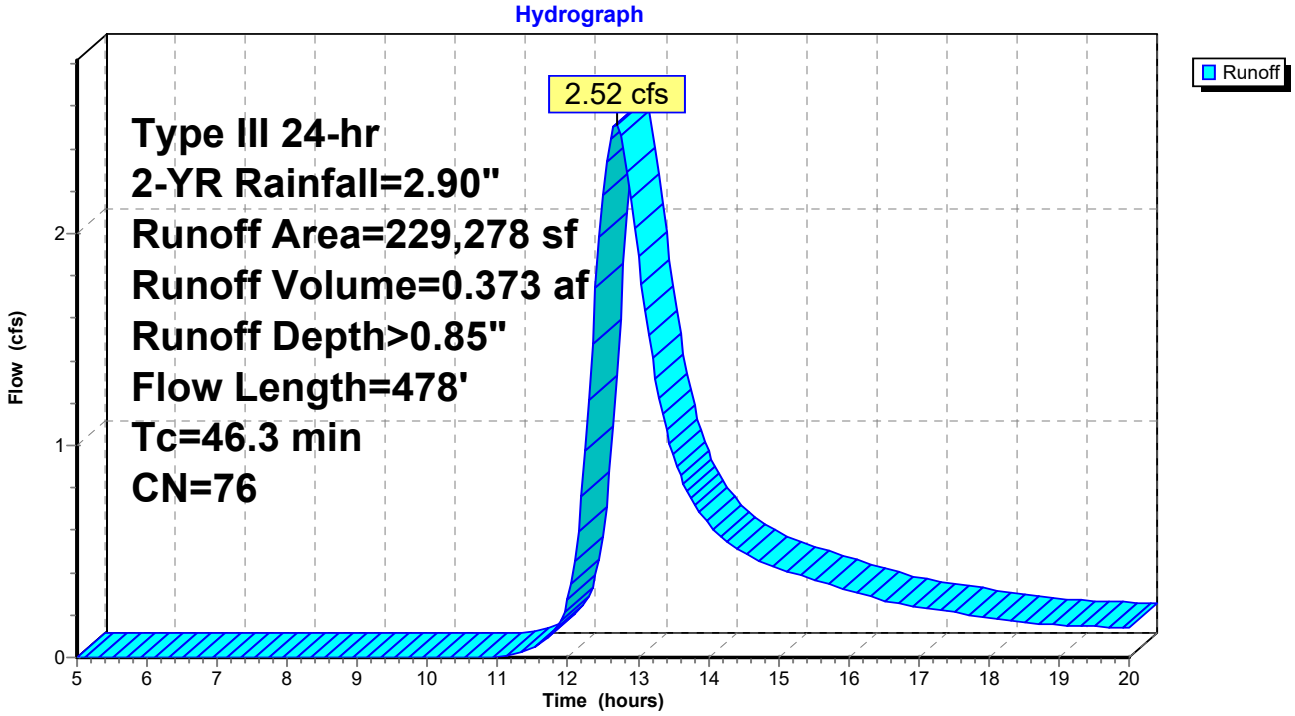
Runoff = 2.52 cfs @ 12.69 hrs, Volume= 0.373 af, Depth> 0.85"
Routed to Pond SP-2 : BARTLETT ROAD EAST

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-YR Rainfall=2.90"

	Area (sf)	CN	Description
*	1,470	98	Lynch Ln
*	7,256	98	BARTLETT ROAD
	52,000	70	Woods, Good, HSG C
	168,552	77	Woods, Good, HSG D
	229,278	76	Weighted Average
	220,552		96.19% Pervious Area
	8,726		3.81% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
38.6	150	0.0100	0.06		**Sheet Flow, A-B** Woods: Light underbrush n= 0.400 P2= 3.30"
7.7	328	0.0200	0.71		**Shallow Concentrated Flow, B-C** Woodland Kv= 5.0 fps
46.3	478	Total			

Subcatchment 2S: E SITE



Summary for Subcatchment 3S: SW SITE

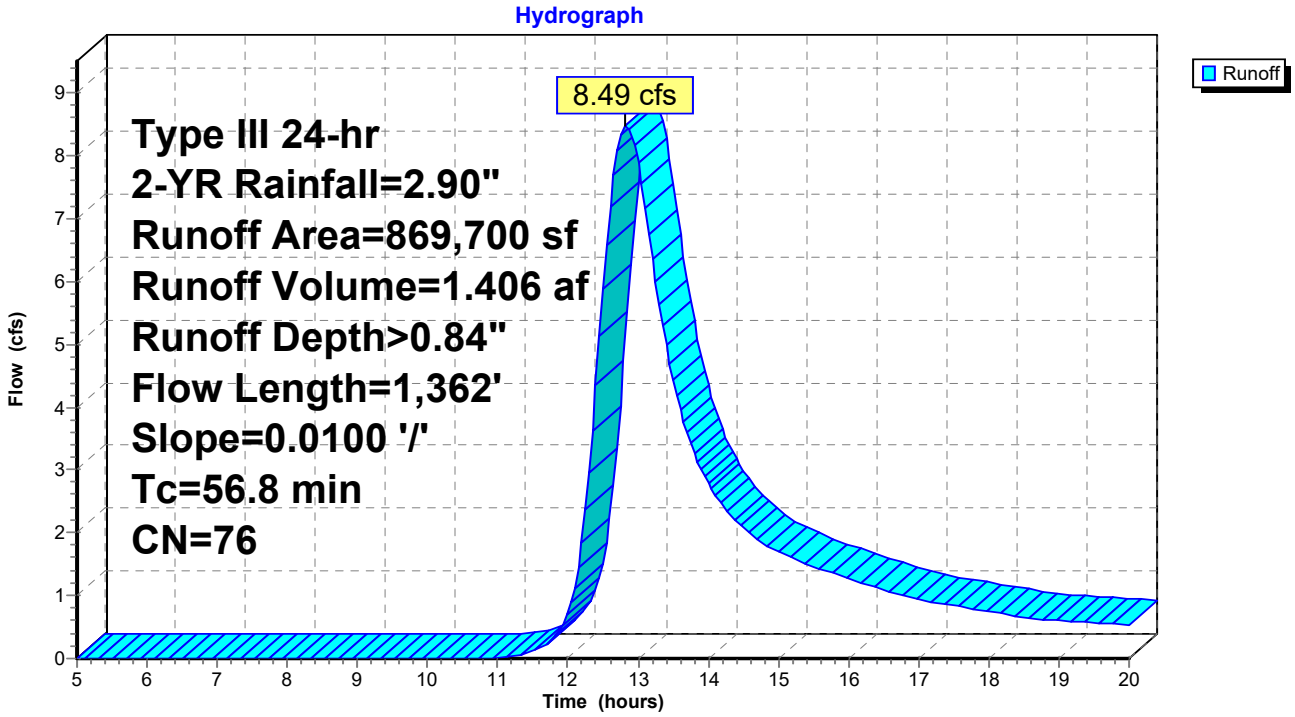
Runoff = 8.49 cfs @ 12.82 hrs, Volume= 1.406 af, Depth> 0.84"
Routed to Pond SP-3 : BARTLETT ROAD WEST

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-YR Rainfall=2.90"

	Area (sf)	CN	Description
	569,691	77	Woods, Good, HSG D
	228,626	70	Woods, Good, HSG C
*	5,490	98	LOT DRIVEWAY
*	8,628	98	BARTLETT ROAD
*	2,265	98	EXISTING HOUSE
	40,000	85	1/2 acre lots, 25% imp, HSG D
*	15,000	74	EXISTING LAWN
	869,700	76	Weighted Average
	843,317		96.97% Pervious Area
	26,383		3.03% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
38.6	150	0.0100	0.06		**Sheet Flow, A-B** Woods: Light underbrush n= 0.400 P2= 3.30"
18.2	1,212	0.0100	1.11	18.06	**Trap/Vee/Rect Channel Flow, B-C** Bot.W=30.00' D=0.50' Z= 5.0 '/' Top.W=35.00' n= 0.080 Earth, long dense weeds
56.8	1,362	Total			

Subcatchment 3S: SW SITE



Summary for Subcatchment 4S: W SITE

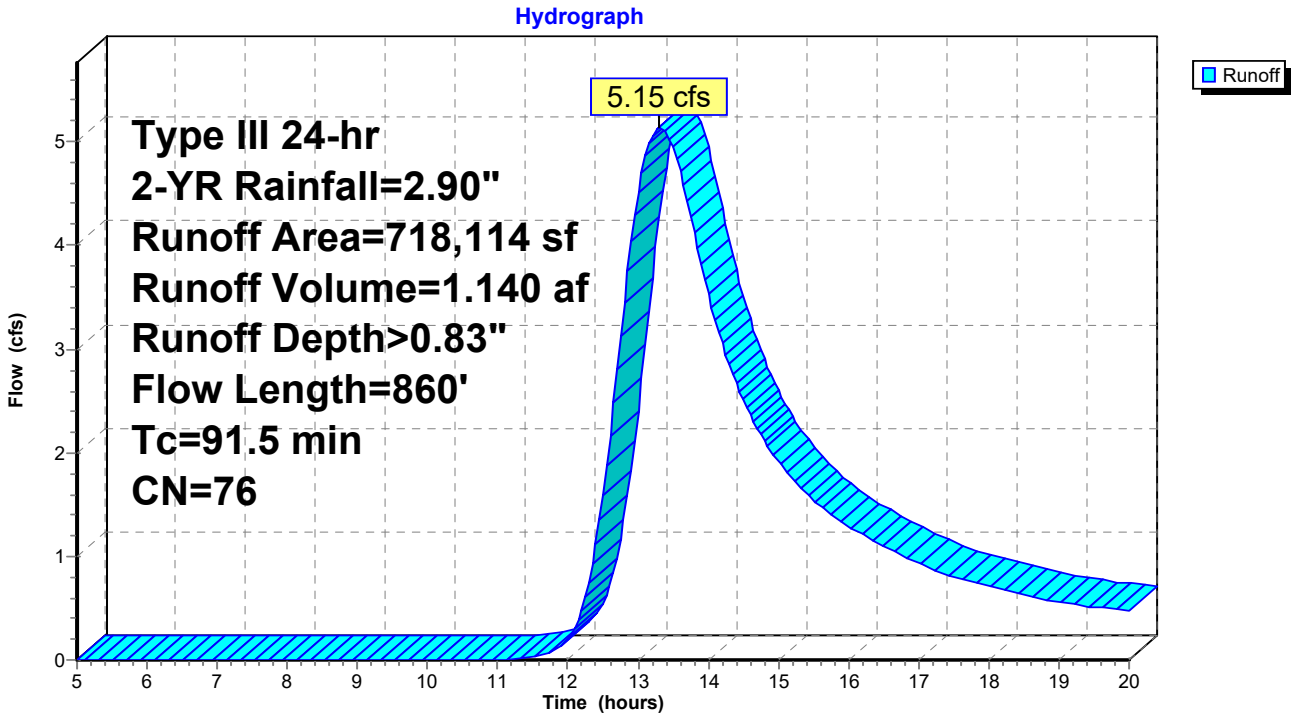
Runoff = 5.15 cfs @ 13.31 hrs, Volume= 1.140 af, Depth> 0.83"
Routed to Pond SP-4 : WESTERN SITE BOUNDARY

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-YR Rainfall=2.90"

Area (sf)	CN	Description
592,160	77	Woods, Good, HSG D
125,954	70	Woods, Good, HSG C
718,114	76	Weighted Average
718,114		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
62.5	150	0.0030	0.04		**Sheet Flow, A-B** Woods: Light underbrush n= 0.400 P2= 3.30"
18.9	310	0.0030	0.27		**Shallow Concentrated Flow, B-C** Woodland Kv= 5.0 fps
10.1	400	0.0175	0.66		**Shallow Concentrated Flow, C-D** Woodland Kv= 5.0 fps
91.5	860	Total			

Subcatchment 4S: W SITE



Summary for Subcatchment 5S: N SITE

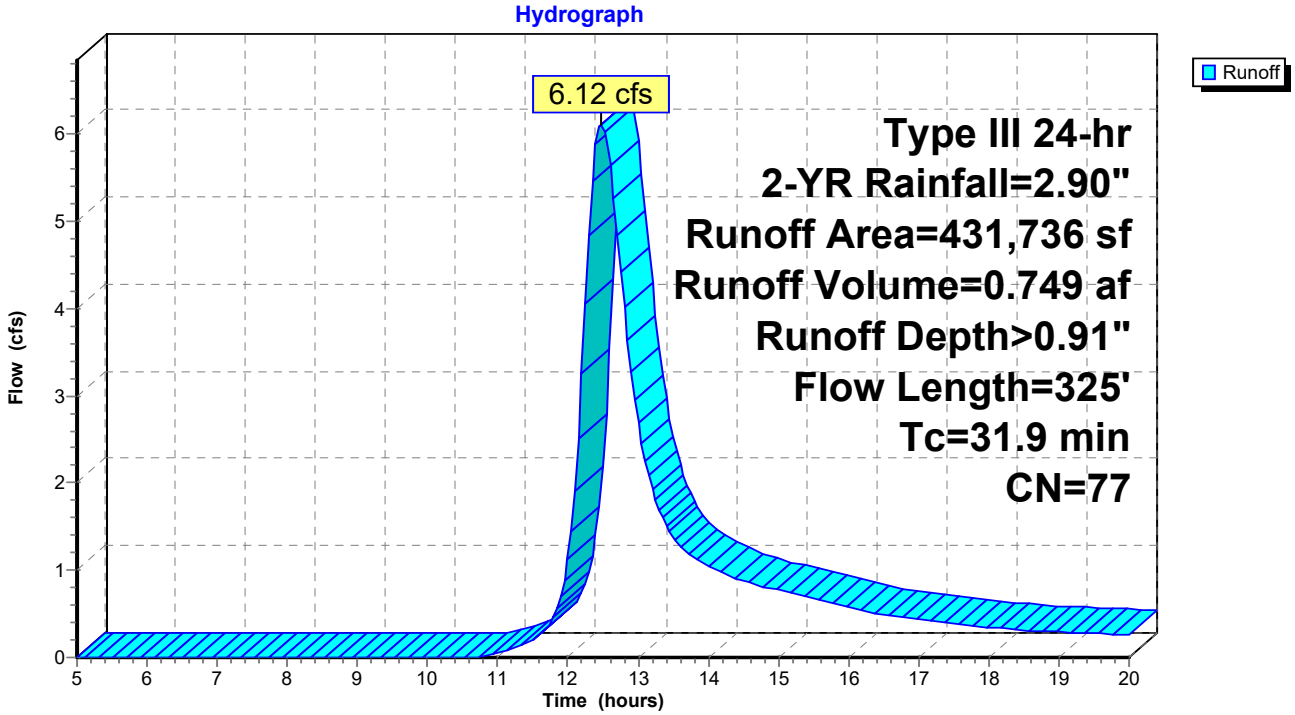
Runoff = 6.12 cfs @ 12.48 hrs, Volume= 0.749 af, Depth> 0.91"
Routed to Pond SP-5 : LYNCH LANE

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-YR Rainfall=2.90"

	Area (sf)	CN	Description
	30,000	85	1/2 acre lots, 25% imp, HSG D
	40,000	70	Woods, Good, HSG C
*	2,600	98	Lynch Ln
	359,136	77	Woods, Good, HSG D
	431,736	77	Weighted Average
	421,636		97.66% Pervious Area
	10,100		2.34% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
26.1	150	0.0267	0.10		**Sheet Flow, A-B** Woods: Light underbrush n= 0.400 P2= 3.30"
5.8	175	0.0100	0.50		**Shallow Concentrated Flow, B-C** Woodland Kv= 5.0 fps
31.9	325	Total			

Subcatchment 5S: N SITE

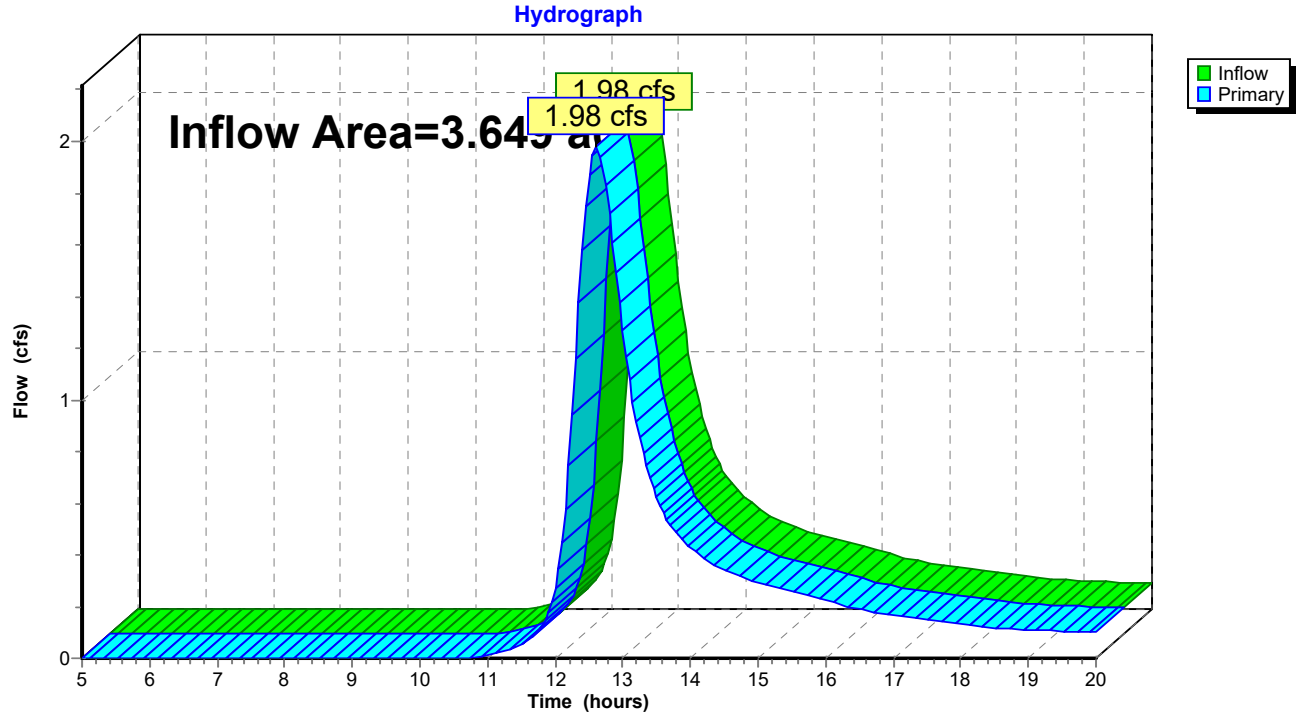


Summary for Pond SP-1: LYNCH LANE

Inflow Area = 3.649 ac, 3.69% Impervious, Inflow Depth > 0.90" for 2-YR event
Inflow = 1.98 cfs @ 12.61 hrs, Volume= 0.274 af
Primary = 1.98 cfs @ 12.61 hrs, Volume= 0.274 af, Atten= 0%, Lag= 0.0 min
Routed to nonexistent node 1P

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Pond SP-1: LYNCH LANE

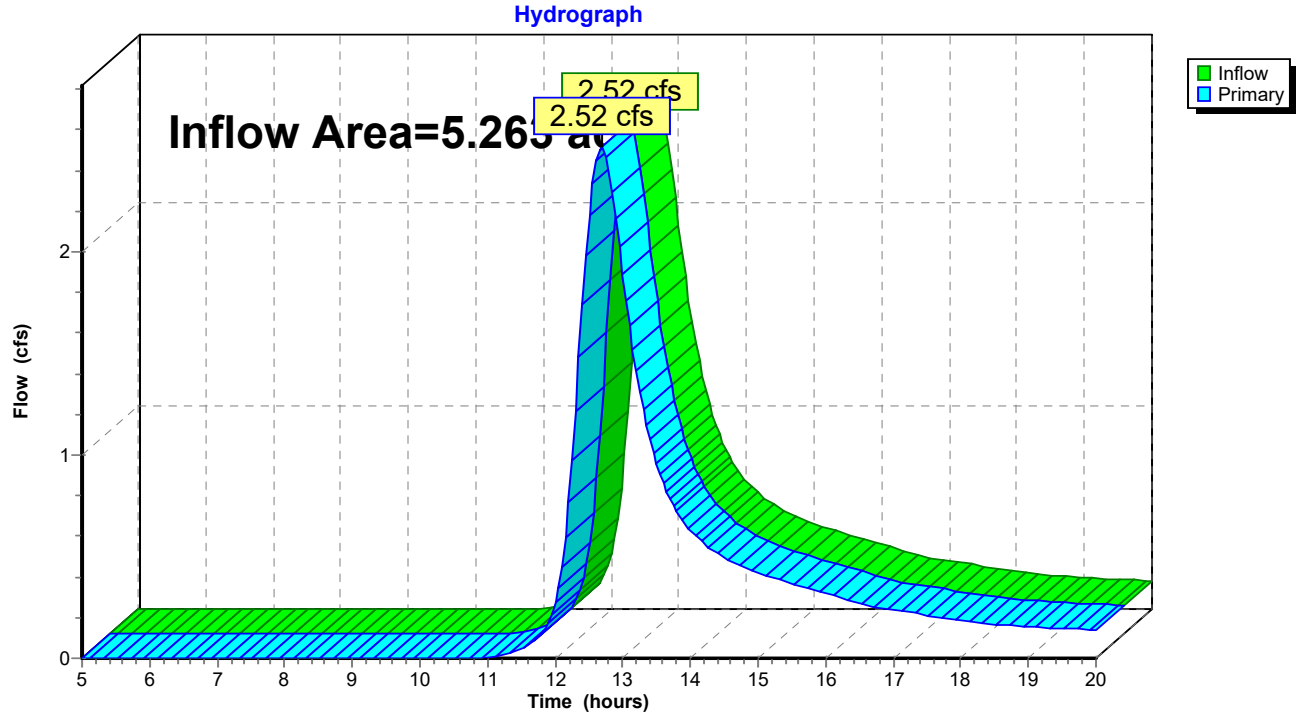


Summary for Pond SP-2: BARTLETT ROAD EAST

Inflow Area = 5.263 ac, 3.81% Impervious, Inflow Depth > 0.85" for 2-YR event
Inflow = 2.52 cfs @ 12.69 hrs, Volume= 0.373 af
Primary = 2.52 cfs @ 12.69 hrs, Volume= 0.373 af, Atten= 0%, Lag= 0.0 min
Routed to nonexistent node 1P

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Pond SP-2: BARTLETT ROAD EAST

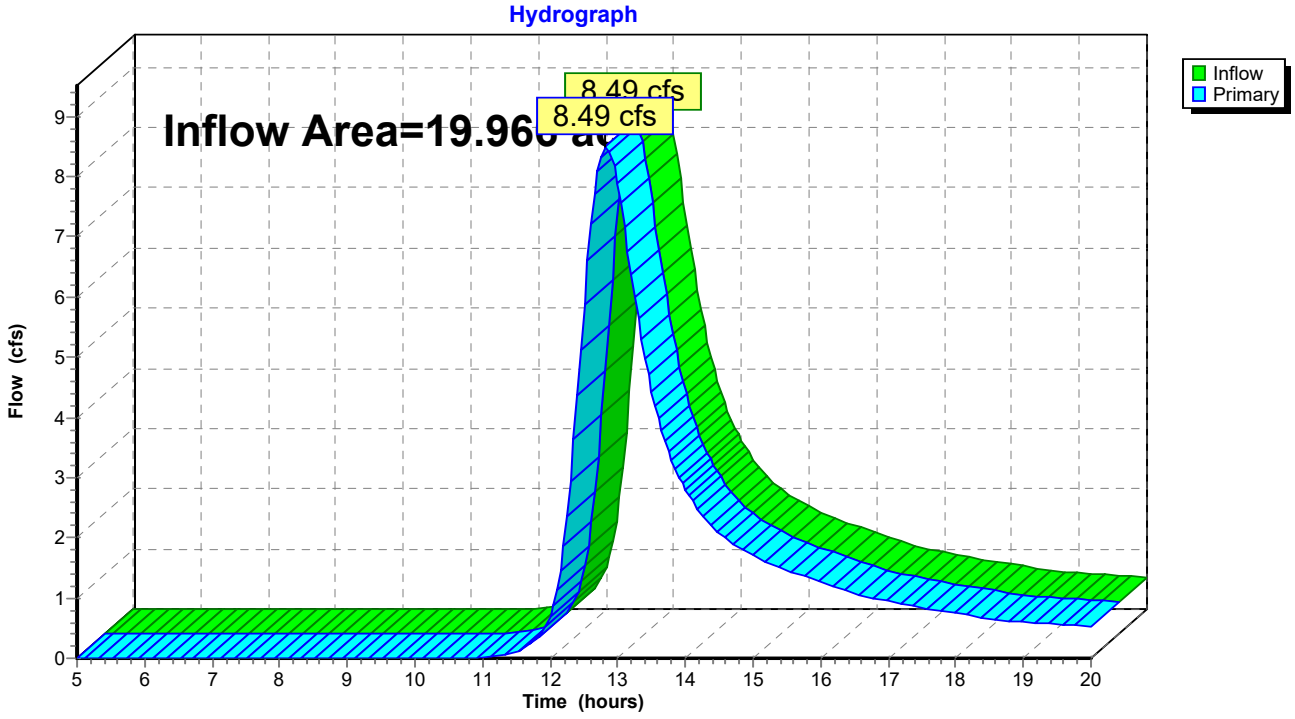


Summary for Pond SP-3: BARTLETT ROAD WEST

Inflow Area = 19.966 ac, 3.03% Impervious, Inflow Depth > 0.84" for 2-YR event
Inflow = 8.49 cfs @ 12.82 hrs, Volume= 1.406 af
Primary = 8.49 cfs @ 12.82 hrs, Volume= 1.406 af, Atten= 0%, Lag= 0.0 min
Routed to nonexistent node 1P

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Pond SP-3: BARTLETT ROAD WEST

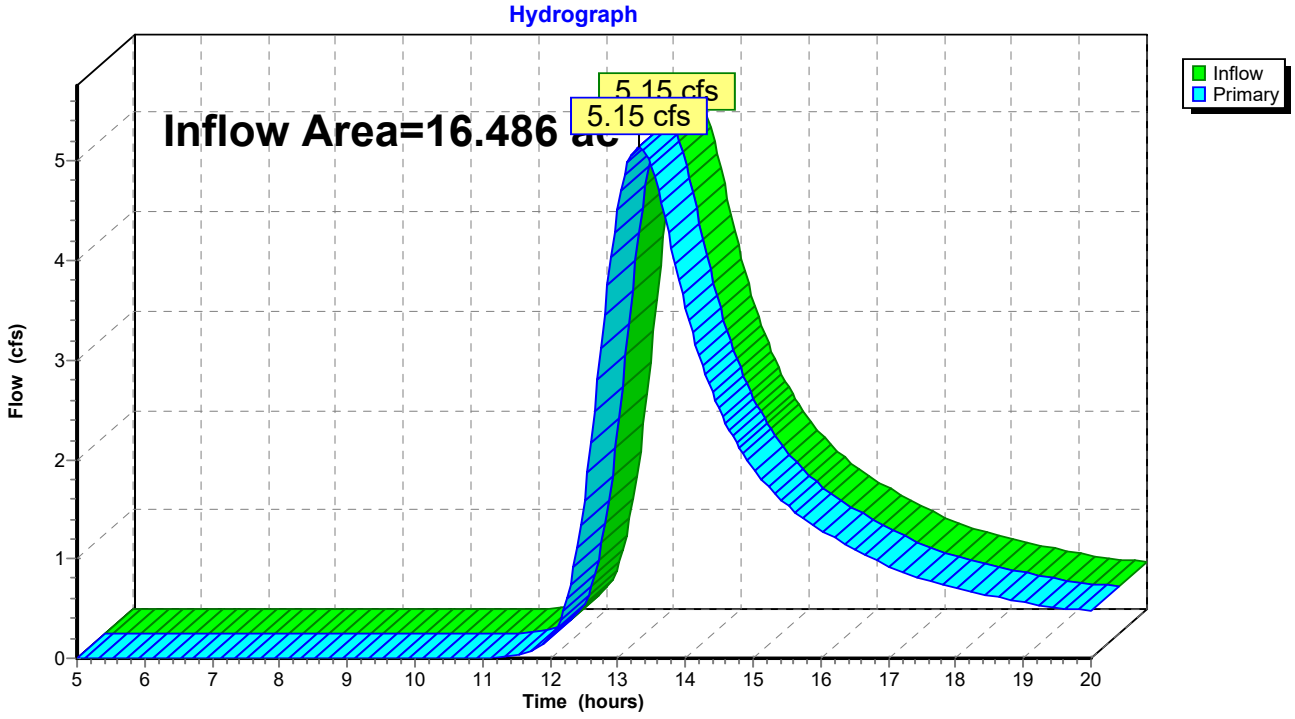


Summary for Pond SP-4: WESTERN SITE BOUNDARY

Inflow Area = 16.486 ac, 0.00% Impervious, Inflow Depth > 0.83" for 2-YR event
Inflow = 5.15 cfs @ 13.31 hrs, Volume= 1.140 af
Primary = 5.15 cfs @ 13.31 hrs, Volume= 1.140 af, Atten= 0%, Lag= 0.0 min
Routed to nonexistent node 1P

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Pond SP-4: WESTERN SITE BOUNDARY

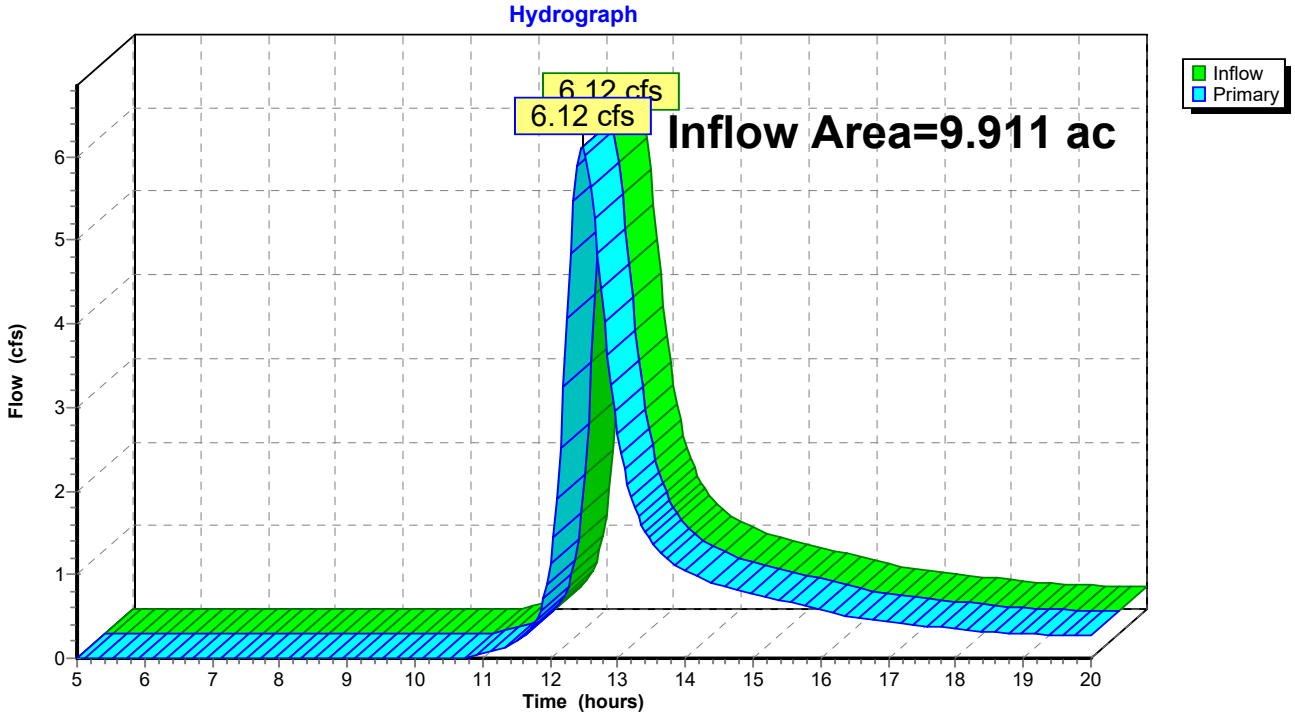


Summary for Pond SP-5: LYNCH LANE

Inflow Area = 9.911 ac, 2.34% Impervious, Inflow Depth > 0.91" for 2-YR event
Inflow = 6.12 cfs @ 12.48 hrs, Volume= 0.749 af
Primary = 6.12 cfs @ 12.48 hrs, Volume= 0.749 af, Atten= 0%, Lag= 0.0 min
Routed to nonexistent node 1P

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Pond SP-5: LYNCH LANE



Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1S: NE SITE Runoff Area=158,935 sf 3.69% Impervious Runoff Depth>1.87"
Flow Length=309' Tc=41.3 min CN=77 Runoff=4.21 cfs 0.570 af

Subcatchment 2S: E SITE Runoff Area=229,278 sf 3.81% Impervious Runoff Depth>1.80"
Flow Length=478' Tc=46.3 min CN=76 Runoff=5.48 cfs 0.788 af

Subcatchment 3S: SW SITE Runoff Area=869,700 sf 3.03% Impervious Runoff Depth>1.79"
Flow Length=1,362' Slope=0.0100 '/' Tc=56.8 min CN=76 Runoff=18.54 cfs 2.975 af

Subcatchment 4S: W SITE Runoff Area=718,114 sf 0.00% Impervious Runoff Depth>1.76"
Flow Length=860' Tc=91.5 min CN=76 Runoff=11.27 cfs 2.419 af

Subcatchment 5S: N SITE Runoff Area=431,736 sf 2.34% Impervious Runoff Depth>1.88"
Flow Length=325' Tc=31.9 min CN=77 Runoff=13.00 cfs 1.554 af

Pond SP-1: LYNCH LANE Inflow=4.21 cfs 0.570 af
Primary=4.21 cfs 0.570 af

Pond SP-2: BARTLETT ROAD EAST Inflow=5.48 cfs 0.788 af
Primary=5.48 cfs 0.788 af

Pond SP-3: BARTLETT ROAD WEST Inflow=18.54 cfs 2.975 af
Primary=18.54 cfs 2.975 af

Pond SP-4: WESTERN SITE BOUNDARY Inflow=11.27 cfs 2.419 af
Primary=11.27 cfs 2.419 af

Pond SP-5: LYNCH LANE Inflow=13.00 cfs 1.554 af
Primary=13.00 cfs 1.554 af

Total Runoff Area = 55.275 ac Runoff Volume = 8.305 af Average Runoff Depth = 1.80"
97.88% Pervious = 54.102 ac 2.12% Impervious = 1.173 ac

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1S: NE SITE Runoff Area=158,935 sf 3.69% Impervious Runoff Depth>2.49"
Flow Length=309' Tc=41.3 min CN=77 Runoff=5.60 cfs 0.757 af

Subcatchment 2S: E SITE Runoff Area=229,278 sf 3.81% Impervious Runoff Depth>2.40"
Flow Length=478' Tc=46.3 min CN=76 Runoff=7.34 cfs 1.052 af

Subcatchment 3S: SW SITE Runoff Area=869,700 sf 3.03% Impervious Runoff Depth>2.39"
Flow Length=1,362' Slope=0.0100 '/' Tc=56.8 min CN=76 Runoff=24.82 cfs 3.974 af

Subcatchment 4S: W SITE Runoff Area=718,114 sf 0.00% Impervious Runoff Depth>2.35"
Flow Length=860' Tc=91.5 min CN=76 Runoff=15.09 cfs 3.234 af

Subcatchment 5S: N SITE Runoff Area=431,736 sf 2.34% Impervious Runoff Depth>2.50"
Flow Length=325' Tc=31.9 min CN=77 Runoff=17.26 cfs 2.062 af

Pond SP-1: LYNCH LANE Inflow=5.60 cfs 0.757 af
Primary=5.60 cfs 0.757 af

Pond SP-2: BARTLETT ROAD EAST Inflow=7.34 cfs 1.052 af
Primary=7.34 cfs 1.052 af

Pond SP-3: BARTLETT ROAD WEST Inflow=24.82 cfs 3.974 af
Primary=24.82 cfs 3.974 af

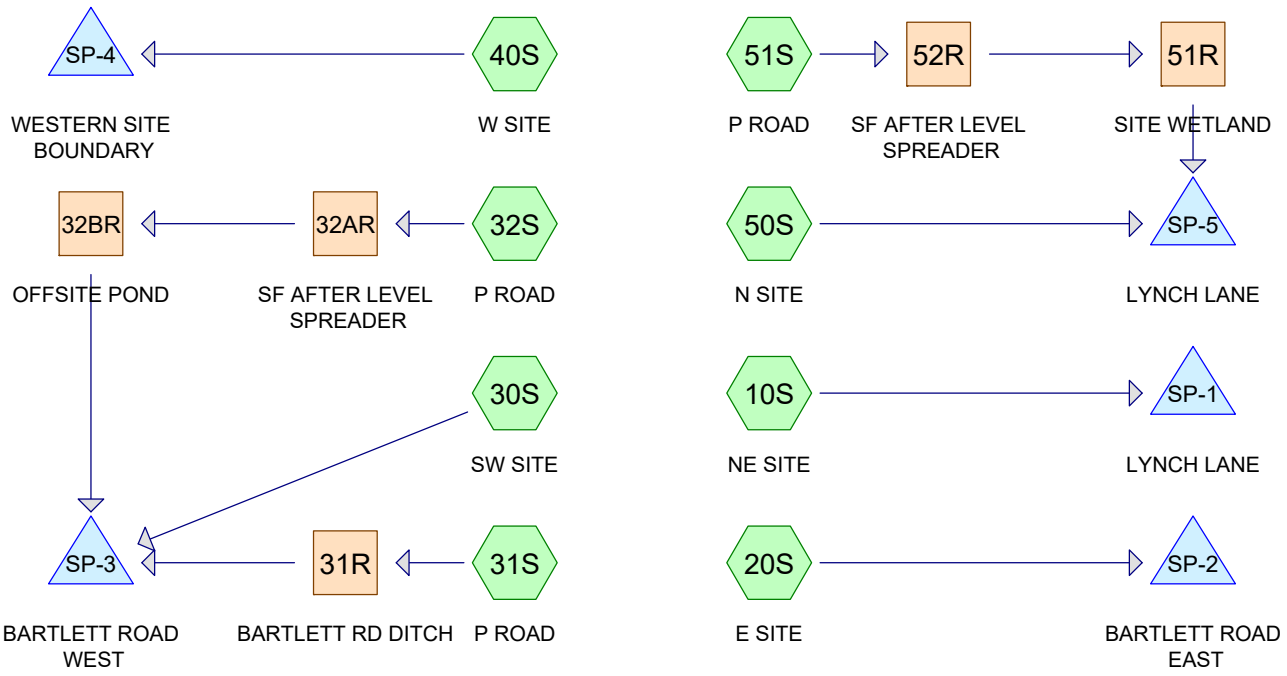
Pond SP-4: WESTERN SITE BOUNDARY Inflow=15.09 cfs 3.234 af
Primary=15.09 cfs 3.234 af

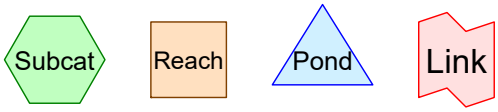
Pond SP-5: LYNCH LANE Inflow=17.26 cfs 2.062 af
Primary=17.26 cfs 2.062 af

Total Runoff Area = 55.275 ac Runoff Volume = 11.079 af Average Runoff Depth = 2.41"
97.88% Pervious = 54.102 ac 2.12% Impervious = 1.173 ac

APPENDIX 4

POST-DEVELOPMENT HYDROCAD MODEL





Routing Diagram for POST 2023.10.23
Prepared by Terradyn Consultants, Printed 12/12/2023

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.230	80	1/2 acre lots, 25% imp, HSG C (10S)
1.607	85	1/2 acre lots, 25% imp, HSG D (30S, 50S)
0.365	98	BARTLETT ROAD (20S, 30S, 31S)
1.039	98	LOT IMP (10S, 20S, 30S, 31S, 32S, 40S, 50S)
3.077	74	LOT LS (10S, 20S, 30S, 31S, 32S, 40S, 50S)
0.172	98	Lynch Ln (10S, 20S, 50S)
0.440	98	PROPOSED ROAD IMP (31S, 32S, 51S)
0.486	74	PROPOSED ROAD LS (31S, 32S, 51S)
9.532	70	Woods, Good, HSG C (10S, 20S, 30S, 31S, 32S, 40S, 50S)
38.327	77	Woods, Good, HSG D (10S, 20S, 30S, 40S, 50S)
55.275	**77**	**TOTAL AREA**

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 10S: NE SITE Runoff Area=141,255 sf 6.86% Impervious Runoff Depth>0.90"
Flow Length=309' Tc=41.3 min CN=77 Runoff=1.76 cfs 0.244 af

Subcatchment 20S: E SITE Runoff Area=219,616 sf 5.68% Impervious Runoff Depth>0.85"
Flow Length=478' Tc=46.3 min CN=76 Runoff=2.41 cfs 0.357 af

Subcatchment 30S: SW SITE Runoff Area=771,905 sf 2.84% Impervious Runoff Depth>0.84"
Flow Length=1,362' Slope=0.0100 '/' Tc=56.8 min CN=76 Runoff=7.54 cfs 1.248 af

Subcatchment 31S: P ROAD Runoff Area=48,416 sf 22.99% Impervious Runoff Depth>0.97"
Flow Length=253' Tc=6.1 min CN=78 Runoff=1.31 cfs 0.090 af

Subcatchment 32S: P ROAD Runoff Area=94,227 sf 27.69% Impervious Runoff Depth>1.08"
Flow Length=227' Tc=6.3 min CN=80 Runoff=2.85 cfs 0.195 af

Subcatchment 40S: W SITE Runoff Area=714,111 sf 1.05% Impervious Runoff Depth>0.83"
Flow Length=860' Tc=91.5 min CN=76 Runoff=5.12 cfs 1.133 af

Subcatchment 50S: N SITE Runoff Area=405,878 sf 3.41% Impervious Runoff Depth>0.91"
Flow Length=325' Tc=31.9 min CN=77 Runoff=5.75 cfs 0.704 af

Subcatchment 51S: P ROAD Runoff Area=12,377 sf 41.45% Impervious Runoff Depth>1.33"
Tc=5.0 min CN=84 Runoff=0.48 cfs 0.032 af

Reach 31R: BARTLETT RD DITCH Avg. Flow Depth=0.20' Max Vel=2.40 fps Inflow=1.31 cfs 0.090 af
n=0.035 L=268.0' S=0.0373 '/' Capacity=139.17 cfs Outflow=1.22 cfs 0.089 af

Reach 32AR: SF AFTER LEVEL Avg. Flow Depth=0.21' Max Vel=0.27 fps Inflow=2.85 cfs 0.195 af
n=0.400 L=80.0' S=0.0750 '/' Capacity=84.16 cfs Outflow=2.38 cfs 0.193 af

Reach 32BR: OFFSITE POND Avg. Flow Depth=0.12' Max Vel=1.23 fps Inflow=2.38 cfs 0.193 af
n=0.050 L=103.0' S=0.0291 '/' Capacity=25.49 cfs Outflow=2.32 cfs 0.193 af

Reach 51R: SITE WETLAND Avg. Flow Depth=0.07' Max Vel=0.37 fps Inflow=0.36 cfs 0.031 af
n=0.080 L=392.0' S=0.0153 '/' Capacity=28.27 cfs Outflow=0.25 cfs 0.030 af

Reach 52R: SF AFTER LEVEL Avg. Flow Depth=0.09' Max Vel=0.16 fps Inflow=0.48 cfs 0.032 af
n=0.400 L=83.0' S=0.0723 '/' Capacity=14.54 cfs Outflow=0.36 cfs 0.031 af

Pond SP-1: LYNCH LANE Inflow=1.76 cfs 0.244 af
Primary=1.76 cfs 0.244 af

Pond SP-2: BARTLETT ROAD EAST Inflow=2.41 cfs 0.357 af
Primary=2.41 cfs 0.357 af

Pond SP-3: BARTLETT ROAD WEST Inflow=8.32 cfs 1.530 af
Primary=8.32 cfs 1.530 af

Pond SP-4: WESTERN SITE BOUNDARY Inflow=5.12 cfs 1.133 af
Primary=5.12 cfs 1.133 af

Pond SP-5: LYNCH LANE Inflow=5.83 cfs 0.734 af
Primary=5.83 cfs 0.734 af

Total Runoff Area = 55.275 ac Runoff Volume = 4.002 af Average Runoff Depth = 0.87"
95.52% Pervious = 52.800 ac 4.48% Impervious = 2.475 ac

Summary for Subcatchment 10S: NE SITE

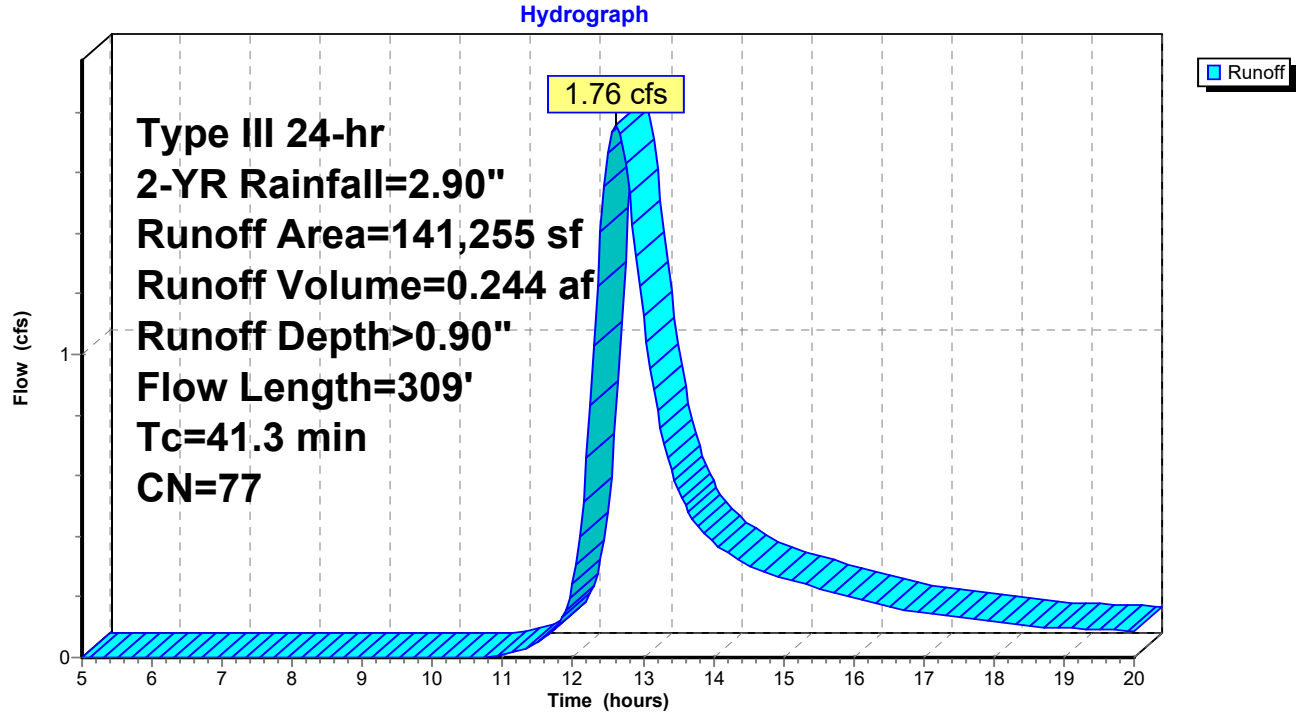
Runoff = 1.76 cfs @ 12.61 hrs, Volume= 0.244 af, Depth> 0.90"
Routed to Pond SP-1 : LYNCH LANE

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-YR Rainfall=2.90"

	Area (sf)	CN	Description
	10,000	80	1/2 acre lots, 25% imp, HSG C
	25,000	70	Woods, Good, HSG C
	87,814	77	Woods, Good, HSG D
*	3,441	98	Lynch Ln
*	3,750	98	LOT IMP
*	11,250	74	LOT LS
	141,255	77	Weighted Average
	131,564		93.14% Pervious Area
	9,691		6.86% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
38.6	150	0.0100	0.06		**Sheet Flow, A-B** Woods: Light underbrush n= 0.400 P2= 3.30"
2.6	159	0.0400	1.00		**Shallow Concentrated Flow, B-C** Woodland Kv= 5.0 fps
41.3	309	Total			

Subcatchment 10S: NE SITE



Summary for Subcatchment 20S: E SITE

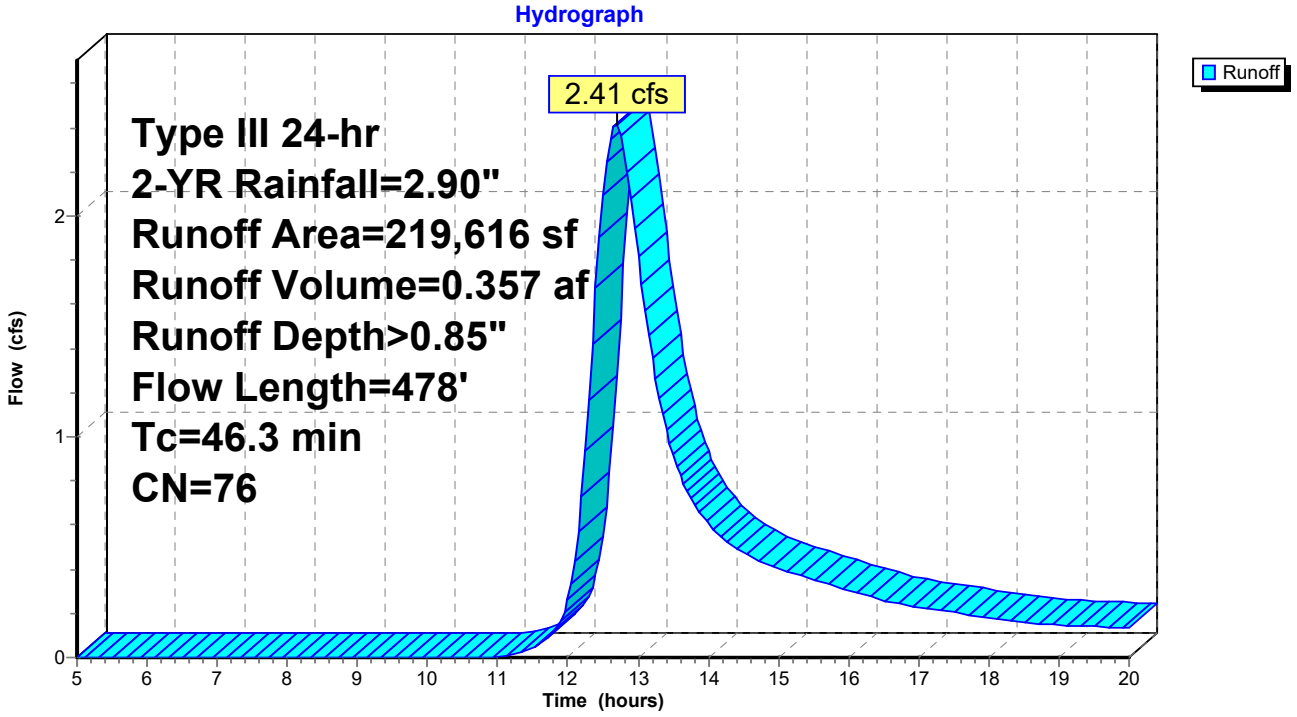
Runoff = 2.41 cfs @ 12.69 hrs, Volume= 0.357 af, Depth> 0.85"
Routed to Pond SP-2 : BARTLETT ROAD EAST

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-YR Rainfall=2.90"

	Area (sf)	CN	Description
*	1,470	98	Lynch Ln
*	7,256	98	BARTLETT ROAD
	57,243	70	Woods, Good, HSG C
	139,625	77	Woods, Good, HSG D
*	3,750	98	LOT IMP
*	10,272	74	LOT LS
	219,616	76	Weighted Average
	207,140		94.32% Pervious Area
	12,476		5.68% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
38.6	150	0.0100	0.06		**Sheet Flow, A-B** Woods: Light underbrush n= 0.400 P2= 3.30"
7.7	328	0.0200	0.71		**Shallow Concentrated Flow, B-C** Woodland Kv= 5.0 fps
46.3	478	Total			

Subcatchment 20S: E SITE



Summary for Subcatchment 30S: SW SITE

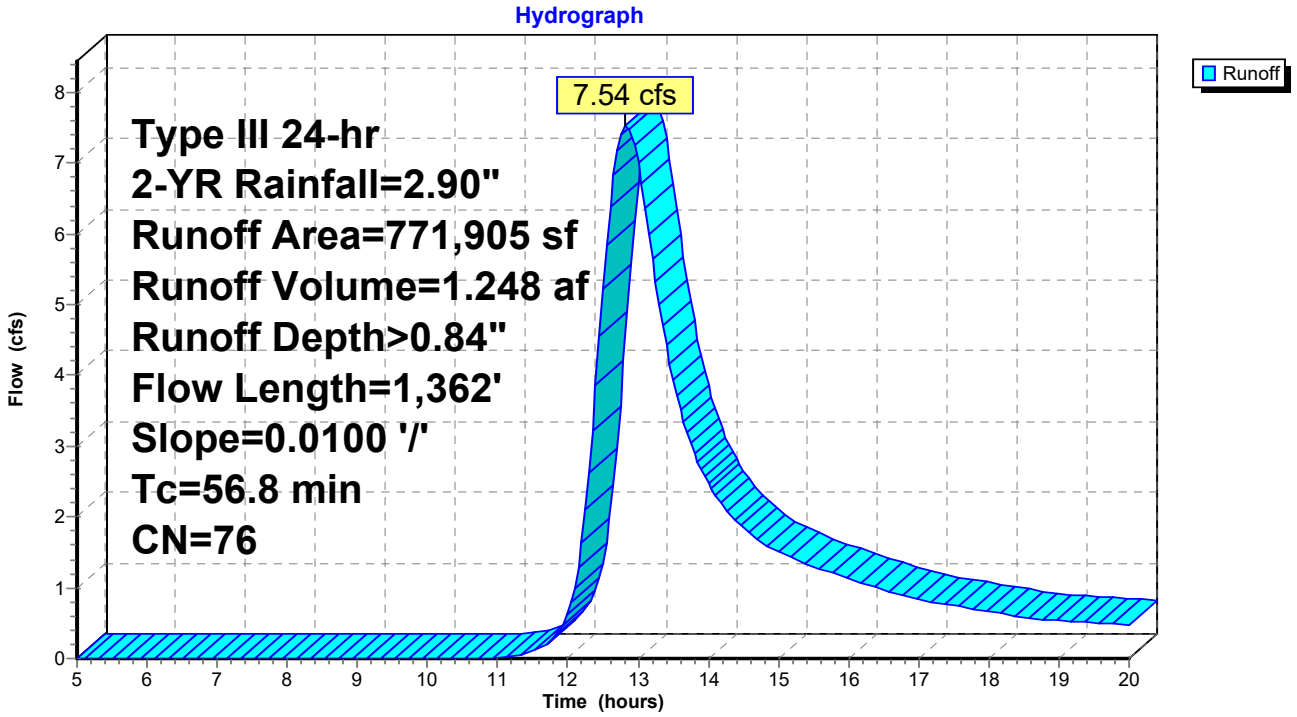
Runoff = 7.54 cfs @ 12.82 hrs, Volume= 1.248 af, Depth> 0.84"
Routed to Pond SP-3 : BARTLETT ROAD WEST

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-YR Rainfall=2.90"

	Area (sf)	CN	Description
	553,893	77	Woods, Good, HSG D
	144,871	70	Woods, Good, HSG C
*	7,956	98	BARTLETT ROAD
	40,000	85	1/2 acre lots, 25% imp, HSG D
*	4,000	98	LOT IMP
*	13,750	74	LOT LS
	7,435	70	Woods, Good, HSG C
	771,905	76	Weighted Average
	749,949		97.16% Pervious Area
	21,956		2.84% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
38.6	150	0.0100	0.06		**Sheet Flow, A-B** Woods: Light underbrush n= 0.400 P2= 3.30"
18.2	1,212	0.0100	1.11	18.06	**Trap/Vee/Rect Channel Flow, B-C** Bot.W=30.00' D=0.50' Z= 5.0 '/' Top.W=35.00' n= 0.080 Earth, long dense weeds
56.8	1,362	Total			

Subcatchment 30S: SW SITE



Summary for Subcatchment 31S: P ROAD

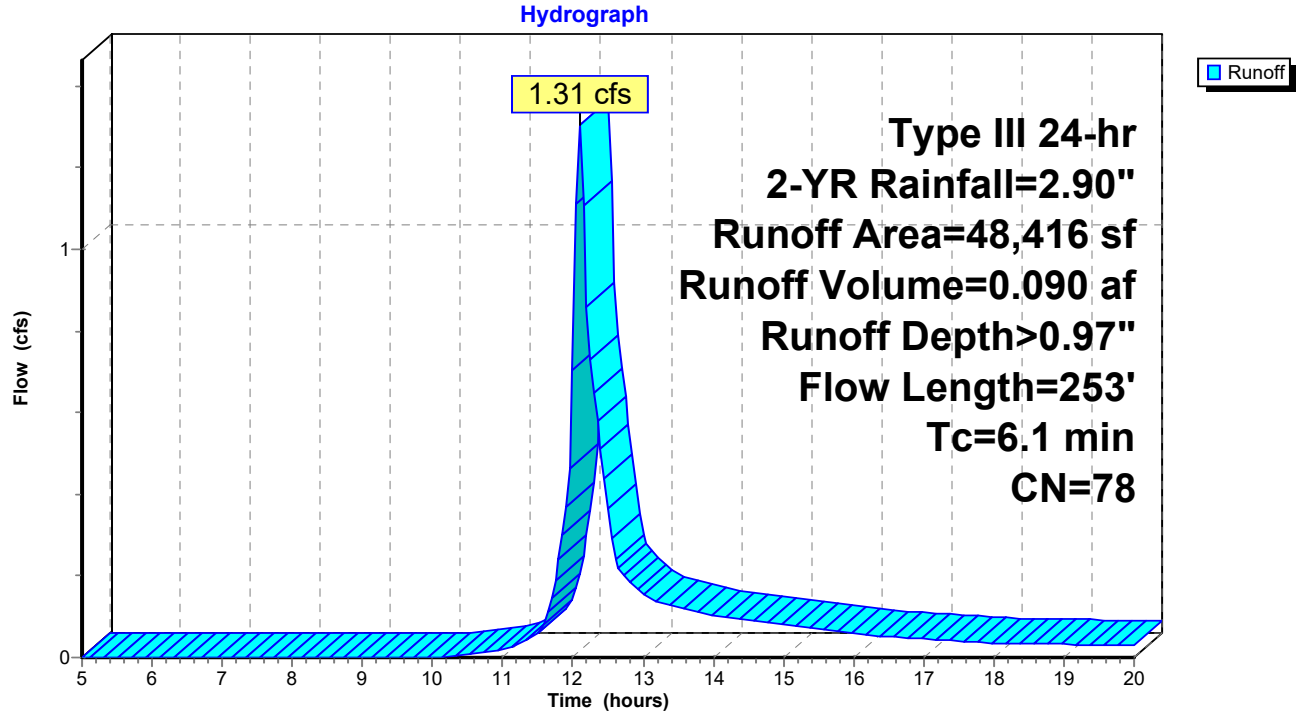
Runoff = 1.31 cfs @ 12.10 hrs, Volume= 0.090 af, Depth> 0.97"
Routed to Reach 31R : BARTLETT RD DITCH

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-YR Rainfall=2.90"

	Area (sf)	CN	Description
*	683	98	BARTLETT ROAD
*	7,948	98	PROPOSED ROAD IMP
*	10,365	74	PROPOSED ROAD LS
*	2,500	98	LOT IMP
*	7,500	74	LOT LS
	19,420	70	Woods, Good, HSG C
	48,416	78	Weighted Average
	37,285		77.01% Pervious Area
	11,131		22.99% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.4	75	0.0800	0.28		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.30"
1.7	178	0.0600	1.71		**Shallow Concentrated Flow, B-C** Short Grass Pasture Kv= 7.0 fps
6.1	253	Total			

Subcatchment 31S: P ROAD



Summary for Subcatchment 32S: P ROAD

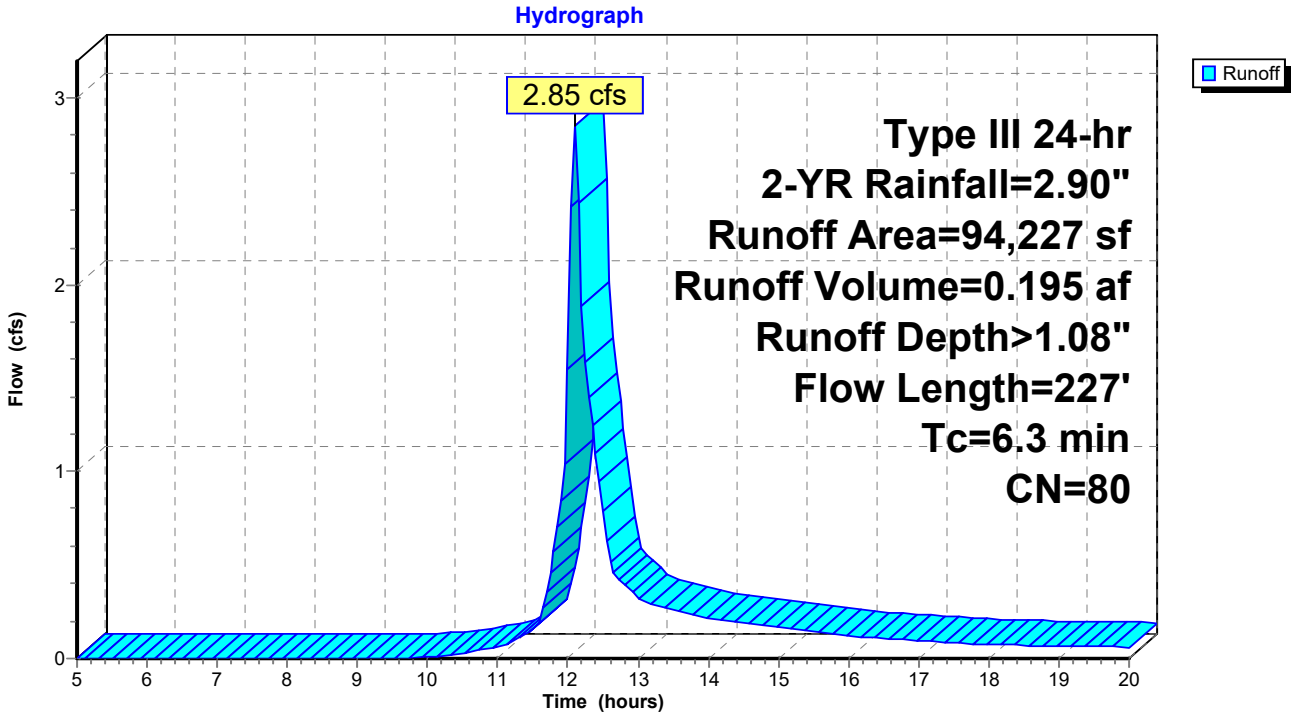
Runoff = 2.85 cfs @ 12.10 hrs, Volume= 0.195 af, Depth> 1.08"
Routed to Reach 32AR : SF AFTER LEVEL SPREADER

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-YR Rainfall=2.90"

	Area (sf)	CN	Description
*	6,095	98	PROPOSED ROAD IMP
*	3,563	74	PROPOSED ROAD LS
*	12,500	98	LOT IMP
*	37,500	74	LOT LS
	7,069	70	Woods, Good, HSG C
*	7,500	98	LOT IMP
*	20,000	74	LOT LS
	94,227	80	Weighted Average
	68,132		72.31% Pervious Area
	26,095		27.69% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.1	80	0.0400	0.22		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.30"
0.2	147	0.0200	10.13	162.10	**Trap/Vee/Rect Channel Flow, B-C** Bot.W=2.00' D=2.00' Z= 3.0 '/' Top.W=14.00' n= 0.022 Earth, clean & straight
6.3	227	Total			

Subcatchment 32S: P ROAD



Summary for Subcatchment 40S: W SITE

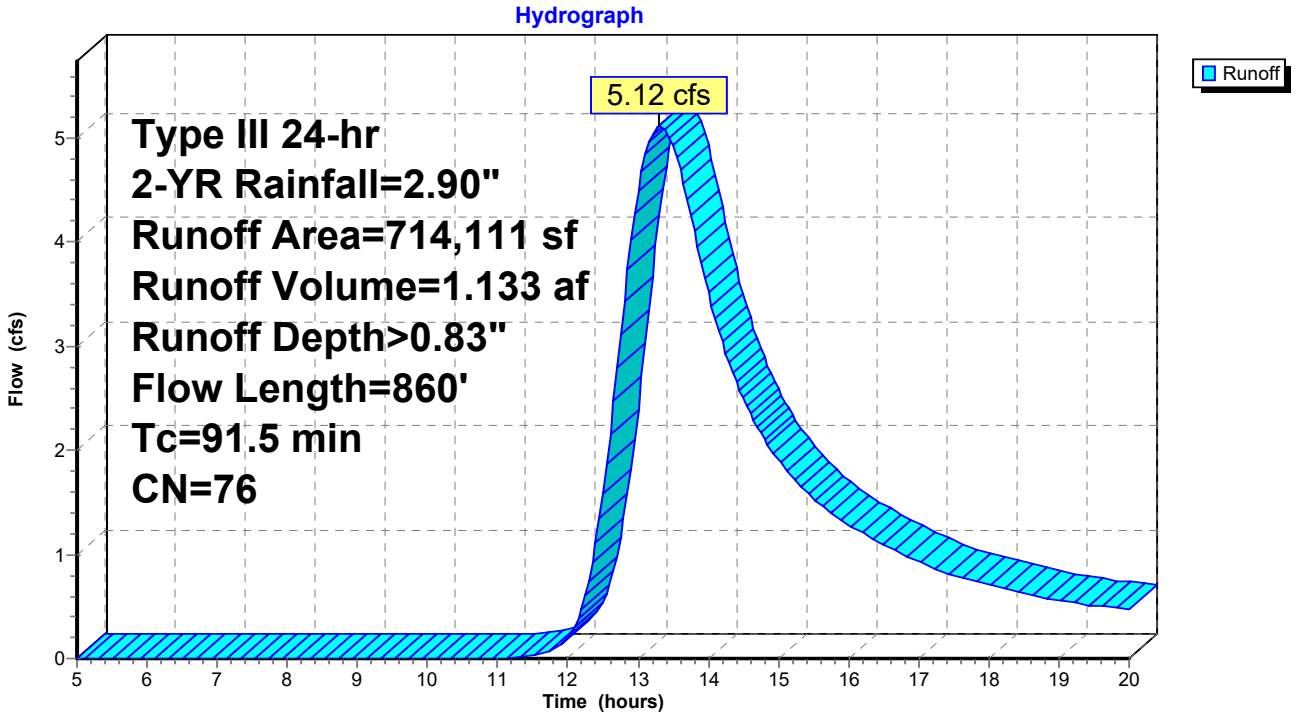
Runoff = 5.12 cfs @ 13.31 hrs, Volume= 1.133 af, Depth> 0.83"
Routed to Pond SP-4 : WESTERN SITE BOUNDARY

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-YR Rainfall=2.90"

	Area (sf)	CN	Description
	560,943	77	Woods, Good, HSG D
	115,954	70	Woods, Good, HSG C
*	7,500	98	LOT IMP
*	22,500	74	LOT LS
	7,214	70	Woods, Good, HSG C
	714,111	76	Weighted Average
	706,611		98.95% Pervious Area
	7,500		1.05% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
62.5	150	0.0030	0.04		**Sheet Flow, A-B** Woods: Light underbrush n= 0.400 P2= 3.30"
18.9	310	0.0030	0.27		**Shallow Concentrated Flow, B-C** Woodland Kv= 5.0 fps
10.1	400	0.0175	0.66		**Shallow Concentrated Flow, B-C** Woodland Kv= 5.0 fps
91.5	860	Total			

Subcatchment 40S: W SITE



Summary for Subcatchment 50S: N SITE

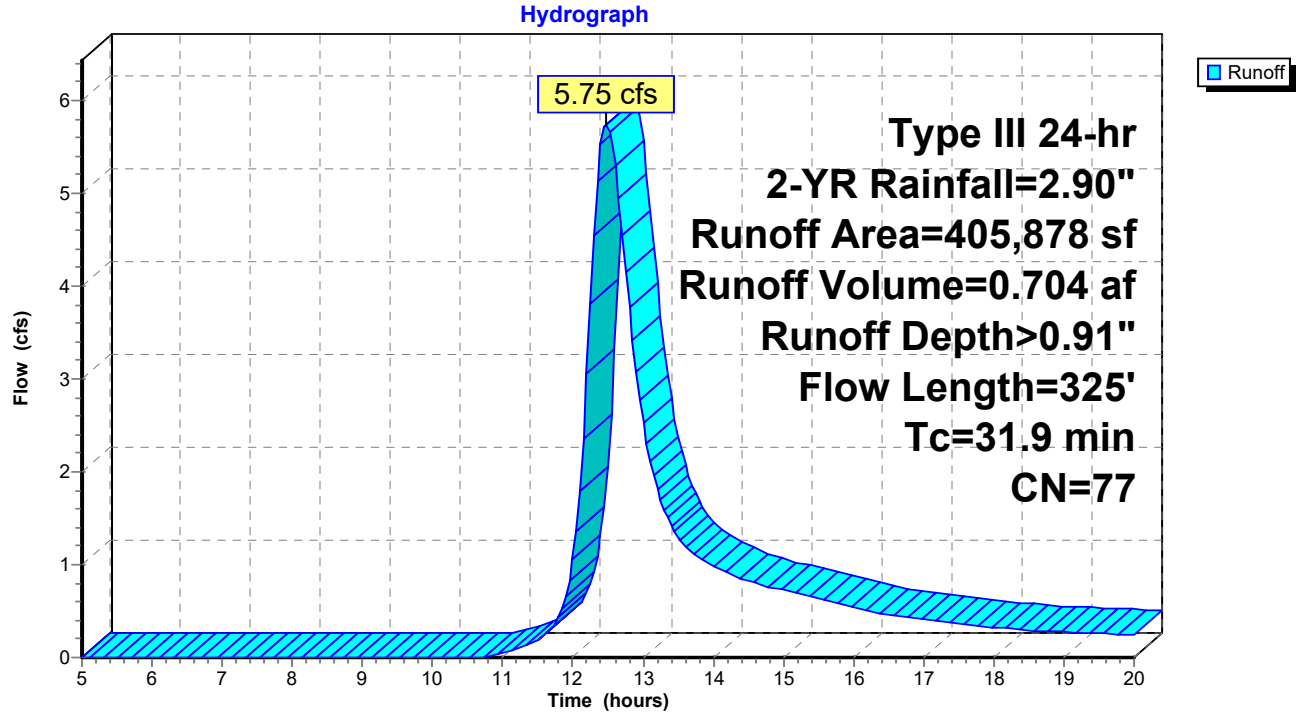
Runoff = 5.75 cfs @ 12.48 hrs, Volume= 0.704 af, Depth> 0.91"
Routed to Pond SP-5 : LYNCH LANE

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-YR Rainfall=2.90"

	Area (sf)	CN	Description
*	2,600	98	Lynch Ln
	30,000	85	1/2 acre lots, 25% imp, HSG D
	31,012	70	Woods, Good, HSG C
	327,266	77	Woods, Good, HSG D
*	3,750	98	LOT IMP
*	11,250	74	LOT LS
	405,878	77	Weighted Average
	392,028		96.59% Pervious Area
	13,850		3.41% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
26.1	150	0.0267	0.10		**Sheet Flow, A-B** Woods: Light underbrush n= 0.400 P2= 3.30"
5.8	175	0.0100	0.50		**Shallow Concentrated Flow, B-C** Woodland Kv= 5.0 fps
31.9	325	Total			

Subcatchment 50S: N SITE



Summary for Subcatchment 51S: P ROAD

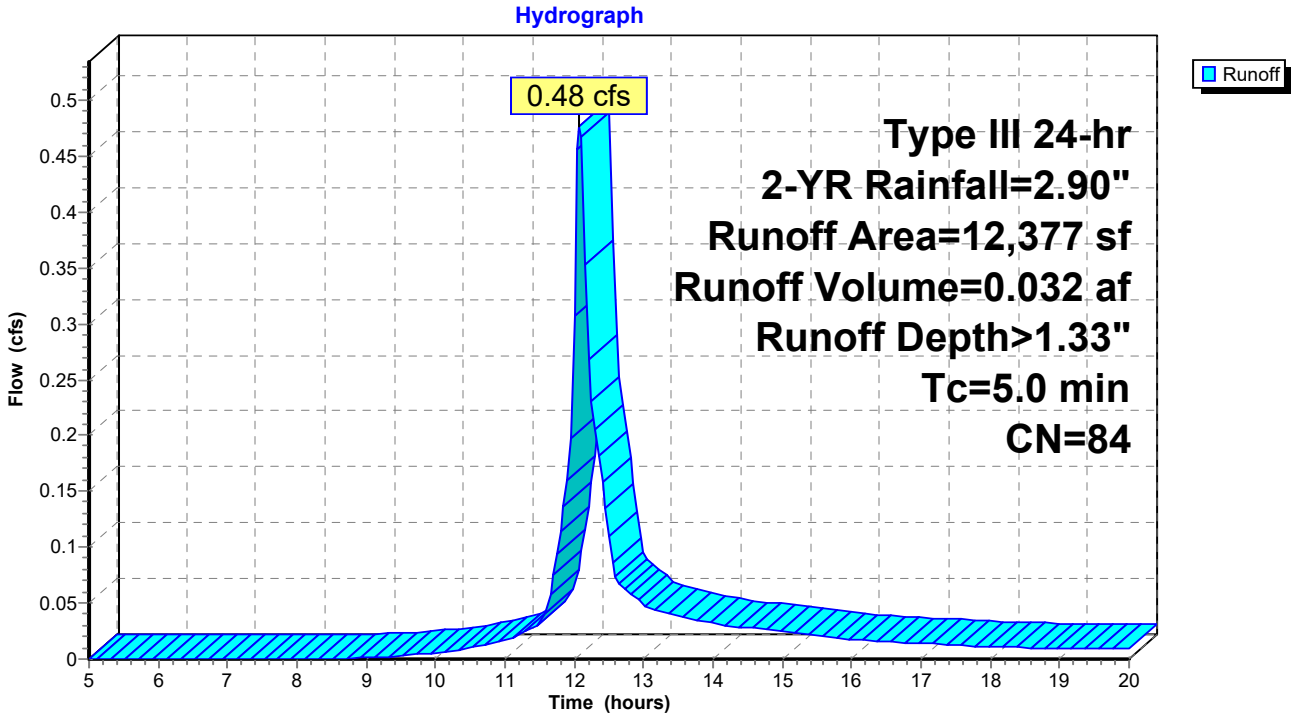
Runoff = 0.48 cfs @ 12.08 hrs, Volume= 0.032 af, Depth> 1.33"
Routed to Reach 52R : SF AFTER LEVEL SPREADER

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-YR Rainfall=2.90"

	Area (sf)	CN	Description
*	5,130	98	PROPOSED ROAD IMP
*	7,247	74	PROPOSED ROAD LS
	12,377	84	Weighted Average
	7,247		58.55% Pervious Area
	5,130		41.45% Impervious Area

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

Subcatchment 51S: P ROAD



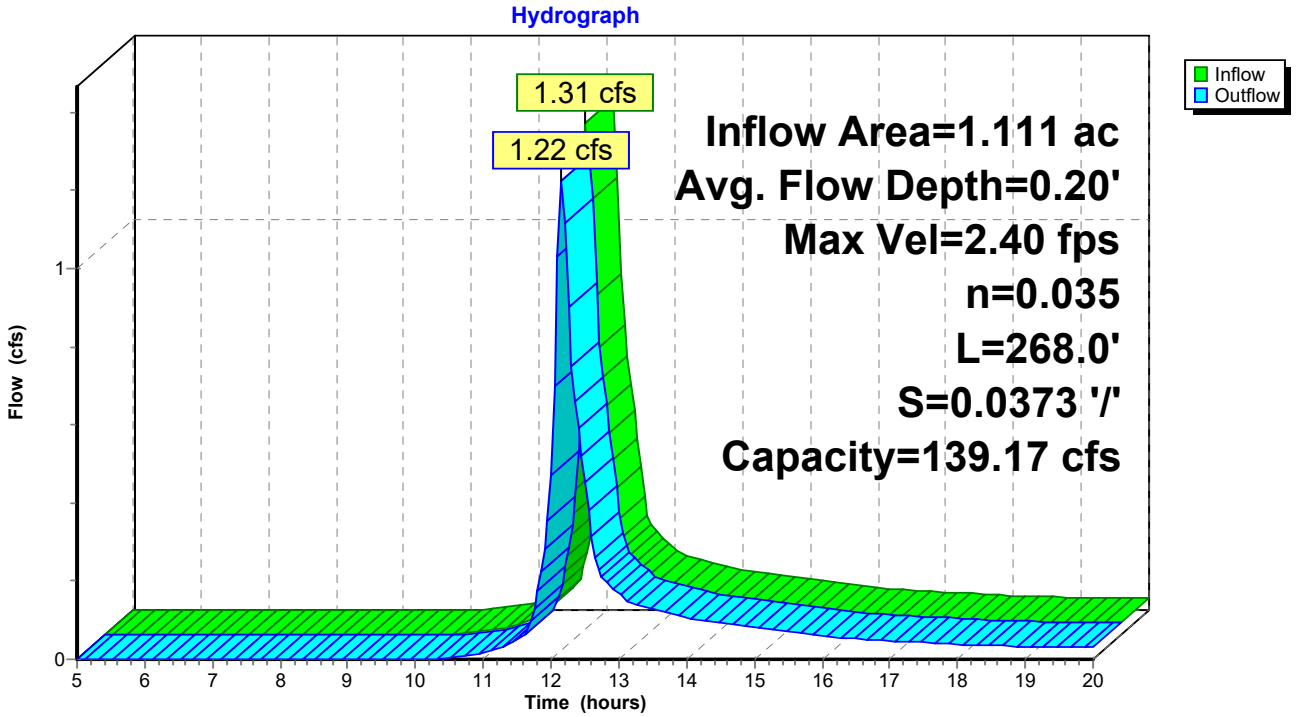
Summary for Reach 31R: BARTLETT RD DITCH

Inflow Area = 1.111 ac, 22.99% Impervious, Inflow Depth > 0.97" for 2-YR event
Inflow = 1.31 cfs @ 12.10 hrs, Volume= 0.090 af
Outflow = 1.22 cfs @ 12.16 hrs, Volume= 0.089 af, Atten= 6%, Lag= 3.5 min
Routed to Pond SP-3 : BARTLETT ROAD WEST

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 2.40 fps, Min. Travel Time= 1.9 min
Avg. Velocity = 0.93 fps, Avg. Travel Time= 4.8 min

Peak Storage= 140 cf @ 12.12 hrs
Average Depth at Peak Storage= 0.20' , Surface Width= 3.21'
Bank-Full Depth= 2.00' Flow Area= 16.0 sf, Capacity= 139.17 cfs

2.00' x 2.00' deep channel, n= 0.035 Earth, dense weeds
Side Slope Z-value= 3.0 '/' Top Width= 14.00'
Length= 268.0' Slope= 0.0373 '/'
Inlet Invert= 58.00', Outlet Invert= 48.00'



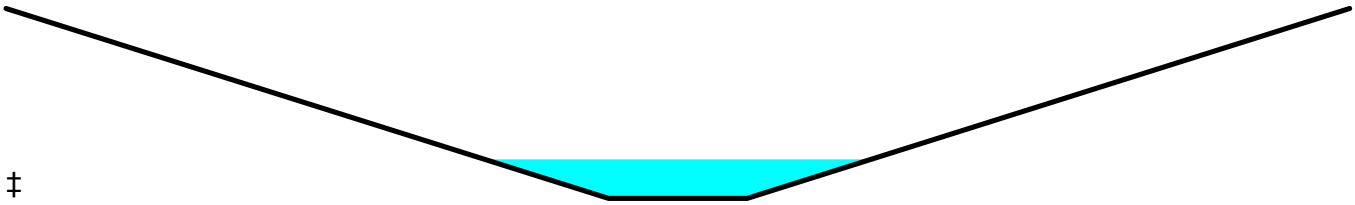
Summary for Reach 32AR: SF AFTER LEVEL SPREADER

Inflow Area = 2.163 ac, 27.69% Impervious, Inflow Depth > 1.08" for 2-YR event
Inflow = 2.85 cfs @ 12.10 hrs, Volume= 0.195 af
Outflow = 2.38 cfs @ 12.24 hrs, Volume= 0.193 af, Atten= 16%, Lag= 8.5 min
Routed to Reach 32BR : OFFSITE POND

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 0.27 fps, Min. Travel Time= 4.9 min
Avg. Velocity = 0.12 fps, Avg. Travel Time= 11.6 min

Peak Storage= 715 cf @ 12.16 hrs
Average Depth at Peak Storage= 0.21' , Surface Width= 64.06'
Bank-Full Depth= 1.00' Flow Area= 123.0 sf, Capacity= 84.16 cfs

23.00' x 1.00' deep channel, n= 0.400 Sheet flow: Woods+light brush
Side Slope Z-value= 100.0 '/' Top Width= 223.00'
Length= 80.0' Slope= 0.0750 '/'
Inlet Invert= 56.00', Outlet Invert= 50.00'



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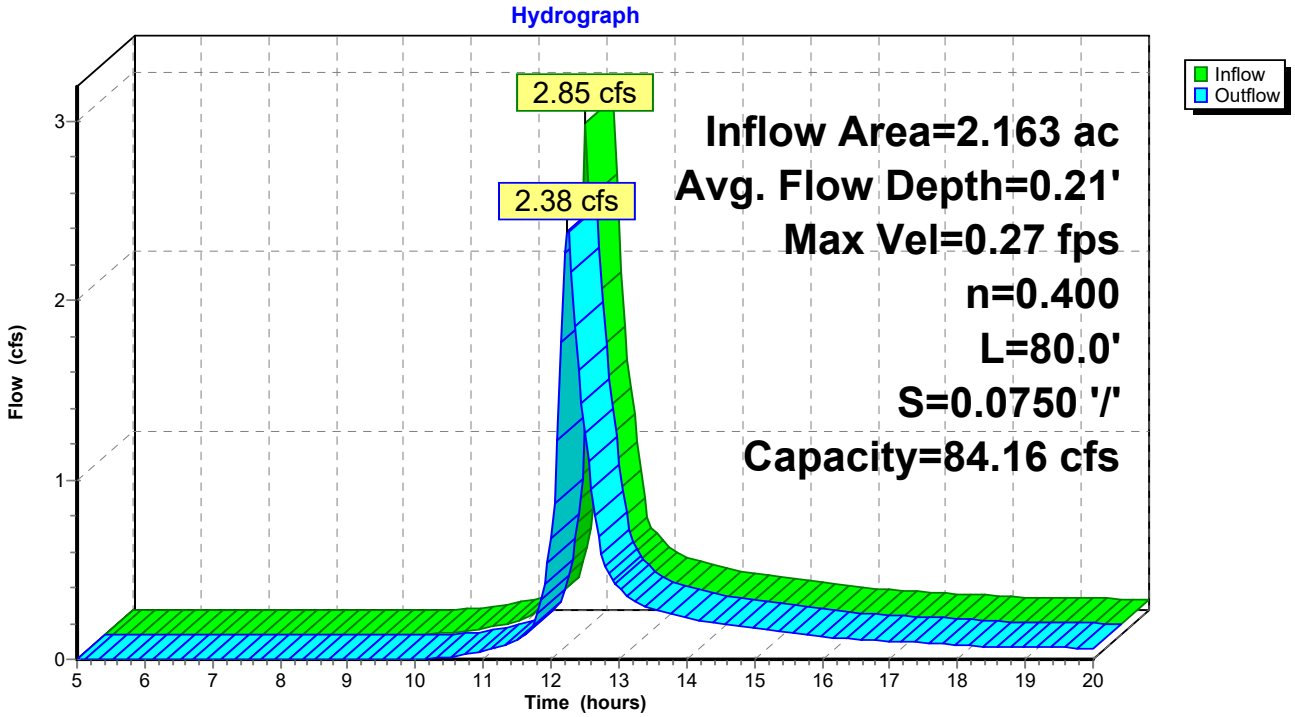
Reach 32AR: SF AFTER LEVEL SPREADER



Summary for Reach 32BR: OFFSITE POND

Inflow Area = 2.163 ac, 27.69% Impervious, Inflow Depth > 1.07" for 2-YR event
Inflow = 2.38 cfs @ 12.24 hrs, Volume= 0.193 af
Outflow = 2.32 cfs @ 12.28 hrs, Volume= 0.193 af, Atten= 3%, Lag= 2.5 min
Routed to Pond SP-3 : BARTLETT ROAD WEST

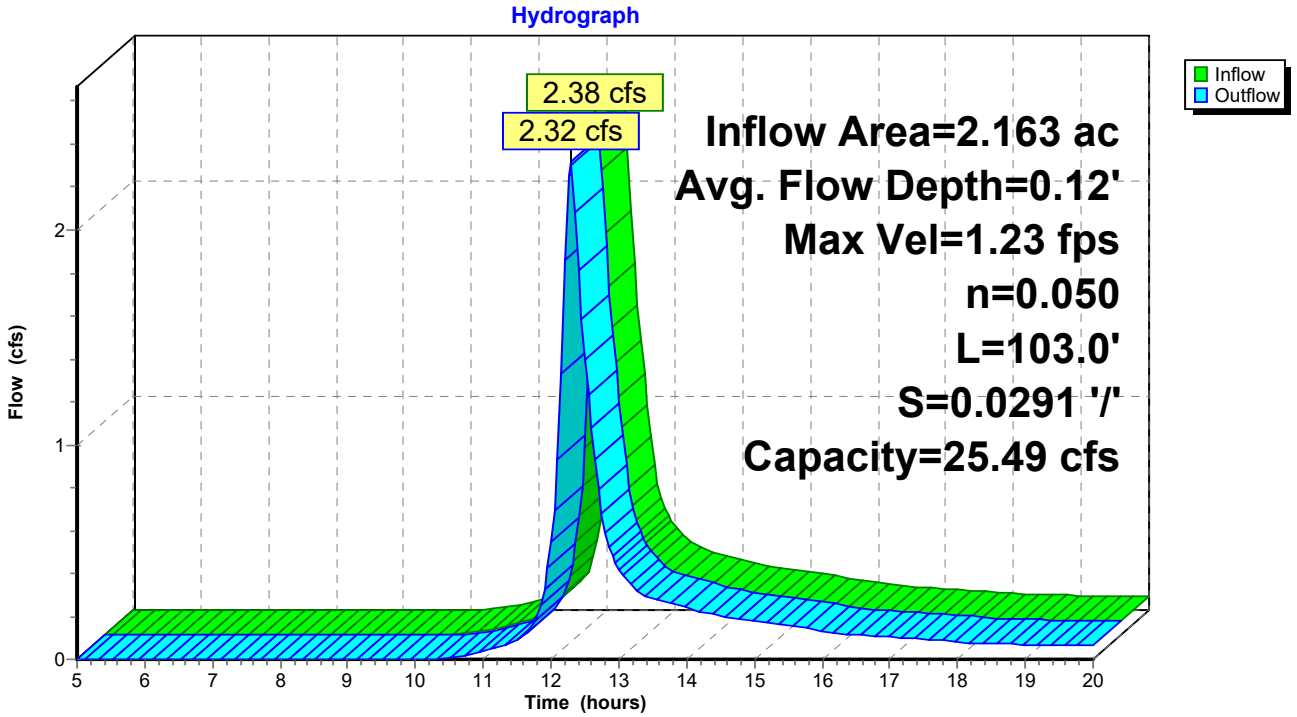
Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 1.23 fps, Min. Travel Time= 1.4 min
Avg. Velocity = 0.42 fps, Avg. Travel Time= 4.1 min

Peak Storage= 200 cf @ 12.26 hrs
Average Depth at Peak Storage= 0.12' , Surface Width= 16.24'
Bank-Full Depth= 0.50' Flow Area= 8.8 sf, Capacity= 25.49 cfs

15.00' x 0.50' deep channel, n= 0.050 Scattered brush, heavy weeds
Side Slope Z-value= 5.0 '/' Top Width= 20.00'
Length= 103.0' Slope= 0.0291 '/'
Inlet Invert= 50.00', Outlet Invert= 47.00'

‡

Reach 32BR: OFFSITE POND



Summary for Reach 51R: SITE WETLAND

Inflow Area = 0.284 ac, 41.45% Impervious, Inflow Depth > 1.31" for 2-YR event
Inflow = 0.36 cfs @ 12.30 hrs, Volume= 0.031 af
Outflow = 0.25 cfs @ 12.79 hrs, Volume= 0.030 af, Atten= 31%, Lag= 29.2 min
Routed to Pond SP-5 : LYNCH LANE

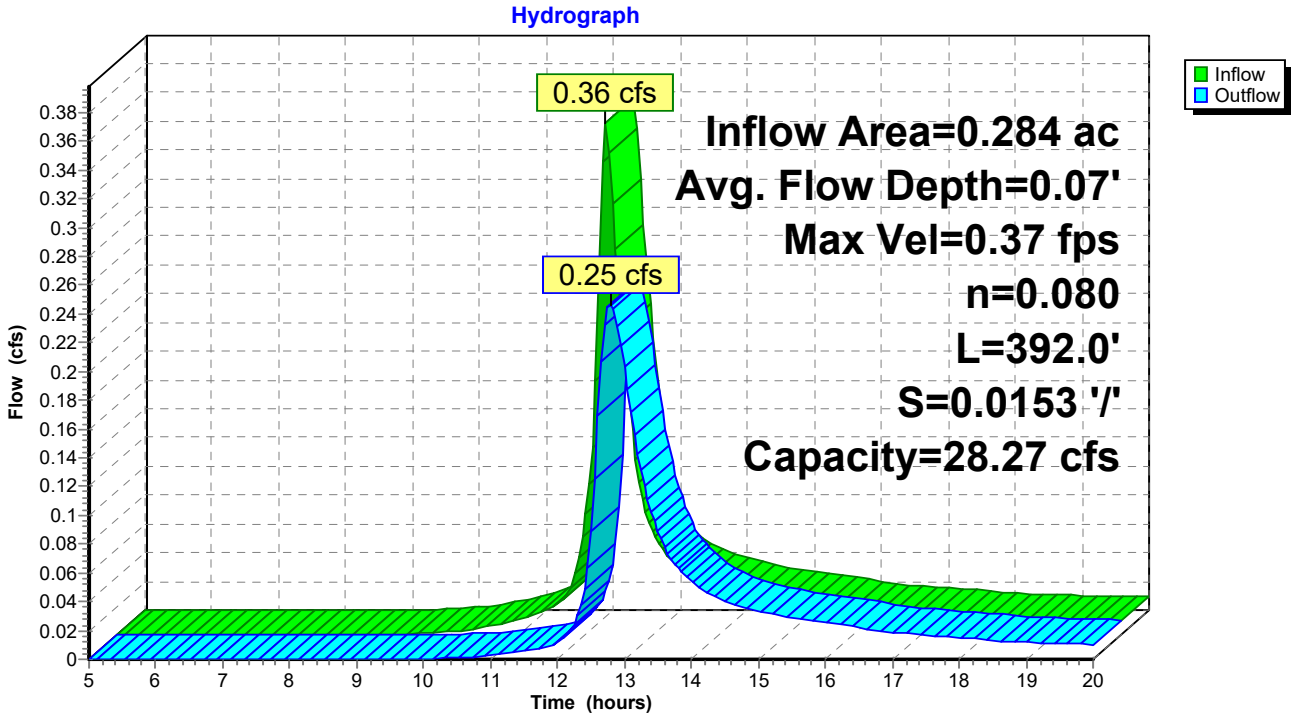
Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 0.37 fps, Min. Travel Time= 17.9 min
Avg. Velocity = 0.15 fps, Avg. Travel Time= 42.9 min

Peak Storage= 264 cf @ 12.49 hrs
Average Depth at Peak Storage= 0.07' , Surface Width= 10.65'
Bank-Full Depth= 1.00' Flow Area= 15.0 sf, Capacity= 28.27 cfs

10.00' x 1.00' deep channel, n= 0.080 Earth, long dense weeds
Side Slope Z-value= 5.0 '/' Top Width= 20.00'
Length= 392.0' Slope= 0.0153 '/'
Inlet Invert= 56.00', Outlet Invert= 50.00'

‡

Reach 51R: SITE WETLAND



Summary for Reach 52R: SF AFTER LEVEL SPREADER

Inflow Area = 0.284 ac, 41.45% Impervious, Inflow Depth > 1.33" for 2-YR event
Inflow = 0.48 cfs @ 12.08 hrs, Volume= 0.032 af
Outflow = 0.36 cfs @ 12.30 hrs, Volume= 0.031 af, Atten= 26%, Lag= 13.4 min
Routed to Reach 51R : SITE WETLAND

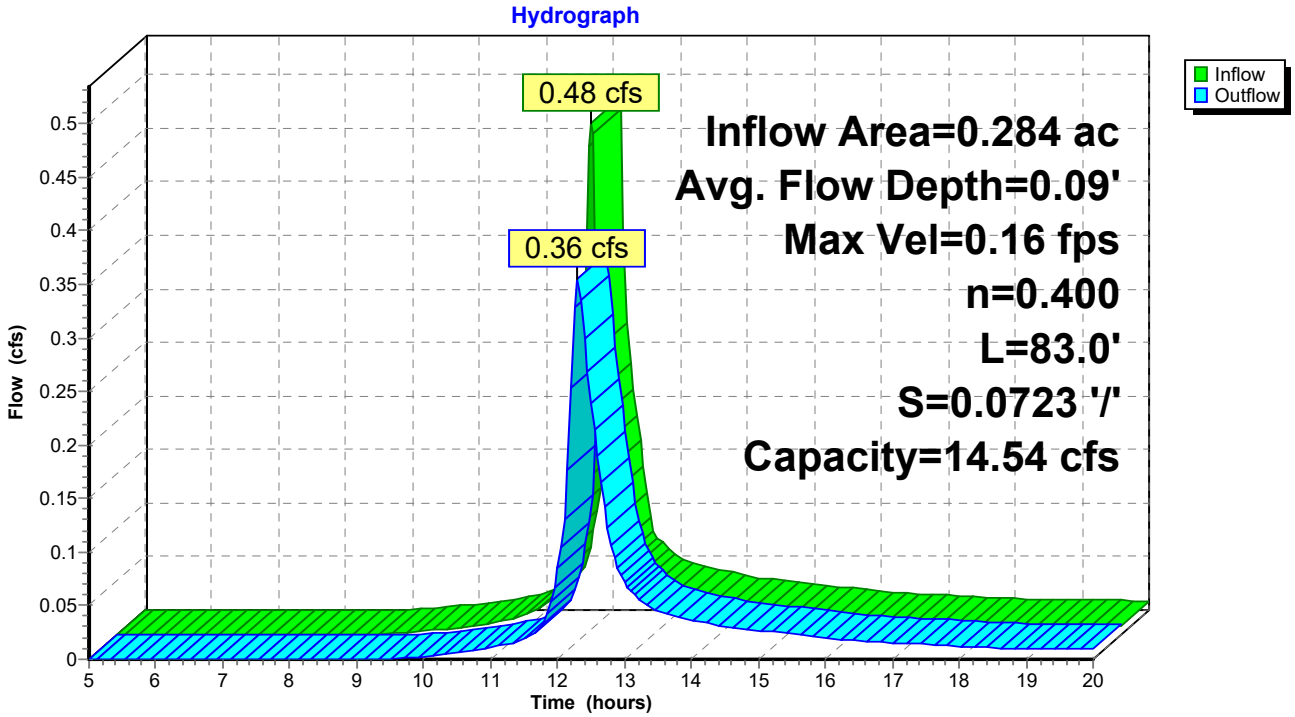
Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 0.16 fps, Min. Travel Time= 8.6 min
Avg. Velocity = 0.06 fps, Avg. Travel Time= 22.0 min

Peak Storage= 185 cf @ 12.16 hrs
Average Depth at Peak Storage= 0.09' , Surface Width= 34.33'
Bank-Full Depth= 0.50' Flow Area= 33.5 sf, Capacity= 14.54 cfs

17.00' x 0.50' deep channel, n= 0.400 Sheet flow: Woods+light brush
Side Slope Z-value= 100.0 '/' Top Width= 117.00'
Length= 83.0' Slope= 0.0723 '/'
Inlet Invert= 62.00', Outlet Invert= 56.00'

‡

Reach 52R: SF AFTER LEVEL SPREADER

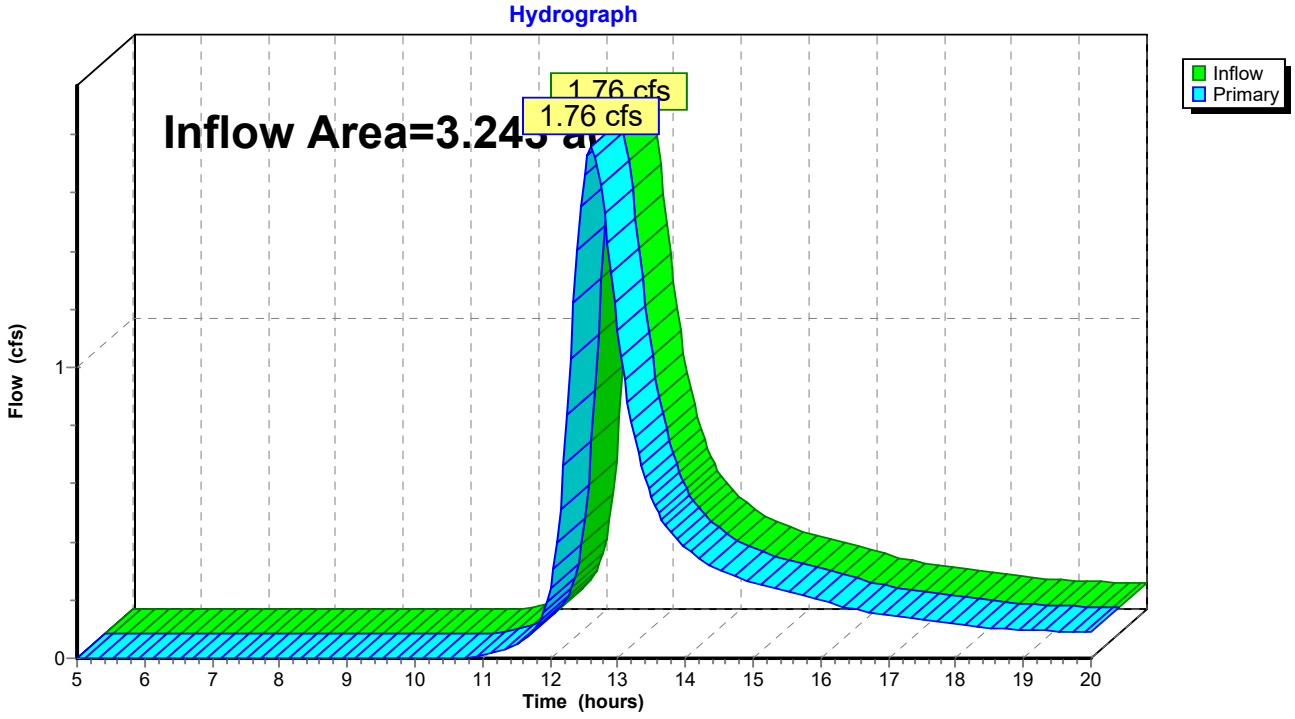


Summary for Pond SP-1: LYNCH LANE

Inflow Area = 3.243 ac, 6.86% Impervious, Inflow Depth > 0.90" for 2-YR event
Inflow = 1.76 cfs @ 12.61 hrs, Volume= 0.244 af
Primary = 1.76 cfs @ 12.61 hrs, Volume= 0.244 af, Atten= 0%, Lag= 0.0 min
Routed to nonexistent node 1P

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Pond SP-1: LYNCH LANE

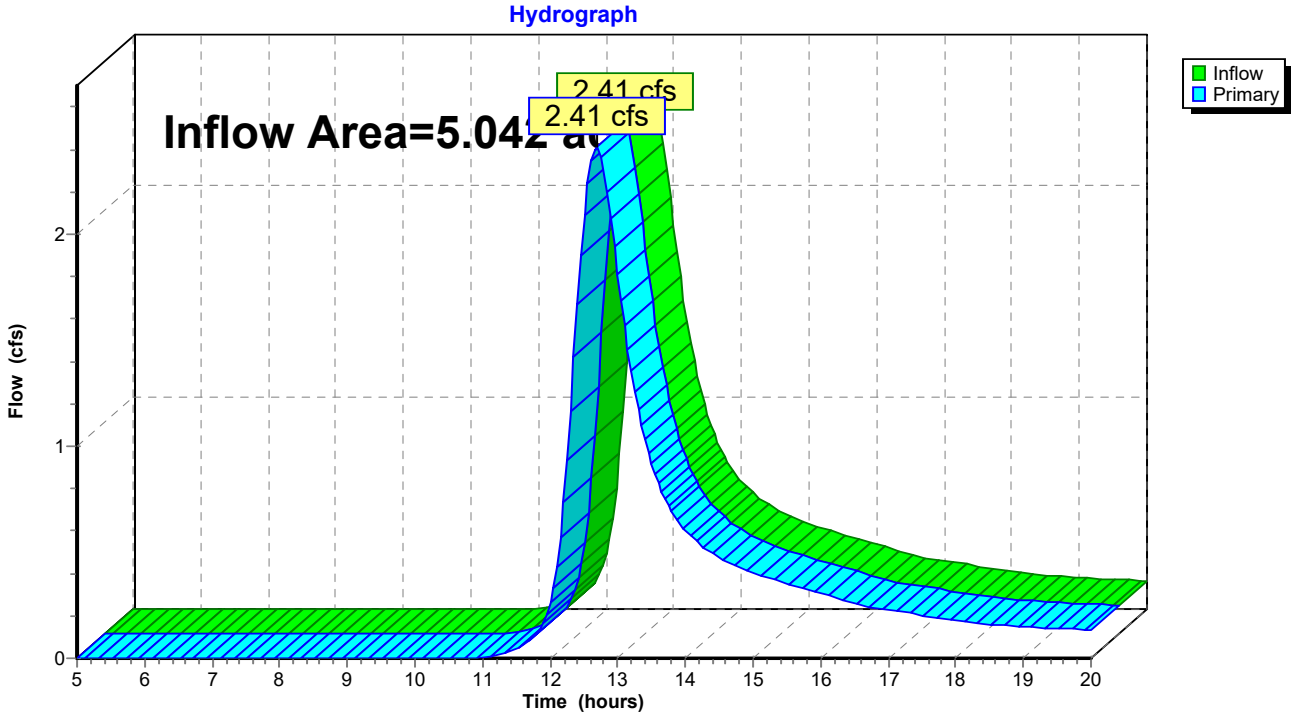


Summary for Pond SP-2: BARTLETT ROAD EAST

Inflow Area = 5.042 ac, 5.68% Impervious, Inflow Depth > 0.85" for 2-YR event
Inflow = 2.41 cfs @ 12.69 hrs, Volume= 0.357 af
Primary = 2.41 cfs @ 12.69 hrs, Volume= 0.357 af, Atten= 0%, Lag= 0.0 min
Routed to nonexistent node 1P

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Pond SP-2: BARTLETT ROAD EAST

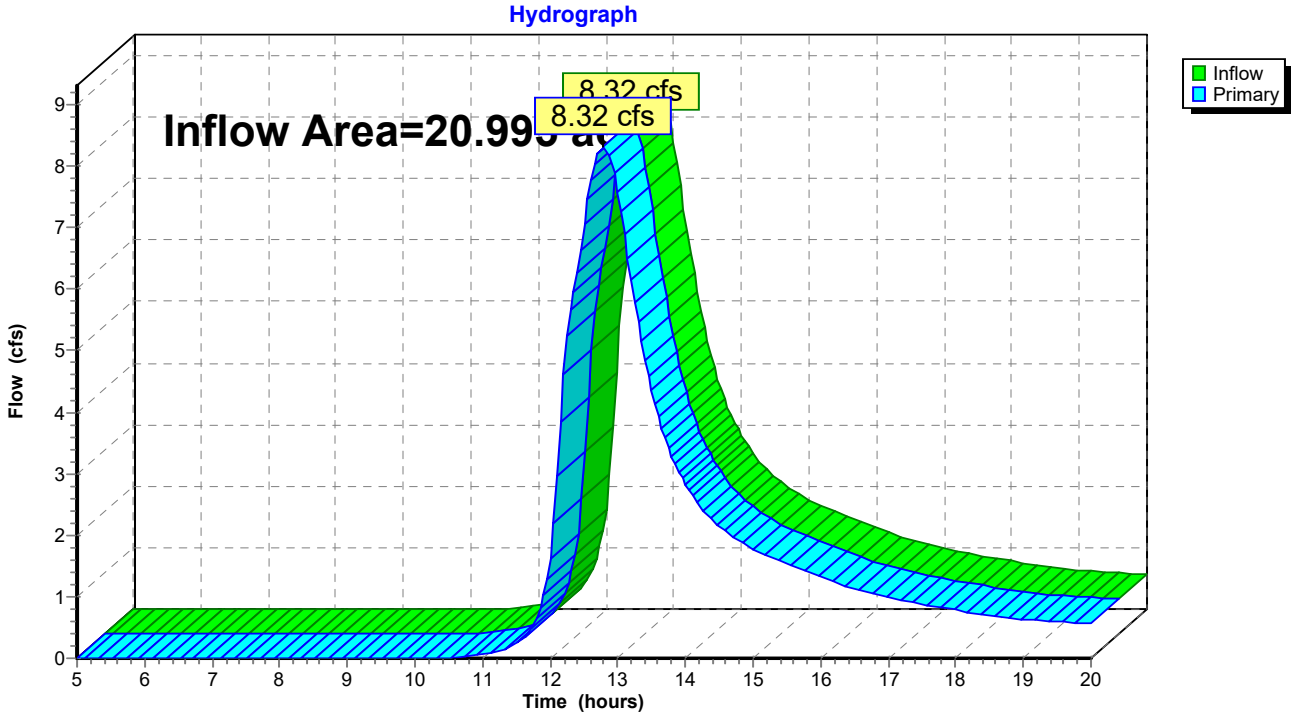


Summary for Pond SP-3: BARTLETT ROAD WEST

Inflow Area = 20.995 ac, 6.47% Impervious, Inflow Depth > 0.87" for 2-YR event
Inflow = 8.32 cfs @ 12.79 hrs, Volume= 1.530 af
Primary = 8.32 cfs @ 12.79 hrs, Volume= 1.530 af, Atten= 0%, Lag= 0.0 min
Routed to nonexistent node 1P

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Pond SP-3: BARTLETT ROAD WEST

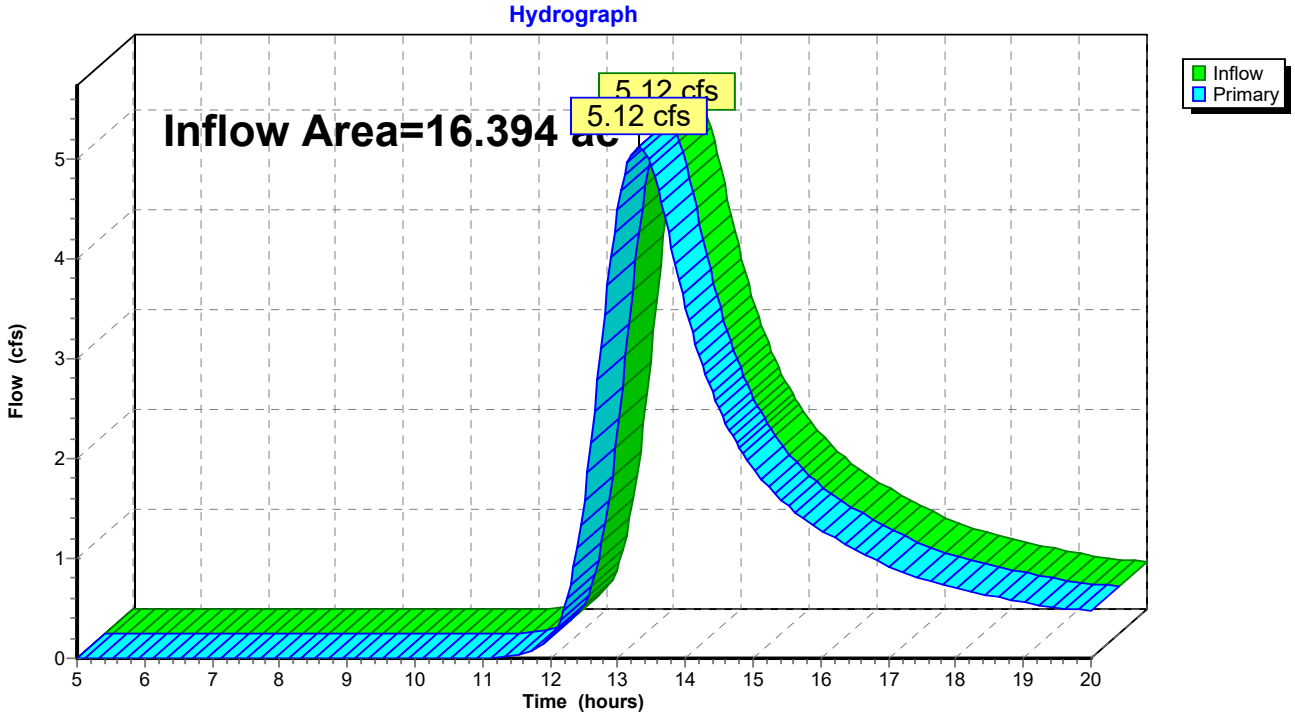


Summary for Pond SP-4: WESTERN SITE BOUNDARY

Inflow Area = 16.394 ac, 1.05% Impervious, Inflow Depth > 0.83" for 2-YR event
Inflow = 5.12 cfs @ 13.31 hrs, Volume= 1.133 af
Primary = 5.12 cfs @ 13.31 hrs, Volume= 1.133 af, Atten= 0%, Lag= 0.0 min
Routed to nonexistent node 1P

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Pond SP-4: WESTERN SITE BOUNDARY

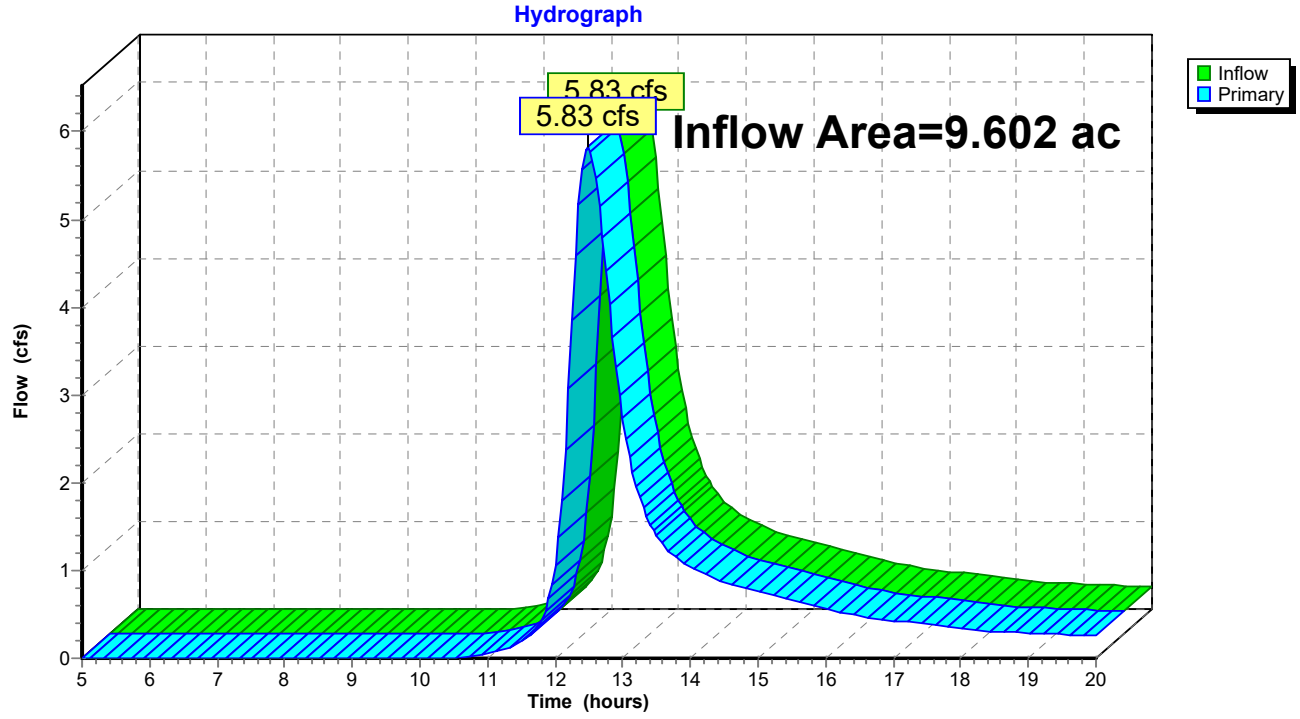


Summary for Pond SP-5: LYNCH LANE

Inflow Area = 9.602 ac, 4.54% Impervious, Inflow Depth > 0.92" for 2-YR event
Inflow = 5.83 cfs @ 12.49 hrs, Volume= 0.734 af
Primary = 5.83 cfs @ 12.49 hrs, Volume= 0.734 af, Atten= 0%, Lag= 0.0 min
Routed to nonexistent node 1P

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Pond SP-5: LYNCH LANE



Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 10S: NE SITE Runoff Area=141,255 sf 6.86% Impervious Runoff Depth>1.87"
Flow Length=309' Tc=41.3 min CN=77 Runoff=3.74 cfs 0.506 af

Subcatchment 20S: E SITE Runoff Area=219,616 sf 5.68% Impervious Runoff Depth>1.80"
Flow Length=478' Tc=46.3 min CN=76 Runoff=5.25 cfs 0.755 af

Subcatchment 30S: SW SITE Runoff Area=771,905 sf 2.84% Impervious Runoff Depth>1.79"
Flow Length=1,362' Slope=0.0100 '/' Tc=56.8 min CN=76 Runoff=16.46 cfs 2.640 af

Subcatchment 31S: P ROAD Runoff Area=48,416 sf 22.99% Impervious Runoff Depth>1.98"
Flow Length=253' Tc=6.1 min CN=78 Runoff=2.71 cfs 0.183 af

Subcatchment 32S: P ROAD Runoff Area=94,227 sf 27.69% Impervious Runoff Depth>2.13"
Flow Length=227' Tc=6.3 min CN=80 Runoff=5.66 cfs 0.385 af

Subcatchment 40S: W SITE Runoff Area=714,111 sf 1.05% Impervious Runoff Depth>1.76"
Flow Length=860' Tc=91.5 min CN=76 Runoff=11.21 cfs 2.406 af

Subcatchment 50S: N SITE Runoff Area=405,878 sf 3.41% Impervious Runoff Depth>1.88"
Flow Length=325' Tc=31.9 min CN=77 Runoff=12.22 cfs 1.461 af

Subcatchment 51S: P ROAD Runoff Area=12,377 sf 41.45% Impervious Runoff Depth>2.47"
Tc=5.0 min CN=84 Runoff=0.88 cfs 0.058 af

Reach 31R: BARTLETT RD DITCH Avg. Flow Depth=0.30' Max Vel=3.02 fps Inflow=2.71 cfs 0.183 af
n=0.035 L=268.0' S=0.0373 '/' Capacity=139.17 cfs Outflow=2.54 cfs 0.183 af

Reach 32AR: SF AFTER LEVEL Avg. Flow Depth=0.29' Max Vel=0.33 fps Inflow=5.66 cfs 0.385 af
n=0.400 L=80.0' S=0.0750 '/' Capacity=84.16 cfs Outflow=4.91 cfs 0.382 af

Reach 32BR: OFFSITE POND Avg. Flow Depth=0.19' Max Vel=1.60 fps Inflow=4.91 cfs 0.382 af
n=0.050 L=103.0' S=0.0291 '/' Capacity=25.49 cfs Outflow=4.77 cfs 0.381 af

Reach 51R: SITE WETLAND Avg. Flow Depth=0.10' Max Vel=0.48 fps Inflow=0.68 cfs 0.058 af
n=0.080 L=392.0' S=0.0153 '/' Capacity=28.27 cfs Outflow=0.51 cfs 0.056 af

Reach 52R: SF AFTER LEVEL Avg. Flow Depth=0.12' Max Vel=0.19 fps Inflow=0.88 cfs 0.058 af
n=0.400 L=83.0' S=0.0723 '/' Capacity=14.54 cfs Outflow=0.68 cfs 0.058 af

Pond SP-1: LYNCH LANE Inflow=3.74 cfs 0.506 af
Primary=3.74 cfs 0.506 af

Pond SP-2: BARTLETT ROAD EAST Inflow=5.25 cfs 0.755 af
Primary=5.25 cfs 0.755 af

Pond SP-3: BARTLETT ROAD WEST Inflow=17.83 cfs 3.204 af
Primary=17.83 cfs 3.204 af

Pond SP-4: WESTERN SITE BOUNDARY Inflow=11.21 cfs 2.406 af
Primary=11.21 cfs 2.406 af

Pond SP-5: LYNCH LANE Inflow=12.57 cfs 1.517 af
Primary=12.57 cfs 1.517 af

Total Runoff Area = 55.275 ac Runoff Volume = 8.394 af Average Runoff Depth = 1.82"
95.52% Pervious = 52.800 ac 4.48% Impervious = 2.475 ac

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 10S: NE SITE Runoff Area=141,255 sf 6.86% Impervious Runoff Depth>2.49"
Flow Length=309' Tc=41.3 min CN=77 Runoff=4.97 cfs 0.672 af

Subcatchment 20S: E SITE Runoff Area=219,616 sf 5.68% Impervious Runoff Depth>2.40"
Flow Length=478' Tc=46.3 min CN=76 Runoff=7.03 cfs 1.008 af

Subcatchment 30S: SW SITE Runoff Area=771,905 sf 2.84% Impervious Runoff Depth>2.39"
Flow Length=1,362' Slope=0.0100 '/' Tc=56.8 min CN=76 Runoff=22.03 cfs 3.527 af

Subcatchment 31S: P ROAD Runoff Area=48,416 sf 22.99% Impervious Runoff Depth>2.61"
Flow Length=253' Tc=6.1 min CN=78 Runoff=3.57 cfs 0.241 af

Subcatchment 32S: P ROAD Runoff Area=94,227 sf 27.69% Impervious Runoff Depth>2.78"
Flow Length=227' Tc=6.3 min CN=80 Runoff=7.35 cfs 0.502 af

Subcatchment 40S: W SITE Runoff Area=714,111 sf 1.05% Impervious Runoff Depth>2.35"
Flow Length=860' Tc=91.5 min CN=76 Runoff=15.01 cfs 3.216 af

Subcatchment 50S: N SITE Runoff Area=405,878 sf 3.41% Impervious Runoff Depth>2.50"
Flow Length=325' Tc=31.9 min CN=77 Runoff=16.23 cfs 1.939 af

Subcatchment 51S: P ROAD Runoff Area=12,377 sf 41.45% Impervious Runoff Depth>3.16"
Tc=5.0 min CN=84 Runoff=1.12 cfs 0.075 af

Reach 31R: BARTLETT RD DITCH Avg. Flow Depth=0.35' Max Vel=3.28 fps Inflow=3.57 cfs 0.241 af
n=0.035 L=268.0' S=0.0373 '/' Capacity=139.17 cfs Outflow=3.35 cfs 0.241 af

Reach 32AR: SF AFTER LEVEL Avg. Flow Depth=0.33' Max Vel=0.36 fps Inflow=7.35 cfs 0.502 af
n=0.400 L=80.0' S=0.0750 '/' Capacity=84.16 cfs Outflow=6.46 cfs 0.499 af

Reach 32BR: OFFSITE POND Avg. Flow Depth=0.22' Max Vel=1.78 fps Inflow=6.46 cfs 0.499 af
n=0.050 L=103.0' S=0.0291 '/' Capacity=25.49 cfs Outflow=6.26 cfs 0.498 af

Reach 51R: SITE WETLAND Avg. Flow Depth=0.12' Max Vel=0.54 fps Inflow=0.88 cfs 0.074 af
n=0.080 L=392.0' S=0.0153 '/' Capacity=28.27 cfs Outflow=0.68 cfs 0.072 af

Reach 52R: SF AFTER LEVEL Avg. Flow Depth=0.14' Max Vel=0.21 fps Inflow=1.12 cfs 0.075 af
n=0.400 L=83.0' S=0.0723 '/' Capacity=14.54 cfs Outflow=0.88 cfs 0.074 af

Pond SP-1: LYNCH LANE Inflow=4.97 cfs 0.672 af
Primary=4.97 cfs 0.672 af

Pond SP-2: BARTLETT ROAD EAST Inflow=7.03 cfs 1.008 af
Primary=7.03 cfs 1.008 af

Pond SP-3: BARTLETT ROAD WEST Inflow=23.74 cfs 4.266 af
Primary=23.74 cfs 4.266 af

Pond SP-4: WESTERN SITE BOUNDARY Inflow=15.01 cfs 3.216 af
Primary=15.01 cfs 3.216 af

Pond SP-5: LYNCH LANE Inflow=16.78 cfs 2.011 af
Primary=16.78 cfs 2.011 af

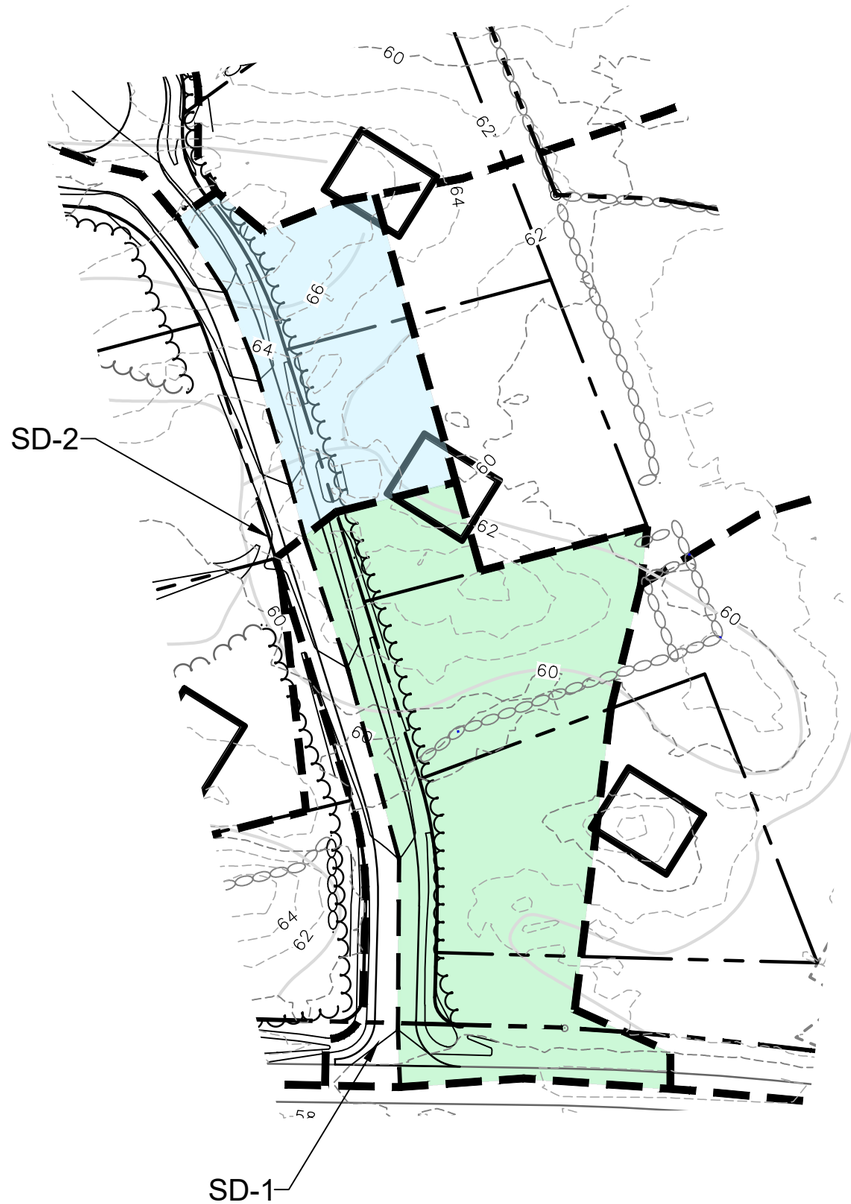
Total Runoff Area = 55.275 ac Runoff Volume = 11.180 af Average Runoff Depth = 2.43"
95.52% Pervious = 52.800 ac 4.48% Impervious = 2.475 ac

APPENDIX 5

CULVERT SIZING

SD-1			
	AREA (SF)	C	
BARTLETT ROAD	342	0.95	
PROPOSED ROAD IMP	3974	0.95	
PROPOSED ROAD LS	8160	0.2	
LOT IMP	2500	0.95	
LOT LS	7500	0.2	
WOODS	19420	0.18	
RATIONAL METHOD CALCULATION OF PEAK FLOW			
SUM (SF)	41896		
SUM (ACRES)	0.96		
WEIGHTED C	0.31		
INTENSITY (IN/HR) 25-YR STORM	5.1		
Q (CFS) = C i A	**1.53**		
MANNINGS CALCULATION TO DETERMINE PIPE CAPACITY			
SLOPE	0.0078		
PIPE DIAMETER (FT)	1.25		
PIPE AREA (SF)	1.23		
WETTED PERIMETER (FT)	3.93		
HYDRAULIC RADIUS (FT)	0.313		
N	0.012		
FULL FLOW CAPACITY (CFS)	**6.20**	**GREATER THAN 25-YR PEAK RATE**	

SD-2			
	AREA (SF)	C	
PROPOSED ROAD IMP	2163	0.95	
PROPOSED ROAD LS	1723	0.2	
LOT IMP	2500	0.95	
LOT LS	5000	0.2	
WOODS	4721	0.18	
RATIONAL METHOD CALCULATION OF PEAK FLOW			
SUM (SF)	16107		
SUM (ACRES)	0.37		
WEIGHTED C	0.41		
INTENSITY (IN/HR) 25-YR STORM	5.1		
Q (CFS) = C i A	**0.78**		
MANNINGS CALCULATION TO DETERMINE PIPE CAPACITY			
SLOPE	0.01		
PIPE DIAMETER (FT)	1.25		
PIPE AREA (SF)	1.23		
WETTED PERIMETER (FT)	3.93		
HYDRAULIC RADIUS (FT)	0.313		
N	0.012		
FULL FLOW CAPACITY (CFS)	**7.02**	**GREATER THAN 25-YR PEAK RATE**	



GRAPHIC SCALE

80 0 40 80 160

(IN FEET)
1 INCH = 80 FT.

TERRADYN CONSULTANTS, LLC
ADDRESS: 41 CAMPUS DRIVE, SUITE 301 NEW GLOUCESTER, ME 04260
PHONE: (207) 926-5111
WEB SITE: www.terradynconsultants.com
Civil Engineering | Land Surveying | Geomatics
Stormwater Design | Land Planning | Environmental Permitting

SHEET DESCRIPTION: CULVERT SIZING CALCULATIONS

PREPARED FOR: WASHBURN FARM SUBDIVISION

JOB NO: 22-145

DATE: 12/12/2023

SCALE: 1" = 80'

SHEET: 1

OF: 1

APPENDIX 6

HOUSEKEEPING

HOUSEKEEPING PERFORMANCE STANDARDS

FOR:

Washburn Farm Subdivision

Kittery, MAINE

Project Developer: Beachwood Development Fund
P.O. Box 261
Kennebunk, ME 04043

Responsible Party: Beachwood Development Fund
P.O. Box 261
Kennebunk, ME 04043

Introduction:

The contractor shall be responsible for maintaining proper housekeeping standards throughout the construction phase of the project. After the construction phase has been completed, the owner or operator of the project will be responsible.

Standards:

In accordance with the housekeeping performance standards required by MDEP chapter 500 stormwater regulations, the following standards shall be met:

1. **Spill prevention.** Controls must be used to prevent pollutants from being discharged from materials on site, including storage practices to minimize exposure of the materials to stormwater, and appropriate spill prevention, containment, and response planning and implementation.
2. **Groundwater protection.** During construction, liquid petroleum products and other hazardous materials with the potential to contaminate groundwater may not be stored or handled in areas of the site draining to an infiltration area. An "infiltration area" is any area of the site that by design or as a result of soils, topography and other relevant factors accumulates runoff that infiltrates into the soil. Dikes, berms, sumps, and other forms of secondary containment that prevent discharge to groundwater may be used to isolate portions of the site for the purposes of storage and handling of these materials.
3. **Fugitive sediment and dust.** Actions must be taken to ensure that activities do not result in noticeable erosion of soils or fugitive dust emissions during or after construction. Oil may not be used for dust control.

   Operations during wet months that experience tracking of mud off the site onto public roads should provide for sweeping of road areas at least once a week and prior to significant storm events. Where chronic mud tracking occurs, a stabilized construction entrance should be provided. Operations during dry months, that experience fugitive dust problems, should wet down the access roads once a week or more frequently as needed.
4. **Debris and other materials.** Litter, construction debris, and chemicals exposed to stormwater must be prevented from becoming a pollutant source.

   To prevent these materials from becoming a source of pollutants, construction and post-construction activities related to a project may be required to comply with applicable

provision of rules related to solid, universal, and hazardous waste, including, but not limited to, the Maine solid waste and hazardous waste management rules; Maine hazardous waste management rules; Maine oil conveyance and storage rules; and Maine pesticide requirements.

5. **Trench or foundation de-watering.** Trench de-watering is the removal of water from trenches, foundations, coffer dams, ponds, and other areas within the construction area that retain water after excavation. In most cases the collected water is heavily silted and hinders correct and safe construction practices. The collected water must be removed from the ponded area, either through gravity or pumping, and must be spread through natural wooded buffers or removed to areas that are specifically designed to collect the maximum amount of sediment possible, like a cofferdam sedimentation basin. Avoid allowing the water to flow over disturbed areas of the site. Equivalent measures may be taken if approved by the department.

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

APPENDIX 7

STORMWATER INSPECTION & MAINTENENACE

207.926.5111
info@terradynconsultants.com
www.terradynconsultants.com

WASHBURN FARM SUBDIVISION
KITTERY, MAINE
STORMWATER MANAGEMENT SYSTEM
INSPECTION & MAINTENANCE PLAN

Project Owner/Developer: Beachwood Development Fund
P.O. Box 261
Kennebunk, Maine 04043
(207) 985-3646

Responsible Party: Owner or Homeowners Association

Prepared By: Terradyn Consultants, LLC
565 Congress Street, Suite 201
Portland, ME 04101
(207) 926-5111

INTRODUCTION:

Regular inspection and maintenance of the entire stormwater management system is crucial to the long-term effectiveness of the system. The responsible party must provide regular inspection and maintenance of all permanent erosion control measures and stormwater management structures, establish any contract services required to implement the program, and keep records and a maintenance log book of inspection and maintenance activities. At a minimum, the inspection and maintenance activities outlined herein should be performed at the recommended intervals. A rainfall event of 1” in a 24 hour period would trigger a wet weather post-constrction inspection.

All measures must be maintained in effective operating condition. A person with knowledge of erosion and sedimentation practices, stormwater management, and the standards and conditions of all local, state and federal permits for the project shall conduct the inspections. The following areas, facilities, and measures must be inspected and identified deficiencies must be corrected.

INSPECTION TASKS

1. Inspect **vegetated areas**, particularly slopes and embankments, early in the growing season or after heavy rains to identify active or potential erosion problems. Replant bare areas or areas with sparse growth. Where rill erosion is evident, armor the area with an appropriate lining or divert the erosive flows to on-site areas able to withstand the concentrated flows.

2. Inspect **ditches, swales and other open stormwater channels** in the spring, late fall and after heavy rains to remove any obstructions to flow. Remove accumulated sediments and debris, control vegetated growth that could obstruct flow and repair any erosion of the ditch lining. Vegetated ditches must be mowed at least annually or otherwise maintained to control the growth of woody vegetation and maintain flow capacity. Any woody vegetation growing through riprap linings must also be removed. Repair any slumping side slopes as soon as practicable. If the ditch has a riprap lining, replace riprap on areas where any underlying filter fabric or underdrain gravel is showing through the stone or where stones have dislodged. The channel must receive routine maintenance to maintain capacity and prevent or correct any erosion of the channel's bottom or sideslopes.

3. Inspect **culverts** in the spring, in late fall, and after heavy rains to remove any obstructions to flow. Remove accumulated sediments and debris at the inlet, the outlet and within the culvert. Repair any erosion damage at the culvert’s inlet and outlet.

4. Clear accumulations of winter sand **along roadways** at least once a year, preferably in the spring. Accumulations on pavement may be removed by pavement sweeping. Accumulations of sand along road shoulders may be removed by grading excess sand to the pavement edge and removing it manually or by a front-end loader. Grading of gravel roads, or grading of the gravel shoulders of gravel or paved roads, must be routinely performed to ensure that stormwater drains immediately off the road surface to adjacent buffer areas or stable ditches, and is not impeded by accumulations of graded material on the road shoulder or by excavation of false ditches in the shoulder.

5. Inspect **resource and treatment buffers** once a year for evidence of erosion, concentrating flow, and encroachment by development. If flows are concentrating within a buffer, site grading, level spreaders, or ditch turn-outs must be used to ensure a more even distribution of flow into a buffer. Check down slope of all spreaders and turn-outs for erosion. If erosion is present, adjust or modify the spreader or turnout lip to ensure a better distribution of flow into a buffer. Clean-out any accumulation of sediment within the spreader bays or turn-out pools.

DOCUMENTATION

Keep a log (report) summarizing inspections, maintenance, and any corrective actions taken. The log must include the date on which each inspection or maintenance task was performed, a description of the inspection findings or maintenance completed, and the name of the inspector or maintenance personnel performing the task. If a maintenance task requires the clean-out of any sediments or debris, indicate where the sediment and debris was disposed after removal. The permittee shall retain a copy of the log for a period of at least five years from the completion of permanent stabilization.

The log attached at the end of this plan is from the *Maine Erosion and Sediment Control Best Management Practices (BMPs) Manual for Designers and Engineers (May 2016)*. The log may be used or adapted for this project.

ATTACHMENTS:
Stormwater Management Facilities Inspection & Maintenance Log

Stormwater Management Facilities
Post Construction Inspection & Maintenance Log
Washburn Farm Subdivision, Kittery, Maine

General Information:

Inspected by:	Date:	Weather:

Reason for Inspection: (Regular Inspection) (Major Rain Event, 1" in 24 hours)

BMP	Conditions Observed	Repairs Needed?
1. Vegetated Areas		
2. Ditches, Swales, Open Channels		
3. Culverts		
4. Stormwater Buffers		

Detailed Repair Notes:

BMP Type	Date	Description of Repairs & Sediment Disposal

Notes:
If a maintenance task requires the clean-out of any sediments or debris, indicate where the sediment and debris was disposed after removal. A copy of this log shall be retained for a period of at least five years from the completion of permanent stabilization.

Attachment 8

Vehicle Trip Generation Estimate

TERRADYN
CONSULTANTS, LLC

207.926.5111
info@terradynconsultants.com
www.terradynconsultants.com

Project #22-145

ESTIMATE OF TRAFFIC GENERATION

BARTLETT ROAD SUBDIVISION
77 BARTLETT ROAD, KITTERY, MAINE

The following traffic generation estimate is based on the Institute of Traffic Engineers (ITE) **Trip Generation Manual**, 11th Edition.

Land Use: Single Family Lot

Time Period	Trip Rate	# Dwelling Units	Trips
AM Peak Hour	0.75 Trips per lot	9	7
PM Peak Hour	0.99 Trips per lot	9	9

Attachment 9

Financial Capacity

Camden
NATIONAL BANK

August 2, 2023

Beachwood Development Fund LP
PO Box 261
Kennebunk

To whom it may concern:

This letter is to confirm you that Beachwood Development Fund LP and all of its subsidiaries, as of today's date August 2, 2023 have in their Camden National Bank Account have a balance over $500,00, and is good standing at Camden National Bank.

If you have any questions, please don't hesitate to give me a call.

Michelle A. Dow

Michelle A. Dow | Assistant Vice President
Kennebunk Banking Center Asst Manager
36 Portland Rd, PO Box 1130
Kennebunk, ME 04043
(207) 985-9222 ext 24260 (o)
(207) 230-4853 (m)
(207) 985-3233 (f)
NMLS# 456723
www.CamdenNational.com

Camden
NATIONAL BANK

Attachment 10

Correspondence with State Agencies

TERRADYN CONSULTANTS, LLC

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info@terradynconsultants.com
www.terradynconsultants.com

Project # 22-145

June 6, 2023

Kirk F. Mohney, Director
Maine Historic Preservation Commission
55 Capitol Street
65 State House Station
Augusta, ME 04333-0065

SUBJECT: BARTLETT ROAD REQUEST FOR PROJECT REVIEW

Dear Kirk:

Terradyn Consultants, LLC has been retained by Beachwood Development Fund LP to prepare subdivision plans and application materials for Bartlett Road Subdivision in Kittery, Maine. The proposed project includes 9 single family lots located on a 19.30 acre parcel. The project will include construction of 808 liner feet of road and installation of underground utilities and stormwater management infrastructure.

Attached is an excerpt of the USGS topographic map with the project site identified, as well as MHPC Building/Structure Forms for each of the two structures adjacent to the project that are believed to be more than fifty years old.

We are requesting that you review available information to determine if the project will have an impact on historic structures or archaeological resources. The information will be provided to the Town of Kittery as part of the application process.

Please contact me if you have any questions or if you need additional information to complete your review.

CLOSURE

If you have any questions or require additional information, please contact me at 207-632-9010 or mtw@terradynconsultants.com.

Sincerely,
TERRADYN CONSULTANTS, LLC

Michael E Wielandt

Michael Tadema-Wielandt, P.E.
Vice President

Based on the information submitted, I have concluded that there will be no historic properties affected by the proposed undertaking, as defined by Section 106 of the National Historic Preservation Act. Consequently, pursuant to 36 CFR 800.4(d)(1), no further Section 106 consultation is required unless additional resources are discovered during project implementation pursuant to 36 CFR 800.13.

Kirk F. Mohney

Kirk F. Mohney,
State Historic Preservation Officer
Maine Historic Preservation Commission

6/21/23
Date

Pineland
41 Campus Drive, Suite 301
New Gloucester, ME 04260

Portland
565 Congress Street, Suite 201
Portland, ME 04101

Auburn
95 Main Street, 2nd Floor
Auburn, ME 04210

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

JANET T. MILLS
GOVERNOR

AMANDA E. BEAL
COMMISSIONER

June 15, 2023

Michael Tadema-Wielandt
Terradyn Consultants
565 Congress Street, Suite 201
Portland, ME 04101

Via email: mtw@terradynconsultants.com

Re: Rare and exemplary botanical features in proximity to: #22-145, Bartlett Road Subdivision, Kittery, Maine

Dear Michael Tadema-Wielandt:

I have searched the Maine Natural Areas Program's Biological and Conservation Data System files in response to your request received June 12, 2023 for information on the presence of rare or unique botanical features documented from the vicinity of the project in Kittery, Maine. Rare and unique botanical features include the habitat of rare, threatened, or endangered plant species and unique or exemplary natural communities. Our review involves examining maps, manual and computerized records, other sources of information such as scientific articles or published references, and the personal knowledge of staff or cooperating experts.

Our official response covers only botanical features. For authoritative information and official response for zoological features you must make a similar request to the Maine Department of Inland Fisheries and Wildlife, 284 State Street, Augusta, Maine 04333.

According to the information currently in our Biological and Conservation Data System files, there are no rare botanical features documented specifically within the project area. This lack of data may indicate minimal survey efforts rather than confirm the absence of rare botanical features. You may want to have the site inventoried by a qualified field biologist to ensure that no undocumented rare features are inadvertently harmed.

If a field survey of the project area is conducted, please refer to the enclosed supplemental information regarding rare and exemplary botanical features documented to occur in the vicinity of the project site. The list may include information on features that have been known to occur historically in the area as well as recently field-verified information. While historic records have not been documented in several years, they may persist in the area if suitable habitat exists. The enclosed list identifies features with potential to occur in the area, and it should be considered if you choose to conduct field surveys.

This finding is available and appropriate for preparation and review of environmental assessments, but it is not a substitute for on-site surveys. Comprehensive field surveys do not exist for all natural areas in Maine, and in the absence of a specific field investigation, the Maine Natural Areas Program cannot provide a definitive statement on the presence or absence of unusual natural features at this site.

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

PHONE: (207) 287-8044
WWW.MAINE.GOV/DACF/MNAP

The Maine Natural Areas Program (MNAP) is continuously working to achieve a more comprehensive database of exemplary natural features in Maine. We would appreciate the contribution of any information obtained should you decide to do field work. MNAP welcomes coordination with individuals or organizations proposing environmental alteration or conducting environmental assessments. If, however, data provided by MNAP are to be published in any form, the Program should be informed at the outset and credited as the source.

The Maine Natural Areas Program has instituted a fee structure of $75.00 an hour to recover the actual cost of processing your request for information. You will receive an invoice for $150.00 for two hours of our services.

Thank you for using MNAP in the environmental review process. Please do not hesitate to contact me if you have further questions about the Natural Areas Program or about rare or unique botanical features on this site.

Sincerely,

Lisa St. Hilaire

Lisa St. Hilaire | Information Manager | Maine Natural Areas Program
207-287-8044 | lisa.st.hilaire@maine.gov

Rare and Exemplary Botanical Features within 4 miles of
Project: #22-145, Bartlett Road Subdivision, Kittery, ME

Common Name	State Status	State Rank	Global Rank	Date Last Observed	Occurrence Number	Habitat
Allegheny Vine						
	E	S1	G4	2013-10-08	15	Rocky summits and outcrops (non-forested, upland),Dry
American Sea-blite						
	T	S2	G5	1905-08-18	6	Tidal wetland (non-forested, wetland)
	T	S2	G5	2014-07-30	11	Tidal wetland (non-forested, wetland)
Beach Plum						
	E	S1	G4	1941-09-05	16	Rocky coastal (non-forested, upland)
Bitternut Hickory						
	E	S1	G5	1995-02-02	1	Hardwood to mixed forest (forest, upland)
Blunt Mountain-mint						
	PE	SH	G5	1916-08-09	3	Hardwood to mixed forest (forest, upland)
Bottlebrush Grass						
	SC	S3	G5	2018-07-13	28	Hardwood to mixed forest (forest, upland)
Bulbous Bitter-cress						
	SC	S1	G5	2013-05-31	1	Forested Wetland
Central Hardwoods Oak Forest						
		S3	GNR	2021-06-07	1	
Coastal Dune-marsh Ecosystem						
		S3	GNR	2014-07-30	2	
Dune Grassland						
		S2	G4?	1992-08-10	4	
Dwarf Glasswort						
	T	S1	G5	1905-08-18	1	Tidal wetland (non-forested, wetland)
	T	S1	G5	2000-08-08	6	Tidal wetland (non-forested, wetland)

Dwarf Glasswort						
	T	S1	G5	2001-09-12	7	Tidal wetland (non-forested, wetland)
Estuary Bur-marigold						
	SC	S3	G4	1936-07	10	Tidal wetland (non-forested, wetland)
Featherfoil						
	T	S1	G4	2017-05	12	Open water (non-forested, wetland),Forested wetland
Low Sedge Fen						
		S3	GNR	2013-06-28	18	
Mountain-laurel						
	SC	S2	G5	1993	29	Conifer forest (forest, upland),Hardwood to mixed forest
Northern Blazing Star						
	T	S1	G5?T3	1922	7	Dry barrens (partly forested, upland)
Northern Wild Comfrey						
	E	S1	G5T4T5	2011-05-10	12	Forested wetland,Hardwood to mixed forest (forest,
Oak - Hickory Forest						
		S1	G4G5	2013-06-28	2	
Pale Green Orchis						
	SC	S2	G4?T4Q	1916-08-19	25	Non-tidal rivershore (non-forested, seasonally wet),Open
Pocket Swamp						
		S2	G5	2013-05-31	22	
Rue-anemone						
	E	S1	G5	2003-05-23	2	Hardwood to mixed forest (forest, upland)
Salt-hay Saltmarsh						
		S3	G5	2014-07-30	7	
		S3	G5	2010-07-07	19	
Saltmarsh False-foxglove						
	SC	S3	G5	1960	4	Tidal wetland (non-forested, wetland)
	SC	S3	G5	1982	11	Tidal wetland (non-forested, wetland)
	SC	S3	G5	2010-10-22	19	Tidal wetland (non-forested, wetland)

Saltmarsh False-foxglove					
SC	S3	G5	2000-08-08	25	Tidal wetland (non-forested, wetland)
SC	S3	G5	2011-10-21	37	Tidal wetland (non-forested, wetland)
SC	S3	G5	2011-10-21	38	Tidal wetland (non-forested, wetland)
Sassafras					
SC	S2	G5	1991-08-01	5	Hardwood to mixed forest (forest, upland),Old field/
SC	S2	G5	1905-08-18	11	Hardwood to mixed forest (forest, upland),Old field/
SC	S2	G5	2009-09-10	27	Hardwood to mixed forest (forest, upland),Old field/
Scarlet Oak					
E	S1	G5	2006-08-02	7	Hardwood to mixed forest (forest, upland)
Sharp-lobed Hepatica					
PE	SX	G5T5	1896-08-18	2	Hardwood to mixed forest (forest, upland)
Slender Knotweed					
PE	SH	G5	1896-08-26	2	Dry barrens (partly forested, upland)
Spicebush					
SC	S3	G5	2006-08-03	2	Forested wetland
SC	S3	G5	2001-07-20	19	Forested wetland
SC	S3	G5	2009-07-14	20	Forested wetland
Spotted Wintergreen					
T	S2	G5	2000	21	Conifer forest (forest, upland),Hardwood to mixed forest
T	S2	G5	2015-10-17	23	Conifer forest (forest, upland),Hardwood to mixed forest
T	S2	G5	2005-04-10	25	Conifer forest (forest, upland),Hardwood to mixed forest
T	S2	G5	2013-05-22	35	Conifer forest (forest, upland),Hardwood to mixed forest
Stout Smartweed					
PE	SH	G4G5	1978-08-29	1	
Swamp White Oak					
T	S1	G5	1989-04	7	Forested wetland
Tall Beak-rush					
E	S1	G4	1938-09-08	1	Open wetland, not coastal nor rivershore (non-forested,

Tidal Marsh Estuary Ecosystem					
	S3	GNR	2009	5	
Water-plantain Spearwort					
PE	SH	G4	1907-07-08	4	Open water (non-forested, wetland)
PE	SH	G4	1887-09-08	6	Open water (non-forested, wetland)
White Oak - Red Oak Forest					
	S3	GNR	1995-07-27	3	
	S3	GNR	2012-06-06	11	
White Vervain					
SC	S1?	G5	1905-08	1	Hardwood to mixed forest (forest, upland),Open wetland,
SC	S1?	G5	1887-08-25	4	Hardwood to mixed forest (forest, upland),Open wetland,
White-topped Aster					
E	S1	G5	1891	3	Dry barrens (partly forested, upland)
Wild Coffee					
E	S1	G5	2018-07-13	1	Non-tidal rivershore (non-forested, seasonally
E	S1	G5	1961-07-25	6	Non-tidal rivershore (non-forested, seasonally
Wild Garlic					
SC	S2	G5	1983	9	Forested wetland,Hardwood to mixed forest (forest,
SC	S2	G5	1990-07-31	19	Forested wetland,Hardwood to mixed forest (forest,

Date Exported: 2023-06-15 15:36

Conservation Status Ranks

State and Global Ranks: This ranking system facilitates a quick assessment of a species' or habitat type's rarity and is the primary tool used to develop conservation, protection, and restoration priorities for individual species and natural habitat types. Each species or habitat is assigned both a state (S) and global (G) rank on a scale of critically imperiled (1) to secure (5). Factors such as range extent, the number of occurrences, intensity of threats, etc., contribute to the assignment of state and global ranks. The definitions for state and global ranks are comparable but applied at different geographic scales; something that is state imperiled may be globally secure.

The information supporting these ranks is developed and maintained by the Maine Natural Areas Program (state ranks) and NatureServe (global ranks).

Rank	Definition
S1 **G1**	**Critically Imperiled** – At very high risk of extinction or elimination due to very restricted range, very few populations or occurrences, very steep declines, very severe threats, or other factors.
S2 **G2**	**Imperiled** – At high risk of extinction or elimination due to restricted range, few populations or occurrences, steep declines, severe threats, or other factors.
S3 **G3**	**Vulnerable** – At moderate risk of extinction or elimination due to a fairly restricted range, relatively few populations or occurrences, recent and widespread declines, threats, or other factors.
S4 **G4**	**Apparently Secure** – At fairly low risk of extinction or elimination due to an extensive range and/or many populations or occurrences, but with possible cause for some concern as a result of local recent declines, threats, or other factors.
S5 **G5**	**Secure** – At very low risk of extinction or elimination due to a very extensive range, abundant populations or occurrences, and little to no concern from declines or threats.
SX **GX**	**Presumed Extinct** – Not located despite intensive searches and virtually no likelihood of rediscovery.
SH **GH**	**Possibly Extinct** – Known from only historical occurrences but still some hope of rediscovery.
S#S# **G#G#**	**Range Rank** – A numeric range rank (e.g., S2S3 or S1S3) is used to indicate any range of uncertainty about the status of the species or ecosystem.
SU **GU**	**Unrankable** – Currently unrankable due to lack of information or due to substantially conflicting information about status or trends.
GNR **SNR**	**Unranked** – Global or subnational conservation status not yet assessed.
SNA **GNA**	**Not Applicable** – A conservation status rank is not applicable because the species or ecosystem is not a suitable target for conservation activities (e.g., non-native species or ecosystems.
Qualifier	**Definition**
S#? **G#?**	**Inexact Numeric Rank** – Denotes inexact numeric rank.
Q	**Questionable taxonomy that may reduce conservation priority** – Distinctiveness of this entity as a taxon or ecosystem type at the current level is questionable. The "Q" modifier is only used at a global level.
T#	**Infraspecific Taxon (trinomial)** – The status of infraspecific taxa (subspecies or varieties) are indicated by a "T-rank" following the species' global rank.

State Status: Endangered and Threatened are legal status designations authorized by statute. Please refer to MRSA Title 12, §544 and §544-B.

Status	Definition
E	**Endangered** – Any native plant species in danger of extinction throughout all or a significant portion of its range within the State or Federally listed as Endangered.
T	**Threatened** – Any native plant species likely to become endangered within the foreseeable future throughout all or a significant portion of its range in the State or Federally listed as Threatened.
SC	**Special Concern** – A native plant species that is rare in the State, but not rare enough to be considered Threatened or Endangered.
PE	**Potentially Extirpated** – A native plant species that has not been documented in the State in over 20 years, or loss of the last known occurrence.

Element Occurrence (EO) Ranks: Quality assessments that designate viability of a population or integrity of habitat. These ranks are based on size, condition, and landscape context. Range ranks (e.g., AB, BC) and uncertainty ranks (e.g., B?) are allowed. The Maine Natural Areas Program tracks all occurrences of rare plants and natural communities/ecosystems (S1-S3) as well as exemplary common natural community types (S4-S5 with EO ranks A/B).

Rank	Definition
A	**Excellent** – Excellent estimated viability/ecological integrity.
B	**Good** – Good estimated viability/ecological integrity.
C	**Fair** – Fair estimated viability/ecological integrity.
D	**Poor** – Poor estimated viability/ecological integrity.
E	**Extant** – Verified extant, but viability/ecological integrity not assessed.
H	**Historical** – Lack of field information within past 20 years verifying continued existence of the occurrence, but not enough to document extirpation.
X	**Extirpated** – Documented loss of population/destruction of habitat.
U	**Unrankable** – Occurrence unable to be ranked due to lack of sufficient information (e.g., possible mistaken identification).
NR	**Not Ranked** – An occurrence rank has not been assigned.

Visit the Maine Natural Areas Program website for more information
http://www.maine.gov/dacf/mnap

maine DEPARTMENT OF Agriculture Conservation & Forestry
NATURAL AREAS

Attachment 11

Abutter Notices

150 foot Abutters List Report

Kittery, ME
August 03, 2023

Subject Property:

Parcel Number:	62-26	Mailing Address:	BEACHWOOD DEVELOPMENT FUND LP
CAMA Number:	62-26		BEACHWOOD DEVELOPMENT FUND LP
Property Address:	77 BARTLETT ROAD		PO BOX 261
			KENNEBUNK, ME 04043

Abutters:

Parcel Number:	62-18	Mailing Address:	REED, TED RAY REED, TED RAY
CAMA Number:	62-18		27 OLD GORDON ROAD
Property Address:	PINKHAMS LANE		BRENTWOOD, NH 03833-6213
Parcel Number:	62-19	Mailing Address:	ICHOR REV. TRUST ICHOR REV. TRUST
CAMA Number:	62-19		P.O. BOX 102
Property Address:	57 BARTLETT ROAD		KITTERY, ME 03904
Parcel Number:	62-23	Mailing Address:	PIERCE, PAUL R. PIERCE, PAUL R.
CAMA Number:	62-23		5361 MILL DAM ROAD
Property Address:	65 BARTLETT ROAD		WAKE FOREST, NC 27587
Parcel Number:	62-23-1	Mailing Address:	KIMBALL, ROBERT W KIMBALL,
CAMA Number:	62-23-1		ROBERT W
Property Address:	67 BARTLETT ROAD		67 BARTLETT ROAD
			KITTERY POINT, ME 03905-5640
Parcel Number:	62-24A	Mailing Address:	POWERS, COREY POWERS, COREY
CAMA Number:	62-24A		78 BARTLETT ROAD
Property Address:	78 BARTLETT ROAD		KITTERY POINT, ME 03905
Parcel Number:	62-26A	Mailing Address:	RECU TR, KENNETH S RECU TR,
CAMA Number:	62-26A		KENNETH S
Property Address:	69 BARTLETT ROAD		KENNETH S RECU TRUST 69 BARTLETT ROAD
			KITTERY POINT, ME 03905-5640
Parcel Number:	62-29	Mailing Address:	PAARLBERG, WILLIAM T PAARLBERG,
CAMA Number:	62-29		WILLIAM T
Property Address:	82 BARTLETT ROAD		82 BARTLETT ROAD
			KITTERY POINT, ME 03905-5636
Parcel Number:	62-29-1	Mailing Address:	NILES, KEVIN A NILES, KEVIN A
CAMA Number:	62-29-1		80 BARTLETT ROAD
Property Address:	80 BARTLETT ROAD		KITTERY POINT, ME 03905-5636
Parcel Number:	62-29-2	Mailing Address:	BARAN, ADAM W BARAN, ADAM W
CAMA Number:	62-29-2		84 BARTLETT ROAD
Property Address:	84 BARTLETT ROAD		KITTERY POINT, ME 03905

150 foot Abutters List Report

Kittery, ME
August 03, 2023

Parcel Number:	62-29-3	Mailing Address:	MICHAEL LANDGARTEN 2012 REV. TRUST MICHAEL LANDGARTEN 2012 REV. TRUST 86 BARTLETT ROAD KITTERY POINT, ME 03905
CAMA Number:	62-29-3		
Property Address:	86 BARTLETT ROAD		
Parcel Number:	62-30	Mailing Address:	MARTIN, HENRY I MARTIN, HENRY I 88 BARTLETT ROAD KITTERY POINT, ME 03905-5636
CAMA Number:	62-30		
Property Address:	88 BARTLETT ROAD		
Parcel Number:	68-4A-1	Mailing Address:	BLAKE, SHARON JEAN BLAKE, SHARON JEAN 4 LYNCH LANE KITTERY POINT, ME 03905
CAMA Number:	68-4A-1		
Property Address:	4 LYNCH LANE		
Parcel Number:	68-4A-2	Mailing Address:	PELKEY, ROY N PELKEY, ROY N 6 LYNCH LANE KITTERY POINT, ME 03905
CAMA Number:	68-4A-2		
Property Address:	6 LYNCH LANE		
Parcel Number:	68-4A-23	Mailing Address:	KITTERY LAND TRUST INC KITTERY LAND TRUST INC PO BOX 467 KITTERY, ME 03904
CAMA Number:	68-4A-23		
Property Address:	10 LYNCH LANE		
Parcel Number:	68-4A-3	Mailing Address:	FULLER, TR, MICHAEL FULLER, TR, MICHAEL 7 LYNCH LANE KITTERY POINT, ME 03905
CAMA Number:	68-4A-3		
Property Address:	7 LYNCH LANE		
Parcel Number:	68-4A-4	Mailing Address:	HERSCOTT, MICHAEL JOSEPH HERSCOTT, MICHAEL JOSEPH 81 BARTLETT ROAD KITTERY POINT, ME 03905
CAMA Number:	68-4A-4		
Property Address:	81 BARTLETT ROAD		
Parcel Number:	68-4A-8	Mailing Address:	FULLER, TR, MICHAEL FULLER, TR, MICHAEL 7 LYNCH LANE KITTERY POINT, ME 03905
CAMA Number:	68-4A-8		
Property Address:	9 LYNCH LANE		
Parcel Number:	68-4A-9	Mailing Address:	MAY, GRETCHEN MAY, GRETCHEN 11 LYNCH LANE KITTERY POINT, ME 03905
CAMA Number:	68-4A-9		
Property Address:	11 LYNCH LANE		
Parcel Number:	68-7	Mailing Address:	MCINTIRE, KYLIE R. MCINTIRE, KYLIE R. 90 BARTLETT ROAD KITTERY POINT, ME 03905
CAMA Number:	68-7		
Property Address:	90 BARTLETT ROAD		

TERRADYN CONSULTANTS, LLC

207.926.5111
info@terradynconsultants.com
www.terradynconsultants.com

August 3, 2023

Project #22-145

Abutting Property Owner:

This is to inform you that Terradyn Consultants, LLC plans to submit a Preliminary Subdivision Application to the Kittery Planning Board for a 9-lot residential subdivision on the parcel located at 77 Bartlett Road in Kittery on behalf of the property owner, Beachwood Development Fund, LP.

The application will be available for review at the Planning and Development Department located in Town Hall at 200 Rogers Road. You can contact the Planning and Development department for more information on the application review process.

Sincerely,
TERRADYN CONSULTANTS, LLC

Michael Tadema-Wielandt, P.E.
Vice President

Pineland
41 Campus Drive, Suite 301
New Gloucester, ME 04260

Portland
565 Congress Street, Suite 201
Portland, ME 04101

Auburn
95 Main Street, 2nd Floor
Auburn, ME 04210

TOWN OF KITTERY MAINE
TOWN PLANNING AND DEVELOPMENT DEPARTMENT

200 Rogers Road, Kittery, Maine 03904
PHONE: (207) 475-1323
Fax: (207) 439-6806
www.kittery.org

APPLICATION: SUBDIVISION PLAN REVIEW

FEE FOR REVIEW:	☑ **$500. 00 PLUS**	☑ **$50.00/LOT OR DWELLING UNIT**	☐ **Minor Subdivision: not more than 4 lots** ☑ **Major Subdivision: 5 or more lots**	**Fee Paid:** $_____ Date: _____ **Escrow Fee Paid:** $_____ Date: _____

PROPERTY DESCRIPTION	**Parcel ID**	**Map**	62	**Lot**	26	**Zone(s): Base:** R-RL **Overlay** OZ-RP **MS4** Yes___No ✓		**Total Land Area**	19.11 acres
	Physical Address	77 Bartlett Road							

PROPERTY OWNER'S INFORMATION	**Name**	Beachwood Development Fund LP	**Mailing Address**	P.O. Box 261 Kennebunk ME 04043
	Phone	207-985-3646		
	Fax			
	Email	geoff@bowleybuilders.com		
APPLICANT'S AGENT INFORMATION	**Name**	Michael Tadema-Wielandt, P.E.	**Name of Business**	Terradyn Consultants, LLC
	Phone	207-632-9010	**Mailing Address**	565 Congress Street Suite 201 Portland ME 04101
	Fax			
	Email	mtw@terradynconsultants.com		

PROJECT DESCRIPTION

Existing Use(s): The existing parcel is wooded with pockets of freshwater wetlands, and contains a single family residential home with a paved driveway accessing Bartlett Road. An old cemetery is located centrally to the southern half of the site.

Number of Proposed Lots	9	**Subdivision Name**	Bartlett Road Subdivision

Proposed Subdivision:

Design: (check)	___ **Conventional**	**Responsibilities: (check)**	___ **Total Development**	___ **Landscaping**
	✓ **Cluster Development**		___ **Other**	✓ **Road**
Ownership: (check)	✓ **Fee- Simple**		✓ **Post-Construction Storm Water Runoff System Maintenance**	
	___ **Condominium**			
Homeowner's Association	✓ **YES** ___ **NO**			

WAIVER REQUEST (Submittal Information or Development Standard)		
Waivers	**Ordinance Section**	**Describe why this request is being made**.
	****EXAMPLE**** 16.32.560 (B)- OFFSTREET PARKING.	****EXAMPLE**** Requesting a waiver of this ordinance since the proposed professional offices have a written agreement with the abutting Church owned property to share parking.

Related Kittery Land Use and Development Code Provisions:

16.10.8.2.5 Conditions or Waivers.
Conditions required by the Planning Board at the final plan review phase must have been met before the final plan may be given final approval unless so specified in the condition or specifically waived, upon written request by the applicant, by formal Planning Board action wherein the character and extent of such waivers which may have been requested are such that they may be waived without jeopardy to the public health, safety and general welfare.

16.7.4.1 Objectives Met. In granting modifications or waivers, the Planning Board must require such conditions as will, in its judgment, substantially meet the objectives of the requirements so waived or modified.

ABUTTER NOTIFICATION

16.10.5.1.1. Preliminary Plan Application Filing and Completeness Review. … The application must be accompanied by a Plan and the required fee together with a certification the applicant has notified abutters by mail of the filing of the Plan application for approval.

Submitted Application must include a list showing the names and addresses of the abutters notified and date mailed.

The Abutter Notice must include a copy of page one and where applicable page 2 of a signed Application.

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's~~ Agent **Signature:** **Date:**	Michael E Mitt 8/3/2023	**~~Owner's~~** Agent **Signature:** **Date:**	Michael E Mitt 8/3/2023

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08/03/2023

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Attachment 12

Draft HOA Documents

Declaration of Covenants, Conditions, Restrictions, And Easements

For

Washburn Farm

KITTERY, MAINE

77 Bartlett Road, LLC
Declarant

December 28, 2023

DECLARATION OF COVENANTS, CONDITIONS, RESTRICTIONS, AND EASEMENTS FOR WASHBURN FARM, KITTERY, MAINE

This Declaration of Covenants, Conditions, Restrictions, and Easements for Washburn Farm, Kittery, Maine (the "Declaration") is made this 12th day of November 2023, by 77 Bartlett Road, LLC, a Maine limited liability company with an address of P.O. Box 261, Kennebunk, Maine 04043 (the "Declarant").

WITNESSETH:

WHEREAS, the Declarant is the owner of certain parcels of land located in Kittery, Maine, being the same premises as conveyed to Declarant by Shirley Washburn by warranty deed dated August 29, 2022, and recorded in the York County Registry of Deeds in Book 19102, Page 372; and as on plan entitled "Washburn Farm Subdivision" drawn by Terradyn Consultants, LLC, dated xxx, 2023, revised through xxxxx x, 2023, and recorded in the York County Registry of Deeds in Plan Book xxx, ___ Page xx (the "Plan"), said parcels of land as shown on the Plan collectively referred to herein as the "Property"; and

WHEREAS, the Declarant is developing the parcels of land owned by it and shown on the Plan and has deemed it desirable to create a non-profit corporation to which should be delegated and assigned the authority to: (a) carry out certain responsibilities relating to the common facilities and amenities described herein and (b) administer and enforce the covenants, conditions, restrictions, easements, charges and liens set forth herein; and

NOW, THEREFORE, the Declarant declares that the Property is and shall be held, transferred, sold, conveyed and occupied subject to these covenants, conditions, restrictions, easements, charges and liens hereinafter set forth.

ARTICLE 1
DEFINITIONS

The following words, when used in this Declaration or any amendment thereto (unless the context shall prohibit) shall have the following meanings:

1.01. "Articles" shall mean and refer to the Articles of Incorporation which are or shall be filed in the Office of the Maine Secretary of State and which establish the Association.

1.02. "Assessment' shall mean a share of the funds required and which are to be assessed against an Owner and Lot for the payment of Common Expenses by the Association.

1.03. "Association" shall mean and refer to **Washburn Farm Owners Association**, a non-profit corporation organized and existing under the laws of the State of Maine. During the Declarant Control Period, the term "Association" shall be interchangeable in this document with "Declarant."

1.04. "Board" shall mean and refer to the Board of Directors of the Association.

1.05. "By-Laws" shall mean and refer to the By-Laws of the Association and any amendments thereto.

1.06. "Common Expenses" shall mean the expenses for which each such owner is liable, which shall include, but not be limited to:

(a) expenses of maintaining, on a year-round basis, the subdivision road known as Washburn Farm Lane (as long as it is a private road),

(b) expenses of removing refuse from the Property,

(c) expenses of maintaining and landscaping the Common Property

(d) expenses of maintaining and repairing the Stormwater Management Facilities, including any detention pond(s), storm drainage system or other drainage system either now or in the future, in accordance with all State and local approvals and in accordance with the Maintenance Plan of Stormwater Management Facilities, entitled "Inspection, Maintenance, and Housekeeping Plan," attached hereto as Exhibit A and incorporated herein by reference.

(e) any taxes assessed on property owned by the Association,

(f) insurance as taken out by the Association and

(g) incidental costs of administration and enforcement of the covenants, conditions, restrictions, easements, charges and liens described herein.

1.07. "Common Property" shall mean the certain real and personal property designated for ownership by the Association and dedicated to the common use of owners, including, but not limited to Washburn Farm Lane (as long as it is a private road), common drainage facilities (if any), improvements installed by the Declarant pursuant to its reserved rights under Article 7, and common areas and open space owned by the Association.

1.08. "Declarant" shall mean and refer to 77 Bartlett Road, LLC, or its successors or assignees.

1.09. "Declarant Control Period" shall mean that period of time during which the Declarant owns any of the Property.

1.10. "Lot" shall mean and refer to the improved or unimproved residential numbered lots as shown on the Plan.

1.11. "Member" shall mean and refer to all Owners who shall be members of the Association in

accordance with the provisions of Article 6 hereof.

1.12. "Owner" shall mean and refer to the record owner, whether one or more persons or entities, of the fee simple title to any Lot, but, notwithstanding any applicable theory of title, the term Owner shall not include any mortgagee of a Lot until the mortgagee has acquired fee simple title pursuant to foreclosure or any proceedings in lieu of foreclosure.

1.13. "Plan" shall mean "Washburn Farm Subdivision" drawn by Terradyn Consultants LLC dated xxxxx , 2023 and recorded in the York County Registry of Deeds in Plan Book ___ Page .

1.14. "Property" shall mean those certain parcels of land owned by the Declarant and shown on the Plan.

ARTICLE 2
TERM OF DECLARATION

2.01. Term. This Declaration shall run with, apply to, and bind the Property in perpetuity and shall inure to the benefit of and be enforceable by the Declarant and Owners, as appropriate, and their respective legal representative, heirs, successors and assignees, except that the covenants and restrictions in Article 3 shall have an initial term of 20 years from the date this Declaration is recorded in the York County Registry of Deeds, at the end of which such covenants and restrictions shall be automatically extended for successive periods of 5 years, unless at least two-thirds of the Owners vote to terminate any or all of said covenants and restrictions at a duly noticed and held meeting in compliance with the provisions of the By-Laws of the Association.

2.02. Persons Bound. Unless otherwise indicated, all covenants, conditions restrictions, easements, charges and liens herein are imposed on, charged on, and run with the land and bind not only the original purchaser of the Lots in the Property, but also their assignees, guarantees, legal representative, heirs and mortgagees. Failure to specifically refer to and include or incorporate this Declaration in deeds to Lots in the Property shall not in any manner affect the validity and effectiveness of this Declaration upon any Lot made subject thereto.

ARTICLE 3
GENERAL COVENANTS AND RESTRICTIONS ON PROPERTY LOTS

3.01. No Lot shall be further subdivided, except that lot line revisions shall be permitted so long as they do not result in additional lots or dwelling units. Any such revision is required to be approved by the Declarant during the Declarant Control Period.

3.02. Each Lot shall contain only 1 single-family residential structure, which may include 1 dwelling and 1 garage building except that suitable garden structures (including greenhouses), utility sheds, swimming pools and such additional structures as shall from time to time be used in connection with single family houses situated in similar neighborhoods shall also be permitted. Attached or detached guest quarters may be permitted if in compliance with all state and local regulations, but subject to review pursuant to section 3.04. Tennis courts shall only be

allowed if located and constructed to minimize noise and must be approved by the Declarant or Association as the case may be pursuant to section 3.04. No building or structure of any kind except for the aforementioned residential structures shall be erected, used, maintained, or allowed to stand on a Lot. Each residence shall contain a minimum of **1,500** square feet of interior climate-controlled space excluding porches, garages and finished basement or attic. Any home builder approved for construction must carry a minimum of $1,000,000 in liability insurance.

3.03 a) Declarant reserves the right to require lot owners to use its preferred builder or builders to construct their dwellings on all lots in the subdivision. Prior to execution of any contract for construction of a dwelling, each lot owner shall provide Declarant with the construction plans and specifications for the lot owner's dwelling and shall entertain a bid from the preferred builder(s) for review and discussion and shall give the bid reasonable consideration before executing a contract for construction of a dwelling on their lot. In the event that a lot owner elects not to use the preferred builder(s), such lot owner shall pay the sum of $20,000.00 to Declarant in consideration for a waiver of Declarant's right hereunder. Declarant may waive the $20,000.00 payment in the event the preferred builder(s) determines that it cannot commence construction on the lot owner's dwelling within ninty (90) days.

b) In the event that the preferred builder(s) does not construct the dwelling on a particular lot, the owner of such lot shall deposit the sum of $10,000.00 in escrow with Declarant's listing broker or make some other arrangement agreeable to Declarant, to ensure completion of landscaping in accordance with said lot owner's approved landscaping plan. In the event the escrow is required, said monies may be released, in Declarant's discretion, to pay for landscaping, or may be held by Declarant until landscape is complete and then paid to said lot owner. The $10,000.00 shall be paid at or before the time said lot owner or its contractor obtains a building permit to begin construction of the dwelling. Said monies shall be deposited in a non-interest bearing account.

c) Any builder approved to construct a dwelling, including the preferred builder(s), shall carry liability insurance with minimum limits of $1,000,000.00 and will, prior to commencement of construction, provide to declarant a certificate of insurance evidencing such coverage.

3.04. No residence, garage or other structure shall be erected nor shall any portion of a Lot be cleared until plans have been submitted to and approved by the Declarant or (after turnover of control pursuant to section 6.08) the Association. Owners shall submit to the Declarant or Association (as the case may be) site development plans that show the location of new structures, driveways, and other paved areas, and, after initial construction, any exterior modification, addition or deletion of any such structure, and any new proposed structures. Within 10 business days of the submission of any plan(s), the Declarant/Association shall certify in recordable form that: (1) the plan(s) are approved; or (2) the plan(s) are not approved as submitted, in which case the Declarant/Association shall give the Owner written notice of suggestions for modification whereby such plan may be made acceptable.

Plan submittal will include a site plan, list of materials to be used, exterior colors, landscaping of land and exterior design of any structure with proposed changes to the exterior.

a) Removal of flora shall be in accordance with section 3.12 and shall be minimized to

protect the privacy of other Owners.

b) The exterior of any structure shall be finished in brick or stone masonry, wood clapboards or wood shingles only.
c) The use of artificial brick or stone composition, pressure treated wood, pre-cast steps, vinyl siding (excluding vinyl/pvc trim for windows, doors, soffits, fences and other miscellaneous uses), "texture 111" or their equivalents shall not be permitted.
d) All buildings, including accessory buildings, shall be set back 20 feet from the front lot line, 10 feet from the side lot lines, and 15 feet from the rear lot lines.
e) Fireplace boxes and exterior chimneys shall be composed of brick or real stone only, however, for roof top chimneys cultured stone will be allowed.
f) Above ground pools, portable or stationary basketball goals, satellite dishes greater than 24 inches in diameter and/or visible from the street and antennas are prohibited.
g) Lots shall be landscaped in reasonable conformity with other Lots in the Property.

Once construction is commenced, work must be prosecuted diligently and must be completed within a reasonable time, and in any event, within 2 years from commencement of said work. Any blasting or use of other explosives must be in accordance with Town of Kittery processes and notifications. In addition, all Owners must be notified prior to the use of any explosives. "Completion" shall include finished grading and loaming, if applicable to the work undertaken, including the original construction of any residence. Landscaping of a new or renovated residence must be completed within 120 days from the date of certificate of occupancy, weather permitting. These criteria shall be construed by the Declarant/Association to effectuate the intent of perpetuating a friendly and accommodating neighborhood.

3.05. Lot grades shall not be changed in such a way as to divert the natural flow of water onto adjoining Lots, roads and common drainage systems, with a resulting adverse effect thereon.

3.06. No building or structure shall be erected or used, and no lot shall be used, except in conformity with all land use requirements of the State of Maine and the Town of Kittery (including any conditions of approval imposed by the Kittery Planning Board).

3.07. Tents for parties or similar events shall be allowed for no longer than three days; no other tents or similar shelter shall be erected or maintained on any Lot at any time. No temporary structures of any kind are permitted. No trash or garbage, bottled gas, or other fuel containers placed on any Lot shall be visible from the road. All items such as boats, snowmobiles and other personal property should be stored inside a permitted structure. The Association may waive any of the provisions of this paragraph for good cause shown.

3.08. All motor vehicles must be registered, and must be stored in a garage on a Lot; provided, however, that temporary parking of motor vehicles shall be permitted in driveways. Even if registered, no vehicle or any parts of vehicles which may be defined as scrap, junk, discarded, worn out, or not in operating condition shall be maintained or permitted upon the Property.

3.09. Any outside clothes line must be positioned at the rear of the house in such a way to minimize its visibility from the street or other Lots.

3.10. The keeping of animals, poultry, swine, horses or livestock is prohibited. Dogs must be leashed or under voice command at all times while on the Property, except while on their owner's property. It is the owner's responsibility to ensure the dog remains within the perimeter of the owner's Lot when not leashed. No dog shall be left on a tether at any time. Dog owners or caretakers are required to remove pet feces when their animals' foul common areas and private property of other Owners.

3.11. No trees larger than 5 inches in diameter measured at a height of 4 feet from the ground shall be cut, trimmed or altered if located within 15 feet of Washburn Farm Lane or any Lot line, without prior written authorization of the Declarant or Association as the case may be. Consent shall be granted for removal of flora necessary for the construction or maintenance of any structure otherwise permitted hereunder.

3.12 Wetlands on any parcel will not be filled except as approved by the Kittery Planning Board.

3.13. A Lot shall be used for private residential purposes only pursuant to the Town of Kittery zoning ordinance, and no commercial, manufacturing or industrial use shall be permitted at any time.

3.14. Nothing shall be done or permitted to be done on the Property which may be or become a nuisance to the other Owners.

3.15. Electric, telephone and cable television services shall be provided underground only.

3.16. In addition to any other remedies provided to the Association herein, upon the breach of any covenant contained in this Article 3 by any Owner, Guest, Tenant, or Invitee (for all of whose actions an Owner shall be liable as if committed directly by the Owner), the Board, on behalf of the Association, shall notify said Owner by certified mail of such breach, and include a reasonable description of the actions necessary to correct or cure such breach. If said Owner does not take such corrective action within 7 days from receipt of said notice, or within said time period object to the proposed action to be taken, the Board shall, without further notice, be entitled to take such action as set forth in the Notice and to surcharge as a special assessment said Owner for all necessary and incidental expenses, including attorney's fees, incurred in taking such corrective action. In addition, upon notice to an Owner and opportunity to be heard, the Board may impose reasonable per diem fines for any such breach, which shall be immediately due and payable as a special assessment upon the Lot affected.

3.17. In additional to its authority to fine Lot Owners as set forth in section 3.16, the Association may proceed at law or in equity against any persons violating or attempting to violate any covenants, either to restrain violation or to recover damages. If the Association successfully enforces any of these covenants through such an action, it shall be entitled to recover against the party violating such covenant(s) reasonable attorney's fees and costs incurred in such enforcement proceeding.

3.18. The Association recognizes that lawn and ornamental shrub care is a prominent and

important part of the home landscaping, and that the location of this subdivision requires special attention to the environment and surrounding wetlands. Accordingly, the following practices and guidelines shall be incorporated into any contract that the Declarant and/or Association may enter into regarding lawn, ornamental shrub and tree care:

(a) When establishing new lawns, select a top soil such that its depth, soil texture and percent organic matter are effective in absorbing fertilizers and pesticides. A soils test is suggested to determine lime and fertilizer requirements. All lawn establishments shall be in accordance with the State of Maine Department of Environmental Protection "Best Management Practices for the Application of Turf Pesticides and Fertilizers," as the same may be amended from time to time.

(b) Calibrate fertilizer and pesticide equipment in order to assure the desired application rate is being applied.

(c) Maintain soil conditions such as adequate drainage and aeration which favor microorganism activity since they are important for decomposing pesticides in the soil.

(d) Reduce the need of pesticides by following recommended horticultural practices such as proper mowing and watering which maintain a dense vigorous lawn.

(e) Use minimum dosage of pesticides to achieve adequate pest control. Read and follow the instruction on the label.

(f) Select pesticides and fertilizers that are resistant to leaching. When possible, use fertilizers that have a "slow release" or less soluble sources of nitrogen.

(g) To avoid runoff and leaching, do not apply pesticides just prior to heavy rainfall. Do not spray on windy days.

(h) When applicable, apply fertilizers and pesticides during periods of active turf growth for improved uptake by the plant.

(i) All fertilizers, pesticides, and herbicides used within the subdivision shall be certified organic.

3.19. A Lot Owner may not lease his/her house for a period of less than one (1) week, nor shall a Lot Owner lease less than his/her entire house. The rights of any occupant of a Lot shall be subject to, and each such occupant shall be bound by, the covenants, conditions and restrictions set forth in this Declaration, and in the By Laws and the Rules and Regulations, if any, of the Association. The Lot Owner shall provide any occupant with a copy of the Rules and Regulations of the Association. All leases or rentals of a Lot must be in writing, signed by Lot Owner and the tenant. A copy of the signed lease or rental agreement, including a signed copy of the Rules and Regulations, if any, shall be provided to the Secretary of the Association prior to occupancy by the tenant.

3.20. No clearing of vegetation or land disturbance shall take place within 100' of wetlands located on and adjacent to the Property, except for removal of dead, dying, or diseased trees, or as shown on the drawings approved by the Kittery Planning Board.

ARTICLE 4
COMMON PROPERTY AND EASEMENTS

4.01. Members' Easement of Enjoyment. Subject to the provisions of this Declaration, and the By-Laws and Rules and Regulations of the Association, every Owner shall have the rights set forth in this Article, which shall be appurtenant to and shall pass with the title to every Lot.

4.02. Title to Common Property. Declarant **shall grant** to the Association the fee in and to Washburn Farm Lane as the same is presently constructed, subject to the terms and conditions set forth in this Declaration. Declarant reserves additional rights to convey additional land, property, rights, and easements to the Association as Common Property as set forth in Article 7. Open Space of the subdivision will also be conveyed to the Association.

4.03. Easements. The Common Property shall be subject to the following easements and rights:

(a) Every Owner shall have such rights in the Common Property as granted to the Association for their use, subject to the right of the Board to promulgate rules and regulations for the protection, use and enjoyment of the Common Property or to suspend the voting rights of any Owner for any period during which any Assessment remains unpaid.

(b) The Association shall have the right to dedicate or transfer any part of any common open space or natural buffer areas to the Town of Kittery or a conservation organization, or to dedicate or transfer ownership of Washburn Farm Lane after the fee interest therein is transferred to it from Declarant.

(c) During the Declarant Control Period, the Declarant reserves a non-exclusive, transferable easement, without limitation or restriction, to facilitate development of the Property. Such easement shall include the right to construct, connect to and use access ways and roadways, utilities, walkways, drainage swales and culverts and other portions of the Property in connection with the construction of improvements and for necessary or desirable access and utility service to and from adjacent and nearby properties, including the Common Property conveyed to the Association.

(d) During the Declarant Control Period, the Declarant reserves a blanket non-exclusive easement, in, upon, over, under, across, and through the Property for the purpose of installation, maintenance, repair and replacement of all utility lines and any other equipment and machinery necessary or incidental for the proper function of any utility systems serving the Property, which easements may be specifically conveyed by Declarant to a public utility or municipality supplying the service. The easements created by this section shall include, without limitation, rights of the Declarant or the appropriate

utility or service company or governmental agency or authority to install, lay, maintain, repair, relocate and replace gas lines, pipes and conduits, water mains and pipes, sewer and drain lines, drainage ditches and pump stations, telephone wires and equipment, television equipment and facilities (cable or otherwise), electrical wires, conduits, equipment, ducts and vents over, under, through, along and on the Lots and Common Property. Notwithstanding the foregoing, no such easement shall unreasonably interfere with the use or occupancy of any residence on a Lot.

(e) During the Declarant Control Period, the Declarant reserves a blanket and non-exclusive easement in, upon, over, under, through and across the Property as long as the Declarant, its successors and assignees shall be engaged in the construction, development and sale of Lots within the Property, for the purpose of construction, installation, maintenance and repair of existing and future building and related activities, including extension of and connection with Property roads and utility systems for such development.

4.04. Use and Maintenance of Washburn Farm Lane; Common Expenses. Each Lot shall be benefited with a nonexclusive right and easement to use the private roadway known as "Washburn Farm Lane" which provides access from Bartlett Road. The Common Expenses shall include each Owners' proportionate share of the costs of maintenance, repair and replacement of Washburn Farm Lane, the costs of maintenance, repair and replacement of other improvements and common areas as they may be added from time to time, and other costs set forth in section 1.06. Such proportionate share shall be allocated in accordance with the number of Lots in the Property, the liability for which shall commence for each Lot at the time the Declarant transfers ownership of a numbered lot shown on the Plan to a third party. Until the first numbered Lot shown on the Plan is transferred to a third party, the Declarant shall pay all of such costs.

4.05 Use of Open Spaces and Improvements. Each Lot shall be benefited with nonexclusive rights and licenses to (1) use the open space and natural buffer areas identified on the Plan and (2) use additional improvements, all as the Association may grant from time to time pursuant to transfers of ownership to it from the Declarant and in accordance with any Rules and Regulations adopted by the Association, but subject to the right of the Association to withdraw or modify the same due to requirements of the Town of Kittery Planning Board or the vote of the membership.

4.06 Wetland Buffer Areas. No clearing of vegetation or land disturbance shall take place within 100' of wetlands located on and adjacent to the Property, except for removal of dead, dying, or diseased trees, or as shown on the drawings approved by the Kittery Planning Board for construction and maintenance of Washburn Farm Lane and common stormwater management infrastructure.

ARTICLE 5
ASSESSMENTS

5.01. General. The making and collecting of Assessments against Owners for Common Expenses shall be pursuant to the By-Laws of the Association.

5.02. Share of the Common Expenses. Each Lot shall be liable for an equal share of the Common Expenses, including special assessments, to commence as set forth in section 4.04. Each Owner shall be singly responsible for the payment of any fines or penalties levied with respect to such Lot, due as a special assessment immediately upon imposition thereof.

5.03. Annual Assessment. The annual Common Expenses incurred for operation, maintenance, improvement and repair of the Common Property shall be estimated in accordance with the By-Laws of the Association. An annual Assessment will be payable in a once-yearly estimated installment based on the projected annual Common Expenses, adjusted for credits or additional payments as the Board determines from time to time, to reflect actual expenses. This annual Assessment shall be due in a single payment within 30 days of adoption of the estimated budget; additional assessments for adjusted expenses shall be due within 30 days of adoption thereof. The Board of Directors, or the members of the Association by majority vote, may change the yearly assessment to monthly or quarterly payments.

5.04. Non-Waiver. The liability for Assessments may not be avoided by waiver of the use or enjoyment of any Common Property or by the abandoning of a Lot for which an Assessment is made.

5.05. Interest; Application of Payment. Assessments and installments of such Assessments paid on or before 30 days after the date when due shall not bear interest, but all sums not paid on or before 30 days after the date when due shall bear interest at the rate of 18% per annum (or the maximum annual rate permissible under law) from the date when due until paid. All payments on accounts shall be first applied to costs of collection pursuant to 5.06 below, interest, and then to the Assessment first due.

5.06. Lien for Assessments. The Association shall have a lien on a Lot and all improvements thereon, for any unpaid Assessments levied by the Association, together with interest thereon and for attorneys' fees incurred by the Association, to the extent allowable by law, incident to the collection of such Assessments or the enforcement of such lien. The Board, on behalf of the Association, may bring an action at law against the Owner personally obligated to pay the same, or foreclose the lien against the property in the same manner and with the same priority as a condominium lien for assessments pursuant to 33 M.R.S. §1603-116. This lien shall be prior to any other lien against the property other than a first mortgage lien of record, and statutory liens for real estate taxes and sewer assessments, all as set forth in the aforementioned statute. No Owner may waive or otherwise escape liability for the Assessments provided for herein by non-use of the Common Property or abandonment of such Owner's Lot.

5.07. Certificate to be Issued. The Board shall upon demand furnish a certificate in recordable form setting forth whether the Assessments on a specified Lot have been paid. The Owner on behalf of whom the request was made shall be responsible for a reasonable fee for providing the certificate, as determine by the Board from time to time.

5.08. Collection and Foreclosures. The Board may take such action as they deem necessary to collect Assessments of the Association by personal action, or by enforcing the foreclosing interests of the Association.

ARTICLE 6
BARTLETT ROAD OWNERS ASSOCIATION

6.01. Association. In order to provide for the proficient and effective administration of the Property by the Owners, a non-profit corporation known and designated as **Washburn Farm Home Owners Association** has been organized under the laws of the State of Maine, and said corporation shall administer the operation and management of the Property and undertake and perform all actions and duties incident thereto and in accordance with the terms, provision and conditions of this Declaration and in accordance with the terms of the Articles of Incorporation of the Association, its By-Laws and Rules and Regulations promulgated by the Association from time to time.

6.02. Articles of Incorporation. The Articles of Incorporation of the Association shall be filed with the Maine Secretary of State.

6.03 Limitation Upon Liability of Association. Notwithstanding the duty of the Association to maintain or repair portions of the Property, the Association shall not be liable to any Owner for liability or damage, other than the costs of maintenance and repair, caused by any latent condition of the property to be maintained and repaired by the Association, or caused by the elements or other Owners or persons.

6.04. Restraint Upon Assignment of Shares and Assets. The share of a Member in the funds and assets of the Association cannot be assigned, hypothecated or transferred in any manner, except as an appurtenance to a Member's Lot.

6.05. Approval or Disapproval of Matters. Voting shall be done in accordance with the adopted By-Laws.

6.06. Membership. The Owners shall be Members of the Association and no other persons or entities, except for the Declarant, shall be entitled to membership. Membership in the Association shall be established by acquisition of ownership of a fee title interest in a Lot (or other interest in a Lot if approved by the Board), whether by conveyance, devise, judicial decree, foreclosure or otherwise, subject to the provision of this Declaration and by the recordation in the York County Registry of Deeds of the deed or other instrument establishing the acquisition and designating the Lot affected thereby and by the delivery to the Association of a true copy of such recorded deed or other instrument. The new Owner designated in such deed or other instrument shall thereupon become a Member of the Association and the membership of the prior Owner as to the Lot designated shall be irrevocably and automatically terminated. Notwithstanding the foregoing, the Declarant shall be a Member during the Declarant Control Period or until Declarant voluntarily relinquishes membership in the Association, whichever occurs first.

6.07. Voting. Except as otherwise set forth in this Declaration or By-Laws regarding Declarant's voting rights, on all matters to which the members shall be entitled to vote, there shall be only one vote for each Lot. When more than one Owner holds an interest in any Lot, the vote for such Lot shall be exercised as they among themselves determine by majority, but in no event shall more than one vote be cast with respect to any Lot. If the Owners disagree equally, one half vote shall be voted for the pending issue, and one half vote shall be voted against it.

6.08. Control by Declarant. Notwithstanding the foregoing or anything contained in this Declaration to the contrary, Declarant shall have the sole and exclusive right to appoint officers and directors to the Board during the Declarant Control Period or until Declarant voluntarily transfers control of the Association to the Members, whichever occurs first. During the period of control as set forth herein, Members of the Association, otherwise qualified hereunder, shall have non-voting membership, unless the provisions of this sentence expressly are waived relative to a particular issue by a writing signed by the Declarant. Upon Declarant turning control of the Association over to the Members as provided herein, it shall file appropriate documents in the York County Registry of Deeds. Until any particular improvement is transferred by the Declarant to the Association, the Declarant shall be solely liable for costs associated with the same, and for injury or damage to persons and property arising from the construction and installation of the same.

6.09. Authority of the Board. The Board shall act for the Association in all matters except for:

1. the disposal of any real property,
2. the election of Board members,
3. the amending of this Declaration and
4. the adoption of By-Laws.

ARTICLE 7
RIGHTS RESERVED TO THE DECLARANT

7.01. Right to submit Property to Kittery Planning Board. During the Declarant Control Period, the Declarant reserves the right to submit all or any portion of the Property to review by the Kittery Planning Board and related governmental entities as a residential subdivision. The Declarant may make such submittals at any time, in any order, in stages or singly.

7.02. Right to make improvements and transfer to Association. During the Declarant Control Period, the Declarant reserves the right, whether or not required by the Town of Kittery pursuant to Planning Board review, to (1) make improvements to Washburn Farm Lane, (2) install drainage swales, culverts, ponds and other drainage facilities, and (3) construct and install improvements to the Property, including but not limited to an entrance way, and upon completion of the same, transfer ownership and title to the Association, which shall accept the same for inclusion in its budget for maintenance and repair.

7.03. Right to add or subtract land as common area for various purposes. During the

Declarant Control Period, the Declarant reserves the right to add, modify, relocate or subtract land (other than the right of way known as Washburn Farm Lane) as Common Property as Declarant deems desirable, whether or not required by the Town of Kittery Planning Board review, and to transfer ownership of any additional Common Property to the Association upon such terms, conditions and restrictions as Declarant may designate; following such transfer, the Association shall accept the same for inclusion in its budget for maintenance and repair. The Declarant also reserves the right during such time to transfer fee simple interest in Washburn Farm Lane to the Association.

7.04. Right to cut additional flora. During the Declarant Control Period, the Declarant reserves the right to cut and/or trim such additional flora on the Property located within the Subdivision Open Space as may be permitted by the Town of Kittery Land Use Ordinance and the Kittery Planning Board approval. Declarant shall determine which flora shall be cut or trimmed during the Declarant Control Period; thereafter, the Association shall have the sole authority to determine which flora shall be cut and/or trimmed in said zone, in full compliance with applicable state and local law, and by these presents, Declarant hereby transfers such authority to the Association with respect to any portion of any Lot falling within said zone. Individual Owners shall not cut or trim such flora at any time. However, the cost of cutting within the Open Space shall be assessed solely to the Owners whose views are benefited thereby.

7.05. Right to dedicate or transfer Property to Town of Kittery or private conservation organization. During the Declarant Control Period, the Declarant reserves the right to dedicate or transfer any portion of the Property other than a conveyed Lot (including Washburn Farm Lane) to any governmental authority or private conservation organization, whether or not required by the Town of Kittery Planning Board. The Declarant reserves the right during such time to petition the Town of Kittery to accept Washburn Farm Lane as a public street.

7.06. Right to enter individual Lots. During the Declarant Control Period, the Declarant reserves the right to enter existing and conveyed Lots for the purpose of undertaking any work, and installing and constructing such improvements, pursuant to the exercise of Declarant's reserved rights under section 7.02, whether or not required by the Town of Kittery. Those existing Lots may be required by the Declarant to accede to revised terms and conditions of this Declaration that do not unreasonably interfere with the use and occupancy of such Lots, including but not limited to, the introduction of drainage swales or culverts or other improvements upon a Lot, and the right to require Owners to grant additional easements to the Association for drainage or other matters.

7.07. Right to expand size of certain Lots after sale. During the Declarant Control Period, the Declarant reserves the right to convey to any Lot such additional land or easement rights as may be necessary to create or maintain street frontage for said Lots in the event that the location or length of Washburn Farm Lane is modified by requirements of the Town of Kittery or other applicable governmental entity in such a manner that previously conveyed Lots do not conform to standards under the Kittery Land Use Ordinance.

7.08. Costs of Development. The cost of exercising any and all of the rights reserved by the Declarant shall be paid solely by the Declarant in its capacity as such, and not through its control

of the Association. The Declarant shall not transfer any improvement to the Association until and unless it is substantially completed; the Association shall in no event be responsible for costs of completion of any improvement initiated by the Declarant.

7.09. Temporary Inconvenience to Lot Owners allowed. Installation of improvements to the Property or the exercise of other Declarant rights (including the paving of Washburn Farm Lane, if applicable) may cause temporary disruption to existing Owners regarding access and egress, utility services, or other services. The Declarant shall organize such work to minimize such disruption, but in no event shall Declarant be liable to any Owner for any such disruption arising out of exercise of any Declarant right set forth in this Declaration.

ARTICLE 8
NOTICES TO ASSOCIATION

8.01. Notice of Suit. An Owner shall give notice to the Association of every suit or other proceeding which may affect the title to such Owner's Lot. Such notice shall be given within 5 days after the Owner receives knowledge thereof.

8.02. Failure to Comply. Failure to comply with this Article 8 will not affect the validity of any judicial sale or foreclosure proceedings or deed in lieu of foreclosure.

ARTICLE 9
AMENDMENTS

9.01. Amendment by Declarant. During the Declarant Control Period, the Declarant may amend this Declaration at any time, whether or not required by any condition of the Kittery Planning Board pursuant to its review authority, and without the consent of any Owner.

9.02. Other amendments. The Declaration may otherwise be amended from time to time, but only by a vote of not less than 67% of the Members entitled to vote in accordance with section 6.07. Upon passage, the passed amendment shall be accompanied by a certificate of the Secretary of the Association that such a vote was cast at a duly called and held meeting of the Members. However, during the Declarant Control Period, no amendment(s) to this Declaration shall be effective, unless joined by the Declarant. In order to be effective, any amendment to the Declaration must be recorded in the York County Registry of Deeds.

ARTICLE 10
GENERAL

10.01. Severability The invalidation in whole or in part of any section subsection, sentence, clause, phrase, word or other provision of this Declaration shall not affect the validity of the remaining portions which shall remain in full force and effect.

10.02. Rule Against Perpetuities. In the event any court shall hereafter determine that any provisions as originally drafted herein shall violate the rule against perpetuities, the period speci-

fied in this Declaration shall not thereby become invalid, but instead shall be reduced to the maximum period allowed under such rules of the law.

10.03. Arbitration. Any dispute or claim arising out of or relating to this Declaration shall be submitted to arbitration in accordance with the Maine Uniform Arbitration Act, 14 M.R.S §5927 *et seq*. Provided, however, that: (1) in addition to any award or relief thereby granted, the substantially prevailing party shall be entitled to payment of, and shall be paid, reasonable attorney's fees and costs and (2) the decision of the Arbitrator shall be final and binding upon all parties.

ARTICLE 11
RIGHTS AFFORDED UNIT OWNERS AND INSTITUTIONAL LENDERS

11.01. Availability of Documents. The Association shall be required to make available to Owners and to holders, insurers of guarantors of any first mortgage, current copies of the Declaration, Articles, By-Laws, or other rules concerning the Property and the books, records and financial statements of the Association. "Available" means available for inspection, upon request, during normal hours or under other reasonable circumstances.

11.02. Notice of Action. Upon written request to the Association identifying the name and address of the holder, insurer or guarantor and the unit number or address, any such eligible mortgage holder or eligible insurer or guarantor will be entitled to timely written notice of:

(a) Any condemnation loss or any casualty loss which affects a material portion of the project or any unit on which there is a first mortgage held, insured or guaranteed by such eligible mortgage holder or eligible insurer or guarantor, as applicable;

(b) Any delinquency in the payment of Assessments or charges owed by an Owner of a Lot subject to a first mortgage held, insured or guaranteed by such eligible holder or eligible insurer or guarantor, which remains uncured for a period of 60 days; or

(c) Any lapse, cancellation or material modification of any insurance policy or fidelity bond maintained by the Association.

IN WITNESS WHEREOF, the Declarant executes this instrument as of the day, month and year first above written.

WITNESS:

77 Bartlett Road, LLC

_____

By:_____
Geoffrey D. Bowley, Manager

STATE OF MAINE
COUNTY OF YORK, ss. _____, 2023

Personally appeared Geoffrey D. Bowley, Manager of 77 Bartlett Road, LLC, and acknowledged the foregoing instrument to be his free act and deed in his said capacity, and the free act and deed of 77 Bartlett Road, LLC.

Before me,

_____
xxxxxx / Attorney at Law
Bar #xxxx

EXHIBIT A

INSPECTION, MAINTENANCE, AND HOUSEKEEPING PLAN

Washburn Farm Subdivision
Bartlett Rd.
Kittery, Maine

Introduction

Upon completion of the proposed development, 77 Bartlett Road, LLC will be the responsible party for maintaining the stormwater management system until such a time a Homeowners Association is established. 77 Bartlett Road, LLC, the Homeowners Association, or other another responsible party shall schedule maintenance of all stormwater management structures, the establishment of any contract services required to implement the program, and the keeping of records and maintenance logbook.

Records of all inspections and maintenance work accomplished must be kept on file and retained for a minimum 5-year time span. At a minimum, the appropriate and relevant activities for each of the stormwater management systems will be performed on the prescribed schedule.

The following plan outlines the anticipated inspection, maintenance, and housekeeping procedures for the erosion and sedimentation controls as well as stormwater management devices for the project site. Also, this plan outlines several housekeeping requirements that shall be followed during and after construction. These procedures should be followed in order to ensure the intended function of the designed measures and to prevent unreasonable adverse impacts to the surrounding environment.

The procedures outlined in the Inspection, Maintenance, and Housekeeping Plan are provided as an overview of the anticipated practices to be used on this site. In some instances, additional measures may be required due to unexpected conditions. For additional details on any of the erosion and sedimentation control measures or stormwater management devices to be utilized on this project, refer to the most recently revised edition of the "Maine Erosion and Sedimentation Control BMP" manual and/or the "Stormwater Management for Maine: Best Management Practices" manual as published by the MDEP.

During Construction

1. **Inspection:** During the construction process, it is the Contractor's responsibility to comply with the inspection and maintenance procedures outlined in this section. These responsibilities include inspecting disturbed and impervious areas, erosion control measures, materials storage areas that are exposed to precipitation, and locations where vehicles enter or exit the site. These areas shall be inspected at least once a week as well as before and after a storm event, and prior to completing permanent stabilization measures. A person with knowledge of erosion and stormwater control, including the standards and conditions in any applicable permits, shall conduct the inspections.

2. **Maintenance:** All measures shall be maintained in an effective operating condition until areas are permanently stabilized. If Best Management Practices (BMPs) need to be maintained or modified, additional BMPs are necessary, or other corrective action is needed, implementation must be completed within seven (7) calendar days and prior to any storm event (rainfall).

3. **Documentation:** A log summarizing the inspections and any corrective action taken must be maintained on-site. The log must include the name(s) and qualifications of the person making the inspections, the date(s) of the inspections, and major observations about the operation and maintenance of erosion and sedimentation controls, material storage areas, and vehicle access points to the site. Major observations must include BMPs that need maintenance, BMPs that failed to operate as designed or proved inadequate for a particular location, and locations where additional BMPs are needed. For each BMP requiring maintenance, BMP needing replacement, and location needing additional BMPs, note in the log the corrective action taken and when it was taken.

   The log must be made accessible to the appropriate regulatory agency upon request. The permittee shall retain a copy of the log for a period of at least three (3) years from the completion of permanent stabilization.

4. **Specific Inspection and Maintenance Tasks:** The following is a list of erosion control and stormwater management measures and the specific inspection and maintenance tasks to be performed during construction.

   A. Sediment Barriers:

   - Hay bale barriers, silt fences, and filter berms shall be inspected immediately after each rainfall and at least daily during prolonged rainfall.
   - If the fabric on silt fence or filter barrier should decompose or become ineffective prior to the end of the expected usable life and the barrier is still necessary, it shall be replaced.
   - Sediment deposits should be removed after each storm event. They must be removed before deposits reach approximately one-half the height of the barrier.
   - Filter berms shall be reshaped as needed.
   - Any sediment deposits remaining in place after the silt fence or filter barrier is no longer required should be dressed to conform to the existing grade, prepared, and seeded.

   B. Riprap Materials:

   - Once a riprap installation has been completed, it should require very little maintenance. It shall, however, be inspected periodically to determine if high flows have caused scour beneath the riprap or dislodged any of the stone.

   C. Erosion Control Blankets:

   - Inspect these reinforced areas semi-annually and after significant rainfall events for slumping, sliding, seepage, and scour. Pay close attention to unreinforced areas adjacent to the erosion control blankets, which may experience accelerated erosion.
   - Review all applicable inspection and maintenance procedures recommended by

the specific blanket manufacturer. These tasks shall be included in addition to this plan.

D. Stabilized Construction Entrances/Exits:

- The exit shall be maintained in a condition that will prevent tracking of sediment onto public rights-of-way.
- When the control pad becomes ineffective, the stone shall be removed along with the collected soil material. The entrance should then be reconstructed.
- Areas that have received mud-tracking or sediment deposits shall be swept or washed. Washing shall be done on an area stabilized with aggregate, which drains into an approved sediment-trapping device (not into storm drains, ditches, or waterways).

E. Temporary Seed and Mulch:

- Mulched areas should be inspected after rain events to check for rill erosion.
- If less than 90% of the soil surface is covered by mulch, additional mulch shall be applied in bare areas.
- In applications where seeding and mulch have been applied in conjunction with erosion control blankets, the blankets must be inspected after rain events for dislocation or undercutting.
- Mulch shall continue to be reapplied until 95% of the soil surface has established temporary vegetative cover.

F. Stabilized Drainage Swales:

- Sediment accumulation in the swale shall be removed once the cross section of the swale is reduced by 25%.
- The swales shall be inspected after rainfall events. Any evidence of sloughing of the side slopes or channel erosion shall be repaired and corrective action should be taken to prevent reoccurrence of the problem.
- In addition to the stabilized lining of the channel (i.e. erosion control blankets), stone check dams may be needed to further reduce channel velocity.

5. **Housekeeping:** The following general performance standards apply to the proposed project.

A. Spill Prevention: Controls must be used to prevent pollutants from being discharged from materials on-site, including storage practices to minimize exposure of the materials to stormwater, and appropriate spill prevention, containment, and response planning and implementation.

B. Groundwater Protection: During construction, liquid petroleum products and other hazardous materials with the potential to contaminate groundwater may not be stored or handled in areas of the site draining to an infiltration area. An "infiltration area" is any area of the site that by design or as a result of soils, topography and other relevant factors, accumulates runoff that infiltrates into the soil. Dikes, berms, sumps, and other forms of secondary containment that prevent discharge to groundwater may be used to isolate portions of the site for the purposes of storage and handling of these materials.

C. Fugitive Sediment and Dust: Actions must be taken to insure that activities do not result in noticeable erosion of soils or fugitive dust emissions during or after construction. Oil may not be used for dust control.

D. Debris and Other Materials: Litter, construction debris, and chemicals exposed to stormwater must be prevented from becoming a pollutant source.

E. Trench or Foundation Dewatering: Trench dewatering is the removal of water from trenches, foundations, cofferdams, ponds, and other areas within the construction area that retain water after excavation. In most cases, the collected water is heavily silted and hinders correct and safe construction practices. The collected water must be removed from the ponded area, either through gravity or pumping, and must be spread through natural wooded buffers or removed to areas that are specifically designed to collect the maximum amount of sediment possible, like a cofferdam sedimentation basin. Avoid allowing the water to flow over disturbed areas of the site. Equivalent measures may be taken if approved.

After Construction

1. **Inspection:** After construction, the owner or operator shall hire a qualified post-construction stormwater inspector to at least annually, inspect the BMPs, in accordance with all municipal and state inspection, cleaning and maintenance requirements of the approved post-construction stormwater management plan.

2. **Maintenance, and repair:** If a BMP requires maintenance, repair or replacement to function as intended by the approved post-construction stormwater management plan, the owner or operator shall take corrective actions to address the deficiency or deficiencies as soon as possible after the deficiency is discovered. The following is a list of permanent erosion control and stormwater management measures and the inspection, maintenance, and housekeeping tasks to be performed after construction.

A. Vegetated Areas:

- Inspect vegetated areas, particularly slopes and embankments, early in the growing season or after heavy rains to identify active or potential erosion problems.
- Replant bare areas or areas with sparse growth. Where rill erosion is evident, armor the area with an appropriate lining or divert the erosive flows to on-site areas able to withstand the concentrated flows.

B. Ditches, Swales and Other Open Channels:

- Inspect ditches, swales, and other open stormwater channels in the spring, in the late fall, and after heavy rains to remove any obstructions to the flow. Remove accumulated sediments and debris, remove woody vegetative growth that could obstruct flow and repair any erosion of the ditch lining.
- Vegetated ditches must be mowed at least annually or otherwise maintained to control the growth of woody vegetation and maintain flow capacity.
- Any woody vegetation growing through riprap linings must also be removed. Repair any slumping side slopes as soon as practicable.
- Replace riprap in areas where any underlying filter fabric or underlying gravel is showing through the stone or where stones have dislodged.

C. Winter Sanding:

- Clear accumulations of winter sand in parking lots and along roadways at least once a year, preferably in the spring.
- Accumulations on pavement may be removed by pavement sweeping.
- Accumulations of sand along road shoulders may be removed by grading excess sand to the pavement edge and removing it manually or by a front-end loader or other acceptable method.

D. Culverts and Stormdrains:

- Inspect culverts and stormdrains in the spring, in the late fall, and after heavy rains to remove any obstructions to flow.
- Remove accumulated sediments and debris at the inlet, at the outlet, and within the conduit.
- Inspect and repair any erosion damage at the culvert's inlet and outlet.
- Inspect embankment for erosion, settling, and structural failure.

3. **Annual Report:** The owner or operator or a qualified post-construction stormwater inspector hired by that person, shall, on or by June 30 of each year, prepare a stormwater and maintenance inspection form. Attachment 1 is provided as a sample to go by. The form shall identify the person that conducted the BMP inspection, and that the inspected BMPs are adequately maintained and functioning as intended by the approved post-construction stormwater management plan. If BMPs require maintenance or repair of deficiencies in order to function as intended, the inspector shall provide a record of the required maintenance or deficiency and corrective action(s) taken.

4. **Duration of Maintenance:** Perform maintenance as described and required for any associated permits unless and until the system is formally accepted by a municipality or quasi-municipal district, or is placed under the jurisdiction of a legally created association that will be responsible for the maintenance of the system.

Attachments

Attachment 1 – Sample Stormwater Inspection and Maintenance Form

Sample Stormwater Inspection and Maintenance Form

Washburn Farm, Kittery, Maine
Attachment 1

This log is intended to accompany the stormwater Inspection, Maintenance and Housekeeping Plan for Washburn Farm subdivision. The following items shall be checked, cleaned and maintained on a regular basis as specified in the Maintenance Plan and as described in the table below. This log shall be kept on file for a minimum of five (5) years and shall be available for review. Qualified personnel familiar with drainage systems and soils shall perform all inspections. Attached is a copy of the construction and post-construction maintenance logs.

`	INSPECTOR NAME	DATE PERFORMED	SUGGESTED INTERVAL
Vegetated Areas			
Inspect all slopes and embankments			Annually
Replant bare areas or areas with sparse growth			Annually
Paved Surfaces			
Clear accumulated winter sand			Annually
Remove sediment along edges and in pockets			Annually
Ditches & Swales			
Remove any obstructions and accumulated sediments and debris			Monthly
Repair any erosion of ditch lining			Annually
Mow vegetated ditches			Annually
Remove woody vegetation growing through riprap			Annually
Repair any slumping side slopes			Annually
Replace riprap where stones have dislodged			Annually
Culverts			
Remove accumulated sediments and debris at the inlet, outlet, within conduit			Annually
Repair any erosion at inlet and outlet			Annually
Sump Depth			Annually