



# KITTERY TOWN PLANNING BOARD MEETING

Council Chambers – Kittery Town Hall 200 Rogers Road, Kittery, Maine 03904

Phone: 207-475-1323 - Fax: 207-439-6806 - [www.kittery.org](http://www.kittery.org)

**AGENDA for Thursday, November 13, 2014**

**6:00 P.M. to 10:00 P.M.**

## **CALL TO ORDER – ROLL CALL – PLEDGE OF ALLEGIANCE – APPROVAL OF MINUTES – 10/23/2014**

**PUBLIC COMMENTS** - Public comment and opinion are welcome during this open session. However, comments and opinions related to development projects currently being reviewed by the Planning Board will be heard only during a scheduled public hearing when all interested parties have the opportunity to participate. Those providing comment must state clearly their name and address and record it in writing at the podium.

## **PUBLIC HEARINGS/OLD BUSINESS**

**ITEM 1–(30 MIN) – 84 Pepperrell LLC – Shoreland Development Plan Review - Action: Hold public hearing, review, and approve or deny plan approval.** Owner 84 Pepperrell LLC and applicant Jonathan MacDougal are requesting approval of their plans to reconstruct expand an existing non-conforming building located at 84 Pepperrell Rd., Tax Map 27, Lot 51, in the Kittery Point Village and Shoreland Overlay zones.

**ITEM 2–(30 MIN) – 62 Pepperrell Cove LLC – Shoreland Development Plan Review - Action: Hold public hearing, review, and approve or deny plan approval.** Owner Pepperrell Cove LLC and Applicant Michael McCuddy is requesting approval of their plans to expand an existing non-conforming building located at 62 Pepperrell Rd., Tax Map 18, Lot 46, in the Kittery Point Village and Shoreland Overlay zones.

**ITEM 3–(30 MIN) – Deuell Revocable Trust – Shoreland Development Plan Review - Action: Hold public hearing, review, and approve or deny plan approval.** Owner Deuell Revocable Trust and Applicant Peter Whitman are requesting approval of their plans to replace an existing non-conforming building located at 70 Chauncey Creek Rd., Tax Map 45, Lot 70, in the Kittery Point Village and Shoreland Overlay zones.

## **OLD BUSINESS**

**ITEM 4–(15 MIN) – Betty Welch Road Cluster Subdivision - Sketch Plan Review - Action: Approve Site Walk minutes, grant or deny concept approval or continue application.** Landmark Properties, LTD., owner and Chinburg Builders, Inc., applicant, proposes to develop a 24-lot single family cluster subdivision on 86.5 +/- acres. The site is identified as Tax Map 22 Lots 2A & 8 in the Residential Rural and Shoreland Overlay Zones. Agent is Jeff Clifford, P.E., Attar Engineering.

**ITEM 5 –(30 MIN.)– Brave Boat Conservation at Sawyer Lane – Cluster Subdivision –Final Plan Review - Action: review and grant or deny final plan approval.** Owner and Applicant Jonathon & Kathleen Watts are requesting consideration of their plans for a 4-lot cluster subdivision at 143 Brave Boat Harbor Road, Tax Map 63, Lot 19, Residential Rural Zone, with a portion in the Shoreland Overlay Zone. Agents are Ken Markley, Easterly Surveying, Inc.

**ITEM 6 – (10 MIN) - Board Member Items / Discussion**

**ITEM 7 – (10 MIN) – Town Planner Items:** 1) Kittery Foreside Committee; 2) KACTS Route One By-Pass Study; and 3) Other.

## **NEW BUSINESS**

**ITEM 8 – (20 MIN) - Cheatham Shoreland Development Plan - Action: Accept or deny plan application; schedule site walk and/or public hearing.**Linda Cheatham, owner/applicant; Holly Bowdoin and Art Feith, Pearson Traditional Design, agents request approval to remove an existing detached garage and construct a new garage with attached breezeway at 144 Pepperrell Road, Kittery Point, Tax Map 36, Lot 80, in the Residential-Kittery Point Village and Shoreland Overlay Zones.

**ITEM 9 – (20 MIN.)– Town of Kittery – Public Sewer Extension Project – Wetland Alteration Plan Review Action: review and grant or deny plan approval.** Owner and Applicant Kittery Wastewater Treatment Department is requesting consideration of their plans to temporarily impact wetlands as part of expanding public sewer through a CMP corridor located between Route 236 and I-95, Tax Map 12, Lot 03-1 and Map 21, Lot 18, in the Business Park Zone. Agent is Kleinfelder Engineers..

1 TOWN OF KITTERY, MAINE  
2 PLANNING BOARD MEETING  
3 Council Chambers

UNAPPROVED  
October 23, 2014

4  
5 Meeting called to order at 6:05 p.m.

6 Mr. Emerson welcomed new Board member David Lincoln.

7 Board Members Present: Tom Emerson, Karen Kalmar, Mark Alesse, Deborah Driscoll, David Lincoln,  
8 Ann Grinnell

9 Members absent: None

10 Staff: Chris DiMatteo, Interim Planner

11  
12 Pledge of Allegiance

13  
14 WORKSHOP (6:00 - 7:00 PM)

15 ITEM 1 – Sign Ordinance – Discuss signage in the Town as it relates to the Town Code and future  
16 amendments. Kenneth Peskin with the International Sign Association.

17 Mr. Peskin provided a presentation: *Kittery, Maine – Best Practices and Legal Precedents for Sign*  
18 *Regulations*, highlighting some problems with the existing ordinance and providing a brief presentation  
19 about sign regulation ‘do’s and don’t’s’. [Presentation will be made available on the Kittery web-site.]  
20

21 Minutes: October 9, 2014

22 Ms. Kalmar moved to approve the minutes as submitted

23 Mr. Alesse seconded

24 Motion carried unanimously by all members present

25  
26 Betty Welch Road Site Walk Minutes: Deferred to November 13, 2014 meeting.

27  
28 Public Comment:

29 Jeff Clifford, 27 Miller Road: Would like to remark on proposed ordinance amendments on the  
30 agenda.

31 Board members discussed the request; noted public hearings had been held; no changes could be  
32 made at this time; suggested his comments could be informative.

33 Ms. Kalmar moved to allow Mr. Clifford ten minutes to address ordinance amendments before the  
34 Board.

35 Ms. Driscoll seconded

36 Motion fails without an affirmative majority:

37 3 in favor; 3 opposed (Alesse; Emerson; Grinnell); no abstentions  
38

39 There was no further public comment

40  
41 PUBLIC HEARING

42  
43 ITEM 1– Town Code Amendment - Title 16.8.10.2.C Signs – General Requirements. Action: review  
44 amendment and make recommendation to Town Council for adoption. Proposed amendment removes a  
45 reference to Light-emitting diode (LED) lighting in Title 16.8.10.2.C.  
46

47 Public Hearing opened at 7:24 p.m.

48 Tom Hibschman, Pepperrell Road: If the reference to LED lighting is removed, is concerned about light  
49 pollution and brilliance.

50 Ken Lamont, 435 U.S. Route 1: Thanked the Board for this subtle change by removing the LED  
51 reference. This change would enhance his property, and well as others; noted he is not a fan of message

52 boards and does not encourage them; new gas price signs cannot be purchased without LED bulbs; ability  
53 to change prices will resolve the safety issues with changing prices manually; LED lights are energy  
54 efficient.

55 There was no further public testimony.

56 The Public Hearing closed at 7:26 p.m.

57 Mr. Emerson: The Board will be reviewing light intensity and Mr. Hibschman's concerns are noted.

58

59 Ms. Grinnell moved to recommend to Town Council the amendment to Title 16.8.10.2.C relative to LED  
60 lighting in signage, as dated October 23, 2014.

61 Ms. Driscoll seconded

62 Ms. Kalmar: Enactment language is needed prior to Council submittal

63 Ms. Driscoll: Believes the Board still needs to address time/temperature signage

64 Motion carried unanimously

65

66 OLD BUSINESS

67

68 ITEM 2 – Town Code Amendment – Title 16.8.7 Sewer System and Septic Disposal, 16.9.1.4 Soil  
69 Suitability, 16.8.16 Lots and 16.2.1 Definitions. Action: review amendment and make recommendation  
70 to Town Council for adoption. Amendments to the Town Code to address soil suitability as it pertains to  
71 septic disposal systems and other development standards. Amendments also address regulations for  
72 sewer, subsurface wastewater disposal systems and holding tanks, and changes in form, format and  
73 language to address clarity.

74

75 Ms. Grinnell moved to recommend to Town Council the adoption of the proposed amendments to Title 16  
76 dated October 23, 2014, including: 16.8.7 Sewer System and Septic Disposal, 16.9.1.4 Soil Suitability,  
77 16.8.16 Lots, and 16.2.2 Definitions.

78 Ms. Kalmar seconded

79 Discussion:

80 Ms. Kalmar: Requested changes to the Ordinance Review Memo as follows:

81 – Remove bulleted items beginning at Line 71 to Line 82

82 – Delete bullet item at Line 87.

83 These items removed no longer apply to the revised ordinance language.

84 Enactment language will be developed prior to Council review.

85 Motion carried unanimously

86

87

88 ITEM 3 – Town Code Amendment – Chapter 2, Definitions, Chapter 3, Article 2, Section 17 Shoreland  
89 Overlay Zone, Chapter 7, Article 3 Nonconformance and Chapter 8, Article 28 Single and Duplex Family  
90 Dwellings in the Shoreland Overlay Zones in Title 16 Land Use Development Code. Action: review  
91 amendment and make recommendation to Town Council for adoption. Amendment includes changes to  
92 the town's Shoreland zoning to comply with the Maine Department of Environmental Protection 2000  
93 and 2010 conditional approvals.

94 Ms. Kalmar: Suggested removal of code reference at Line 405 to read:

95 ....in conformance with this Code Section 16.8.7.1—~~Septic Waste Disposal~~, and the State of Maine  
96 Subsurface Wastewater Disposal Rules,....

97

98 Ms. Grinnell moved to recommend to Town Council the adoption of the proposed changes to Title 16,  
99 dated and as amended on October 23, 2014 including: 16.2.2 Definitions; 16.3 Land Use Zone  
100 Regulations; 16.3.2.17 Shoreland Overlay Zone; 16.7.3 Nonconformance; and 16.8.28.1 Design and  
101 Performance Standards.

102 Ms. Kalmar seconded

103 Motion carried unanimously

104

105 ITEM 4 –Town Code Amendment – Title 16.7.8 Land Not Suitable for Development.

106 Action: review amendment and make recommendation to Town Council for adoption. An amendment to  
107 the Town Code to address the applicability of the Soil Suitability Guide for Land Use Planning in the  
108 State of Maine referenced in Title 16.7.8.1 Locations of Sewage, item 5, which pertains to soils related to  
109 septic sewage. The proposed amendment also includes changes to the net residential area calculations  
110 and associated definitions, Title 16.2.2.

111

112 Ms. Grinnell moved to recommend to Town Council the adoption of the proposed amendments to Title 16  
113 dated October 23, 2014 including: 16.7.8 Land Not Suitable for Development; and 16.2.2 Definitions.

114 Ms. Kalmar seconded

115 Motion carried unanimously

116

117 ITEM 5 – Board Member Items / Discussion

118

119 Executive Summary/Report to Council:

120 Correct spelling of Councilman Thomson's name

121 Item 6: Remove final sentence referencing *Soil Suitability Guide* and add to Item 10 bullet list.

122 Item 10: Correct code reference to 16.2.2 Definitions and add definition for *Cemetery and burying*  
123 *ground*

124 Add Item 13: 16.8.11.5.A.1.b

125

126 A. Action List - Updated

127 Mr. Lincoln: Suggested action items provide more explanation and the entire list be reviewed more  
128 regularly.

129 B. Proposed Amendments to Town Council– 11/10/14 Council Meeting

130 C. Route 1 – BP District Quality Improvement Plan TPB Advisory Committee

131 D. Quality Improvement Overlay Zone (Kittery Crossing and Coastal Route 1 Malls)

132 E. Kittery Foreside Committee per Title 16

133 F. Committee Updates

134 Ms. Driscoll: The Comprehensive Plan is on hiatus until November

135 Ms. Grinnell:

136 – Economic Development Committee - Need Council review in December.

137 – Port Authority: Workshop meeting with the Town Manager will be held on November 5.

138 Ms. Driscoll:

139 – The DPW has installed crosswalk signs with flashers. Will these be installed all over town?

140 Discussion followed regarding striping of crosswalk areas in town.

141 – Grant review is necessary to be sure grant applications made by various departments conform  
142 with Title 16. Mr. DiMatteo will present at Department Head meeting.

143 Mr. Emerson: Status of Gate 1 grant. Mr. DiMatteo will follow up and report.

144 Ms. Driscoll: Are turn-lanes to be re-aligned, street parking impacted, street light changes, etc.

145

146 ITEM 6 – Town Planner Items:

147

148 A. Memorial Circle Improvement Plan;

149 KACTS made a request to MDOT for additional funding and was denied; geographic scope has been  
150 reduced to bring project into budget. Project will stop at Kittery Estates with no improvements up  
151 Rogers Road. Crosswalks will be marked around the traffic circle.

152 B. Foreside Committee: Mr. DiMatteo will follow up with the Town Manager.

- 153 C. KACTS Grant for Route One By-Pass - TY-Lin and Sebago Technics have submitted proposals.  
154 Ms. Driscoll: Asked if the tunnel area under the bypass will be include in the grant. Who will be  
155 responsible for maintenance of the crosswalks along the By-Pass? Mr. DiMatteo: This is under  
156 discussion.
- 157 D. Public Works Town related projects - This is a work in progress with the Director of DPW.
- 158 E. Title 5.10 Use of the Public Way Ordinance:  
159 Discussion followed regarding whether this amendment will be expanded to all non-residential zones;  
160 whether it should remain in Title 5 or move to Title 16; provision of zone plans for Council  
161 review/acceptance; issues of liability regarding furnishings in the ROW; responsibility for  
162 trash/recycling receptacles; visual impact of furnishings; fee schedule and renewal periods for  
163 application; specifying removal of furnishings, etc. at end of season; identify property owners with  
164 access to ROW use (immediate abutter?); enforcement of use/renewal permit.  
165 Item will be discussed further at the December 18 Board meeting.
- 166 F. Other:  
167 – Sewer expansion: The proposed new garage structure at Dennett Road facility has no existing  
168 Planning Board approved plan, so the proposal will be reviewed through the building permit  
169 process. There are no parking changes.

170  
171 There will be no second meeting in November. Board members agreed to hold the second meeting in  
172 December on December 18, 2014.

173

174

175 Ms. Kalmar moved to adjourn

176 Ms. Grinnell seconded

177 Motion carried unanimously

178

179 The Kittery Planning Board meeting of October 23, 2014 adjourned at 9:40 p.m.

180 Submitted by Jan Fisk, Recorder, October 27, 2014

**Town of Kittery Maine  
 Town Planning Board Meeting  
 November 13, 2014**

**84 Pepperrell Road – Shoreland Development Plan - Public Hearing.** Action: Hold public hearing, review, and approve or deny plan approval. 84 Pepperrell LLC, owner, and Jonathan MacDougall, applicant, requests approval to add a 73 sf patio to an existing accessory building at 84 Pepperrell Road, Tax Map 27, Lot 51, in the Kittery Point Village/Business Local and Shoreland Overlay Zones.

**PROJECT TRACKING**

REQ'D	ACTION	COMMENTS	STATUS
NO	Sketch Plan Review		
NO	Site Visit		
YES	Determination of Completeness/Acceptance	October 9, 2014	Accepted
NO	Public Hearing	Scheduled for 11/13/14	
YES	Final Plan Review and Approval		

Plan Review Notes reflect comments and recommendations regarding applicability of Town Land Use Development Code, and standard planning and development practices. Only the PB makes final decisions on code compliance and approves, approves with conditions or denies final plans. 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 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 16.4.4.13 - 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.

**Staff Comments:** See minutes (following) from October 9, 2014 meeting.  
 The Board had no specific requests of the applicant at the October meeting. However, the plan needs to show the dimensions of the existing accessory structure and the proposed patio, and may not exceed 72 sf based on calculations provided.

Approved Minutes – October 9, 2014

**ITEM 4 – 84 Pepperrell LLC – Shoreland Development Plan Review** Action: Accept or deny plan application and schedule site walk and/or public hearing. Owner 84 Pepperrell LLC and applicant Jonathan MacDougal are requesting approval of their plans to reconstruct and expand an existing non-conforming building located at 84 Pepperrell Rd., Tax Map 27, Lot 51, in the Kittery Point Village and Shoreland Overlay zones.

Beth Seegers: 84 Pepperrell known as Frisbee house. Fence is proposed for safety.

Mr. MacDougal: Proposal summary:

- Continue existing fence between properties for safety;
- Install a guardrail along seawall for safety and visibility;
- Add a patio or deck to existing building;
- Install a privacy fence, similar to property line fence, less than 8 feet high.
- Impervious surface significantly less than the 70% allowed.

Mr. DiMatteo: Plan needs to reflect 72 sf maximum surface of the proposed addition.  
 The majority of the parcel is in the B-L zone, including the structure to be expanded.  
 Board members concurred a site walk is not needed.

Ms. Kalmar moved to accept the application and schedule to a Public Hearing

Ms. Driscoll seconded

Motion carried by all members present

**Board Action**

With no issues identified, staff recommends the Board approve this application with conditions, following the Public Hearing. If they do not feel the application provides sufficient information to determine the proposal conforms to code requirements, the application can be continued for additional information.

**Sample Motion:**

Move to approve, with conditions, the Shoreland Development Plan Application for 84 Pepperrell LLC and read the Findings of Fact, dated November 13, 2014.

END OF PLAN REVIEW NOTES

KITTERY PLANNING BOARD

FINDINGS OF FACT

UNAPPROVED

**for**  
**84 Pepperrell Road**  
**Shoreland Development Plan Review**

**WHEREAS:** 84 Pepperrell LLC, owner, and Jonathan MacDougall, applicant, requests approval to add a 72 sf patio to an existing garage building at 84 Pepperrell Road, Tax Map 27, Lot 49, in the Kittery Point Village/Business Local and Shoreland Overlay Zones, hereinafter the “Development”; and

pursuant to the Plan Review meetings conducted by the Town Planning Board as noted;

Shoreland Project Plan Review	October 9, 2014
Public Hearing Notice	November 5, 2014; Abutters Notice mailed: November 4, 2014
Public Hearing	November 13, 2014
Approval	

and pursuant to the Application and Plan and other documents considered to be a part of the plan review decision by the Town Planning Board in this Finding of Fact consisting of the following (hereinafter the “Plan”):

1. Shoreland Overlay Zone Project Plan Review Application, September 17, 2014.
2. Site Plan, CLD Consulting Engineers, September, 2014.
3. Site Photos, September 17, 2014.

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

**FINDINGS OF FACT**

<p><b>16.3.2.17. D Shoreland Overlay Zone - Standards.</b>  <i>1.d d. The total footprint of areas devegetated for structures, parking lots and other impervious surfaces, must not exceed twenty (20) percent of the lot area, including existing development, except in the following zones:</i></p> <p><u>Findings:</u> Commercial (C1, C-2, C-3), Business – Local (B-L and B-L1), and Industrial (IND) Zones where the maximum lot coverage is seventy (70) percent. Proposed deck/patio is located in the B-L zone. Increase in impervious surfaces is .4% for a total impervious coverage in the B-L zone portion of the lot to 42.7%.</p> <p><u>Conclusion:</u> This standard appears to have been met.</p> <p style="text-align: right;"><b>Vote: __ in favor __ against __ abstaining</b></p>
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**II. Standards in the Shoreland Overlay Zone**

**Chapter 16.7 GENERAL DEVELOPMENT REQUIREMENTS have been met.**

<p><b>16.7.3.1 Prohibitions and Allowances.</b>  <i>A. Except as otherwise provided in this Article, a non-conforming condition must not be permitted to become more non-conforming.</i></p>
--

Finding: This is an existing non-conforming lot with non-conforming structures. *Accessory patios or decks no larger than five hundred (500) square feet in area must be set back at least seventy-five (75) feet from the normal high water line of any water bodies, tributary streams, the upland edge of a coastal wetland, or the upland edge of a freshwater wetland.* The proposed patio footprint does not extend further into the 75-foot setback than the existing non-conforming accessory structure to which it is proposed to be attached.

Conclusion: The requirement appears to be met.

**16.7.3.6 Nonconforming Structures in Shoreland and Resource Protection Zones have been met.**

**16.7.3.6.1 Expansion.**

A non-conforming structure may be added to, or expanded, after obtaining a permit from the Code Enforcement Officer. Such addition or expansion must not increase the non-conformity of the structure and must be in accordance with the subparagraphs below.

*A. After January 1, 1989, if any portion of a structure is less than the required setback from the normal high-water line of a water body or tributary stream or the upland edge of a wetland, that portion of the structure will not be permitted to expand, as measured in floor area or volume, by thirty percent (30%) or more during the lifetime of the structure.*

*B. If a replacement structure conforms to the requirements of Section 16.7.3.6.1.A and is less than the required setback from a water body, tributary stream or wetland, the replacement structure will not be permitted to expand if the original structure existing on January 1, 1989, has been expanded by 30% in floor area and volume since that date.*

*C. Whenever a new, enlarged or replacement foundation is constructed under a non-conforming structure, the structure and new foundation must be placed such that the setback requirement is met to the greatest practical extent as determined by the Planning Board, basing its decision on the criteria specified in Section 16.7.3.5.2 – Relocation, below. If the completed foundation does not extend beyond the exterior dimensions of the structure, except for expansion in conformity with Section 16.7.3.5.3, above, and the foundation does not cause the structure to be elevated by more than three (3) additional feet, as measured from the uphill side of the structure (from original ground level to the bottom of the first floor sill), it will not be considered to be an expansion of the structure.*

Finding:

A-B. Permit records show interior renovations and a deck extension on the primary structure, and a garage relocation in 1997. There is no indication the specific structure has had any prior expansion. The proposed patio will be less than 30% expansion, at 72 sf.

C. This standard is not applicable.

Conclusion: This standard appears to have been met.

**Vote: \_\_ in favor \_\_ against \_\_ abstaining**

**III. Procedures for Administering Permits For Shoreland Development Review**

16.10.10.2 D. *An Application will be approved or approved with conditions if the reviewing authority makes a positive finding based on the information presented. It must be demonstrated the proposed use will:*

**1. Maintain safe and healthful conditions;**

Finding: The proposed construction of a patio, with no water or sewer connections, does not pose a concern. Due to the location close to the water's edge, the applicant is proposing a guardrail/fence along the seawall.

Conclusion: The proposed development does not appear to have an adverse impact. This standard appears to be met.

**Vote: \_\_ in favor \_\_ against \_\_ abstaining**

<b>2. Not result in water pollution, erosion or sedimentation to surface waters;</b>
Finding: Maine DEP Best Management practices will be followed for erosion and sedimentation control during site preparation and building construction. (see conditions #2 and #3) to avoid impact on adjacent surface waters.
Conclusion: The proposed development does not appear to have an adverse impact. This standard appears to be met.
<b>Vote: __ in favor __ against __ abstaining</b>
<b>3. Adequately provide for the disposal of all wastewater;</b>
This standard is not applicable.
<b>Vote: __ in favor __ against __ abstaining</b>
<b>4. Not have an adverse impact on spawning grounds, fish, aquatic life, bird or other wildlife habitat;</b>
Finding: Maine DEP Best Management practices will be followed for erosion and sedimentation control during site preparation and building construction. (see conditions #2 and #3) to avoid impact on adjacent surface waters.
Conclusion: The proposed development does not appear to have an adverse impact. This standard appears to be met.
<b>5. Conserve shore cover and visual, as well as actual, points of access to inland and coastal waters;</b>
The proposed development does not appear to have an adverse impact.
<b>Vote: __ in favor __ against __ abstaining</b>
<b>6. Protect archaeological and historic resources;</b>
The proposed development does not appear to have an adverse impact
<b>Vote: __ in favor __ against __ abstaining</b>
<b>7. Not adversely affect existing commercial fishing or maritime activities in a commercial fisheries/ maritime activities district;</b>
The proposed development does not appear to have an adverse impact
<b>Vote: __ in favor __ against __ abstaining</b>
<b>8. Avoid problems associated with floodplain development and use</b>
The proposed addition of a 72 sf patio does not appear to have an adverse impact. This standard appears to be met.
<b>Vote: __ in favor __ against __ abstaining</b>
<b>9. Is in conformance with the provisions of this Code;</b>
Finding: The proposed location of the patio is no more non-conforming than what currently exists. The increase in devegetated area (.4%) is negligible and within the limitations of the B-L Zone. The proposed patio expansion will not exceed 30% in area, at 72 sf.
Conclusion: This standard appears to be met.
<b>Vote: __ in favor __ against __ abstaining</b>

**10. Be recorded with the York County Registry of Deeds.**

Shoreland Development plans must be recorded with the York County Registry of Deeds prior to the issuance of a building permit. Plans must include waivers and conditions of approval, if applicable.

**Vote: \_\_ in favor \_\_ against \_\_ abstaining**

Based on the foregoing Findings, the Planning Board finds the applicant has satisfied each of the review standards for approval and, therefore, the Planning Board approves the Shoreland Development Plan Application of 84 Pepperrell LLC, owner, and Jonathan MacDougall, applicant, to add a 72 sf patio to an existing accessory building at 84 Pepperrell Road subject to any conditions and/or waivers, as follows:

**Application Waivers:** None

**Conditions of Approval (to be included on final plan to be recorded):**

1. No changes, erasures, modifications or revisions may be made to any Planning Board approved final plan. (Title 16.10.9.1.2)
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 herein (Findings of Fact dated \_\_\_\_\_).

The Planning Board authorizes the Planning Board Chairman 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 \_\_\_\_\_

\_\_\_\_\_  
Thomas Battcock-Emerson, Planning Board Chairman

**Notices to Applicant:**

1. Incorporate any plan revisions on the final plan as recommended by Staff, Planning Board or Peer Review Engineer, and submit for Staff review prior to presentation of final mylar.
2. Prior to the release of the signed plans, the applicant must pay all outstanding fees associated with the permitting, including, but not limited to, Town Attorney fees, peer review, newspaper advertisements and abutter notification.
3. One (1) mylar copy and two (2) paper copies of the final plan (recorded plan if applicable) 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 as elements the Development Plan and supporting documentation, the Findings of Fact, and any Conditions of Approval.

Per Title 16.6.2.A - 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.



**Town of Kittery Maine  
Town Planning Board Meeting  
November 13, 2014**

**62 Pepperrell Road – Shoreland Development Plan.** Action: Hold public hearing, review, and approve or deny plan approval. Pepperrell Cove LLC, owner, and Michael McCuddy, applicant, requests approval to increase the volume and square footage at an existing home at 62 Pepperrell Road, Tax Map 18, Lot 46, in the Kittery Point Village and Shoreland Overlay Zones.

**PROJECT TRACKING**

REQ'D	ACTION	COMMENTS	STATUS
NO	Sketch Plan Review		
NO	Site Visit		
YES	Determination of Completeness/Acceptance	October 9, 2014	
NO	Public Hearing	November 13, 2014	
YES	Preliminary Plan Review and Approval		
YES	Final Plan Review and Approval		

Plan Review Notes reflect comments and recommendations regarding applicability of Town Land Use Development Code, and standard planning and development practices. Only the PB makes final decisions on code compliance and approves, approves with conditions or denies final plans. 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 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 16.4.4.13 - 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.

**Staff Comments**

See minutes (page 2) from October 9, 2014 meeting.

The applicant has provided the volume, area, and impervious coverage calculations on the updated Standard Boundary Survey (dated 3/26/13 as revised) as requested.

- Devegetated Area: No proposed changes. Total revegetated area: 13.9% (20% allowed)
- Volume: Existing: 45,052.2 cf                      Floor Area: Existing: 6,569.50 sf  
           Proposed: 55,317.3 cf                      Proposed: 6,645.50 sf  
           Increase: 8,568.66 cf                        Increase: 76 sf  
           Increase in volume of 22.78%            Increase in area: 1%

Volume and floor area dimensions have been submitted (Sheets A-1 and A-2)  
 Building elevations have been submitted (Sheets A-3 through A-5)  
 A photo of the structure has been submitted.

Plan should be entitled, *Shoreland Development Plan*, replacing "Standard Boundary Survey". Approval block needs to be amended as follows:

Kittery, Maine - Planning Board Approval  Date of Approval: _____  _____ Chairman  Date: _____
---

### **Board Action**

This proposal to increase the square footage of the existing structure is minor. Tax records indicate there has been no prior expansions that would increase the maximum volume allowed (<30%) in the Shoreland zone. The application appears complete and ready for approval.

With no issues identified, staff recommends the Board approve this application with conditions, following the Public Hearing. If they do not feel the application provides sufficient information to determine the proposal conforms to code requirements, the application can be continued for additional information.

### **Sample Motion:**

Move to approve, with conditions, the Shoreland Development Plan Application for 84 Pepperrell LLC and read the Findings of Fact, dated November 13, 2014.

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Approved minutes from October 9, 2014 Planning Board meeting:

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**ITEM 5 – 62 Pepperrell Cove LLC – Shoreland Development Plan Review Action: Accept or deny plan application and schedule site walk and/or public hearing.** Owner Pepperrell Cove LLC and Applicant Michael McCuddy is requesting approval of their plans to expand an existing non-conforming building located at 62 Pepperrell Rd., Tax Map 18, Lot 46, in the Kittery Point Village and Shoreland Overlay zones.

Michael McCuddy: Summarized proposal to lift the roof area, increasing the volume of the structure and a small increase in area. Impervious area will not be further impacted.

Discussion followed regarding volume expansion creating increase in square footage.

Board requested photos of the existing home to compare with proposed improvements and that staff work with the applicant to prepare a final site plan for recording.

Board members concurred a site walk is not needed as long as additional materials are provided at the next review.

Ms. Davis moved to accept the application and schedule to a Public Hearing

Ms. Kalmar seconded

Motion carried by all members present

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KITTERY TOWN PLANNING BOARD

FINDINGS OF FACT **UNAPPROVED**  
 for  
**62 Pepperrell Road**  
**Shoreland Development Plan Review**

**WHEREAS:** Pepperrell Cove LLC, owner, and Michael McCuddy, applicant, requests approval to increase the volume and square footage at an existing home at 62 Pepperrell Road, Tax Map 18, Lot 46, in the Kittery Point Village and Shoreland Overlay Zones, hereinafter the “Development”; and

pursuant to the Plan Review meetings conducted by the Town Planning Board as noted;

Shoreland Project Plan Review	October 9, 2014
Public Hearing Notice	November 5, 2014; Abutters Notice mailed: November 4, 2014
Public Hearing	November 13, 2014
Approval	

and pursuant to the Project Application and Plan and other documents considered to be a part of the plan review decision by the Town Planning Board in this Finding of Fact consisting of the following (hereinafter the “Plan”):

1. Shoreland Overlay Zone Project Plan Review Application: September 18, 2014
2. Standard Boundary Survey, prepared by North Easterly Surveying, Inc., 3/26/13; rev: 10/28/14
3. Interior area and volume dimensions: Sheets A-1 and A-2;
- 4.

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

**FINDINGS OF FACT**

**16.3.2.17. D Shoreland Overlay Zone - Standards.**

*1.d d. The total footprint of areas devegetated for structures, parking lots and other impervious surfaces, must not exceed twenty (20) percent of the lot area, including existing development, except in the following zones:*

Findings: The proposal does not increase existing devegetated areas. Total devegetated area is 13.9%.

Conclusion: This standard has been met.

**Vote: \_\_ in favor \_\_ against \_\_ abstaining**

**II. Standards in the Shoreland Overlay Zone**

**Chapter 16.7 GENERAL DEVELOPMENT REQUIREMENTS have been met.**

**16.7.3.1 Prohibitions and Allowances.**

*A. Except as otherwise provided in this Article, a non-conforming condition must not be permitted to become more non-conforming.*

<p><b>Finding:</b> This is an existing non-conforming lot with non-conforming structures. The proposed increase in volume (22.78%) and square footage (1%) conforms with code requirements.</p>
<p><b>Conclusion:</b> The proposal is within allowable percent increase (&lt;30%) within the shoreland zone.</p>
<p><b>Vote: __ in favor __ against __ abstaining</b></p>
<p><b>16.7.3.6 Nonconforming Structures in Shoreland and Resource Protection Zones have been met.</b></p>
<p><b>16.7.3.6.1 Expansion.</b></p> <p>A non-conforming structure may be added to, or expanded, after obtaining a permit from the Code Enforcement Officer. Such addition or expansion must not increase the non-conformity of the structure and must be in accordance with the subparagraphs below.</p> <p><i>A. After January 1, 1989, if any portion of a structure is less than the required setback from the normal high-water line of a water body or tributary stream or the upland edge of a wetland, that portion of the structure will not be permitted to expand, as measured in floor area or volume, by thirty percent (30%) or more during the lifetime of the structure.</i></p> <p><i>B. If a replacement structure conforms to the requirements of Section 16.7.3.6.1.A and is less than the required setback from a water body, tributary stream or wetland, the replacement structure will not be permitted to expand if the original structure existing on January 1, 1989, has been expanded by 30% in floor area and volume since that date.</i></p> <p><i>C. Whenever a new, enlarged or replacement foundation is constructed under a non-conforming structure, the structure and new foundation must be placed such that the setback requirement is met to the greatest practical extent as determined by the Planning Board, basing its decision on the criteria specified in Section 16.7.3.5.2 – Relocation, below. If the completed foundation does not extend beyond the exterior dimensions of the structure, except for expansion in conformity with Section 16.7.3.5.3, above, and the foundation does not cause the structure to be elevated by more than three (3) additional feet, as measured from the uphill side of the structure (from original ground level to the bottom of the first floor sill), it will not be considered to be an expansion of the structure.</i></p>
<p><b>Finding:</b></p> <p>A-B. Calculations indicate the proposed expansion in volume (22.78%) and area (1%) meet code requirements regarding expansion in the shoreland zone.</p> <p>C. This standard is not applicable.</p>
<p><b>Conclusion:</b> The criteria for expansion of non-conforming structures in the Shoreland Overlay zone appears to have been met. Findings regarding percent expansion will be submitted to the Assessor for inclusion in the tax records.</p>
<p><b>Vote: __ in favor __ against __ abstaining</b></p>

**III. Procedures for Administering Permits For Shoreland Development Review**

**16.10.10.2 D.** *An Application will be approved or approved with conditions if the reviewing authority makes a positive finding based on the information presented. It must be demonstrated the proposed use will:*

<p><b>1. Maintain safe and healthful conditions;</b></p>
<p>Finding/Conclusion: The proposed development will not have an adverse impact.</p>
<p><b>Vote: __ in favor __ against __ abstaining</b></p>
<p><b>2. Not result in water pollution, erosion or sedimentation to surface waters;</b></p>
<p>Finding/Conclusion: The proposed development does not appear to have an adverse impact.</p>
<p><b>Vote: __ in favor __ against __ abstaining</b></p>

<b>3. Adequately provide for the disposal of all wastewater;</b>
Finding/Conclusion: This standard is not applicable for the proposed development.
<b>Vote: __ in favor __ against __ abstaining</b>
<b>4. Not have an adverse impact on spawning grounds, fish, aquatic life, bird or other wildlife habitat;</b>
Finding/Conclusion: The proposed development does not appear to have an adverse impact
<b>Vote: __ in favor __ against __ abstaining</b>
<b>5. Conserve shore cover and visual, as well as actual, points of access to inland and coastal waters;</b>
Finding/Conclusion: The proposed development will not have an adverse impact.
<b>Vote: __ in favor __ against __ abstaining</b>
<b>6. Protect archaeological and historic resources;</b>
Finding/Conclusion: The proposed development will not have an adverse impact
<b>Vote: __ in favor __ against __ abstaining</b>
<b>7. Not adversely affect existing commercial fishing or maritime activities in a commercial fisheries/ maritime activities district;</b>
Finding/Conclusion: The proposed development will not have an adverse impact
<b>Vote: __ in favor __ against __ abstaining</b>
<b>8. Avoid problems associated with floodplain development and use</b>
Finding/Conclusion: Portions of the property are located in VE flood management areas. The areas identified for square footage and volume increase do not appear to be located within the flood management area.
<b>Vote: __ in favor __ against __ abstaining</b>
<b>9. Is in conformance with the provisions of this Code;</b>
Finding/Conclusion: The increase in area and volume are in conformance with the provisions of this Code.
<b>Vote: __ in favor __ against __ abstaining</b>
<b>10. Be recorded with the York County Registry of Deeds.</b>
Finding/Conclusion: Shoreland Development plans must be recorded with the York County Registry of Deeds prior to the issuance of a building permit and must include waivers and conditions of approval, if applicable. Applicant will amend the approval block prior to the Chairman's signature.
<b>Vote: __ in favor __ against __ abstaining</b>

Based on the foregoing Findings, the Planning Board finds the applicant has satisfied each of the review standards for approval and therefore the Planning Board approves the Shoreland Development Plan Application of Pepperrell Cove LLC, owner, and Michael McCuddy, applicant to increase the volume and square footage at an existing home at 62 Pepperrell Road subject to any conditions and/or waivers, following:

**Application Waivers:** None

**Conditions of Approval (to be included on final plan to be recorded):**

1. No changes, erasures, modifications or revisions may be made to any Planning Board approved final plan. (Title 16.10.9.1.2)
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. All Notices to Applicant contained herein (Findings of Fact, dated \_\_\_\_\_).

The Planning Board authorizes the Planning Board Chairman 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 \_\_\_\_\_

\_\_\_\_\_  
Thomas Battcock-Emerson, Planning Board Chairman

**Notices to Applicant:**

1. Prior to the release of the signed plans, the applicant must pay all outstanding fees associated with the permitting, including, but not limited to, Town Attorney fees, peer review, newspaper advertisements and abutter notification.
2. One (1) mylar copy and two (2) paper copies of the final plan (recorded plan if applicable) and any and all related state/federal permits or legal documents that may be required, must be submitted to the Town Planning Department.
3. A Signature Block, including the Date of Planning Board approval, shall be included on the final plan.
4. This approval by the Town Planning Board constitutes an agreement between the Town and the Developer, incorporating as elements the Development Plan and supporting documentation, the Findings of Fact, and any Conditions of Approval.

Per Title 16.6.2.A - 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.

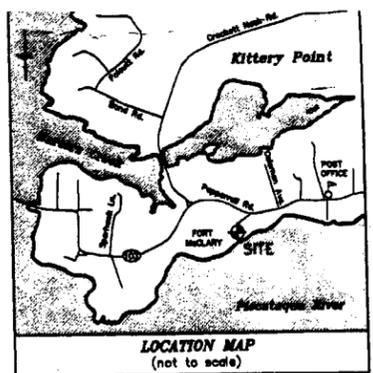
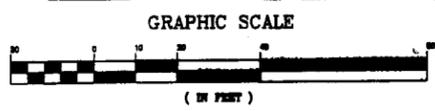


	Square Footage	Volume (Cubic Feet)
Existing Basement	1537.2	10,222.5
Existing First Floor	2701.9	19781.5
Existing 2nd Floor	2330.4	15048.2
Existing Total	6569.5	45062.2
Proposed Basement	1537.2	10222.5
Proposed First Floor	2701.9	20517.5
Proposed 2nd Floor	2406.4	24577.3
Proposed New Total	6645.5	55317.3
SQ ft % Change	Increase Less than 1%	
Vol % Change	Increase Less than 23%	
Devegetated Area	13.9% (3695.4 sq. ft)	
Existing (No proposed impact)	(Total lot 26,070 sq. ft)	

N/F STATE OF MAINE  
TAX MAP 18 LOT 25  
Y.C.R.D. BOOK 1458 PAGE 474  
Y.C.R.D. BOOK 727 PAGE 407  
"FORT McCLARY"

N/F STATE OF MAINE  
TAX MAP 18 LOT 25  
Y.C.R.D. BOOK 1458 PAGE 474  
Y.C.R.D. BOOK 727 PAGE 407  
"FORT McCLARY"  
(SEE PLAN REFERENCE #3)

YORK, ss REGISTRY OF DEEDS  
Received \_\_\_\_\_  
at \_\_\_\_\_ M., and  
Filed in Plan Book \_\_\_\_\_ Page \_\_\_\_\_  
ATTEST: \_\_\_\_\_  
Registrar



- PLAN REFERENCES:**
- "STANDARD BOUNDARY SURVEY FOR DAVID F. & DORTHEA C. POST, PEPPERELL ROAD, KITTERY, MAINE", PREPARED BY ANDERSON LIVINGSTON ENGINEERS, INC., DATED MARCH 1995.
  - "PLAN SHOWING PORTION OF PROPERTY OF ELIZABETH HAMILTON AND LEOTINE HAMILTON JOHNSON, KITTERY POINT, KITTERY, YORK COUNTY, MAINE, CONVEYED TO RUTH P. PRUETT, PREPARED BY MOULTON ENGINEERING CO., INC., DATED JULY 21, 1964 AND RECORDED AT THE Y.C.R.D. AS PLAN BOOK 37 PAGE 48.
  - "PLAN OF FORT McCLARY, SHOWING THE TRACE OF THE ADVANCED BATTERY, AS MODIFIED BY THE ENGINEER DEPARTMENT... ALSO THE ROUTES OF THE OLD AND NEW ROADS THROUGH THE UNITED STATES LAND.", PREPARED BY THE OFFICE OF THE CHIEF ENGINEER, DATED MAY 23, 1863. PORTION OF THE PLAN PROVIDED BY THE STATE OF MAINE.

- NOTES:**
- OWNER OF RECORD:  
SIDNEY HELLWELL TRUST  
ACADIA TRUST, N.A., TRUSTEE  
TAX MAP 18 LOT 48  
Y.C.R.D. BOOK 6258 PAGE 121  
DATED MAY 9, 1997
  - TOTAL EXISTING PARCEL AREA:  
TAX MAP 18 LOT 46 (PARCEL 1)  
26,070± Sq. Ft. (0.64 Ac.)
  - BASIS OF BEARING IS PER PLAN REFERENCE #1.
  - ZONE REQUIREMENTS AND SETBACKS NOT SHOWN HEREON.
  - APPROXIMATE ABUTTER BOUNDARIES SHOWN HEREON ARE FOR REFERENCE PURPOSES ONLY AND SHALL NOT BE RELIED UPON AS BOUNDARY INFORMATION.
  - REFERENCE DEED AT Y.C.R.D. BOOK 6258 PAGE 121 CALLS "...BOUNDED NORTHERLY BY THE HIGHWAY THAT LEADS TO FORT McCLARY..." THE ORIGINAL LOCATION OF THE HIGHWAY CENTERLINE REMAINS UNCERTAIN DUE TO THE MANY YEARS OF NON USE, THOUGH EVIDENCE OF AN OLD ROAD CUT WAS FOUND. THE AREA IS CURRENTLY OVERGROWN, UNMAINTAINED AND IMPASSABLE BEYOND THE DRIVEWAY AS SHOWN. EVIDENCE SUGGESTS THAT THIS ROAD MAY HAVE BEEN DISCONTINUED.
  - REFERENCE IS MADE TO KITTERY TOWN VOLUME 3 PAGE 190, DATED MARCH 16, 1863 WHERE SELECTMEN VOTED "...TO MAKE ARRANGEMENTS WITH THE UNITED STATES GOVERNMENT IN REGARD TO SUBSTITUTING A NEW ROAD FOR THE PRESENT TOWN ROAD CONTIGUOUS TO FORT McCLARY AT SAID GOVERNMENT EXPENSE." FURTHERMORE, PLAN REFERENCE #3 SHOWS A DASHED LINE ALONG THE APPARENT ROAD CENTERLINE LABELED, "SUPPOSED BOUNDARY LINE AFTER DISCONTINUING ROAD". THE BOUNDARY HAS BEEN PRESUMED TO BE TO THE CENTER OF SAID HIGHWAY AND AS SHOWN THROUGH CORNERS A-B-C ON AN ASSUMED CENTERLINE OF A TWO ROD (33') RIGHT OF WAY. ALTHOUGH POSSIBLY DISCONTINUED, OTHER EASEMENTS MAY REMAIN. CONSULTATION WITH A REAL ESTATE ATTORNEY IS ADVISED.
  - THE PLANTER AND LAWN AREA SHOWN HEREON WERE FOUND TO BE OUTSIDE OF THE PARCEL BOUNDARIES AS SHOWN HEREON. A POSSIBLE ENCRoACHMENT MAY EXIST. CONSULTATION WITH A REAL ESTATE ATTORNEY IS ADVISED.
  - EASEMENTS OR OTHER UNWRITTEN RIGHTS MAY EXIST THAT ENCUMBER OR BENEFIT THE PROPERTY NOT SHOWN HEREON.
  - THE BOUNDARY SHOWN HEREON WAS DETERMINED FROM WRITTEN RECORDS, FIELD EVIDENCE AND PAROL TESTIMONY RECOVERED AT THE TIME OF SURVEY AND MAY BE SUBJECT TO CHANGE IF OTHER EVIDENCE BECOMES AVAILABLE.
  - UNDERGROUND UTILITIES NOT LOCATED OR SHOWN.

APPROVAL OF THE PLANNING BOARD OF  
KITTERY, MAINE

DIAR	DATE



**CERTIFICATION**

This survey conforms to the standards of practice as set forth in Chapter 90 of the Rules of the Board of Licensure for Professional Land Surveyors, April 2001, except that a separate written report has not been prepared.

Adam M. Pray, P.L.S. #2485      Dated 4/8/13

REV	DATE	STATUS	BY	CHKD	APPD.
1	10-28-14	ADDED LOG AREA & VOLUME	MM		

**STANDARD BOUNDARY SURVEY**  
FOR PROPERTY AT  
**62 Pepperell Road**  
Kittery Point, York County, Maine  
OWNED BY  
**PEPPERELLCOVE LLC**  
6 Starboard Lane, York, Me 03909

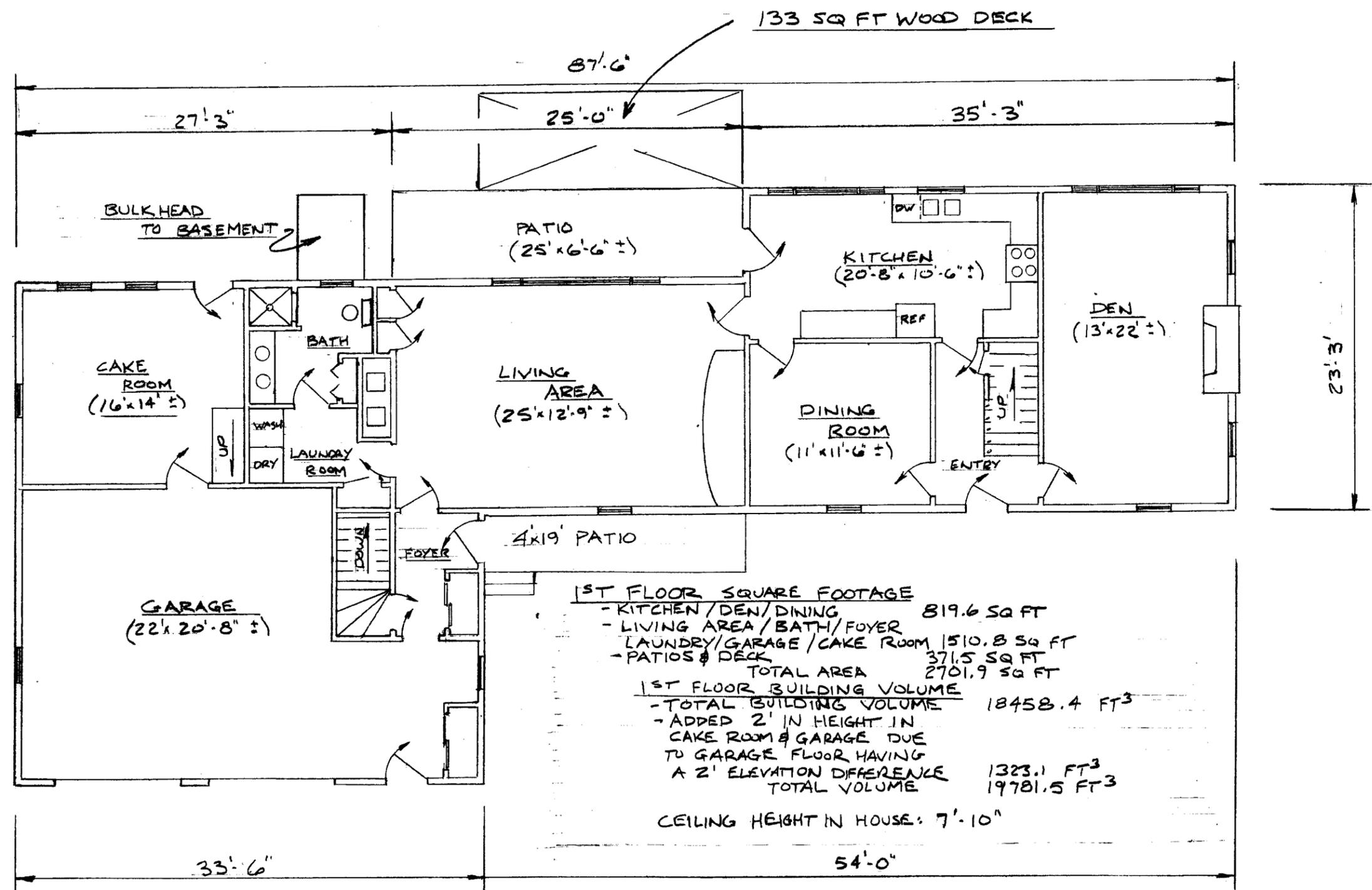
North  
W **EASTERLY**  
**SURVEYING, Inc.**

SURVEYORS IN N.H. & MAINE 191 STATE ROAD, SUITE #1  
(207) 439-6333 KITTERY, MAINE 03904

SCALE: 1" = 20'    PROJECT NO. 13622    DATE: 3/26/13    SHEET: 1 OF 1    DRAWN BY: A.M.P.    CHECKED BY: P.L.A.

DRAWING No: 13622 Boundary    FIELD BOOK No: "Kittery Point #10"    Tax Map 18 Lot 46

CHARSETTE PRO-FORM 95897 PRINTED ON 150# CHAMPIGNET YELLOW



1ST FLOOR SQUARE FOOTAGE

- KITCHEN/DEN/DINING 819.6 SQ FT
- LIVING AREA/BATH/FOYER 1510.8 SQ FT
- LAUNDRY/GARAGE/CAKE ROOM 371.5 SQ FT
- PATIOS & DECK
- TOTAL AREA 2701.9 SQ FT**

1ST FLOOR BUILDING VOLUME

- TOTAL BUILDING VOLUME 18458.4 FT<sup>3</sup>
- ADDED 2' IN HEIGHT IN CAKE ROOM & GARAGE DUE TO GARAGE FLOOR HAVING A 2' ELEVATION DIFFERENCE 1323.1 FT<sup>3</sup>
- TOTAL VOLUME 19781.5 FT<sup>3</sup>**

CEILING HEIGHT IN HOUSE: 7'-10"

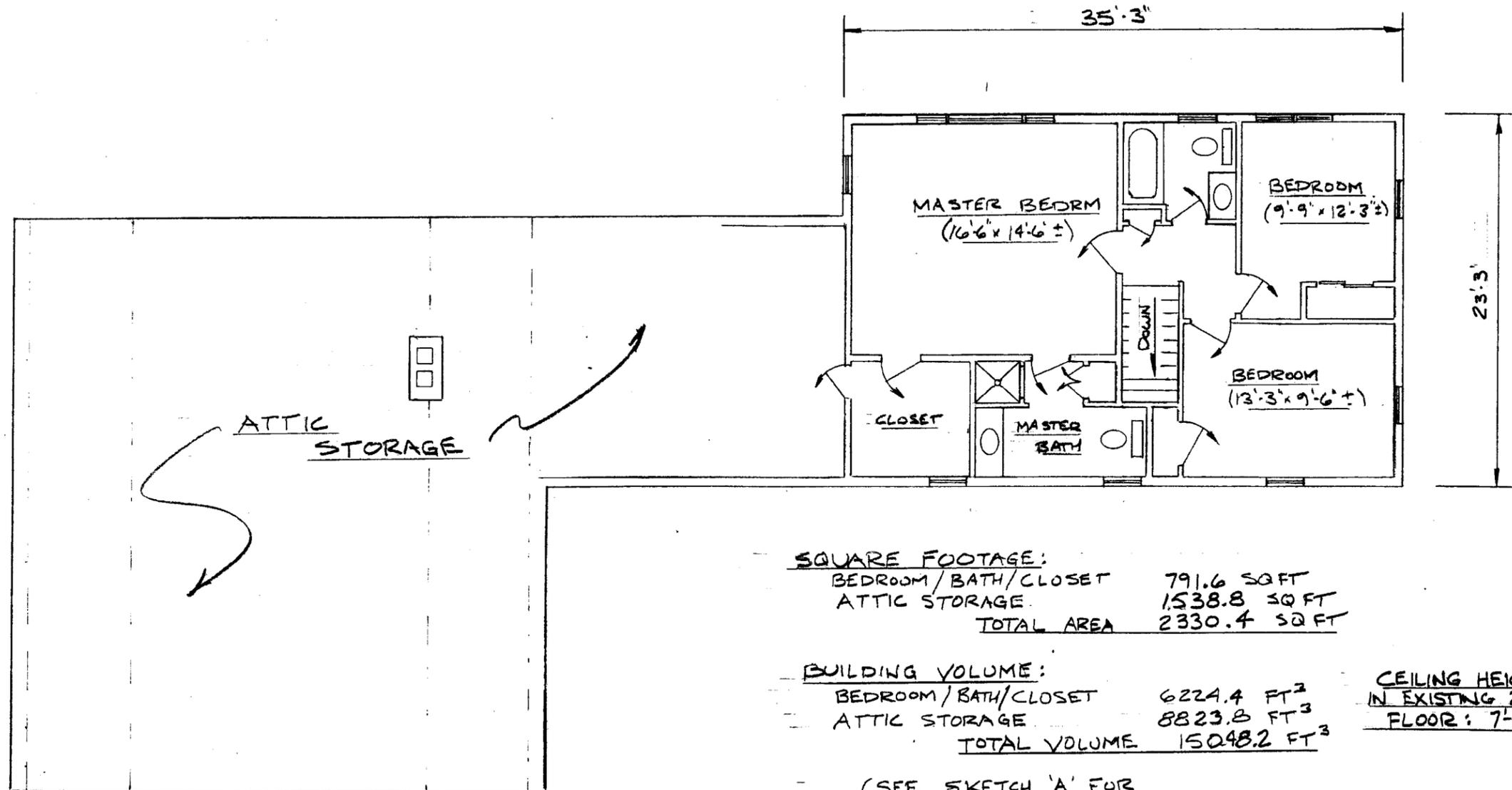
BASEMENT CEILING HEIGHT: 6'-8"

BASEMENT SQ. FOOTAGE:

- TOTAL BUILDING: 1537.2 SQ FT
- BASEMENT VOLUME TOTAL BUILDING: 10222.5 FT<sup>3</sup>**

NOTE: NO BASEMENT UNDER GARAGE & CAKE ROOM THERE IS BASEMENT UNDER PATIO

62 PEPPERELL RD KITTERY, ME		
SCALE: 3/16" = 1'-0"	APPROVED BY	DRAWN BY: RICK
DATE: 8.6.14		
EXISTING 1 <sup>ST</sup> FLOOR PLAN		
	DRAWING NUMBER	A-1

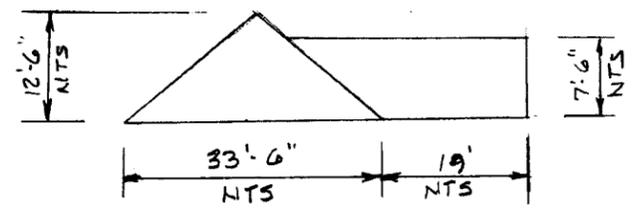


SQUARE FOOTAGE:  
 BEDROOM/BATH/CLOSET 791.6 SQ FT  
 ATTIC STORAGE 1538.8 SQ FT  
 TOTAL AREA 2330.4 SQ FT

BUILDING VOLUME:  
 BEDROOM/BATH/CLOSET 6224.4 FT<sup>3</sup>  
 ATTIC STORAGE 8823.8 FT<sup>3</sup>  
 TOTAL VOLUME 15048.2 FT<sup>3</sup>

CEILING HEIGHT  
 IN EXISTING 2ND  
 FLOOR: 7'-8"

(SEE SKETCH 'A' FOR  
 ATTIC STORAGE)



SKETCH 'A'  
 ATTIC STORAGE  
 ROOF DIMENSIONS

62 PEPPERELL RD KITTERY, ME		
SCALE: 3/16" = 1'-0"	APPROVED BY	DRAWN BY RICK
DATE: 8-6-14		
EXISTING 2ND FLOOR PLAN		
		DRAWING NUMBER A-2



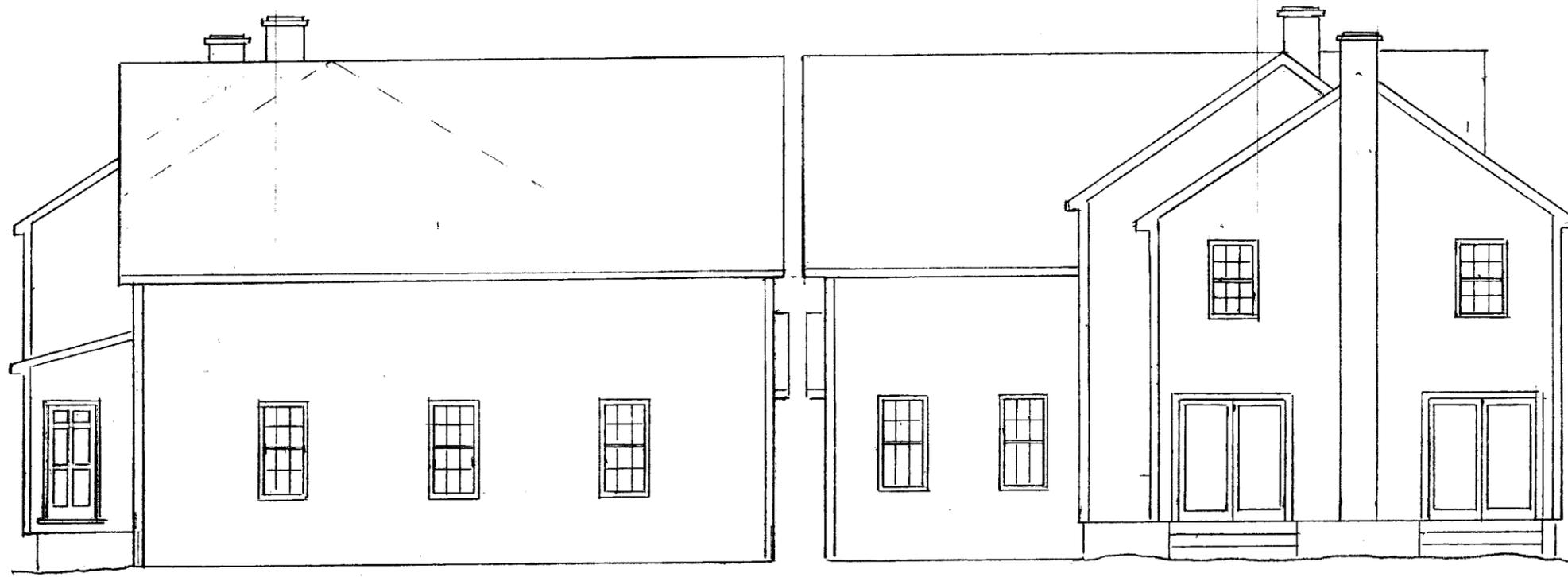
CHARLETTE PROFORM DESIGNS PRINTED ON 30# CHAMPAGNE VELLUM

PEPPERRELL RENOVATION		
SCALE: $\frac{3}{16}'' = 1'-0''$	APPROVED BY	DRAWN BY RICK
DATE: 8.30.14		
WEST ELEVATION		
62 PEPPERRELL DR, KITTERY, ME		DRAWING NUMBER A-3

CHARLETTE PRO-FORM 9288P PRINTED ON 8 1/2" X 11" CHAMPIGNET YELLOW



PEPPERRELL RENOVATION		
SCALE: 3/16" = 1'-0"	APPROVED BY	DRAWN BY: RICK
DATE: 8.30.14		
EAST ELEVATION		
62 PEPPERRELL DR., KITTERY, ME	DRAWING NUMBER	A-4



NORTH ELEVATION

SOUTH ELEVATION

CHARLETTE PRODUCTIONS PRINTED ON 30# CHAMPIGNET VELLUM

<u>PEPPERRELL RENOVATION</u>		
SCALE: $\frac{3}{16}'' = 1'-0''$	APPROVED BY	DRAWN BY RICK
DATE: 8.30.14		
<u>NORTH &amp; SOUTH ELEVATIONS</u>		
62 PEPPERRELL DR., KITTEAY, ME		DRAWING NUMBER A-5



**Town of Kittery Maine  
Town Planning Board Meeting  
November 13, 2014**

**Deuell Revocable Trust – Shoreland Development Plan Review – Public Hearing**

Action: Following public hearing, accept or deny plan application. Owner Deuell Revocable Trust and Applicant Peter Whitman are requesting approval of their plans to expand an existing non-conforming building located at 70 Chauncey Creek Rd., Tax Map 45, Lot 70, in the Kittery Point Village and Shoreland Overlay zones.

**PROJECT TRACKING**

REQ'D	ACTION	COMMENTS	STATUS
NO	Sketch Plan Review		
NO	Site Visit	10/30/14	Held
YES	Determination of Completeness/Acceptance	Application accepted; public hearing and site walk scheduled	10/9/14
NO	Public Hearing	11/13/14; notice 11/6/14; abutter notices mailed 11/3/14	
YES	Final Plan Review and Approval	November 13, 2014	

Plan Review Notes reflect comments and recommendations regarding applicability of Town Land Use Development Code, and standard planning and development practices. Only the PB makes final decisions on code compliance and approves, approves with conditions or denies final plans. 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 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 16.4.4.13 - 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.

**Staff Comments:** (See approved minutes from the October 9, 2014 meeting, page 3)

Applicant is proposing to remove the existing structure on the property and replace with a new structure on the existing footprint. Historical files indicated the stone foundation (31'4" x 34'1") was replaced with an 8" concrete foundation with basement slab in 1997 (see building permit and DEP Permit by Rule, attached). The applicant will utilize the existing, approved foundation to build a new structure measuring 24' x 32'. This is a continuing use in the Shoreland Overlay Zone.

- Non-vegetated coverage (20% allowed): Lot size: 6,800 sf; Coverage allowed: 1,360 sf  
Proposed:  
New structure: 24'x32' = 768 sf  
Deck: 10'x32' = 320 sf  
New Entry: 12'x8' = 96 sf  
Stairs (west): 17.5 sf + landing: 16 sf = 33.5 sf  
Stairs (east): 21 sf  
Retaining wall (existing): 16 sf  
Total: 1,254.5 sf (18.45%) (Existing wood walk and 16 sf steps (north) to be removed)
- Volume (<30% allowed):  
Existing volume: 15,648 cf  
Proposed volume: 20,316 cf  
Increased volume: 29.83%
- Floor Area (<30% allowed):  
Existing area: 2,336 sf  
Proposed area: 2,576 sf  
Increased area: 10.27%

These measurements have been included on the revised Shoreland Development Plan, enclosed.

4. Existing nonconforming side setbacks will remain and new construction will not create greater non-conformities. KPV zone:  
Side and rear Yard setbacks - 15 feet (Rear is not applicable with the 100-foot setback from the creek)  
Front Yard setback - 40 feet  
The addition of a front entry is set back further than the existing structure (to the west) and is located 40 feet from the front property line. There is no change to the minimum waterbody setback; the proposed front entry is not more non-conforming than what currently exists.
5. Applicant proposes to add a 12" (vertical expansion) to the first floor of the new structure, creating a total building height of 28'9" where 35' maximum is allowed in the KPV and Shoreland zones.
6. Subsurface wastewater disposal system application (permit #4276, Revised 7-15-14) prepared by Michael Cuomo is enclosed. Proposal is to install septic and pre-treatment tanks southwest of the existing and proposed structure (see page 6 of 8). Treated effluent will be pumped to a disposal area north of proposed structure (see page 2 of 8). Applicant states there is sufficient clearance for access to settling tank for scheduled pump-out.
7. Data indicates a portion of the proposed structure lies within the A-E Flood Zone. *16.9.8.4 Permit Required. Before any construction or other development (as defined in Section 16.9.8.2), including the placement of manufactured homes, begins within any areas of special flood hazard established in Section 16.9.8.3, a flood hazard development permit is to be obtained from the Code Enforcement Officer. This permit is in addition to any other building/regulated activity permits which may be required pursuant to this code.*

**Board Action:**

Following the Public Hearing, staff recommends the Board approve this application, with conditions.

**Sample Motion:**

Move to approve, with conditions, the Shoreland Development Plan application for 70 Chauncey Creek Road, and read the Findings of Fact dated November 13, 2014.

END OF PLAN REVIEW NOTES

Minutes: October 9, 2014

**ITEM 6 – Deuell Revocable Trust — Shoreland Development Plan Review** Action: Accept or deny plan application and schedule site walk and/or public hearing. Owner Deuell Revocable Trust and Applicant Peter Whitman are requesting approval of their plans to expand an existing non-conforming building located at 70 Chauncey Creek Rd., Tax Map 45, Lot 70, in the Kittery Point Village and Shoreland Overlay zones.

Peter Whitman, Gerrish Island: Requested the Board waive the site walk and public hearing and approve the application. Plan summary:

- Replace existing house and existing overboard septic system;
- Requesting waiver of plan recordation and site plan.
- Volume confirmed by staff; height of building will be within maximum height allowed of 35 feet.
- Summarized the findings of fact noting no impact on shore cover, proposal is not more non-conforming, volume and area increases are within code allowance.

Mr. DiMatteo: Since packets were distributed, an email from an abutter was received requesting a public hearing.

Mr. Whitman: The abutter requesting a public hearing is present and could address their concerns. Other abutters had no concerns. Proposed recording the findings of fact rather than recording a site plan.

Ms. Kalmar: Septic easement.

Mr. Whitman: He spoke with the Holzer's who were concerned with a septic system near their property. The leach field will be moved further away from the Holzer property requiring fill extensions within the ROW. If this cannot be accomplished via an easement, they will be grandfathered with the existing overboard system.

Discussion followed regarding locations of proposed leach field and septic system. Area of leach field in ROW is approximately 10 sf.

Mr. Emerson: Concerned about retention of an overboard discharge system.

Rich Holzer, 72 Chauncey Creek Road: Have only recently seen plans. Proposed plan increases the size of the house mass within 8 feet of their property line; suggested increase be done on opposite side to preserve their light and privacy, where there's more room.

Mr. DiMatteo: Changing the footprint from what is existing in a narrow area will impact existing setbacks.

Mr. Whitman: The foundation exists where they wish to expand, but does not exist on the opposite side of the existing structure and would not be allowed. They will minimize any light impact on the adjacent properties. This is a tight lot with limited area. The Holzer's home is 14 feet from the shared property line. The proposal is in conformance with the code.

Mr. Holzer: A plan and site walk will benefit everybody.

Mr. Emerson: Why the rush?

Mr. Whitman: The septic system needs to be installed within 6 months of the purchase of the property and coordinate with the demolition of the existing structure.

Mr. DiMatteo: A shoreland development plan needs to be recorded as part of plan review.

Ms. Kalmar: There is a level of public confidence, and the Board must review applications in the same manner for all applicants. An abutter has a legal right to voice their concerns at a public hearing.

Mr. Whitman: The only change with the footprint is the addition of an 8x12-foot entry to the front of the new structure, away from the shore line.

Ms. Davis: Concerned with the septic system issue.

Mr. Whitman: Would be agreeable to a site walk and a public hearing.

Mr. DiMatteo: Title 16.7.3.5.6.A needs to be reviewed.

Ms. Kalmar moved to accept the application and schedule a site walk and public hearing,

Mr. Alesse seconded

Motion carried by all members present

KITTERY MAINE TOWN PLANNING BOARD

FINDINGS OF FACT

**UNAPPROVED**

**for  
70 Chauncey Creek Road Structure Replacement  
Shoreland Development Plan Review**

**WHEREAS:** Peter Whitman, Applicant and Deuell Revocable Trust, Owner, requests approval to construct a single family home on an existing foundation at 70 Chauncey Creek Road, Tax Map 45, Lot 70, Kittery Point Village and Shoreland Overlay Zone, hereinafter the “Development”; and pursuant to the Plan Review meetings conducted by the Town Planning Board as noted;

Shoreland Development Review	October 9, 2014
Site Walk	October 30, 2014
Public Hearing	November 13, 2014
Final Approval	November 13, 2014

and pursuant to the Project Application and Plan and other documents considered to be a part of the plan review decision by the Town Planning Board in this Finding of Fact consisting of the following (hereinafter the “Plan”):

1. Shoreland Overlay Zone Project Plan Review Application: October 31, 2014
2. Shoreland Development Plan, prepared by James Verra and Associates, Inc., 10/31/14
3. Subsurface Wastewater Disposal System Application: September 8, 2014; revised 7/15/14
4. Kittery Building Permit, October 17, 1997 and MDEP Permit by Rule, October 8, 1997
5. Warranty Deed: July 7, 2014

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

**FINDINGS OF FACT**

**16.3.2.17. D Shoreland Overlay Zone - Standards.**

*1.d d. The total footprint of areas devegetated for structures, parking lots and other impervious surfaces, must not exceed twenty (20) percent of the lot area, including existing development, except in the following zones:*

Findings: The proposed structures and impervious surfaces total 1,254.5 sf. The lot is 6,800 sf. Impervious surface coverage totals 18.45% (1,245.5 sf), where 20% is allowed

Conclusion: The criteria limiting impervious surface coverage to 20% has been met.

**Vote: \_\_ in favor \_\_ against \_\_ abstaining**

**II. Standards in the Shoreland Overlay Zone**

**Chapter 16.7 GENERAL DEVELOPMENT REQUIREMENTS have been met.**

**16.7.3.1 Prohibitions and Allowances.**

*A. Except as otherwise provided in this Article, a non-conforming condition must not be permitted to*

<i>become more non-conforming.</i>	
<b>Finding:</b> This is an existing non-conforming lot with non-conforming structures. The proposed new structure will be built on the same footprint as the existing structure, and setbacks are located at the greatest practical extent on a lot with a limited building envelope.	
<b>Conclusion:</b> The proposed structure location on a non-conforming lot will not be more non-conforming than the existing structure.	
<b>Vote: <input type="checkbox"/> in favor <input type="checkbox"/> against <input type="checkbox"/> abstaining</b>	
<b>Article III. Nonconformance</b>	
<b>16.7.3.6.1 Expansion.</b>	
<i>A non-conforming structure may be added to, or expanded, after obtaining a permit from the Code Enforcement Officer. Such addition or expansion must not increase the non-conformity of the structure and must be in accordance with the subparagraphs below.</i>	
<i>A. After January 1, 1989, if any portion of a structure is less than the required setback from the normal high-water line of a water body or tributary stream or the upland edge of a wetland, that portion of the structure will not be permitted to expand, as measured in floor area or volume, by thirty percent (30%) or more during the lifetime of the structure.</i>	
Existing volume: 15,648 cf Proposed volume: 20,316 cf <u>Increased volume: 29.83%</u>	Existing area: 2,336 sf Proposed area: 2,576 sf <u>Increased area: 10.27%</u>
<i>B. If a replacement structure conforms to the requirements of Section 16.7.3.6.1.A and is less than the required setback from a water body, tributary stream or wetland, the replacement structure will not be permitted to expand if the original structure existing on January 1, 1989, has been expanded by 30% in floor area and volume since that date.</i>	
<i>C. Whenever a new, enlarged or replacement foundation is constructed under a non-conforming structure, the structure and new foundation must be placed such that the setback requirement is met to the greatest practical extent as determined by the Planning Board, basing its decision on the criteria specified in Section 16.7.3.5.2 – Relocation, below. If the completed foundation does not extend beyond the exterior dimensions of the structure, except for expansion in conformity with Section 16.7.3.5.3, above, and the foundation does not cause the structure to be elevated by more than three (3) additional feet, as measured from the uphill side of the structure (from original ground level to the bottom of the first floor sill), it will not be considered to be an expansion of the structure.</i>	
<b>Finding:</b>	
A-B. Calculations indicate the proposed expansion in volume (29.83%) and square feet (10.27%) meet code requirements regarding expansion in the shoreland zone. No further expansion in volume is allowed.	
C. The existing structure (to be removed) is non-conforming. The location of the proposed dwelling and deck are no more non-conforming, as both are located within the previous non-conforming setbacks and on the existing foundation. A 1997 building permit and DEP Permit by Rule approved the replacement of a 31'4" x 34'1" stone foundation with an 8" concrete foundation with basement slab, and raising the floor elevation by 1 foot. The addition of a front entry is no closer than the existing structure to the side (west) setback and meets the 40-foot front setback requirement.	
<b>Conclusion:</b> The criteria for expansion of a non-conforming structure in the Shoreland Overlay zone appears to have been met, and the location of the structure appears to be in compliance to the greatest practical extent (16.7.3.5.6), given the limited building envelope of the non-conforming lot.	
<b>Vote: <input type="checkbox"/> in favor <input type="checkbox"/> against <input type="checkbox"/> abstaining</b>	

**III. Procedures for Administering Permits For Shoreland Development Review find the development will:**

**16.10.10.2 D.** An Application will be approved or approved with conditions if the reviewing authority makes a positive finding based on the information presented. It must be demonstrated the proposed use will:

<b>1. Maintain safe and healthful conditions;</b>
Finding: The proposed development does not appear to have an adverse impact. Applicant will be removing an existing overboard discharge system and replacing with a new pre-treatment septic system. Erosion and sediment controls will be in place per MDEP Best Management Practices. The proposed use as a single family home is a an existing, non-conforming use in the Shoreland Overlay Zone.
Conclusion: This standards appears to be met.
<b>Vote: __ in favor __ against __ abstaining</b>
<b>2. Not result in water pollution, erosion or sedimentation to surface waters;</b>
Finding: The proposed development does not appear to have an adverse impact. Increase in impervious coverage meets maximum allowance. Maine DEP Best Management Practices will be followed regarding erosion control measures during site preparation and building construction (Condition # 3), to avoid impact on adjacent surface waters.
Conclusion: This standard appears to be met.
<b>Vote: __ in favor __ against __ abstaining</b>
<b>3. Adequately provide for the disposal of all wastewater;</b>
Finding: A pre-treatment septic system is proposed (Permit #4276, Rev. 7/15/14), prepared by Michael Cuomo, licensed site evaluator, is in compliance with State of Maine Subsurface Wastewater Disposal Rules. (see condition #3)
Conclusion: This standard appears to be met.
<b>Vote: __ in favor __ against __ abstaining</b>
<b>4. Not have an adverse impact on spawning grounds, fish, aquatic life, bird or other wildlife habitat;</b>
Finding: There is no change in the intended use of the property (residential). The proposed septic disposal system is in compliance with State of Maine Subsurface Wastewater Disposal Rules. Maine DEP Best Management practices will be followed for erosion and sedimentation control during site preparation and building construction. (see conditions #2 and #4) to avoid impact on adjacent surface waters.
Conclusion: The proposed development does not appear to have an adverse impact, and this standard appears to be met.
<b>Vote: __ in favor __ against __ abstaining</b>
<b>5. Conserve shore cover and visual, as well as actual, points of access to inland and coastal waters;</b>
Finding: There will be no alterations to the shore cover. Applicant proposes to increase the height of the new structure to 28'9" (limit 35'). The proposed structure will set back approximately 120 feet from Chauncey Creek Road, and an existing line of trees between the structure and road prevents direct visual access to coastal waters.

Conclusion: The proposed development does not appear to have an adverse impact, and this standard appears to be met.
<b>Vote: <input type="checkbox"/> in favor <input type="checkbox"/> against <input type="checkbox"/> abstaining</b>
<b>6. Protect archaeological and historic resources;</b>
Finding: The proposed development does not appear to have an adverse impact, as the proposed structure will replace an existing structure on an existing foundation.
Conclusion: This standard appears to be met.
<b>Vote: <input type="checkbox"/> in favor <input type="checkbox"/> against <input type="checkbox"/> abstaining</b>
<b>7. Not adversely affect existing commercial fishing or maritime activities in a commercial fisheries/maritime activities district;</b>
This standard is not applicable.
<b>Vote: <input type="checkbox"/> in favor <input type="checkbox"/> against <input type="checkbox"/> abstaining</b>
<b>8. Avoid problems associated with floodplain development and use</b>
Finding: A portion of the structure appears to be located within the A-E Flood zone. A flood hazard development permit is required, to be obtained from the Code Enforcement Officer. (see condition #5)
Conclusion: The use is an existing, non-conforming use in the Shoreland Overlay Zone. This standard appears to be met, with condition.
<b>Vote: <input type="checkbox"/> in favor <input type="checkbox"/> against <input type="checkbox"/> abstaining</b>
<b>9. Is in conformance with the provisions of this Code;</b>
Finding: The proposed location of the structure will not be more non-conforming than what exists, and conforms to the greatest practical extent given the limitations of the property. The increase in volume, area, and impervious surface impact, and other site improvements appear to be in conformance with the provisions of this Code.
Conclusion: The proposed development is in conformance with the Code.
<b>Vote: <input type="checkbox"/> in favor <input type="checkbox"/> against <input type="checkbox"/> abstaining</b>
<b>10. Be recorded with the York County Registry of Deeds.</b>
Shoreland Development plans must be recorded with the York County Registry of Deeds prior to the issuance of a building permit, and include all waivers and conditions of approval if applicable.
<b>Vote: <input type="checkbox"/> in favor <input type="checkbox"/> against <input type="checkbox"/> abstaining</b>

Based on the foregoing Findings, the Planning Board finds the applicant has satisfied each of the review standards for approval and therefore the Planning Board approves the Shoreland Development Plan Application of Peter Whitman, Applicant and Deuell Revocable Trust, Owner, to construct a single family home on an existing foundation at 70 Chauncey Creek Road, Tax Map 45, Lot 70, Kittery Point Village and Shoreland Overlay Zone, subject to the following conditions and/or waivers:

**Application Waivers:** None

**Conditions of Approval (to be included on final plan to be recorded):**

1. No changes, erasures, modifications or revisions may be made to any Planning Board approved final plan. (Title 16.10.9.1.2)
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. The existing overboard discharge system must be properly removed/abandoned prior to the issuance of an Occupancy Permit.
4. 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.
5. In accordance with Title 16.9.8.10.E (Floodplain Management), structures must be constructed in accordance with Title 16.9.8.8, Development Standards, and the Town of Kittery may enforce any violation of construction requirements. This statement must also be included in any deed or legal document.
6. All Notices to Applicant contained herein (Findings of Fact dated November 13, 2014).

The Planning Board authorizes the Planning Board Chairman 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 \_\_\_\_\_

\_\_\_\_\_  
Thomas Battcock-Emerson, Planning Board Chairman

**Notices to Applicant:**

1. Prior to the release of the signed plans, the applicant must pay all outstanding fees associated with the permitting, including, but not limited to, Town Attorney fees, peer review, newspaper advertisements and abutter notification.
2. State law requires all subdivision 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. One (1) mylar copy and two (2) paper copies of the final plan (recorded plan if applicable) and any and all related state/federal permits or legal documents that may be required, must be submitted to the Town Planning Department.
4. Date of Planning Board approval shall be included on the final plan in the Signature Block.
5. This approval by the Town Planning Board constitutes an agreement between the Town and the Developer, incorporating as elements the Development Plan and supporting documentation, the Findings of Fact, and any Conditions of Approval.

Per Title 16.6.2.A - 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.

November 3, 2014

Chris DiMatteo  
Kittery Planning Board  
200 Rogers Road Ext.  
Kittery, ME 03904

RE:

70 Chauncey Creek Road  
Barbara L. Deuell, Rev. Tr.  
R-KPV, Shoreland Overlay District

Dear Chris,

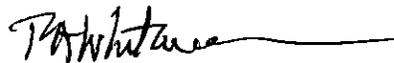
I would like to thank you and the planning board members for attending the site walk on last Thursday morning. It was a pleasure to walk the site and give the board a better understanding of what Barb and I are proposing.

Since we met last month there are a couple of things to update you and the board on.

1. At the request of the board, we have had a plan prepared for recording. This plan has been reviewed by staff and their comments have been incorporated into the plan.
2. Although not pertinent to the application, I want the board to know that the septic plan was redrawn to have the leach field and all fill extensions on our property. It no longer has any fill extensions on the right-of-way. This plan has been approved by the Kittery CEO and Maine DEP. The overboard system will be abandoned and replaced with the approved pre-treatment system. Once the new system has been approved for use, the State will be notified.
3. Jan noticed an error in the Lot Coverage Calculation. The size of the house is 768sf (24x32'), not 864sf as shown. The plan reflects the correct house size.
4. Included is a copy of the deed to Deuell Rev. Tr. supporting ownership of the property.

Please contact me with any questions or concerns. I look forward to seeing you at the meeting on November 13.

Sincerely,



Peter A. Whitman  
5 Sea Oaks Lane  
Kittery Point, ME 03905

# CHAUNCEY CREEK ROAD

CURVE	ARC LENGTH	RADIUS	DELTA ANGLE	CHORD BEARING	CHORD LENGTH
C1	13.37	9.00	85°07'01"	N 48°42'58" E	12.17



PER REFERENCE PLAN 1

RIGHT OF WAY

### LOT AREA COVERAGE

	EXISTING FOOTPRINT (S.F.)	PROPOSED FOOTPRINT (S.F.)
DWELLING	768	768
DECK	320	320
STEPS	16	0
RETAINING WALL & STAIRS	37	37
STAIRS	18	18
ENTRYWAY	0	96
LANDING AT TOP OF STAIRS	16	16
TOTAL	1,175	1,255

LOT SIZE PER REFERENCE PLAN 1 = 6,800 S.F.  
 MAXIMUM NON-VEGETATIVE COVERAGE @20% = 1,360 S.F.  
 LOT AREA COVERAGE CALCULATIONS PER PETER A. WHITMAN

### HOUSE VOLUME (<30% ALLOWED)

EXISTING VOLUME: 15,848 C.F.  
 PROPOSED VOLUME: 20,316 C.F.  
 INCREASED VOLUME: 29.8%

### HOUSE FLOOR AREA (<30% ALLOWED)

EXISTING FLOOR AREA: 2,336 S.F.  
 PROPOSED FLOOR AREA: 2,576 S.F.  
 INCREASED AREA: 10.3%

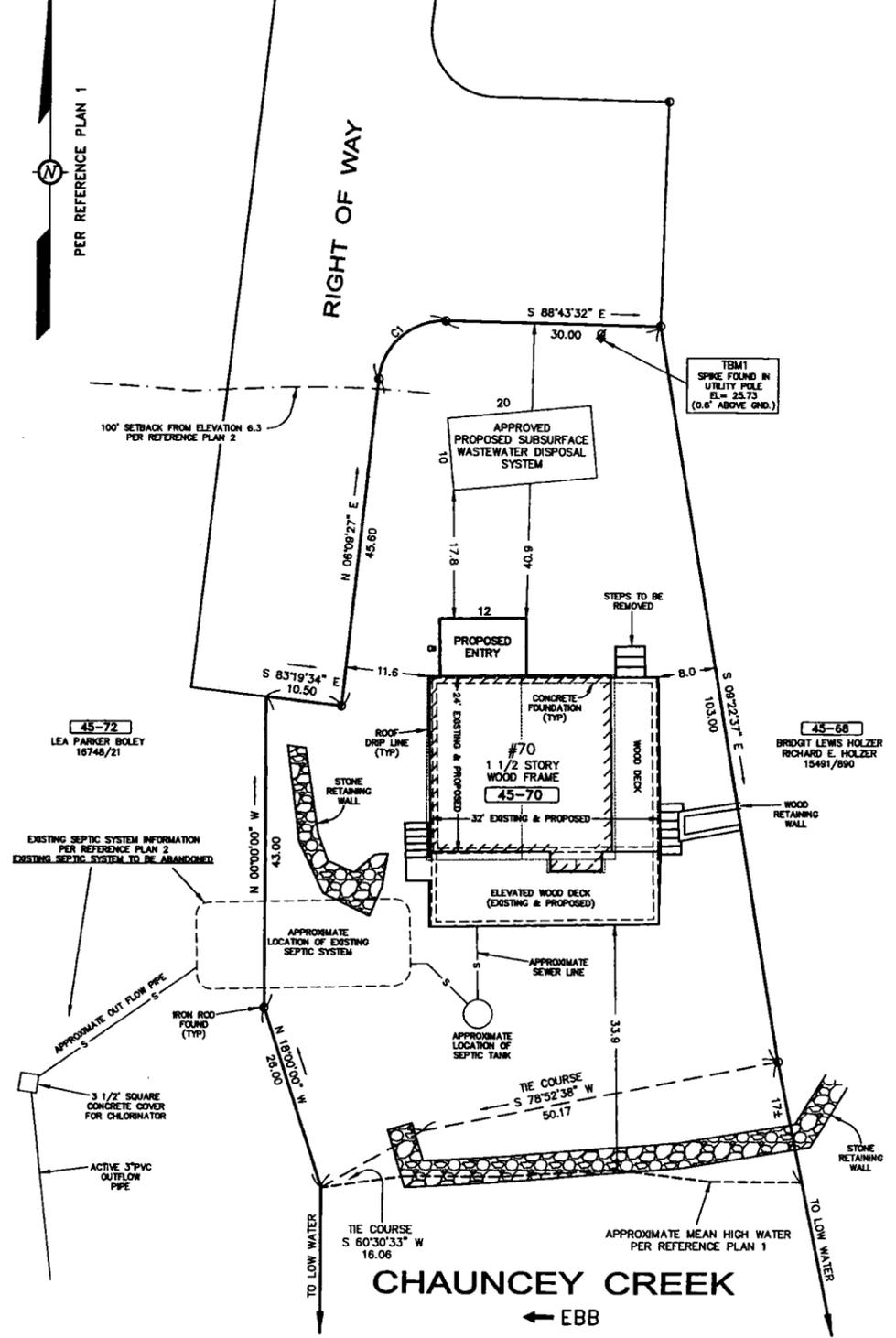
HOUSE VOLUME & FLOOR AREAS PER PETER A. WHITMAN

### NOTES:

- OWNER OF RECORD.....THE BARBARA L. DEUELL REV. TRUST OF 2012  
 ADDRESS.....5 SEA OAKS LANE, KITTERY POINT, ME 03905  
 DEED REFERENCE.....16854/955  
 TAX SHEET / LOT.....45-70  
 TRUSTEE.....BARBARA L. DEUELL
- ZONED.....R-MPV FRONT YARD SETBACK.....40'  
 MINIMUM LOT AREA 40,000 S.F. SIDE YARD SETBACK.....15'  
 FRONTAGE.....150' REAR YARD SETBACK.....15'  
 MAXIMUM BUILDING HEIGHT.....35'  
 PARCEL IS SUBJECT TO THE PROVISIONS OF THE SHORELAND OVERLAY DISTRICT
- BOUNDARY INFORMATION PER REFERENCE PLAN 1.
- SITE TBM ELEVATION INFORMATION TAKEN FROM REFERENCE PLAN 1.  
 VERTICAL DATUM: NAVD 1988  
 PRIMARY BM: MDOT DISK STAMPED "11057-11 2003"
- THE SUBJECT PARCEL LIES FLOOD HAZARD ZONE C (AREAS OF MINIMAL FLOODING) & FLOOD HAZARD ZONE A2 (ELEV 9, VERTICAL DATUM NGVD 1929) PER FLOOD INSURANCE RATE MAP: TOWN OF KITTERY, YORK COUNTY, MAINE, PANEL NO. 230171 0003 C, EFFECTIVE DATE JULY 5, 1984.
- THE LOCATION OF ALL UNDERGROUND UTILITIES SHOWN HEREON ARE APPROXIMATE AND ARE BASED UPON THE FIELD LOCATION OF ALL VISIBLE STRUCTURES (IE CATCH BASINS, MANHOLES, WATER GATES ETC.) AND INFORMATION COMPILED FROM PLANS PROVIDED BY UTILITY COMPANIES AND GOVERNMENTAL AGENCIES. ALL CONTRACTORS SHOULD NOTIFY, IN WRITING, SAID AGENCIES PRIOR TO ANY EXCAVATION WORK AND CALL DIG-SAFE @ 1-888-DIG-SAFE.
- CHAPTER 241 STATE OF MAINE SUBSURFACE DISPOSAL RULES SECTION 7, TABLE 7B, 15' SEPARATION REQUIRED.
- PROPOSED BUILDING HAS 12" EAVES.

### REFERENCE PLANS:

- STANDARD BOUNDARY SURVEY & LOT LINE ADJUSTMENT PLAN, 68 & 70 CHAUNCEY CREEK ROAD, KITTERY POINT, YORK COUNTY, MAINE, OWNED BY JOHN M. RUMMLER & BIRGIT FRANDSEN RUMMLER, REVISED TO 10/15/2010, YORK COUNTY REGISTRY OF DEEDS PLAN BOOK 358, PAGE 11.
- SITE PLAN, 68 CHAUNCEY CREEK ROAD, KITTERY POINT, YORK COUNTY, MAINE, OWNED BY JOHN M. RUMMLER, REVISED TO 11/15/2013, YORK COUNTY REGISTRY OF DEEDS PLAN BOOK 358, PAGE 11.



APPROVED: TOWN OF KITTERY

DATE OF APPROVAL: \_\_\_\_\_



REV. NO.	DATE	DESCRIPTION	APPR'D
<b>SHORELAND DEVELOPMENT PLAN</b> <b>70 CHAUNCEY CREEK ROAD</b> <b>KITTERY POINT, MAINE</b> <b>TAX MAP 45 - LOT 70</b> <b>THE BARBARA L. DEUELL REV. TRUST OF 2012</b> <b>BARBARA L. DEUELL, TRUSTEE</b> <b>5 SEA OAKS LANE, KITTERY POINT, ME 03905</b>			
<b>JAMES VERRA and ASSOCIATES, INC.</b> 101 SHATTUCK WAY SUITE 8 NEWINGTON, N.H., 03801-7876 603-436-3357			DATE: 10-31-2014 JOB NO: 23569 SCALE: 1" = 10' DWG NAME: 23569 PLAN NO: 23569 SHEET: 1 of 1

## Site Walk Minutes

70 Chauncey Creek Road, Shoreland Development Plan Review

October 30, 2014 8:00AM

### Attendees:

Planning Board members: A. Grinnell, K. Kalmar, D. Driscoll-Davis, M. Alesse, D. Lincoln, and T. Battcock-Emerson

Staff; C. Di Matteo; Conservation Commission: Steve Hall

Applicant: Peter Whitman

Other participants: Bridgit and Rich Holzer, 72 Chauncey Creek Road (CCR); John Boley, 68 CCR; Martha Couell, 62 CCR; and Galen Beale, 63 CCR.

Handouts: None

Meeting called to order at 8:05 AM by D. Driscoll-Davis.

P. Whitman oriented the attendees starting with the street (rear) side of the existing house and gave an overview of the proposed work. He commented on his understanding of what the focus of the Planning Board's review, including, to the contrary of Staff's interpretation, that the Board's review and approval does not include the location of the building.

Mr. Whitman discussed the foundation, and that it was a full basement and extended below the existing deck located closest to the boundary shared with 72 CCR. The proposed plan includes constructing the new house over this portion of the foundation. He pointed out, at the rear of the building, a stake that marked the extent of the portion of the new building that will extend past the existing footprint of the house. He stated that it will be no more nonconforming than the existing structure.

Mr. Whitman continued the presentation with discussing the plans and location for the new subsurface wastewater system (septic), stating that the system has been redesigned to have no fill extensions within the Right-Of-Way. The effluent will be pumped up from the Creek facing side of the building to the rear of the property where the new septic is planned to be installed. Mr. Whitman added that if for some reason there was no power for the pump that any possible overflow would take place inside the home rather than outside and in the Creek. The proposed septic is the required 15 feet from the building.

Most of the attendees moved to the creek side of the building and entered the basement, where a discussion of allowed expansion in floor area and volume being less than 30% of the existing structure. Mr. Whitman stated that the proposed plans includes a deck in the same location as the existing one. He also identified in the field the approximate location of the current overboard sewage discharge system that will be replaced.

Meeting ended approximately 8:30AM

Submitted by Chris DiMatteo, Interim Planner, November 5, 2014

Site Pictures



**SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION**

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

<b>PROPERTY LOCATION</b>		<b>&gt;&gt; CAUTION: LPI APPROVAL REQUIRED &lt;&lt;</b>	
City, Town, or Plantation	<u>KITTERY</u>	Town/City	<u>TOWN CTRY</u>
Street or Road	<u>70 CHANCOY CREEK</u>	Date Permitted	<u>PERMIT # 4276</u>
Subdivision, Lot #		Local Plumbing Inspector Signature	<u>RECEIVED 7-15-14</u>
<b>OWNER/APPLICANT INFORMATION</b>		L.P.I. # _____	
Name (last, first, MI)	<u>FRANZSEN, BERGET</u>	I have inspected the installation authorized above and found it to be in compliance with the Subsurface Wastewater Disposal Rules Application.	
Mailing Address of Owner/Applicant	<u>70 CHANCOY CREEK</u>	Municipal Tax Map # _____ Lot # _____	
Daytime Tel. #	<u>207 703 2025</u>	CAUTION: INSPECTION REQUIRED I have inspected the installation authorized above and found it to be in compliance with the Subsurface Wastewater Disposal Rules Application.	
<b>OWNER OR APPLICANT STATEMENT</b>		I state and acknowledge that the information submitted is correct to the best of my knowledge and understanding and that any falsification is reason for the Department to deny a permit.	
Signature of Owner/Applicant: <u>[Signature]</u> Date: <u>7/10/2014</u>		Local Plumbing Inspector Signature: _____ (2nd) date approved: _____	

<b>PERMIT INFORMATION</b>																		
<b>TYPE OF APPLICATION</b>	<b>THIS APPLICATION REQUIRES</b>	<b>DISPOSAL SYSTEM COMPONENTS</b>																
<input type="checkbox"/> 1. First Time System <input checked="" type="checkbox"/> 2. Replacement System Type replaced: <u>O.B.T.D.</u> Year installed: <u>UNKNOWN</u> <input type="checkbox"/> 3. Expanded System <input type="checkbox"/> a. <25% Expansion <input type="checkbox"/> b. >25% Expansion <input type="checkbox"/> 4. Experimental System <input type="checkbox"/> 5. Seasonal Conversion	<input type="checkbox"/> 1. No Rule Variance <input type="checkbox"/> 2. First Time System Variance <input type="checkbox"/> a. Local Plumbing Inspector Approval <input type="checkbox"/> b. State & Local Plumbing Inspector Approval <input checked="" type="checkbox"/> 3. Replacement System Variance <input type="checkbox"/> a. Local Plumbing Inspector Approval <input type="checkbox"/> b. State & Local Plumbing Inspector Approval <input type="checkbox"/> 4. Minimum Lot Size Variance <input type="checkbox"/> 5. Seasonal Conversion Permit	<input checked="" type="checkbox"/> 1. Complete Non-engineered System <input type="checkbox"/> 2. Primitive System (graywater & alt. toilet) <input type="checkbox"/> 3. Alternative Toilet, specify: _____ <input type="checkbox"/> 4. Non-engineered Treatment Tank (only) <input type="checkbox"/> 5. Holding Tank, _____ gallons <input type="checkbox"/> 6. Non-engineered Disposal Field (only) <input type="checkbox"/> 7. Separated Laundry System <input type="checkbox"/> 8. Complete Engineered System (2000 gpd or more) <input type="checkbox"/> 9. Engineered Treatment Tank (only) <input type="checkbox"/> 10. Engineered Disposal Field (only) <input checked="" type="checkbox"/> 11. Pre-treatment, specify: <u>AOS CLEAN SOLUTION</u> <input type="checkbox"/> 12. Miscellaneous Components																
<b>SIZE OF PROPERTY</b>	<b>DISPOSAL SYSTEM TO SERVE</b>	<b>TYPE OF WATER SUPPLY</b>																
<u>22/10</u> <input type="checkbox"/> SQ. FT. <input checked="" type="checkbox"/> ACRES	<input checked="" type="checkbox"/> 1. Single Family Dwelling Unit, No. of Bedrooms: <u>2</u> <input type="checkbox"/> 2. Multiple Family Dwelling, No. of Units: _____ <input type="checkbox"/> 3. Other: _____ (specify)	<input type="checkbox"/> 1. Drilled Well <input type="checkbox"/> 2. Dug Well <input type="checkbox"/> 3. Private <input checked="" type="checkbox"/> 4. Public <input type="checkbox"/> 5. Other																
<b>SHORELAND ZONING</b>	<b>DESIGN DETAILS (SYSTEM LAYOUT SHOWN ON PAGE 3)</b>																	
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<table border="1"> <tr> <td><b>TREATMENT TANK</b></td> <td><b>DISPOSAL FIELD TYPE &amp; SIZE</b></td> <td><b>GARBAGE DISPOSAL UNIT</b></td> <td><b>DESIGN FLOW</b></td> </tr> <tr> <td> <input type="checkbox"/> 1. Concrete  <input type="checkbox"/> a. Regular <u>(WATERLOGGED)</u>  <input type="checkbox"/> b. Low Profile  <input checked="" type="checkbox"/> 2. Plastic <u>OR CONCRETE</u>  <input type="checkbox"/> 3. Other: _____                  CAPACITY: <u>350</u> GAL.             </td> <td> <input checked="" type="checkbox"/> 1. Stone Bed <input type="checkbox"/> 2. Stone Trench  <input type="checkbox"/> 3. Proprietary Device  <input type="checkbox"/> a. cluster array <input type="checkbox"/> c. Linear  <input type="checkbox"/> b. regular load <input type="checkbox"/> d. H-20 load  <input type="checkbox"/> 4. Other: <u>10' x 20'</u>                  SIZE: <u>200</u> <input checked="" type="checkbox"/> sq. ft. <input type="checkbox"/> lin. ft.             </td> <td> <input checked="" type="checkbox"/> 1. No <input type="checkbox"/> 2. Yes <input type="checkbox"/> 3. Maybe                  If Yes or Maybe, specify one below:  <input type="checkbox"/> a. multi-compartment tank  <input type="checkbox"/> b. _____ tanks in series  <input type="checkbox"/> c. increase in tank capacity  <input type="checkbox"/> d. Filter on Tank Outlet             </td> <td> <u>120</u> gallons per day                  BASED ON:  <input checked="" type="checkbox"/> 1. Table 4A (dwelling unit(s))  <input type="checkbox"/> 2. Table 4C (other facilities)                  SHOW CALCULATIONS for other facilities             </td> </tr> <tr> <td><b>SOIL DATA &amp; DESIGN CLASS PROFILE CONDITION</b></td> <td><b>DISPOSAL FIELD SIZING</b></td> <td><b>EFFLUENT/EJECTOR PUMP</b></td> <td><b>LATITUDE AND LONGITUDE</b></td> </tr> <tr> <td> <u>12(C) C</u>                  a) Observation Hole # <u>ONE</u>                  Depth <u>22</u>"                  of Most Limiting Soil Factor             </td> <td> <input type="checkbox"/> 1. Medium---2.6 sq. ft. / gpd  <input checked="" type="checkbox"/> 2. Medium---Large 3.3 sq. ft. / gpd  <input type="checkbox"/> 3. Large---4.1 sq. ft. / gpd  <input type="checkbox"/> 4. Extra Large---5.0 sq. ft. / gpd             </td> <td> <input type="checkbox"/> 1. Not Required  <input type="checkbox"/> 2. May Be Required  <input checked="" type="checkbox"/> 3. 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<b>SITE EVALUATOR STATEMENT</b>		
I certify that on <u>30 MAY 14</u> (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).		
Signature: <u>[Signature]</u> Site Evaluator Signature	SE #: <u>211</u>	Date: <u>10 JUL 14</u>
Name: <u>Michael Cuomo</u> Site Evaluator Name Printed	Telephone Number: <u>(207) 363-4532</u>	E-mail Address: <u>mcuomosoi@gmail.com</u>
Note: Changes to or deviations from the design should be confirmed with the Site Evaluator.		

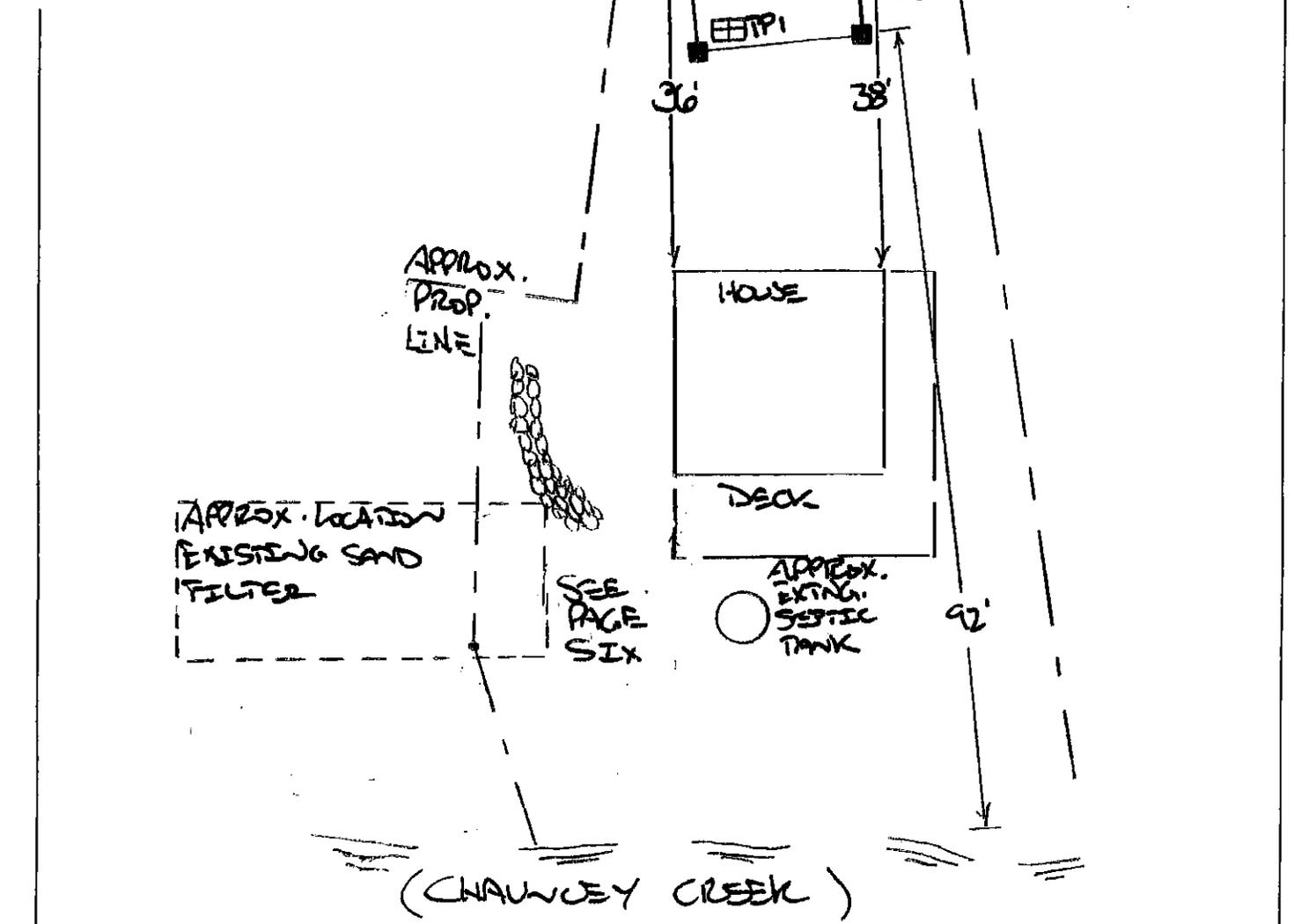
SITE PLAN      Scale 1" = 20 ft.



> Pump out and remove or crush/fill & bury in place existing septic tank.

> Abandon in place existing sand filter.  
> Location of water service unknown; Must be 10ft or more from effluent disposal area; relocate if necessary.

Temporary stakes at corners of 10ft x 20ft effluent disposal area (EDA).



Town, City, Plantation <b>KITTERY</b>	Street, Road, Subdivision <b>70 CHAUNCEY CREEK RD.</b>	Owner's Name <b>FRANDSEN</b>
--	---	---------------------------------

**SUBSURFACE WASTEWATER DISPOSAL PLAN**

SCALE: 1" = 20 FT.

**DISPOSAL AREA MUST BE INSTALLED PER THIS PLAN AND STATE RULES  
(SEE ATTACHED SPECIFICATIONS)**

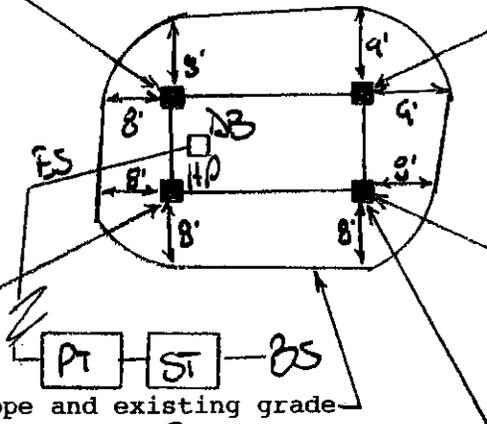
**ABBREVIATIONS:** Building Sewer (BS); Septic Tank (ST); Pretreatment Unit (PT);  
Effluent Sewer (ES); Distribution Box (DB); and High Point (HP).  
Existing Grade (EG) and Finish Grade (FG) referenced to nail at zero.

Depth of Fill +16"  
EG -51" FG -38"

+18" Depth of Fill  
EG -56" FG -38"

Depth of Fill +16"  
EG -51" FG -38"

+16" Depth of Fill  
EG -51" FG -38"



Intersection of fill slope and existing grade  
Temporary stake at corners of 10x20 ft. disposal area

FILL REQUIREMENTS	CONSTRUCTION ELEVATIONS	ELEVATION REFERENCE POINT
Depth of Fill (Upslope) <u>+16"</u>	Finished Grade Elevation <u>-38"</u>	Location & Description: <u>UTILITY POLE</u>
Depth of Fill (Downslope) <u>+18"</u>	Top of Distribution Pipe or Proprietary Device <u>-51"</u>	Reference Elevation: <u>NAIL = ZERO</u>
	Bottom of Disposal Area <u>-62"</u>	

**DISPOSAL AREA CROSS SECTION**

Scale N/A  
Horizontal 1" =      ft.  
Vertical 1" =      ft.

See next page

Test pits by Peter Drummond, LSE #361, 24 December 2008.  
Used with permission.

Where ST or PT access cover is more than 6" below FG, a watertight riser at least 18" dia. must be provided to within 6" of FG. Location of ST may vary.

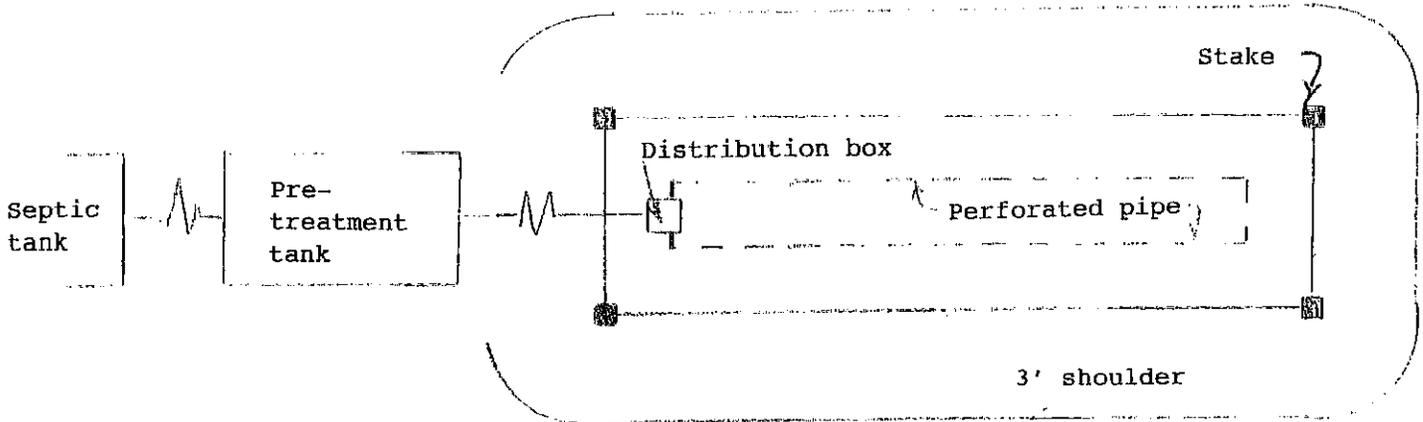
DBox must be frost protected with 2" HD expanded rigid polystyrene insulation. The DBox may be placed at either end of the disposal area.

Do not work soil when wet

Town: **KITTERY**

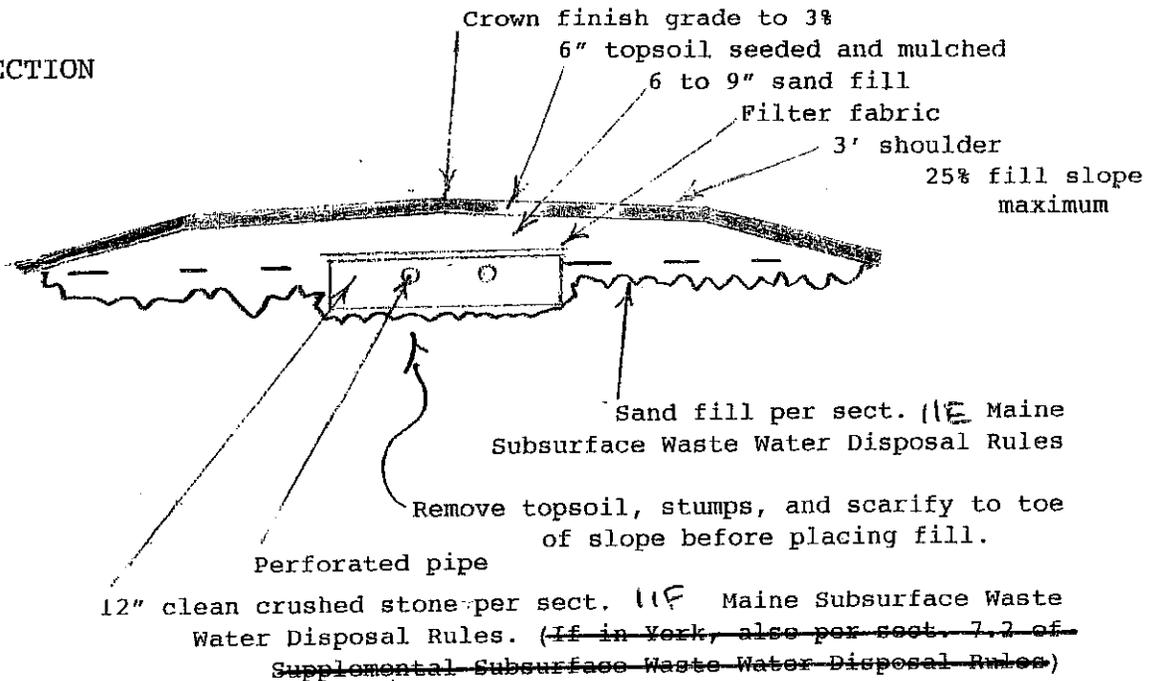
Street: **70 CHANCEY CREEK RD.** Owner: **FRANSEN**

PLAN VIEW  
This bed is 10 x 20 feet



Pre-treatment model: **CLEAN SOLUTION MODEL 250**  
 Manufacturer: **ADVANCED ON-SITE SOLUTIONS**  
 Contact phone #: **603 783 8042**

CROSS SECTION



*Michael Amos*

SE# 211 Date: 10 JUL 14

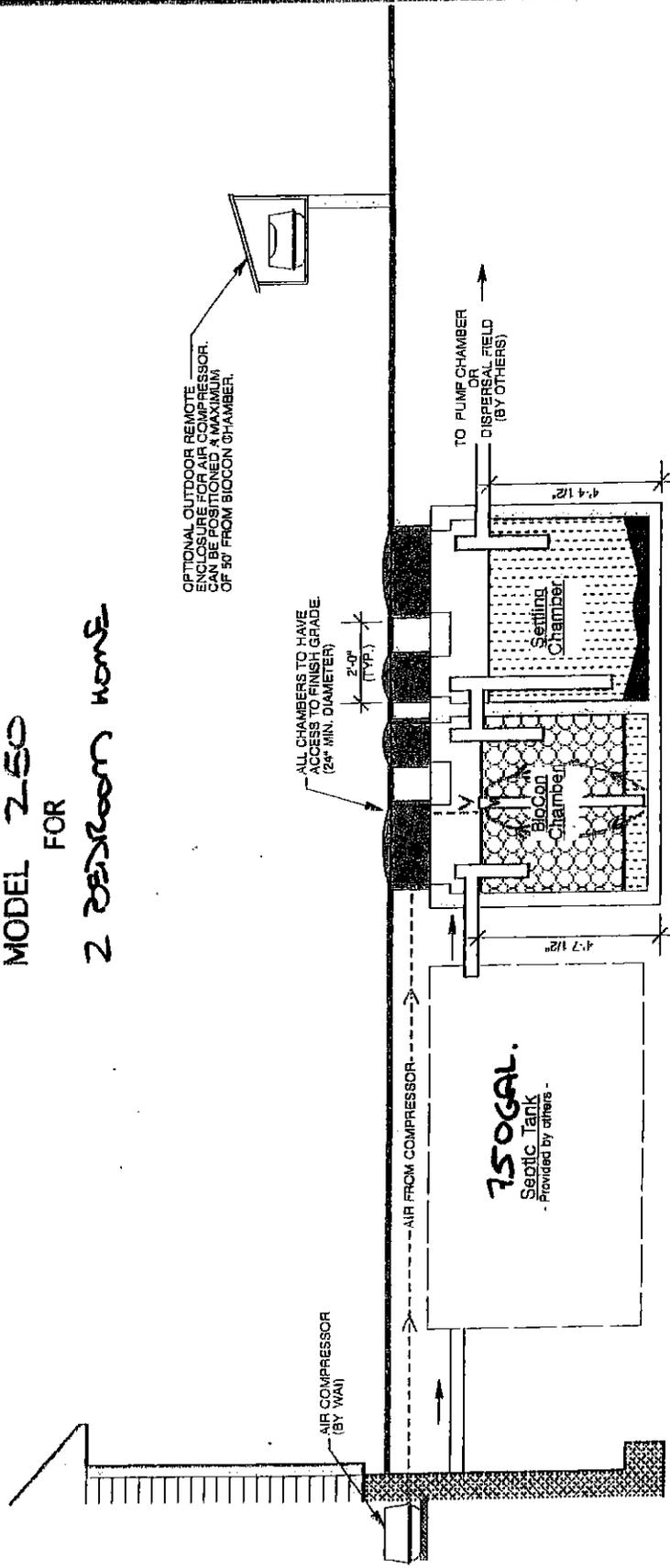
Page 4 of 8

Town  
**KITTERY**

Location  
**70 CHANNING CREEK RD.**

Owner  
**FRANSEN**

**THE CLEAN SOLUTION™ ALTERNATIVE SEPTIC SYSTEM**  
**MODEL 2-50**  
**FOR**  
**2 BEDROOM HOME**



OPTIONAL OUTDOOR REMOTE ENCLOSURE FOR AIR COMPRESSOR. CAN BE POSITIONED A MAXIMUM OF 50' FROM BIOCON CHAMBER.

ALL CHAMBERS TO HAVE ACCESS TO FINISH GRADE (24" MIN. DIAMETER)

2'-0" (TYP.)

TO PUMP CHAMBER OR DISPERSAL FIELD (BY OTHERS)

4'-7 1/2"

4'-4 1/2"

**BioCon/Setting Tank**

- Provided by WAI -  
**1000 GAL 2-Compartment Tank**

**Advanced Onsite Solutions LLC**  
*innovative wastewater solutions with sustainable results*  
P.O. Box 248  
Canterbury, NH 03224  
Phone 603.783.8042

**NOTES:**

1. Septic Tank & Settling Compartment must be pumped every 2 years. More frequent pumping may be required depending on use.
2. Tank is not suitable for drive on use. Heavy Duty and H-20 models available.
3. Contractor to verify tank dimensions prior to setting.
4. Plastic risers will be provided to suite site (up to 2'4" depth).  
Contractor to provide additional risers if cover over tank exceeds 2'4".



Michael Cuomo  
*Michael Cuomo*

SE #211

Date **10 JUL 14**

Page **5** of **8**

# SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Maine Dept. of Health & Human Services  
 Division of Environmental Health, STS 11  
 (207) 287-5689 FAX (207) 287-3165

Town, City, Plantation

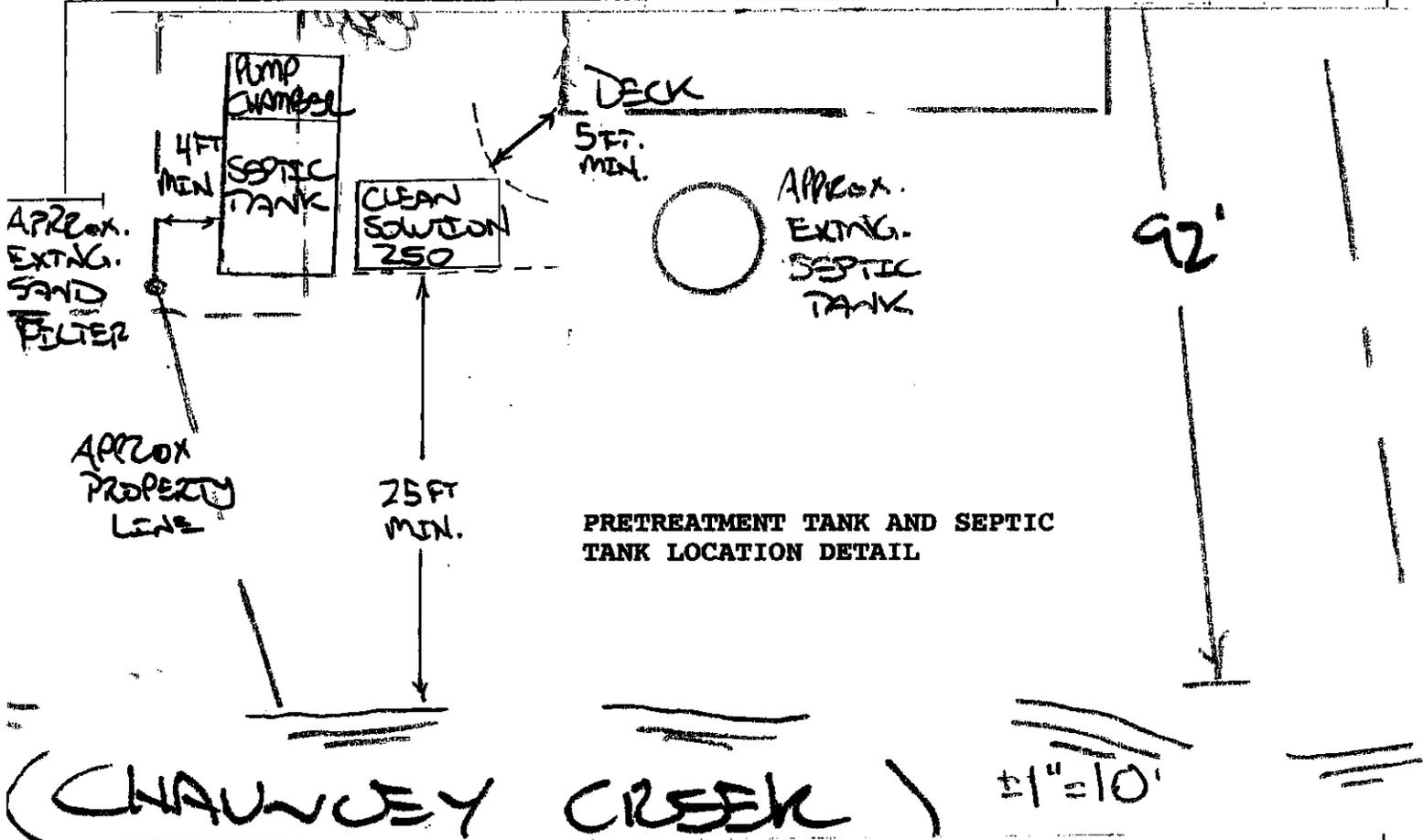
KITTERY PT.

Street, Road, Subdivision

70 CHAUNCEY CREEK

Owner or Applicant Name

FRANDSEN



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

Observation Hole One  Test Pit  Boring  
 0 " Depth of Organic Horizon Above Mineral Soil

Depth Below Mineral Soil Surface (inches)	Texture	Consistency	Color	Mottling
0	Stony fine sandy loam mixed fill	Friable	Dark yellowish brown	None
10	loam mixed fill		Yellowish brown	
20	Fine sand fill	Loose	Light gray	Mottles
30	St f s l		V. dark brown	
35	X	X	X	X
35	Bedrock or boulder			

Soil Classification <u>12(2) AIII/C</u> Profile Condition	Slope <u>1</u> %	Limiting Factor <u>32</u> "	<input type="checkbox"/> Ground Water <input type="checkbox"/> Restrictive Layer <input checked="" type="checkbox"/> Bedrock <input type="checkbox"/> Pit Depth
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Observation Hole Two  Test Pit  Boring  
 0 " Depth of Organic Horizon Above Mineral Soil

Depth Below Mineral Soil Surface (inches)	Texture	Consistency	Color	Mottling
0	Stony fine sandy loam fill	Friable	Dark brown	None
10	loam fill		Light gray	
20	Fine sand fill	Loose	Light gray	Mottles
30	Stony fine sandy loam		Dark brown	

Soil Classification <u>12(2) C</u> Profile Condition	Slope <u>2</u> %	Limiting Factor <u>22</u> "	<input checked="" type="checkbox"/> Ground Water <input type="checkbox"/> Restrictive Layer <input type="checkbox"/> Bedrock <input type="checkbox"/> Pit Depth
--	---------------------	--------------------------------	--

*Michael Cannon*  
 Site Evaluator Signature

211  
 SE #

10 JUL 14  
 Date

# SUBSURFACE WASTEWATER DISPOSAL SYSTEM VARIANCE REQUEST - REPLACEMENT SYSTEM

This form must accompany an application (HHE-200 Form) for any subsurface wastewater disposal system which requires a variance to provisions of the Subsurface Wastewater Disposal Rules. The Local Plumbing Inspector must not issue a permit for the installation of a subsurface wastewater disposal system requiring a variance from the Department of Health and Human Services until approval has been received from the Department.

### GENERAL INFORMATION

Town of KITTERY  
Property Owner's Name: BIRGIT FRAUDSEN Tel. No.: 703 2025  
System's Location: 70 CHANNY CREEK RD. KITTERY MT.  
Property Owner's Address: SAME Zip Code 03905  
e-mail address: birgitme@comcast.net

The subsurface wastewater disposal system design for the subject property requires a  replacement system variance  first-time system variance to the Subsurface Wastewater Disposal Rules. This variance requires  local approval  local and state approval.

### SPECIFIC VARIANCE REQUESTED (To be filled in by Site Evaluator. Use additional sheets if needed.) SECTION OF RULE

SEE NEXT PAGE

### SITE EVALUATOR

When a property is found to be unsuitable for subsurface wastewater disposal by a licensed Site Evaluator, the Evaluator shall so inform the property owner. If the property owner, after exploring all other alternatives, wishes to request a variance to the Rules, and the Evaluator in his professional opinion feels the variance request is justified and the site limitations can be overcome, he shall document the soil and site conditions on the Application. The Evaluator shall list the specific variances necessary plus describe below the proposed system design and function. The Evaluator shall further describe how the specific site limitations are to be overcome, and provide any other support documentation as required prior to consideration by the Department. Attach a separate sheet if necessary.

The small size of this lot provide no better options for siting this replacement wastewater disposal system.

I, Michael Cuomo, S.E. #211, certify that a variance to the Rules is necessary since a system cannot be installed which will completely satisfy all the Rule requirements. In my judgment, the proposed system design on the attached Application is the best alternative available; enhances the potential of the site for subsurface wastewater disposal; and that the system should function properly.

Michael Cuomo 10 JUL 14  
SIGNATURE OF SITE EVALUATOR DATE

### PROPERTY OWNER

I, Birgit Fraudsen, am the ~~owner~~ agent for the owner of the subject property. I understand that the installation on the Application is not in total compliance with the Rules. Should the proposed system malfunction, I release all concerned provided they have performed their duties in a reasonable and proper manner, and I will promptly notify the Local Plumbing Inspector and make any corrections required by the Rules. By signing the variance request form, I acknowledge permission for representatives of the Department to enter onto the property to perform such duties as may be necessary to evaluate the variance request.

Birgit Fraudsen 7/10/2014  
SIGNATURE OF OWNER DATE

Not Attorney-in-Fact  
AGENT OF THE OWNER

**LOCAL PLUMBING INSPECTOR - Approval at local level**

The local plumbing inspector shall review all variance requests prior to rendering a decision.

I, Shelly Bishop, the undersigned, have visited the above property and find that the variance request submitted by the applicant does not conform with certain provisions of the wastewater disposal rules. The variance request submitted by the applicant is the best alternative for a subsurface wastewater disposal system on this property. The proposed system (  does  does not) conflict with any provisions controlling subsurface wastewater disposal in the shoreland zone. Therefore, I (  do  do not) approve the requested variance. I (  will  will not) issue a permit for the system's installation as proposed by the application.

Shelly Bishop \_\_\_\_\_ Date 7-15-14

**LOCAL PLUMBING INSPECTOR - Referral to the Department**

The local plumbing inspector shall review all variance requests prior to forwarding to the Division of Environmental Health.

I, \_\_\_\_\_, the undersigned, have visited the above property and find that the variance request submitted by the applicant does not conform with certain provisions of the wastewater disposal rules. The variance request submitted by the applicant is the best alternative for a subsurface wastewater disposal system on this property. The proposed system (  does  does not) conflict with any provisions controlling subsurface wastewater disposal in the shoreland zone. Therefore, I (  do  do not) recommend the issuance of a permit for the system's installation as proposed by the application.

\_\_\_\_\_  
LPI Signature \_\_\_\_\_ Date

**FOR USE BY THE DEPARTMENT ONLY**

The Department has reviewed the variance(s) and (  does  does not) give its approval. Any additional requirements, recommendations, or reasons for the Variance denial, are given in the attached letter.

\_\_\_\_\_  
SIGNATURE OF THE DEPARTMENT \_\_\_\_\_ DATE

HHE-204

**VARIANCES**

- Setback from property line to septic tank;  
10ft req'd 4, ft provided.
- Setback from deck on posts to septic tank;  
10 ft req'd, 5 ft provided.
- Setback from major watercourse to effluent disposal area (EDA);  
100ft req'd, 92 ft provided.
- Setback from major watercourse to watertight septic tank;  
50ft req'd, 25 ft provided.

**BUILDING/REGULATED ACTIVITY PERMIT** Oct 17, 19 97, Value 25,000 Map # 45 Lot # 70  
 Owner JOHN RUMBLE Location 70 Chauncey Creek Road No. 97-196  
 Mailing Address 6 Chauncey Creek Rd Zip 04360 Tel. (W) 436-2809  
 Applicant SEMO Contractor \_\_\_\_\_  
 Plumbing Permit No., Interior N/A Exterior \_\_\_\_\_ No. Baths N/A Dist. to Water 50'  
 Plot Plan N/A Yard Spaces NO CHANGE ft. front R/W line \_\_\_\_\_ ft. rear \_\_\_\_\_  
 Building Plan FILE Dimensions SEE ELEVATION PLAN Ht. 31' FROM LOW GRADE Ft. \_\_\_\_\_  
 Structural type N/A, Style N/A, Foundation POURED CONC., Basement FULL W/D/ UNFIN  
 Ext. WOOD SH., Int. N/A, Roof N/A, Insul. IP RIGID, Elect. N/A  
 Heat N/A, Fireplace/Stove N/A, Other N/A

Occupancy Permit Required Yes  No   
Raise existing cottage by 1 foot.

In accordance with the Land Use and Development Code Zoning Ordinance for the Town of Kittery, Maine, this application for a Building Permit is hereby approved by \_\_\_\_\_ Code Enforcement Officer.  
 Owner's signature [Signature]

Applicant other than owner:  
 I hereby certify that the proposed construction and/or use is authorized by the owner of record and I have been instructed by the owner to make this application as his authorized agent.  
 Signature of Agent \_\_\_\_\_ Tel. \_\_\_\_\_  
 Address \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

PERMIT WILL BECOME NULL AND VOID IF CONSTRUCTION WORK IS NOT STARTED WITHIN SIX MONTHS OF DATE THE PERMIT IS ISSUED AS NOTED ABOVE.

IN PROGRESS INSPECTIONS INDICATED ON THIS CARD CAN BE ARRANGED FOR BY TELEPHONE 439-6807.

**THIS PERMIT EXPIRES 2 YEARS AFTER DATE OF ISSUANCE**

**DEPARTMENT OF ENVIRONMENTAL PROTECTION (DEP)  
PERMIT BY RULE NOTIFICATION FORM**  
(For use with DEP Regulation, Chapter 305)

62

PLEASE TYPE OR PRINT IN BLACK INK ONLY (3 COPIES, PLEASE BEAR DOWN)

Applicant: J. M. RUMBLE		Name of Owner: E. H. G. ...	
Mailing Address: 70 CHANCKEY CREEK RD		Town/City: KITTERY POINT	
State: ME	Zip Code: 02945	Daytime Telephone No. (include area code): 603-426-2801	
Name of Wetland, Water Body or Stream: CHANCKEY CREEK RD.			
Detailed Directions to Site: ROUTE 95 S. TO KITTERY TRAFFIC CIRCLE. TAKE ROUTE 103 EAST PAST 2 NAVY YARD ENTRANCES PAST POST OFFICES/PIERCE'S GARAGE TO C. CREEK RD. ON RIGHT. 8 HOLES EAST SIDE ON RIGHT.			
Town/City: KITTERY	Map #: 45	Lot #: 70	County: YORK
Description of Project: REPLACEMENT OF EXISTING (21'-4" x 24'-1") STONE FOUNDATION w/ NEW 8" CONCRETE FOUNDATION w/ BASEMENT SLAB. FLOOR ELEVATION RAISED +1'-0". NO CHANGE TO FOOTPRINT			

(CHECK ONE) This project: does  does not  involve work below mean low water.

I am filing notice of my intent to carry out work which meets the requirements for Permit By Rule (PBR) under DEP Regulation, Chapter 305. I have a copy of PBR Sections checked below. I have read and will comply with all of the standards.

- |  |  |   |
|--|--|---|
| <input checked="" type="checkbox"/> Sec. (2) Soil Disturbance          | <input type="checkbox"/> Sec. (7) Riprap                           | <input type="checkbox"/> Sec. (13) Piers & Pilings            |
| <input type="checkbox"/> Sec. (3) Intake Pipes                         | <input type="checkbox"/> Sec. (8) Utility Crossing                 | <input type="checkbox"/> Sec. (14) Public Boat Ramps          |
| <input checked="" type="checkbox"/> Sec. (4) Replacement of Structures | <input type="checkbox"/> Sec. (9) Stream Crossing                  | <input type="checkbox"/> Sec. (15) Select Sand Dune Projects  |
| <input type="checkbox"/> Sec. (5) Movement of Rocks or Vegetation      | <input type="checkbox"/> Sec. (10) State Transportation Facilities | <input type="checkbox"/> Sec. (16) Transfers/Permit Extension |
| <input type="checkbox"/> Sec. (6) Outfall Pipes                        | <input type="checkbox"/> Sec. (11) Restoration of Natural Areas    | <input type="checkbox"/> Sec. (17) Maintenance Dredging       |
|  | <input type="checkbox"/> Sec. (12) Fish & Wild. Creation/Enhance   |   |

I authorize staff of the Departments of Environmental Protection, Inland Fisheries & Wildlife, and Marine Resources to access the project site for the purpose of determining compliance with the rules. I also understand that *this permit is not valid until approved by the Department or 14 days after receipt by the Department, whichever is less.*

I have attached all of the following required submittals. NOTIFICATION FORMS CANNOT BE ACCEPTED WITHOUT THE NECESSARY ATTACHMENTS:

- Attach a check for \$35 (non-refundable) made payable to: "Treasurer, State of Maine".
- Attach a U.S.G.S. topo map or Maine Atlas & Gazetteer map with the project site clearly marked.
- Attach photographs showing existing site conditions (unless not required under standards).

Signature of Applicant: J.M. Rumble	Date: 9/23/97
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**Keep the bottom copy as a record of permit.** Send the form with attachments via certified mail to the Maine Dept. of Environmental Protection at the appropriate regional office listed below. The DEP will send a copy to the Town Office as evidence of the DEP's receipt of notification. No further authorization by DEP will be issued after receipt of notice. Permits are valid for two years. Work carried out in violation of any standard is subject to enforcement action.

AUGUSTA DEP STATE HOUSE STATION 17 AUGUSTA, ME 04333-0017 (207)287-2111	<input checked="" type="checkbox"/> PORTLAND DEP 312 CANCO ROAD PORTLAND, ME 04103 (207)822-6300	BANGOR DEP 106 HOGAN ROAD BANGOR, ME 04401 (207)941-4570	PRESQUE ISLE DEP 1235 CENTRAL DRIVE PRESQUE ISLE, ME 04769 (207)764-0477
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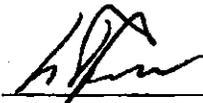
OFFICE USE ONLY	Ck.# 16.74	Date 10/8/97	Staff JEB	Staff
PBR # 19125	FP 35.00		Acc. Date 10/8/97	Def. Date
				After Photos

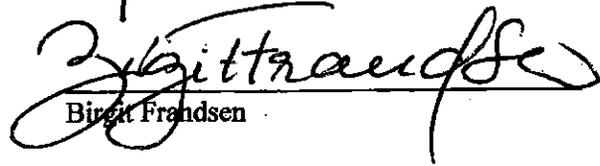
**WARRANTY DEED**

KNOW ALL PERSONS BY THESE PRESENTS, That I, BIRGIT FRANDSEN, also known as BIRGIT RUMMLER, of Kittery Point, in Kittery, County of York and State of Maine, for consideration paid, grant to BARBARA L. DEUELL, Trustee of THE BARBARA L. DEUELL REVOCABLE TRUST OF 2012, u/d/t dated February 10, 2012, of Kittery Point, County of York and State of Maine, whose mailing address is 5 Sea Oaks Lane, Kittery Point, Maine 03905, with WARRANTY COVENANTS, a certain lot or parcel of land, together with the buildings and improvements located thereon, situated at 70 Chauncey Creek Road, in Kittery Point, in the Town of Kittery, County of York and State of Maine, and being more specifically bounded and described as follows:

See attached EXHIBIT A for a more specific description of the premises herein conveyed, which description is hereby incorporated herein by this reference.

WITNESS my hand this 7 day of ~~July~~ June 2014.

  
\_\_\_\_\_  
Witness

  
\_\_\_\_\_  
Birgit Frandsen

**KINGDOM OF DENMARK  
CITY OF COPENHAGEN  
EMBASSY OF THE  
UNITED STATES OF AMERICA**

~~July~~  
June 7, 2014

Personally appeared before me the above-named Birgit Frandsen, known to me or satisfactorily proven to be the person who executed the within document, and acknowledged the foregoing instrument to be her voluntary act and deed.

Before me,

  
\_\_\_\_\_

Consul of the United States of America  
Jonathan K. Webster

Print Name: \_\_\_\_\_  
Consul

## EXHIBIT A

A certain tract or parcel of land together with buildings thereon, located south of but not adjacent to Chauncey Creek Road, Kittery Point, York County, Maine, depicted as "Tax Map 51 Lot 70" on a plan entitled "Standard Boundary Survey and Lot Line Adjustment Plan" for property at 68 & 70 Chauncey Creek Road, Kittery Point, York County, Maine, owned by John M. Rummmler & Birgit Frandsen Rummmler, prepared by North Easterly Surveying, Inc., dated 10/7/10, last revised 10/15/10, which plan is recorded in the York County Registry of Deeds at Plan Book 358, Page 11, and being more particularly described as follows:

Beginning at the low water line on the northerly side of Chauncey Creek being the southeasterly corner of land depicted as Tax Map 51 Lot 72 on the aforementioned plan and the southwesterly corner of the herein described parcel of land; thence running N 00° 00' 00" E along said Tax Map 51 Lot 72 to a point at the high water line of said Chauncey Creek; thence running N 18° 00' 00" W along said Tax Map 51 Lot 72 a distance of 26.00 feet to an iron rod; thence running N 00° 00' 00" E along said Tax Map 51 Lot 72 a distance of 43.00 feet to a point at the southerly end of a right of way; thence running S 83° 19' 34" E along the end of said right of way a distance of 10.50 feet to an iron rod at the southeasterly corner of said right of way; thence running N 06° 09' 27" E along the sideline of said right of way a distance of 45.60 feet to an iron rod; thence running northeasterly along the sideline of said right of way by a curve to the right having a radius of 9.00 feet a distance of 13.37 feet to an iron rod; thence running S 88° 43' 32" E along the sideline of said right of way a distance of 30.00 feet to an iron rod at land now or formerly of Bridgit Lewis Holzer and Richard E. Holzer; thence running S 09° 22' 37" E along land of said Holzers a distance of 103.00 feet to an iron rod; thence running S 11° 36' 11" E along land of said Holzers a distance of 17 feet plus or minus to the high water line of said Chauncey Creek; thence running westerly along the low water line of said Chauncey Creek to the point of beginning, containing 0.16 plus or minus acres of land.

The aforementioned plan incorrectly refers to the abutting lot as being on Tax Map 51 rather than the correct map which is Map 45.

Conveying also a right of way from Chauncey Creek Road into and over a curbed parkway to the premises herein conveyed.

Together with all right, title and interest, if any, on the shore of Chauncey Creek, so-called, between high and low water mark.

Meaning and intending to convey and hereby conveying the same premises conveyed to Birgit Rummmler by warranty deeds from Gifford S. Horton dated December 31, 1986 and recorded in the York County Registry of Deeds at Book 4141, Page 073 and

074, with the exception of the portion conveyed by quitclaim deed from Birgit Frandsen Rummmler to John M. Rummmler dated December 13, 2012 and recorded at Book 16485, Page 69.

**Town of Kittery  
Planning Board Meeting  
November 13, 2014**

**Betty Welch Road Cluster Subdivision - Sketch Plan Review**

Landmark Properties, LTD., owner and Chinburg Builders, Inc., applicant, proposes to develop a 24-lot single family cluster subdivision on 86.5 +/- acres. The site is identified as Tax Map 66 Lots 2A & 8 in the Residential Rural and Shoreland Overlay Zones. Agent is Jeff Clifford, P.E., Attar Engineering.

**PROJECT TRACKING**

REQ'D	ACTION	COMMENTS	STATUS
Yes	Sketch Plan Review / Concept Approval	TBD 8/14/14, Continued for not more than 90 days	<b>PENDING</b>
Yes	Site Visit	Title 16.10.5.1.3, Scheduled for 9/24/2014	<b>HELD</b>
Yes	Preliminary Plan Review Completeness/Acceptance		
Yes	Public Hearing		
Yes	Preliminary Plan Approval		
Yes	Final Plan Review		

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.** Per Section 16.4.4.13 - 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 has been duly recorded in the York County registry of deeds, when applicable.

**Background**

The Planning Board accepted the application as complete with the expectation that a High Intensity Soil Survey be completed and submitted before returning to the Board. The Board scheduled and held a site walk and continued the application not to exceed 90 days. The Applicant has submitted the soil survey and is requesting more feedback on the concept plan.

**Staff Comments:** (from 9/11/2014 Plan Review Notes)

Review of 7/24/14 submittal documents: Application, Project Narrative and attachments; Proposed subdivision plan sheets CC-1, CC-2 and CC-3.

**Title 16.8.11.5. - Application Procedure - Sketch Plan**

- A.1.a Dimensional standards and identified areas for modification included (Sheet CC-3). Exact modification requests should be submitted at Preliminary Plan Completeness Review.
- A.1.b Current floodplain (FIRM) maps indicate the site is not located within a floodplain and, other than wetlands and pending soil survey, there are no identified areas unsuitable for development per Chapter 16.7, Article VIII.
- A.1.c Calculations for net residential acreage and density included on Sheet CC-3.
- A.1.d Sheet CC-3: Open space of 50% minimum appears to have been met. Upland open space of 30% of net residential acreage (25 acres), totals 7.5 acres (calculation on Sheet CC-3 indicates 7.2 acres based on 24 acres). It is unclear from the Zoning Summary on the Sheet CC-3 how the 'Total Uplands Area' is derived. Staff spoke to the Jeff Clifford with Altus Engineering and obtained clarification of the information depicted on the plan. Since all of the wetlands have not been delineated and soils report not finalized, the upland area that has been delineated, as depicted in dark green, including the area with the proposed lots and street, is used as a starting point. The expectation is to have the soils information and a more refined upland area number before the Board grants approval of the sketch plan.

2. Constraints to development: Plan Sheets CC-2 (Existing Conditions) and CC-3 (Concept Plan) identify wetlands, existing utilities (Kittery Water District easement), wetland protection areas, and wetlands setbacks. Beginning with Habitat map identifies the site location, and applicant will seek habitat determination from the Department of Inland Fisheries and Wildlife. There are no existing driveways, structures, etc. identified on the site.
3. Project Narrative is provided. Further review is needed to determine whether cluster objectives have been satisfactorily met, including road length/width, wetlands mitigation, identification of existing natural features/sites, habitat, etc.
4. Proposed building envelopes provided (Sheet CC-3). Lot dimensions not included.

Title 16.10.4.2 Sketch Plan Review Phase.

In addition to the above Title 16.10.4.2.1.A directs the Board to:

“... Determine whether the sketch plan proposal complies with the standards contained herein, and must, where it deems necessary, make specific suggestions in writing to be incorporated by the applicant in subsequent submissions.”

Title 16.8.11.6.I.5 requires the 100-foot wetland setback, shown on the plans, to be a “permanently maintained no cut, no disturb buffer” area. The proposed development includes the new street located within this buffer rather than in the vicinity of proposed lots 1, 2 and 8. The applicant’s interpretation is that the street does not incur a 100-foot setback per Table 16.9 so there is not a 100-foot wide buffer to maintain. Instead they maintain a 30-foot setback per Table 16.9. Staff’s interpretation (and the Board’s recent application of this provision on Bartlett Hill and 143 BBH Road) is that while there are principle buildings on the site that incur a 100-foot setback and thus an equally sized buffer, you cannot “permanently” maintain it as a no cut, no disturb buffer by allowing development, such as a street, within it. Simply having the proposed street meet the minimum wetland setbacks in Table 16.9 shouldn’t negate the meeting the standard to maintain all the setbacks (including the building setback in Table 16. 9) as a no cut, no disturb buffer as required in the 16.8.11.6.I.5.

It would be helpful for the Applicant to review with the Board the various state and federal permitting the project may incur, i.e. MDEP Site Location Permit, MDOT Traffic Moving Permit and a MDHHS Engineered SWD system and the associated review thresholds.

**Recommendation**

The needs to review and approve the site walk minutes from 9/24/2014.

The Board should discuss the various modifications of the dimensional requirements necessitated by the proposed Sketch Plan, to direct the applicant as to what modifications the Board may ultimately grant. Upon receipt of the preliminary plan, further review will focus on specific details including modification and waiver requests (road length and/or width), subsurface wastewater disposal, stormwater management, traffic impacts, etc.

The Board should also discuss an additional site walk that was mentioned at the first site visit in September.

The Applicant has requested for the application to be continued and if amenable to the Board, Staff recommends the Planning Board move to continue the Sketch Plan Review application for Betty Welch Road to a future meeting date not to exceed 90 days.

## Site Walk minutes

### Betty Welch Road Cluster Subdivision Sketch Plan Review

September 24 2014 5:00PM

#### Attendees:

Planning Board members: R. Melanson, K. Kalmar, D. Driscoll-Davis, and M. Alesse

Staff: C. DiMatteo; Conservation Commission: Herb Kingsbury and Eardean Wells.

Applicant: Paul Kerrigan with Chinburg Builders, Jeff Clifford, Altus Engineering; Scott Gone and Patty O'Brien, The Gone Group; and Jim Gove, GES Inc.

Other participants: Ronald Nowell, Town of York Selectman; Collen Harris, Gee Road; Bob Harris, 40 Cutts Rd; David Moulton, 54 Cutts Rd; Michael and Lydia Young, 64 Cutts Rd; Rebecca Embelly and Peter Black, 58 Cutts Rd;

Handouts: 11x17 plan reduction of *Proposed Subdivision Map 66 Lots 2A & 8, Betty Welch Road, Kittery Maine, Sketch Review 24 (10K) Lots Concept Plan* dated 7/24/2014.

Meeting called to order at 5:05 PM by R. Melanson.

J. Clifford presented the information found in the plan exhibit, the details for the proposal and how the site walk was to proceed. The walk commenced in the vicinity of the center line of the proposed street.

Stopped outside the wetland limits, STA 1+10:

- 1) Discussion regarding the jurisdiction wetland and the extent it relates to the required fill from the proposed street. Jim Gove, Soil Scientist discussed the different plant communities and soil types associated with wetlands. He also addressed questions regarding hydric soil definition and groundwater depth, the latter was stated being at 15 inches.

Proceeded to the junction with the cul-de-sac at STA 5+50.

- 2) J. Clifford oriented people with the plan. It was decided to continue towards the larger turn-around (Village Green) than to proceed to the end of the cul-de-sac providing access to lots 3 through 7.

Proceeded to existing Kittery Water District water main easement at STA 8+50

- 3) Some discussion of the issues related to the planned construction in the vicinity of the main and what precautions would be made. J. Clifford stated that the developer is planning to work closely with KWD with regard to the protection of the water main.

Proceeded towards the proposed Village Green STA 16+00

- 4) Discussed the State's Site Location Permit Review and the implications with regard to this project. How the review requires the developer to address criteria such as traffic and stormwater. There were questions regarding the use wet ponds, soil assessment, centralized subsurface wastewater disposal (SWD) systems, and advanced treatment.

Questions about change in grade and stormwater and where water flow was asked. Mr. Harris asked where the water would flow if the SWD system is raised. Mr. Clifford explained that the water would flow to the abutting properties, much in the same manner that the drainage flows now. He also stated the increased stormwater from the increased development will be accommodated with the project's stormwater design that will include

treatment and storage with the proposed wet ponds. Discussion concerning the likely traffic that will be generated and the intersection at Route 101 was noted as important factor. A question regarding how many homes will be initially built at one time, and the developer stated that the construction of one spec home first with others later to suit specific buyers.

A Details on the centralized SWD and its location were discussed. How is it maintained? and Who is responsible for its proper functioning and maintenance? were some questions abutters present raised. With regard to maintenance the Applicant stated the Homeowner's Association would be responsible while the individual home owners would be responsible maintain their tank and lines on their property, ensuring pumping and inspection of tank(s), in the same manner as the homeowners at Devon Woods Subdivision. The need to provide an opportunity for the Board to visit the portion if the site that will be used for the centralized SWD was also discussed. Mr. Moulton offered for the site walk to pass through his property, however, daylight was waning and the attendees returned to the street.

Meeting ended approximately 6:15PM

Submitted by Chris DiMatteo, Interim Planner, October 23, 2014

#### Site Pictures





# Town of Kittery, Maine

## *Conservation Commission*

P.O. Box 808, Kittery, Maine 03904

DATE: September 27, 2014

TO: Tom Emerson, Chairman  
Kittery Planning Board

FROM: Earldean Wells, Chairman

RE: Betty Welch Road Cluster Subdivision - Map 22 Lots 2A & 8

The Kittery Conservation Commission would like to voice concerns regarding the above proposed 24 single family cluster subdivision on 86.5 acre property surrounded huge wetlands. The recent site walk (September 24, 2014) revealed what appears to be a very wet property. While our area is experiencing a year of less than normal rainfall and the past few weeks have seen little rain we crossed standing water in 6 + inch deep depressions in the soil in the upland area proposed for the cluster subdivision; these were the scars left from the skids during the recent clear cutting done on this property. KCC requests a soil study done by an independent soil scientist, as we feel that the water table on this property is not at the 15 inch depth as stated, but in fact much higher as indicated by the standing water; the very shallow root systems of the trees that have fallen since the clear cutting and the vegetation that is flourishing in this proposed construction area. We feel that the water table must be much closer to the surface than 15 inches as not only were the water filled skid scars and vegetation an indication but the abutters mentioned that the loggers had to stop operation several times due to their equipment being mired in the soil---this is particularly troubling because KCC understands that property with wetlands and wetland crossings can only get permits to log during the winter months when the ground is frozen. We have also been given to understand that State Statute 30-A 4404 #20 may restrict construction on a timber harvested property to five years---if this is researched and found to be true, it appears that this property has been timbered more recently than five years.

KCC also has concerns with the proposed four crossing of one wetland system on this property. One proposed crossing is for the road and the other three are for the septic connections to the leach field which will result in 6640 sq. ft. of wetland impact. We have grave concerns about the possible environmental damage to the wetlands in this system as they are a part of the headwaters of the York River. We were told that York presently has multi home septic systems using one leach field such as the one being proposed and that York has had leach fields explode due to the excessive pressure -- this should be researched before permission is given to install the proposed system. We were also told last fall during the meeting with the soil scientists and septic installers that while these systems are being used, we should understand that the systems require much more maintenance than a regular system and that if there are problems it may take weeks to repair them. So it is extremely important that there be backup systems to protect the environment. Also while the pretreatment system on each individual property does remove the nitrates before moving the liquids to the leach field, it does not remove the household cleaning and other chemicals that are in common use in our society today---these substances can harm the environment. KCC feels strongly that the leach field should be on the same upland property as the cluster development, close enough that function of the leach field can be easily regularly monitored. KCC would also like to have information on how the town of Kittery can be assured that the pipes from the septic systems and into the leach field will not crack, separate or in any way fail under the enormous pressure that they will be handling on a daily basis.



# Town of Kittery, Maine

## *Conservation Commission*

P.O. Box 808, Kittery, Maine 03904

During the site walk we learned that 100% of the stormwater from this property drains into the York River. KCC is concerned that this runoff from the lawns and hard surfaces will contain chemicals and other contaminants harmful to the river. Even if proposed ponds can hold the runoff, with the water table so high is it possible that the ponds will not always be able to contain all of the runoff or that the runoff will be able to leach properly through the soil



**Civil  
Site Planning  
Environmental  
Engineering**

133 Court Street  
Portsmouth, NH  
03801-4413

October 30, 2014

Chris Di Matteo, Interim Town Planner  
Town of Kittery  
200 Rogers Road  
Kittery, Maine 03904

**Re: Cluster Subdivision  
Map 66, Lots 2A & 8  
Betty Welch Road  
Kittery, Maine  
P-4567**

**Transmitted via Electronic Mail**

Dear Mr. Di Matteo:

On behalf of the applicant, Chinburg Builders, Inc., we are requesting continuance of Sketch Plan Review by the Planning Board that was initiated in July 2014 with the submission of an *Application for Subdivision – Sketch Plan Review* for the subject property. A brief presentation was made to the Planning Board at their August 13<sup>th</sup> meeting and a site walk was held on September 24<sup>th</sup>. The applicant seeks to continue discussion at the November 13<sup>th</sup> Planning Board meeting.

Under separate cover we are providing the High Intensity Soils Survey recently completed by Gove Environmental.

Please call if you have any questions or require additional information

Sincerely,

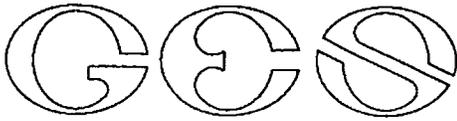
A handwritten signature in black ink, appearing to read "Jeff Clifford".

Jeffrey K. Clifford, P.E.  
Vice President

JKC/jkc/4567.002.CD.ltr.doc

e-copy:

Paul Kerrigan and Matt Assia, Chinburg Builders, Inc.  
Scott Gove, The Gove Group



GOVE ENVIRONMENTAL SERVICES, INC.

*Memorandum*

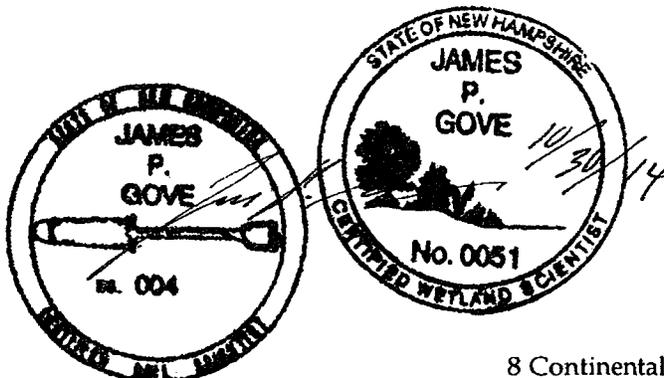
Date: Thursday, October 30, 2014  
To: Jeff Clifford, P.E.  
Company: Altus Engineering, Inc.  
From: Jim Gove  
Re: Chinburg Subdivision off Betty Welch Road, Kittery, Maine  
Subject: Class A High Intensity Soil Survey

Gove Environmental Services, Inc. has prepared the following Soil Survey Investigation Narrative Report for the above referenced project, which is intended to accompany the soil map also prepared by GES. The central portion of the lot was soil mapped, with areas in the northern portion and extreme southern portion of the parcel not investigated. The report also has the attachments of: test pit logs by both GES and others, official soil series descriptions, and resume of the certified soil scientist.

Certain site specific aspects of the parcel need to be elaborated. This parcel and the adjacent land to the northeast were heavily logged. During the forestry activity, numerous ruts were created by skidders that crisscrossed both upland and wetland areas. No attempt was made to characterize soil profiles in the ruts, and this disturbance was viewed as inclusions to the soil map unit. There are several spoil areas on the parcel, where native material was deposited and compacted as an access road for the logging activity, and have been noted on the soil map.

The glaciomarine soils in the uplands have less than 35% clay content in the soil profile, which means these soils are classified as fine-silty rather than fine. For that reason, the soil catena of Boothbay, Pushaw, and Swanville were utilized in portions of this soil survey investigation. Further, the very fine sandy loam/silt loam deposits noted in the highest hill of the parcel could have been classified into several soil series, but the range in characteristics for soil textures and rock fragments were closest to the soil series Nicholville..

If there are any questions regarding the following soil survey report, please feel free to contact GES.



8 Continental Dr Bldg 2 Unit H, Exeter, NH 03833-7526  
Ph (603) 778 0644 / Fax (603) 778 0654  
[www.gesinc.biz](http://www.gesinc.biz)  
[info@gesinc.biz](mailto:info@gesinc.biz)

ISSUED FOR:  
**SKETCH PLAN REVIEW**  
ISSUE DATE:  
**OCTOBER 30, 2014**

REVISIONS

NO.	DESCRIPTION	BY	DATE
0	INITIAL SUBMISSION	JKC	10/30/14

DRAWN BY: \_\_\_\_\_ RMB  
APPROVED BY: \_\_\_\_\_ JKC  
DRAWING FILE: 4567CONCEPT2.DWG  
SCALE: 1" = 100'

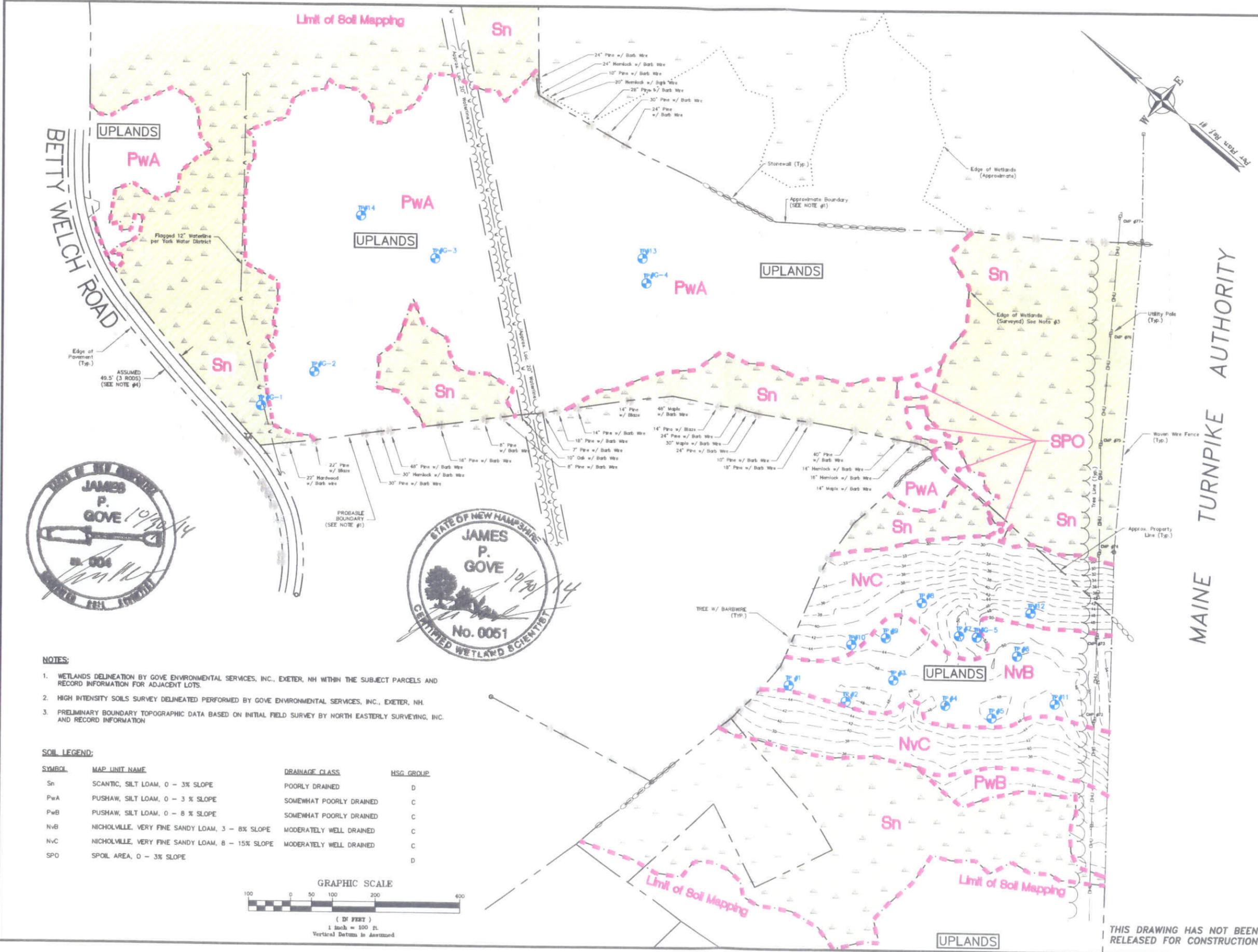
OWNER:  
**LANDMARK PROPERTIES, LLC**  
P.O. BOX 186  
YORK, MAINE 03909

APPLICANT:  
**CHINBURG BUILDERS, INC.**  
3 PENSTOCK WAY  
NEWMARKET, NH 03857

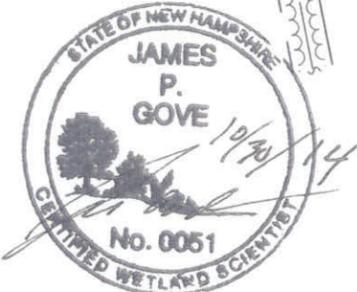
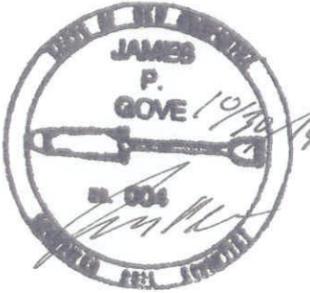
PROJECT:  
**PROPOSED  
SUBDIVISION  
MAP 66 LOTS 2A & 8  
BETTY WELCH ROAD  
KITTERY, MAINE**

TITLE:  
**HIGH INTENSITY  
SOILS SURVEY  
PLAN**

SHEET NUMBER:  
**CC - 4**



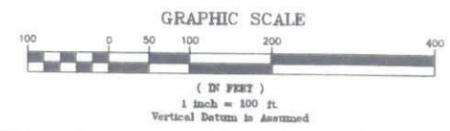
MAINE TURNPIKE AUTHORITY



- NOTES:**
1. WETLANDS DELINEATION BY GOVE ENVIRONMENTAL SERVICES, INC., EXETER, NH WITHIN THE SUBJECT PARCELS AND RECORD INFORMATION FOR ADJACENT LOTS.
  2. HIGH INTENSITY SOILS SURVEY DELINEATED PERFORMED BY GOVE ENVIRONMENTAL SERVICES, INC., EXETER, NH.
  3. PRELIMINARY BOUNDARY TOPOGRAPHIC DATA BASED ON INITIAL FIELD SURVEY BY NORTH EASTERLY SURVEYING, INC. AND RECORD INFORMATION.

**SOIL LEGEND:**

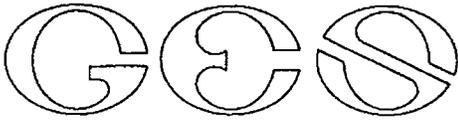
SYMBOL	MAP UNIT NAME	DRAINAGE CLASS	HSG. GROUP
Sn	SCANTIC, SILT LOAM, 0 - 3% SLOPE	POORLY DRAINED	D
PwA	PUSHAW, SILT LOAM, 0 - 3% SLOPE	SOMEWHAT POORLY DRAINED	C
PwB	PUSHAW, SILT LOAM, 0 - 8% SLOPE	SOMEWHAT POORLY DRAINED	C
NvB	NICHOLVILLE, VERY FINE SANDY LOAM, 3 - 8% SLOPE	MODERATELY WELL DRAINED	C
NvC	NICHOLVILLE, VERY FINE SANDY LOAM, 8 - 15% SLOPE	MODERATELY WELL DRAINED	C
SPO	SPOIL AREA, 0 - 3% SLOPE		D



THIS DRAWING HAS NOT BEEN RELEASED FOR CONSTRUCTION

P4567





GOVE ENVIRONMENTAL SERVICES, INC.

## SOIL SURVEY INVESTIGATION NARRATIVE REPORT

### **TITLE SECTION: Subdivision off Betty Welch Road**

**1. SITE REFERENCE:**

Proposed subdivision by Chinburg Builders, Inc. of Tax Map 66, Lots 2A & B

**2. LOCATION OF SITE:**

Betty Welch Road, Kittery, Maine

**3. DATE OF REPORT: 10-29-14**

**4. DATE OF SOIL PROFILE OBSERVATIONS:**

10-27-14 for JP Gove recorded tests pits G1 to G5

1-22-2014 for James Logan recorded test pits TP1 to TP 14

**5. BASE MAP INFORMATION:**

a. **CONTOUR MAP:** 2-foot contours

b. **SCALE OF MAP:**

1 inch equals 100 feet

c. **TYPE OF BASE MAP:**

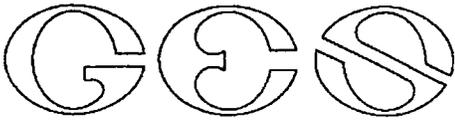
Land surveyor located the wetland boundaries, the test pits, proposed centerline of subdivision road with stations, and prepared the 2-foot contours. Only a portion of the property has wetland delineation and contours, and it is in those areas with physical features that the soil survey was conducted.

**6. GROUND CONTROL – LOCATION OF TEST PITS, ETC.:**

Test pits by James Logan, wetland flags, stone walls, water lines, approximate property bounds were located by land surveyor. Additional soil test pits were located off centerline of proposed road way and TBMs set by land surveyor.

**7. CLASS OF SOIL SURVEY MAP:**

Class A (High Intensity) Soil Survey with the following criteria: That map units will not contain dissimilar limiting individual inclusions larger than 1/8 acre. The scale is 1 inch equal 100 feet or larger. Ground control for base map and test pits for which detailed data is recorded are accurately located under direction of a registered land surveyor or a qualified professional engineer. Base map with 2-foot contour lines with ground survey or aerial with ground control.



**8. SOIL SCIENTIST CERTIFICATION STATEMENT:**

The accompanying soil profile descriptions, soil survey map and this soil narrative report entitled "Subdivision of Betty Welch Road", dated "xxx" were done in accordance with the standards adopted by the Maine Association of Professional Soil Scientists, February 1995, as amended and prepared by "James P. Gove" C.S.S. # 004 (New Hampshire). Reciprocity: "Chapter 73: Geologists and Soil Scientists, Subchapter 1. General Provisions, &4906. Exemptions 1. Nonresident practicing less than 30 days. A person not a resident of and having no established place of business in this State, practicing or offering to practice the profession of geologist or soil scientist when that practice does not exceed in the aggregate more than 30 days in one calendar year, provided that the person is legally qualified by registration to practice the profession in his own state or country, in which the requirements and qualifications for obtaining a certificate or registration are equivalent to those specified in this chapter."

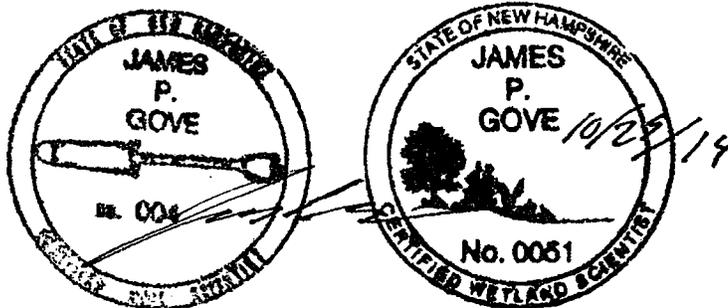
**9. PURPOSE OF SOIL MAP:**

This soil survey was prepared for a residential subdivision utilizing subsurface wastewater disposal.

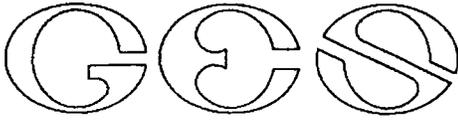
**10. SIGNATURE OF CERTIFIED SOIL SCIENTIST:**

**11. PROFESSIONAL C.S.S. #: New Hampshire C.S.S. #004**

**12. PROFESSIONAL STAMP (s):**



**13. DATE: 10-29-14**



**MAP UNIT DESCRIPTIONS:**

1. **NAME OF SOIL MAP UNIT:** Sn  
Scantic silt loam, 0 to 3 percent slopes
  
2. **SOIL TAXONOMIC CLASSIFICATION:**  
Fine, illitic, nonacid, frigid Typic Epiaquepts
  
3. **SETTING INFORMATION:**
  - a. **PARENT MATERIAL**  
Glaciomarine
  - b. **LANDFORM**  
Coastal lowlands
  
  - c. **POSITION IN LANDSCAPE**  
Depressions and lowest point on topography for site
  - d. **SLOPE GRADIENT RANGES**  
0 to 3 percent slopes
  
4. **COMPOSITION AND SOIL CHARACTERISTICS:**
  - a. **DRAINAGE CLASS**  
Poorly drained
  - b. **TYPICAL PROFILE DESCRIPTION – SOIL OBSERVATION LOGS THAT INCLUDE MASTER HORIZONS, TEXTURE/MODIFIERS, STRUCTURE, CONSISTENCY, COLOR, FRAGMENTS, REDOXIMORPHIC FEATURUES**  
A – 0 to 2 inches, silt loam, granular, friable, 10YR2/2  
B – 2 to 19 inches, silt loam, granular, friable, 10YR4/2, common prominent iron concentrations  
C – 10 to 40 inches, silty clay loam, blocky, firm, 2.5Y4/2, many prominent iron concentrations
  
  - c. **HYDROLOGIC SOIL GROUP**  
D
  
  - d. **SURFACE RUN-OFF**  
Slow



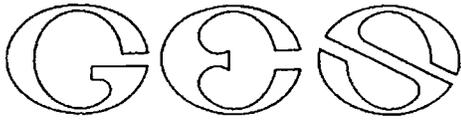
GOVE ENVIRONMENTAL SERVICES, INC.

- e. **PERMEABILITY**  
Moderately slow
- f. **DEPTH TO BEDROCK**  
Very deep
- g. **HAZARD TO FLOODING**  
None
- h. **INCLUSIONS: SIMILAR SOILS, DISSIMILAR SOILS**  
Swanville – similar soil  
Pushaw – dissimilar soil

**USE AND MANAGEMENT:**

This soil has a high water table and is not suitable for the construction of dwellings or septic systems. Typically considered a wetland.

1. **NAME OF SOIL MAP UNITS:** PwA, PwB  
Pushaw silt loam, 0 to 3 percent slopes  
Pushaw silt loam, 3 to 8 percent slopes
2. **SOIL TAXONOMIC CLASSIFICATION:**  
Fine-silty, mixed, semiactive, nonacid, frigid Aeric Epiaquepts
3. **SETTING INFORMATION:**
  - a. **PARENT MATERIAL**  
Glaciomarine
  - b. **LANDFORM**  
Marine terraces
  - c. **POSITION IN LANDSCAPE**  
Mid-slope and top of low rises
  - d. **SLOPE GRADIENT RANGES**  
A – 0 to 3%, B – 3 to 8%



**4. COMPOSITION AND SOIL CHARACTERISTICS:**

**a. DRAINAGE CLASS**

Somewhat Poorly Drained

**b. TYPICAL PROFILE DESCRIPTION – SOIL OBSERVATION LOGS THAT INCLUDE MASTER HORIZONS, TEXTURE/MODIFIERS, STRUCTURE, CONSISTENCY, COLOR, FRAGMENTS, REDOXIMORPHIC FEATURUES**

A – 0 to 3 inches, silt loam, granular, friable, 10YR3/2

Bw1 – 3 to 14 inches, silt loam, granular, friable, 10YR4/4

Bw2 – 14 to 20 inches, silt loam, granular, friable, 10YR4/3, common prominent iron concentrations and depletions

C – 20 to 40 inches, silty clay loam, blocky, firm, 2.5Y5/2, many prominent iron concentrations and depletions

**c. HYDROLOGIC SOIL GROUP**

C

**d. SURFACE RUN-OFF**

Medium to high

**e. PERMEABILTY**

Moderately low

**f. DEPTH TO BEDROCK**

Very deep

**g. HAZARD TO FLOODING**

None

**h. INCLUSIONS: SIMILAR SOILS, DISSIMILAR SOILS**

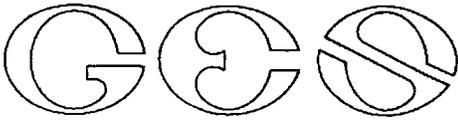
Lamoine – similar

Boothbay – similar

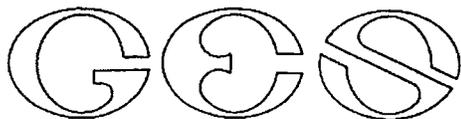
Swanville - dissimilar

**USE AND MANAGEMENT:**

There are limitations for dwellings and septic leach fields due to presence of a seasonal high water table near the soil surface. Construction needs to consider the seasonal high water table and the restrictive silty clay loam layers.



1. **NAME OF SOIL MAP UNIT:** NvB, NvC  
Nicholville very fine sandy loam, 3 to 8 percent  
Nicholville very fine sandy loam, 8 to 15 percent
2. **SOIL TAXONOMIC CLASSIFICATION:**  
Coarse-silty, isotic, frigid, Aquic Haplorthods
3. **SETTING INFORMATION:**
  - a. **PARENT MATERIAL**  
Wind and water deposited material having a high content of silt and very fine sand
  - b. **LANDFORM**  
Low hills and benches on uplands.
  - c. **POSITION IN LANDSCAPE**  
Side slopes and tops of low hills and benches
  - d. **SLOPE GRADIENT RANGES**  
B – 3 to 8%, C – 8 to 15%
4. **COMPOSITION AND SOIL CHARACTERISTICS:**
  - e. **DRAINAGE CLASS**  
Moderately well drained
  - f. **TYPICAL PROFILE DESCRIPTION – SOIL OBSERVATION LOGS THAT INCLUDE MASTER HORIZONS, TEXTURE/MODIFIERS, STRUCTURE, CONSISTENCY, COLOR, FRAGMENTS, REDOXIMORPHIC FEATURUES**  
A – 0 to 4 inches, very fine sandy loam, granular, friable, 10YR3/2  
Bs1 – 4 to 16 inches, very fine sandy loam, granular, friable, 10YR4/6, 10% cobbles  
Bs2 – 16 to 24 inches, very fine sandy loam, granular, friable, 10YR4/4, 10% cobbles  
C – 24 to 45 inches, silt loam, platy, firm, 10YR4/4, 10% cobbles, common prominent iron concentrations and depletions
  - g. **HYDROLOGIC SOIL GROUP**  
C



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**h. SURFACE RUN-OFF**

Low

**i. PERMEABILITY**

Moderately high

**j. DEPTH TO BEDROCK**

Very deep

**k. HAZARD TO FLOODING**

None

**l. INCLUSIONS: SIMILAR SOILS, DISSIMILAR SOILS**

Dixfield – similar

Skerry – similar

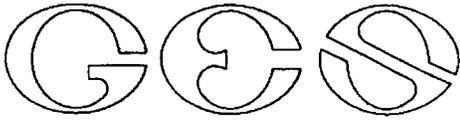
Elmwood – similar

Pushaw – dissimilar

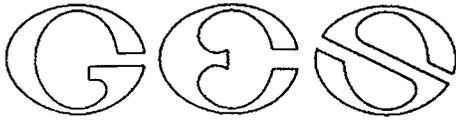
Lamoine – dissimilar

**USE AND MANAGEMENT:**

This soil is suitable for the construction of dwellings and septic leach fields. Consideration needs to be taken in design of the restrictive soil layers at depths at or greater than 2 feet below the soil surface.



1. **NAME OF SOIL MAP UNIT: SPO**  
Spoil Area
2. **SOIL TAXONOMIC CLASSIFICATION:**  
None
3. **SETTING INFORMATION:**
  - a. **PARENT MATERIAL**  
Glaciomarine
  - b. **LANDFORM**  
None
  - c. **POSITION IN LANDSCAPE**  
Material was placed to create a haul road for wood products
  - d. **SLOPE GRADIENT RANGES**  
0 to 3 percent
4. **COMPOSITION AND SOIL CHARACTERISTICS:**
  - a. **DRAINAGE CLASS**  
Somewhat poorly
  - b. **TYPICAL PROFILE DESCRIPTION – SOIL OBSERVATION LOGS THAT INCLUDE MASTER HORIZONS, TEXTURE/MODIFIERS, STRUCTURE, CONSISTENCY, COLOR, FRAGMENTS, REDOXIMORPHIC FEATRUES**  
Silty clay loam was used as a fill material to create a haul road for the extraction of wood products. Material is uniform, color 2.5Y5/2, and was compacted by skidder and truck traffic.
  - c. **HYDROLOGIC SOIL GROUP**  
D
  - d. **SURFACE RUN-OFF**  
Fast
  - e. **PERMEABILTY**  
Very slow
  - f. **DEPTH TO BEDROCK**  
Very deep



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**g. HAZARD TO FLOODING**

None

**h. INCLUSIONS: SIMILAR SOILS, DISSIMILAR SOILS**

Scantic - dissimilar

**USE AND MANAGEMENT:**

Highly compacted spoil area.

**Attachments:**

Soil Test Pit Forms – JP Gove

Test Pit Logs – James Logan

Official Series Descriptions

Resume – JP Gove



### Soil Test Pit Log Forms

Project: BETTY WELCH ROAD Test Pits Logged By: J P GOVE

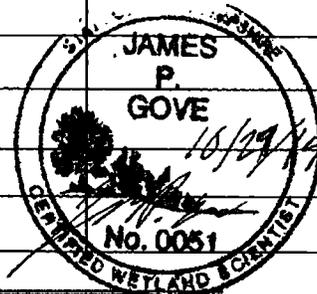
Location: KITTERY, ME Test Pit Number: G1

Weather Conditions: 50°s, SUNNY, WINDY

Method of Excavation: HAND Date: 10/27/14

Ground Surface Slope: 1 % Time: 1 PM - 4 PM

DEPTH (Inches)	TEXTURE	CONSISTENCE	COLOR	MOTTLES or REDOX FEATURES	STRUCTURE	COMMENTS
0-2	SIL	FR	10YR 2/2		GR	Obs. H <sub>2</sub> O 1"
2-19	SIL	FR	10YR 4/2	C/P	GR	
19-40	SICL	FI	2.5Y 5/2	M/P	BLK	RESTRICTIVE
LIMIT OF EXCAVATION						
Hydric Soil						
POORLY DRAINED						
SCANTIC SILT LOAM						
ESHWT = 0"						

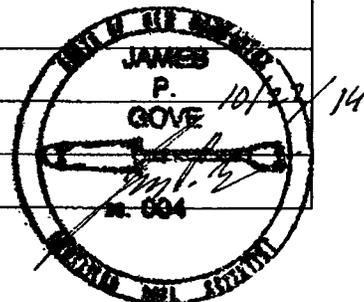


Weather Conditions 50°s, SUNNY, WINDY

Method of Excavation: HAND Date: 10/27/14

Test Pit #: G2 Ground Surface Slope 2 % Time 1-4 PM

DEPTH (Inches)	TEXTURE	CONSISTENCE	COLOR	MOTTLES or REDOX FEATURES	STRUCTURE	COMMENTS
0-3	SIL	FR	10YR 3/2		GR	
3-14	SIL	FR	10YR 4/4		GR	
14-20	SIL	FR	10YR 4/3	C/P	GR	
20-40	SICL	FI	2.5Y 5/2	M/P	BLK	RESTRICTIVE
LIMIT OF EXCAVATION						
Somewhat POORLY DRAINED						
PASHAW SILT LOAM						
ESHWT = 14"						



**Soil Test Pit Log Forms**

Project: BETTY WELCH ROAD Test Pits Logged By: J. P. Gove

Location: KITTERY, MAINE Test Pit Number: G3

Weather Conditions: 50°S, SUNNY, WINDY

Method of Excavation: HAND Date: 10/27/14

Ground Surface Slope: 3 % Time: 1 PM - 4 PM

DEPTH (Inches)	TEXTURE	CONSISTENCE	COLOR	MOTTLES or REDOX FEATURES	STRUCTURE	COMMENTS
0-4	SIL	FR	10YR 2/2		GR	
4-15	SIL	FR	10YR 4/4		GR	obs. H <sub>2</sub> O 15"
15-27	SIL	FR	10YR 4/3	C/P	GR	
27-40	SICL	Fi	2.5Y 5/2	m/p	BLK	RESTRICTIVE
LIMIT OF EXCAVATION						
SOMEWHAT POORLY DRAINED						
PUSHAW SILT LOAM						
ESTHWT = 15"						

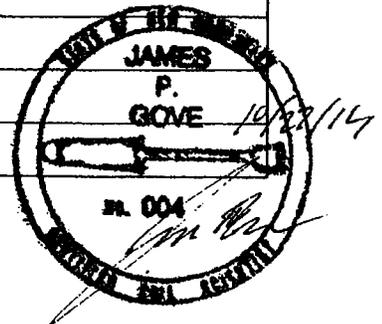


Weather Conditions 50°S, SUNNY, WINDY

Method of Excavation: HAND Date: 10/27/14

Test Pit #: G4 Ground Surface Slope 3 % Time 1 PM - 4 PM

DEPTH (Inches)	TEXTURE	CONSISTENCE	COLOR	MOTTLES or REDOX FEATURES	STRUCTURE	COMMENTS
0-4	SIL	FR	10YR 2/2		GR	
4-15	SIL	FR	10YR 4/4		GR	
15-19	SIL	FR	10YR 4/4	F/D	GR	
19-24	SIL	FR	10YR 4/3	C/P	GR	
24-40	SICL	Fi	2.5Y 5/2	m/p	BLK	RESTRICTIVE
LIMIT OF EXCAVATION						
SOMEWHAT POORLY DRAINED						
PUSHAW SILT LOAM						
ESTHWT = 15"						



### Soil Test Pit Log Forms

Project: BETTY WALCH ROAD Test Pits Logged By: J.P. Gove

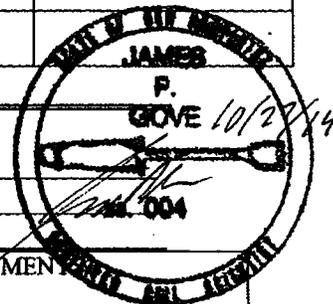
Location: Kittery, MAINE Test Pit Number: G5

Weather Conditions: 50°S, Sunny, Windy

Method of Excavation: HAND Date: 10/27/14

Ground Surface Slope: 12% Time: 1-4 PM

DEPTH (Inches)	TEXTURE	CONSISTENCE	COLOR	MOTTLES or REDOX FEATURES	STRUCTURE	COMMENTS
0-4	UFSL	FR	10YR 3/2		GR	
4-16	UFSL	FR	10YR 4/6		GR	10% Cobbles
16-24	UFSL	FR	10YR 4/4		GR	10% Cobbles
24-45	SIL	Fi	10YR 4/4	C/P	PL	10% Cobbles
LIMIT OF EXCAVATION						
MODERATELY WELL DRAINED						
NICHOLUINE SILT LOAM						
ESHW = 24"						

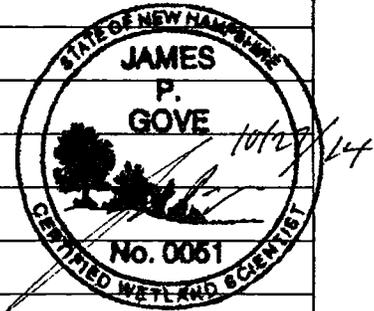


Weather Conditions \_\_\_\_\_

Method of Excavation: \_\_\_\_\_ Date: \_\_\_\_\_

Test Pit #: \_\_\_\_\_ Ground Surface Slope \_\_\_\_\_ % Time \_\_\_\_\_

DEPTH (Inches)	TEXTURE	CONSISTENCE	COLOR	MOTTLES or REDOX FEATURES	STRUCTURE	COMMENTS



Town, City, Plantation  
**KITTERY**

Street, Road Subdivision  
**BETTY WELCH ROAD**

(For) Owner's Name  
**CHINBURG BUILDERS / ALTUS ENGINEERING**

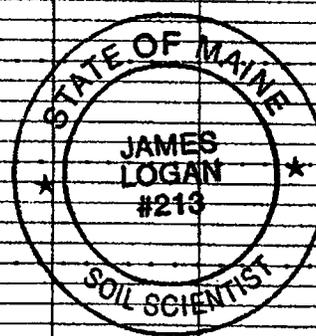
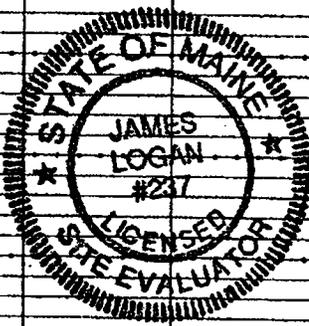
**SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)**

Observation Hole TP 1  Test Pit  Boring  
" Depth of Organic Horizon Above Mineral Soil

Observation Hole TP 2  Test Pit  Boring  
" Depth of Organic Horizon Above Mineral Soil

Texture	Consistency	Color	Mottling
GRAVELLY		DARK BROWN	
FINE SANDY LOAM	FRIABLE	DARK YELLOW BROWN	
		LIGHT OLIVE BROWN	
GRAVELLY SANDY LOAM AND FINE SANDY LOAM IN LENSES	SOMEWHAT FIRM	OLIVE BROWN	FEW, FAINT
	FIRM	OLIVE	COMMON, DISTINCT
LIMIT OF EXCAVATION			

Texture	Consistency	Color	Mottling
GRAVELLY		DARK BROWN	
FINE SANDY LOAM	FRIABLE	DARK YELLOW BROWN	
		LIGHT OLIVE BROWN	
GRAVELLY SANDY LOAM AND LOAMY FINE SANDY	SOMEWHAT FIRM	OLIVE BROWN	FEW, FAINT
	FIRM	OLIVE BROWN	COMMON, DISTINCT
LIMIT OF EXCAVATION			



Soil Classification: 3 Profile, C Condition  
Slope: 7 %  
Limiting Factor: 16 "  
 Ground Water  
 Restrictive Layer  
 Bedrock  
 Pit Depth

Soil Classification: 3 Profile, C Condition  
Slope: 7 %  
Limiting Factor: 20 "  
 Ground Water  
 Restrictive Layer  
 Bedrock  
 Pit Depth

Soil Series Name: **DIXFIELD**  
Drainage Class: **MODERATELY WELL**  
Hydrologic Group: **C**

Soil Series Name: **DIXFIELD**  
Drainage Class: **MODERATELY WELL**  
Hydrologic Group: **C**

*James Logan (for AFA)*  
Soil Scientist Signature

237 / 213  
CSS \*

1/22/2014  
Date

Town, City, Plantation  
**KITTERY**

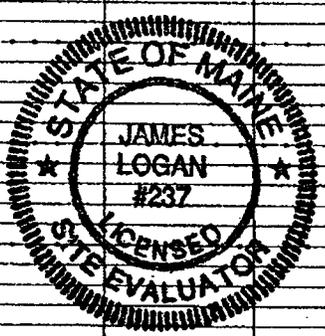
Street, Road Subdivision  
**BETTY WELCH ROAD**

(For) Owner's Name  
**CHINBURG BUILDERS / ALTUS ENGINEERING**

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

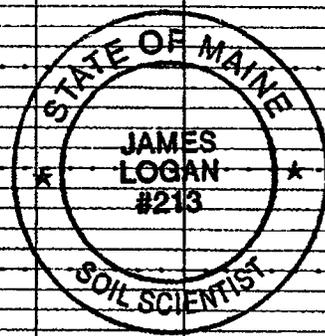
Observation Hole TP 3  Test Pit  Boring  
" Depth of Organic Horizon Above Mineral Soil

Texture	Consistency	Color	Mottling
		DARK BROWN	
GRAVELLY FINE SANDY LOAM	FRIABLE	DARK YELLOW BROWN	
GRAVELLY LOAMY SAND		LIGHT OLIVE BROWN	FEW, FAINT
FINE AND MEDIUM SANDS	FIRM	OLIVE BROWN	COMMON, FAINT
LOAMY SAND AND SAND		OLIVE	COMMON, DISTINCT
LIMIT OF EXCAVATION			



Observation Hole TP 4  Test Pit  Boring  
" Depth of Organic Horizon Above Mineral Soil

Texture	Consistency	Color	Mottling
		DARK YELLOW BROWN	
GRAVELLY FINE SANDY LOAM	FRIABLE		
		LIGHT OLIVE BROWN	FEW, DISTINCT
		OLIVE BROWN	COMMON, DISTINCT
SILT LOAM W/LOAMY FINE SAND LENSES	FIRM	OLIVE GRAY	MANY, PROMINANT
LIMIT OF EXCAVATION			



Soil Classification: 3 Profile, C Condition  
Slope: \_\_\_\_\_ %  
Limiting Factor: 16 "  
 Ground Water  
 Restrictive Layer  
 Bedrock  
 Pit Depth

Soil Classification: 3 / 8 Profile, C Condition  
Slope: \_\_\_\_\_ %  
Limiting Factor: 16 "  
 Ground Water  
 Restrictive Layer  
 Bedrock  
 Pit Depth

Soil Series Name: **DIXFIELD / SKERRY**

Drainage Class: **MODERATELY WELL**

Hydrologic Group: **C**

Soil Series Name: **TILL OVER LACUSTRINE SEDIMENTS**

Drainage Class:

Hydrologic Group:

"WATER WORKED"

*James Logan (for AFA)*  
Soil Scientist Signature

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1/22/2014  
Date



Town, City, Plantation  
**KITTERY**

Street, Road Subdivision  
**BETTY WELCH ROAD**

(FOR) Owner's Name  
**CRINBURG BUILDERS / ALTUS ENGINEERING**

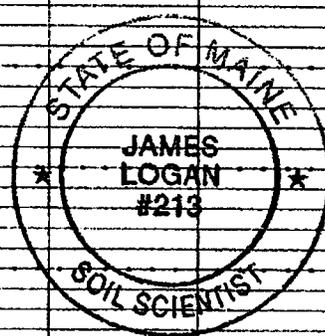
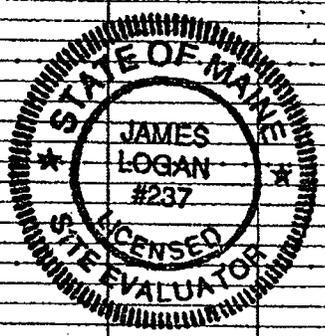
**SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)**

Observation Hole TP 7  Test Pit <sup>BN</sup>  Boring  
" Depth of Organic Horizon Above Mineral Soil

Observation Hole TP 8  Test Pit <sup>BN</sup>  Boring  
" Depth of Organic Horizon Above Mineral Soil

Texture	Consistency	Color	Mottling
		DARK BROWN	
GRAVELLY FINE SANDY LOAM	FRIABLE	DARK YELLOW BROWN	
			NONE EVIDENT
GRAVELLY SANDY LOAM AND LOAMY SAND	FIRM	MIXED OLIVE BROWN	
LIMIT OF EXCAVATION			

Texture	Consistency	Color	Mottling
VERY FINE SANDY LOAM	FRIABLE	DARK YELLOW BROWN	
		OLIVE BROWN	FEW, FAINT
		OLIVE	COMMON, DISTINCT
SILT LOAM WITH VERY FINE SANDY LOAM LENSES	FIRM		SATURATED
LIMIT OF EXCAVATION			



Soil Classification: 3 C  
Profile Condition

Slope: \_\_\_\_\_ %

Limiting Factor: 22 "

Ground Water  
 Restrictive Layer  
 Bedrock  
 Pit Depth

Soil Series Name: MARLOW

Drainage Class: WELL

Hydrologic Group: C

Soil Classification: B C  
Profile Condition

Slope: \_\_\_\_\_ %

Limiting Factor: 15 "

Ground Water  
 Restrictive Layer  
 Bedrock  
 Pit Depth

Soil Series Name: ELMWOOD

Drainage Class: MODERATELY WELL

Hydrologic Group: C

(TOP OF LANDFORM - NOT WATERSHED)

*James Logan (for AFA)*  
Soil Scientist Signature

237 / 213  
CSS \*

1/22/2014  
Date

Town, City, Plantation  
KITTERY

Street, Road Subdivision  
BETTY WELCH ROAD

(For) Owner's Name  
CATINBURG BUILDERS / ALTUS ENGINEERING

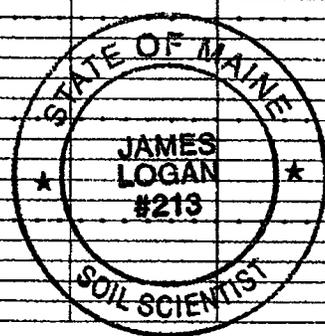
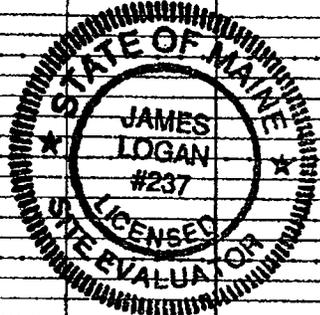
SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)

Observation Hole TP 9  Test Pit <sup>BH</sup>  Boring  
" Depth of Organic Horizon Above Mineral Soil

Observation Hole TP 10  Test Pit <sup>BH</sup>  Boring  
" Depth of Organic Horizon Above Mineral Soil

Texture	Consistency	Color	Mottling
FINE SANDY LOAM	FRIABLE	DARK BROWN	
			SATURATED & COMMON, FAINT
SILT LOAM	FIRM	OLIVE BROWN	COMMON, FAINT
		OLIVE	COMMON, DISTINCT
LIMIT OF EXCAVATION			

Texture	Consistency	Color	Mottling
VERY FINE SANDY LOAM	FRIABLE	DARK BROWN	
			COMMON, FAINT
		LIGHT OLIVE BROWN	COMMON, FAINT
SILT LOAM	FIRM	OLIVE	COMMON, DISTINCT
LIMIT OF EXCAVATION			



Soil Classification: B E  
Profile Condition

Slope: \_\_\_\_\_ %

Limiting Factor: <9"

Ground Water  
 Restrictive Layer  
 Bedrock  
 Pit Depth

Soil Classification: B C  
Profile Condition

Slope: \_\_\_\_\_ %

Limiting Factor: 15"

Ground Water  
 Restrictive Layer  
 Bedrock  
 Pit Depth

Soil Series Name: ELMWOOD (SWP) Drainage Class: SOMEWHAT POORLY Hydrologic Group: D

Soil Series Name: ELMWOOD Drainage Class: MODERATELY WELL Hydrologic Group: C

(NON-HYDRIC)

*James Logan (for AFA)*  
Soil Scientist Signature

237 / 213  
CSS

1/22/2014  
Date



Town, City, Plantation  
**KITTERY**

Street, Road Subdivision  
**BETTY WELCH ROAD**

(FOR) Owner's Name  
**CHINBURG BUILDERS / ALTUS ENGINEERING**

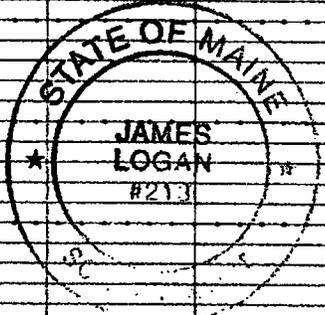
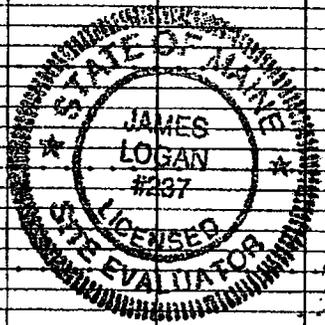
**SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)**

Observation Hole TP 13  Test Pit  Boring  
Depth of Organic Horizon Above Mineral Soil \_\_\_\_\_

Observation Hole TP 14  Test Pit  Boring  
Depth of Organic Horizon Above Mineral Soil \_\_\_\_\_

Texture	Consistency	Color	Mottling
		DARK GRAYISH BROWN	
VERY FINE SANDY LOAM	FRIABLE	MIXED YELLOW BROWN	COMMON, DISTINCT
		OLIVE BROWN	
SILT LOAM AND SILTY CLAY LOAM	FIRM	OLIVE GRAY	MANY, PROMINANT
LIMIT OF EXCAVATION			

Texture	Consistency	Color	Mottling
		BROWN	
	FRIABLE	DARK YELLOW BROWN	COMMON, DISTINCT
SILT LOAM		OLIVE BROWN	
		OLIVE TO OLIVE GRAY	MANY, PROMINANT
	FIRM		
SILTY CLAY LOAM			
LIMIT OF EXCAVATION			



Soil Classification: **B** Profile, **D/E** Condition  
Slope: \_\_\_\_\_ %  
Limiting Factor: **8-9"**  
 Ground Water  
 Restrictive Layer  
 Bedrock  
 Pit Depth

Soil Classification: **9** Profile, **D/E** Condition  
Slope: \_\_\_\_\_ %  
Limiting Factor: **8-9"**  
 Ground Water  
 Restrictive Layer  
 Bedrock  
 Pit Depth

Soil Series Name: **ELMWOOD (SWP)** Drainage Class: **SOMEWHAT POORLY** Hydrologic Group: **D**

Soil Series Name: **LAMOINE** Drainage Class: **SOMEWHAT POORLY** Hydrologic Group: **D**

(NON-HYDRIC)

(NON-HYDRIC)

*James Logan (for AFA)*  
Soil Scientist Signature

237/213  
CSS •

1/22/2014  
Date

LOCATION BOOTHBAY            ME+VT

Established Series  
GTH-KJL-REE  
12/2010

## BOOTHBAY SERIES

The Boothbay series consists of very deep, moderately well drained soils that formed in glaciolacustrine or glaciomarine deposits on lake plains and marine terraces. Estimated saturated hydraulic conductivity is moderately high in the surface and moderately high or moderately low in the subsoil and substratum. Slope ranges from 3 to 25 percent. Mean annual precipitation is about 1120 mm. Mean annual temperature is about 6 degrees C.

**TAXONOMIC CLASS:** Fine-silty, mixed, semiactive, frigid Aquic Dystric Eutrudepts

**TYPICAL PEDON:** Boothbay silt loam, on an east-facing 3 percent slope under grasses at an elevation of 57 meters. (Colors are for moist soil unless otherwise noted. When described on August 9, 2005, the soil was moist throughout.)

**Ap** -- 0 to 15 cm; dark yellowish brown (10YR 4/4) silt loam; pale brown (10YR 6/3) dry; moderate medium granular structure; very friable, slightly sticky, slightly plastic; many fine and very fine roots throughout; moderately acid (pH 5.6); clear smooth boundary (10 to 25 cm thick).

**Bw1** -- 15 to 25 cm; yellowish brown (10YR 5/4) silt loam; weak medium subangular blocky structure; very friable, slightly sticky, slightly plastic; common fine and very fine roots throughout; common very fine tubular pores; strongly acid (pH 5.5); clear smooth boundary.

**Bw2** -- 25 to 46 cm; yellowish brown (10YR 5/4) silt loam; weak medium subangular blocky structure; friable, slightly sticky, slightly plastic; common fine and very fine roots throughout; common very fine tubular pores; strongly acid (pH 5.2); clear smooth boundary. (Combined thickness of the Bw horizons ranges from 15 to 71 cm.)

**BC** -- 46 to 56 cm; light olive brown (2.5Y 5/4) silt loam; moderate medium subangular blocky structure; friable, slightly sticky, moderately plastic; common fine and very fine roots throughout; common medium tubular pores; few medium prominent yellowish red (5YR 4/6) masses of iron accumulation in matrix surrounding few medium distinct grayish brown (2.5Y 5/2) areas of iron depletion; strongly acid (pH 5.1); clear smooth boundary (10 to 41 cm thick).

**C1** -- 56 to 71 cm; light olive brown (2.5Y 5/4) silt loam; firm, slightly sticky, moderately plastic; common medium prominent yellowish red (5YR 4/6) masses of iron accumulation in matrix surrounding common medium distinct grayish brown (2.5Y 5/2) areas of iron depletion; moderate medium plates; strongly acid (pH 5.1); abrupt smooth boundary.

**C2** -- 71 to 165 cm; dark grayish brown (2.5Y 4/2) silty clay loam; firm, moderately sticky, moderately plastic; common medium prominent yellowish red (5YR 4/6) masses of oxidized iron in matrix surrounding common medium faint grayish brown (2.5Y 5/2) areas of iron depletion; many coarse faint very dark gray (10YR 3/1) masses of iron-manganese on faces of plates; moderate thick plates; strongly acid (pH 5.1).

**TYPE LOCATION:** Penobscot County, Maine, Township of Carmel. From the intersection of Fuller Road and Horseback Road, 2600 feet north along Horseback Road and 800 feet east of it, in a hayfield behind the cemetery. USGS Carmel, ME topographic quadrangle; latitude 44 degrees 49 minutes 59 seconds N. and longitude 69 degrees 0 minutes 8 seconds W., NAD 1983.

**RANGE IN CHARACTERISTICS:** Thickness of the solum ranges from 45 to 90 cm. Depth to bedrock is more than 150 cm. Rock fragment content throughout the soil is less than 5 percent by volume. Stones cover from 0 to 0.1 percent of the surface in most areas but may range up to 3 percent. Reaction ranges from strongly acid to slightly acid in the surface, strongly acid to neutral in the subsoil and substratum.

The Ap, or A horizon where present, has hue of 10YR or 2.5Y, value of 3 to 5, and chroma of 3 or 4. It is typically silt loam but is very fine sandy loam in some areas. It has weak or moderate fine or medium granular structure. Moist consistence is very friable or friable. It is slightly sticky and slightly plastic.

The Bw horizon has hue of 10YR to 5Y, value of 3 to 5, and chroma of 3 to 6. It is typically silt loam but is very fine sandy loam in some areas. It has weak or moderate fine or medium subangular blocky or fine or moderate medium granular structure. Moist consistence is very friable or friable. It is slightly sticky and slightly or moderately plastic.

The BC horizon has hue of 2.5Y or 5Y, value of 4 or 5, and chroma of 3 or 4. In some pedons the lower part of the horizon ranges to chroma 2. It is silt loam or silty clay loam. It has moderate or strong fine or medium subangular blocky, weak or moderate medium to very coarse prismatic, or weak or moderate medium to thick platy structure. Moist consistence is friable or firm. It is slightly or moderately sticky and slightly to very plastic.

The C horizon has hue of 2.5Y or 5Y, value of 4 to 6, and chroma of 2 to 4. Chroma 2 is considered to be inherent in the parent material. It is silt loam or silty clay loam. Most pedons exhibit weak to strong, fine to coarse subangular or angular blocks, thick or very thick plates, or moderate or strong coarse or very coarse prisms, all of which are considered inherited from the parent material. Some pedons are massive. Moist consistence is friable or firm. It is slightly or moderately sticky and slightly to very plastic.

**COMPETING SERIES:** There are currently no series in the same family.

Soil series in related families include Buxton, Eelweir, Elmwood, and Kalurah. Buxton soils have a fine particle-size class. Eelweir soils are coarse-loamy. Elmwood soils are coarse-loamy over clayey. Kalurah soils are coarse-loamy and formed in calcareous till.

**GEOGRAPHIC SETTING:** The Boothbay soils are on lake plains and marine terraces. Slopes are

typically 3 to 15 percent, but range up to 25 percent in some areas. The soils formed in glaciomarine and glaciolacustrine sediments of Wisconsin age. The climate is humid and cool temperate. The mean annual precipitation is 1010 to 1270 mm. The mean annual air temperature is 4 to 8 degrees C. The frost-free period is 110 to 160 days. Elevations typically range from 1.5 to 91 meters above sea level, but may range to as high as 366 meters in river valleys of north central Maine.

**GEOGRAPHICALLY ASSOCIATED SOILS:** These include the somewhat poorly drained Pushaw soils at slightly lower elevations, and the poorly drained Swanville, and very poorly drained Biddeford soils at lower elevations and in depressions. The somewhat poorly drained Colonel and the moderately well drained Dixfield soils formed in lodgment till and are in nearby higher, slightly convex positions on the landscape. The very poorly drained Wonsqueak soils are in depressions and formed in organic material.

**DRAINAGE AND SATURATED HYDRAULIC CONDUCTIVITY:** Moderately well drained. Surface runoff is low to moderate. The estimated saturated hydraulic conductivity class is moderately high in the surface and moderately high to moderately low in the subsoil and substratum.

**USE AND VEGETATION:** Cleared areas are used mainly for hay production and pasture with limited row-crop production. Some areas are in urban land or are used for wildlife habitat. Native woodland vegetation is balsam fir, eastern white pine, paper birch, quaking aspen and sugar maple.

**DISTRIBUTION AND EXTENT:** Marine terraces and lake plains in southeastern Maine, and lake plains in north central Vermont; MLRA's 143 and 144B. The series is of small extent.

**MLRA SOIL SURVEY REGIONAL OFFICE (MO) RESPONSIBLE:** Amherst, Massachusetts.

**SERIES ESTABLISHED:** Waldo County, Maine, 1979.

**REMARKS:** In the previous revision, drainage class was narrowed by eliminating somewhat poorly. The type location is changed with this revision to better represent the single drainage class of moderately well. The classification at the Great Group level, Eutrudepts, is based on lab-determined base saturation of similar soils in the area.

Diagnostic horizons and features in this pedon include:

Ochric epipedon - from a depth of 0 to 15 cm (Ap horizon)

Cambic horizon - the zone from 15 to 56 cm (Bw and BC horizons)

Aquic feature - redox depletions with a chroma of 2 or less within 61 cm of the soil surface

Episaturation - a perched water table above the C horizon

LOCATION BUXTON

ME+MA NH NY VT

Established Series

Rev. GBJ-PAH-WDH

01/2000

## BUXTON SERIES

The Buxton series consists of very deep, moderately well drained soils that formed in glaciolacustrine or glaciomarine deposits on coastal lowlands and river valleys. Slope ranges from 3 to 50 percent. Permeability is moderate or moderately slow in the surface horizon, moderately slow or slow in the upper part of the subsoil, and slow or very slow in the lower part of the subsoil and in the substratum. Mean annual temperature is about 45 degrees F, and mean annual precipitation is about 44 inches at the type location.

**TAXONOMIC CLASS:** Fine, illitic, frigid Aquic Dystric Eutrudepts

**TYPICAL PEDON:** Buxton silt loam, on a 13 percent slope in an abandoned hayfield. (Colors are for moist soil unless otherwise noted.)

**Ap**--0 to 8 inches; dark brown (10YR 3/3) silt loam, pale brown (10YR 6/3) dry; strong medium granular structure; friable; many very fine and common fine and medium roots; moderately acid; abrupt smooth boundary. (5 to 10 inches thick)

**Bw1**--8 to 16 inches; dark yellowish brown (10YR 4/4) silt loam; moderate very fine and fine granular structure; friable; common very fine and few fine and medium roots; slightly acid; abrupt wavy boundary.

**Bw2**--16 to 21 inches; light olive brown (2.5Y 5/4) silty clay loam; moderate thin and medium platy structure parting to weak very fine angular blocky; firm; common very fine roots; common medium prominent olive gray (5Y 5/2) iron depletions, and common medium prominent dark brown (7.5YR 4/4) masses of iron accumulation; slightly acid; clear wavy boundary. (Combined thickness of the B horizon is 8 to 26 inches.)

**BC**--21 to 35 inches; olive (5Y 5/3) silty clay; weak very coarse prismatic structure parting to weak fine and medium angular blocky; firm; few very fine roots; light brownish gray (2.5Y 6/2) faces of prisms and a few faint silt films on faces of peds within prisms; common prominent dark reddish brown (5YR 2/2) oxide coatings on faces of peds within prisms; common medium faint olive gray (5Y 5/2) iron depletions, and common medium prominent dark brown (7.5YR 4/4) masses of iron accumulation; slightly acid; gradual wavy boundary. (5 to 20 inches thick)

**C**--35 to 65 inches; olive gray (5Y 4/2) silty clay; weak very coarse prismatic structure parting to weak fine and medium angular blocky; very firm; olive gray (5Y 5/2) faces of prisms; many prominent dark reddish brown (5YR 2/2) oxide coatings on faces of peds within prisms; common medium prominent yellowish brown (10YR 5/6) masses of iron accumulation that increase in size and abundance with depth; slightly acid.

**TYPE LOCATION:** Hancock County, Maine; Town of Hancock; 1 mile west of junction of U.S. Route 1 and Maine Route 182, 200 feet north of U.S. Route 1 in an abandoned hayfield; USGS Hancock topographic quadrangle; lat. 44 degrees 32 minutes 19 seconds N. and long. 68 degrees 20 minutes 22 seconds W., NAD 27.

**RANGE IN CHARACTERISTICS:** Thickness of the solum ranges from 18 to 55 inches. Depth to bedrock is more than 60 inches. Rock fragment content throughout the soil is less than 5 percent by volume. Stones cover from 0 to 3 percent of the surface. Iron depletions occur within 24 inches of the mineral soil surface. Reaction ranges from very strongly acid to slightly acid in the surface horizon, unless limed, from strongly acid to neutral in the subsoil, and from moderately acid to neutral in the substratum.

The Ap horizon has hue of 7.5YR to 2.5Y, with value and chroma of 2 to 5. Undisturbed areas have an A horizon 1 to 6 inches thick, that has hue of 7.5YR to 2.5Y, with value and chroma of 2 to 5. They are silt loam or silty clay loam. They have weak to strong, very fine to medium granular structure. Consistence is very friable or friable.

The B horizon has hue of 7.5YR to 5Y, value of 3 to 6 and chroma of 2 to 8, with chroma of 2 being inherited. It is silt loam, silty clay loam, or silty clay. It has weak or moderate, very fine to medium granular, very fine to coarse blocky or thin to thick platy structure. Consistence is friable or firm.

The BC horizon has hue of 2.5Y or 5Y, value of 4 to 6 and chroma of 2 to 4. It is silt loam, silty clay loam, or silty clay. It has blocky or platy structure or has primary structure that is prismatic. Consistence is firm or very firm.

The C horizon has hue of 2.5Y or 5Y, value of 4 to 6 and chroma of 2 to 6. It is silty clay loam, silty clay, or clay. It has blocky, platy or prismatic structure, all of which are considered inherited, or the horizon is massive. Consistence is firm or very firm. Common or many black to dark reddish brown patchy oxide coatings are on faces of peds. Some pedons have films on faces of peds that appear to be silt.

**COMPETING SERIES:** There are currently no other series in the same family. Similar soils in related families are the Boothbay and Elmwood series. Boothbay soils have a fine-silty particle-size class. Elmwood soils have a coarse-loamy over clayey particle-size class.

**GEOGRAPHIC SETTING:** Buxton soils are on coastal lowlands and river valleys. Slope ranges from 3 to 50 percent. The soils formed in medium, moderately fine, and fine textured glaciolacustrine or glaciomarine deposits. The climate is humid and cool temperate. Mean annual precipitation ranges from 34 to 48 inches, and mean annual temperature ranges from 43 to 46 degrees F. The frost-free season ranges from 90 to 160 days. Elevation ranges from 5 to 900 feet above mean sea level.

**GEOGRAPHICALLY ASSOCIATED SOILS:** These are the Biddeford, Elmwood, Lamoine, Melrose, Scantic, Swanton and Whately soils. The very poorly drained Biddeford soils are in depressions on the landscape. The somewhat poorly drained Lamoine soils and poorly drained Scantic soils are in lower positions on the landscape. The Elmwood, Melrose, Swanton, and Whately soils all have a coarse-loamy over clayey particle-size class. Elmwood soils are in similar positions on the landscape; Melrose soils are in higher positions; Swanton soils are in lower positions and Whately soils are in depressions.

**DRAINAGE AND PERMEABILITY:** Moderately well drained. Surface runoff is medium or rapid

depending on slope. Permeability is moderate or moderately slow in the surface horizon, moderately slow or slow in the upper part of the subsoil, and slow or very slow in the lower part of the subsoil and in the substratum.

**USE AND VEGETATION:** Cleared areas are used mainly for hay, forage crops, or pasture. Some areas are used for silage corn or vegetables. The remaining areas are forested. Common tree species include eastern white pine, balsam fir, paper birch, white spruce, eastern hemlock, and northern red oak.

**DISTRIBUTION AND EXTENT:** Maine, Massachusetts, New Hampshire, New York, and Vermont. The series is of large extent.

**MLRA SOIL SURVEY REGIONAL OFFICE (MO) RESPONSIBLE:** Amherst, Massachusetts

**SERIES ESTABLISHED:** York County, Maine, 1941.

**REMARKS:** 1. Some pedons have been described with a bisecum profile. 2. Diagnostic horizons and features recognized in this pedon are:

- a. Ochric epipedon - the zone from 0 to 8 inches (Ap horizon).
- b. Cambic horizon - the zone from 8 to 21 inches (Bw1 and Bw2 horizons).
- c. Aquic feature - Iron depletions within 24 inches of the mineral soil surface.
- d. Dystric feature - no carbonates within a depth of 40 inches.

**ADDITIONAL DATA:** Source of data used in establishing taxonomic class and range in characteristics is Maine Agricultural Experiment Station, Technical Bulletin 29, February 1968.

Soil interpretation Record Numbers for the Buxton series are: Buxton, ME0043; Buxton, stony, ME0084.

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National Cooperative Soil Survey  
U.S.A.

LOCATION LAMOINE

ME+MA VT

Established Series

Rev. GBJ-PAH-WDH

11/96

## LAMOINE SERIES

The Lamoine series consists of very deep, somewhat poorly drained soils formed in glaciolacustrine or glaciomarine deposits on coastal lowlands and river valleys. Slope ranges from 0 to 15 percent.

Permeability is moderate or moderately slow in the surface horizon, moderately slow or slow in the upper part of the subsoil, and slow or very slow in the lower part of the subsoil and in the substratum.

Mean annual temperature is about 45 degrees F, and mean annual precipitation is about 44 inches at the type location.

**TAXONOMIC CLASS:** Fine, illitic, nonacid, frigid Aeric Epiaquepts

**TYPICAL PEDON:** Lamoine silt loam, on a 3 percent slope in an abandoned hayfield. (Colors are for moist soil unless otherwise noted.)

**Ap--**0 to 7 inches; dark brown (10YR 3/3) silt loam, pale brown (10YR 6/3) dry; moderate fine granular structure; friable; many very fine and common fine roots; moderately acid; abrupt smooth boundary. (5 to 12 inches thick)

**Bw1--**7 to 9 inches; light olive brown (2.5Y 5/4) silt loam; weak fine granular structure; friable; many very fine and few fine roots; few fine prominent light olive gray (5Y 6/2) iron depletions, and common fine and medium distinct olive (5Y 5/3) and common medium prominent yellowish brown (10YR 5/6) masses of iron accumulation; moderately acid; abrupt wavy boundary.

**Bw2--**9 to 12 inches; light yellowish brown (2.5Y 6/4) silt loam; weak very fine subangular blocky structure; friable; many very fine roots; common fine prominent yellowish red (5YR 5/6) masses of iron accumulation, and common medium prominent light olive gray (5Y 6/2) iron depletions; olive (5Y 5/3) faces of peds; moderately acid; abrupt wavy boundary.

**Bg--**12 to 17 inches; light olive brown (2.5Y 5/4) silty clay loam; moderate very fine and fine subangular blocky structure; firm; common very fine roots between peds; few medium prominent yellowish red (5YR 5/6) masses of iron accumulation, and common medium prominent gray (5Y 6/1) and many coarse prominent light olive gray (5Y 6/2) iron depletions; light olive gray (5Y 6/2) faces of peds; few prominent dark reddish brown (5YR 2/2) oxide coats on faces of peds; moderately acid; clear wavy boundary. (Combined thickness of the B horizon is 9 to 28 inches.)

**BCg--**17 to 21 inches; olive (5Y 4/3) silty clay loam; strong very coarse prismatic structure parting to weak thin and medium platy; firm; few very fine roots between peds; common medium faint olive gray (5Y 5/2) iron depletions and common medium prominent yellowish brown (10YR 5/6) masses of iron accumulation; olive gray (5Y 5/2) faces of peds within prisms; gray (5Y 6/1) faces of prisms; common prominent dark reddish brown (5YR 2/2) oxide coats on faces of peds within prisms; slightly acid; clear

wavy boundary. (0 to 16 inches thick)

**Cg1**--21 to 32 inches; olive (5Y 4/3) silty clay; strong very coarse prismatic structure parting to weak thin and medium platy; firm; few very fine roots between peds; common medium distinct gray (5Y 5/1) iron depletions; olive gray (5Y 4/2) faces of peds within prisms; gray (5Y 6/1) faces of prisms; many prominent black (5YR 2/1) oxide coats on faces of peds within prisms; common fine prominent yellowish brown (10YR 5/6) colors associated with oxide coats; neutral; gradual wavy boundary.

**Cg2**--32 to 50 inches; olive (5Y 5/3) silty clay; weak thin platy structure; firm; common coarse distinct gray (5Y 5/1) iron depletions and common coarse prominent yellowish brown (10YR 5/6) masses of iron accumulation; olive gray (5Y 5/2) faces of peds; many prominent black (5YR 2/1) oxide coats on faces of peds; common fine prominent yellowish brown (10YR 5/6) colors associated with oxide coats; neutral; diffuse wavy boundary.

**Cg3**--50 to 65 inches; olive (5Y 5/3) silty clay; weak thin platy structure; firm; common medium faint olive gray (5Y 5/2) iron depletions; olive (5Y 4/3) faces of peds; many prominent black (5YR 2/1) oxide coats on faces of peds; common fine prominent yellowish brown (10YR 5/6) colors associated with oxide coats; neutral.

**TYPE LOCATION:** Hancock County, Maine; City of Ellsworth; west of Union River, 1,300 feet north of junction of U.S. Route 1A and Gilpatrick Brook, in an abandoned hayfield between a gravel road and the railroad track; USGS Ellsworth topographic quadrangle; lat. 44 degrees 34 minutes 25 seconds N. and long. 68 degrees 27 minutes and 24 seconds W., NAD 27.

**RANGE IN CHARACTERISTICS:** Thickness of the solum ranges from 16 to 55 inches. Depth to bedrock is more than 60 inches. Rock fragment content throughout the soil is less than 5 percent by volume. Stones cover from 0 to 3 percent of the surface. Reaction ranges from very strongly acid to slightly acid in the surface, unless limed, from strongly acid to neutral in the subsoil, and from moderately acid to neutral in the substratum.

The Ap horizon has hue of 10YR or 2.5Y, with value and chroma of 2 to 4. Undisturbed areas have an A horizon 1 to 6 inches thick, that has hue of 10YR or 2.5Y, value of 2 to 4 and chroma of 1 to 4. They are silt loam or silty clay loam. They have moderate or strong, very fine to medium granular structure. Consistence is very friable or friable.

The B horizon has hue of 10YR to 5Y, value of 3 to 7 and chroma of 2 to 6. It is silt loam, silty clay loam, or silty clay. It has weak to strong, fine or medium granular, very fine to coarse subangular blocky, or medium or thick platy structure, or has primary structure that is coarse or very coarse prismatic. Consistence is friable or firm.

The BC horizon has hue of 2.5Y or 5Y, value of 4 to 6 and chroma of 1 to 4. It is silt loam, silty clay loam or silty clay. It has blocky or platy structure or has primary structure that is prismatic. Consistence is firm or very firm.

The C horizon has hue of 2.5Y or 5Y, value of 3 to 6 and chroma of 1 to 4. It is silty clay loam, silty clay, or clay. It has blocky, platy, or prismatic structure, all of which are considered inherited, or the horizon is massive. Consistence is firm or very firm. Common or many black to dark reddish brown oxide coats are on faces of peds. Some pedons have films on faces of peds that appear to be fine silt.

**COMPETING SERIES:** There are currently no other series in the same family. The Roundabout, Swanton and Swanville series are similar soils in related families. Roundabout soils have a coarse-silty particle-size class. Swanton soils have a coarse-loamy over clayey particle-size class, and Swanville soils have a fine-silty particle-size class.

**GEOGRAPHIC SETTING:** Lamoine soils are on coastal lowlands and river valleys. Slope ranges from 0 to 15 percent. The soils formed in medium, moderately fine and fine textured glaciolacustrine or glaciomarine sediments. The climate is humid and cool temperate. The mean annual precipitation ranges from 34 to 48 inches, and mean annual temperature ranges from 43 to 46 degrees F. The frost-free season ranges from 90 to 160 days. Elevation ranges from 5 to 900 feet above mean sea level.

**GEOGRAPHICALLY ASSOCIATED SOILS:** These are the Biddeford, Boothbay, Buxton, Scantic, and Swanville soils. The very poorly drained Biddeford soils are in depressions on the landscape. The moderately well or somewhat poorly drained Boothbay soils are in similar and higher positions on the landscape and have a fine-silty particle-size class. The moderately well drained Buxton soils are in higher positions on the landscape. The poorly drained Scantic and Swanville soils are in lower positions on the landscape.

**DRAINAGE AND PERMEABILITY:** Somewhat poorly drained. Surface runoff is medium. Permeability is moderate or moderately slow in the surface horizon, moderately slow or slow in the upper part of the subsoil, and slow or very slow in the lower part of the subsoil and in the substratum.

**USE AND VEGETATION:** Cleared areas are used mainly for hay or pasture. The remaining areas are forested. Common tree species include eastern white pine, balsam fir, red spruce, white spruce, eastern hemlock, red maple, yellow birch, gray birch, paper birch, sugar maple, alders and aspen.

**DISTRIBUTION AND EXTENT:** Maine and Vermont. (MLRA's 142, 143, 144A, 144B and 145) The series is of large extent.

**MLRA SOIL SURVEY REGIONAL OFFICE (MO) RESPONSIBLE:** Amherst, Massachusetts

**SERIES ESTABLISHED:** Hancock County, Maine, 1988.

**REMARKS:** 1. This revision reflects a change in classification from Aeric Haplaquepts to Aeric Epiaquepts to conform with Keys to Taxonomy, sixth edition, 1994.  
2. Some soils formerly mapped as Buxton will now be included with the Lamoine series.  
3. Some pedons have been described with a bisequum profile. 4. Diagnostic horizons and features recognized in this pedon are:  
a. Ochric epipedon - the zone from 0 to 7 inches (Ap horizon).  
b. Cambic horizon - the zone from 7 to 17 inches (Bw1, Bw2, and Bg horizons).  
c. Aeric feature - matrix with chroma of 3 or more between the A or Ap horizon and 30 inches.  
d. Aquic conditions-Redoximorphic features at 7 inches.  
e. Episaturation - a perched water table.

**ADDITIONAL DATA:** Soil interpretation record numbers for the Lamoine series are: Lamoine, ME0108; Lamoine, stony, ME0130.

U.S.A.

LOCATION NICHOLVILLE      NY ME NH VT

Established Series  
Rev. MGC-ERS-CAW  
03/2011

## NICHOLVILLE SERIES

The Nicholville series consists of very deep, moderately well drained soils formed in wind or water deposited material having a high content of silt and very fine sand. They are on lake plains and low benches on uplands. Estimated saturated hydraulic conductivity is moderately high or high. Slope ranges from 0 through 60 percent. Mean annual temperature is 43 degrees F., and mean annual precipitation is 38 inches.

**TAXONOMIC CLASS:** Coarse-silty, isotic, frigid Aquic Haplorthods

**TYPICAL PEDON:** Nicholville silt loam, on a 4 percent north facing slope in a wooded area. (Colors are for moist soil unless otherwise noted.)

**A** -- 0 to 4 inches; dark brown (10YR 3/3) silt loam, pale brown (10YR 6/3) dry; moderate fine granular structure; friable; many very fine and fine, common medium and few coarse roots; 5 percent rock fragments; moderately acid; clear smooth boundary. (0 through 12 inches thick.)

**Bs1** -- 4 to 10 inches; dark brown (7.5YR 3/4) silt loam; moderate fine and medium subangular blocky structure parting to moderate fine and medium granular; firm; few medium and coarse and common fine roots; 5 percent rock fragments; moderately acid; clear smooth boundary.

**Bs2** -- 10 to 20 inches; brown (7.5YR 4/4) silt loam; moderate medium subangular blocky structure; firm; few fine and medium and common coarse roots; 10 percent rock fragments; moderately acid; clear smooth boundary. (Combined thickness of Bs horizon is 4 through 20 inches.)

**BC1** -- 20 to 22 inches; dark yellowish brown (10YR 4/4) silt loam; moderate medium subangular blocky structure; firm; few fine and medium and common coarse roots; 10 percent rock fragments; common fine and medium distinct brownish yellow (10YR 6/6 and 10YR 6/8) and few fine distinct yellowish brown (10YR 5/8) masses of iron accumulation; moderately acid; clear smooth boundary.

**BC2** -- 22 to 36 inches; light brown (7.5YR 6/4) silt loam; moderate medium platy divisions; firm; few fine roots; 10 percent rock fragments; common coarse distinct light gray (10YR 7/2) and common coarse prominent white (10YR 8/1) iron depletions, and common medium distinct yellowish brown (10YR 5/6) and brownish yellow (10YR 6/6) masses of iron accumulation; moderately acid; abrupt smooth boundary. (Combined thickness of BC horizon is 0 through 18 inches.)

**2C** -- 36 to 72 inches; grayish brown (10YR 5/2) very fine sandy loam; moderate medium platy

divisions; firm; 10 percent rock fragments; many medium and coarse faint dark grayish brown (10YR 4/2) and prominent dark yellowish brown (10YR 4/6) masses of iron accumulation; moderately acid.

**TYPE LOCATION:** Oneida County, New York; in the Town of Remsen, 1100 feet north and 2000 feet west of the intersection of Dustin Road and Countryman Road. USGS Forestport, NY topographic quadrangle; Latitude 43 degrees, 24 minutes, 35 seconds N. and Longitude 75 degrees, 12 minutes, 42 seconds W., NAD 1927.

**RANGE IN CHARACTERISTICS:** Thickness of the solum ranges from 12 through 48 inches. Depth to bedrock is greater than 60 inches. Depth to contrasting deposits is greater than 30 inches. Rock fragments, mostly gravel, range from 0 through 10 percent by volume throughout the soil. Redoximorphic features are within a depth of 30 inches.

The A or Ap horizon, where present, has hue of 7.5YR or 10YR, value of 2 through 4, and chroma of 1 through 3. Texture is silt loam or very fine sandy loam. Consistence is friable or very friable. Reaction ranges from extremely acid through moderately acid, unless limed.

In undisturbed areas, the soil typically has an O horizon, an E horizon, and may also have a Bhs or Bh horizon. These are usually destroyed by plowing. Reaction ranges from extremely acid through moderately acid, unless limed.

The E horizon, where present, has hue of 5YR through 10YR, value of 3 through 7, and chroma of 1 through 4. Texture is silt loam or very fine sandy loam. Consistence is friable or very friable. Reaction ranges from extremely acid through moderately acid, unless limed.

The Bhs horizon where present, has hue of 2.5YR through 7.5YR, and value and chroma of 3 or less. The Bh horizon where present, has hue of 2.5YR through 7.5YR, and value and chroma of 4 or less. Texture ranges from loamy very fine sand to silt loam. Consistence is very friable to firm. Reaction ranges from very strongly acid through moderately acid.

The Bs horizons have hue of 5YR or 7.5YR, value of 3 through 6, and chroma of 2 through 6. In some pedons it has hue of 10YR in the lower part. Texture ranges from loamy very fine sand to silt loam. Consistence is very friable to firm. Reaction ranges from very strongly acid through moderately acid.

The BC horizon, where present, has hue of 10YR through 5Y, value of 4 or 5 and chroma of 3 or 4. Texture ranges from very fine sand to silt loam. Reaction ranges from very strongly acid through moderately acid.

The 2C or C horizon has hue of 10YR through 5Y, value of 4 through 6 and chroma of 2 through 4. Texture is very fine sand to silt loam. The horizon is single grain, massive, or has weak platy divisions associated with depositional layers. Consistence is very friable to firm. Reaction ranges from very strongly acid through neutral.

**COMPETING SERIES:** There are no other series in this family.

The Dixmont, Madawaska, Roundabout, and Salmon series are in related families. Dixmont and

Madawaska soils have coarse-loamy particle-size control sections. Roundabout soils are somewhat poorly and poorly drained. Salmon soils are well drained and do not have redoximorphic features.

**GEOGRAPHIC SETTING:** Nicholville soils are on nearly level to sloping planar or concave landscapes. They are on lake plains and upland till plains that have a mantle of wind or water-deposited silt or very fine sand. Normally, slopes range from 0 to 15 percent, but may range up to 60 percent on strongly dissected lacustrine deposits. In some areas, slowly permeable deposits underlie the soil below 40 inches and restricts internal drainage. Mean annual air temperature ranges from 38 through 46 degrees F., mean annual precipitation ranges from 28 through 50 inches, and the frost-free period ranges from 90 through 160 days. Elevation ranges from 120 through 2000 feet above sea level.

**GEOGRAPHICALLY ASSOCIATED SOILS:** These are the Adams, Becket, Colton, Crary, Potsdam, Roundabout, Salmon, and Worth soils. Well drained Salmon soils are on nearby higher convex areas. Adams and Colton soils are associated in materials high in gravel and sand content. Becket, Crary, Potsdam, and Worth soils formed in adjacent glacial till deposits. Somewhat poorly and poorly drained Roundabout soils are on more concave landscapes.

**DRAINAGE AND SATURATED HYDRAULIC CONDUCTIVITY:** Moderately well drained. The potential for surface runoff is low through very high. Estimated saturated hydraulic conductivity is moderately high or high.

**USE AND VEGETATION:** Most areas have been cleared and are used for growing hay, corn, small grain, and vegetable crops. Wooded areas support sugar maple, beech, Northern red oak, and some white pine.

**DISTRIBUTION AND EXTENT:** The northern border and local areas in the interior of the Adirondack highlands of New York and in Maine, New Hampshire, and Vermont; MLRAs 142, 143, 144B, and 146. The series is moderately extensive.

**MLRA SOIL SURVEY REGIONAL OFFICE (MO) RESPONSIBLE:** Amherst, Massachusetts.

**SERIES ESTABLISHED:** Essex County, New York, 1954.

**REMARKS:** 1. Diagnostic horizons and features recognized in the typical pedon are as follows:

- Ochric epipedon - the zone from 0 through 4 inches (A horizon)
- Spodic horizon - the zone from 4 through 20 inches (Bs1 & Bs2 horizons)
- Aquic subgroup - aquic moisture conditions and redoximorphic features within 75 cm, but no redoximorphic features in a spodic or albic horizon within 50 cm of the mineral soil surface.

LOCATION PUSHAW ME

Established Series

AAK/REE

06/2013

## PUSHAW SERIES

The Pushaw series consists of very deep, somewhat poorly drained soils that formed in glaciolacustrine or glaciomarine deposits on lake plains and marine terraces. Estimated saturated hydraulic conductivity is moderately high in the surface and moderately high to moderately low in the underlying material. Permeability is moderate in the surface and moderately slow or slow in underlying material. Slope ranges from 0 to 8 percent. Mean annual precipitation is about 1120 mm. Mean annual temperature is about 7 degrees C.

**TAXONOMIC CLASS:** Fine-silty, mixed, semiactive, nonacid, frigid Aeric Epiaquepts

**TYPICAL PEDON:** Pushaw silt loam, on a 3 percent east facing slope under grasses at the edge of a cornfield at an elevation of 61 meters. (Colors are for moist soil unless otherwise noted. When described on September 14, 2004, the soil was moist throughout.)

**Ap--**0 to 18 cm; brown (10YR 4/3) silt loam; pale brown (10YR 6/3) dry; moderate medium granular structure; very friable, slightly sticky, slightly plastic; common fine and very fine roots throughout; very strongly acid (pH 4.8); clear wavy boundary (15 to 20 cm thick).

**Bw1--**18 to 25 cm; olive brown (2.5Y 4/3) silt loam; moderate fine and medium granular structure; very friable, slightly sticky, slightly plastic; common fine and very fine roots throughout; moderately acid (pH 6.0); gradual wavy boundary.

**Bw2--**25 to 38 cm; light olive brown (2.5Y 5/3) silt loam; moderate fine and medium subangular blocky structure; friable, slightly sticky, moderately plastic; common fine and very fine roots throughout; common fine and medium, faint olive gray (5Y 5/2) iron depletions throughout; common fine, faint dark yellowish brown (10YR 4/4) masses of iron-manganese throughout; slightly acid (pH 6.2); clear wavy boundary. (Combined thickness of the Bw horizons is 15 to 41 cm.)

**BCg--**38 to 46 cm; dark grayish brown (2.5Y 4/2) silty clay loam; strong fine and medium subangular blocky structure; friable, slightly sticky, moderately plastic; common fine and very fine roots throughout; few fine prominent dark reddish brown (5YR 2.5/2) manganese coatings on faces of ped; common fine and medium faint grayish brown (2.5Y 5/2) iron depletions throughout; common medium prominent yellowish brown (10YR 5/6) masses of oxidized iron throughout; slightly acid (pH 6.3); clear smooth boundary (8 to 20 cm thick).

**BC--**46 to 66 cm; olive (5Y 4/3) silty clay loam; strong medium and coarse subangular blocky structure;

friable, slightly sticky, very plastic; few fine and very fine roots between peds; common fine distinct brown (10YR 4/3) masses of iron-manganese in matrix; common fine distinct gray (2.5Y 5/1) iron depletions on faces of peds; few fine prominent dark reddish brown (5YR 2.5/2) manganese coatings on faces of peds; slightly acid (pH 6.4); gradual wavy boundary. (0 to 15 cm thick).

C--66 to 165 cm; olive (5Y 4/3) silty clay loam; massive; firm, slightly sticky, very plastic; few fine and very fine roots throughout; common fine faint olive brown (2.5Y 4/4) masses of iron-manganese with diffuse boundaries surrounding iron depletions with clear boundaries; common fine distinct gray (2.5Y 5/1) iron depletions in matrix; neutral (pH 6.6).

**TYPE LOCATION:** Penobscot County, Maine, Township of Corinth. From the intersection of Maine Rt. 11/43 and Notch Road, site is 4800 feet southeast along Notch Road and 1000 feet northeast from road in a grassed area at the edge of a cornfield. USGS West Corinth topographic quadrangle; lat. 44 degrees 59 minutes 17 seconds N. and long. 69 degrees 2 minutes 8 seconds W., NAD 83.

**RANGE IN CHARACTERISTICS:** Thickness of the solum ranges from 46 to 91 cm. Depth to bedrock is more than 150 cm. Rock fragment content throughout the soil is less than 5 percent by volume. Stones cover from 0 to 0.1 percent of the surface in most areas but may range up to 3 percent. Reaction ranges from very strongly acid to slightly acid in the solum and strongly acid to neutral in the substratum.

The Ap, or A horizon where present, has hue of 10YR or 2.5Y, value of 3 to 5 and chroma of 3 or 4. It is typically silt loam but is very fine sandy loam in some areas. It has weak or moderate fine or medium granular structure. Moist consistence is very friable or friable. It is slightly sticky and slightly plastic.

The Bw horizon has hue of 10YR or 2.5Y, value of 3 to 6 and chroma of 3 to 6. It is silt loam or silty clay loam. It has weak or moderate fine or medium subangular blocky, or fine or moderate medium granular structure. Moist consistence is very friable or friable. It is slightly sticky and slightly or moderately plastic.

The BCg horizon has hue of 2.5Y or 5Y, value of 2 to 5 and chroma of 1 or 2. It is silt loam or silty clay loam. It has weak or moderate medium to very coarse prismatic, or moderate or strong fine or medium subangular blocky structure. Moist consistence is friable or firm. It is slightly or moderately sticky and slightly to very plastic.

The BC horizon, where present, has hue of 2.5Y or 5Y, value of 2 to 5 and chroma of 3 to 6. It is silt loam or silty clay loam. It has weak or moderate medium to very coarse prismatic, or moderate or strong fine or medium subangular blocky structure. Moist consistence is friable or firm. It is slightly or moderately sticky and slightly to very plastic.

The C horizon has hue of 2.5Y or 5Y, value of 4 or 5 and chroma of 3 or 4. It is silt loam or silty clay loam. Typically the C horizon is massive but some pedons exhibit weak to strong, fine to coarse subangular or angular blocks, thick or very thick plates, or moderate or strong coarse or very coarse prisms, all of which are considered inherited from the parent material. Moist consistence is friable or firm. It is slightly or moderately sticky and slightly to very plastic.

The Cg horizon, where present, has hue of 2.5Y or 5Y, value of 4 or 5 and chroma of 1 or 2. It is silt loam or silty clay loam. Typically the Cg horizon is massive but some pedons exhibit weak to strong, fine to coarse subangular or angular blocks, thick or very thick plates, or moderate or strong coarse or very coarse prisms, all of which are considered inherited from the parent material. Moist consistence is friable or firm. It is slightly or moderately sticky and slightly to very plastic.

**COMPETING SERIES:** There are currently no series in the same family. Soil series in related families include Boothbay, Lamoine, Pemi, Roundabout, Scantic, Swanton, Swanville and Whately. Boothbay soils lack a gleyed horizon within 50 cm of the mineral soil surface. Lamoine soils have more than 35 percent clay in the particle-size control section. Pemi soils lack a horizon with a moist value and chroma of 3 or more between the mineral surface horizon and a depth of 75 cm and have less than 18 percent clay in the particle-size control section. Roundabout soils have less than 18 percent clay in the particle-size control section. Scantic soils have more than 35 percent clay in the particle-size control section and lack a horizon with a moist value and chroma of 3 or more between the mineral surface horizon and a depth of 75 cm. Swanton soils have less than 18 percent clay in the upper part of the particle size control section and 35 percent or more clay in the lower part. Swanville soils have a gleyed horizon, the upper boundary of which is immediately underlying the mineral surface horizon or within 25 cm of the mineral surface. Whately soils have less than 18 percent clay in the upper part of the particle size control section and 35 percent or more clay in the lower part and lack a horizon with a moist value and chroma of 3 or more between the mineral surface horizon and a depth of 75 cm.

**GEOGRAPHIC SETTING:** The Pushaw soils are on lake plains and marine terraces. Slope ranges from 0 to 8 percent. The soils formed in glaciomarine and glaciolacustrine sediments of Wisconsin age. The climate is humid and cool temperate. The mean annual precipitation is 1010 to 1270 mm. The mean annual air temperature is 4 to 8 degrees C. The frost-free period is 110 to 160 days. Elevations typically range from 1.5 to 91 meters above sea level, but may range to as high as 366 meters in river valleys of north central Maine.

**GEOGRAPHICALLY ASSOCIATED SOILS:** These include the related moderately well drained Boothbay soils on slightly higher elevations, somewhat poorly drained Lamoine soils on similar landscape positions, and poorly drained Scantic and Swanville soils on slightly lower elevations. The very poorly drained Biddeford soils are on lower elevations and depressions. Pushaw soils are in a drainage sequence with Boothbay and Swanville soils. The somewhat poorly drained Colonel and the moderately well drained Dixfield soils formed in dense glacial till and are in nearby higher, slightly convex positions on the landscape. The very poorly drained Wonsqueak soils are in depressions and formed in organic material.

**DRAINAGE AND SATURATED HYDRAULIC CONDUCTIVITY:** Somewhat poorly drained. Surface runoff is medium to high. The estimated saturated hydraulic conductivity class is moderately high in the surface and moderately high to moderately low in the substratum. Permeability is moderately rapid in the surface and moderately rapid to moderately slow in the substratum.

**USE AND VEGETATION:** Cleared areas are used mainly for hay production and pasture with limited row-crop production. Some areas are in urban land or are used for wildlife habitat. Native woodland vegetation is balsam fir, eastern white pine, northern white cedar, red spruce, white spruce and white birch.

**DISTRIBUTION AND EXTENT:** Marine terraces and lake plains in Maine; MLRAs 143 and 144B. The series is of small extent.

**MLRA SOIL SURVEY REGIONAL OFFICE (MO) RESPONSIBLE:** Amherst, Massachusetts.

**SERIES ESTABLISHED:** Northern Hancock and Western Washington County Area Maine, 2007.

**REMARKS:** The series recognizes somewhat poorly drained Aeric Epiaquepts formed in fine-silty glaciolacustrine or glaciomarine deposits. These soils were formerly mapped as Boothbay, which had a dual drainage class of moderately well and somewhat poorly drained. The series is named for Pushaw Lake, a large lake in south-central Penobscot County, Maine.

Diagnostic horizons and features in this pedon include:

1. Ochric epipedon - from a depth of 0 to 18 cm (Ap horizon).
2. Cambic horizon the zone from 18 to 66 cm (Bw, BC and BCg horizons).
3. Aeric feature matrix color chroma of 3 at 18 to 38 cm (Bw1 and Bw2 horizons).
4. Aquic feature redox depletions with a chroma of 2 or less at 25 cm below the soil surface, and matrix chroma of 2 due to reduced conditions at 38 to 46 cm (BCg horizon).
5. Episaturation - a perched water table above the C horizon

**ADDITIONAL DATA:** Primary characterization data from pedon 05NO231, samples 05NO1348-1351 from Penobscot County, Maine, SSL, Lincoln, NE, 12/05.

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National Cooperative Soil Survey  
U.S.A.



LOCATION SCANTIC

ME+MA NH NY VT

Established Series  
Rev. KJL-GBJ-WDH  
09/2013

## SCANTIC SERIES

The Scantic series consists of very deep, poorly drained soils formed in glaciomarine or glaciolacustrine deposits on coastal lowlands and river valleys. Slope ranges from 0 to 8 percent. Saturated hydraulic conductivity of the surface and subsurface horizons is moderately high or high and low or moderately slow in the subsoil and substratum. Mean annual temperature is about 7 degrees C, and mean annual precipitation is about 1168 mm inches at the type location.

**TAXONOMIC CLASS:** Fine, illitic, nonacid, frigid Typic Epiaquepts

**TYPICAL PEDON:** Scantic silt loam, on a 1 percent slope in an idle field. (Colors are for moist soil unless otherwise noted.)

**Ap1**--0 to 10 cm; dark grayish brown (10YR 4/2) silt loam, light brownish gray (10YR 6/2) dry; weak very fine granular structure; very friable; many very fine, fine, medium and coarse roots; moderately acid; abrupt smooth boundary.

**Ap2**--10 to 23 cm; dark grayish brown (2.5Y 4/2) silt loam, light brownish gray (2.5Y 6/2) dry; moderate very fine granular structure; very friable; common very fine, fine, medium and coarse roots; common medium distinct olive gray (5Y 5/2) irregularly shaped iron depletions throughout; moderately acid; abrupt wavy boundary. (Combined thickness of the Ap horizons is 13 to 23 cm.)

**Eg**--23 to 28 cm; olive gray (5Y 5/2) silt loam; weak medium platy structure parting to weak very fine subangular blocky; friable; common very fine, fine, medium and coarse roots; common medium prominent light olive brown (2.5Y 5/6) masses of iron accumulation in the matrix and along root channels; moderately acid; abrupt smooth boundary. (0 to 20 cm thick)

**Bg1**--28 to 41 cm; olive gray (5Y 5/2) silty clay loam; moderate thin platy structure; firm; common very fine, fine, and medium and few coarse roots; common medium prominent yellowish brown (10YR 5/6) masses of iron accumulation in the matrix and along pores; many coarse prominent olive brown (2.5Y 4/4) masses of iron accumulation in the matrix and along pores; common medium faint gray (5Y 6/1) irregularly shaped iron depletions in the matrix; light olive gray (5Y 6/2) silt coatings on walls of earthworm channels and on 50 percent of faces of peds; few medium dark gray (5Y 4/1) oxide coats on faces of peds; slightly acid; clear wavy boundary.

**Bg2**--41 to 56 cm; olive gray (5Y 5/2) silty clay; weak medium platy structure parting to moderate very fine subangular blocky; firm; few very fine and fine roots; few pores; common medium faint gray (5Y

6/1) irregularly shaped iron depletions in the matrix; common medium prominent light olive brown (2.5Y 5/4) masses of iron accumulation in the matrix and along pores; light olive gray (5Y 6/2) silt coatings on walls of earthworm channels and on 50 percent of faces of peds; few fine prominent dark reddish brown (5YR 2/2) oxide coats on faces of peds; slightly acid; gradual wavy boundary.

**Bg3**--56 to 74 cm; olive gray (5Y 4/2) silty clay; moderate very fine and fine subangular blocky structure; firm; few pores; common medium prominent light olive brown (2.5Y 5/6) masses of iron accumulation in the matrix and along pores; common medium faint olive gray (5Y 5/2) irregularly shaped iron depletions in the matrix; gray (5Y 6/1) silt coatings on 50 percent of faces of peds and pores; common medium prominent dark reddish brown (5YR 2/2) oxide coats on 10 percent of faces of peds; slightly acid; clear wavy boundary. (Combined thickness of the Bg horizon is 23 to 89 cm.)

**Cg**--74 to 1165 cm; olive gray (5Y 4/2) clay; weak thick platy structure; firm; few medium prominent light olive brown (2.5Y 5/6) masses of iron accumulation in the matrix; few fine faint gray (5Y 5/1) irregularly shaped iron depletions in the matrix; gray (5Y 6/1) silt coatings on 50 percent of faces of peds; many medium prominent dark reddish brown (5YR 2/2) oxide coats on 30 percent of faces of peds; slightly acid.

**TYPE LOCATION:** Washington County, Maine; Town of Whitneyville; 0.25 mile south of railroad track on U.S. Route 1A, and 200 feet northwest of the road; USGS Whitneyville topographic quadrangle; lat. 44 degrees 42 minutes 34 seconds N. and long. 67 degrees 31 minutes 29 seconds W., NAD 27.

**RANGE IN CHARACTERISTICS:** Thickness of the solum ranges from 63 to 127 cm. Depth to bedrock is more than 152 cm. The soil is commonly free of rock fragments but a few pedons contain up to 3 percent gravel. Stones cover from 0 to 3 percent of the surface. Reaction ranges from very strongly acid to slightly acid in the surface and subsurface horizons, unless limed, and from strongly acid to neutral in the upper part of the subsoil. The reaction in the lower part of the subsoil and in the substratum is moderately acid to neutral.

The Ap horizon has hue of 10YR to 5Y, value of 3 to 5 and chroma of 1 or 2. It has weak or moderate, very fine to coarse granular structure. Undisturbed areas have an A horizon 5 to 13 cm thick, that has hue of 10YR, value of 3 and chroma of 1 or 2. It is silt loam, silty clay loam, or loam. Consistence is very friable or friable.

The Eg horizon, has hue of 2.5Y or 5Y, value of 4 or 5 and chroma of 1 or 2 and few or common redoximorphic features. It has weak or moderate, thin to thick platy, fine or medium granular or very fine subangular blocky structure. It is silt loam, silty clay loam, or loam. Consistence is very friable or friable.

The Bg horizon has hue of 2.5Y or 5Y, value of 4 to 6 and chroma of 1 or 2 and has faint to prominent redoximorphic features. It is silt loam, silty clay loam, or silty clay. It has subangular blocky or platy structure but some pedons have primary structure that is prismatic. Consistence is friable or firm.

The BCg horizon, where present, has hue of 2.5Y or 5Y, value of 4 to 6 and chroma of 1 or 2 with faint to prominent redoximorphic features. It is silty clay loam, silty clay, or clay. It has platy or angular blocky structure but some pedons have primary structure that is prismatic. Consistence is friable to very firm.

The Cg horizon is neutral or has hue of 2.5Y, 5Y or 10Y, value of 4 to 6 and chroma of 0 to 2 and redoximorphic features are less abundant than in the B horizon or are lacking. It is silty clay loam, silty clay, or clay. Platy or prismatic structure is dominant but some pedons are massive. Consistence is firm or very firm. Patchy or discontinuous oxide coatings are common in the B and C horizons in pedons from marine deposits and are less common or lacking in those from lacustrine deposits.

**COMPETING SERIES:** There are currently no other series in the same family. The Lamoine, Swanton, and Swanville series are similar soils in related families. Lamoine soils have dominant chroma of 3 or more between the A or Ap horizon and 76 cm below the mineral soil surface. Swanton soils have a coarse-loamy over clayey particle-size class. Swanville soils have less clay in the particle-size control section.

**GEOGRAPHIC SETTING:** Scantic soils are on coastal lowlands and river valleys. Slope ranges from 0 to 8 percent. The soils formed in medium, moderately fine and fine textured glaciomarine or glaciolacustrine deposits. The climate is humid and cool temperate. Mean annual temperature ranges from about 6 to almost 8 degrees C, and mean annual precipitation ranges from 863 to 1219 mm. The frost-free season ranges from 90 to 160 days. Elevation ranges from about 2 to 275 m above mean sea level.

**GEOGRAPHICALLY ASSOCIATED SOILS:** These are the Biddeford, Buxton, Elmwood, Lamoine, Melrose, Swanton, and Whately soils. The Biddeford, Buxton and Lamoine soils are members of a drainage sequence with Scantic soils on the same landscape, Buxton and Lamoine soils are in higher positions and Biddeford soils are in depressions. The Elmwood, Melrose, Swanton and Whately soils all have a coarse-loamy over clayey particle-size class. Elmwood and Melrose soils are in higher positions on the landscape. Swanton soils are in similar positions and Whately soils are in depressions.

**DRAINAGE AND SATURATED HYDRAULIC CONDUCTIVITY:** Poorly drained. Surface runoff is slow. Saturated hydraulic conductivity of the surface and subsurface horizons is moderately high or high and low or moderately slow in the subsoil and substratum.

**USE AND VEGETATION:** Mostly idle or woodland, some areas are used for growing hay and pasture. Common tree species include red maple, elm, gray birch, white ash, balsam fir, red and white spruce, tamarack, and some eastern white pine.

**DISTRIBUTION AND EXTENT:** MLRAs 142, 143, and 144B in Maine, Massachusetts, New Hampshire, New York, and Vermont. The series is of large extent.

**MLRA SOIL SURVEY REGIONAL OFFICE (MO) RESPONSIBLE:** Amherst, Massachusetts

**SERIES ESTABLISHED:** Penobscot County, Maine, 1947.

**REMARKS:** Previous revisions reflect a change in classification from Typic Haplaquepts to conform with Keys To Soil Taxonomy, sixth edition, 1994. Historic correlations of Scantic may have occurred in presumed or isolated frigid areas in MLRAs 144A and 145.

Diagnostic horizons and features recognized in this pedon are:

1. Ochric epipedon - the zone from 0 to 28 cm (Ap and Eg horizons).
2. Cambic horizon - the zone from 28 to 89 cm (Bg horizon).
3. Nonacid - the pH is 5.0 or more in 0.01M calcium chloride in at least some part of the control section (25 to 100 cm).
4. Aquic conditions - redoximorphic features at 10 cm.
5. Episaturation - a perched water table.

**ADDITIONAL DATA:** Source of data used in establishing taxonomic class and range in characteristics is Maine Agricultural Experiment Station, Technical Bulletin 94, September 1979.

Soil interpretation record numbers for the Scantic series are: Scantic, ME0044; Scantic, stony, ME0062.

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National Cooperative Soil Survey  
U.S.A.

LOCATION SWANVILLE ME+VT

Established Series  
Rev. GTH-KJL-WDH  
08/2013

## SWANVILLE SERIES

The Swanville series consists of very deep, poorly drained soils that formed in glaciolacustrine or glaciomarine deposits on lake and marine plains and marine terraces. Slope ranges from 0 to 8 percent. Saturated hydraulic conductivity ranges from moderately high or high in the surface horizon and moderately low in the underlying material.

Mean annual temperature is about 7degrees C, and mean annual precipitation is about 1118 mm at the type location.

**TAXONOMIC CLASS:** Fine-silty, mixed, active, nonacid, frigid Aeric Epiaquepts

**TYPICAL PEDON:** Swanville silt loam, on a 2 percent slope in a hayfield. (Colors are for moist soil unless otherwise stated.)

**Ap**--0 to 15 cm; dark brown (10YR 3/3) silt loam, light brownish gray (10YR 6/2) dry; weak fine and medium granular structure; very friable; many fine roots; few fine and medium prominent light brownish gray (2.5Y 6/2) iron depletions and few fine distinct yellowish brown (10YR 5/6) masses of iron accumulation in the lower 5 cm; slightly acid; abrupt wavy boundary. (10 to 25 cm thick.)

**Bw**--15 to 23 cm; olive (5Y 5/3) silt loam, pale olive (5Y 6/4) crushed, and gray (5Y 5/1) faces of peds; weak fine and medium granular structure; friable; common fine roots; common fine and medium faint light olive gray (5Y 6/2) iron depletions and few fine prominent yellowish brown (10YR 5/6) masses of iron accumulation; slightly acid; clear wavy boundary. (7 to 25 cm thick)

**Bg**--23 to 38 cm; olive gray (5Y 5/2) silt loam, gray (5Y 6/1) faces of prisms, and olive (5Y 5/3) crushed; strong very coarse prismatic structure parting to weak fine and medium subangular blocky; friable; few fine roots; many fine and medium faint light olive gray (5Y 6/2) iron depletions; common fine prominent light olive brown (2.5Y 5/4) and few fine prominent yellowish brown (10YR 5/4) masses of iron accumulation; few very fine and fine pores with gray (5Y 5/1) coatings; dark reddish brown (5YR 3/2) oxide coatings on 10 percent of faces of peds within prisms; moderately acid; gradual wavy boundary. (15 to 41 cm thick)

**BC**--38 to 56 cm; olive (5Y 4/4) silt loam, gray (5Y 5/1) faces of prisms, and olive (5Y 4/3) crushed; strong very coarse prismatic structure parting to weak thick and very thick platy; friable; few fine roots; common fine distinct olive gray (5Y 5/2) and few fine prominent dark grayish brown (2.5Y 4/2) iron depletions; few fine prominent light olive brown (2.5Y 5/6) masses of iron accumulation; few very fine

and fine pores with gray (5Y 5/1) coatings; dark reddish brown (5YR 3/2) oxide coatings on 25 percent of faces of peds within prisms; moderately acid; gradual wavy boundary. (13 to 30 cm thick).

**C1**--56 to 117 cm; olive (5Y 4/3) silt loam, gray (5Y 6/1) faces of prisms, and olive (5Y 5/3) crushed; strong very coarse prismatic structure parting to weak thick and very thick platy; firm; many fine and medium faint olive gray (5Y 5/2) iron depletions; few fine prominent light olive brown (2.5Y 5/6) and few fine prominent dark yellowish brown (10YR 4/4) masses of iron accumulation; few very fine and fine pores with light olive gray (5Y 6/2) coatings; dark reddish brown (5YR 3/2) oxide coatings on 25 percent of the faces of plates within prisms; moderately acid; gradual wavy boundary. (20 to 99 inches thick)

**C2**--117 to 165 cm; olive (5Y 4/4) silt loam, gray (5Y 6/1) faces of prisms, and olive (5Y 5/3) crushed; strong very coarse prismatic structure parting to weak very thick platy; firm; many fine and medium distinct olive gray (5Y 5/2) and few fine prominent dark grayish brown (2.5Y 4/2) iron depletions; few fine prominent yellowish brown (10YR 5/6) masses of iron accumulation; dark reddish brown (5YR 3/2) oxide coatings on 50 percent of faces of plates within prisms; slightly acid.

**TYPE LOCATION:** Waldo County, Maine; Town of Swanville; Maine Route 141, one mile south of Swan Lake; 300 feet east of road; USGS Brooks East topographic quadrangle; lat. 44 degrees 30 minutes 26 seconds N. and long. 69 degrees 00 minutes and 06 seconds W., NAD 27.

**RANGE IN CHARACTERISTICS:** Thickness of the solum typically from 50 to 100 cm, with a few pedons ranging to 46 cm. Depth to bedrock is more than 152 cm. Rock fragment content throughout the soil is less than 5 percent by volume. Stones cover from 0 to 3 percent of the surface. Reaction is very strongly acid to neutral in the solum, and moderately acid to neutral in the substratum but some subhorizons within 100 cm are moderately acid to neutral.

The Ap horizon, or A horizon where present, has hue of 10YR to 5Y, value of 3 to 6, and chroma of 1 to 3. It has weak or moderate, very fine to coarse granular or strong very fine and fine subangular blocky structure. It is silt loam or very fine sandy loam and consistence is very friable or friable.

The E horizon, where present, has hue of 10YR to 5Y, value of 4 to 6, and chroma of 1 or 2. The E horizon has weak or moderate, very thin to thick platy, very fine to medium granular, or subangular blocky structure. It is silt loam or very fine sandy loam and consistence is very friable or friable.

The B and BC horizons have hue of 10YR to 5Y, value of 3 to 6, and chroma of 1 to 4, but one or more subhorizons have a chroma of 2 or less on faces of peds within 20 inches of the mineral soil surface. Redox concentrations are faint to prominent. They are very fine sandy loam, silt loam, or silty clay loam. Structure is weak to strong, medium to very thick platy, very fine to medium subangular or angular blocky, or fine or medium granular. Some pedons have primary structure that is moderate or strong, coarse or very coarse prismatic. Consistence is friable or firm.

The C horizon has hue of 10YR to 5Y, value of 4 or 5, and chroma of 1 to 4. It is silt loam or silty clay loam and some pedons have thin layers that range from silt to fine sand. Redox concentrations are faint to prominent. It has weak to strong, medium to very thick platy, moderate very fine angular blocky, or moderate or strong coarse or very coarse prismatic structure, all of which is inherited from the parent

material, or the horizon is massive. Consistence is friable or firm.

**COMPETING SERIES:** Swanville is currently the only member of this family. The Lamoine and Roundabout series are in similar families. Lamoine soils have more than 35 percent clay in the particle-size control section and Roundabout soils have less than 18 percent clay in the particle-size control section.

**GEOGRAPHIC SETTING:** Swanville soils are on lake and marine plains and marine terraces. Slope ranges from 0 to 8 percent. The soils formed in glaciolacustrine or glaciomarine deposits of Wisconsin age. The climate is humid and cool temperate. Mean annual precipitation ranges from 914 to 1219 mm and mean annual temperature ranges from 5 to 8 degrees C. The frost-free season ranges from 90 to 160 days. Elevation ranges from 2 to 457 m above mean sea level.

**GEOGRAPHICALLY ASSOCIATED SOILS:** These are the Biddeford, Boothbay, Elmwood, Lyman, Salmon, and Tunbridge soils. Biddeford soils are very poorly drained. Boothbay soils are moderately well drained or somewhat poorly drained soils in the same drainage sequence. Elmwood soils have a coarse-loamy over clayey particle-size control section. Lyman soils are somewhat excessively drained, formed in glacial till, and are shallow to bedrock. Salmon soils are well drained and have less clay. Tunbridge soils are well drained, formed in glacial till, and are moderately deep to bedrock. Biddeford soils are in depressions and the other soils are all in higher positions on the landscape.

**DRAINAGE AND PERMEABILITY:** Poorly drained. Saturated hydraulic conductivity ranges from moderately high or high in the surface horizon and moderately low in the underlying material.

**USE AND VEGETATION:** Cleared areas are used mainly for hay and pasture. Small areas are used for silage corn or other row crops. The remaining areas are forested and the common tree species are eastern white pine, white spruce, and red spruce. Hemlock, gray birch, red maple, sugar maple, white oak, balsam fir, and tamarack are also present to a lesser extent.

**DISTRIBUTION AND EXTENT:** Maine and Vermont. (MLRAs 143 and 144B). The series is of moderate extent.

**MLRA SOIL SURVEY REGIONAL OFFICE (MO) RESPONSIBLE:** Amherst, Massachusetts.

**SERIES ESTABLISHED:** Waldo County, Maine, 1979.

**REMARKS:** A 1998 revision changed the classification from Fine-silty, mixed, nonacid, frigid Aeric Haplaquepts to Fine-silty, mixed, nonacid, frigid Aeric Epiaquepts. Some soils formerly mapped as Raynham and Scantic will now be included with the Swanville series.

Diagnostic horizons and features recognized in this pedon are:

1. Ochric epipedon - the zone from 0 to 15 cm (Ap horizon).
2. Cambic horizon - the zone from 15 to 38 cm (Bw and Bg horizons).
3. Nonacid - the pH is 5.0 or more in 0.01M calcium chloride throughout the profile.
4. Aquic conditions - redoximorphic features throughout the profile.

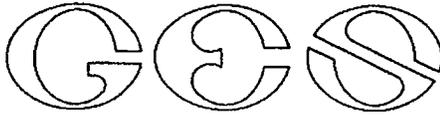
5. Episaturation - a perched water table above the C horizon.

**ADDITIONAL DATA:** Source of data used in establishing the taxonomic classification and range in characteristics is Maine Agricultural Experiment Station Technical Bulletin 94.

Soil Interpretation Records are no longer maintained but included Swanville ME0075; and Swanville, stony, ME0098.

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National Cooperative Soil Survey  
U.S.A.



GOVE ENVIRONMENTAL SERVICES, INC.

JAMES P. GOVE  
CSS, CWS, CPSC, CPESC  
*President and Senior Soil and Wetland Scientist*

EXPERIENCE

1989–Present      Principal, *Gove Environmental Services, Inc.*  
1987–1989        Senior Soil Scientist, *Storch Associates, Manchester, NH*  
1987–1987        Project Manager, *Johnson Engineering, Lebanon, NH*  
1980–1987        *USDA Soil Conservation Service, Exeter and Concord, NH*  
1978–1980        *Rockingham County Conservation District, Exeter, NH*

EDUCATION

M.S. in Plant Science, University of New Hampshire, 1974  
B.S. in Plant Science, University of New Hampshire, 1972

Specialized Postgraduate Studies:

Various Soil, Wetland, Bioengineering and Erosion Control Workshops, 1995–Present  
*Certificate of Training: 1987 U.S. Army Corps of Engineers*  
*Wetland Delineation Manual, University of New Hampshire, 1995*  
*Wetland Delineation, University of Massachusetts-Amherst, 1988, 1990*  
*Wetlands, University of New Haven, 1988*  
*Soils, University of New Hampshire, 1983*

PROFESSIONAL SOCIETIES

Associated General Contractors of New Hampshire, Inc. (AGC of NH)  
Association of Massachusetts Wetland Scientists (AMWS)  
Certified Professional in Erosion and Sediment Control (CPESC)  
International Erosion Control Association (IECA)  
New Hampshire Association of Natural Resource Scientists (NHANRS)  
Society of Soil Scientists of Northern New England (SSSNNE)  
Society of Soil Scientists of Southern New England (SSSSNE)  
Society of Wetland Scientists (SWS)

CERTIFICATIONS

Certified Soil Scientist, State of New Hampshire (*Cert. No. 004*)  
Certified Wetland Scientist, State of New Hampshire (*Cert. No. 0051*)  
Certified Professional Soil Classifier, ARCPACS (*Cert. No. 02507*)  
Certified Professional in Erosion and Sediment Control (*Cert. No. 2015*)

SELECTED PUBLICATIONS

Contributor to *Field Indicators for Identifying Hydric Soils in New England*,  
Versions 1, 2 and 3. NEIWPC, 1995, 1998 and 2004.  
Gove, J.P., et al. *Environmental Planning for On-Site Waste Water Treatment in New Hampshire*,  
Volume 1. NHDES & RCCD, 1995.  
Gove, J.P., et al. High Intensity Soil Maps for New Hampshire, Standard and Origins. SSSNNE  
Special Publications No. 1, 1987.

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## GOVE ENVIRONMENTAL SERVICES, INC.

Kelsea, Russell J. and James P. Gove, *Soil Survey of Rockingham County, NH, USDA- Soil Conservation Service*. 1994.

- Gove, J.P., *The Creation and Application of High Intensity Soil Surveys: The New Hampshire Experience*. Soil Survey Horizons, Volume 48, Number 4, pages 85 –89. 2007.
- Gove, J.P., R.J. Kelsea, and S.A.L. Pilgrim, *Freshwater Marsh Soils of Southeastern New Hampshire*. Soil Survey Horizons, Volume 25, Number 2, page 13 -. 1984.
- Combs, G., J.P. Gove, and R.J. Kelsea, *Soil-Water Behavior in a Drainage Sequence in Southeastern New Hampshire*. Soil Survey Horizons, Volume 26, Number 3, page 15 -. 1985.
- Gove, J. P. and S.A.L. Pilgrim, *High Intensity Soil Surveys in New Hampshire*. Soil Survey Horizons, Volume 28, Number 3, page 90 -. 1987.
- Contributor to *Soil Based Lot Sizing, Environmental Planning for Onsite Wastewater Treatment in New Hampshire*. SSSNNE Special Publication No. 4, Version 1, September 2003.
- Gove, J.P., et al. *Hydric Soils in New Hampshire*. NH DES Technical Bulletin WRD-1995-4. New Hampshire Department of Environmental Services, 1995.

### RECENT PRESENTATIONS

- ASA-CSSA-SSSA 2006 International Meetings, November 12-16, Indianapolis. *Creation and Application of High Intensity Soil Surveys, the New Hampshire Experience*. James Gove, Gove Environmental Services, Inc. November 14, 2006.
- “Municipal Permitting” CLE Seminar, New Hampshire Bar Association, *The DES Regulatory Framework and What It Means for Municipal Permitting*. James P. Gove. April 11, 2007.
- Maine Association of Professional Soil Scientists, Annual Meeting. *The Creation and Application of High Intensity Soil Surveys: The New Hampshire Experience*. Jim Gove, President, Gove Environmental Services, Inc. March 11, 2008.

### PUBLIC SERVICE

- President, New Hampshire Association of Consulting Soil Scientists, 1988, when the NH Certification of Soil Scientists was passed by the NH Legislature.
- First Chairman of the New Hampshire Board of Certification for Natural Scientists, 1989.
- President, New Hampshire Association of Wetland Scientists, 1997, when the NH Certification of Wetland Scientists was passed by the NH Legislature.
- Contributor to *New Hampshire Code of Administrative Rules, Chapter Env-Wq 1000 Subdivision and Individual Sewage Disposal System Design Rules, Env-Wq 1002.63 “Poorly Drained Soils”, Env-Wq 1002.92 “Very Poorly Drained Soils”*. Effective 2-9-08.
- Member of *New Hampshire Department of Environmental Services Stream Crossing Workgroup*. Represented NH Association of General Contractors. February to August, 2008.
- Commissioner to *HB 1579 Commission to Study Land Development Regulations and the Effects of Land Development within Upland Areas that may Affect Wetlands and Surface Waters of the State*. Representing NH Association of General Contractors. NH Legislative Office Building. Beginning August 2008 and completed November 2010.

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## Town of Kittery Planning Board Meeting November 13, 2014

### **Brave Boat Conservation at Sawyer Lane – Cluster Subdivision — Final Plan Review –**

Action: review and grant or deny final plan approval. Owner and Applicant Jonathon & Kathleen Watts are requesting consideration of their plans for a 4-lot cluster subdivision at 143 Brave Boat Harbor Road, Tax Map 63, Lot 19, Residential Rural Zone, with a portion in the Shoreland Overlay Zone. Agents are Ken Markley, Easterly Surveying, Inc.

**PROJECT TRACKING**

REQ'D	ACTION	COMMENTS	STATUS
	Sketch Plan Review/approval	Reviewed and not excepted on 12/12/2013, accepted on 5/8/14, appvd on 6/12/14	APPROVED
NO	Site Visit	Scheduled for 6/4/14	HELD
Yes	Preliminary Plan Completeness/Acceptance	Scheduled for 7/10/14	GRANTED
Yes	Public Hearing	August 14, 2014 Cancelled, August 28, 2014, 2 <sup>nd</sup> PH requested (10/9)	HELD
Yes	Preliminary Plan Review and Approval	Initiated 8/28/14; granted preliminary plan approval and Special Exception Use at 10/9/14 meeting	GRANTED
Yes	Final Plan Review and Approval	Final Plan Application submitted for 11/13/14 meeting.	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 16.4.4.13 - 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.**

Background:

Jonathon & Kathleen Watts are requesting to create a cluster subdivision on a parcel off Brave Boat Harbor Road while preserving the original homestead built in the 1930's. A large portion of the property is wetland and not directly accessible. Access for the proposed four lots is planned via a new Right-Of-Way in the vicinity of the existing driveway. The existing dwelling is located on one of the four lots. As Part of Sketch Plan review the Planning Board held a site walk on 6/4/14 and approved the revised concept on 6/12/14. Applicant has submitted a revised plan and supplemental information in response to staff and board members comments at the 8/28/14 meeting. At the 10/9/14 meeting the Board approved the Request for Special Exception Use and modifications to specific dimensional standards as allowed under the cluster development.

Review:

The applicant has submitted revised plans for the 11/13 meeting and these plans have incorporated many of staff and board member's comments. The following are remaining comments Staff made when considering the preliminary plan application presented at the 8/28/14 public hearing that have not been entirely addressed:

- 1) *16.3.2.16.D.1.d: The applicant has requested flexibility with the standard requiring a maximum 20% of de-vegetated areas for lots within the shoreland overlay zone. Staff has reviewed the plans and estimated areas of de-vegetation and it appears all of the proposed lots include de-vegetated areas significantly less than 20%, so the waiver request does not seem warranted. Staff recommends that the restriction on removing vegetated areas be addressed as a condition of final approval and in the homeowners association documents.*

**UPDATE:** The revised subdivision plan has this modification on the plan, albeit with a strike-through. This should be removed from the plan. Also, the expectation of removing vegetation on the lots that are subject to the Shoreland Overlay Zone needs to be addressed in the Homeowner's Association's legal documents and/or the specific deeds.

- 2) *16.9.2.2 Clearing or Removal of Vegetation for Uses Other Than Timber Harvesting in a Resource Protection or Shoreland Overlay Zone: The lots are subject to limited clearing of vegetation that includes: 1) not more than 40% of the volume (i.e. basal area) of trees four inches or more in diameter, which includes development of permitted uses (16.9.2.2.C); and 2) it is not permissible to clear openings for any purpose that exceed in aggregate 25% of the lot area or 10,000 square feet, whichever is greater. It appears that all of the proposed cleared areas are less than 10,000 square feet, however, no more than 40% volume of the trees removed from the lots still applies. For reference, it appears that the no cut/no disturb buffer area for lots 1, 3 & 4 are in excess of 50% of their respective lot areas. Staff recommends that the tree removal/clearing be addressed in the homeowners association covenants and perhaps on the individual deeds.*

UPDATE: As stated in item #1 above the expectation of removing vegetation on the lots that are subject to the Shoreland Overlay Zone needs to be addressed in the Homeowner's Association's legal documents and/or the specific deeds.

- 3) *Recommended changes to the plans:*

a. *Subdivision Plan.*

vi. *Note on the plan to preserve existing trees shown at the terminus of the ROW to address Title 16.8.4.7.A. UPDATE:* Place a reference to the new note 13 on the plan in the vicinity of the terminus.

b. *Plan, Profile and Details*

i. *The grading in the vicinity of the tee-turn should reflect the intent in Title 16.8.4.7.A where existing trees must be maintained within the center of the cul-de-sac. Update:* A plan note that would address this concern has not been added to the grading plan.

Comments on the submission dated 9/18/2014 with revised plans dated 9/2/2014

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*B) There is no existing conditions plan in the plan set. Perhaps the referenced Survey can be included as the existing conditions plan. UPDATE:* There is no existing conditions plan nor land title survey included in the final plan set. The latter is a requirement however a recorded survey plan is referenced and boundary information is provided on the subdivision plan. Perhaps the existing conditions information can be merged with the Soils Survey. This was previously submitted but is not included in the final plan set and has not been signed and certified.

*F) Applying the cluster provisions allows the applicant to modify the "Dimensional Standards" that would otherwise apply, to obtain the benefits of clustering. On the Subdivision Plan, some but not all are indicated. These all should be included on the plan:*

*16.3.2.1.D2: Minimum lot area: 20,010 sf vs 40,000 sf.*

*16.3.2.1.D2: Street frontage 30.06 ft. vs 150 ft.*

*16.3.2.1.D2: Front yard setback 9.3 ft. vs 40 ft.*

*16.3.2.1.D2: Side and rear yard setback 10 ft. vs 20 ft.*

*16.16.9.A: Flag lots, Lot Dimension Ratio*

*Staff does not recommend the following modification request:*

*16.3.2.16.D.1.d: Maximum 20% of lot area for de-vegetated areas: 30% vs 20%*

UPDATE: Except for the 20% de-vegetation modification request, the Board granted all other modification requests at the October 9, 2014 meeting. However, the most recent revised subdivision plan needs to be revised:

- 1- As stated in comment (1) above, the reference to *Maximum 20% of lot area for de-vegetated areas: 30% vs 20%* needs to be removed entirely from the plan

- 2- A reduced rear yard setback for Lot 1 needs to be identified, not only as a note but the setback lines shown on the plan should also reflect the modified yards. The setback lines currently shown for Lot 1 shows the existing building and proposed garage as encroaching on the front and rear yards.

*J) A new plan note addressing Title 16.8.11.7.B. needs to be placed on the Subdivision Plan, preferably in the vicinity of where the northerly portion open space is depicted, i.e.: "The open space must not be used for future building lots and a part or all of the open space may be dedicated for acceptance by the Town."*

**UPDATE:** The revised subdivision plan has incorporated this information, however, staff suggest the plan note "see note 16" should be placed under the "Reserved Open Space Total 8.89 AC." and both the label and reference should be more centrally located and outside of the wetland hatched area.

*M) At the last meeting the abutter located at #139 Brave Boat Harbor Rd. raised concerns regarding the proximity of the proposed development to their property. To address this concern the applicant has increased the proposed 20-foot wide yard setback to 40 feet. The Board may want to require, in lieu of or in addition to the planting and/or fencing in this locale proposed to satisfy Title 16.8.11.6.I.4 Buffering, a no-cut /no disturb buffer area be designated within all or a portion of the proposed 40-foot wide yard setback.*

**UPDATE:** The revised plan shows a 20-foot wide no-cut/no-disturb buffer along the easterly boundary of Lot 2. When considering the approximate 10-foot difference in elevation from Brave Boat Harbor (BBH) Road and the likely location of the house and garage within Lot 2, the Board may want to consider requiring the full 40-foot setback shown on the plan preserved as a no-cut/no-disturb buffer. This area is not only the closest boundary of the development to the abutter at #139 BBH Rd. but is also the closest point of the entire development to the public street where significant changes are likely to happen. The standard in Title 16.8.11.6.I.4 Buffering requires the proposed development through screening and other methods to be integrated into the surrounding area. Given that Lot 2 is higher than where along the street you can see the proposed development, Staff recommends the buffer in this area is maximized as much as the Board considers reasonable.

*N) The Open Space is proposed for 8.89 acres of the parent lot. The Land Management Plan describes that this land will be managed by a Homeowners Association comprising owners of the 4 subdivided lots. The Land Management Plan describes that the land will be reserved from future growth, and be preserved as-is. It is not clear, however, if the Homeowner's association has sufficient information to execute the goal(s) successfully. Title 16.8.11.7.D.1 requires that the Association accommodates adequate costs to maintain the open space. Along with formerly setting aside a mechanism to pay for the maintenance costs, there needs to be more definitive language as to how the goals are met, i.e. monitoring/inspection for encroachment and how to deal with such issues in the event they arise. The Board may want the Town Attorney to review the homeowner's documents to assure that the requirements of the Land Management Plan are properly reflected.*

**UPDATE:** Staff has consulted with the Town attorney, comments attached, and Staff has the following additional comments:

- 1) Some of the information described in the Land Management should be added to the By-Laws and Covenants, currently *Article VII Open Space*, specifically the goals and objectives.
- 2) It should be made clearer the means to maintaining the open space in a natural state and for preservation of plant and wildlife habitat. A certification by a registered profession (i.e. Land Surveyor) to ensure that the open space and the no-cut/no-disturb buffer areas are being maintained as such and are not being encroached upon, should be a clear requirement. Perhaps a report is generated and submitted to the Town CEO every three years and is accommodated in the Association's budget. This shouldn't be in lieu of the lot owners assessing these areas annually so they would be aware of any encroachments earlier than later.
- 3) It should be clear that the reserved open space is for preservation as it is already stated and not for other traditional active/passive recreation uses of common open space. In addition, it should be

clear on how to manage issues that may be considered an emergency or in order to meet the objective of preserving wildlife habitat, work within the reserved open space is necessary. Any management of the open space or buffer areas that require work in these areas due to safety concerns, such as a hazardous tree close to home or property, must be approved by the Code Enforcement Officer after consideration from a report by a registered forester or arborist that certify the condition. Work related to perhaps habitat enhancement or invasive exotic plant removal must be approved by the Town after considering a plan and scope of work prepared by a registered professional in the field of plant and wildlife management.

Recommendation

The Applicant is requesting final approval. Staff finds that the homeowner's docs open space land management plan need to be revised to reflect staff and Town Attorney's comments. This can be a condition of approval if the Board is comfortable not seeing the final draft prior to approval. The plans revised with consideration of staff and CMA comments are satisfactory.

Staff recommends the Board move to approve with conditions the final cluster subdivision plan for Brave Boat Harbor Conservation at Sawyer Lane and read into the record the Findings of Fact dated 11/13/2014 (as amended if applicable).

**KITTERY PLANNING BOARD  
 FINDINGS OF FACT – D R A F T / NOT APPROVED**

**for  
 BRAVE BOAT HARBOR CONSERVATION AT SAWYER LANE CLUSTER  
 SUBDIVISION**

**WHEREAS:** Owner and applicant Jonathon & Kathleen Watts is requesting consideration of their plans for a 4-lot cluster subdivision at 143 Brave Boat Harbor Road, Tax Map 63, Lot 19, Residential Rural Zone, with a portion in the Shoreland Overlay Zone. Agents are Ken Markley, Easterly Surveying, Inc.

Hereinafter the “Development”.

Pursuant to the Plan Review meetings conducted by the Planning Board as duly noted;

Sketch Plan Review and Approval	Reviewed and not excepted on 12/12/2013, accepted on 5/8/14, approved on 6/12/14	APPRVD
Site Visit (Sketch Plan)	Title 16.10.5.1.3; June 6, 2014	HELD
Preliminary Plan Review Completeness/Acceptance	July 10, 2014	ACCEPTED
Waiver Requests:	None	
Public Hearing(s)	Scheduled August 14, 2014, Advertised Wednesday 8/6/14; 8/14/14 meeting cancelled due to lack of quorum; public hearing held 8/28/14; second PH requested for 10/9/14	PH Held 8/28/14 and 10/9/14
Preliminary Plan Approval	Initiated 8/28/14; granted preliminary plan approval and Special Exception Use at 10/9/14 meeting	GRANTED
Final Plan Review and Approval	Final Plan Application submitted for 11/13/14 meeting.	GRANTED

and pursuant to the application, plans and other documents considered to be a part of the approval by the Planning Board in this finding consist of the following (Hereinafter the “Plan”):

Lot Line Adjustment & Lot Consolidation Plan 143, 145 & 149 Brave Boat Harbor Rd. Easterly Survey, Inc. BK362/PG35	6/3/10	Cluster Development Plan Review Application and supplemental information	6/19/14 7/24/14
Subdivision Plan Easterly Survey, Inc. (7/24/14)	REV. 10/23/14	Class A High Intensity Soil Survey J. Noel, Soil Scientist	6/06/14
C1.0 – Plan, Profile & Details Pinkham & Greer (7/22/14)	REV. 10/13/14	High Intensity Soil Survey Plan J. Noel, Soil Scientist/ Easterly Survey, Inc.	6/19/14
C2.0 – Conceptual Grading Plan Pinkham & Greer	9/4/14	Land Management Plan for Reserved Open Space (no date) and Review by Town Attorney (11/6/14)	

**FINDINGS OF FACT**

**I Title 16.10.8.3.4**

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:

**A. Development Conforms to Local Ordinances.**

*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: With modifications as allowed and standards outlined in Title 16.8.11, Cluster Residential Development, this proposed development appears to be in conformance. At the October 9, 2014 meeting, the PB approved modification requests as allowed under the Cluster Ordinance, except the applicant’s request for a reduction in individual lot de-vegetation to 20%. At the same meeting, the Planning Board approved the Special Exception criteria for dwelling units in the Shoreland Overlay Zone. Conservation development and the preservation of wetlands through open space dedication is supported by the Comprehensive Plan. Further Findings and conclusions (following) support the proposed

development's conformity with Title 16.  
Conclusion: This standard appears to be met.

Vote of \_\_\_ in favor\_\_ against \_\_ abstaining

**B. Freshwater Wetlands Identified.**

*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: The wetlands boundaries were delineated and flagged by Joseph W. Noel, Maine Certified Soil Scientist (#209) during September 3 and 8, 2013, and surveyed and shown on the Existing Conditions Plan prepared by North Easterly Survey, Inc. The delineation was conducted in accordance with the U.S. Army Corps of Engineers (ACOE) Wetlands Delineation Manual (1987) along with the required regional supplement manual, North central and Northeast Region.

Conclusion: The standard appears to be met

Vote of \_\_\_ in favor\_\_ against \_\_ abstaining

**C. River, Stream or Brook Identified.**

*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. §480-B, Subsection 9.*

Finding: A jurisdictional stream has been identified on the property, with its location confirmed by MDEP and is shown on the plan. No development is proposed within its vicinity.

Conclusion: The standard appears to be met

Vote of \_\_\_ in favor\_\_ against \_\_ abstaining

**D. Water Supply Sufficient.**

*The proposed development has sufficient water available for the reasonably foreseeable needs of the development.*

Finding: Municipal water service is proposed and availability is confirmed.

Conclusion: The standard appears to be met

Vote of \_\_\_ in favor\_\_ against \_\_ abstaining

**E. Municipal Water Supply Available.**

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

Finding: Kittery Water District water service is proposed. The KWD has indicated ability to serve.

Conclusion: The standard appears to be met

Vote of \_\_\_ in favor\_\_ against \_\_ abstaining

**F. Sewage Disposal Adequate.**

*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: Individual septic and leach field systems with pretreatment are proposed for each lot, with the exception of Lot A. A minimum of two required test pit locations have been located on each lot by Joseph W. Noel, Maine Certified Site Evaluator, indicating the lots can support a septic system, including reserve leachfields as necessary. Test pits were also performed at the proposed reserve areas. Evaluation of soils supports the design of these systems.

Conclusion: The standard appears to be met

Vote of \_\_\_ in favor\_\_ against \_\_ abstaining

**G. Municipal Solid Waste Disposal Available.**

*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 subdivision, with three additional dwellings, does not incur any significant impact to the municipal solid waste services.

Conclusion: The standard appears to be met

Vote of \_\_\_ in favor\_\_ against \_\_ abstaining

**H. Water Body Quality and Shoreline Protected.**

*Whenever situated entirely or partially within two hundred fifty (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 development is located within 250 feet of shoreland wetlands, however, the development should not adversely affect the quality of the water body. A vegetated swale will be installed that takes stormwater discharge from proposed street within the Shoreland Overlay Zone as it flows outside the zone to Brave Boat Harbor Road.

Conclusion: The standard appears to be met

Vote of \_\_\_ in favor\_\_ against \_\_ abstaining

**I. Groundwater Protected.**

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

Finding: Individual septic and leach field systems with pretreatment are proposed for each lot, with the exception of Lot 1. A minimum of two required test pit locations have been located on each lot by Joseph W. Noel, Maine Certified Site Evaluator, indicating the lots can support a septic system, including reserve leach fields as necessary. Test pits were also performed at the proposed reserve areas. Evaluation of soils supports the design of these systems.

Conclusion: The standard appears to be met

Vote of \_\_\_ in favor\_\_ against \_\_ abstaining

**J. Flood Areas Identified and Development Conditioned.**

*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 one hundred (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 one hundred (100) year flood elevation.*

Finding: Zone A2 has a defined 100-year flood elevation of 9 feet. Zone B is listed as areas of moderate flood hazard, usually the area between the 100-year and 500-year floods. Zone lines are shown on the Existing Conditions Plan prepared by North Easterly Surveying, Inc. No buildings will be constructed within these zones.

Conclusion: The standard appears to be met

Vote of \_\_\_ in favor\_\_ against \_\_ abstaining

**K. Stormwater Managed.**

*Stormwater Managed. The proposed development will provide for adequate stormwater management*

Finding: A Stormwater Management Plan has been prepared, stamped by a Maine licensed civil engineer, and concludes that the site will be stable, and that only negligible flow increases to the significant wetlands complex on the applicant's property are proposed to result. These negligible increases are insignificant.

Conclusion: The standard appears to be met

Vote of \_\_\_ in favor\_\_ against \_\_ abstaining

**L. Erosion Controlled.**

*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: Runoff is primarily maintained as sheet flow and minimized concentrated flow. Other best management practices include directing flow to undisturbed wooded buffers, reduction of flow velocities, use of a level spreader, minimization of pavement widths, and site barriers.

Conclusion: The standard appears to be met

Vote of \_\_\_ in favor\_\_ against \_\_ abstaining

**M. Traffic Managed.**

*The proposed development will:*

1. *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*

2. *Provide adequate traffic circulation, both on-site and off-site.*

Finding: Sight distances north and south have been documented, and that the sight lines have been cleared. The sight distances to the south is reported to be 257 feet, and to 364 feet to the north. For a posted speed of 35 mph (and travel speeds in that range), the minimum stopping distance is recommended to be 250 feet.

Conclusion: The standard appears to be met

Vote of \_\_\_ in favor\_\_ against \_\_ abstaining

**N. Water and Air Pollution Minimized.**

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

1. *Elevation of the land above sea level and its relation to the floodplains;*
2. *Nature of soils and sub-soils and their ability to adequately support waste disposal;*
3. *Slope of the land and its effect on effluents;*
4. *Availability of streams for disposal of effluents;*
5. *Applicable state and local health and water resource rules and regulations; and*
6. *Safe transportation, disposal and storage of hazardous materials.*

Findings:

1. No filling or development is proposed within the 100 year floodplain.
2. Applicant has provided a Class A High Intensity Soil Survey, test pit logs, proposed subsurface disposal area and reserve locations. Advanced pre-treatment tanks are also required.
3. Proposed leach fields are located outside steep slope areas.
4. There are no streams impacted by the development.
5. None
6. There will be no handling of hazardous materials.

Conclusion: The standard appears to be met

Vote of \_\_\_ in favor\_\_ against \_\_ abstaining

**O. Aesthetic, Cultural and Natural Values Protected.**

*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: The applicant states that there are no archaeological or historic sites noted by the MHPC within the proposed development and nothing to the contrary has been found.

Conclusion: The standard appears to be met

Vote of \_\_\_ in favor\_\_ against \_\_ abstaining

**P. Developer Financially and Technically Capable.**

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

*16.10.7.2.P. Performance Guaranty and Town Acceptance to secure completion of all improvements required by the Planning Board and written evidence the Town manager is satisfied with the sufficiency of such guaranty. The Applicant has provided evidence from a reputable lender and has consulted with the Town Manager with regard to the specifics of the guaranty. A Performance Guaranty is a condition of approval.*

Conclusion: The standard appears to be met.

Vote of \_\_\_ in favor\_\_ against \_\_ abstaining

**Title 16.8.3.1 - Street Naming Application**

The proposed street name, Sawyer Lane, has been accepted by Kittery Police, Fire, Assessing and Public Works departments.

Vote of \_\_\_ in favor\_\_ against \_\_ abstaining

**II. Standards in the Shoreland Overlay Zone**

**Chapter 16.7 GENERAL DEVELOPMENT REQUIREMENTS have been met.**

<b>16.7.3.1 Prohibitions and Allowances.</b>
<i>A. Except as otherwise provided in this Article, a non-conforming condition must not be permitted to become more non-conforming.</i>
These standards are not applicable to the proposed development
<b>Vote: __ in favor __ against __ abstaining</b>

**III. Procedures for Administering Permits For Shoreland Development Review** (See also specific Standards addressed in the Findings of Fact) 16.10.10.2 D. *An Application will be approved or approved with conditions if the reviewing authority makes a positive finding based on the information presented. It must be demonstrated the proposed use will:*

<b>1. Maintain safe and healthful conditions;</b>
See Item H above
<b>Vote: __ in favor __ against __ abstaining</b>
<b>2. Not result in water pollution, erosion or sedimentation to surface waters;</b>
See Item L above.
<b>Vote: __ in favor __ against __ abstaining</b>
<b>3. Adequately provide for the disposal of all wastewater;</b>
See Item F above.
<b>Vote: __ in favor __ against __ abstaining</b>
<b>4. Not have an adverse impact on spawning grounds, fish, aquatic life, bird or other wildlife habitat;</b>
See Item H above
<b>Vote: __ in favor __ against __ abstaining</b>
<b>5. Conserve shore cover and visual, as well as actual, points of access to inland and coastal waters;</b>
See Item H above
<b>Vote: __ in favor __ against __ abstaining</b>
<b>6. Protect archaeological and historic resources;</b>
See Item O above
<b>Vote: __ in favor __ against __ abstaining</b>
<b>7. Not adversely affect existing commercial fishing or maritime activities in a commercial fisheries/maritime activities district;</b>
This standard is not applicable.
<b>Vote: __ in favor __ against __ abstaining</b>
<b>8. Avoid problems associated with floodplain development and use</b>
See Item J above
<b>Vote: __ in favor __ against __ abstaining</b>
<b>9. Is in conformance with the provisions of this Code;</b>

See above Section I –Title 16.10.8.3.4 Findings of Fact Standards for compliance.

**Vote: \_\_ in favor \_\_ against \_\_ abstaining**

***10. Be recorded with the York County Registry of Deeds.***

Subdivision plans must be recorded with the York County Registry of Deeds prior to the issuance of a building permit.

**Vote: \_\_ in favor \_\_ against \_\_ abstaining**

**Special Exception Use Review Criteria**

*16.6.4.4.B. The Planning Board will review, decide and may approve an applicant's Special Exception Use request where the proposed project requires Planning Board review as defined in Section 16.10.3.2 or is located in a Shoreland or Resource Protection Overlay Zone. The Planning Board must find the proposed project and use meets the criteria set forth in Section 16.10.8.3.4 and 16.6.6.*

On October 19, 2014, the Planning Board voted unanimously that the proposed development meets the criterial for Special Exception Use.

The Planning Board finds the proposed project and use meets the criteria set forth in Section 16.10.8.3.4 (Findings)

**Vote of 0 in favor 0 against 0 abstaining**

**NOW THEREFORE** the Kittery Planning Board adopts each of the foregoing Findings of Fact, Shoreland Zone Development Review, and Special Exception Use Review Criteria and determines the proposed Development will have no significant detrimental impact, and the Kittery Planning Board hereby grants Final Approval for the Development at the above referenced property, including any waivers/modifications granted or conditions as noted.

Waivers: None

Dimensional Standards Modifications (per Article XI Clustered Residential Development, 16.8.11.3)  
(To be included on final plan as a Plan Note) Modifications granted by the Planning Board on October 9, 2014.

1. 16.3.2.1.D2: Minimum lot area: 20,010 sf vs 40,000 sf.
2. 16.3.2.1.D2: Street frontage 30.06 ft. vs 150 ft.
3. 16.3.2.1.D2: Front yard setback 9.3 ft. vs 40 ft.
4. 16.3.2.1.D2: Side and rear yard setback 10 ft. vs 20 ft.
5. 16.8.4.4: Class II street sidewalk: None vs 5 ft. walk
6. 16.8.4.4: Cul-de-sac Paved Radius: 24' x 24' turn tee vs. 40' radius
7. 16.16.9.A: Flag lots, Lot Dimension Ratio

**Conditions of Approval (to be included on the recorded final plan):**

1. No changes, erasures, modifications or revisions may be made to any Planning Board approved final plan. (Title 16.10.9.1.2)
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/Instructions to Applicant included in the Findings of Fact dated November 13, 2014.

Other Conditions (Not to be included on the final plan)

5. Incorporate all comments included in the 11/13/14 Plan Review Notes.
6. Final draft of Homeowners Association related documents, with requested revisions dated November 6, 2014, to be reviewed and approved by the Town Attorney prior to recording.
7. Drafts of all easements must be provided for staff review prior to signing of final plan.

Notices/Instructions 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. One (1) mylar copy and two (2) paper copies of the final plan (recorded plan if applicable) 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. The owner and/or developer, in an amount and form acceptable to the town manager, must file with the municipal treasurer an instrument to cover the cost of all infrastructure and right-of-way improvements and site erosion and stormwater stabilization, including infrastructure construction inspection fees.
5. 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 Chairman 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 \_\_\_\_\_

\_\_\_\_\_  
Thomas Battcock-Emerson, Planning Board Chairman

Per Title 16.6.2.A - 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.





November 6, 2014

Mr. Christopher Di Matteo  
Town Planner  
200 Rogers Road  
Kittery, ME 03904-1478

Re: Brave Boat Conservation at Sawyer Lane  
Cluster Subdivision at 143 Brave Boat Harbor Road

Dear Chris:

You have forwarded the "BY-LAWS AND COVENANTS OF Brave Boat Conservation at Sawyer Lane" (the "document") and have asked for my review and recommendations, if any. I have the following suggestions:

(1) The name of the entity created in this document should be consistent and reflect the overall purposes of the Association. Rather than the more narrowly named "Sawyer Lane Road Association" in Sec. 3.01 or "Board" in Sec. 4.03, it may be a lot simpler and clearer if the entity is simply referred to as the "Homeowners Association." That would seem to reflect all the functions of the Association set out in the document.

(2) The very first page of the document states that the covenants are automatically extended for a 10-year period unless the covenants are changed by a majority of the lot owners. In fact, during the first 10-year period, the covenants can be completely revoked or changed by a majority vote of the lot owners. This could potentially allow the lot owners to

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Duncan A. McEachern & Dan W. Thornhill  
10 Walker Street, P.O. Box 360  
Kittery, Maine 03904-0360  
Telephone: 207/439-4881 Fax: 207/439-8893

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**McEACHERN & THORNHILL**  
Attorneys at Law

Mr. Christopher Di Matteo  
Re: Brave Boat Conservation at Sawyer Lane  
Cluster Subdivision  
November 6, 2014  
Page 2

completely revoke the covenants. That should not be a major concern of the Town since the protective covenants as set forth in Article V primarily deal with what lot owners can and cannot do on their property. The Town's concerns arise if the Homeowners Association attempts to modify any of its responsibilities imposed by the Planning Board in the Plan approval process.

(3) Article IV dealing with budgets (there are two Article IV's) should make it clear that the proposed budget must also consider any maintenance responsibilities of the Homeowners Association over the open space as well as all buffer no-cut areas as shown on the approved Plan.

(4) While Article VII dealing with open space is the responsibility of the Homeowners Association to maintain and enforce, this responsibility also includes the no-cut buffer areas as shown on the Plan. I would also suggest the last two paragraphs in Article VII be treated as a separate numbered Article.

(5) Article VII should be called "Open Space and Buffer Areas." The second paragraph of Article VII should state "All land/areas identified on the Final Plan as reserved open space land and no-cut areas must remain undeveloped in perpetuity

**McEACHERN & THORNHILL**  
Attorneys at Law

Mr. Christopher Di Matteo  
Re: Brave Boat Conservation at Sawyer Lane  
Cluster Subdivision  
November 6, 2014  
Page 3

and, notwithstanding any of the provisions to the contrary contained in these By-Laws and Covenants, cannot be altered or modified from such use by actions of the Homeowners Association or individual lot owners."

(6) You may also want to consider requiring the approved Plan to make explicit reference to the existence of the By-Laws and Covenants and, in addition, require that each Deed conveying ownership interest in any lot must contain a reference to the By-Laws and Covenants as applicable to the transferred lot.

I would be happy to review these suggestions with you in detail if you wish to do so.

Very truly yours,



Duncan A. McEachern

DAMCE/cn



**Land Management Plan  
For Reserved Open Space**

*Prepared for*

**Brave Boat Conservation at Sawyer Lane**

**John Watts Construction, LLC  
6 Carwin Dr  
York, ME 03909**

## **Executive Summary**

### **I. Introduction**

The reserved open space at Brave Boat Conservation at Sawyer lane consists of 8.89 acres of mature woodland and lowland areas

### **II. Background**

Brave Boat was previously owned by Louis Marston, and in turn, his daughter Shirley Clough since 1938. Jonathan and Kathleen Watts purchased the property in 2013. It is subdivided into what is now known as Brave Boat Conservation at Sawyer Lane.

### **III. Reserved Site Characteristics**

Property is a mix of upland and lowland areas. Property abuts an old rail road trestle and abuts open space owned by the Kittery Land Trust. It is close proximity to Rachael Carson Wildlife Refuge property.

### **IV. Existing Restrictions**

No existing restrictions at this time.

### **V. Current Use**

Resource and habitat conservation

### **VI. Future Potential Growth of Reserve/Conservation Management Areas**

No future growth, reserved area will remain natural and undeveloped.

### **VII. Management Goals and Objectives**

To maintain as open space and wildlife habitat. The Homeowner's Association will manage this property. Management will include boundary marker maintenance, annual inspection of the perimeter of the property to make sure the open space is not threatened in any way. Home owner's association will file any required reports to governing authorities. If issues arise pertaining to the threat of the Open Space, The Homeowner's Association will contact the Town of Kittery Code Enforcement and/or local Land Trust for advice or a solution on how to best address such threat to open space.

BY-LAWS AND COVENANTS  
OF  
Brave Boat Conservation at Sawyer Lane.  
A Non-Profit Corporation

In order to protect the investments of those who choose to build in Brave Boat Conservation at Sawyer Lane, Kittery Point, York County, ME 03905, (the "Premises"). The community has in place the following By-laws, Covenants and Restrictions.

NOW THEREFORE, the Declarant hereby declares these Covenants and By-Laws stated herein and agree that the stated covenants shall apply to all of the property now platted as Brave Boat Conservation at Sawyer Lane, Kittery Point, York County, ME 03905. These covenants and by-laws shall run with the land, except as set forth below and be a burden and benefit upon and to and be enforceable by all persons have an interest in any Lot in the Premises.

These covenants are to run with the land and shall be binding on all of the undersigned Lot Owners and all persons claiming under them from the date of execution after which time said covenants shall automatically be extended for successive ten (10) year period unless an instrument signed by a majority of the then owners of the lots has been recorded agreeing to changes in said covenants. During the first ten (10) year period, the covenants may be amended, changed or revoked with a majority vote of the then landowners. Each lot shall have one vote for said purposes.

Upon recording of this version, all prior covenants and By-laws shall be considered null and void.

ARTICLE I  
OFFICES AND REGISTERED AGENT

Section 1.01 Principal Office. The principal office of the Association shall initially be located at 6 Carwin Dr York, ME 03909. The member of the Association may designate a different principal office, from time to time, in the future.

Section 1.02. Fiscal Year. Except as from time to time otherwise determined by the shareholders, the fiscal year of the corporation shall end on the 31st day of December of each year.

ARTICLE II OFFICERS

Section 2.01. In General. The officers of the Association shall consist of a President, and a Treasurer. Each officer shall exercise the authority and perform the duties as may be set forth in these Bylaws and any additional authority and duties as the Members shall determine from time to time.

Section 2.02. President. The President shall be the chief executive officer of the Association and, subject to the authority of the Members, shall manage the business and affairs of the Association. The President shall preside at all meetings of the Members and shall see that the resolutions of the Members are put into effect.

Section 2.03. Treasurer. Except as otherwise provided by these Bylaws or determined by the Members, the Treasurer shall serve under the direction of the President. The Treasurer shall, under the direction of the President, keep safe custody of the Association's funds and maintain complete and accurate books and records of account. The Treasurer shall upon request report to the Members on the financial condition of the Association.

ARTICLE III  
MEMBERS and MEETINGS

Section 3.01. By acceptance of a deed for any of the Lots on Sawyer Lane, each Lot Owner shall be an Member of the Sawyer Lane Road Association and shall be jointly and severally responsible for the cost of liability insurance and for the maintenance of said Road, including but not limited to the resurfacing, grading, removal or installation of culverts and drainage pipes, and removal of any obstructions of the road and snow plowing. Each Lot shall receive one vote right in all matter put before the Association for a vote.

Section 3.02. Annual Meetings. Beginning in 2015, the annual meeting of the Members shall be held on the Third Sunday of January each year (or on the next business day if that day is a legal holiday). The purpose of the meeting is for the determination of the annual assessment to pay for the costs associated with the maintenance of said Road, including but not limited to the resurfacing, grading, removal or installation of culverts and drainage pipes, and removal of any obstructions of the road and snow plowing and for transaction of such business as may properly come before the meeting. In the event

that an annual meeting is not held on the date fixed in these By-laws, a special meeting may be held in lieu thereof with all the force and effect of an annual meeting.

Section 3.03. Special Meetings. Special meetings of the Members may be called for any one or more lawful purposes by a majority of the Members.

Section 3.04. Resolution of Disputes. If a majority of the Members do not agree to an expenditure, the dispute shall be referred to an Attorney who shall act as arbitrator in the matter and whose decision shall be accepted by all Lot owners as being final in the disputed matter.

Section 3.05. Notice of Meetings, Waiver or Notice. Written or printed notice of all meetings of Members shall be delivered not less than ten nor more than fifty days before the meeting date, either personally or by registered or certified mail, to all members of record entitled to vote at such meeting. If mailed, the notice shall be deemed to be delivered when deposited with postage thereon prepaid in the United States mail, addressed to the Member at the Member's address as it appears on the Association's records. The notice shall state the date, time, and place of the meeting and, in the case of a special meeting, the purpose or purposes for which such meeting was called.

Section 3.06. Quorum. At any meeting of Members the presence, in person of a majority of the Members entitled to vote thereat shall constitute a quorum for the transaction of any business properly before the meeting.

Section 3.07. Transaction of Business. Business transacted at an annual meeting of Members may include all such business as may properly come before the meeting. Business transacted at a special meeting of Members shall be limited to the purposes stated in the notice of the meeting. Each member shall be entitled to one vote at any meeting.

Section 3.08. Action Without Meeting. Any action required or permitted to be taken at a meeting of the Members may be taken without a meeting if a consent in writing, setting forth the action taken, shall be signed by all of the Members entitled to vote with respect to the subject matter thereof.

Section 3.09. Lien for Unpaid Assessment. In the event any assessment duly made is unpaid for 30 days after the due date, the Association, as authorized by a majority vote at a duly called meeting, may record a lien in the York County Registry of Deeds against that Member's property for the amount of the unpaid assessment plus costs, interest at the rate of 1.5% per month and reasonable attorney's fees.

#### ARTICLE IV BUDGETS, COMMON CHARGES AND SPECIAL ASSESSMENTS

Section 4.01 Budgets. The Officers shall prepare, on an annual basis, a budget for administration of the Association to include such things as administrative expenses, landscaping, roadway maintenance, open space management costs, drainage ditches and any other expenses of the Association. Copies of the budget shall be distributed to all

Members at the address on the Secretary's list ten (10) days prior to the Annual Meeting. The budget may include such amounts as the Association may deem proper for working capital, general operating reserve, reserve for replacements or any amount necessary to make up a deficit for any prior year. All dues paid in accordance with these By-Laws shall remain the property of the Association and no refunds or rebates shall be made except as specifically authorized by the Board.

Section 4.02 Payment of Common Charges. All lot owners shall be obligated to pay on an annual basis the common charges assessable to each lot. For the first fiscal year of 2015, the annual dues will be \$500.00 for each member and shall be due by January 31, 2015. At its Annual Meeting, the budget for the Association shall be the basis for common charges. Such common charges shall be payable By January 31 after the Annual Meeting or in such other manner as the Officers shall determine.

A homeowner is obligated to pay its share of that years' common charges and prorated at the time of closing and payable at the transfer of title.

Common charges are not assessable to the developer while lots remain vacant. Should developer choose to keep one or more lots vacant for a period of 5 years from beginning construction of said lots on Sawyer Lane, developer will be assessed those charges for the 6<sup>th</sup> year of vacancy and beyond, until lot is transferred, then lot owner will be obligated to pay such charges.

Section 4.03 Special Assessment: The Board shall be authorized to assess the Members of the Association on an equal basis for unusual or extra-ordinary expense not anticipated in the budget or for additional expenses resulting from miscalculation in preparation of the budget. Such assessments shall be payable within thirty (30) days of receipt of notice from the Board or in such other manner as the Board shall determine.

#### ARTICLE IV MISCELLANEOUS

Section 4.01. Amendments. These Bylaws may be altered, amended, or repealed and new Bylaws may be adopted by the Members, subject to the right of the Members to alter, adopt, amend, or repeal Bylaws by majority vote at any duly called meeting for which proper notice has been provided.

Section 4.02. Severability. Any provision of these Bylaws, or any amendment or alteration thereof; which is determined to be in violation of the law shall not in any way render any of the remaining provisions invalid.

Section 4.03. Reference to Gender and Number of Years. In construing these Bylaws, feminine or neuter pronouns shall be substituted for those masculine in form and vice versa, and plural terms shall be substituted for singular and singular for plural in any place in which the context so requires.

Section 4.04. Applicable Law: this Agreement shall be subject to and construed in accordance with the laws of the State of Maine.

Section 4,05. Successors in Interest. The Parties agree that this Agreement shall run with the land as a covenant and shall be binding upon their successors in interest, assigns, heirs and personal representatives.

## ARTICLE V: PROTECTIVE COVENANTS

Each conveyance of a lot on Sawyer Lane shall henceforth be subject to the following protective covenants and restrictions:

1. The property shall be used only for residential purposes. No commercial activity of any kind entailing excessive traffic, inordinate noise levels or possible inconvenience to other property owners on Sawyer Lane shall be permitted.
2. Home businesses will be allowed on Sawyer Lane as long as there are no signs attached to the home or on the property and do not result in increased traffic flow or increased on-street parking. The business must comply with all city-zoning requirements.
3. No animals, livestock or poultry of any kind shall be raised, bred, or kept on any lot except dogs, cats, and other household pets normally permitted in private homes in urban residential areas provided they are not kept for commercial breeding, or maintained for any commercial purpose.
4. The outside covering of the primary structures on said premises shall not be of vinyl siding, tar, asphalt, felt paper, sheet metal, and veneer plywood such as texture 111 or similar material.
5. No building or other structure shall be erected or maintained nearer than twenty (20) feet from any sideline and no nearer than forty (40) feet from the street line.
6. No signs or billboards shall be erected or displayed upon the land or buildings, excepting an address/name indicator or for sale signs of a standard size.
7. There shall be no unregistered vehicles visible from the street or visible from abutting properties on the property.
8. All boats, campers, snowmobiles, trailers, and the like shall be stored either inside a building or to the rear of the lot as to minimize their visibility from the street and abutting properties. Any clotheslines or the like shall be located to the rear of the house in the same manner.
9. No structure of a temporary nature including, but not by way of limitation, house trailers, mobile homes, auto homes, campers, trailers of any kind, basements, tents, shacks, garages, barns, or other outbuildings shall be used as residence, either temporary or permanent. No inactive automobiles, motorcycles, or snowmobiles shall be stored anywhere except in an enclosed garage or shall completely screened from abutters.

10. Construction of any structure shall begin on the lot within one year from either the purchase of land and agreement with builder or purchase of package from builder. Once construction of any building or structure to be erected on said lot is commenced, such construction including landscaping, shall be completed as to the exterior thereof before the expiration of one (1) year from that time.

11. Each property shall have landscaping adequate to provide an attractive appearance for other buildings and from the street. Landscaping shall be in place within one year from the commencement date of construction. If building structure is completed during the winter months, the landscaping will then be completed after the ground is free from frost.

12. Each homeowner shall agree to maintain their home and the yard adjoining their home in an attractive manner that shall maintain the buildings in good repair and grounds free of refuse and landscaping regularly mowed and maintained.

13. All utilities shall be underground, as laid out by developer. There shall be no overhead wires.

14. No lot shall be further subdivided.

15. Each home shall be no less than 1600 square feet of finished living space above ground, exclusive of garages, basements and attics. The existing home at 143 Brave Boat Harbor road shall be exempt from the minimum square footage.

16. If a garage is to be constructed, it shall be no less than 1 car. The scale of any garage or accessory building shall be built in such a manner as not to overpower the house.

17. All homes shall be stick built or built with energy efficient materials approved by developer. No mobile homes, modular homes, trailers or like shall be permissible.

18. No lot shall be used or maintained as a dumping area for rubbish, trash, old automobiles, or similar materials offensive or degrading in appearance. This paragraph shall not limit the use of compost materials for individual use, provided they are screened from views of neighboring lots.

19. Lots 1, 3 & 4 have a One Hundred Foot (100') no cut, no disturb buffer.

#### ARTICLE VI: ROAD MAINTENANCE

The road to be maintained is known as Sawyer Lane, and is more fully described as:

"Sawyer Lane is an 18 foot wide private road with 1 foot wide gravel shoulders to a length of 280 feet.

- a.) Duties. Each of the Lot Owners, by execution of this document or acceptance of a deed, shall be a member of the Sawyer Lane Road

Association and shall jointly and severally responsible for the cost of maintenance of said Road, including but not limited to the resurfacing, grading, removal or installation of culverts and drainage pipes, and removal of any obstructions of the road and snow plowing. The cost of said maintenance shall be the equal responsibility of the Lot Owners and any one Lot Owner may enforce this obligation against any other Lot Owner(s).

- b.) Use of the Road. The Parties agree that the use of the road shall be equally shared and neither shall have the right to interfere with the use of the road by the other. Further, the parties agree that each and the other may extend the right of use of the Road to guests and visitors.
1. Mowing. Drainage ditch alongside Sawyer Lane will be maintained as a vegetated swale to be mowed twice a year retaining a height of no less than six inches.
  2. Snow Removal. The annual snow removal contract will not only include Sawyer Lane, but also the four private driveways to aid in the accessibility of emergency vehicles.

#### ARTICLE VII: OPEN SPACE

The management of the area designated as “Reserved Open Space” is the responsibility of the Road Association. It is open space for conservation and is under the exclusive control of the Homeowners Association.

All land/areas identified on the Final Plan as open space land to remain undeveloped.

The Land Management Plan will be followed by the Homeowners Association. Such duties, in following this plan will include a physical inspection of land on an annual basis by the Homeowners Association.

Invalidation of any covenant by court order or vote of the landowners shall not affect the remaining covenants, which shall remain in full force and effect.

These covenants apply to all landowners of property on Brave Boat Conservation at Sawyer Lane

Witness our signatures, this \_\_\_\_\_ day of \_\_\_\_\_, 2014.

\_\_\_\_\_  
John Watts





EMailed to Dept  
Road 9/3/14

## 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](http://www.kittery.org)

RECEIVED

SEP 03 2014

BY: [Signature]

### APPLICATION: STREET NAMING

<b>FOR YOUR SAFETY AND SERVICE REVIEW          REQUIRES APPROVAL BY THE TOWN PLANNING          BOARD AND SEVERAL TOWN DEPARTMENTS.</b>	<b>Fee for Review</b> <input type="checkbox"/> \$20.00	<b>Amount Paid:</b> \$ _____ Date: _____
--	--	--

<b>APPLICANT/S PROPERTY OWNER'S INFORMATION</b>	Name	<u>John Watts</u>	Mailing Address	<u>6 Cornish Ave York ME 03909</u>
	Phone	<u>603-896-8483</u>		
	Email			
<b>APPLICANT'S AGENT'S INFORMATION</b>	Name	<u>Ken Pickley</u>	Name of Business	<u>New Establs Survey</u>
	Phone	<u>489-6333</u>	Mailing Address	
	Fax			
	Email			

<b>DESCRIPTION</b>	<b>EXISTING STREET NAME:</b>	<u>None (Subdivision Approval)</u>
	<b>PROPOSED STREET NAME:</b>	<u>Scupper Lane</u>
	<b>STREET LOCATION (e.g. off Haley Road, after # 157 between Norton and Bartlett Road "):</b>	
		<u>Rebuild existing driveway @ 143 Brane Point into Scupper Lane</u>

**FOR YOUR INFORMATION – TOWN CODE TITLE 16.8 ARTICLE III. STREET SIGNS.**

**16.8.3.1 Names.**

Streets which join or are in alignment with streets of abutting or neighboring properties must bear the same name. Names of new streets may not duplicate, nor bear phonetic resemblance to the names of existing streets within the municipality and are subject to the approval of the Planning Board.

**16.8.3.2 Signs Provided.**

Street name signs are to be furnished and installed by the developer; the type, size and location to be approved by the Commissioner of Public Works.

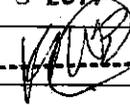
**INSTRUCTIONS FOR SUBMITTING A COMPLETE STREET NAME APPLICATION**

The following information must be provided when submitting a request for Planning Board Review:

- A copy of the Town Tax Map indicating the location of the proposed private drive or right-of-way and the Tax Map Lots affected (abutters).
- A specific written description of where the private drive or right-of-way is located (i.e. "off Haley Road, after # 157 between Norton and Bartlett Road").
- A list the Town Tax Map/Lot numbers and names of all abutters to the right-of-way and obtain their signatures on the street name application.

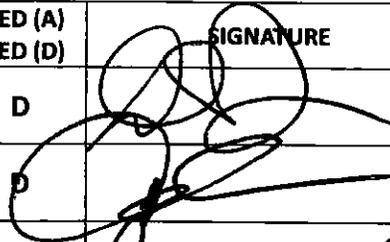
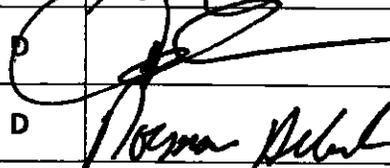
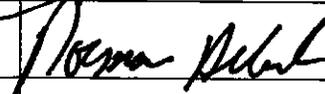
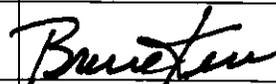
WE THE UNDERSIGNED PROPERTY OWNERS DO HEREBY REQUEST APPROVAL OF THE NAME Singer Lane FOR A STREET LOCATED OFF OF Brass Point Road (STREET/RD/LN). UPON APPROVAL BY THE PLANNING BOARD, WE HEREBY ACKNOWLEDGE RESPONSIBILITY FOR EXPENSES INCURRED TO CHANGE OUR MAILING ADDRESS AS WELL AS TO PURCHASE AND INSTALL THE STREET SIGN(S).

**APPLICANT MUST ACQUIRE SIGNATURES OF PROPERTY OWNERS ABUTTING THE STREET:**

PRINTED NAME	SIGNATURE OF PROPERTY OWNER	MAILING ADDRESS	MAP & LOT NUMBER	TELEPHONE NUMBER
		<b>RECEIVED</b>		
		SEP 03 2014		
		BY: 		

Please attach additional pages if necessary.

**THIS SECTION FOR OFFICE USE ONLY:**

DEPARTMENT	COMMENTS	APPROVED (A) OR DENIED (D)	SIGNATURE	DATE
FIRE DEPARTMENT		(A) D		9/9/14
POLICE DEPARTMENT		(A) D		9/9/14
PUBLIC WORKS		(A) D		9-8-14
CODE ENFORCEMENT		A D		
PLANNING		A D		
ASSESSING		(A) D		9/8/14
TOWN CLERK		A D		
VOTER REGISTRAR		A D		
PLANNING BOARD		A D		



Business Development Office  
152 US Route 1, Box 5  
Scarborough, ME 04074  
p: 1.800.966.9172 • f: 207.289.3123  
[Androscogginbank.com](http://Androscogginbank.com)

Member FDIC  
Equal Housing Lender

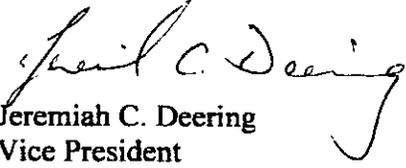
June 20, 2014

To Whom It May Concern:

Please accept this letter as evidence that John Watts / Watts Construction demonstrates both the technical and financial capacity to develop the proposed four-lot subdivision in Kittery, Maine.

Should there be any questions on this matter, please don't hesitate to contact me at (207) 518-6314 or [jdeering@androscogginbank.com](mailto:jdeering@androscogginbank.com)

Sincerely,

  
Jeremiah C. Deering  
Vice President  
Commercial Banking

North  
W  Easterly  
SURVEYING, Inc.

---

191 State Road, Suite #1 • Kittery, Maine 03904 • (207) 439-6333 • Fax (207) 439-1354

October 23, 2014

Kittery Planning Board  
200 Rogers Road  
Kittery, ME 03904

**Subject: Brave Boat Conservation Subdivision at Sawyer Lane - John Watts – Final Approval  
- Tax Map 63 Lot 19 - 143 Brave Boat Harbor Road - Kittery Point, Maine**

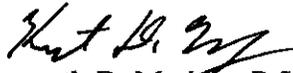
Dear Chairman and Planning Board Members,

John Watts and his family would like you to accept this submittal for final approval of a cluster subdivision at the location noted above. The preliminary plan and modifications to dimensional standards were approved at the planning board meeting on 10/9/14. The HOA documents have been submitted to the planning department for review. We believe we have provided the Board with all of the submission requirements for final approval, including lawn mowing instructions. We are asking the Board to take final action on this project at your next meeting. Enclosed you will find the following:

- 1.) Set of drawings including:
  - a.) Cover Sheet
  - b.) Cluster Subdivision Plan by North Easterly Surveying, Inc. updated as per planning board review and public comments.
  - c.) Road Construction and stormwater drainage plans by Pinkham & Greer Civil Engineers showing grading details.

Please feel free to contact me should you have any questions.

Sincerely:

  
Kenneth D. Markley R.L.S. L.S.E  
President – NorthEasterly Surveying, Inc.

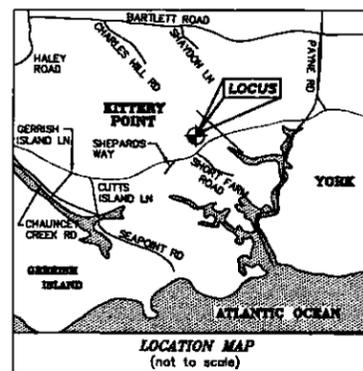
# "BRAVE BOAT CONSERVATION AT SAWYER LANE"

Kittery Point, York County, Maine

APPLICANT/OWNER:

Jonathan Watts & Kathleen Watts

143 Brave Boat Harbor Road, Kittery Point, Maine 03905



**LIST OF PROJECT PLANS AND DOCUMENTS:**

PLANS: SHEET No.	PLAN TYPE	LAST REVISED
S-1	SUBDIVISON PLAN WITH DETAILS .....	10/23/14
C-1	SAWYER LANE PLAN AND PROFILE AND DRAINAGE .....	10/13/14
C-2	GRADING PLAN .....	9/4/14

PREPARED BY:

North  

**EASTERLY  
 SURVEYING, Inc.**

SURVEYORS IN N.H. & MAINE 191 STATE ROAD, SUITE #1  
 (207) 439-6333 KITTERY, MAINE 03904

**PINKHAM & GREER  
 CIVIL ENGINEERS**

600 MAIN STREET, SPRINGVILLE, MAINE  
 TEL: 207.636.7065 FAX: 207.636.3946

**SAMPLES OF DIFFERENT WASTEWATER DISPOSAL AREAS (FOR A 3 BEDROOM HOME)**

**CLIN IN-GRADE**  
LEACHFIELD DIMENSIONS OF 11' X 26' OR 15' X 20'

**CLEAN SOLUTION**  
USING A PRE-TREATMENT TANK REQUIRES A 110 SQUARE FOOT STONE BED ON THESE SOIL TYPES  
LEACHFIELD DIMENSIONS 8' X 22' OR 10' X 11'

THE OPTIONS ABOVE ARE PRELIMINARY AND THE FINAL WASTEWATER DISPOSAL AREA "FOOTPRINTS" MAY VARY BASED ON ADDITIONAL TEST PITS AND/OR LEDGE PROFILES, THE TYPE OF SYSTEMS SELECTED, AND ACTUAL HOME LOCATIONS.

**PLAN REFERENCE**

1. LOT LINE ADJUSTMENT & LOT CONSOLIDATION PLAN FOR PROPERTY AT 143, 145 & 146 BRAVE BOAT HARBOR ROAD, KITTEERY POINT, YORK COUNTY, MAINE OWNED BY THE ESTATE OF GERTRUDE L. MARSTON, SHIRLEY CLOUGH, PREPARED BY NORTH EASTERLY SURVEYING, INC. DATED JUNE 3, 2014, PROJECT NO. 09729 AND RECORDED AT THE Y.C.R.D. AS PLAN BOOK 332 PAGE 35. (STANDARD BOUNDARY SURVEY)

**THE BURTON FAMILY TRUST**  
DONALD & BURTON, Trustees  
A HELSINKI TRUST  
TAX MAP 63 LOT 11  
Y.C.R.D. BOOK 2215 PAGE 139  
121 BRAVE BOAT HARBOR RD.  
KITTEERY, ME 03904



**ZONING SUMMARY**

ZONING	RECREATIONAL RURAL SHORELAND OVERLAY RESOURCE PROTECTION (R-RL) (OS-RL) (OS-SP)
MINIMUM LAND AREA	60000 Sq. Ft.
ROAD FRONTAGE	100 FT.
FRONT YARD SETBACK	20 FT.
REAR YARD SETBACK	20 FT.

**TOTAL AREA TO BE DISTURBED:**  
33,000 SQ. FT.

**NET RESIDENTIAL AREA CALCULATION:**

TOTAL PARCEL AREA	11,752 Ac.
LESS 100 YEAR FLOODPLAIN AREA	-3,356 Ac.
LESS SOLE RATED POOR OR VERY POOR OUTSIDE OF FLOODPLAIN (SEE NOTE #6)	-5,778 Ac.
LESS LYMAN ROCK OUTCROP COMPLEX (L-R-C)	-0,000 Ac.
<b>TOTAL NET RESIDENTIAL AREA</b>	<b>2,618 Ac.</b>

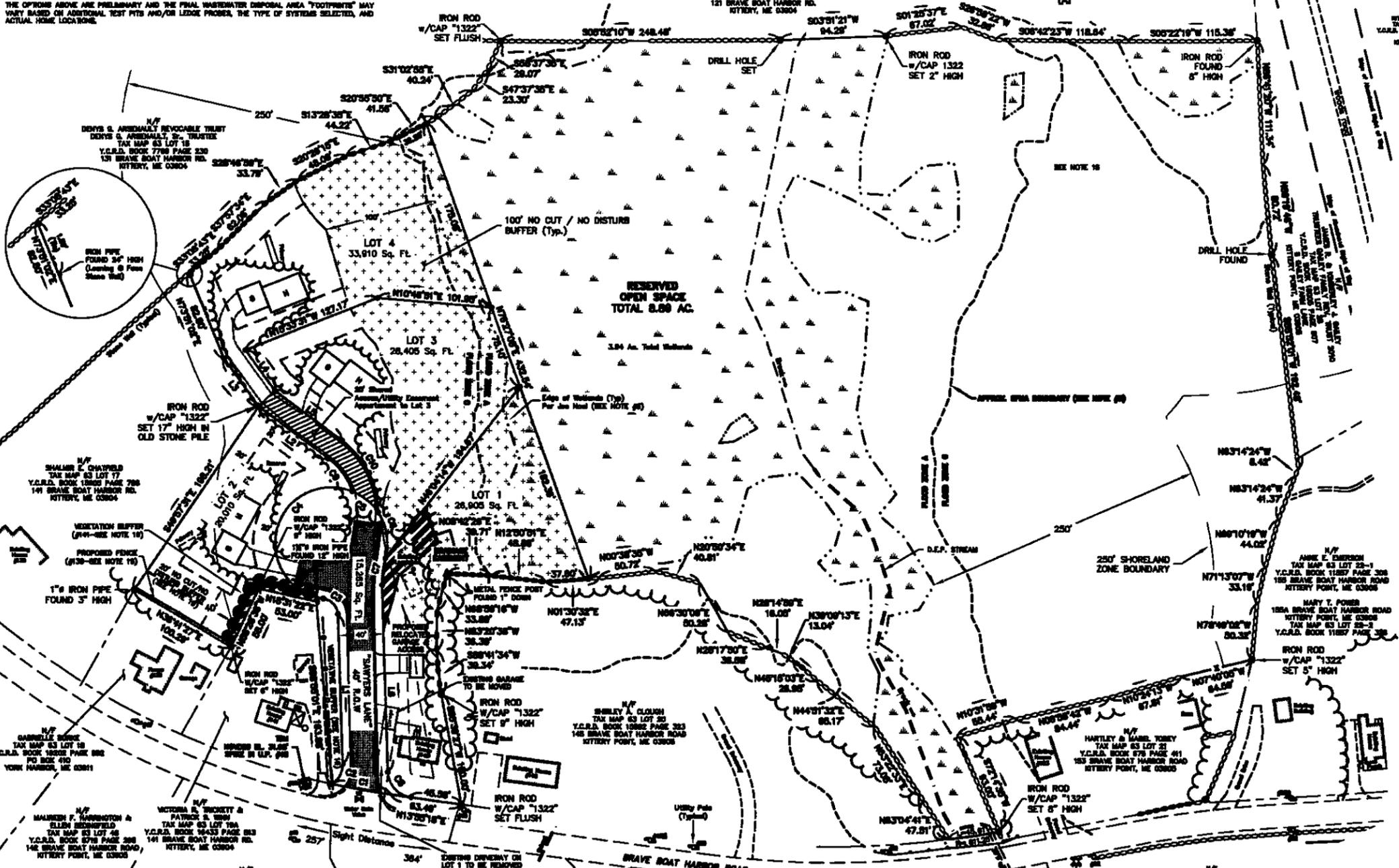
**ALLOWABLE LOTS PER NET RESIDENTIAL DENSITY:**  
(2.618 Ac. \* 43,000 a.s./Ac.) = 112,781 a.s./40,000 a.s./Lot = 417 LOTS ALLOWED (4 PROPOSED)

**CLUSTER RESIDENTIAL REQUIREMENTS:**

OPEN SPACE TOTAL (SUM OF LOT AREA) (MIN. = 11.75 Ac.)	MINIMUM	PROPOSED
OPEN SPACE UPLAND (SUM OF NET RESIDENTIAL AREA) (MIN. = 2.618 Ac.)	5.00 Ac. (20%)	5.50 Ac. (20%)
	1.15 Ac. (20%)	5.50 Ac. (20%)

**NOTES:**

- OWNERS OF RECORD:  
TAX MAP 63 LOT 18: JONATHAN & KATHLEEN E. WATTS, Y.C.R.D. BOOK 1187 PAGE 120, DATED JULY 31, 2013.
- TOTAL EXISTING PARCEL AREA:  
TAX MAP 63 LOT 18: 81,679 Sq. Ft. 11.75 Ac.
- THE BASIS OF BEARING IS PER PLAN REFERENCE #.
- BRAVE BOAT HARBOR ROAD IS ASSUMED TO BE A VARIABLE WIDTH RIGHT OF WAY. THE AREA ADJACENT TO THE SURVEY PARCELS WAS BASED UPON 24.75' FROM THE CENTERLINE OF THE EXISTING ROADWAY. SEE PLAN REFERENCE # FOR BOUNDARY INFORMATION.
- REFERENCE IS MADE TO SPECIAL FLOOD HAZARD AREA (SFHA) BOUNDARY AS SHOWN ON FEMA FIRM COMMUNITY-FIRM NUMBER 23071 0002 C, JULY 8, 1984. SFHA BOUNDARY SHOWN IS ADJUSTED TO FIT CONTOUR.
- THE WETLAND BOUNDARY AS DEPICTED ON THIS PLAN WAS DETERMINED/FLAGGED BY JOSEPH W. NOEL, ME CERTIFIED SOIL SCIENTIST (SOS) ON SEPTEMBER 3, 2013. THE PLAN WERE SURVEY LOCATED BY NORTH EASTERLY SURVEYING, INC. USING A TOPCON TOTAL STATION. THE DELINEATION WAS CONDUCTED IN ACCORDANCE WITH THE U.S. ARMY CORPS OF ENGINEERS DOCUMENT COMPS OF ENGINEERS WETLAND DELINEATION MANUAL, (1987) ALONG WITH THE REQUIRED REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLAND MANUAL, NORTH-CENTRAL AND NORTH-EAST REGION, (VERSION 2, JANUARY 2012).
- HYDRIC SOIL DETERMINATIONS WERE CONDUCTED IN ACCORDANCE WITH THE UNITED STATES DEPARTMENT OF AGRICULTURE, NATURAL RESOURCES CONSERVATION SERVICE DOCUMENT FIELD INDICATORS OF HYDRIC SOILS IN THE UNITED STATES, VERSION 7.0 (2006) ALONG WITH THE MANUAL FIELD INDICATORS FOR IDENTIFYING HYDRIC SOILS IN NEW ENGLAND (VERSION 3, APRIL 2004).
- PLANT SPECIES INDICATOR STATUS WAS BASED ON THE U.S. ARMY CORPS OF ENGINEERS PUBLICATION THE NATIONAL WETLAND PLANT LIST (2013).
- TEST PITS WERE ALSO PERFORMED BY JOSEPH W. NOEL, ME CERTIFIED SOIL SCIENTIST (SOS).
- ALL DISTURBED SOILS WILL BE SUPPLEMENTED WITH COMPOST TO ACHIEVE ORGANIC MATTER BETWEEN 100-105 TO PREVENT EROSION AND AS IN NUTRIENT RETENTION, THEREFORE PROTECTING NATURAL RESOURCES.
- FOR TITLE 10-A LAND NOT SUITABLE FOR DEVELOPMENT, SOILS RATED VERY POOR AND POOR IN THE SOIL SUITABILITY GUIDE HAVE BEEN IDENTIFIED AND REDUCED FOR CALCULATING THE NET RESIDENTIAL ACRES. SOILS INCLUDE LYMAN ROCK OUTCROP WITH C SLOPES (L-R-C) AND BEATING WITH A SLOPES (B-A).
- REFER TO LETTER DATED JUNE 16, 2014 BY JOSEPH W. NOEL FOR INFORMATION REGARDING THE SEPTIC SYSTEM.
- ON OCTOBER 6, 2013, MR. CHRIS COPPE, BIOLOGIST AT THE MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION (DEP) REVIEWED THE WETLANDS ON THE SITE. REFERENCE IS MADE TO MSF FIELD DETERMINATION FORM, DATED OCTOBER 24, 2013, REGARDING STREAM AND WETLAND POOL DETERMINATIONS.
- THE 100' WIDE NO CUT/NO DISTURB BUFFER MUST BE MARKED IN THE FIELD WITH PERMANENT MARKER AT THE BEGINNING POINT, END POINT, AND 100' INTERVALS, OR CLOSER AS NEEDED TO REFLECT A SIGNIFICANT CHANGE IN DIRECTION.
- ADVANCED PRE-TREATMENT TANKS MUST BE EMPLOYED BY ALL SUBSURFACE WASTEWATER DISPOSAL SYSTEMS ON ALL LOTS.



**LINE TABLE**

L1	S86°50'24"E	134.34'
L2	S42°44'01"W	77.95'
L3	N58°40'00"E	53.00'
L4	S50°40'00"W	44.75'
L5	S42°44'01"W	74.98'
L6	S85°50'24"E	167.22'
L7	S75°56'35"E	36.58'
L8	S85°50'24"E	167.22'
L9	N33°50'50"W	56.34'
L10	S75°56'35"E	20.53'
L11	N42°44'01"E	127.20'

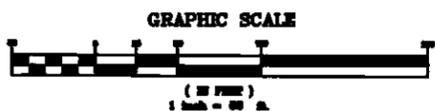
**CURVE TABLE**

C1	L=53.13'	R=700.25'	Δ=04°20'49"
C2	L=21.11'	R=20.55'	Δ=56°54'18"
C3	L=20.41'	R=15.00'	Δ=77°48'32"
C4	L=189.32'	R=50.00'	Δ=194°01'36"
C5	L=30.08'	R=50.00'	Δ=34°29'39"
C6	L=42.94'	R=50.00'	Δ=48°12'25"
C7	L=24.23'	R=50.00'	Δ=17°21'19"
C8	L=33.24'	R=23.74'	Δ=80°13'47"
C9	L=36.77'	R=40.00'	Δ=39°08'45"
C10	L=74.35'	R=80.00'	Δ=53°14'31"

APPLYING THE CLUSTER PROVISIONS ALLOWS THE APPLICANT TO MODIFY THE "DIMENSIONAL STANDARDS" THAT WOULD OTHERWISE APPLY, TO OBTAIN THE BENEFITS OF CLUSTERING. THESE MODIFICATIONS TO DIMENSIONAL STANDARDS ARE:

- 18.3.2.1.D2: MINIMUM LOT AREA: 20,010 SF VS. 40,000 SF.
- 18.3.2.1.D2: STREET FRONTAGE: 30.08 FT VS. 150 FT.
- 18.3.2.1.D2: FRONT YARD SETBACK: 8.3 FT VS. 40 FT FOR LOT 1.
- 18.3.2.1.D2: FRONT YARD SETBACK: 20 FT VS. 40 FT FOR LOTS 2, 3 & 4.

NOTE: THESE ARE NOT WAIVERS.



**LEGEND:**

DRAINAGE EASEMENT	[Symbol]
20' SHARED ACCESS/UTILITY EASEMENT	[Symbol]
100' NO CUT/NO DISTURB BUFFER	[Symbol]
WETLAND	[Symbol]
PROPOSED FENCE	[Symbol]
EXISTING TREE LINE	[Symbol]
PROPOSED TREE LINE	[Symbol]
SETBACK LINES	[Symbol]
STONE WALL	[Symbol]
D.E.P. STREAM	[Symbol]
BROOK	[Symbol]
APPROXIMATE SFHA BOUNDARY	[Symbol]

- NOTES (CONT.):**
- PRESERVED TREES AT THE TERMINUS OF THE RIGHT OF WAY AS SHOWN TO ADDRESS TITLE 10-A.6.7.A.
  - DRAINAGE DITCH ALONGSIDE SAWYER LANE MUST BE MAINTAINED AS A VEGETATED SWALE TO BE MOVED ONLY THICE A YEAR RETAINING A HEIGHT NO LESS THAN 8 INCHES.
  - FOR INFORMATION REGARDING STREET DESIGN AND CONSTRUCTION AND RELATED SITE WORK, REFER TO PLANS C-1 AND C-2 PREPARED BY PROGRAM AND GREEN, CIVIL ENGINEERS, REVISED PLAN DATE 8/4/2014.
  - THE OPEN SPACE MUST NOT BE USED FOR FUTURE BUILDING LOTS AND A PART OR ALL OF THE OPEN SPACE MAY BE DESIGNATED FOR ACCEPTANCE BY THE TOWN.
  - THE TOWN OF KITTEERY SHALL NOT BE RESPONSIBLE FOR THE MAINTENANCE, REPAIR, FLOODING, OR SIMILAR SERVICES FOR THE PRIVATE WAY SHOWN ON THIS PLAN AS LONG AS IT REMAINS A PRIVATE WAY.
  - THE PRIVATE WAY SHOWN ON THIS PLAN SHALL NOT BE ACCEPTED AS A PUBLIC STREET BY THE TOWN OF KITTEERY UNLESS THE WAY COMPLIES WITH THE STANDARDS FOR PUBLIC STREETS (INCLUDING WIDTH OF RIGHT-OF-WAY) EXISTING AT THE TIME OF ACCEPTANCE IS REQUESTED.
  - VEGETATED BUFFERS:  
#2-#4 CEDAR FENCES WITH 50' WIDE NO CUT/NO DISTURB SWATH.  
#5-#8 NORTH AND WEST BOUNDARY 5' CEDAR FENCE WITH 4' APPROXIMATE EVERY 5' ON CENTER.  
NORTH BOUNDARY: MAPLES WILL REMAIN SUPPLEMENTED WITH WHITE PINE, BAYBERRIES AND DOORWOODS EVERY 50'.

APPROVED: TOWN OF KITTEERY

DATE OF APPROVAL: \_\_\_\_\_

REV.	DATE	STATUS	BY	CHKD	APPD.
D	10/23/14	REVISIONS PER PLANNING BOARD REVIEW	B.M.K.	K.D.M.	K.D.M.
C	10/9/14	REVISIONS PER STAFF/PER REVIEW	B.M.K.	K.D.M.	K.D.M.
B	8/2/14	REVISIONS PER STAFF/PER REVIEW	B.M.K.	K.D.M.	K.D.M.
A	7/24/14	REVISIONS PER STAFF REVIEW	B.M.K.	K.D.M.	K.D.M.

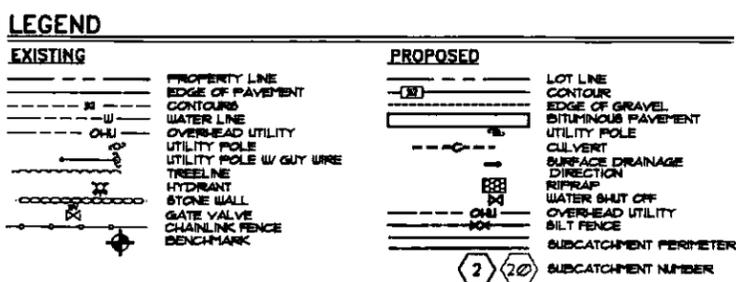
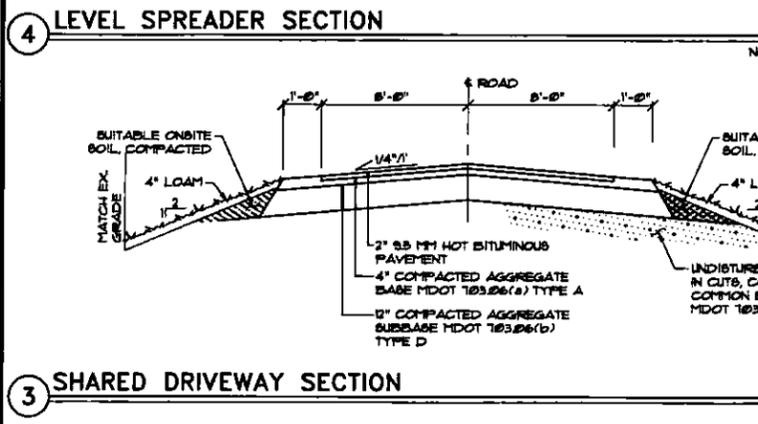
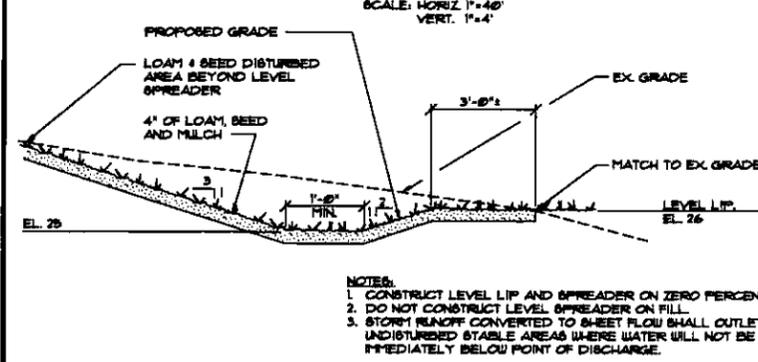
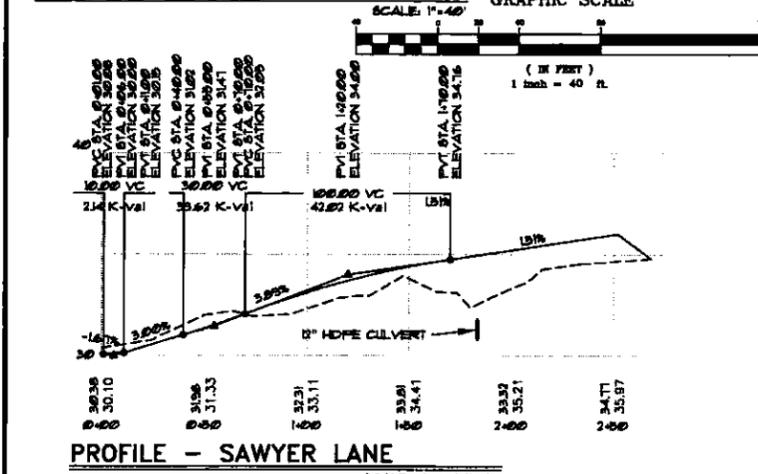
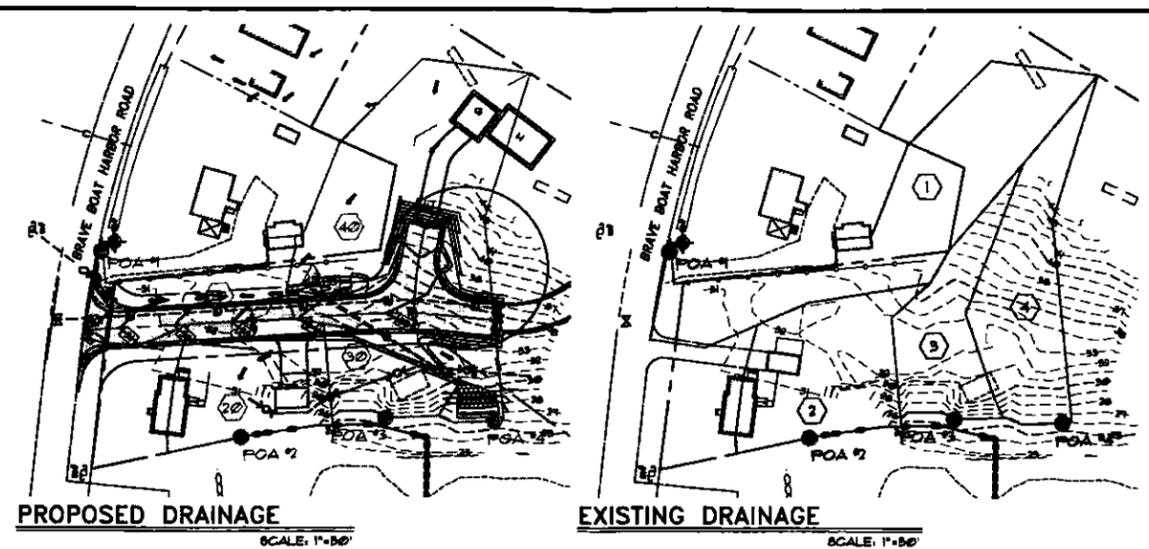
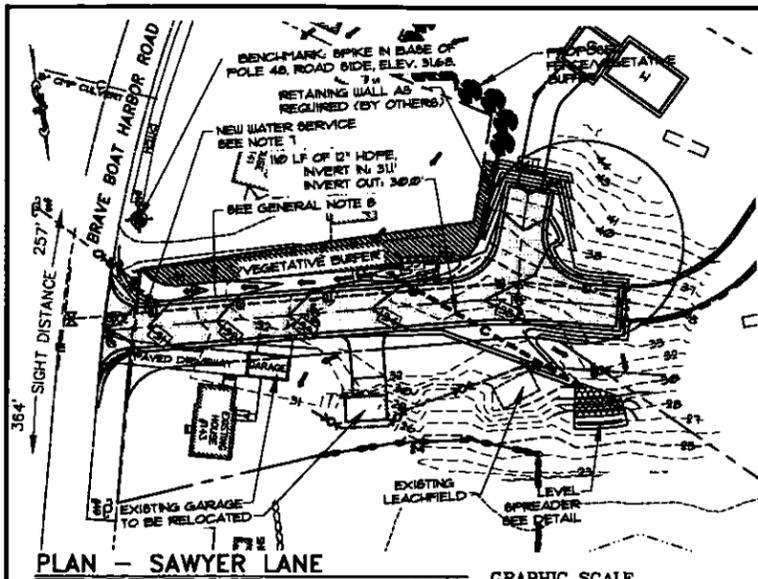
**SUBDIVISION PLAN**  
**BRAVE BOAT CONSERVATION**  
**AT SAWYER LANE**  
FOR PROPERTY AT  
**143 Brave Boat Harbor Road**  
**Kittery Point, York County, Maine**  
OWNED BY  
**Jonathan & Kathleen Watts**  
143 Brave Boat Harbor Road  
Kittery Point, Maine 03904

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

NO.	PROJECT NO.	DATE	SHEET	DATE	CHANGED BY
1	13988	6/19/14	6-1		A.M.P.

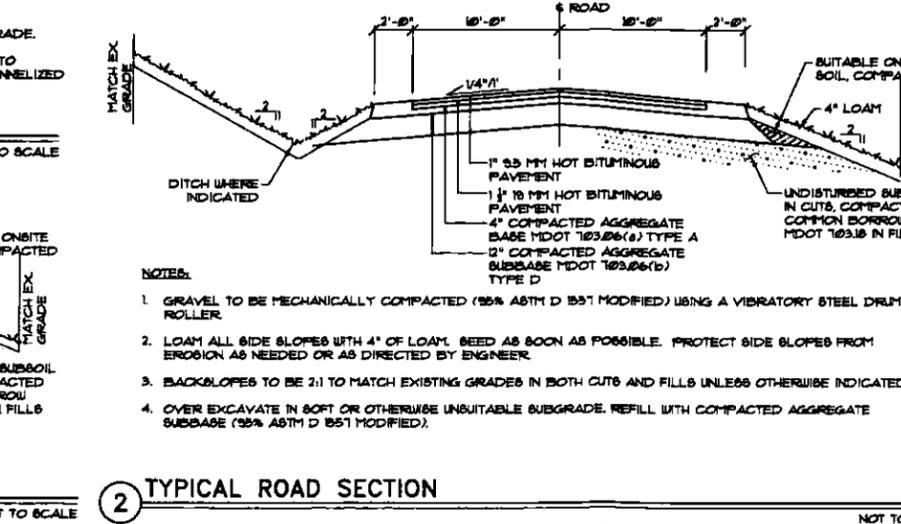
DRIVING MAP 13988 CONCEPT  
FIELD BOOK No. "Kittery Point #2"

Tax Map 63 Lot 18



**GENERAL NOTES**

- TOPOGRAPHIC SURVEY PROVIDED BY EASTERLY SURVEYING, INC., KITTERY, MAINE. HORIZONTAL DATUM IS NGVD29.
- THE TOWN OF KITTERY SHALL NOT BE RESPONSIBLE FOR THE MAINTENANCE, REPAIR, FLOWING, OR SIMILAR SERVICES FOR THE PRIVATE WAY SHOWN ON THIS PLAN.
- THE PRIVATE WAY SHOWN ON THIS PLAN NOT BE ACCEPTED AS A PUBLIC STREET BY THE TOWN OF KITTERY UNLESS THE WAY COMPLIES WITH THE STANDARDS FOR PUBLIC STREETS (INCLUDING WIDTH OF RIGHT-OF-WAY) EXISTING AT THE TIME ACCEPTANCE IS REQUESTED.
- CONTACT DIG-BASE (BII) AND ALL AFFECTED NON-MEMBER UTILITIES PRIOR TO ANY CONSTRUCTION TO VERIFY AND/OR DETERMINE THE EXACT LOCATION, SIZE AND ELEVATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE FAILURE TO LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.
- POWER, CABLE AND TELEPHONE ARE TO BE UNDERGROUND. COORDINATE WITH INDIVIDUAL UTILITY COMPANIES FOR MATERIAL AND LAYOUT REQUIREMENTS.
- STORM DRAINAGE:
  - CULVERTS SHALL BE DOUBLE WALLED HIGH DENSITY POLYETHYLENE (HDPE), EQUAL TO A66 N-2, HANCOR H-G OR APPROVED EQUAL.
  - KEEP 2 FEET MINIMUM COVER OVER ROAD CROSS CULVERTS.
- WATER SERVICE: COORDINATE WITH THE KITTERY WATER DISTRICT (KWID) TO INSTALL A TAPPING SLEEVE AND GATE VALVE ON THE MAIN IN BRAVE BOAT HARBOR ROAD OPPOSITE SAWYER LANE AND A 6-INCH DUCTILE IRON PIPE TO THE ROAD RIGHT OF WAY AT SAWYER LANE IN ACCORDANCE WITH KWID STANDARDS. DISCONTINUE THE EXISTING SERVICE TO THE HOUSE AT 143 BRAVE BOAT HARBOR ROAD AND RETAP THE NEW 6-INCH WATER LINE TO PROVIDE A NEW 1-INCH CTS HDPE SERVICE. INSTALL NEW TAPS, CONNECTIONS, CURB STOPS AND 1/2-INCH OR 3/4-INCH CTS HDPE SERVICES TO LOTS 2, 3 & 4. ALL WORK TO BE COMPLETED IN ACCORDANCE WITH KWID STANDARDS.
- LIMIT FLOWING IN THE SWALE BETWEEN SAWYER LANE AND THE VEGETATIVE BUFFER AND FROM THE HIGH POINT AT STATION 1429 LEFT TO BRAVE BOAT HARBOR ROAD TO TWICE/YEAR AND NOT SHORTER THAN 6 INCHES.

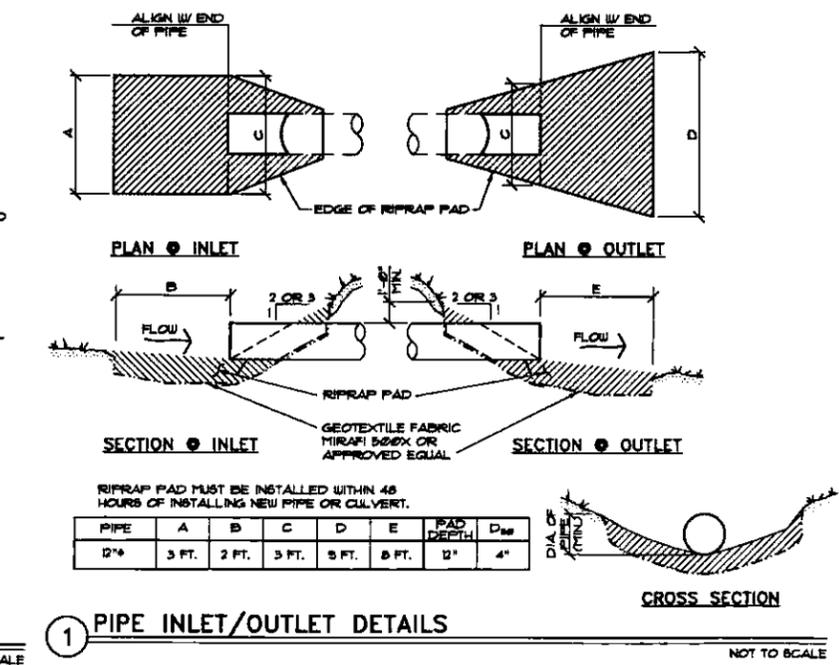


**EROSION CONTROL NOTES**

**GENERAL:**  
THIS DRAWING DEPICTS THE REQUIRED SOIL EROSION CONTROL MEASURES. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING THE CONSTRUCTION SITE IN SUCH A MANNER THAT:

- SOIL EROSION IS KEPT TO A MINIMUM.
- NO SEDIMENT LEAVES THE CONSTRUCTION SITE.
- ALL POSSIBLE MEASURES ARE EMPLOYED TO PREVENT SEDIMENT FROM ENTERING DRAINAGE COURSES.

- ALL EROSION CONTROL MEASURES SHALL BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THE MANUAL: PLAIN EROSION AND SEDIMENT CONTROL SERIES, PUBLISHED BY THE MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION, MARCH 2003.
- THE CONTRACTOR IS RESPONSIBLE FOR ALL FINES RESULTING FROM EROSION OR SEDIMENTATION FROM THE SITE TO SURROUNDING PROPERTIES, WATERBODIES, OR WETLANDS AS A RESULT OF THIS PROJECT.
- ANY DISTURBED SOIL BROUGHT TO FINAL GRADE WILL BE LOAMED AND SEEDED WITHIN SEVEN (7) DAYS.
- INSPECT SOIL EROSION MEASURES WEEKLY AND AFTER SIGNIFICANT STORM EVENTS. MAKE ALL NECESSARY REPAIRS TO FACILITIES AS SOON AS POSSIBLE, BUT NO LONGER THAN 2 DAYS. CLEAN AND RESET SILT FENCES AND STONE CHECK DAMS WHICH ACCUMULATE SEDIMENT AND DEBRIS.
- PROTECT AND STABILIZE ALL AREAS NOT SCHEDULED FOR EROSION PREVENTION OR STABILIZATION BUT THAT SHOW SIGNS OF EROSION. NOTIFY OWNER OF ANY SIGNIFICANT EROSION PROBLEMS.
- APPLY MULCH TO BARE SOILS WITHIN 7 DAYS OF INITIAL DISTURBANCE OF SOILS, PRIOR TO ANY RAIN EVENT AND PRIOR TO ANY WORK SHUTDOWN LASTING MORE THAN ONE DAY.
- TEMPORARILY SEED WITHIN 7 DAYS ANY AREA WHICH WILL BE LEFT DISTURBED AND UNWORKED FOR MORE THAN 14 DAYS WITH THE TEMPORARY SEED MIX LISTED BELOW. PERMANENTLY SEED ANY AREA WHICH CAN BE LOAMED AS SOON AS POSSIBLE WITH THE PERMANENT SEED MIX LISTED BELOW. DO NOT USE PERMANENT SEED MIX AFTER SEPTEMBER 15.
  - MULCH ALL AREAS SEEDED SO THAT SOIL IS NOT VISIBLE THROUGH THE MULCH. DURING THE GROWING SEASON (APRIL 15 - SEPT. 30) USE MATS (OR MULCH AND NETTING) ON:
    - THE EDGE OF GRABBED WATERWAYS
    - SLOPES STEEPER THAN 8%.
  - BETWEEN OCT. 1 AND APRIL 14 USE MATS (OR MULCH AND NETTING) ON:
    - BIDE SLOPES OF GRABBED WATERWAYS
    - SLOPES STEEPER THAN 8%.
  - INSTALL MATS (OR NETTING) IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.
- FOLLOW SILT FENCE MANUFACTURERS SPECIFICATIONS AND RECOMMENDATIONS FOR INSTALLATION OF SILT FENCE. SECURE ENTIRE BOTTOM OF FENCE EITHER BY BURIED BOTTOM OF FENCE IN A TRENCH OR BERTING WITH SOIL OR CHIPPED GRAVELINGS.
- ALL CULVERT OR PIPE OUTFALL PROTECTION MUST BE INSTALLED WITHIN 48 HOURS OF INSTALLING CULVERT.



**PINKHAM & GREER CIVIL ENGINEERS**  
100 W. BROAD ST., SUITE 200, KITTERY, ME 04427  
TEL: 603.882.7800 FAX: 603.882.7801

**JONATHAN & KATHLEEN WATTS**  
143 BRAVE BOAT HARBOR ROAD  
KITTERY POINT, MAINE 03905

**SAWYER LANE**  
143 BRAVE BOAT HARBOR ROAD  
KITTERY POINT, MAINE 03905

**PLAN, PROFILE & DETAILS**

**C1.0**

MAP/LUT: 63 / 10



## Town of Kittery Maine Town Planning Board Meeting November 13, 2014

### Cheatham Shoreland Development Plan

Linda Cheatham, owner/applicant; Holly Bowdoin and Art Feith, Pearson Traditional Design, agents request approval to remove an existing detached garage and construct a new garage with attached breezeway to an existing home at 144 Pepperrell Road, Kittery Point, Tax Map 36, Lot 80, in the Residential-Kittery Point Village and Shoreland Overlay Zones.

#### PROJECT TRACKING

REQ'D	ACTION	COMMENTS	STATUS
NO	Sketch Plan Review		
NO	Site Visit		
YES	Determination of Completeness/Acceptance	November 13, 2014	
NO	Public Hearing		
YES	Final Plan Review and Approval		

Plan Review Notes reflect comments and recommendations regarding applicability of Town Land Use Development Code, and standard planning and development practices. Only the PB makes final decisions on code compliance and approves, approves with conditions or denies final plans. 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 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 16.4.4.13 - 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.

#### Background/Staff Comments:

1. The applicant presented a plan to the CEO for a building permit. A notice of denial was issued on September 24, 2014: *Title 16.3.2.3.D requires a minimum 15-foot side yard. Your proposed garage is less than the required setback. Therefore, your building permit application is denied.*
2. The applicant submitted a Miscellaneous Variation Request and appeared before the Board of Appeals on October 14, 2014. Prior to hearing from the applicant, the Board made the following motion: *to confirm the Board of Appeals does not have the power to hear this application. Per Title 16.7.3.5.4 the Board has found the structure in question lies within the Shoreland Overlay Zone, requiring Planning Board review.*
3. The applicant's submittal to the Planning Board includes:
  - Shoreland Overlay Zone Project Plan Review
  - CEO Decision Letter (9/24/14)
  - Aerial of property, including Flood Zone and Shoreland Overlay zones
  - Architectural Drawings (A1-A3) and photos of the existing garage to be removed
  - Boundary Plan (dated April 30, 2008) prepared for Jane M. Spink including location of proposed new garage structure and breezeway, showing side yard setback, location of existing septic system and leachfield and separation from proposed structure, and devegetated area calculations..
  - Septic system and leach field locations, prepared by William Mogridge.
  - Approved Subsurface and Wastewater Disposal System Application, permit dated 11/2/10.
4. The existing garage to be removed and the proposed new garage and attached breezeway are not located within the 100-foot shoreland setback where volume and area calculations are required by

code. The 20% maximum devegetated area in the Shoreland Overlay Zone applies. The proposal is well within this maximum at 6.45% (see Sheet A-2).

5. The proposed location of the new garage accommodates the minimum separation (8 feet) from septic systems (at 9'7"), and reduces the non-conforming side yard from 3 feet to 10 feet (less non-conforming), where 15 feet is the standard.
6. Proposed construction is not within a flood management area.
7. Applicant has contacted abutters within 150 feet and has received supportive documentation (enclosed) for the proposal.
8. The applicant will have a Shoreland Development Plan prepared by Civil Consultants Engineers with the correct title and signature block and other requirements necessary for recordation (Notices to Applicant #1). The plan will be reviewed by staff prior to the Chairman's signature.

### **Board Action**

A public hearing and/or site walk is not required. The Board may choose to approve this application in one meeting if they feel the application sufficiently meets requirements for shoreland development (see Findings) and the supportive documentation from abutters precludes a public hearing.

Staff recommends the Planning Board move to approve the Cheatham Shoreland Development Plan for construction of a new garage and attached breezeway at 144 Pepperrell Road, Map 36 Lot 80, and read the Findings of Fact dated November 13, 2014.

END OF PLAN REVIEW NOTES

## Findings of Fact

**WHEREAS:** Linda Cheatham, owner/applicant; Holly Bowdoin and Art Feith, Pearson Traditional Design, agents request approval to remove an existing detached garage and construct a new garage with attached breezeway to an existing home at 144 Pepperrell Road, Kittery Point, Tax Map 36, Lot 80, in the Residential-Kittery Point Village and Shoreland Overlay Zones, hereinafter the “Development”; and pursuant to the Plan Review meetings conducted by the Town Planning Board as noted;

Shoreland Overlay Plan Review	November 13, 2014
Public Hearing	

and pursuant to the Project Application and Plan and other documents considered to be a part of the plan review decision by the Planning Board in this Finding of Fact consisting of the following (hereinafter the “Plan”):

- Shoreland Overlay Zone Project Plan Review
- CEO Decision Letter (9/24/14)
- Aerial of property, including Flood Zone areas and Shoreland Overlay zones
- Architectural Drawings (A1-A3) and photos of the existing garage to be removed
- Boundary Plan prepared for Jane M. Spink (dated April 30, 2008)
- Location of septic system and leach field, prepared by William Mogridge
- Subsurface Waste Disposal Application, permitted 11/2/10
- Abutter documentation supporting proposal

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

### **III. Procedures for Administering Permits For Shoreland Development Review**

Title 16.10.10.2.D. An application will be approved or approved with conditions if the reviewing authority makes a positive finding based on the information presented. It must be demonstrated that the proposed use will:

1. maintain safe and healthful conditions;

The proposed project is a permitted use in the R-KPV and Shoreland Overlay zones. Septic system complies with the State of Maine Subsurface Wastewater Disposal Rules.

**Vote of \_\_\_ in favor \_\_\_ against \_\_\_ abstaining**

2. not result in water pollution, erosion or sedimentation to surface waters;  
Construction will comply with best management practices for erosion and sedimentation control (see Condition #2 and #3). This standard appears to be met.

**Vote of \_\_\_ in favor \_\_\_ against \_\_\_ abstaining**

3. adequately provide for the disposal of all wastewater;

The subsurface wastewater system complies with the State of Maine Subsurface Wastewater Disposal Rules and is permitted accordingly. This standard appears to be met.

**Vote of \_\_\_ in favor \_\_\_ against \_\_\_ abstaining**

4. not have an adverse impact on spawning grounds, fish, aquatic life, bird or other wildlife habitat; Construction will comply with best management practices for erosion and sedimentation control and should not impact surface waters. This standard appears to be met.

**Vote of \_\_\_ in favor \_\_\_ against \_\_\_ abstaining**

5. conserve shore cover and visual, as well as actual, points of access to inland and coastal waters; The proposal does not impact shore cover or visual points of access. This standard appears to be met.

**Vote of \_\_\_ in favor \_\_\_ against \_\_\_ abstaining**

6. protect archaeological and historic resources; This standard appears to be met.

**Vote of \_\_\_ in favor \_\_\_ against \_\_\_ abstaining**

7. not adversely affect existing commercial fishing or maritime activities in a commercial fisheries/ maritime activities district; This standard is not applicable to the proposal.

**Vote of \_\_\_ in favor \_\_\_ against \_\_\_ abstaining**

8. avoid problems associated with floodplain development and use; The proposed project is not within a flood management area. This standard appears to be met.

**Vote of \_\_\_ in favor \_\_\_ against \_\_\_ abstaining**

9. is in conformance with the provisions of this Code; The proposed accessory structures are permitted in the Shoreland and R-KPV zones.

R-KPV and Shoreland	Standard	Existing	Increase
Minimum lot size	40,000 sf	91,600 sf	N/A
Minimum lot size/dwelling unit	40,000 sf	91,600 sf	N/A
Shore frontage	150 ft	267 ft	N/A
Total devegetation area	20% maximum	5,770 sf / 6.3%	134 sf (5,904 sf) / 6.45%
Side yard (north)	15 feet	3 feet	10 feet (not more nonconforming than existing)

**Vote of \_\_\_ in favor \_\_\_ against \_\_\_ abstaining**

10. recorded with the York County Registry of Deeds. Applicant is required to record the approved and signed plan with any notes, conditions and/or waivers as required by the Planning Board (see Conditions and Notices to Applicant).

**Vote of \_\_\_ in favor \_\_\_ against \_\_\_ abstaining**

Based on the foregoing Findings, the Planning Board finds the applicant has satisfied each of the review standards for approval and approves the Shoreland Development Plan Application of Linda Cheatham, owner, to remove an existing garage and construct a new garage and attached breezeway at 144 Pepperrell Road, subject to any conditions and/or waivers, as follows:

**Application Waivers:** None

**Conditions of Approval** (to be included on final plan to be recorded):

1. No changes, erasures, modifications or revisions may be made to any Planning Board approved final plan. (Title 16.10.9.1.2)
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 herein (Findings of Fact dated: \_\_\_\_\_).

The Planning Board authorizes the Planning Board Chairman 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 \_\_\_\_\_

\_\_\_\_\_  
Thomas Battcock-Emerson, Planning Board Chairman

Per Title 16.6.2.A - 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.

**Notices to Applicant:** (do not included on final plan)

1. A Shoreland Development Plan will be prepared and stamped by a licensed engineer/surveyor and reviewed by staff prior to signature by Planning Board Chairman.
2. Prior to the release of the signed plans, the applicant must pay all outstanding fees associated with the permitting, including, but not limited to, Town Attorney fees, peer review, newspaper advertisements and abutter notification.
3. One (1) mylar copy and two (2) paper copies of the final plan (recorded plan if applicable) 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 as elements the Development Plan and supporting documentation, the Findings of Fact, and any Conditions of Approval.

CURRENT OWNER		UTILITIES		STRT/ROAD		LOCATION	
CHEATHAM, LINDA C	4 Rolling	2 Public Water	3 Unpaved	7 Waterfront			
		6 Septic					
15 10TH STREET SE	SUPPLEMENTAL DATA						
	TIF						
WASHINGTON DC 20003-9301	ASSOC PID#						
	Other ID						
	Sub-div						
	Photo						
	Ward						
	Prec.						
	Utility 2						
	Gis ID	2558					

RECORD OF OWNERSHIP		BK-VOL/PAGE	SALE DATE	Q/U	V/I	SALE PRICE	VC
CHEATHAM, LINDA C	16706 651	10-01-2013	Q	I	1,137,500	00	
SPANO, CRAIG	15900 492	07-01-2010	Q	I	725,000	00	
SPINK, JANE M	15083 762	02-08-2007	U	I	1A		
FRISBEE, BURNELL E & VERNA W	1222 166	01-01-1900			0		
Total		787,000					

EXEMPTIONS		OTHER ASSESSMENTS	
Year	Code	Description	Amount
Total		688,800	

ASSESSING NEIGHBORHOOD	
NBHD	Street Index Name
005	Tracing
Batch	

EXEMPTIONS			
Year	Code	Description	Amount
Total		688,800	

BUILDING PERMIT RECORD								
Permit ID	Issue Date	Type	Description	Amount	Insp Date	% Comp	Date Comp	Comments
3906	12-15-2010	PL	Plumbing		04-21-2012	100		Internal
3901	11-02-2010	PL	Plumbing			100		External
10-334	10-19-2010	RE	Remodel	115,000		100	05-18-2011	Demo int. new additi

LAND LINE VALUATION SECTION														
B #	Code	Description	Zone ID	Front	Depth	Units	Unit Price	I. Fact	S.A.	Ac Di	C. Fact	St.	Adj	Notes
1	1013	SFR WATER MDL	SR	0	0	43,560.00	SF	1.50	1,200	6	1,000	6.50	1.00	
1	1013	SFR WATER MDL	SR	0	0	1,250	AC	3,500.00	1,200	0	1,000	1.00	1.00	
Total		Card Land Units		2,2500 AC		Parcel Total Land Area		2,2500		Total Land Value		515,000		

PREVIOUS ASSESSMENTS (HISTORY)					
Year	Type	Assessed	Year	Code	Assessed
2013	1013	184,400	2013	1013	148,100
2014	1013	495,400	2013	1013	474,400
2013	1013	9,000	2013	1013	5,400
Total		787,000		627,900	

VISIT / CHANGE HISTORY					
Date	Type	IS	ID	Cd	Purpose/Result
06-18-2014	CK			11	Inspection change
04-21-2012	PR			53	Bldg Permit Inspection
03-26-2011	PR			53	Bldg Permit Inspection
05-08-2003	PR			68	Field Review
01-14-1998	AB			00	Measur+Listed
10-23-1996	DE			P	
08-25-1993	DE			P	

APPRAISED VALUE SUMMARY	
Appraised Bldg. Value (Card)	263,000
Appraised XF (B) Value (Bldg)	0
Appraised OB (L) Value (Bldg)	9,000
Appraised Land Value (Bldg)	515,000
Special Land Value	0
Total Appraised Parcel Value	787,000
Valuation Method	C
Total Exemptions	450,000
Net Total Appraised Parcel Value	787,000

**CONSTRUCTION DETAIL**

**CONSTRUCTION DETAIL (CONTINUED)**

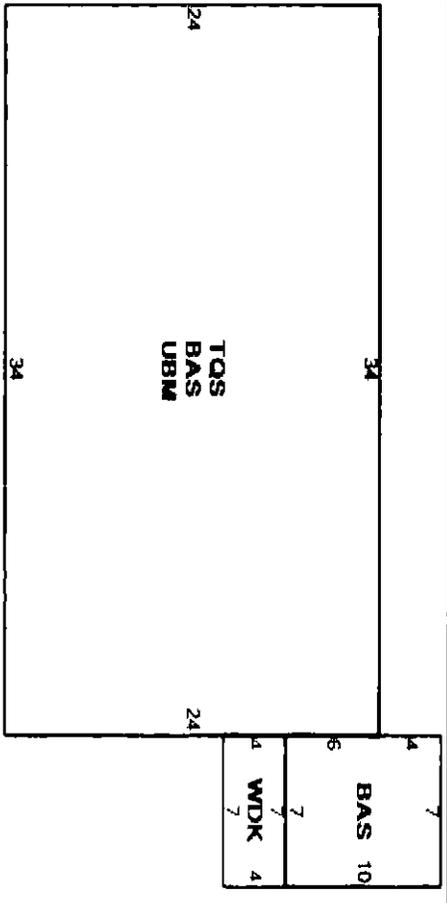
Element	Cd	Description	Element	Cd	Description
Style	04	Cape Cod			
Model	01	Residential			
Grade:	08	Good +20			
Stories:	1.75	1 3/4 Stories			
Occupancy	1				
Exterior Wall 1	11	Clapboard			
Exterior Wall 2	03	Gable/Hip			
Roof Structure:	03	Asph/F Gls/Cmp			
Roof Cover	03	Plastered			
Interior Wall 1	05	Drywall/Sheet			
Interior Wall 2	12	Hardwood			
Interior Flr 1	03	Gas			
Interior Flr 2	04	Forced Air-Duc			
Heat Fuel	03	Central			
AC Type:	03	3 Bedrooms			
Total Bedrooms	03				
Total Bthrms:	2				
Total Half Baths	1				
Total Xtra Fixtrs	7				
Total Rooms:	02	Average			
Bath Style:	02	Average			
Kitchen Style:	01				

**OB - OUTBUILDING & YARD ITEMS(L) / XF - BUILDING EXTRA FEATURES(B)**

Code	Description	Su	Sub Desc	Lan	Units	Unit Price	Ye	%	Dep R	Qu	Adj	Apprais	Valu
FGR3	GARAGE-FA			L	306.	30.00	199	60	0.00		0.00		5,500
DCK1	DOCKS-RES			L	96.0	40.00	201	90	0.00		0.00		3,500

**BUILDING SUB-AREA SUMMARY SECTION**

SUBAR	Description	LIVING	GROSS	EFF AR	Unit Cost	Undeprrec Value
BAS	First Floor	886	886	886	0.00	
TQS	Three Quarter Story	694	816	694	0.00	
UBM	Basement, Unfinished	0	816	163	0.00	
WDK	Deck, Wood	0	28	3		
Totl Gross Liv / Lease Area		1,580	2,546	1,746		





**TOWN OF KITTERY MAINE**  
**TOWN PLANNING AND DEVELOPMENT DEPARTMENT**  
 200 Rogers Road, Kittery, Maine 03904  
 Phone: (207) 475-1307  
 Fax: (207) 439-6806  
 www.kittery.org

**APPLICATION: SHORELAND OVERLAY ZONE**  
**PROJECT PLAN REVIEW**

<b>FEE FOR REVIEW</b>	<input type="checkbox"/> \$100.00	Amount Paid: \$ _____ Date: _____
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<b>PROPERTY DESCRIPTION</b>	Parcel ID	Map	36	Base Zone	R-KPV	Total Land Area	2.29 A. 91,600 SFT.
	Lot	80	Overlay Zone	SHORELAND			
	Physical Address	144 Pepperrell Road, Kittery Point					

<b>PROPERTY OWNER'S INFORMATION</b>	Name	Linda C. CHEATHAM	Mailing Address	144 Pepperrell Road Kittery Point, ME 03905
	Phone	207-703-0156		
	Fax			
	Email	Lcheatah2010@gmail.com		

<b>APPLICANT'S AGENT INFORMATION</b>	Name	Holly Bowdoin Arlene Faith	Mailing Address	Pearson Traditional Design 470 US Route one, Unit 5 York, Maine 03909
	Phone	207-351-2711		
	Fax			
	Email	thanepearson@gmail.com		

<b>PROJECT DESCRIPTION</b>	<i>See reverse side regarding information to be provided.</i>	
	Existing Land Use:	
	SINGLE FAMILY HOME WITH AN EXISTING DETACHED GARAGE, 18'x20' = 360'SQFT.	
	Proposed Land Use and Development:	
SINGLE FAMILY HOME WITH AN ATTACHED BREEZENAW, 6'x32' = 192'SQFT. AND 1 CAR GARAGE, 20'x24' = 480 SQFT.		

<b>PROJECT DESCRIPTION</b>	Please describe any construction constraints (wetlands, shoreland overlay zone, flood plain, non-conformance, etc.)
	<b>PROPERTY IS LOCATED IN THE SHORELAND OVERLAY ZONE. NO WETLANDS ON SUBJECT PROPERTY PER ATTACHED SITE PLAN DATED 4/30/2008, THAT WILL IMPACT SCOPE OF PROJECT.</b>

I certify I have provided, to the best of my knowledge, information requested for this application that is true and correct and I will not deviate from the Plan submitted without notifying the Town Planning and Development Department of any changes.

Applicant's Signature:	<u>Peanson Traditional Design</u>	Owner's Signature:	<u>Linda C. Cheatham</u>
Date:	<u>Oct 23, 2014</u>	Date:	<u>October 22, 2014</u>

**MINIMUM PLAN SUBMITTAL REQUIREMENTS**

- 15 Copies of this Application and the Project Plan and Vicinity Map

**Shoreland Overlay Zone Project Plan format and content:**

- A) Paper Size; no less than 11" X 17" or greater than 24" X 36"
- B) Plan Scale
  - Under 10 acres: no greater than 1" = 30'
  - 10 + acres: 1" = 50'
- C) Title Block
  - Applicant's name and address
  - Name of preparer of plan with professional information
  - Parcel's Kittery tax map identification (map - lot) in bottom right corner

**NOTE TO APPLICANT: PRIOR TO A TOWN PLANNING BOARD SITE WALK, TEMPORARY MARKERS MUST BE ADEQUATELY PLACED THAT ENABLE THE BOARD TO READILY LOCATE AND EVALUATE THE DEVELOPMENT'S DESIGN.**

**Vicinity Map or aerial photo showing geographic features 5,000 feet around the site.**

**Project Plan must include the following existing and proposed information:**

<p><b>Existing:</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Land Use Zone and boundary</li> <li><input type="checkbox"/> Topographic map (optional)</li> <li><input type="checkbox"/> Wetlands and flood plains</li> <li><input type="checkbox"/> Water bodies and water courses</li> <li><input type="checkbox"/> Parcel area</li> <li><input type="checkbox"/> Lot dimensions</li> <li><input type="checkbox"/> Utilities (Sewer/septic, water, electric, phone)</li> <li><input type="checkbox"/> Streets, driveways and rights-of-way</li> <li><input type="checkbox"/> Structures</li> </ul>	<p><b>Proposed:</b> (Plan must show the lightened existing topography under the proposed project plan for comparison.)</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Recreation areas and open space</li> <li><input type="checkbox"/> Setback lines and building envelopes</li> <li><input type="checkbox"/> Lot dimensions</li> <li><input type="checkbox"/> Utilities (Sewer/septic, water, electric, phone)</li> <li><input type="checkbox"/> Streets, driveways and rights-of-way</li> <li><input type="checkbox"/> Structures</li> <li><input type="checkbox"/> Shoreland Project Expansion Analysis (see attached)</li> </ul> <p>Distance to:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Nearest driveways and intersections</li> <li><input type="checkbox"/> Nearest fire hydrant</li> <li><input type="checkbox"/> Nearest significant water body; ocean, wetland, stream.</li> </ul>
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**AN APPLICATION THE TOWN PLANNER DEEMS SUFFICIENTLY LACKING IN CONTENT WILL NOT BE SCHEDULED FOR PLANNING BOARD REVIEW.**



## Town of Kittery, Maine – Code Enforcement Office

200 Rogers Road, Kittery, ME 03904  
Phone: (207) 475-1308 Fax: (207) 439-6806

### NOTICE OF DECISION

*Property Owner:* Linda Cheatham  
*Applicant:* Linda Cheatham  
*Mailing Address:* 144 Pepperrell Rd  
*Property Location:* 144 Pepperrell Rd  
*Map Lot:* Map 36 Lot 80  
*Proposed Activity:* Demolish Existing Garage, Construct New Garage and Breezeway  
*Date:* September 24, 2014

The Code Enforcement Office has received a building permit application to demolish an existing garage and to construct a new garage and breezeway on property located at 144 Pepperrell Road, Map 36 Lot 80, zoned Residential- Kittery Point Village, and Shoreland Overlay zone.

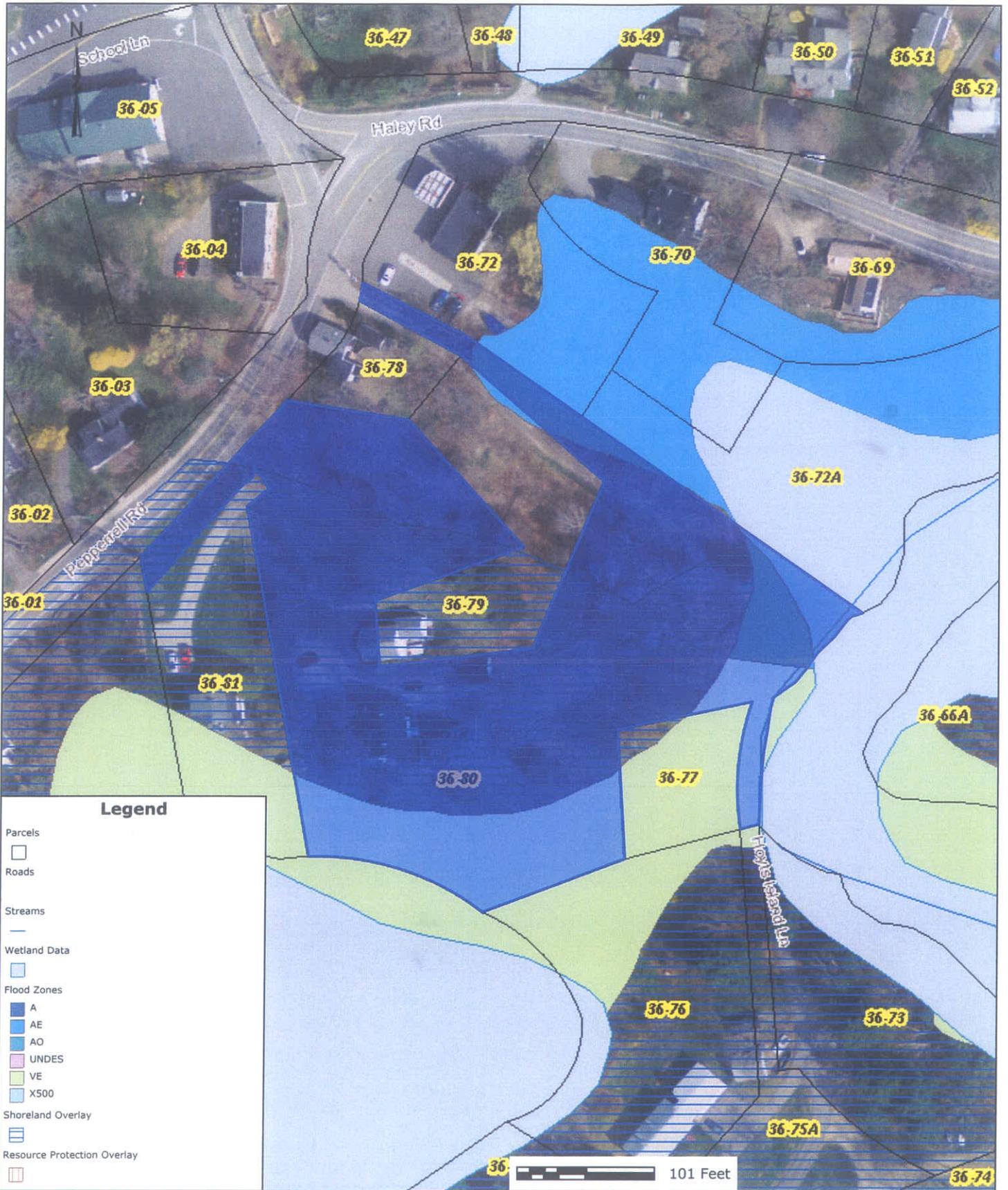
Title 16 Section 3.2.3D, requires a minimum fifteen (15) foot side yard. Your proposed garage is less than the required setback.

Therefore, your building permit application is denied.

Please be advised that you may appeal this determination to the Kittery Board of Appeals (BOA). Appeals must be made within thirty (30) days of the date of this decision letter.

Sincerely,

Heather Ross  
Code Enforcement Officer



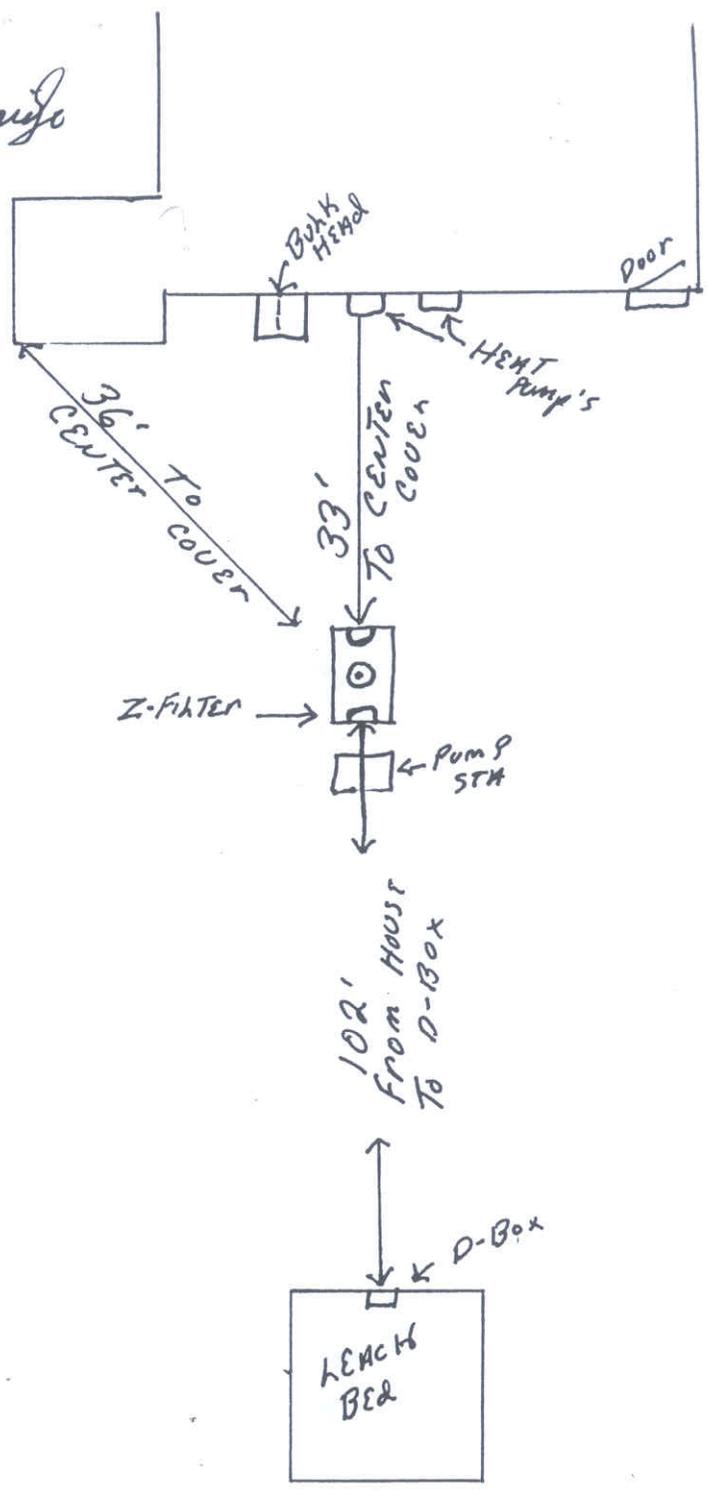
**Town of Kittery,  
Maine**

**144 PEPPERRELL ROAD**

*This information has been compiled from various public and private sources. While every attempt has been made to provide accurate information, neither the municipality nor the service host guarantee the accuracy of information provided herein.*

10-8-2014  
9 AM  
William Mayne

DRIVE  
WAY



10/9/14 - new owner - Linda Chatham - 207-703-0156

**SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION**

Maine Dept. Health & Human Services  
 Division of Health Engineering, 10 SHS  
 (207) 287-5672 Fax: (207) 287-3165

**PROPERTY LOCATION**

City, Town, or Plantation: Kittery

Street or Road: Pepperell Rd

Subdivision, Lot #:

**>> CAUTION: PERMIT REQUIRED - ATTACH IN SPACE BELOW <<**

KITTERY PERMIT # 3901 APPLICANTS COPY

Date Permit Issued: 11-2-10 FEE  Double Fee Charged

[Signature] L.P.I. # 110371

Local Plumbing Inspector Signature

**OWNER/APPLICANT INFORMATION**

Name (last, first, MI): Spano Craig and  Owner  Applicant

Mailing Address of Owner/Applicant: Fitzpatrick John  
6 Adam Harmon

Daytime Tel. #: 4 Lord Jason Dr. Biddeford Me 04005

THE WORK SPECIFIED IN THIS APPLICATION IS HEREBY AUTHORIZED TO BE INSTALLED IN ACCORDANCE WITH THE RULES. THIS PERMIT EXPIRES AFTER TWO YEARS FROM DATE ISSUED UNLESS WORK HAS COMMENCED.

**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] 11-2-10

Signature of Owner or Applicant Date

**CAUTION: INSPECTION REQUIRED**

I have inspected the installation authorized above and found it to be in compliance with the Subsurface Wastewater Disposal Rules Application.

[Signature] 11-4-10

Local Plumbing Inspector Signature (2nd) date approved

**PERMIT INFORMATION**

**TYPE OF APPLICATION**

1. First Time System

2. Replacement System

Type replaced: Trench?

Year installed: 1960s

3. Expanded System

a. Minor Expansion

b. Major 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**

2  SQ. FT.  ACRES

**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**

1. Drilled Well  2. Dug Well  3. Private

4. Public  5. Other

**DESIGN DETAILS (SYSTEM LAYOUT SHOWN ON PAGE 3)**

**TREATMENT TANK**

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 concrete chambers

a. cluster array  c. Linear

b. regular load  d. H-20 load

4. Other: \_\_\_\_\_

SIZE: 640  sq. ft.  lin. ft.

**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

**DESIGN FLOW**

360 gallons per day

BASED ON:

1. Table 501.1 (dwelling unit(s))

2. Table 501.2 (other facilities)

SHOW CALCULATIONS for other facilities

**SOIL DATA & DESIGN CLASS**

PROFILE CONDITION DESIGN: 31A/B/HH1

at Observation Hole # 2

Depth 20'

of Most Limiting Soil Factor

**DISPOSAL FIELD SIZING**

1. Small—2.0 sq. ft. / gpd

2. Medium—2.6 sq. ft. / gpd

3. Medium—Large 3.3 sq. ft. / gpd

4. Large—4.1 sq. ft. / gpd

5. Extra Large—5.0 sq. ft. / gpd

**EFFLUENT/EJECTOR PUMP**

1. Not Required

2. May Be Required

3. Required

Specify only for engineered systems:

DOSE: \_\_\_\_\_ gallons

3. Section 503.0 (meter readings)

ATTACH WATER METER DATA

**LATITUDE AND LONGITUDE**

at center of disposal area

Lat. 43 d 05 m 3 s

Lon. 70 d 41 m 40 s

If g.p.s., state margin of error: ± 24 FT

**SITE EVALUATOR STATEMENT**

I certify that on 6-3-10 (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).

[Signature]

Site Evaluator Signature

Kenneth Gardner

Site Evaluator Name Printed

73

SE #

207-637-2260

Telephone Number

11-1-10

Date

\_\_\_\_\_

E-mail Address

SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Maine Department of Human Services  
Division of Health Engineering, Station 10  
(207) 287-5672 Fax: (207) 287-3165

Town, City, Plantation

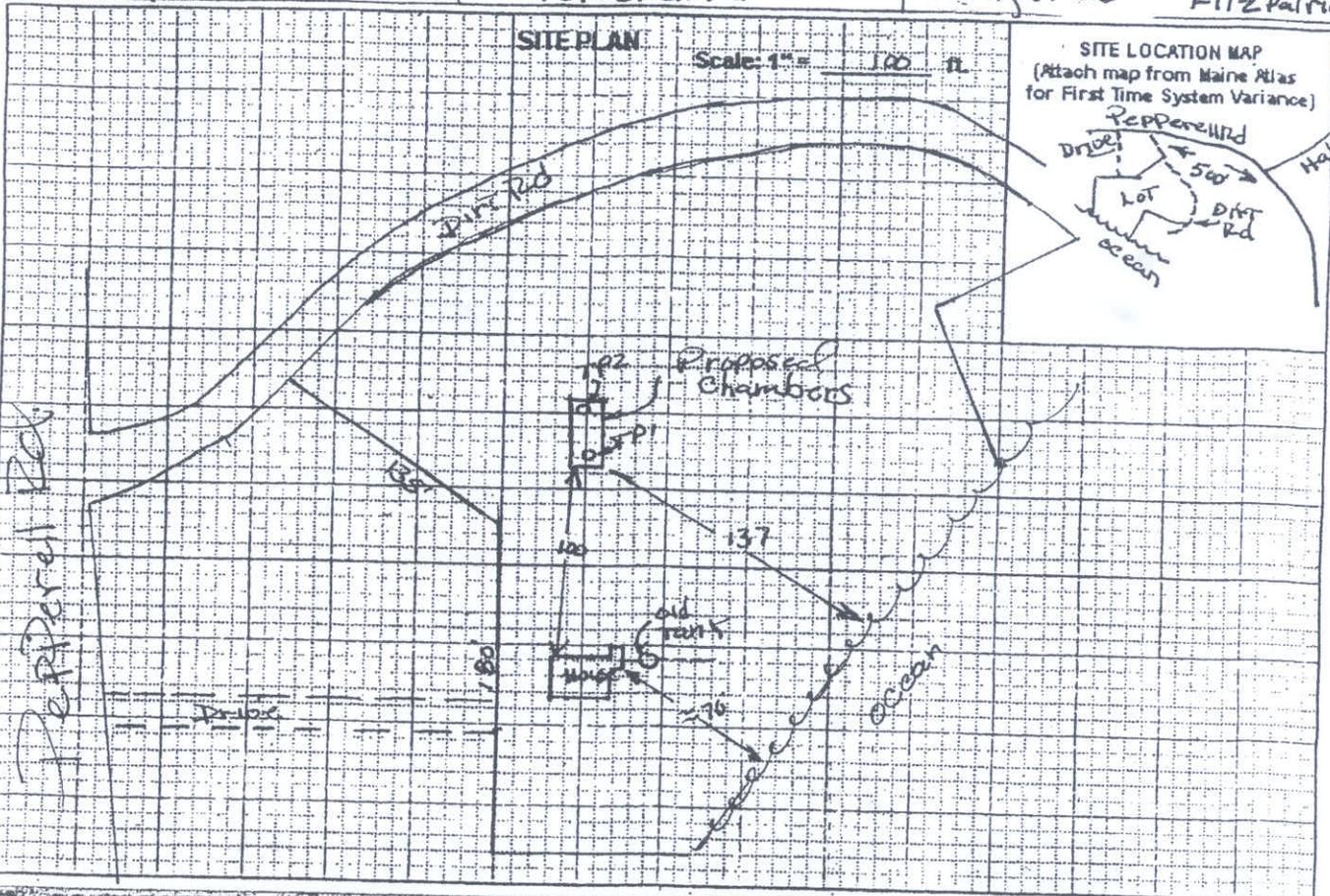
Kittery

Street, Road, Subdivision

Pepperell Rd

Owner or Applicant Name and  
Craig S Pano

John  
FITZ Patrick



SOIL PROFILE DESCRIPTION AND CLASSIFICATION (Locations of Observation Holes Shown Above)

Observation Hole # 1  Test Pit  Boring

Depth of organic horizon above mineral soil: \_\_\_\_\_

Depth below mineral soil surface (inches)	Texture	Consistency	Color	Mottling
0			Dark	
6	Fine Sandy loam	Friable	Brown	
12			Yellow	
18			Brown	
24			olive brown	None
30		Firm	Brown	
36	Bedrock			
42				
48				

Soil Profile	Classification Condition	Slope Percent	Limiting Factor Depth	<input type="checkbox"/> Groundwater <input type="checkbox"/> Restrictive Layer <input type="checkbox"/> Bedrock @ 30"
3	A/BIII	2-3	24	

Observation Hole # \_\_\_\_\_  Test Pit  Boring

Depth of organic horizon above mineral soil: \_\_\_\_\_

Depth below mineral soil surface (inches)	Texture	Consistency	Color	Mottling
0			Dark Brown	
6	Fine Sandy loam	Friable	Yellow	
12			Brown	
18	Very fine Sandy loam			None
24		Firm	olive brown	
30	Bedrock			
36				
42				
48				

Soil Profile	Classification Condition	Slope Percent	Limiting Factor Depth	<input type="checkbox"/> Groundwater <input type="checkbox"/> Restrictive Layer <input type="checkbox"/> Bedrock @ 27"
3	A/BIII	2-3	20	

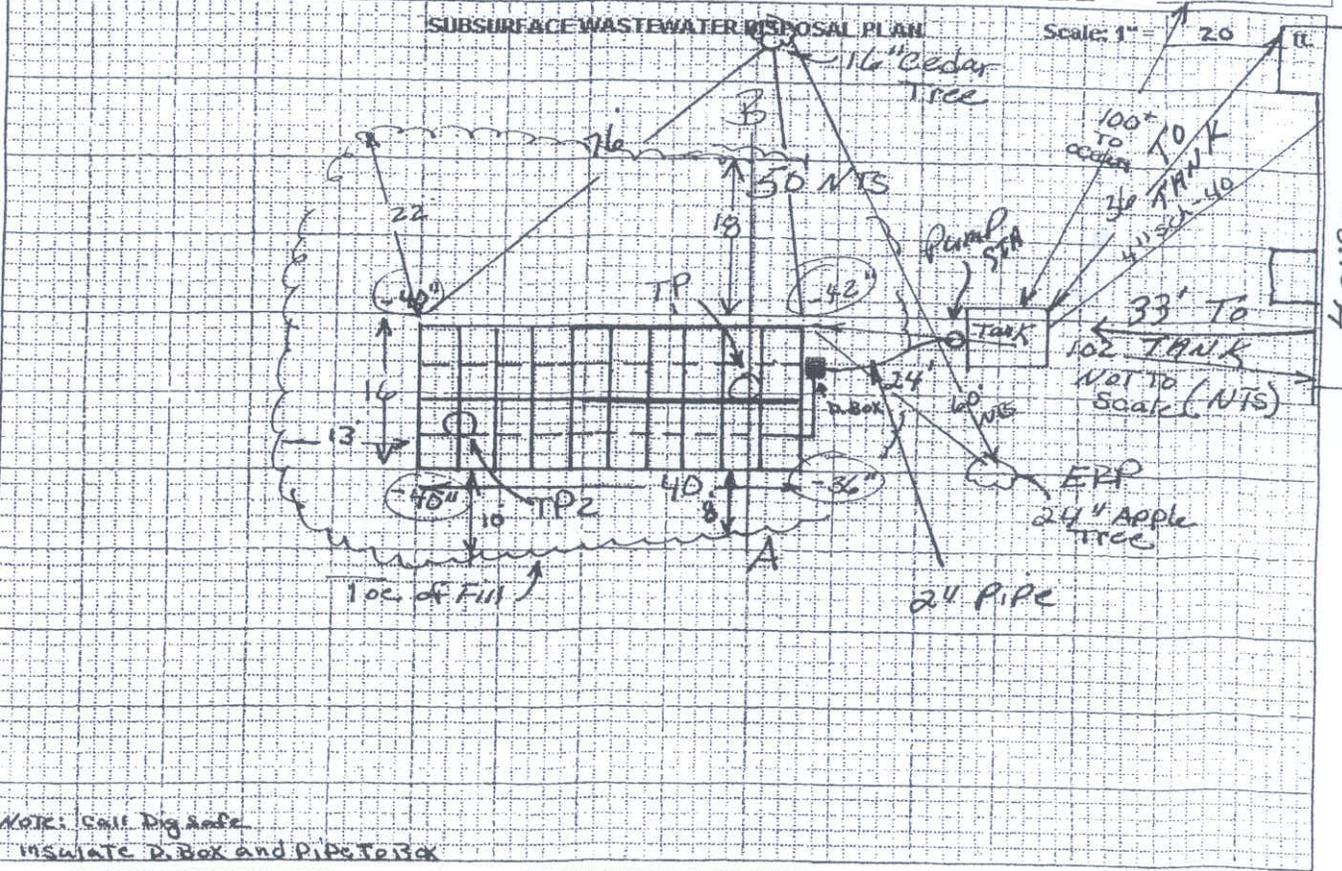
*Samuel J. Gaudin*  
Site Evaluator Signature

SE # 23 Date 11-1-10

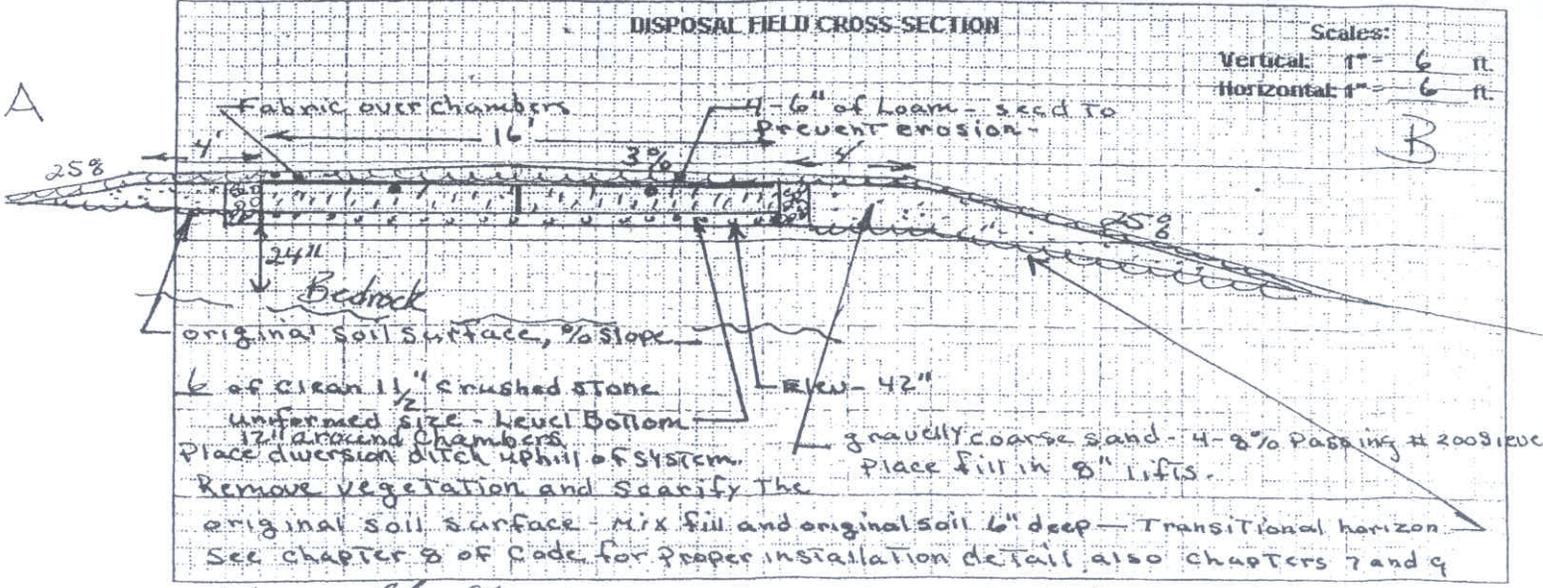
**SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION**

Maine Department of Human Services  
 Division of Health Engineering, Station 10  
 (207) 287-5672 Fax: (207) 287-3165

Town, City, Plantation: Millery Street, Road, Subdivision: Pepperell Rd Owner or Applicant Name and John: Craig Spano FitzPatrick



BACKFILL REQUIREMENTS		CONSTRUCTION ELEVATIONS		ELEVATION REFERENCE POINT	
Depth of Backfill (upslope)	18"	Finished Grade Elevation	-19"	Location & Description:	24" Apple Tree
Depth of Backfill (downslope)	24"	Top of Distribution Pipe or Proprietary Device	-23"	Reference Elevation is:	0.0" or
DEPTHS AT CROSS-SECTION (shown below)		Bottom of Disposal Field	-36"	With a wall 30" above the ground	



# CHEATHAM ABUTTERS LIST FROM KITTELY CEO OFFICE

MI#L	GIS ID	PID	Property Address	Owner	Co-Owner	Owner Address
36-72	2549	2549	150 PEPPERELL ROAD	H A MAPES INC		238 RIVER STREET
36-78	2556	2556	148 PEPPERELL ROAD	PETERSON, MARY		148 PEPPERELL ROAD
36-72/100145		1E+05	158 PEPPERELL ROAD	PIERCE TR, WILLIAM B	WILLIAM B PIERCE REV TRUST	77 CROCKETT NECK ROAD
36-79	2557	2557	146 PEPPERELL ROAD	DANIEL, BEVERLY A	ARMSDEN, CATHERINE R & GAY G	23 BAYFIELD ROAD
36-81	2559	2559	140 PEPPERELL ROAD	DEAN II, JAMES	DEAN, DIANNE C	140 PEPPERELL RD
36-80	2558	2558	144 PEPPERELL ROAD	SPANO, CRAIG	F TZPATRICK, JOHN	303 10TH AVENUE 514
27-27	2152	2152	134 PEPPERELL ROAD	NELSON TR, HOPE B	HOPE B NELSON REV LIV TR 5/9/08	PJ BOX 156
36-77	2555	2555	5 FOYTS ISLAND LANE	MCCORMICK, SANDRA J	PAIGE, BENJAMIN S. & MICHAEL JAMES	132 OLD WAKEFIELD ROAD
36-76	2554	2554	7 FOYTS ISLAND LANE	VARNEY, GEORGE D	VARNEY, JOAN C	PJ BOX 95
36-73	2550	2550	8 FOYTS ISLAND LANE	MOULTON, FRANCIS S & ALICE H		80 DEACONESS ROAD SUITE
36-75/2553		2553	9 FOYTS ISLAND LANE	VARNEY, JOAN C		PJ BOX 95

**Subject:** Fwd: An Update & an Urgent Request  
**From:** Linda Cheatham <lcheetah2010@gmail.com>  
**Date:** 11/4/2014 5:27 PM  
**To:** Pearson Traditional Design <Holly@pearsontraditionaldesign.com>

Here's the 4th "no objection" email and (counting Bill Pierce's letter) the 5th no-objection message so far. I'm still trying to get more responses from the more distant abutters, too.

Linda

Linda Cheatham,  
Sent from my iPhone

Begin forwarded message:

**From:** [bevdan@aol.com](mailto:bevdan@aol.com)  
**Date:** November 4, 2014 at 5:15:30 PM EST  
**To:** [lcheetah2010@gmail.com](mailto:lcheetah2010@gmail.com)  
**Subject:** Re: An Update & an Urgent Request

Consider this a no objection notification--

Beverley Armsden Daniel  
(of 146 Pepperrell Road, Kittery Point)

-----Original Message-----

**From:** Linda Cheatham <lcheetah2010@gmail.com>  
**To:** bevdan <[bevdan@aol.com](mailto:bevdan@aol.com)>  
**Sent:** Tue, Nov 4, 2014 12:00 am  
**Subject:** An Update & an Urgent Request

Dear Bev,

The last time I contacted you re my proposal for replacing my old garage, I was preparing to go before the town Board of Appeals, per some written directions from the town's then code enforcement officer, on October 14. At that meeting, however, the Board decided that, because part of my property lies in the Coastal Overlay zone, I actually need to take my case to the Planning Board instead, with a brand new application that I had to submit 3 weeks before its meeting on November 13. If the Planning Board approves my application that day, I'll have lost a month but may still have a shot at getting the garage (and its badly-needed dry-storage loft) built before winter. However, I've now been told that, to have any hope of avoiding the additional expense and delay of a public

hearing after Nov. 13, I also need to provide the staff with written statements from my abutters -- in messages simpler than the one you sent me last month after I sent you photos of the relevant drawings -- re whether or not they object to my proposed project. AND I need to relay those statements to the staff before COB this Thursday.

The 4 other abutters I've been able to speak with directly have already sent me "no objection" statements, but since so much of your property at 146 Pepperrell Road abuts so much of mine at 144 Pepperrell Road, it's especially important that I also get such a statement from you. I'm told that a direct reply to this e-mail (since it includes the addresses of both our properties) stating whether or not you have any objections to or issues with my proposal, should be sufficient.

Thanks in advance, and best regards.  
Linda

Linda Cheatham,  
Sent from my iPhone

**Subject:** Fwd: property enhancement  
**From:** Linda Cheatham <lcheetah2010@gmail.com>  
**Date:** 11/3/2014 9:33 AM  
**To:** Pearson Traditional Design <thanepearson@gmail.com>

Linda Cheatham,  
Sent from my iPhone

Begin forwarded message:

**From:** "Dianne" <[covecottage10@gmail.com](mailto:covecottage10@gmail.com)>  
**Date:** November 1, 2014 at 4:17:00 PM EDT  
**To:** "Linda Cheatham" <[Lcheetah2010@gmail.com](mailto:Lcheetah2010@gmail.com)>  
**Subject:** property enhancement

To whom it may concern:

We live at 140 Pepperrell Road and share a boundary with Linda Cheatham. She has shown us architectural plans for a new garage and breezeway; these are lovely and certainly in keeping with her house and property. We have NO issue with these proposals.

Dianne and James Dean  
207-703-2161

No virus found in this message.

Checked by AVG - [www.avg.com](http://www.avg.com)

Version: 2014.0.4335 / Virus Database: 4189/8498 - Release Date: 11/02/14

**Subject:** Fwd: Proposed Garage Replacement at 144 Pepperrell Road  
**From:** Linda Cheatham <lcheetah2010@gmail.com>  
**Date:** 11/3/2014 1:12 PM  
**To:** Pearson Traditional Design <Holly@pearsontraditionaldesign.com>

Here's the second of two messages I received from abutters this morning.

Linda

Linda Cheatham,  
Sent from my iPhone

Begin forwarded message:

**From:** [asn1@comcast.net](mailto:asn1@comcast.net)  
**Date:** November 3, 2014 at 11:14:47 AM EST  
**To:** Linda Cheatham <lcheetah2010@gmail.com>  
**Subject:** Re: Proposed Garage Replacement at 144 Pepperrell Road

Linda,

I have no concerns about your garage replacement. Good luck with it.

Hope  
Hope Neilson  
134 Pepperrell RD  
Kittery Point, ME

---

**From:** "Linda Cheatham" <lcheetah2010@gmail.com>  
**To:** [asn1@comcast.net](mailto:asn1@comcast.net)  
**Sent:** Monday, November 3, 2014 10:57:11 AM  
**Subject:** Proposed Garage Replacement at 144 Pepperrell Road

Hope,

Thanks again for your willingness to comment in writing or email as to whether or not you have any issues with or objection to my proposal to demolish and existing garage and replace it with a new garage, about 20 feet closer to my house so that I can also connect the two via a breezeway, at 144 Pepperrell Road. As I mentioned when we talked this past Saturday, I stand ready and willing to show you the proposed site plan and architectural drawings if you decide that you'd like to see them, after all.

As I mentioned, I'd be grateful if you could send me an email confirming the address of your property and the fact (shown on Town of Kittery property maps) that part of it abuts

a part of my own property (the narrow strip between 140 Pepperrell Road and the road itself), along with a statement as to whether or not you have any objections to my proposal.

I've been advised that I'll need to provide any feedback messages I get from abutters to my architects and through them to the town land-office staff by this Thursday. If you'd therefore rather make the salutation "to whom it may concern" instead of to me, that 'd be fine, too.

Thanks in advance,

Linda

Phone: (207) 703-0156

Email: [Lcheetah2010@gmail.com](mailto:Lcheetah2010@gmail.com)

Linda Cheatham,

Sent from my iPhone

November 3, 2014

To Whom It May Concern:

Through the William B. Pierce Rev. Trust, I own the property at 158 Pepperrell Road, part of which abuts <sup>a part of</sup> the property at 144 Pepperrell Road, which I understand is now owned by Linda C. Cheatham. Ms. Cheatham has apprised me of her proposal to demolish an existing garage on her property and replace it with a new garage which would be connected to her house by a breezeway. She offered to show me the relevant site plan and architectural drawings.

I have no objection to, or issue with, Ms. Cheatham's proposal.

Sincerely,  
William B. Pierce  
William B. Pierce  
77 Crockett Neck Road  
Kittery Point, Maine 0390.

**Subject:** Fwd: Garage Replacement Proposal for 144 Pepperrell Rd.  
**From:** Linda Cheatham <lcheetah2010@gmail.com>  
**Date:** 11/3/2014 1:10 PM  
**To:** Pearson Traditional Design <Holly@pearsontraditionaldesign.com>

Holly,

Following is a message from another abutter -- one of two I've received so far today. I also have a signed letter from Bill Pierce that I'll get to you before Thursday.

Linda

Linda Cheatham,  
Sent from my iPhone

Begin forwarded message:

**From:** Mary Peterson <mbp2@comcast.net>  
**Date:** November 3, 2014 at 10:28:11 AM EST  
**To:** Linda Cheatham <lcheetah2010@gmail.com>  
**Subject:** Re: Garage Replacement Proposal for 144 Pepperrell Rd.

Hello Linda,

Thank you for stopping by on a rainy day last weekend to tell me about your wonderful plans! Yes, my property at 148 Pepperrell Road does abut your property, and I go on record to say that I have absolutely no objection to your plans to replace the existing garage on your property.

I'm sure it will be lovely.

All best regards,

Mary Peterson  
(207) 439-1640

On 11/3/14 10:18 AM, "Linda Cheatham" <lcheetah2010@gmail.com> wrote:

| Mary, |

Thanks again for having given me a chance to tell you of my proposal to replace the existing garage on my property (144 Pepperrell Road, which abuts your property at 148 Pepperrell Road) with a new garage, and to add a breezeway connecting that new garage to my house. I remain ready and willing to show you the proposed site plan and architectural drawings if you decide that you do need to see them, after all.

As I mentioned, I'd be grateful if you could send me an email confirming the address of your property and the fact (shown on Town of Kittery maps) that part of it abuts a part of my own property at 144 Pepperrell Road, with a statement as to whether or not you have any objections to my plan.

Thanks in advance,

Linda

Phone: (207) 703-0156

Email: [Lcheetah2010@gmail.com](mailto:Lcheetah2010@gmail.com)

Linda Cheatham,

Sent from my iPhone

**Subject:** Fwd: No-objection letter from abutters 6, 7, and 8  
**From:** Linda Cheatham <lcheetah2010@gmail.com>  
**Date:** 11/5/2014 5:43 PM  
**To:** Pearson Traditional Design <Holly@pearsontraditionaldesign.com>

Holly -- The following is per my related voice-mail message. Since I couldn't reach abutters Moulton and Mapes by phone, I informed them of my proposed garage project by mail and asked them to reply by email if at all possible. While I don't expect to hear from them by the time you need to provide our final input to Jan Fisk tomorrow morning, I'll forward their replies (if any) ASAP when/if I receive them.

Best,  
Linda

Linda Cheatham,  
Sent from my iPhone

Begin forwarded message:

**From:** [gdvfire2@comcast.net](mailto:gdvfire2@comcast.net)  
**Date:** November 5, 2014 at 5:06:21 PM EST  
**To:** [lcheetah2010@gmail.com](mailto:lcheetah2010@gmail.com)  
**Subject:** Property owners

To whom it may concern:

This letter is to inform the Town of Kittery that the following property owners;

Joan Varney (Map 36 Lot 75A)

George and Joan Varney (Map 36 Lot 76)

Sandra McCormick

Benjamin Paige

Michael Paige (Map 36 Lot 77)

Have no problem or concern with Property ownear Linda Cheatham (Map 36 Lot 80) constructing a garage on said property.

**Subject:** 144 Pepperrell Road, Kittery ME Boundary Plan Prepared for Jane M. Spink dated April 30, 2008/Recorded Book 329, Page 29

**From:** Holly Pearson <holly\_pearson@myfairpoint.net>

**Date:** 11/4/2014 1:38 PM

**To:** Chris@civcon.com

**CC:** Arthur Feith <aifeith@comcast.net>, Linda Cheatham <lcheetah2010@gmail.com>

Hi Chris,

Thanks for chatting with myself and the new owner of 144 Pepperrell Road, Linda C. Cheatham... To confirm our discussion of today....

Civil Consultants will update the existing boundary plan with the following information as provided by Town of Kittery Code Enforcement, Jan Fisk.

Chris, I will contact you on Friday Nov. 14th with the Planning Board decision.

I understand that from the date you are notified of the Planning Board decision you would expect to have an updated plan approx. 2 weeks later...

Thanks so much Chris.... I look forward to working with you....

Best R

Holly

Pearson Traditional Design

207-351-2711

Holly,

I called and left a message for you this a.m. Thanks for the information you provided, re: septic separations. Shelly has this information and now I do, too.

The plan needs to be stamped by a licensed professional (engineer, architect or land surveyor) to be recorded. This is a state requirement.

The 2008 boundary plan could be used, but would need to be amended by Civil Consultants, with her name as owner, etc. and include all the necessary information for the Board chairman to sign and record. The following would have to be included:

1. Plan Title Block (with current owner name/date/address/map & lot, etc) entitled: *Shoreland Development Plan*... (bottom right of plan)

2. Zone(s): R-KPV and Shoreland (dimensional requirements)

Lot size: 40,000 sf

Street frontage: 150 feet

Front yard: 40 feet

Rear and side yards: 15 feet

Maximum building height: 35 feet

Maximum building coverage: 20%

Shoreland setback: 100 feet

(Proposed structures are not within the 100-foot Shoreland Overlay Zone setback)

Maximum impervious coverage in Shoreland Zone: 20%

3. Actual and proposed lot coverage (from Sheet A-2)

4. Location of proposed structures

5. Location of existing septic tank/leach field

6. Include signature block for Board approval:

<b>Kittery, Maine - Planning Board Approval</b>
Date of Approval: _____
_____
Chairman
Date: _____

7. Boilerplate Conditions of Approval:

**Conditions of Approval:**

1. No changes, erasures, modifications or revisions may be made to any Planning Board approved final plan. (Title 16.10.9.1.2)

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, the northerly property line must be marked and markers must remain in place until the Code Enforcement Officer determines construction is completed and the setback of 10 feet from the property line is met.
4. All Notices to Applicant contained herein (Findings of Fact dated: \_\_\_\_\_)
8. An additional note to read: *Septic tank must be located a minimum of 8 feet from structures.*

If you use Civil Consultants, they are aware of standard plan requirements. I would recommend all the plan references, notes, line table (on left side of plan) be substantially reduced and all extraneous handwritten notes on the plan removed.

Because this is your first review before the Board, we can provide what you have already submitted for the 11/13 meeting and, if they elect to approve in one meeting, a condition of approval would be that proper plan requirements be reviewed by staff prior to signature and recording.

The Board has been requiring all Shoreland plans have a public hearing. If Linda can get her abutters to support her plan (via email or letters), these could be provided to the Board in their packets (staff must have these by Thursday, Nov. 7). Abutter support may convince the Board a public hearing is not warranted.

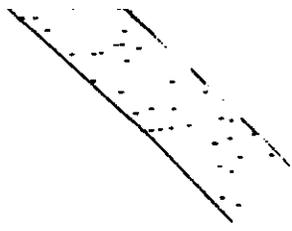
This gives you some time to address the plan requirements, not rushing to pull it together in 1-2 days.

If you have any questions, give me a call 985-6598.

Jan

/65  
ocated ROW)

om  
to  
30 +/-



○ Fnd. Iron Pipe  
1" dia.  
5" high

x  
○ Fnd. Iron Rod  
1" dia.  
-9" below grade  
(in gravel parking  
area)

### GRAPHIC SCALE



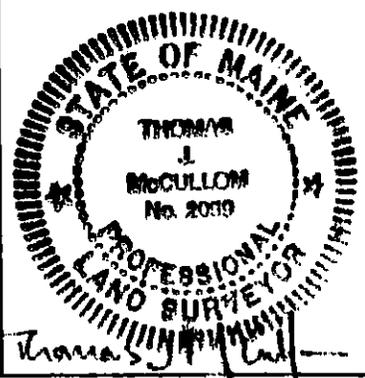
( IN FEET )  
1 inch = 30 ft.

## BOUNDARY PLAN

Prepared For

# JANE M. SPINK

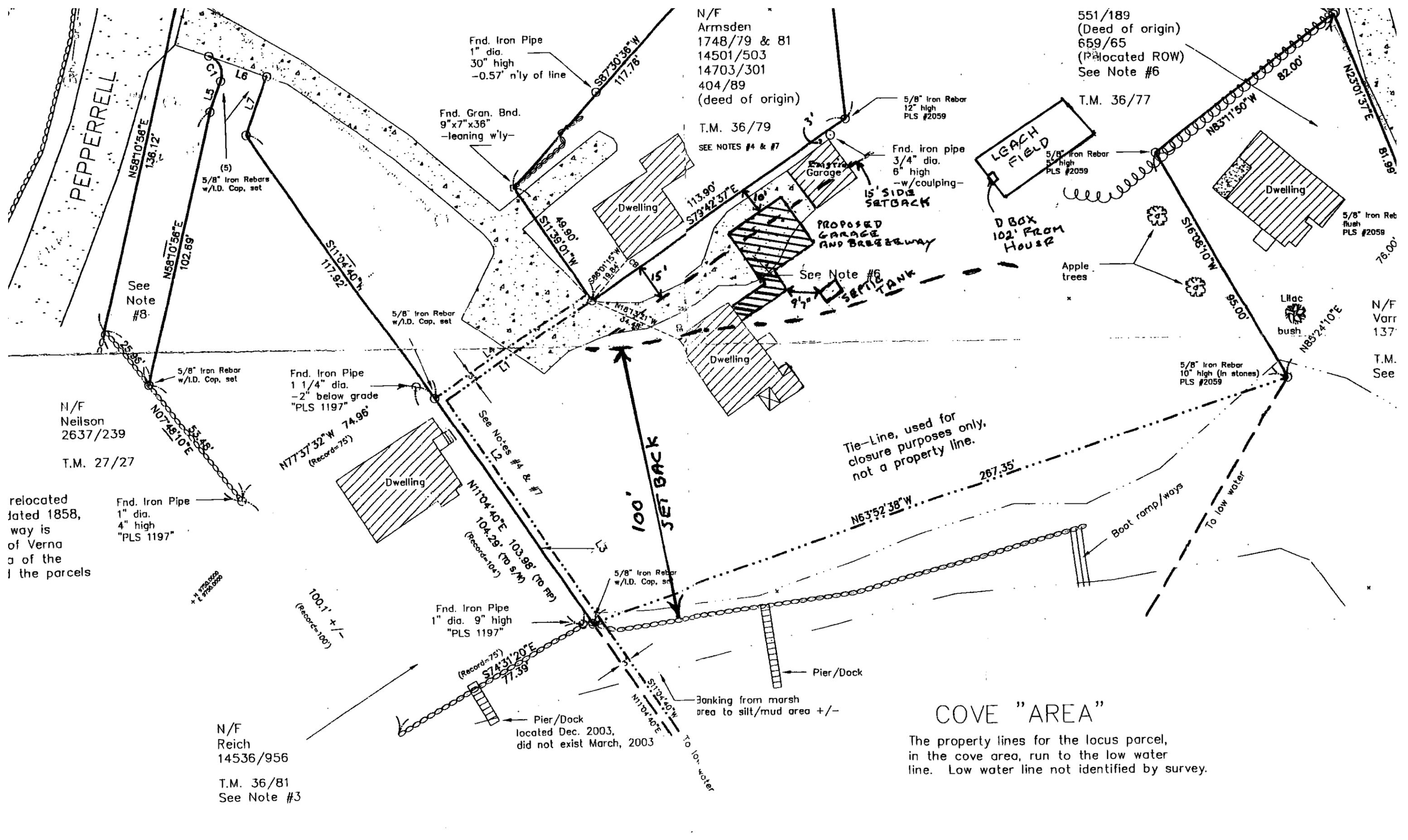
Site Location: 144 Pepperrell Road  
Kittery, Maine 03905



**CIVIL  
CONSULTANTS**

P.O. BOX 100  
293 MAIN STREET  
SOUTH BERWICK  
MAINE 03908  
207-384-2550

DRAWN TJM	SCALE 1" = 30	DATE April 30, 2008
CALC. TJM	APPROVED	
N.B. # 360	SHEET OF	#02-562.01



LINE TABLE		
LINE	LENGTH	BEARING

Owner A

of stone wall

**COVE "AREA"**  
 The property lines for the locus parcel, in the cove area, run to the low water line. Low water line not identified by survey.

N/F Neilson  
 2637/239  
 T.M. 27/27

N/F Reich  
 14536/956  
 T.M. 36/81  
 See Note #3

N/F Armsden  
 1748/79 & 81  
 14501/503  
 14703/301  
 404/89  
 (deed of origin)  
 T.M. 36/79  
 SEE NOTES #4 & #7

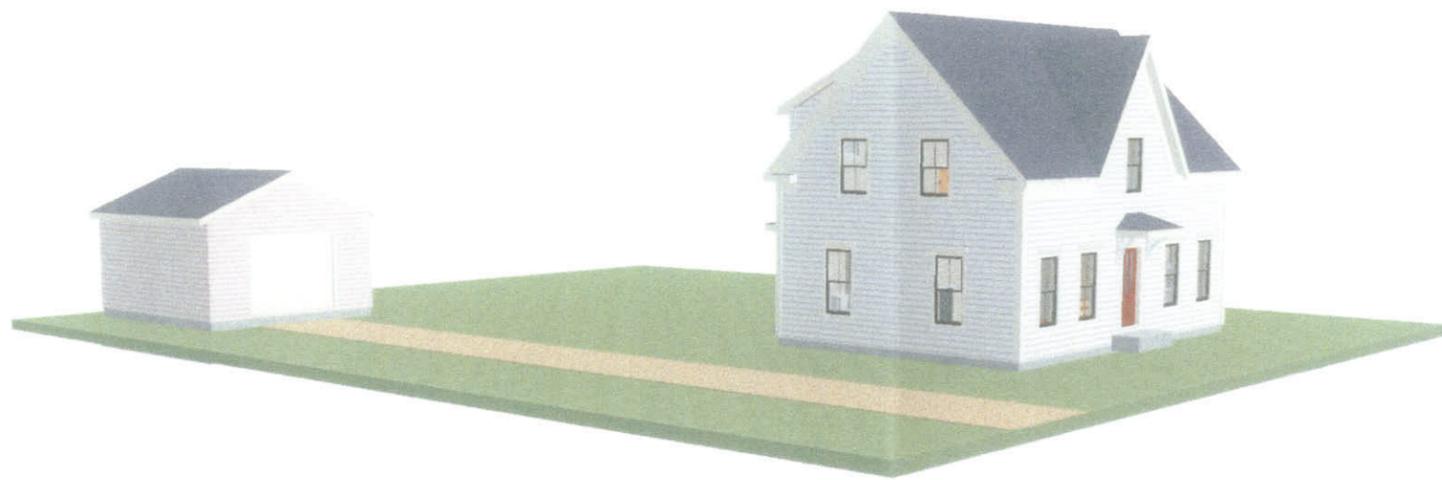
551/189  
 (Deed of origin)  
 659/65  
 (Relocated ROW)  
 See Note #6  
 T.M. 36/77

N/F Varr  
 137  
 T.M. See

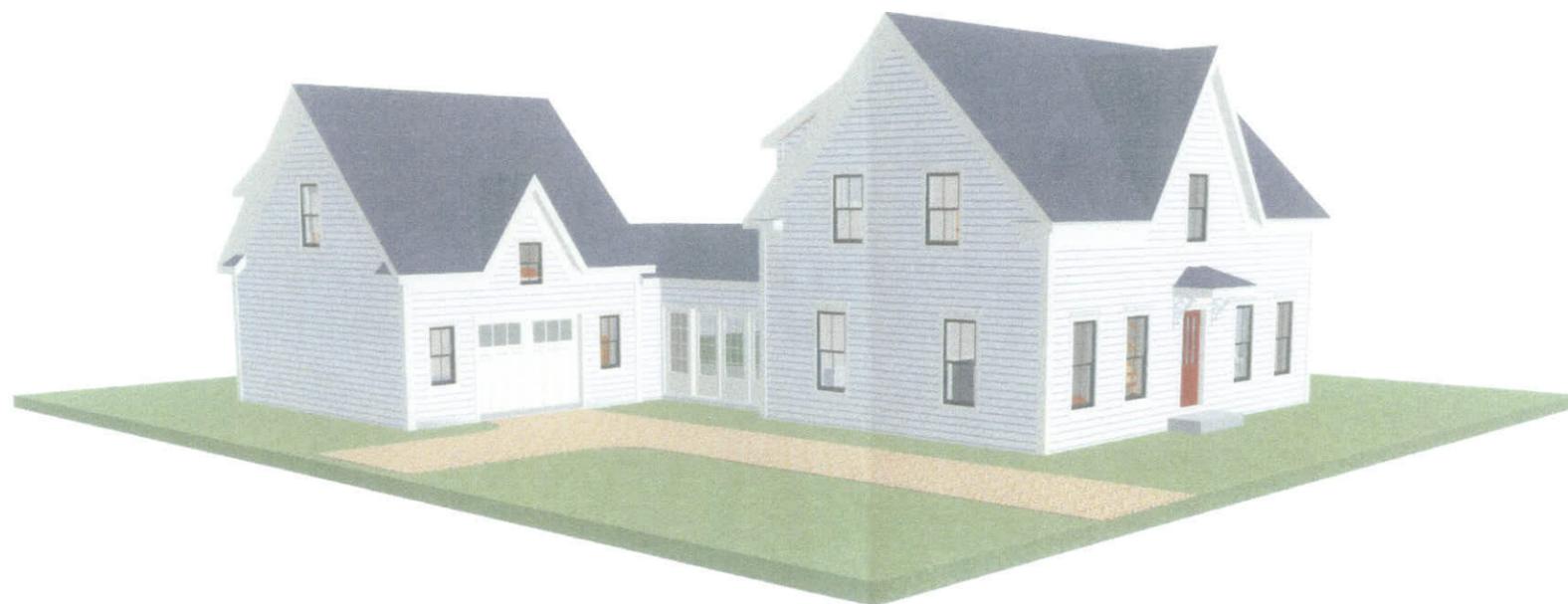
relocated dated 1858, way is of Verna a of the l the parcels

PEPPERRELL

of stone wall



EXISTING GARAGE



PROPOSED GARAGE AND BREEZEWAY

NO.	DESCRIPTION	BY	DATE

SHEET TITLE:

PROJECT DESCRIPTION:  
 LINDA CHEATHAM  
 PROPOSED GARAGE AND BREEZEWAY  
 144 PEPPERRELL RD.  
 KITTEERY POINT, ME

DRAWINGS PROVIDED BY:  
**Pearson Traditional Design**  
 470 US Route 1  
 York, Maine 03909  
 207-351-2711

DATE:  
 11/3/2014

REV 2

SHEET:

**A-1**

**EXISTING LOT COVERAGE**

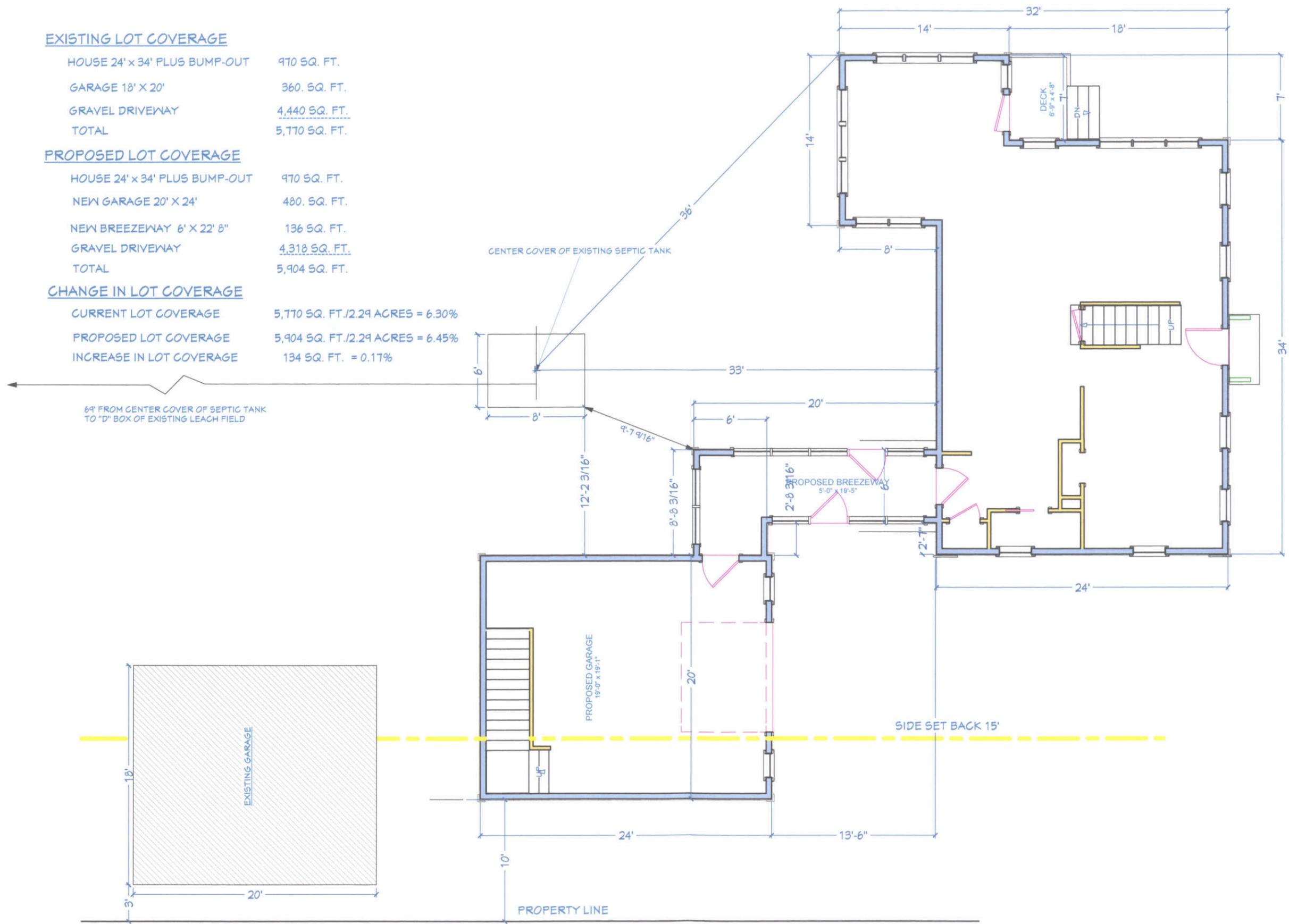
HOUSE 24' x 34' PLUS BUMP-OUT	970 SQ. FT.
GARAGE 18' x 20'	360. SQ. FT.
GRAVEL DRIVEWAY	4,440 SQ. FT.
TOTAL	5,770 SQ. FT.

**PROPOSED LOT COVERAGE**

HOUSE 24' x 34' PLUS BUMP-OUT	970 SQ. FT.
NEW GARAGE 20' x 24'	480. SQ. FT.
NEW BREEZEWAY 6' x 22' 8"	136 SQ. FT.
GRAVEL DRIVEWAY	4,318 SQ. FT.
TOTAL	5,904 SQ. FT.

**CHANGE IN LOT COVERAGE**

CURRENT LOT COVERAGE	5,770 SQ. FT./2.29 ACRES = 6.30%
PROPOSED LOT COVERAGE	5,904 SQ. FT./2.29 ACRES = 6.45%
INCREASE IN LOT COVERAGE	134 SQ. FT. = 0.17%



SCALE: 1/8" = 1'0"

NO.	DESCRIPTION	BY	DATE

SHEET TITLE:

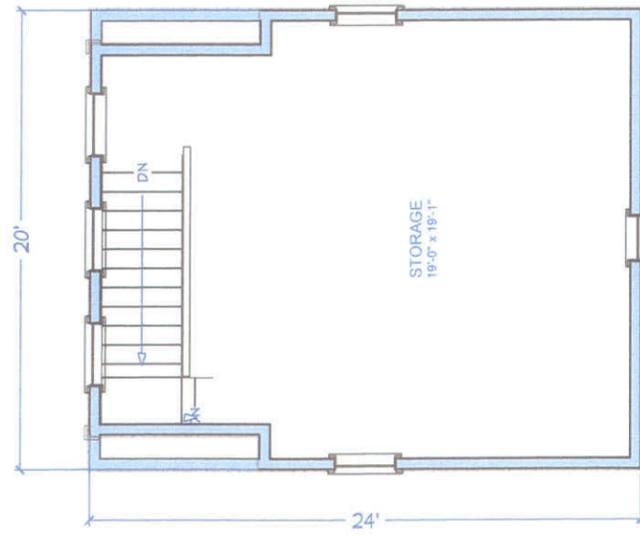
PROJECT DESCRIPTION:  
 LINDA CHEATHAM  
 PROPOSED GARAGE AND BREEZEWAY  
 144 PEPPERELL RD.  
 KITTERY POINT, ME

DRAWINGS PROVIDED BY:  
**Pearson Traditional Design**  
 470 US Route 1  
 York, Maine 03909  
 207-351-2711

DATE:  
 11/6/2014

REV 2

SHEET:  
**A-2**



NO.	DESCRIPTION	BY	DATE

SHEET TITLE:

PROJECT DESCRIPTION:  
 LINDA CHEATHAM  
 PROPOSED GARAGE AND BREEZEWAY  
 144 PEPPERELL RD.  
 KITTERY POINT, ME

DRAWINGS PROVIDED BY:  
**Perason Traditional Design**  
 470 US Route 1  
 York, Maine 03909  
 207-531-2711

DATE:

10/22/2014

SCALE:

SHEET:

**A-3**



FRONT



RIGHT



LEFT



REAR

EXISTING GARAGE

NO.	DESCRIPTION	BY	DATE

SHEET TITLE:

PROJECT DESCRIPTION:  
 LINDA CHEATHAM  
 PROPOSED GARAGE AND BREEZEWAY  
 144 PEPPERELL RD.  
 KITTERY POINT, ME

DRAWINGS PROVIDED BY:  
**Perason Traditional Design**  
 470 US Route 1  
 York, Maine 03909  
 207-351-2711

DATE:  
 10/22/2014

SCALE:

SHEET:

**A-4**

### Town of Kittery Planning Board Meeting November 13, 2014

**Town of Kittery – Public Sewer Extension Project — Wetland Alteration Plan Review**

Action: review and grant or deny plan approval. Owner and Applicant Kittery Wastewater Treatment Department is requesting consideration of their plans to temporarily impact wetlands as part of expanding public sewer through a CMP corridor located between Route 236 and I-95, Tax Map 12, Lot 03-1 and Map 21, Lot 18, in the Business Park Zone. Agent is Kleinfelder Engineers..

**PROJECT TRACKING**

REQ'D	ACTION	COMMENTS	STATUS
NO	Site Visit		
Yes	Completeness/Acceptance		
NO	Public Hearing		
Yes	Final Plan Review		

**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 16.4.4.13 - 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.

**Background**

As part of the Town’s plans to expand sewer service, the Kittery Wastewater Treatment Department (KWTD) is seeking approval for a Wetland Alteration Application required as part of the installation of infrastructure within the Town’s utility easement. The Board recommended to Town Council in August of last year to approve the Department’s phasing plans and issuance of the Bond Anticipation Note.

The specific proposed development incurring the wetland impact is located alongside and within a Central Maine Power (CMP) utility easements in the vicinity of One Route 236 commercial property and the I-95 on/off-ramps. Due to CMP constraints within their easement to development in proximity to their poles, the proposed sewer lines are forced to be located closer to the wetland/potential vernal pool than what the Town’s easement could allow.

**Staff Comments**

Staff has reviewed the plans and submittal information prepared by Kleinfelder and do not see any alternatives to the impact. The applicant is proposing to mitigate the impact through salvaging the existing vegetation in the proximity of the utility trenching and the use of crane mats in the areas requiring access through wetlands. The project has received state and federal environmental permits including a *Finding of no Significant Impact* from the Maine DEP based on a recent Environmental Assessment prepared for the Route 236 Sewer Extension Project. (Attached)

The KWTD has been working closely with the property owners and they are aware of the impacts and request the Planning Board forgo holding a public hearing since it is not required, and the impacted property owners are apprised of the project.

**Recommendation**

Staff recommends, after consideration from the Conservation Commission and no significant issues raised, the Planning Board approve the Wastewater Treatment Department’s request to temporarily impact wetlands as part of expanding public sewer through a CMP corridor located between Route 236 and I-95.

WETLAND ALTERATION PLAN REVIEW

**M12 L03-1 & M21 L18**

**B. It is the responsibility and burden of the applicant to show that the proposed use meets the purposes of this Code and the specific standards listed below to gain Planning Board approval to alter a wetland. The Planning Board will not approve a wetlands alteration unless the applicant provides clear and convincing evidence of compliance with the Code.**

Finding: Federal and state permitting has been obtained for the installation of public infrastructure within a specific utility easement the Kittery Wastewater Services Department holds. The proposed activity conforms to the land use zoning in this locale, and the Planning Board has reviewed and recommended to Town Council for approval of the overall sewer extension project.

Conclusion: The applicant appears to have provided clear and convincing evidence that the proposed use meets the purpose of the Town Code including standards in Chapter 9, Article 3.

Vote of \_\_\_ in favor \_\_\_ against \_\_\_ abstaining

**C. In evaluating the proposed activity, the Planning Board may need to acquire expert advisory opinions. The applicant must be notified in writing, by the Town Planner at the Planning Board's request, that the applicant will bear the expenses incurred for the expert persons or agencies. The Planning Board will consider the advisory opinion, including any recommendations and conditions, provided by the Conservation Commission.**

Finding: The applicant has delineated wetlands resources with the assistance of qualified, competent professionals.

Conclusion: It does not appear that in addition information prepared to date that expert advisory opinion in is warranted.

Vote of \_\_\_ in favor \_\_\_ against \_\_\_ abstaining

**D. When the Planning Board finds the demonstrated public benefits of the project as proposed, or modified, clearly outweigh the detrimental environmental impacts, the Planning Board may approve such development, but not prior to granting approval of a reasonable and practicable mitigation plan, (see Section 16.9.3.9) and not prior to the completion of all performance guaranties for the project, (see Section 16.10.8.2.2).**

Finding: The proposed development impact is mitigated with the use of crane mats and the salvage and reuse of existing vegetation in areas where trenching is planned. Due to the public benefit associated with the proposed development and the temporary nature of the impact the applicant is requesting a formal Mitigation Plan per 16.9.3.9 not be required, including: 16.9.3.9.B.2, the town does not own any land near or adjacent to the impacted wetland; 16.9.3.9.B.3, Wetlands Preservation Fee; the purpose of fees is primarily to discourage development within wetlands, however, with the impact being associated with the installation of public utilities and considering the public benefit, a fee is not appropriate; and 16.9.3.9.B.4, Functional Assessment, does not appear to be warranted because the impacts associated with the development are temporary, thereby not permanently changing the function of the wetland.

Conclusion: It does not appear that the proposed development warrants more than the planned measures to protect existing vegetation through the use of crane mats and to salvage and replant vegetation where trenching is required to be considered a "reasonable and practicable mitigation plan."

Vote of \_\_\_ in favor \_\_\_ against \_\_\_ abstaining

**E. The applicant must submit applicable documentation that demonstrates there is no practicable alternative to the proposed alteration of the wetland. In determining if no practicable alternative exists, the Board will consider the following:**

The proposed use:

1. Uses, manages or expands one or more other areas of the site that will avoid or reduce the wetland impact;
2. Reduces the size, scope, configuration or density of the project as proposed, thereby avoiding or reducing the wetland impact;
3. Provides alternative project designs, such as cluster development, roof gardens, bridges, etc., that avoid or lessen the wetland impact; and
4. Demonstrates that the proposed development meets or exceeds best management practices for stormwater management in the wetland areas.

Finding: The applicant has received approvals from both ACOE and MEDEP with regard to the permitting associated with the wetlands impact. The applicant has shown that the proposed development has minimized the impact to a reasonable degree considering the constraints of the utility easement and the CMP easement and corridor.

Conclusion: The applicant appears to have demonstrated there is no practicable alternative to the proposed alteration of the wetland

Vote of \_\_\_ in favor \_\_\_ against \_\_\_ abstaining

Instructions/Notice to Applicant:

1. Incorporate plan revisions on the final plan as recommended by Staff, Planning Board and Peer Review Engineer, and submit for Staff review prior to presentation of final mylar.
2. This approval by the Planning Board constitutes an agreement between the Town and the Developer, incorporating as elements the Development Plan and supporting documentation, the Planning Board Findings of Fact, any Conditions of Approval, and any requirements as set forth in Title 16, Land Use and Development Code of Ordinances.

**KITTERY SEWER EXTENSION  
TOWN OF KITTERY PLANNING BOARD  
WETLANDS ALTERATION APPLICATION**

**OCTOBER 23, 2014**

## **Enclosures**

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1. Application: Wetland Alteration Plan Review
2. Project Narrative, including:
  - a. Purpose & Need
  - b. Project Area Description of Areas with Temporary Wetlands Impact
  - c. Wetlands Alteration
  - d. Avoidance and Minimization of Wetlands Impacts
  - e. Applicability of Hydrologic Analysis
3. Topographic Map of Entire Project Area
4. Photographs of those Wetlands to be temporarily impacted taken during the growing season
5. Detail plan of temporary impact and utility corridor restrictions at potential vernal pool
6. Partial Plan Set showing areas of all Wetland Impacts



# TOWN OF KITTERY, MAINE

## TOWN PLANNING DEPARTMENT

200 Rogers Road, Kittery, Maine 03904

PHONE: (207) 475-1323

Fax: (207) 439-6806

[www.kittery.org](http://www.kittery.org)

### APPLICATION: WETLAND ALTERATION PLAN REVIEW

**THIS REVIEW PROCESS REQUIRES APPROVAL FROM BOTH THE TOWN PLANNER AND THE CODE ENFORCEMENT OFFICER**

**MITIGATION FEE TO BE DETERMINED BY THE PLANNING BOARD DURING THE REVIEW PROCESS AND PAID WITH PERFORMANCE GUARANTY.**

Application Fee Paid: \$ \_\_\_\_\_  
 Date: \_\_\_\_\_  
 Escrow Fee Paid: \$ \_\_\_\_\_  
 Date: \_\_\_\_\_

PROPERTY DESCRIPTION	Parcel ID	Map	Vario us	Lot	various	Zone(s): Base Overlay MS4	Business Park ___ YES x NO	Total Land Area	Under ground sewer in 100+ acres
	Physical Address: <b>CMP Corridor, Martin Road, Route 236, Dana Avenue, Manson Road, Stevenson Road</b>								

PROPERTY OWNER'S INFORMATION	Name	George Kathios, Town of Kittery			Mailing Address	200 Rogers Road, Kittery Maine 03904
	Phone	207-439-4646				
	Fax	207-439-2799				
	Email	gkathios@kitteryme.org				

APPLICANT'S AGENT INFORMATION	Name	Same as above			Mailing Address	
	Phone					
	Fax					
	Email					

PROJECT DESCRIPTION	<b>Existing parcel and wetlands:</b>	
	Existing wetlands throughout the project area; however most have been avoided. They are noted on the attached plan set. Tax Map & Parcel number is noted on the plans. The wetlands that will be temporarily impacted are located with the CMP corridor north of I-95. (Maps 13 & 21; Parcels 18, 18A, 19A)	
	<b>Project Name</b>	Kittery Sewer Extension from WWTF to areas north of I-95
	<b>Provide a brief summary of the proposed development, its impact on the existing wetlands and the proposed mitigation plan:</b>	
	Extension of sewer to expand service to areas currently not served by public sewer. The project will temporarily impact 13860SF of wetland in the CMP corridor running northwest from I-95 to Route 236. See attached documentation of why there is no practicable alternative and what avoidance and minimization measures have been taken.	

**I certify, to the best of my knowledge, the information provided in this application is true and correct and will not deviate from the plans submitted without notifying the Kittery Planning Department of any changes.**

Applicant's Signature:		Owner's Signature:	
Date:	10/21/14	Date:	10/21/14

## **Purpose and Need**

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The Town of Kittery is proposing to extend sewer service to areas of the town currently unserved by public wastewater systems. The project components include the installation of 16,250 feet of new gravity sewer, 3 new wastewater pumping stations, and 7,200 feet of force main. The project is located north of Interstate 95 save for a force main that will be connected to the town's wastewater treatment facility. As it relates to wetlands, the project will take place mostly within street rights of way; however, the force main and sewer that will be connected to the wastewater treatment facility will utilize an off road utility corridor where two wetlands will be impacted.

The Town of Kittery is pursuing financial assistance from Maine DEP Clean Water Act State Revolving Funds.

This project will support the Town of Kittery's Comprehensive Plan (approved in 2002) in two ways. First, this project supports the Town's economic development objectives through installation of one important utility (sewer) to the area of Kittery zoned as a Business Park. Second, this project will protect local water quality of Chickering Creek and Spruce Creek by installing public sewer and eliminating failing septic systems, septic systems built on unsuitable soils, and eliminating a failing overboard discharge (OBD) treatment system servicing a mobile home community on Dana Avenue (MPDES Permit # ME0037052).

Section B of the Comprehensive Plan ("The Local Economy") identifies a need to expand the Town's business base for economic development in a way that is "environmentally appropriate." This project will install one important utility (sewer) to support economic expansion of business to the northwest side of I-95. This project, alone, will not be sufficient to begin development as other utilities (water, gas, electricity, and roads) are needed through subsequent, unrelated projects.

Section C of the Comprehensive Plan ("Natural Resources") identifies the need for Kittery to understand the breadth and nature of its existing natural and sensitive resources in order to help inform the Town's decision making with regard to development opportunities while protecting valuable natural resources. As stated above, this project will allow for elimination of septic systems presently sited on unsuitable soils, septic systems with poor performance history, and the decommissioning of the OBD treatment system. Further, this report identifies several natural resources within the sewer service area established by the proposed project which will facilitate responsible future decision making with regard to development.

In spring 2013 George Kathios and Mark Thompson of Kleinfelder presented the sewer extension proposal. At that time the Planning Board expressed support for this project, confirming that it supports the two objectives identified. The Planning Board's support came in the form of approved motions at public meetings of the Planning Board in 2013.

## **Project Area Description of Areas with Temporary Wetlands Impact**

---

The project has avoided over 20 wetlands in the entire project area by changing sewer and force main alignment and siting pumping stations away from wetlands. However, there are unavoidable temporary wetlands impacts within an existing, previously disturbed 66' wide utility corridor running northeasterly from Interstate 95 to State Route 236 (Dow Highway). Here the area is zoned as Business Park.

In some places the corridor sits in a depression created by steeply sloped banks and in other areas the corridor is on high ground with steep slopes on the sides. Both geographies present physical limitations in avoiding wetlands. The corridor carries a hard packed, man-made surface for vehicle access; however the hard pack is grown over and is no longer as wide as it was.

Central Maine Power (CMP) holds an easement within the corridor to carry transmission lines. CMP maintains the corridor by cutting back brush. Through its easement CMP can limit the types and extent of activity in this area. However, there is 25' dedicated easement reserved for sewer utilities within the 66' corridor. The sewer extension will be carried in this 25' easement.

### **Wetlands Alteration**

The project will temporarily alter wetlands within the existing CMP Utility Corridor. A MaineDEP Natural Resources Protection Act Permit by Rule and an US Army Corps of Engineers Category 1 Notification form were received by the respective agencies on October 1, 2014. The Category 1 Notification and Permit By Rule process require the regulating agency to respond to the proponent within 14 or 30 days, respectively, if there is a reason why the project cannot proceed as described in the application. If the proponent does not receive a response in that window of time, the proponent has met its regulatory obligation. As of October 21, 2014 the US Army Corps of Engineers has issued Permit No. NAE 2014-02144 with no further action required and MaineDEP has not responded with concerns about the temporary impacts to wetlands.

At Station 138+25 to Station 139+10 (WF G9-G13, on attached sheets), 1,780 SF of potential vernal pool habitat will be temporarily trenched to place the sewer and force main. No work will be located in the depression. During construction the vegetative material will be stored according to US Army Corps of Engineers and MaineDEP standards for restoration upon completion of construction in this area. No construction will be allowed to take place at this location between March 20 and June 20.

There is no practicable alternative in this area due to a CMP restriction that precludes the use of any portion of the CMP easement, limiting the sewer extension to the existing 25' Sewer Utility easement within the corridor. Additionally, CMP has requested that the sewer extension maintain 30' from CMP utility poles. A 30' minimum buffer from power poles in this area terminates in the potential vernal pool depression outside of the 66' corridor. The buffer has been reduced by 15' to avoid the vernal pool depression and stay within the sewer utility easement. Maintaining the 30' buffer and avoiding the vernal pool would place the sewer alignment to be at the opposite side of the 66' alignment; however, CMP has already commented during their first review that this is not preferred; therefore, our design avoids this condition.

At Station 127+00 to Station 134+00, 12,080 SF of wetlands (WF KU 3-K13, WF KT 5-13 on attached sheets) will be temporarily impacted by the placement of crane mats in areas that will be used by heavy construction equipment to access the hard pack surface. Use of crane mats is a standard measure to avoid and minimize permanent impact to a wetland. The crane mats will be removed when the area is no longer needed for access within the corridor. Based on the definitions found in Section 16.9.3.1 of the Kittery Town Code this wetland is not considered a wetland of special significance.

There is no practicable alternative to avoid temporary impacts at this wetland because it is in a depression the width of the entire corridor. Moving outside the depression to avoid the wetland would result in the need for additional land acquisition or easement.

The impact is so minor it will not significantly alter the wetlands in either location.

### **Avoidance and Minimization of Wetlands Impacts**

---

At Station 139+00, a buffer decrease of 15' is the maximum practicable extent possible without compromising power pole integrity. The reduction of buffer allows the sewer to move out of the depression into the potential vernal pool habitat while remaining in the sewer utility corridor.

Minimization of harm measures will also include the flagging of construction limits to ensure that impacts are limited to the absolute minimum, the appropriate storage and restoration of vegetative material and a construction restriction in this area from March 20 to June 20 to promote amphibian reproduction (if present).

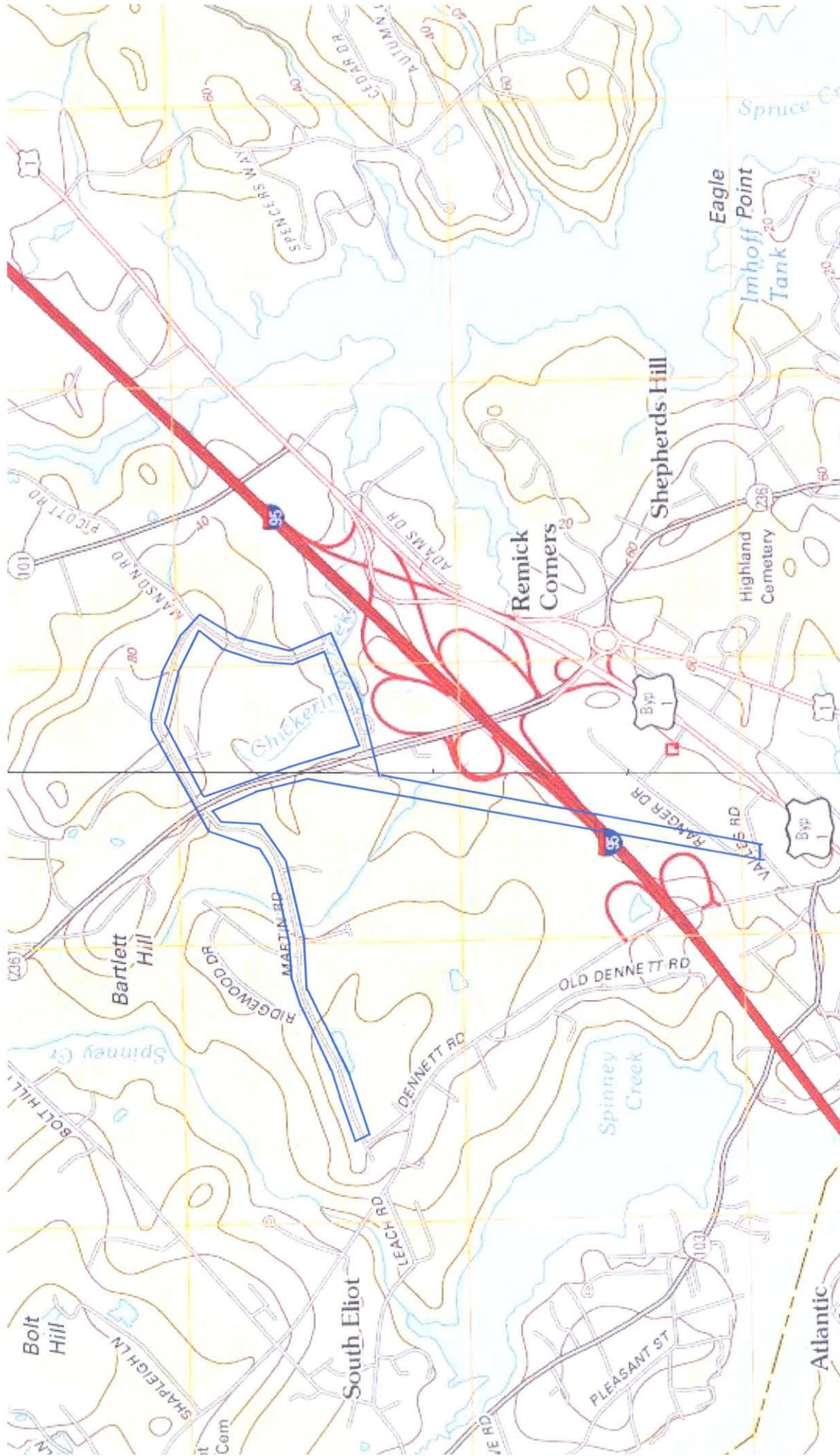
In the case of the wetland at station 127+00 to station 134+00, the wetland is located in the center of the depressed corridor which results in unavoidable temporary impact to the wetland. Therefore, crane mats will be used to minimize impact.

Additionally, the construction specifications will include the General Conditions of the US Army Corps of Engineers General Permit as well as the MaineDEP Natural Resources Protection Standards for construction which prescribe certain measures that the project must adhere to during the course of construction. These specifications are mandated minimization measures that outline Best Management Practices (BMP) for aspects of construction including, but not limited to soil, erosion, and sediment control, the proper storage of vegetative materials, and guidance for construction equipment operation within wetlands. The contractor will be contractually obligated to meet any and all applicable conditions.

### **Hydrologic Analysis**

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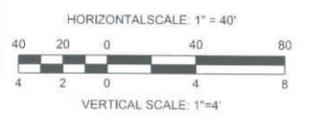
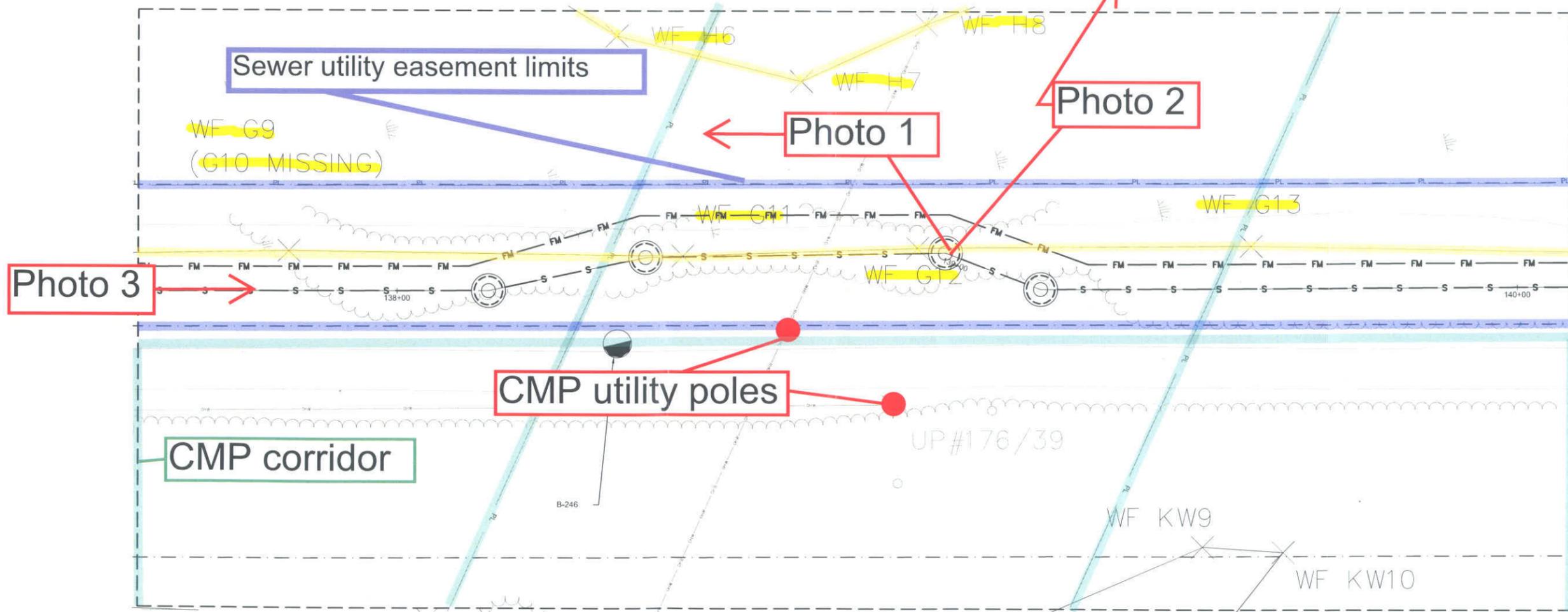
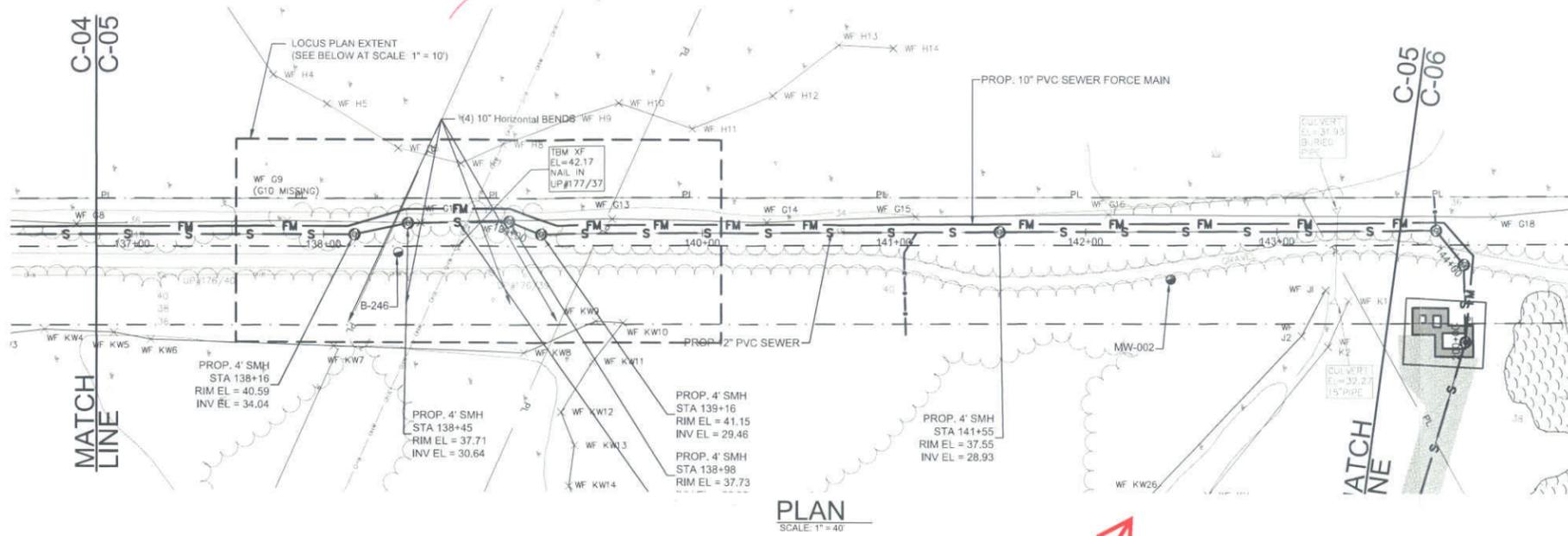
The Wetlands Alterations Plan Review Form notes that the submission must follow Chapter 16 Section 9 Part 500 including the submission of a hydrologic analysis (Chapter 16 Section 32); however, the most recently updated Land Use and Development Code (LUDC) (last ordained January 27, 2014) Chapter 16 Section 9 Part 3.12.2 notes a hydrologic analysis will only be required if the board exercises its right to request additional information regarding the wetlands alteration. As there is no date of publication on the application, the most recent LUDC was relied on for accuracy; therefore, a hydrologic assessment has not been included at this time. Further, since this project will not alter the existing hydrology, this type of assessment is not warranted.



## Kittery Sewer Extension Project Area

Project Location
  N
  1:1500

# CROSS COUNTRY



**EASEMENT LEGEND:**

- PROP. PERMANENT EASEMENT
- - - PROP. TEMPORARY EASEMENT
- PL — EXIST. PROPERTY LINE
- - - 25' WETLAND BUFFER

**PLAN**  
SCALE: 1"=10'

**90% DESIGN**



DATE	JUNE 2014
PROJECT NO.	20140119
DRAWN BY	MBS
CHECKED BY	MCC
FILE NAME	WETLAND LOCUS PLAN C-05A

CROSS COUNTRY SEWER PLAN AND PROFILE STA. 137+00 TO STA. 143+75	TOWN OF KITTERY, MAINE ROUTE 238 SEWER EXTENSION PROJECT
SHEET	
C-05A	

PLOTTED: 06/26/2014 11:10 AM BY: bryan webb  
 PLOTTED: 06/26/2014 11:10 AM BY: bryan webb  
 CAD FILE: G:\\_blinn\kerry\_M020140119 - Rtg 238 Sewer Extensions - Design\Drawings\WETLAND LOCUS PLAN C-05A.dwg LAYOUT: C-05 (3)  
 KLEINFELDER - 215 FIRST ST STE 320 | CAMBRIDGE, MA, 02142 | PH: 617.497.7800 | FAX: 617.498.4630 | www.kleinfelder.com

Photo 1; looking west towards intersecting transmission corridor. Station 139+00



Photo 2; looking north within CMP/sewer corridor. Station 136+00



Photo 3; looking south within CMP/sewer corridor. Station 139+00



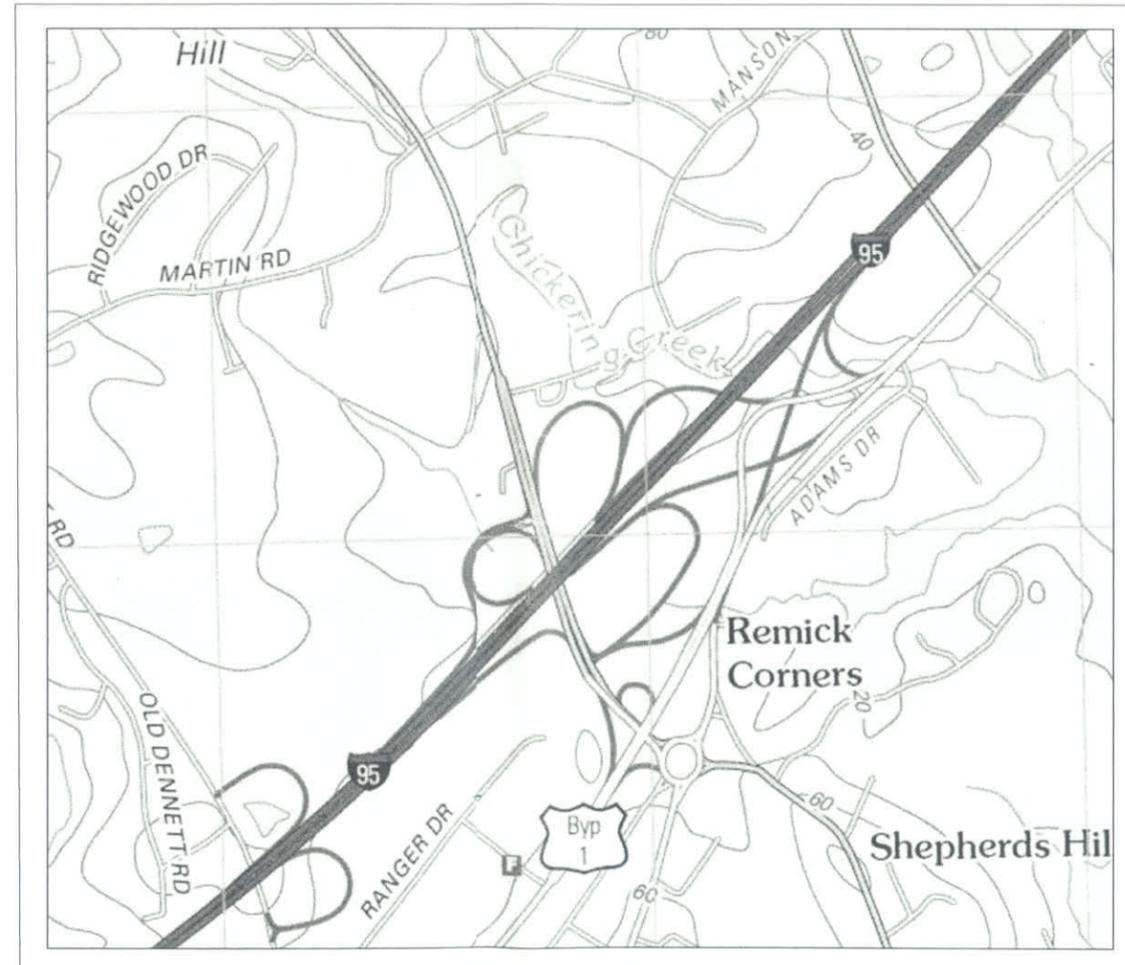
Photo 4; looking north from Station 127+00  
Crane Mats will be laid in corridor. Trench will  
be at left.



# ROUTE 236 SEWER EXTENSIONS

## TOWN OF KITTERY, MAINE

OCTOBER, 2014



WETLAND  
ALTERATION  
REVIEW

SHEET LIST TABLE		
SHEET NO.	SHEET TITLE	STATION NO.
G-01	Key Plan and Sheet Index	--
G-02	Legend	--
G-03	Notes	--
C-01	Cross Country	STA. 100+00 TO STA. 109+00
C-02	Cross Country	STA. 109+00 TO STA. 117+00
C-03	I-95 HDD Crossing	STA. 117+00 TO STA. 126+50
* C-04	Cross Country	STA. 126+50 TO STA. 137+00
* C-05	Cross Country	STA. 137+00 TO STA. 144+00
C-06	Cross Country	STA. 200+00 TO STA. 206+00
C-07	Dow Highway Route 236	STA. 206+00 TO STA. 214+50
C-08	Dow Highway Route 236	STA. 214.5+00 TO STA. 223+00
C-09	Dow Highway Route 236	STA. 223+00 TO STA. 233+00
C-10	Stevenson Road	STA. 233+00 TO STA. 243+00
C-11	Patten Place	STA. 300+00 TO STA. 307+00
C-12	Manson Road	STA. 307+00 TO STA. 316+00
C-13	Manson Road	STA. 316+00 TO STA. 323+50
C-14	Stevenson Road	STA. 323+50 TO STA. 330+00
C-15	Stevenson Road	STA. 330+00 TO STA. 335+00
C-16	Manson Road	STA. 400+00 TO STA. 404+50
C-17	Dana Avenue	STA. 500+00 TO STA. 509+50
C-18	Dana Avenue	STA. 509+50 TO STA. 514+00
C-19	Martin Road	STA. 600+00 TO STA. 609+50
C-20	Martin Road	STA. 700+00 TO STA. 710+00
C-21	Martin Road	STA. 710+00 TO STA. 720+00
C-22	Martin Road	STA. 720+00 TO STA. 730+00
C-23	Martin Road	STA. 730+00 TO STA. 738+00
C-24	Ridgewood Drive	STA. 800+00 TO STA. 804+50
C-25	School Extension	STA. 900+00 TO STA. 903+00

\* INDICATE INCLUDED SHEETS FOR ALTERATION REVIEW



WETLAND  
ALTERATION  
REVIEW



NO.	DATE	DESCRIPTION

DATE	JUNE 2014
PROJECT NO.	20140119
DRAWN BY	MBS
CHECKED BY	MCC
FILE NAME	PRODUCTION-Key Plan

KEY PLAN AND SHEET INDEX
TOWN OF KITTERY, MAINE
ROUTE 236 SEWER EXTENSION PROJECT

SHEET	G-01
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### EXISTING LEGEND

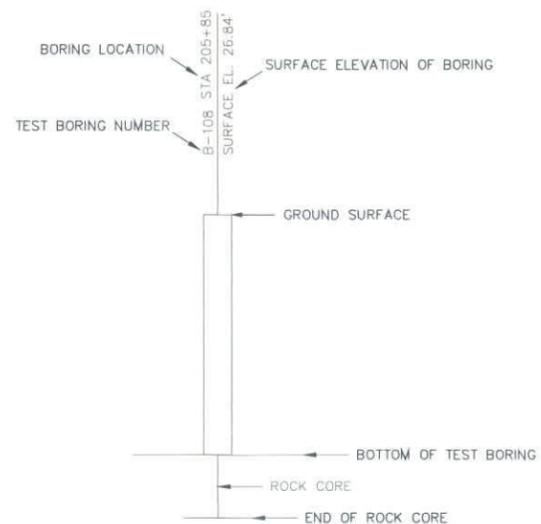
- |      |                                |      |                                    |
|------|--------------------------------|------|------------------------------------|
| CBH  | CONCRETE BOUND WITH DRILL HOLE | UP   | UTILITY POLE WITH LIGHT            |
| CB   | CONCRETE BOUND                 | UPR  | UTILITY POLE WITH LIGHT AND RISER  |
| IPF  | IRON PIPE FOUND                | UPV  | UTILITY POLE WITH TRANSFORMER      |
| IRF  | IRON ROD FOUND                 | UPRT | UTILITY WITH RISER AND TRANSFORMER |
| SBCH | STONE BOUND WITH DRILL HOLE    | DT   | DECIDUOUS TREE                     |
| RCB  | ROUND CATCH BASIN              | CT   | CONIFER TREE                       |
| CB   | CATCH BASIN                    | SH   | SHRUB                              |
| C    | CULVERT                        | S    | SIGN (SINGLE POSTED)               |
| DM   | DRAIN MANHOLE                  | DS   | SIGN (DOUBLE POSTED)               |
| NLM  | NO LABEL MANHOLE               | TS   | TRAFFIC SIGNAL                     |
| SM   | SEWER MANHOLE                  | P    | POST                               |
| EB   | ELECTRIC BOX                   | MW   | MONITORING WELL                    |
| EH   | ELECTRIC HANDHOLE              | BMP  | BORING/ROCK PROBE/MONITORING WELLS |
| EM   | ELECTRIC METER                 | M    | MAILBOX                            |
| EMH  | ELECTRIC MANHOLE               | LP   | LIGHT POLE                         |
| GM   | GAS METER                      | B    | BOLLARD                            |
| GV   | GAS VALVE                      | FP   | FLAG POLE                          |
| GW   | GUY WIRE                       | TB   | TEMP. BENCHMARK                    |
| WM   | WATER MANHOLE                  | V    | VENT                               |
| WG   | WATER GATE                     | WF   | WETLAND FLAG                       |
| FH   | FIRE HYDRANT                   | WA   | WETLAND AREA                       |
| UPR  | UTILITY POLE WITH RISER        |      |                                    |
| UP   | UTILITY POLE                   |      |                                    |
- 
- |         |                                 |
|---------|---------------------------------|
| PL      | PROPERTY LINE                   |
| EE      | EXIST. EASEMENT LINE            |
| F       | FENCE                           |
| D       | DRAIN LINE                      |
| W       | WATER LINE                      |
| G       | GAS LINE                        |
| OHW     | OVERHEAD WIRES                  |
| T       | TREE LINE                       |
| SH      | SHRUB LINE                      |
| IC      | INTERMEDIATE CONTOURS           |
| IX      | INDEX CONTOURS                  |
| WF KY8  | WETLAND LINE                    |
| WF KY9  | WETLAND LINE                    |
| WF KY10 | WETLAND LINE                    |
| WF KY11 | WETLAND LINE                    |
| F1      | WETLAND LINE (FOR C-01 ONLY)    |
| F2      | WETLAND LINE (FOR C-01 ONLY)    |
| G1      | WETLAND LINE (FOR C-01 ONLY)    |
| G2      | WETLAND LINE (FOR C-01 ONLY)    |
| X 31.00 | ROAD CENTERLINE ELEVATIONS      |
| X 32.00 | ROAD CENTERLINE ELEVATIONS      |
| X 33.00 | ROAD CENTERLINE ELEVATIONS      |
| X 34.00 | ROAD CENTERLINE ELEVATIONS      |
| RS      | ROAD STRIPE                     |
| ES      | EXISTING SEWER                  |
| NECH    | NEW ENGLAND COTTON TAIL HABITAT |

### ABBREVIATIONS:

- |         |                          |
|---------|--------------------------|
| APPROX. | APPROXIMATE              |
| AB.     | ABANDONED                |
| EX.     | EXISTING                 |
| EXIST.  | EXISTING                 |
| EL.     | ELEVATION                |
| ELEV.   | ELEVATION                |
| ELEC.   | ELECTRICAL               |
| INV.    | INVERT                   |
| MIN.    | MINIMUM                  |
| PROP.   | PROPOSED                 |
| SOE     | SUPPORT OF EXCAVATION    |
| TYP.    | TYPICAL                  |
| EOP     | EDGE OF PAVEMENT         |
| CLF     | CHAIN LINK FENCE         |
| CMP     | CORRUGATED METAL PIPE    |
| CPP     | CORRUGATED PLASTIC PIPE  |
| RCP     | REINFORCED CONCRETE PIPE |
| PVC     | POLYVINYL CHLORIDE PIPE  |

### PROPOSED LEGEND

- |      |                             |
|------|-----------------------------|
| TP   | TEST PIT                    |
| ARV  | AIR RELEASE VALVE           |
| FMGV | FORCE MAIN GATE VALVE       |
| PE   | PROPOSED PERMANENT EASEMENT |
| TE   | PROPOSED TEMPORARY EASEMENT |
| SSL  | SEWER SERVICE LINE          |
| GS   | GRAVITY SEWER               |
| FM   | SEWER FORCE MAIN            |
| WB   | 25-FT. WETLAND BUFFER       |
| CC   | COMMUNICATIONS CONDUIT      |
| PL   | PAVING LIMITS               |
| E    | ELECTRIC CONDUIT            |



TYPICAL BORING SCHEMATIC

SCALE: NTS



DATE	JUNE 2014
PROJECT NO.	20140119
DRAWN BY	MBS
CHECKED BY	MCC
FILE NAME	PRODUCTION-Key Plan

LEGEND	TOWN OF KITTERY, MAINE ROUTE 236 SEWER EXTENSION PROJECT
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WETLAND ALTERATION REVIEW

### GENERAL NOTES

1. THE UTILITY INFORMATION SHOWN WAS COMPILED BASED ON FIELD SURVEY DATA AND RECORD INFORMATION. THE LOCATIONS OF UNDERGROUND UTILITIES HAVE BEEN ESTABLISHED FROM SURFACE FEATURES OBSERVED DURING THE SURVEY AND ON RECORD PLANS. THE LOCATION OF UNDERGROUND STRUCTURES ARE APPROXIMATE ONLY AND MAY VARY FROM THE LOCATIONS SHOWN HEREON. ADDITIONAL UNDERGROUND UTILITIES AND/OR STRUCTURES MAY BE ENCOUNTERED. SIZE, MATERIAL, AND LOCATION OF EXISTING UTILITIES IN PROJECT VICINITY SHALL BE FIELD VERIFIED BY THE CONTRACTOR. RECORD DRAWINGS PREPARED BY THE CONTRACTOR FOR THIS PROJECT SHALL INCLUDE THIS FIELD VERIFIED INFORMATION. THE TOWN ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF THE EXISTING UTILITY INFORMATION.
2. ELEVATIONS SHOWN REFER TO THE NATIONAL GEODETIC VERTICAL DATUM 1929 (NGVD29). THE HORIZONTAL COORDINATES, IN FEET, ARE BASED UPON THE NORTH AMERICAN DATUM OF 1983 (NAD 83).
3. UNLESS OTHERWISE INDICATED, PROPERTY LINES AND LAYOUT LINES SHOWN WERE TAKEN FROM TOWN ASSESSOR'S MAPS AND GIS AND ARE APPROXIMATE.
4. PRE-CONSTRUCTION SURVEYS SHALL BE COMPLETED FOR EXTERIOR AREAS OF THE ADJACENT STRUCTURES, BUILDINGS, AND AREAS AFFECTED BY THE WORK PER THE SPECIFICATION SECTION 01390. SURVEY SHALL BE PERFORMED BY AN INDEPENDENT CONSULTANT NOT LESS THAN FOUR WEEKS PRIOR TO CONSTRUCTION ACTIVITIES. REFER TO PERFORMANCE REQUIREMENTS UNDER SPECIFICATION 01390 FOR SUGGESTED LIMITS OF SURVEY. COSTS SHALL BE INCIDENTAL TO CONTRACTOR'S OVERALL BID.
5. CONTRACTOR SHALL LIMIT CONSTRUCTION ACTIVITIES INCLUDING STOCKPILING AND STORAGE OF MATERIALS AND VEHICLES TO THE BOUNDARY OF SEDIMENTATION BARRIERS AND EROSION CONTROLS. IF CHANGES TO THESE LIMITS MUST BE MADE TO ACCOMMODATE PROPOSED WORK, CONTRACTOR MUST RECEIVE PRIOR OWNER APPROVAL.
6. PROVIDE TEMPORARY FENCING AND CONCRETE BARRIERS TO SHIELD OPEN EXCAVATIONS FROM VEHICLES AND PASSERSBY.
7. CONTRACTOR IS REQUIRED TO COORDINATE WITH THE POLICE AND FIRE DEPARTMENTS IN ORDER TO MAINTAIN EMERGENCY VEHICLE ACCESS THROUGHOUT PROJECT DURATION.
8. CONTRACTOR SHALL REMOVE AND REPLACE SIDEWALKS, DRIVEWAYS, AND BIT CONC. BERMS, AND RESET GRANITE CURB AND REPLACE WITH NEW WHERE NECESSARY TO CONSTRUCT THE PROPOSED ITEMS OF WORK, AT HIS OR HER COST, EXCEPT WHERE DESIGNATED AS PART OF THE WORK OF THIS CONTRACT.
9. EXISTING UTILITY POLES THAT FALL WITHIN 6 FEET OF THE PROPOSED EDGE OF EXCAVATION SHALL BE SUPPORTED BY THE UTILITY OWNER DURING EXCAVATION OF THE TRENCH. CONTRACTOR SHALL COORDINATE SUPPORT AND BE RESPONSIBLE FOR COSTS AND FEES.
10. CONTRACTOR SHALL BE RESPONSIBLE FOR PERFORMING TEST PITS TO LOCATE AND CONFIRM UTILITY SIZING AND MATERIAL AT ALL LOCATIONS, AND FOR LOCATING POTENTIAL UTILITY CONFLICTS. TEST PITS SHALL BE PERFORMED WELL IN ADVANCE OF CONSTRUCTION OPERATIONS SO THAT ANY CHANGES IN ALIGNMENT AND/OR GRADE OF THE PROPOSED WORK OR UTILITY LOCATIONS MAY BE DETERMINED.
11. WHERE EXISTING GAS, ELECTRIC AND TELECOM UTILITIES CROSS THE PROPOSED TRENCH LIMITS, CONTRACTOR SHALL COORDINATE WITH THE UTILITY OWNER TO SUPPORT AND BE RESPONSIBLE FOR COSTS AND FEES. CONTRACTOR SHALL BE RESPONSIBLE FOR SUPPORTING THE EXISTING UTILITY IN ACCORDANCE WITH THE UTILITY OWNER'S REQUIREMENTS.
12. WHERE TEMPORARY OR PERMANENT UTILITY RELOCATION IS REQUIRED, THE CONTRACTOR SHALL NOTIFY THE TOWN 14 DAYS IN ADVANCE OF CONSTRUCTION AND SHALL COORDINATE THE NEW WORK WITH THE UTILITY RELOCATION.
13. CONTRACTOR IS RESPONSIBLE FOR REPLACEMENT OF ANY SEWER, WATER OR DRAIN PIPING, OR STRUCTURE HE OR SHE DAMAGES. ALL COSTS OF REPLACEMENT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. INTERMEDIATE COUPLINGS SHALL BE ALLOWED ON A TEMPORARY BASIS ONLY.
14. PRIOR TO BEGINNING WORK, CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS AND REPORT ANY DISCREPANCIES BETWEEN THE PLANS AND THE ACTUAL CONDITIONS TO THE ENGINEER.
15. CONSTRUCTION TRAILER(S), STOCKPILING LOCATIONS, AND EQUIPMENT STORAGE AREAS ARE THE CONTRACTOR'S RESPONSIBILITY AND SHALL BE COORDINATED WITH THE OWNER.
16. THE CONTRACTOR SHALL CALL THE DIG-SAFE CENTER AT 1-888-344-7233 A MINIMUM OF 72 HOURS PRIOR TO ANY EXCAVATION, INCLUDING TEST PITS, TO LOCATE UNDERGROUND UTILITIES IN THE FIELD AND NOTIFY UTILITIES OF CONSTRUCTION.
17. UPON COMPLETION OF THE WORK, ALL DISTURBED AREAS SHALL BE RESTORED TO A CONDITION EQUAL TO OR BETTER THAN THAT WHICH EXISTED PRIOR TO CONSTRUCTION.
18. FENCES, WALLS, LANDSCAPING, TREES AND BUSHES ARE NOT ALL SHOWN ON THE PLANS. THE CONTRACTOR SHALL TAKE EXTRA CARE TO PRESERVE SUCH EXISTING FEATURES AT ALL TIMES DURING CONSTRUCTION PER THE SPECIFICATIONS. ALL EXISTING FEATURES IN CONFLICT WITH PROPOSED WORK SHALL BE RELOCATED OR REPLACED AS INDICATED ON THE CONTRACT DRAWINGS OR AS DIRECTED BY THE ENGINEER. ALL EXISTING FEATURES AND ALL ADJACENT AREAS DAMAGED, DESTROYED OR DISTURBED SHALL BE REPAIRED OR REPLACED. PAYMENT FOR THIS WORK IS TO BE INCLUDED IN THE GENERAL COST OF THE CONTRACT.

### PAVEMENT NOTES

1. TACK COAT SHALL BE APPLIED TO ALL MILLED SURFACES PRIOR TO BEING OVERLAID AT A RATE OF 0.10 GALLONS PER SQUARE YARD AND TO ALL SMOOTH SURFACES AT 0.05 GALLONS PER SQUARE YARD.
2. TACK COAT SHALL BE APPLIED TO ALL EDGES OF EXISTING PAVEMENT AT SAWCUT LINES PRIOR TO PAVING.
3. THE CONTRACTOR SHALL PROVIDE FOR THE SAFE AND ORDERLY PASSAGE OF PEDESTRIANS AND VEHICLES AT ALL TIMES IN AREAS UNDER CONSTRUCTION.
4. THE CONTRACTOR SHALL TAKE CARE DURING CONSTRUCTION ACTIVITIES TO AVOID DAMAGE TO EXISTING TREES AND SHRUBS NEAR THE WORK LIMITS.
5. LANDSCAPED AREAS, FEATURES, AND PLANTINGS THAT ARE IMPACTED BY THE PROPOSED WORK SHALL BE REMOVED AND RESET TO MATCH THE EXISTING CONDITIONS. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT.
6. THE CONTRACTOR SHALL TAKE CARE NOT TO DISTURB ANY PROPERTY BOUNDS OR LAYOUT BOUNDS. ANY BOUNDS DISTURBED BY CONSTRUCTION ACTIVITIES SHALL BE REPLACED BY A PROFESSIONAL LAND SURVEYOR LICENSED IN THE STATE OF MAINE AT NO ADDITIONAL COST TO THE TOWN.
7. RETAIN EXISTING CASTINGS, HYDRANTS AND BOLLARDS WITHIN THE LIMITS OF WORK.
8. REMOVED CURB SHALL BE DELIVERED TO AND STACKED AT THE TOWN OF KITTERY DPW YARD.

### SOIL EROSION AND SEDIMENTATION CONTROL NOTES

1. CONTRACTOR SHALL PROVIDE ALL EROSION AND SEDIMENT CONTROL DEVICES AS INDICATED ON THE PLANS, OR AS DIRECTED BY THE ENGINEER. CONSTRUCTION SHALL NOT COMMENCE UNTIL THESE MEASURES HAVE BEEN APPROVED BY THE ENGINEER AND LOCAL CONSERVATION COMMISSION. ALL SOIL EROSION AND SEDIMENTATION CONTROL COSTS SHALL BE INCIDENTAL TO CONTRACTOR'S OVERALL BID.
2. ALL CONSTRUCTION ACTIVITIES SHALL BE PERFORMED IN COMPLIANCE WITH THE SPECIFICATIONS.
3. STOCKPILED MATERIALS SHALL BE LOCATED AND MAINTAINED SO AS TO MINIMIZE THE POTENTIAL FOR EROSION. THE CONTRACTOR SHALL PLACE EROSION CONTROLS AROUND THE MATERIAL AND THE MATERIAL SHALL BE COVERED WITH SECURED POLY SHEETING AT THE END OF EACH WORK DAY AND DURING RAIN EVENTS.
4. SILT SACKS SHALL BE FURNISHED, INSTALLED AND MAINTAINED IN ALL CATCH BASINS WITHIN THE PROJECT AREA. THROUGHOUT PROJECT DURATION, DEBRIS COLLECTED IN SILT SACKS SHALL BE REMOVED AND LEGALLY DISPOSED OF OFF-SITE ON A WEEKLY BASIS OR MORE FREQUENTLY IF NECESSARY TO MAINTAIN FLOW THROUGH THE SILT SACKS. UPON COMPLETION OF THE PROJECT AND AS DIRECTED BY THE ENGINEER, THE CONTRACTOR IS RESPONSIBLE FOR REMOVING AND LEGALLY DISPOSING OF THE SILT SACKS AND DEBRIS OFF-SITE.
5. SEDIMENTATION BARRIERS SHALL BE FURNISHED, INSTALLED, AND MAINTAINED ALONG ALL WETLAND CORRIDORS ADJACENT TO PROJECT ACTIVITIES WHERE THE CONSTRUCTION IS NOT SEPARATED FROM THE WETLAND BY CURBING, AND AS DIRECTED BY THE TOWN OF KITTERY CONSERVATION COMMISSION.
6. CONTRACTOR SHALL STOCKPILE SUFFICIENT SOIL EROSION AND SEDIMENT CONTROL MATERIALS ON SITE TO REPAIR ANY AND ALL DAMAGE TO SOIL EROSION AND SEDIMENT CONTROL MEASURES.

### GEOTECHNICAL NOTES

1. BORING LOGS ARE PROVIDED AS AN APPENDIX IN THE SPECIFICATIONS.
2. TEST BORINGS WERE ADVANCED (BY CARR-DEE CORP. OF MEDFORD, MA, FROM APRIL 6, 2009 TO APRIL 10, 2009.)
3. BORINGS WERE TAKEN FOR THE PURPOSE OF DESIGN AND INDICATE CONDITIONS AT THE LOCATION OF THE BORING ONLY. SUBSURFACE CONDITIONS ENCOUNTERED DURING CONSTRUCTION MAY VARY FROM THOSE SHOWN IN THE BORING LOGS. GROUNDWATER LEVELS INDICATED ON THE BORING LOGS WERE OBSERVED AT THE TIME THE BORINGS WERE TAKEN, AND DO NOT REPRESENT PERMANENT GROUNDWATER LEVELS.

### SEWER INSTALLATION NOTES

1. WHEREVER FEASIBLE, SEWERS SHALL BE LAID AT A MINIMUM OF 10 FEET HORIZONTALLY FROM ANY EXISTING OR PROPOSED WATER MAIN.
2. WHENEVER SEWERS MUST CROSS UNDER WATER MAINS, THE SEWER SHOULD BE LAID AT SUCH AN ELEVATION THAT THE CROWN OF THE SEWER IS AT LEAST 18 INCHES BELOW THE BOTTOM OF THE WATER MAIN. WHEN THE ELEVATION OF THE SEWER CANNOT BE VARIED TO MEET THIS REQUIREMENT, THE WATER MAIN SHOULD BE RELOCATED TO PROVIDE THIS SEPARATION OR CONSTRUCTED WITH MECHANICAL-JOINT PIPE FOR A DISTANCE OF 10'-0" ON EITHER SIDE OF THE SEWER. WHERE A WATER MAIN CROSSES THE SEWER, ONE FULL LENGTH OF WATER MAIN SHOULD BE CENTERED OVER THE SEWER SO THAT BOTH JOINTS WILL BE AS FAR FROM THE SEWER AS POSSIBLE. THE WATER MAIN SHALL BE CONSTRUCTED WITH MECHANICAL-JOINT, DOUBLE CEMENT-LINED DUCTILE IRON PIPE. JOINTS FOR BOTH SEWER AND WATER MAIN SHALL BE RESTRAINED. PIPES SHALL BE PRESSURE TESTED TO 150 PSI TO ENSURE WATER TIGHTNESS.
- 3.
4. ALL EXISTING SEWER SERVICES SHALL REMAIN OPERATIONAL THROUGHOUT CONSTRUCTION. CONTRACTOR SHALL PREPARE A CONSTRUCTION SEQUENCE PLAN TO ENSURE THAT ALL SEWER CUSTOMERS HAVE CONTINUOUS SEWER SERVICE DURING CONSTRUCTION. CONTRACTOR SHALL COORDINATE WITH PROPERTY OWNERS AS NECESSARY TO COORDINATE CONSTRUCTION DURING LOW FLOW TIMES. CONTRACTOR IS RESPONSIBLE FOR ALL BYPASS PUMPING TO MAINTAIN CONTINUOUS SERVICE. CONTRACTOR SHALL SET UP BYPASS PUMPING PIPING TO ALLOW PROPERTY OWNER ACCESS TO THEIR DRIVEWAYS. CONSTRUCTION SEQUENCE AND BYPASS PUMPING PLANS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO ANY EXCAVATION.
5. IF DEWATERING IS REQUIRED DURING CONSTRUCTION, THE CONTRACTOR SHALL ADHERE TO THE REQUIREMENTS OF SPECIFICATION SECTION 02210, SECTION 01500, SECTION 02140 AND ALL DEWATERING PERMITS. THE CONTRACTOR SHALL SUBMIT A DEWATERING PLAN TO THE ENGINEER FOR APPROVAL AS SPECIFIED.
6. ALL NEW AND RECONNECTED SANITARY SEWER SERVICES SHALL BE MIN. 6" PVC OR SHALL MATCH THE EXISTING SERVICE SIZE. WHERE THE EXISTING SERVICE IS 5" OR SMALLER, CONTRACTOR SHALL TRANSITION TO 6" PVC. REMOVE AND DISPOSE OF SECTIONS OF SERVICES REPLACED. CONTRACTOR SHALL PROVIDE APPROPRIATE FITTINGS WHERE NECESSARY.
7. ALL KNOWN WATER SERVICES ARE SHOWN IN APPROXIMATE LOCATIONS ON THE DRAWINGS FOR THE CONTRACTORS CONVENIENCE ONLY. WHERE NO RECORDS WERE AVAILABLE, SERVICE LOCATIONS WERE APPROXIMATED. SERVICES SMALLER THAN 1-INCH SHALL BE UPSIZED TO 1-INCH COPPER SERVICES. ALL SERVICES SHALL BE REPLACED UP TO AND IN ADDITION TO THE CURB STOP, AND SHALL EXTEND TO THE PROPERTY LINE.
8. SEWER PIPE, WATER MAIN AND SEWER MANHOLES OUTSIDE OF THE LIMIT OF THE PROPOSED TRENCH SHALL BE ABANDONED IN ACCORDANCE WITH WITH SPECIFICATION SECTION 02050.

### HDD NOTES

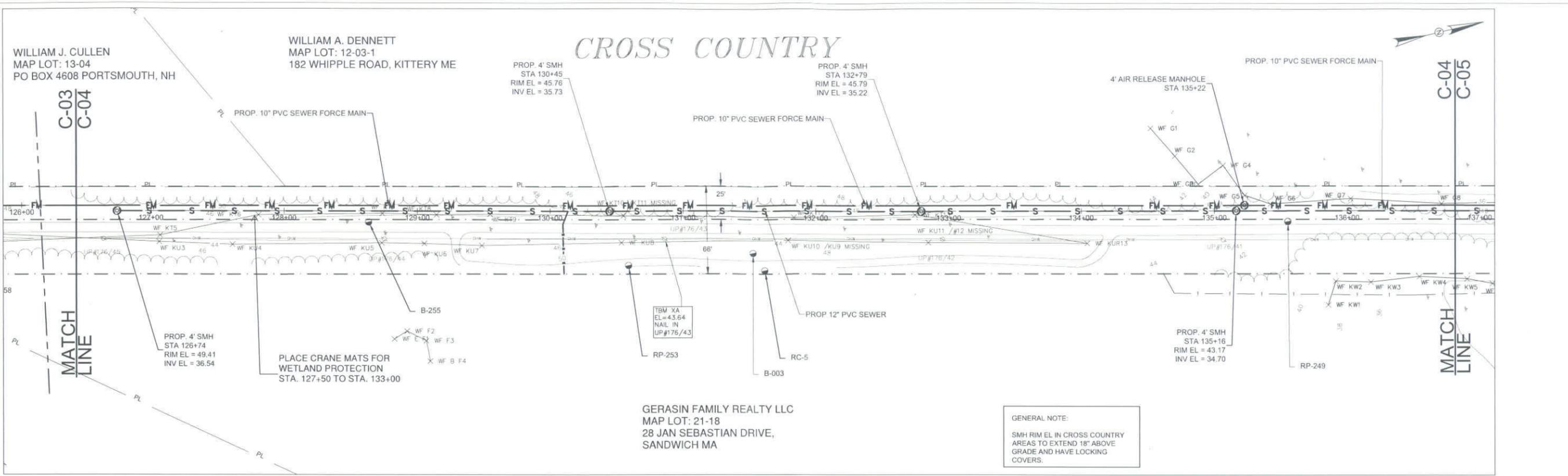
1. CONTRACTOR SHALL PROVIDE ENGINEER FOR APPROVAL INADVERTENT RETURN MITIGATION PLAN PRIOR TO MOBILIZATION.
2. CONTRACTOR SHALL PROVIDE PRE-BORE PROFILE FOR ENGINEER REVIEW PRIOR TO PILOT DRILLING PROCESS. CONTRACTOR SHALL PROVIDE PILOT HOLE AS-BUILT PROFILE TO ENGINEER FOR REVIEW PRIOR TO REAMING PROCESS.
3. PROFILE SHALL INCLUDE GROUND SURVEY, PIPE PROFILE AND ANY EXISTING INFRASTRUCTURE INFORMATION ALONG THE PIPE PROFILE PATH.
4. EXISTING TOPOGRAPHY DATA PROVIDED BY BRADSTREET CONSULTANTS, INC. ON 04/21/2013 AND 04/23/2013 THROUGH 04/26/2013.
5. FINAL EQUIPMENT LAYOUT AND GRADING WITHIN THE DEPICTED WORKSPACES IS BY CONTRACTOR.
6. EXISTING UTILITY DEPTHS WERE NOT PROVIDED BY NAY LOCATION SURVEY OR AS-BUILT DATA AND ARE ONLY APPROXIMATE.
7. EROSION AND SEDIMENT CONTROL IS NOT DEPICTED ON THE DRAWING.
8. ALL PERSONNEL AND EQUIPMENT SHALL REMAIN WITHIN THE PERMITTED LIMIT OF DISTURBANCE DEPICTED ON THIS DRAWING UNLESS OTHERWISE AUTHORIZED BY THE ENGINEER.
9. PROFILE IS SHOWN ON AN EXAGGERATED VERTICAL SCALE.
10. CONTRACTOR SHALL PROTECT OVERHEAD UTILITY WIRES WITH INSULATORS PRIOR TO HORIZONTAL DIRECTIONAL DRILLING OPERATIONS. IF UTILITY WIRES ARE IN CONFLICT WITH DRILLING WORK, CONTRACTOR SHALL COORDINATE WITH ALL APPROPRIATE UTILITIES TO RELOCATE POLES AND WIRES.
11. CONTRACTOR IS RESPONSIBLE FOR TRAFFIC PLAN AND SHALL COORDINATE DETOURING AND/OR LANE CLOSURE WITH POLICE DETAILS, FIRE DEPARTMENT, AND SCHOOL DEPARTMENT.
12. THE ENTRANCE/EXIT LOCATIONS AND ANGLES SHOWN ARE FOR INFORMATIONAL PURPOSES. DRILLING CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING ENTRANCE POINTS AND ACTUAL ANGLES BASED ON SITE CONDITIONS, DRILLING CONDITIONS AND OTHER APPLICABLE FACTORS.
13. PIPE BENDING RADIUS MAY VARY FROM THAT SHOWN BASED ON DRILLING AND INSTALLATIONS REQUIREMENTS. BENDING RADIUS SHALL NOT EXCEED A VALUE OF 100 X PIPE DIAMETER.
14. ALL WORK AND MATERIALS (INCLUDING HDPE PIPE, DUCTILE IRON PIPE, FITTINGS, BENDS, RESTRAINTS, AND OTHER APPURTANCES) SHOWN WITHIN THE LIMIT OF HDD WORK, OR AS DESCRIBED IN THE SPECIFICATIONS, ARE INCLUDED UNDER HORIZONTAL DIRECTIONAL DRILLING PAY ITEM. ALL WORK OUTSIDE HDD LIMIT OF WORK TO BE PAID FOR UNDER APPLICABLE PAY ITEM.



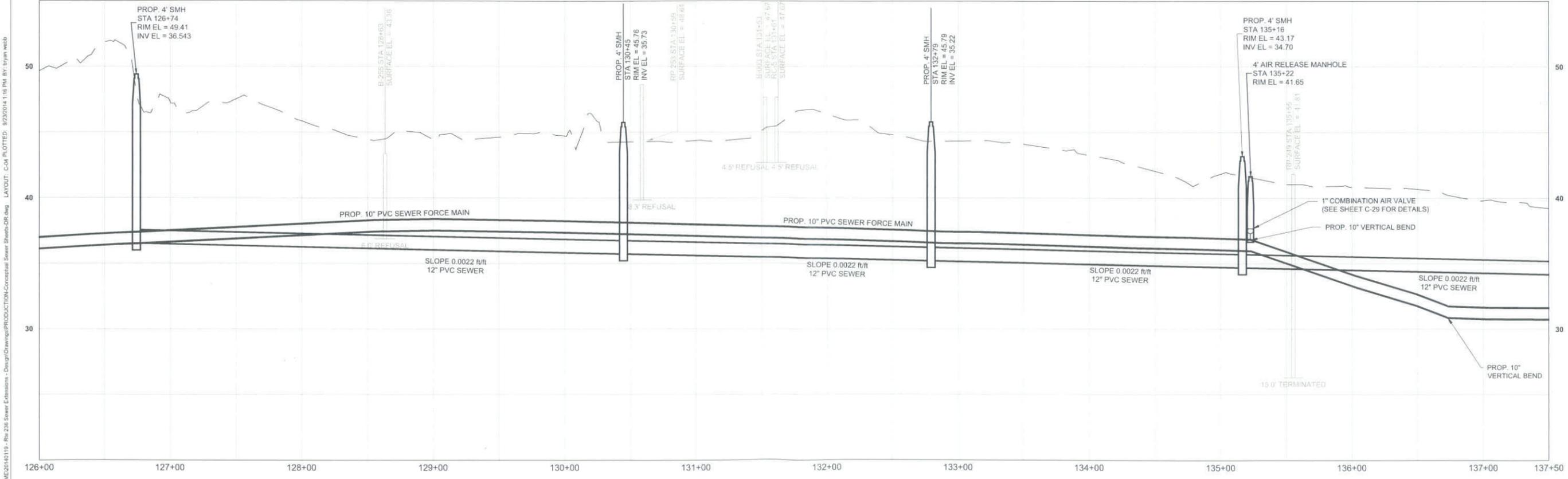

DATE	JUNE 2014
PROJECT NO.	20140719
DRAWN BY	MBS
CHECKED BY	MCC
FILE NAME	PRODUCTION-Key Plan

REVISIONS

PLOTTED: 9/23/2014 11:16 PM BY: Bryan Webb



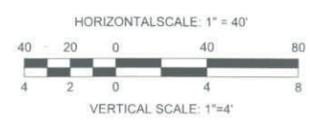
PLAN  
SCALE: 1" = 40'



PROFILE  
HORIZONTAL SCALE: 1"=40'  
VERTICAL SCALE: 1"=4'

**EASEMENT LEGEND:**

- PROP. PERMANENT EASEMENT
- - - PROP. TEMPORARY EASEMENT
- PL — EXIST. PROPERTY LINE
- - - 25' WETLAND BUFFER



**KLEINFELDER**  
Bright People. Right Solutions.

DATE	JUNE 2014
PROJECT NO.	20140119
DRAWN BY	MBS
CHECKED BY	MCC
FILE NAME	PRODUCTION-Conceptual Sewer Sheets-DR

CROSS COUNTRY SEWER PLAN AND PROFILE  
STA. 126+50 TO STA. 137+00

TOWN OF KITTERY, MAINE  
ROUTE 236 SEWER EXTENSION PROJECT

REVISIONS

SHEET

C-04

PLOTTED: 9/23/2014 1:39 PM BY: Bryan Webb

CAD FILE: G:\\_client\kittery\_ME20140119 - Rte 236 Sewer Extension - Design\Drawings\PRODUCTION-Conceptual Sewer Sheets-DR.dwg LAYOUT: C-05 PLOTTED: 9/23/2014 1:39 PM BY: Bryan Webb

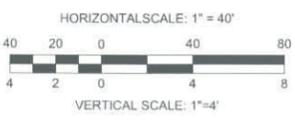
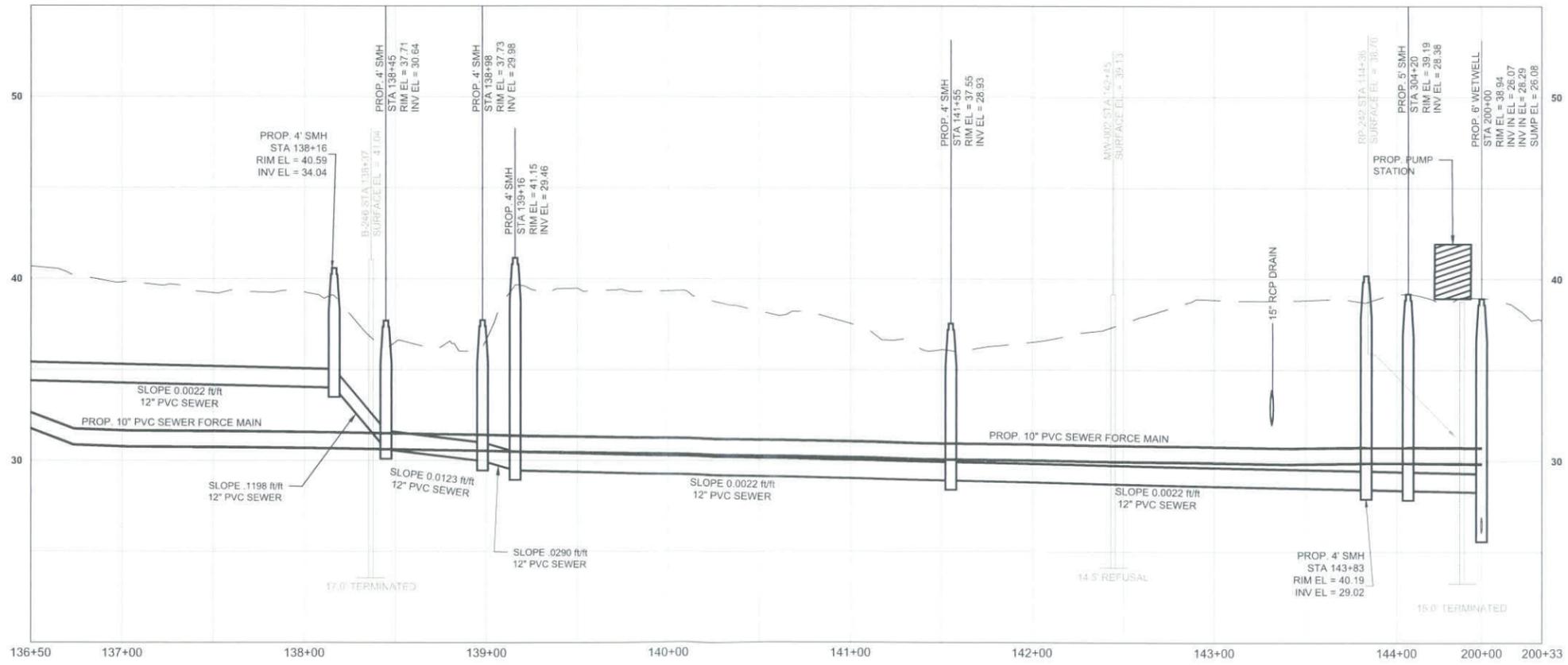
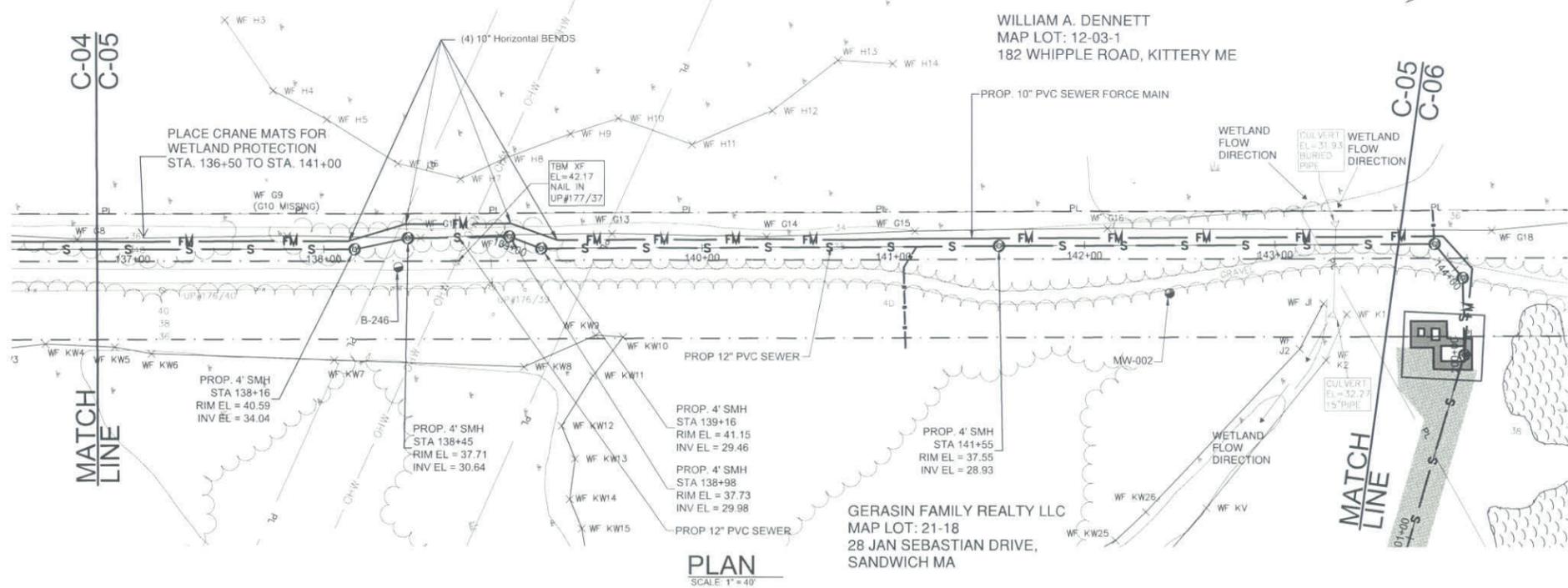
# CROSS COUNTRY

WILLIAM A. DENNETT  
MAP LOT: 12-03-1  
182 WHIPPLE ROAD, KITTERY ME

GERASIN FAMILY REALTY LLC  
MAP LOT: 21-18  
28 JAN SEBASTIAN DRIVE,  
SANDWICH MA

### WETLAND ALTERATION NOTES:

1. TOTAL ALTERATION OF WETLANDS TO BE AFFECTED BY THE PROPOSED SEWER INSTALLATION IS APPROXIMATELY 13,860 SQ. FT.
2. TEMPORARY IMPACT TO THE WETLAND BY PLACEMENT OF TRUCK AND CRANE MATS IS APPROX. 12,080 SQ. FT.
3. IMPACT TO WETLAND BY TRENCHING FOR SEWER INSTALLATION IS APPROX. 1,780 SQ. FT.
4. NO FILL TO BE USED TO FOR TRENCH WORK.
5. NO SOIL DISPOSAL OF SPOIL AREA. WETLANDS WILL BE RESTORED SO ALL VEGETATION MATERIAL WILL BE SEPERATELY STORED.



EASEMENT LEGEND:	
—	PROP. PERMANENT EASEMENT
- - -	PROP. TEMPORARY EASEMENT
PL	EXIST. PROPERTY LINE
- - -	25' WETLAND BUFFER

**WETLAND ALTERATION REVIEW**

DATE: JUNE 2014		PROJECT NO.: 20140119		DRAWN BY: MBS		CHECKED BY: MCC		FILE NAME: PRODUCTION-Conceptual Sewer Sheets-DR		REVISIONS:	
CROSS COUNTRY SEWER PLAN AND PROFILE STA. 137+00 TO STA. 143+75											
TOWN OF KITTERY, MAINE ROUTE 236 SEWER EXTENSION PROJECT											
SHEET: C-05											





September 29, 2014

Mr. Jay Clement  
US Army Corps of Engineers  
New England Division  
Maine Project Office  
675 Western Avenue, #3  
Manchester, Maine 04351

RE: Kittery Sewer Extension Category 1 Notification  
Kleinfelder Project No.: 20140119.007

Dear Mr. Clement:

The Town of Kittery is proposing to provide public sewer in areas not currently serviced (topographic map is attached). The project will be funded by the Clean Water State Revolving Fund (SRF). The MaineDEP SRF program requested that tribal contact be made in addition to state and federal consultation that has taken place to date. Kleinfelder, on behalf of the Town of Kittery, has sent letters to tribes listed in the back of the General Permit. A copy of the letter as well as a list of the agencies consulted with to date is included in this package.

The new installation includes 16,250 feet of new gravity sewer, three new wastewater pumping stations, and 7,200 feet of force main along Route 236, Martin Road, Dana Road, Stevenson Road, Manson Road, and within a Central Maine Power (CMP) easement. Within the CMP easement is an existing 25' sewer easement which this project will utilize. Installation of the force main at Route 236, Martin Road, Dana Road, Stevenson Road, and Manson Road will take place within the right of way. Total wetland impact is 13,860 SF and is limited to within the CMP corridor.

Wetlands delineation occurred in Fall 2013 by Jones Associates. A potential vernal pool (PVP) will be minimally temporarily impacted during the course of the construction. The temporary impact to the vernal pool habitat will be minimal excavation of trench in the slope at for approximately 100' to place and connect pipe. Construction in this area will comply with applicable State of Maine General Permit General Conditions most notably General Condition 28: Protection of Vernal Pools, Condition 19: Work Site Restoration, and General Condition 21: Sedimentation and Erosion Control. Placement of construction vehicles will be restricted to an elevated gravel surface outside the vernal pool depression. Construction will not occur in this location between March 20 and June 20. Total impact in this area: 1,780 SF.

Another wetland will be temporarily impacted by crane mats which will be laid over the wetland for construction vehicles to pass over. Construction in this area will follow applicable General Conditions. Total impact in this area: 12,080 SF.

There is no practicable alternative to the minimal temporary impact to wetlands due to the restrictions of the 25' easement and CMP's requirements that the project remain outside its easement as well as the pipes placed at least 30' away from poles<sup>1</sup>. All effort to avoid and minimize impacts has been taken.

Sincerely,

**KLEINFELDER**

Kate Willis  
Architectural Historian/Environmental Permitting and Planning

cc: George Kathios, Superintendent of Sewer Services, Town of Kittery  
File

encl: ACOE Category 1 Notification Form  
Topographical Map with Project Location  
Permit By Rule Application package  
Copy of Tribal Notification  
List of Consulted Agencies

---

<sup>1</sup> Maintaining 30' while minimizing impact to the PVP is not feasible in this location and CMP has agreed to a 12'-15' from pole to pipe buffer.



**US Army Corps  
of Engineers**<sup>®</sup>  
New England District

**Appendix B: Category 1 Notification Form**  
(for all Inland and Navigable Water Projects  
in Maine subject to Corps jurisdiction)

Two (2) weeks **before** work commences, submit this to the following mailing address or complete the form at [www.nae.usace.army.mil/reg](http://www.nae.usace.army.mil/reg), "State General Permits," "Maine." Call (207) 623-8367 with any questions.

Maine Project Office  
U.S. Army Corps of Engineers  
New England District  
675 Western Avenue #3  
Manchester, Maine 04351

State Permit Number: \_\_\_\_\_  
Date of State Permit: \_\_\_\_\_  
State Project Manager: \_\_\_\_\_

Permittee: TOWN OF KITTERY, (KATE WILLIS, KLEINFELDER; AGENT)  
Address, City, State & Zip: 200 ROGERS RD, KITTERY ME 03409  
Phone(s) and Email: 207-626-4914, KWILLIS@KLEINFELDER.COM

Contractor: TO BE DETERMINED  
Address, City, State & Zip: \_\_\_\_\_  
Phone(s) and Email: \_\_\_\_\_

Consultant/Engineer/Designer: KLEINFELDER  
Address, City, State & Zip: 151 CAPITOL STREET, SUITE 2, AUGUSTA ME 04330  
Phone(s) and Email: 207-626-4914

Wetland/Vernal Pool Consultant: JONES ASSOCIATES  
Address, City, State & Zip: 280 POLAND ROAD, AUBURN ME 04210  
Phone(s) and Email: 207-998-5242, vjones@jonesai.com

Project Location/Description: OFF I-95, RT 236, MARTIN RD, DANA, RD, MANSON  
Address, City, State & Zip: KITTERY, MAINE 03409 (see attached topo)  
Latitude/Longitude Coordinates: 43.098/-70.754; 43.114/-70.743  
Waterway Name: VARIOUS WETLANDS  
Work Description: SEE ATTACHED DESCRIPTION

Provide any prior Corps permit numbers: \_\_\_\_\_  
Proposed Work Dates: Start: JAN 2015 (est) Finish: APRIL 2016 (EST)

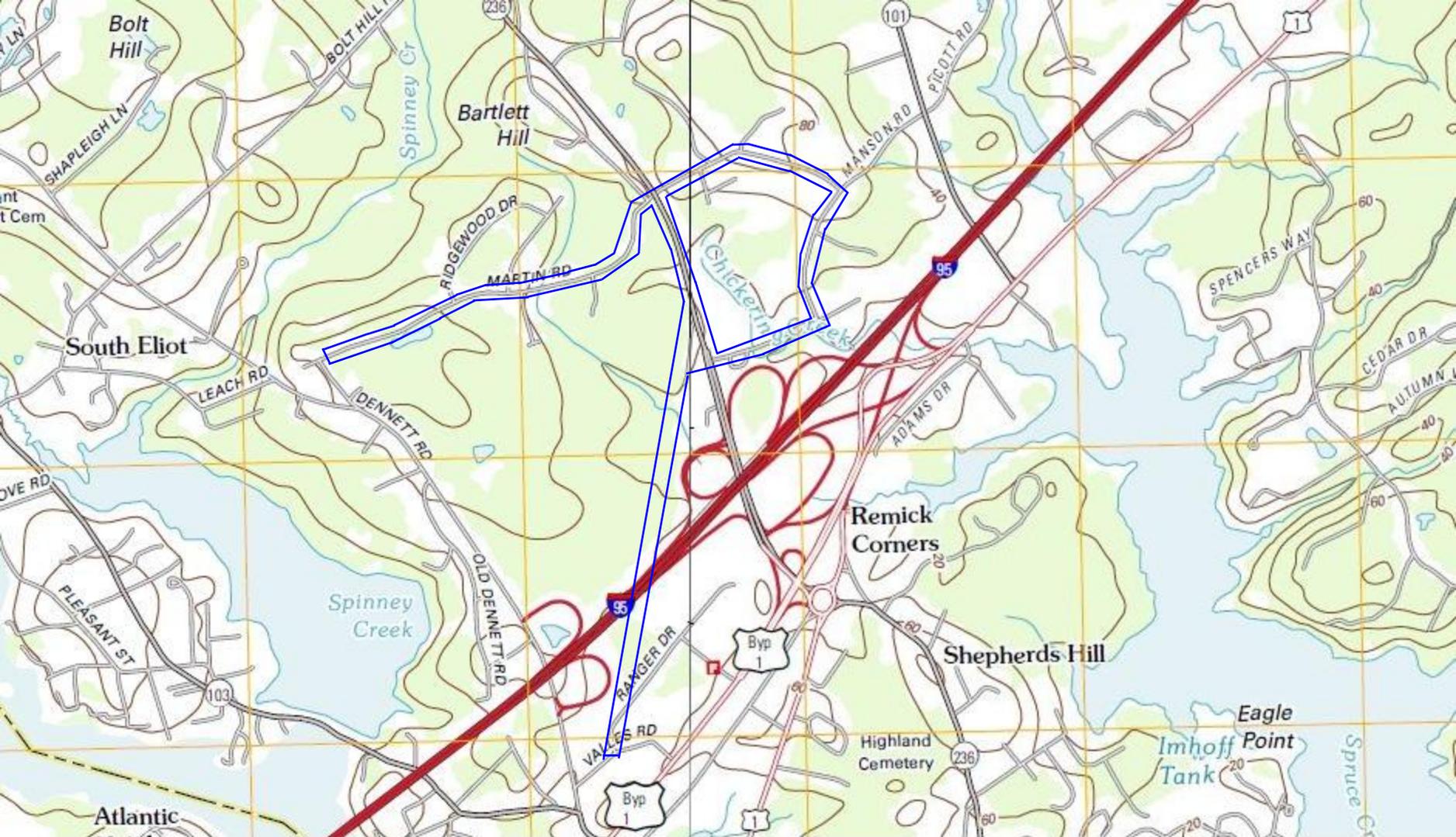
Area of wetland impact: 13860 SF (leave blank if work involves structures & no fill in Navigable Waters)  
Area of waterway impact: \_\_\_\_\_ SF (leave blank if work involves structures & no fill in Navigable Waters)  
Area of compensatory mitigation provided: \_\_\_\_\_ SF

Work will be done under the following Appendix A categories (circle all that apply):

- I. Inland Waters and wetlands:  a     b     c     d     e
- II. Navigable Waters:  a     b     c     d     e     f     g

Your name/signature below, as permittee, indicates that you accept and agree to comply with the terms, eligibility criteria, and general conditions of Category 1 of the Maine General Permit.

Permittee Printed Name: KATE WILLIS  
Permittee Signature: [Signature] Date: 9.26.14



## Kittery Sewer Extension Project Area

 Project Location



September 29, 2014

Mr. Michael Mullen  
Maine Department of Environmental Protection  
Bureau of Land and Water Quality  
17 State House Station  
Augusta, Maine 04333-0017

RE: Kittery Sewer Extension Permit By Rule  
Kleinfelder Project No.: 20140119.007

Dear Mr. Mullen:

The Town of Kittery is proposing to provide public sewer in areas not currently serviced (topographic map is attached). The new installation includes 16,250 feet of new gravity sewer, three new wastewater pumping stations, and 7,200 feet of force main along Route 236, Martin Road, Dana Road, Stevenson Road, Manson Road, and within a Central Maine Power (CMP) easement. Within the CMP easement is an existing 25' sewer easement which this project will utilize. Installation of the force main at Route 236, Martin Road, Dana Road, Stevenson Road, and Manson Road will take place within the right of way.

Wetlands delineation occurred in Fall 2013 by Jones Associates. As it pertains to this project, there is one wetland of special significance, a potential vernal pool (labelled G) (PVP), which will be minimally temporarily impacted during the course of the construction. The PVP is located at the intersection of two cross country transmission line corridors; both of which are actively mowed and subject to some clearing by CMP. The CMP corridor that holds the sewer easement is defined by an easily identified gravel path/roadway (Photos 1 & 3) with thin shrub and cover.

The temporary impact to the PVP habitat will be minimal excavation of trench in the slope at approximately Station 138+10 to Station 139+10. The trench will be opened to place and connect pipe. Placement of construction vehicles will be restricted to an elevated gravel surface outside the vernal pool depression. Vegetative material will be stored according to MaineDEP standards and will be restored upon completion. Additionally, construction in the area of wetland G will not take place between March 20 and June 20.

Photos of this area are attached. Please note that Photo 2 shows the potential pool in April but the pipe will not be located in the pool rather placed in an area slightly eclipsed by what was included in the frame when the photo was taken.

There is no practicable alternative to the minimal temporary impact in this area due to the restrictions of the 25' easement and CMP's requirement that this project remain outside its easement as well as the pipes placed at least 30' away from poles<sup>1</sup>. All effort to avoid and minimize impacts has been taken.

The project avoids impact to all other wetlands of special significance in the project boundaries. Additional wetlands of non-significance will be temporarily impacted. These wetlands are located within the CMP corridor and will be restored upon completion of construction in the wetland area. The construction specifications will include a copy of this permit and the standards for Section 9 – Utility Crossings and Section 19 – Activities in/on/over a significant vernal pool habitat.

Sincerely,

**KLEINFELDER**

Kate Willis  
Architectural Historian/Environmental Permitting and Planning

cc: George Kathios, Superintendent of Sewer Services, Town of Kittery  
File

encl: Permit By Rule Application with processing fee  
project boundaries on topographic map  
locus plan of wetlands impacts  
photos of potential vernal pool within growing season

---

<sup>1</sup> Maintaining 30' while minimizing impact to the PVP is not feasible in this location and CMP has agreed to a 12'-15' from pole to pipe buffer.

**DEPARTMENT OF ENVIRONMENTAL PROTECTION  
NRPA PERMIT BY RULE NOTIFICATION FORM**

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

PLEASE TYPE OR PRINT IN **BLACK INK ONLY**

Name of Applicant: (owner)		Name of Agent:	
Applicant Mailing Address:		Agent Phone # (include area code):	
Town/City:		PROJECT Information Name of Town/City:	
State and Zip code:		Name of Wetland or Waterbody:	
Daytime Phone # (include area code):		Map #:	Lot #:
Detailed Directions to Site:			
		UTM Northing: (if known)	UTM Easting: (if known)
Description of Project:			
Part of a larger project? (check one) →	<input type="checkbox"/> Yes <input type="checkbox"/> No	After the Fact? (check one) →	<input type="checkbox"/> Yes <input type="checkbox"/> No
Check one → This project <input type="checkbox"/> does (or) <input type="checkbox"/> does not involve work below mean low water (average low water).			

**NRPA PERMIT BY RULE (PBR) SECTIONS: (Check at least one)**

I am filing notice of my intent to carry out work which meets the requirements for Permit By Rule (PBR) under DEP Rules, Chapter 305. I and my agents, if any, **have read** and will comply with all of the standards in the Sections checked below.

- |   |   |  |
|---|---|--|
| <input type="checkbox"/> Sec. (2) Act. Adj. to Protected Natural Res. | <input type="checkbox"/> Sec. (10) Stream Crossing                                | <input type="checkbox"/> Sec. (17) Transfers/Permit Extension  |
| <input type="checkbox"/> Sec. (3) Intake Pipes                        | <input type="checkbox"/> Sec. (11) State Transportation Facil.                    | <input type="checkbox"/> Sec. (18) Maintenance Dredging  |
| <input type="checkbox"/> Sec. (4) Replacement of Structures           | <input type="checkbox"/> Sec. (12) Restoration of Natural Areas                   | <input type="checkbox"/> Sec. (19) Activities in/on/over significant vernal pool habitat   |
| <input type="checkbox"/> Sec. (5) REPEALED                            | <input type="checkbox"/> Sec. (13) F&W Creation/Enhance/Water Quality Improvement | <input type="checkbox"/> Sec. (20) Activities located in/on/over high or moderate value inland water-fowl & wading bird habitat or shore-bird feeding & roosting areas |
| <input type="checkbox"/> Sec. (6) Movement of Rocks or Vegetation     | <input type="checkbox"/> Sec. (14) REPEALED                                       |  |
| <input type="checkbox"/> Sec. (7) Outfall Pipes                       | <input type="checkbox"/> Sec. (15) Public Boat Ramps                              |  |
| <input type="checkbox"/> Sec. (8) Shoreline stabilization             | <input type="checkbox"/> Sec. (16) Coastal Sand Dune Projects                     |  |
| <input type="checkbox"/> Sec. (9) Utility Crossing                    |   |  |

**NOTIFICATION FORMS CANNOT BE ACCEPTED WITHOUT THE NECESSARY ATTACHMENTS:**

- Attach** a check for the correct fee, payable to: "Treasurer, State of Maine". The current fee for NRPA PBR Notifications can be found at the Department's website: <http://www.maine.gov/dep/feesched.pdf>
- Attach** a U.S.G.S. topo map or Maine Atlas & Gazetteer map with the project site clearly marked.
- Attach** Proof of Legal Name if applicant is a corporation, LLC, or other legal entity. Provide a copy of Secretary of State's registration information (available at <http://icrs.informe.org/nei-sos-icrs/ICRS?MainPage=x> ). Individuals and municipalities are **not** required to provide any proof of identity,
- Attach** photos of the proposed site where activity will take place as required in PBR Sections checked above.
- Attach** all other required submissions as outlined in the PBR Sections checked above.

I authorize staff of the Departments of Environmental Protection, Inland Fisheries & Wildlife, and Marine Resources to access the project site for the purpose of determining compliance with the rules. I also understand that **this permit is not valid until approved by the Department or 14 days after receipt by the Department, whichever is less.**

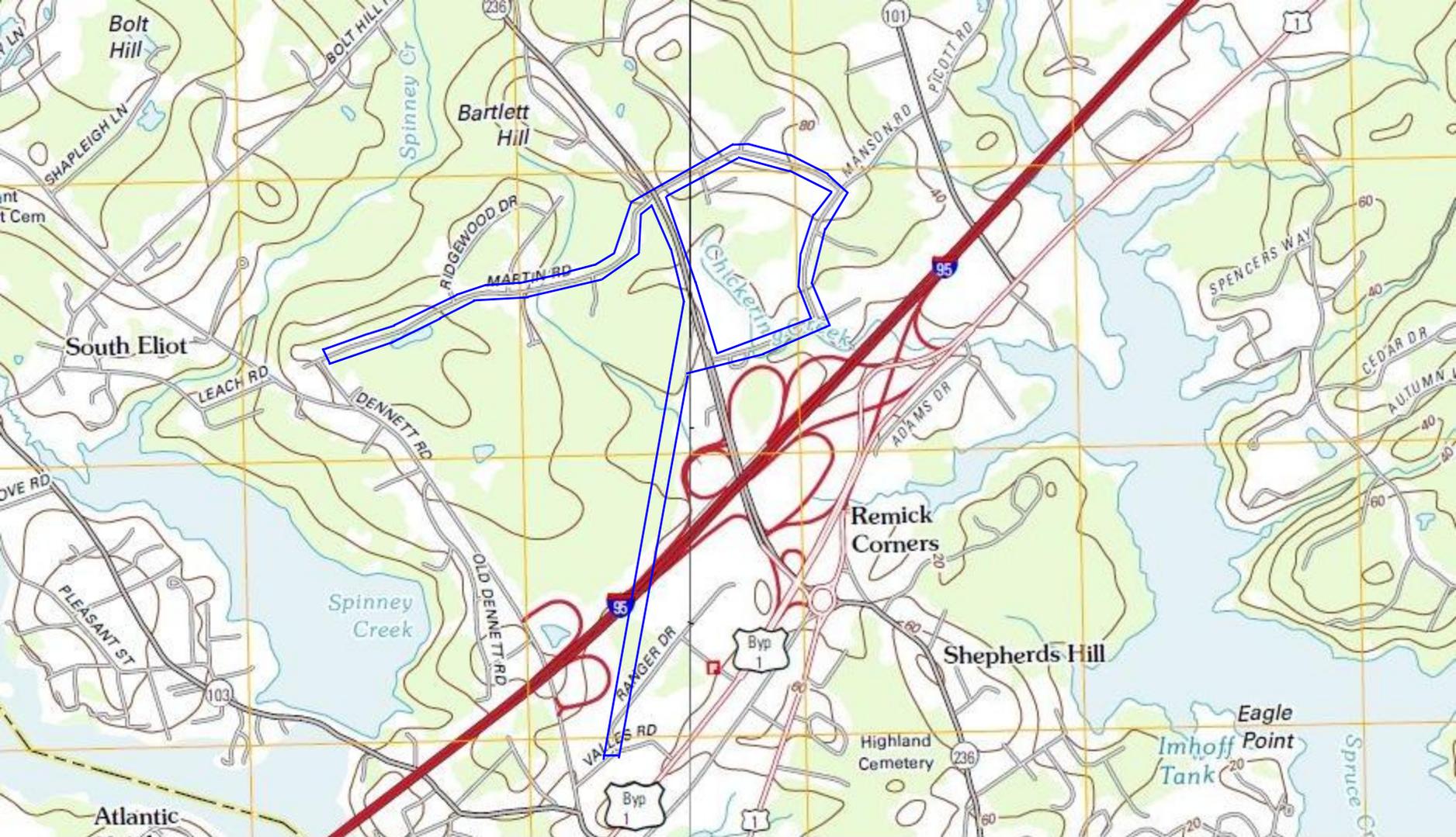
**By signing this Notification Form, I represent that the project meets all applicability requirements and standards in the rule and that the applicant has sufficient title, right, or interest in the property where the activity takes place.**

Signature of Agent or Applicant:		Date:	
----------------------------------	--	-------	--

Keep a copy as a record of permit. Send the form with attachments via certified mail or hand deliver to the Maine Dept. of Environmental Protection at the appropriate regional office listed below. The DEP will send a copy to the Town Office as evidence of the DEP's receipt of notification. No further authorization by DEP will be issued after receipt of notice. Permits are valid for two years. **Work carried out in violation of any standard is subject to enforcement action.**

- |  |   |   |   |
|--|---|---|---|
| AUGUSTA DEP<br>17 STATE HOUSE STATION<br>AUGUSTA, ME 04333-0017<br>(207)287-3901 | PORTLAND DEP<br>312 CANCO ROAD<br>PORTLAND, ME 04103<br>(207)822-6300 | BANGOR DEP<br>106 HOGAN ROAD<br>BANGOR, ME 04401<br>(207)941-4570 | PRESQUE ISLE DEP<br>1235 CENTRAL DRIVE<br>PRESQUE ISLE, ME 04769<br>(207)764-0477 |
|--|---|---|---|

OFFICE USE ONLY	Ck.#	Date	Staff	Staff	After Photos
PBR #	FP		Acc. Date	Def. Date	



## Kittery Sewer Extension Project Area

 Project Location

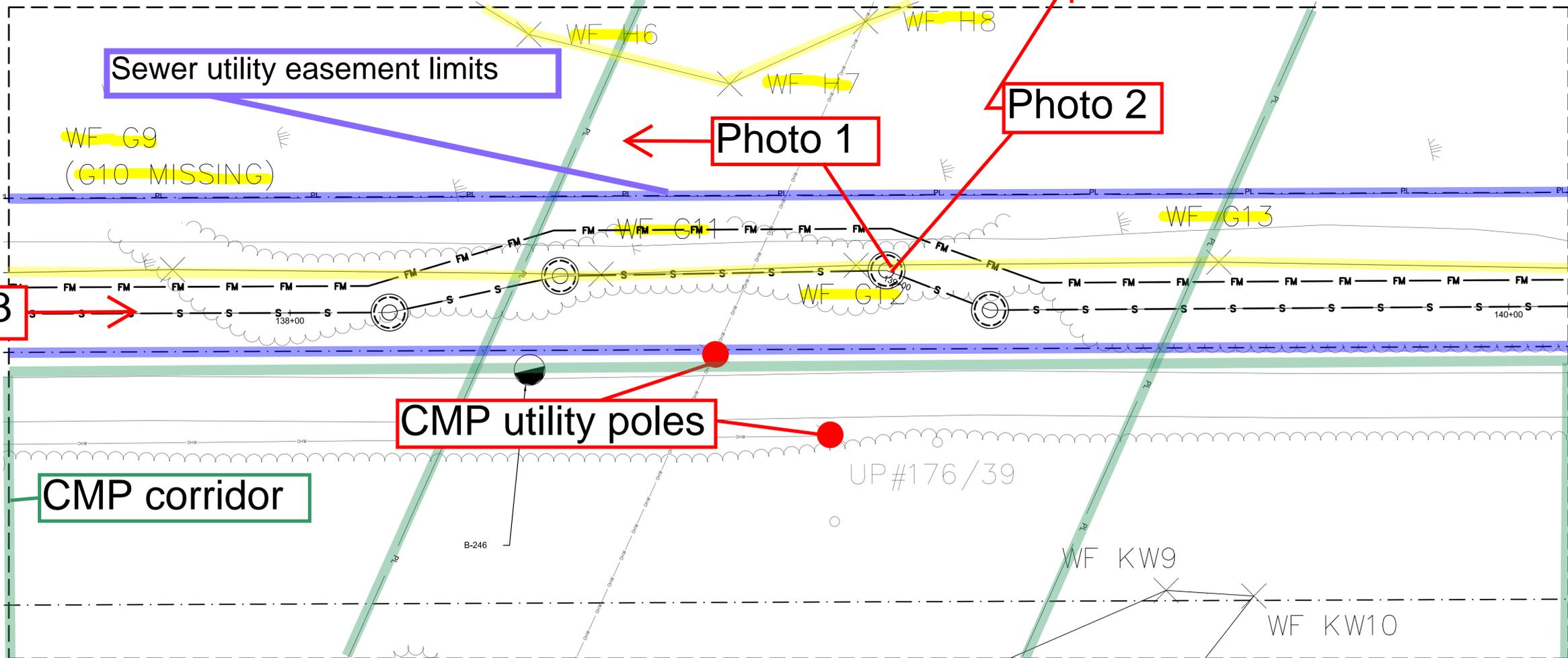
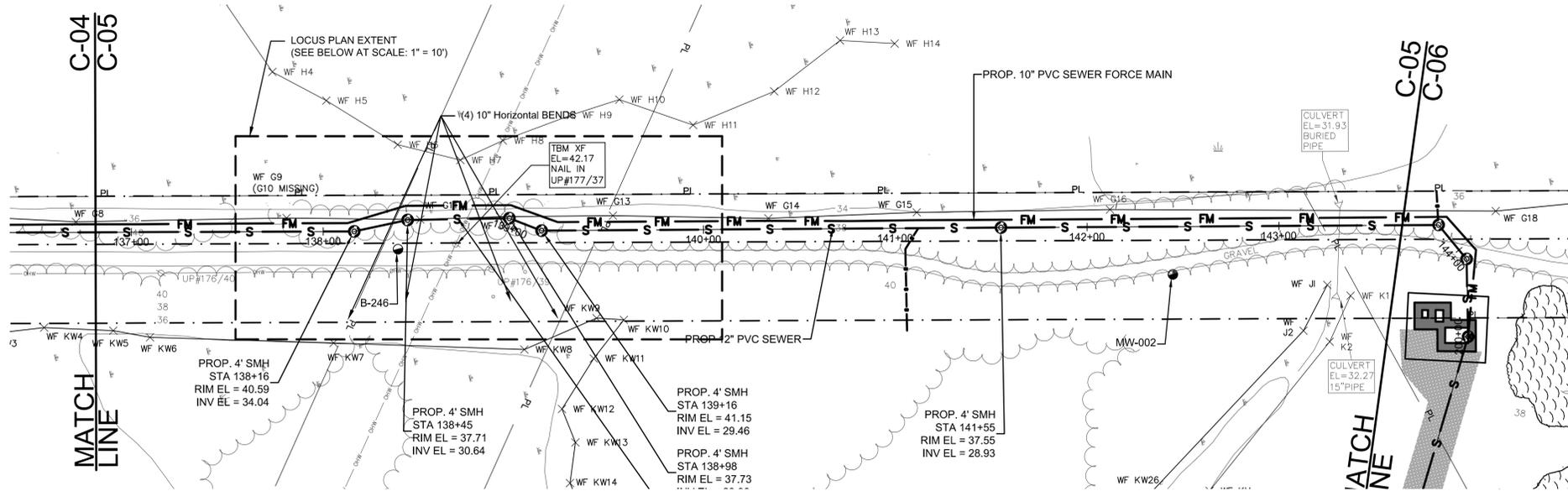
# CROSS COUNTRY

PLOTTED: 9/26/2014 11:10 AM BY: bryan webb

PLOTTED: 9/26/2014 11:10 AM BY: bryan webb

LAYOUT: C-05 (2)

CAD FILE: G:\clients\kerry\_ME20140119 - Rte 238 Sewer Extensions - Design\Drawings\WETLAND LOCUS PLAN C-05A.dwg



**Photo 3**

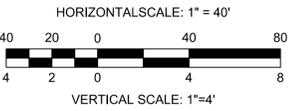
**Photo 1**

**Photo 2**

**Sewer utility easement limits**

**CMP utility poles**

**CMP corridor**



**EASEMENT LEGEND:**

—	PROP. PERMANENT EASEMENT
- - -	PROP. TEMPORARY EASEMENT
— PL —	EXIST. PROPERTY LINE
- - -	25' WETLAND BUFFER

**PLAN**  
SCALE: 1"=10'

**90% DESIGN**



NO.	DATE	DESCRIPTION

DATE	JUNE 2014
PROJECT NO.	20140119
DRAWN BY	MBS
CHECKED BY	MCC
FILE NAME	WETLAND LOCUS PLAN C-05A

CROSS COUNTRY SEWER PLAN AND PROFILE STA. 137+00 TO STA. 143+75	TOWN OF KITTERY, MAINE ROUTE 238 SEWER EXTENSION PROJECT
REVISIONS	
SHEET	
C-05A	

Photo 1; looking west towards intersecting transmission corridor. Station 139+00



Photo 2; looking north within CMP/sewer corridor. Station 136+00



Photo 3; looking south within CMP/sewer corridor. Station 139+00





September 26, 2014

<one sent to all tribes listed in the General Permit>

RE: Kittery Sewer Extension  
Kleinfelder Project No.: 20140119.007

The Town of Kittery is proposing to provide public sewer in areas not currently served. Kleinfelder is serving as the Town's agent.

The project will require new construction which will consist of opening trenches, placing pipe, and closing the trench. A topographic map of the project area is attached. Most work will take place within the roadway with the exception of a cross country section which will utilize a previously disturbed Central Maine Power utility easement. The project is subject to a US Army Corps of Engineers Section 404 Permit. At this time a Category 1 Notification form has been submitted to the Corps. The project will be funded by the Clean Water State Revolving Fund which is partially federally funded.

Please review and comment regarding effects to historic properties on tribal lands as well as significant religious and culturally historic properties. This is in accordance with the National Historic Preservation Act, National Environmental Policy Act, American Indian Religious Freedom Act, Native American Graves Protection and Repatriation Act, Archaeological Resources Protection Act, Executive Order 13007--Indian Sacred Sites, Executive Order 13175--Consultation and Coordination with Indian Tribal Governments, Executive Order 12898--Executive Order on Environmental Justice and the implementing regulations for these authorities.

The Maine Historic Preservation Commission has determined that there will be no historic properties affected by this project.

This work will require a permit from the US Army Corps of Engineers. Please address any comments to:

Jay Clement  
US Army Corps of Engineers  
675 Western Ave, #3  
Manchester, ME 04351  
(207) 623-8367  
email: Jay.L.Clement@USACE.army.mil

It would be appreciated if you would respond within 10 days. Thank you for your time and consideration.

Please do not hesitate to contact me with any question you may have regarding the scope of the project.

Sincerely,

**KLEINFELDER**

Kate Willis  
Architectural Historian/Environmental Planning and Permitting

cc: File  
encl: Project Topographic Map



**Agencies Consulted as part of SRF application process:**

Maine Historic Preservation Commission  
Maine Inland Fisheries & Wildlife  
Maine Natural Areas Program  
US Fish & Wildlife Maine Field Office  
USDA – Maine  
Maine Department of Health & Human Services  
MaineDEP – Clean Air Program  
Maine Flood Plain Management Program

# JONES ASSOCIATES

Foresters, Surveyors and  
Environmental Consultants



## WETLAND REPORT

### Kittery Sewer Expansion

Prepared for:

Kleinfelder

151 Capitol Street, Suite 2

Augusta, ME 04330

Prepared by:

Jones Associates, Inc.

63 Tucker Lane

Poland Spring, Maine 04274

(207) 998-5242

JAI#: 13-053KI

October 2013

**TABLE OF CONTENTS**

**INTRODUCTION.....2**

**EXISTING CONDITIONS .....3**

**WETLAND CHARACTERISTICS.....4**

**TABLE 1: SUMMARY OF WETLANDS IDENTIFIED.....8**

**PRELIMINARY VERNAL POOL INVESTIGATION .....9**

**RARE OR UNUSUAL FEATURES.....10**

**WETLAND RULES AND INFORMATION .....11**

**WETLAND DELINEATION CHECKLIST.....15**

**ATTACHMENT 1: U.S. ACOE WETLAND DATASHEETS.....18**

## **INTRODUCTION**

Jones Associates, Inc. was contracted to provide wetland delineation services for the Kittery Sewer Expansion Project area in Kittery, Maine. The area delineated is located on road and utility easements in Kittery. The following report summarizes site conditions observed during site visits in October.

Wetland/upland boundaries were identified and delineated according to U.S. Army Corps of Engineers (ACOE) Wetlands Delineation Manual (Environmental Laboratory 1987) and the Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region, October 2009. Wetlands were identified based on the presence of hydric soil (inundated or saturated soil conditions resulting from permanent or periodic inundation by ground water or surface water), hydrology (movement and distribution of water), and predominance of hydrophytic species (Hydrophytes: vegetation typically adapted for life in saturated soil conditions).

Wetland delineation consists of transecting the property, examining periodic soil samples, observing any evidence of hydrology and assessing each stratum of vegetation for its percentage of hydrophytic species. If all three factors were evident, the study plot was considered wetland habitat. Transitions between upland and wetland were clearly marked with blue sub-zero flagging every 30-40 feet, and labeled with alphanumeric codes to identify individual systems (A1, A2, A3....).

Wetland flags were sketched by Jones Associates, Inc. (JAI) using Trimble Global Positioning System (GPS) technology and were located with survey equipment by Kleinfelder. Surveying, which is recognized by both state and federal agencies.

## EXISTING CONDITIONS

The investigation area follows road and utility easements north northeast from the sewer treatment plant connecting to a loop composed of the streets: Route 236, Stevenson Road, Manson Road and Dana Avenue. Martin Road and Patten Place were also investigated. Drainage of the site is southwesterly into the brackish portion of the Piscataqua River, which drains into Gulf of Maine.

The area of interest is mixed-use with forests, wetlands, and fields within residential, utility, and commercial areas. Wetlands are found in geographic depressions where the landscape is concave, converging hydrologic flow. The topography is rolling with extensive flat depressions in some areas. Much of the land has experienced disturbance in the past. Soil disturbance includes fill for building lots and the old railroad grade now used as a utility corridor. Hydrologic disturbance includes impounded wetlands caused by fill, excavation, ditches, and unmaintained culverts. Skidder tracks and signs of logging were observed on the utility corridor. These heavy machines compact soils and influenced hydrology.

The upland species include red oak (*Quercus rubra*) and eastern white pine (*Pinus strobus*) and a mixture of hardwoods and softwood including, red maple (*Acer rubrum*), American beech (*Fagus grandifolia*), white ash (*Fraxinus americana*), balsam fir (*Abies balsamea*), and white birch (*Betula papyrifera*). The upland understory is dominated by saplings of the same species as well as a light herbaceous layer including prickly dewberry (*Rubus flagellaris*), Wintergreen (*Gaultheria procumbens*), Canada mayflower (*Maianthemum canadense*), and starflower (*Trientalis borealis*).

The forested and shrub/scrub wetlands species include red maple and American elm (*Ulmus americana*) with speckled alder (*Alnus incana-rugosa*), black willow (*Salix nigra*), sensitive fern (*Onoclea sensibilis*), New York fern (*Parathelypteris noveboracensis*), and sphagnum moss (*Sphagnum spp.*). The invasive species multiflora rose (*Rosa multiflora*) is pervasively dominant. Honeysuckle (*Lonicera spp.*), Japanese knotweed (*Fallopia japonica*), Japanese barberry (*Berberis thunbergii*) and Asiatic bittersweet (*Celastrus orbiculatus*) were also found in great abundance.

## WETLAND CHARACTERISTICS

*The term "wetlands" means those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.*

--Corps of Engineers Wetlands Delineation Manual (U.S. Army Corps of Engineers 1987)

The following wetland types were observed along the corridors: R3UB1, R3UB2, R3UB3, PFO1E, PSS1E, and PEM1F (See summary of wetlands identified). In the riverine system only upper perennial and intermittent subsystems were observed. The substrate is mostly cobble, gravel and sand with a few vegetated intermittent streams. The forested palustrine systems include the seasonally flooded/saturated broad-leafed deciduous, needle-leafed deciduous and needle-leafed evergreen subclasses. The shrub/scrub palustrine system is limited to the seasonally flooded/saturated broad-leafed deciduous subclass. The emergent palustrine system has a persistent subclass that has continuous saturation and seasonal flooding/saturation.

Perennial rivers have channel with defined banks. A channel is created by surface water action. Two of the following five characteristics are needed to consider the area a perennial stream:

*A. It is depicted as a solid or broken blue line on the most recent edition of the U.S. Geological Survey 7.5-minute series topographic map or, if that is not available, a 15-minute series topographic map. [1995, c. 92, §2 (NEW).]*

*B. It contains or is known to contain flowing water continuously for a period of at least 6 months of the year in most years. [2001, c. 618, §1 (AMD).]*

*C. The channel bed is primarily composed of mineral material such as sand and gravel, parent material or bedrock that has been deposited or scoured by water. [1995, c. 92, §2 (NEW).]*

*D. The channel contains aquatic animals such as fish, aquatic insects or mollusks in the water or, if no surface water is present, within the stream bed. [1995, c. 92, §2(NEW).]*

*E. The channel contains aquatic vegetation and is essentially devoid of upland vegetation. [1995, c. 92, §2 (NEW).]*

*"River, stream or brook" does not mean a ditch or other drainage way constructed, or constructed and maintained, solely for the purpose of draining storm water or a grassy swale.*

These streams often have wetlands associated with their floodplains that are flooded or seasonally saturated. Wetland hydrology indicators include surface water, high water table, saturated soil, water stained leaves, drainage patterns, reduced iron, and geomorphic position. These wetlands are generally dominated by red maple, white ash, American elm with speckled alder in the understory and sensitive fern, reed canarygrass, and meadowsweet dominating the herbaceous layer. Buttressing and shallow rooting is a common characteristic of the tree stratum. Soils include gleyed and depleted hydric soil indicators.

Forested palustrine wetlands are found in landscape depressions with little slope and a poorly draining soil. These systems are flooded or saturated seasonally. Wetland hydrology indicators include surface water, high water table, saturated soil, reduced iron, microtopographic relief, stunted or stressed plants and geomorphic position. These wetlands are generally dominated by red maple, white ash, and American elm with eastern white pine and eastern hemlock sometimes present along the margins of the wetland. A few wetlands are dominated by the deciduous conifer tamarack (*Larix laricina*). The understory is dominated by speckled alder with sensitive fern, cinnamon fern (*Osmunda cinnamomea*) and New York fern (*Thelypteris noveboracensis*) dominating the herbaceous layer. Buttressing and shallow rooting is a common characteristic of the tree stratum. Hydric soil indicators include depleted matrix.

Shrub/scrub palustrine wetlands are found in landscape depressions with little slope and a poorly to very poorly draining soil. These systems are flooded or saturated seasonally. Wetland hydrology indicators include surface water, high water table, saturated soil, reduced iron, microtopographic relief, stunted or stressed plants and geomorphic position. These wetlands are generally dominated by red maple, speckled alder, winterberry holly (*Ilex verticillata*) with sensitive fern, reed canarygrass and sedge (*Carex spp.*) dominating the herbaceous layer.

Buttressing and shallow rooting is a common characteristic of any trees found within this wetland type. Hydric soil indicators include depleted matrix.

Emergent marsh palustrine wetlands are found in landscape depressions with very little slope and very poorly draining soil. These systems are flooded or saturated seasonally and may have portions of permanently open water. Wetland hydrology indicators include surface water, high water table, saturated soil, reduced iron, drainage patterns, fibric soils, stunted or stressed plants and geomorphic position. These wetlands are generally dominated by cattails (*Typha spp.*), reed canarygrass and sedge (*Carex spp.*) with small patches of speckled alder. Hydric soil indicators include histic epipedon and black histic.

Wetlands of special significance were found throughout the area of interest. As stated in the wetland rules and information section of this report the State of Maine has eight defined wetlands special significance. The following characteristics were observed that indicate wetlands of special significance along these corridors:

1. *River, stream or brook. The freshwater wetland area is located within 25 feet of a river, stream or brook.*

Refer to the two wetland tables provided with this wetland report. All wetland types that have the Code "R3" are perennial streams. The wetlands located within 25 feet of these streams are defined as wetlands of special significance.

2. *Wetlands subject to flooding. The freshwater wetland area is inundated with floodwater during a 100-year flood event based on flood insurance maps produced by the Federal Emergency Management Agency or other site-specific information.*

100-year-flood zones are found on Chickering Creek and a few others but they do not increase the area of wetlands of special significance beyond what is defined in the first parameter mentioned.

3. *Aquatic vegetation, emergent marsh vegetation or open water. The freshwater wetland contains under normal circumstances at least 20,000 square feet of aquatic vegetation, emergent marsh vegetation or open water, unless the 20,000 or more square foot area is the result of an artificial ponds or impoundment.*

The two emergent marsh wetlands near Route 236 were identified under this WSS category.

4. *Significant wildlife habitat. The freshwater wetland contains significant wildlife habitat as defined by 38 M.R.S.A. section 480-B(10).*

There were no state identified DWA or IWWH within close proximity of the investigated area. Five potentially significant vernal pools (PVP) were identified.

**TABLE 1: SUMMARY OF WETLANDS IDENTIFIED**

Wetland ID	Wetland Classification	Reason for WSS Status	Comments
A	PSS1E		
B	PSS1E		
C	PSS1E		
D	PSS1E		
E	PSS1E		
F	PFO1E		
G	PSS1E	Contains PVP	PVP- Wetlands with significant wildlife habitat are considered WSS Wetlands with a FEMA floodplain and within 25 feet of streams are considered WSS
H	PSS1E		
I	PFO1E		
J	PSS1E/R3UB4	Contains stream	Wetlands with 25 feet of streams are considered WSS
KA	PFO1E/L2UB1	Contains PVP, Contains stream	PVP Wetlands with significant wildlife habitat are considered WSS, Wetlands with 25 feet of streams are considered WSS
KB	PFO1E		
KC	PSS1E	Contains PVP	PVP- Wetlands with significant wildlife habitat are considered WSS- off site
KD	PSS1E		
KE	PSS1E/R3UB4	Contains PVP, stream and floodplain	PVP- Wetlands with significant wildlife habitat are considered WSS. Wetlands with a FEMA floodplain and within 25 feet of streams are considered WSS
KF	PSS1E/R3UB4		Wetlands with a FEMA floodplain and within 25 feet of streams are considered WSS
KG	PEM1E/PFO1E		
KH	PSS1E		
KI	PSS1Edf		
KJ	PSS1E		
KK north	PSS1E/R3UB4	Contains stream	Wetlands with a FEMA floodplain and within 25 feet of streams are considered WSS
KK south	PSS1E/R3UB4	Contains stream	Wetlands with a FEMA floodplain and within 25 feet of streams are considered WSS
KM	PSS1E		
KN	PEM1F	Contains Emergent Marsh>20,000 sq ft	Wetlands with more than 20,000 sq ft of emergent marsh are considered WSS
KO	PSS1E		
KP	PEM1F	Contains Emergent Marsh>20,000 sq ft	Wetlands with more than 20,000 sq ft of emergent marsh are considered WSS
KT	PSS1E		
KU	PSS1E		
KV	PEM1F/R3UB4	Contains stream	Wetlands with 25 feet of streams are considered WSS
KW	PEM1F/R3UB4	Contains PVP & stream	PVP- Wetlands with significant wildlife habitat are considered WSS. Wetlands with 25 feet of streams are considered WSS
KX	PSS1E		
KY	PSS1E/R3UB4	Contains stream	Wetlands with 25 feet of streams are considered WSS
KZ	PSS1E		

### PRELIMINARY VERNAL POOL INVESTIGATION

Jones Associates Inc. was contracted to provide preliminary vernal pool investigation services of the Kittery Sewer Expansion project area in Kittery, Maine. Five areas were identified as potential vernal pool (VP) location. The following map shows the locations of these potential VPs.



## **RARE OR UNUSUAL FEATURES**

During our investigations of the above site, Jones Associates, Inc. did not observe any rare or unusual plant or animal species within the mapped wetland area. Portions of the area described in this report had been previously altered through clearing and excavation activities. The wetlands on this property were dominated by plant communities typical of this region of Maine.

## **WETLAND RULES AND INFORMATION**

### ***WETLANDS OF SPECIAL SIGNIFICANCE***

Maine's Department of Environmental Protection considers some wetlands to be of higher significance than others. These wetlands are referred to as Wetlands of Special Significance (WSS). In order to be considered a WSS they must have one or more of the following characteristics:

- (1) Critically imperiled or imperiled community. The freshwater wetland contains a natural community that is critically imperiled (S1) or imperiled (S2) as defined by the Natural Areas Program.
- (2) Significant wildlife habitat. The freshwater wetland contains significant wildlife habitat as defined by 38 M.R.S.A. § 480-B (10).
- (3) Location near coastal wetland. The freshwater wetland area is located within 250 feet of a coastal wetland.
- (4) Location near GPA great pond. The freshwater wetland area is located within 250 feet of the normal high water line, and within the same watershed, of any lake or pond classified as GPA under 38 M.R.S.A. § 465-A.
- (5) Aquatic vegetation, emergent marsh vegetation or open water. The freshwater wetland contains, under normal circumstances, at least 20,000 square feet of aquatic vegetation, emergent marsh vegetation or open water, unless the 20,000 or more square foot area is the result of an artificial pond or impoundment.
- (6) Wetlands subject to flooding. The freshwater wetland area is inundated with floodwater during a 100-year flood event based on flood insurance maps produced by the Federal Emergency Management Agency or other site-specific information.
- (7) Peatlands. The freshwater wetland is or contains peatlands, except that the department may determine that a previously mined peatland, or portion thereof, is not a wetland of special significance.
- (8) River, stream or brook. The freshwater wetland area is located within 25 feet of a river, stream or brook.

## ***STREAM CHANNELS***

According to Maine's Natural Resource Protection Act, Title 38, Article 5-A, Protection of Natural Resources, §480-B Definitions:

"River, stream or brook" means a channel between defined banks. A channel is created by the action of surface water and has two or more of the following characteristics:

- (1) It is depicted as a solid or broken blue line on the most recent edition of the U.S. Geological Survey 7.5-minute series topographic map or, if that is not available, a 15-minute series topographic map.
- (2) It contains or is known to contain flowing water continuously for a period of at least 6 months of the year in most years.
- (3) The channel bed is primarily composed of mineral material such as sand and gravel, parent material or bedrock that has been deposited or scoured by water.
- (4) The channel contains aquatic animals such as fish, aquatic insects or mollusks in the water or, if no surface water is present, within the stream bed.
- (5) The channel contains aquatic vegetation and is essentially devoid of upland vegetation.

"River, stream or brook" does not mean a ditch or other drainage way constructed, or constructed and maintained, solely for the purpose of draining storm water or a grassy swale.

## ***VERNAL POOLS***

As defined by Maine's Department of Environmental Protection (MDEP): A vernal pool, also referred to as a seasonal forest pool, is a natural, temporary to semi-permanent body of water occurring in a shallow depression that typically fills during the spring or fall and may dry during the summer. Vernal pools have no permanent inlet and no viable populations of predatory fish. A vernal pool may provide the primary breeding habitat for wood frogs (*Rana sylvatica*), spotted salamanders (*Ambystoma maculatum*), blue-spotted salamanders (*Ambystoma laterale*), and fairy shrimp (*Eubranchipus spp.*), as well as valuable habitat for other plants and wildlife, including several rare, threatened, and endangered species. A vernal pool intentionally created for the purposes of compensatory mitigation is included in this definition.

As of September 1, 2007, "Significant Vernal Pools" are defined by MDEP as "Significant Wildlife Habitat." As read in MDEP's Chapter 335 -- Significant Wildlife Habitat Rules, "Whether a vernal pool is a significant vernal pool is determined by the number and type

of pool-breeding amphibian egg masses in a pool, or the presence of fairy shrimp, or use by threatened or endangered species as specified in Section 9(B). Significant vernal pool habitat consists of a vernal pool depression and a portion of the critical terrestrial habitat within a 250 foot radius of the spring or fall high water mark of the depression. An activity that takes place in, on, over, or adjacent to a significant vernal pool habitat must meet the standards of this chapter.”

**Species and abundance criteria required for Significant Vernal Pools.**

Species	Abundance Criteria
Fairy shrimp	Presence in any life stage.
Blue spotted salamanders	Presence of 10 or more egg masses.
Spotted salamanders	Presence of 20 or more egg masses.
Wood frogs	Presence of 40 or more egg masses.

**MDEP habitat management standards for significant vernal pools:** To the greatest extent practicable, the following management practices must be followed within significant vernal pool habitat.

- (1) No disturbance within the vernal pool depression;
- (2) Maintain a minimum of 75% of the critical terrestrial habitat as unfragmented forest with at least a partly-closed canopy of overstory trees to provide shade, deep litter and woody debris.
- (3) Maintain or restore forest corridors connecting wetlands and significant vernal pools;
- (4) Minimize forest floor disturbance; and
- (5) Maintain native understory vegetation and downed woody debris.

If more than 25% of the critical terrestrial habitat has been previously developed, restoring a portion of that area through supplemental planting or regrowth of native forest species may be considered toward meeting these standards, or towards standards for avoidance, minimization, or compensation. For purposes of Chapter 355, developed area includes disturbed areas excluding areas that are returned to a condition with the same drainage patterns and the same or improved cover type that existed prior to the disturbance;

Currently, Army Corps of Engineers (ACOE) regulate vernal pools but do not have specific characteristics that define a vernal pool, or a definition of which vernal pools require

protection or buffering. They review each site on a case by case basis. ACOE's jurisdiction does not begin until the waters of the United States are impacted.



**WETLAND DELINEATION CHECKLIST**

Job #:	13-053KI	Map/Lot:	N/A	Acreage:	N/A
Client:	Kleinfelder				
Site Address:	Sewage Treatment Plant on Dennet Rd in Kittery, ME				

Wetland Scientist:	Kyle Ball
Date of Office Review:	10/22/2013
Date(s) of Field Delineation:	10/9/2013, 10/14/2013, 10/17/2013

**Wetlands of Special Significance**

Yes	No	
	X	Does the on site or immediately adjacent wetland contain a mapped and numbered DWA?
	X	Does the on site or immediately adjacent wetland contain an Inland Waterfowl Wading Bird Habitat?
X		Does the on site or immediately adjacent wetland contain a potential significant vernal pool?
X		Does the recent aerial photos of the on site or immediately adjacent wetland show or are there any open water or emergent wetlands with areas greater than 20,000 sq. ft.?
X		Does the on site or immediately adjacent wetland contain a 100 year flood plain?
	X	Does the on site or immediately adjacent wetland contain a S1 or S2 community?
X		Does the on site or immediately adjacent wetland contain a significant wildlife habitat?
	X	Is the on site wetland within 250' of a coastal wetland?
	X	Is the on site wetland within 250' of a great pond?
	X	Does the site contain peatlands?

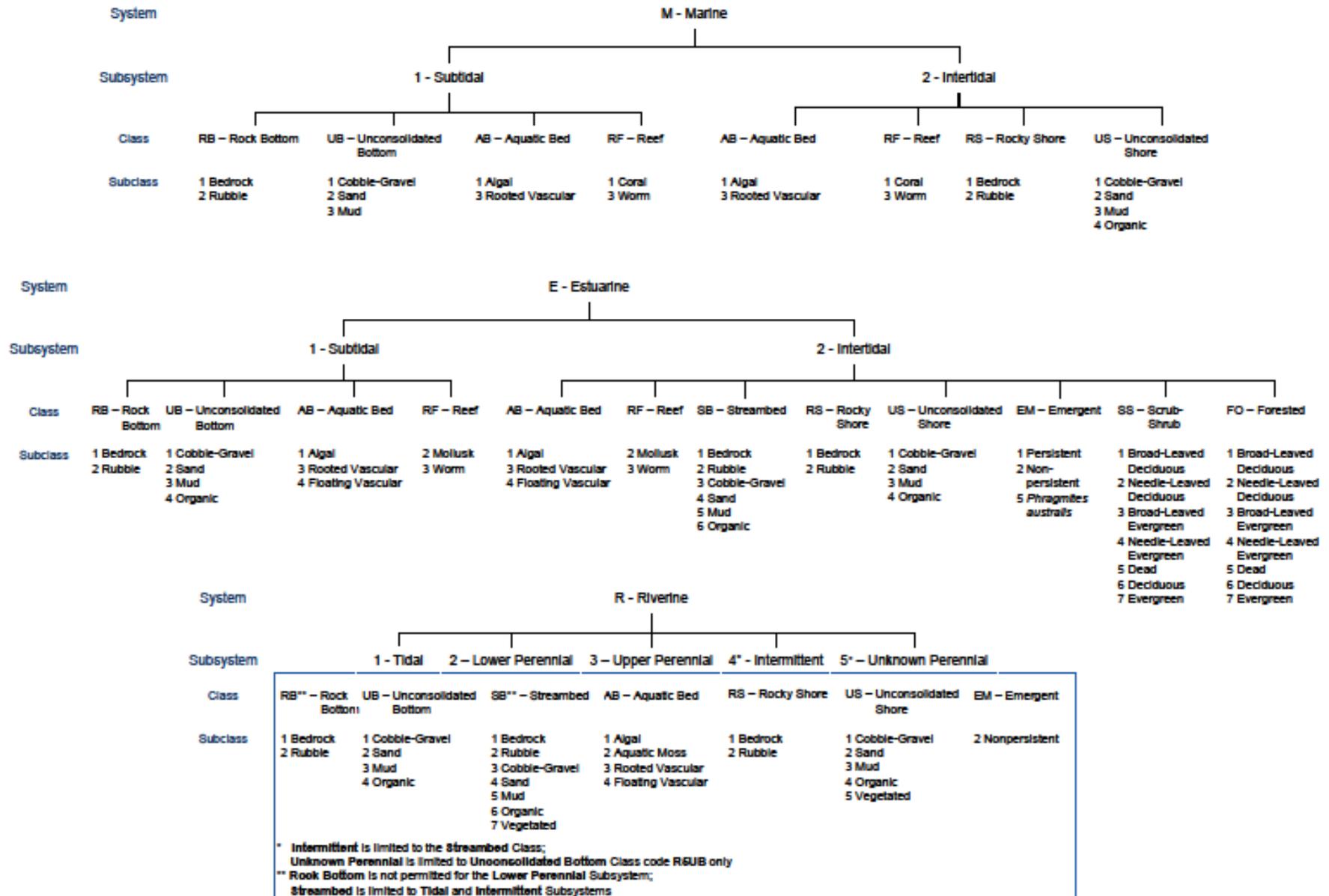
**Stormwater Qualifications**

	X	Is the site in the watershed of a Great Pond or Impaired stream?
	X	Is the site in a lake watershed?
	X	Is the site in a watershed most at risk?

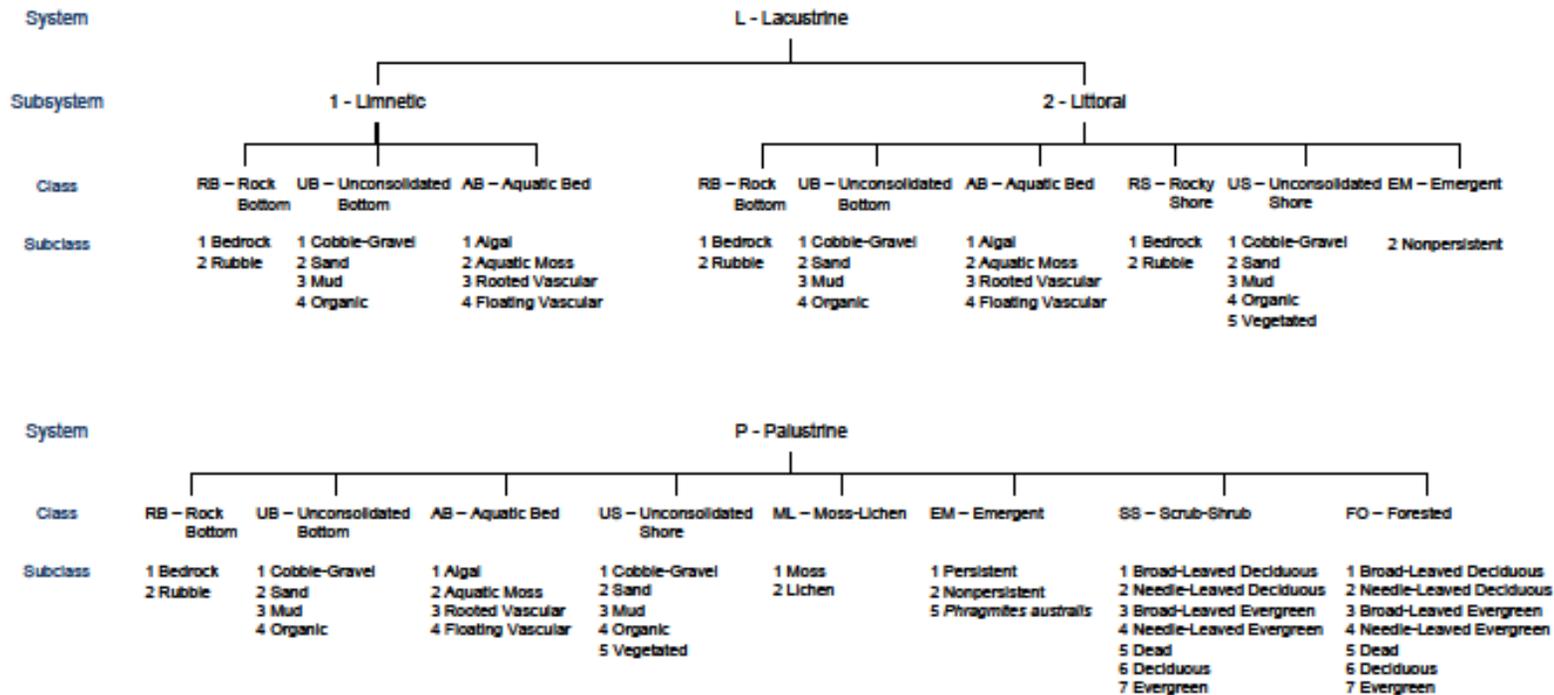
Additional Comments:

FEMA flood zone firmette IDs: 2301710004C, 2301710007C  
Potential vernal pools require further investigation to identify significance

## WETLANDS AND DEEPWATER HABITATS CLASSIFICATION



## WETLANDS AND DEEPWATER HABITATS CLASSIFICATION



MODIFIERS							
In order to more adequately describe the wetland and deepwater habitats, one or more of the water regime, water chemistry, soil, or special modifiers may be applied at the class or lower level in the hierarchy. The farmed modifier may also be applied to the ecological system.							
Water Regime			Special Modifiers	Water Chemistry			Soil
Non-tidal	Saltwater Tidal	Freshwater Tidal		Coastal Salinity	Inland Salinity	pH Modifiers for all Fresh Water	
A Temporarily Flooded	L Subtidal	S Temporarily Flooded-Tidal	b Beaver	1 Hyperhaline	7 Hypersaline	a Acid	g Organic
B Saturated	M Irregularly Exposed	R Seasonally Flooded-Tidal	d Partly Drained/Ditched	2 Euhaline	8 Eusaline	t Circumneutral	n Mineral
C Seasonally Flooded	N Regularly Flooded	T Semipermanently Flooded-Tidal	f Farmed	3 Mixohaline (Brackish)	9 Mixosaline	l Alkaline	
E Seasonally Flooded/ Saturated	P Irregularly Flooded	V Permanently Flooded-Tidal	h Diked/Impounded	4 Polyhaline	0 Fresh		
F Semipermanently Flooded			r Artificial	5 Mesohaline			
G Intermittently Exposed			s Spoil	6 Oligohaline			
H Permanently Flooded			x Excavated	0 Fresh			
J Intermittently Flooded							
K Artificially Flooded							

## **ATTACHMENT 1: U.S. ACOE WETLAND DATASHEETS**

**WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region**

Job #13-053KI

Project/Site: Kittery Sewer Line Expansion Area City/County: Kittery Sampling Date: 10-9-13  
 Applicant/Owner: Kleinfelder State: ME Sampling Point: Wet 1  
 Investigator(s): Kyle Ball Section, Township, Range: Kittery (Route 236)  
 Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): Concave  
 Slope (%): 0 Lat: 43 06' 43.88" Long: -70 45' 01.55" Datum: WGS84  
 Soil Map Unit Name: Biddeford Mucky Peat NWI classification: PEM1F

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)   	

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one is required; check all that apply)	<b>Secondary Indicators (minimum of two required)</b>
<input checked="" type="checkbox"/> Surface Water (A1) <input checked="" type="checkbox"/> Water-Stained Leaves (B9) <input checked="" type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input checked="" type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input checked="" type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0</u> Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0</u> Saturation Present? (includes capillary fringe) Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0</u>	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  	
Remarks:	

**VEGETATION – Use scientific names of plants.**

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: <u>30 ft</u> )				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)  Total Number of Dominant Species Across All Strata: <u>1</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: <u>0</u> (A) <u>0</u> (B)  Prevalence Index = B/A = _____
_____ = Total Cover				
<b>Sapling/Shrub Stratum</b> (Plot size: <u>12 ft</u> )				<b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.
_____ = Total Cover				
<b>Herb Stratum</b> (Plot size: <u>6 ft</u> )				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____
1. <u>Typha latifolia</u>	<u>85</u>	<u>Yes</u>	<u>OBL</u>	
2. <u>Carex stricta</u>	<u>10</u>	<u>no</u>	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
<u>95</u> = Total Cover				
<b>Woody Vine Stratum</b> (Plot size: _____ )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				
Remarks: (Include photo numbers here or on a separate sheet.)				



**WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region**

Job #13-053KI

Project/Site: Kittery Sewer Line Expansion Area City/County: Kittery Sampling Date: 10-9-13  
 Applicant/Owner: Kleinfelder State: ME Sampling Point: UP 1  
 Investigator(s): Kyle Ball Section, Township, Range: Kittery (Route 236)  
 Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): Concave  
 Slope (%): 0 Lat: 43 06' 43.88" Long: -70 45' 01.55" Datum: WGS84  
 Soil Map Unit Name: Biddeford Mucky Peat NWI classification: PEM1F

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)   	

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one is required; check all that apply)	<b>Secondary Indicators (minimum of two required)</b>
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? (includes capillary fringe) Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	<b>Wetland Hydrology Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

**VEGETATION – Use scientific names of plants.**

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: <u>30</u> )				
1. <u>Acer rubrum</u>	<u>40</u>	<u>Yes</u>	<u>FAC</u>	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)  Total Number of Dominant Species Across All Strata: <u>3</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>67</u> (A/B)
2. <u>Quercus rubra</u>	<u>40</u>	<u>Yes</u>	<u>FACU</u>	
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
	<u>80</u>			<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: <u>0</u> (A) <u>0</u> (B)  Prevalence Index = B/A = _____
<b>Sapling/Shrub Stratum</b> (Plot size: <u>12</u> )				
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
	<u>0</u>			
<b>Herb Stratum</b> (Plot size: <u>6</u> )				
1. <u>Fraxinus americana</u>	<u>5</u>	<u>No</u>	<u>FACU</u>	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Rosa multiflora</u>	<u>10</u>	<u>yes</u>	<u>FACU</u>	
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
12. _____				
	_____ = Total Cover			
<b>Woody Vine Stratum</b> (Plot size: _____ )				
1. _____				<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.
2. _____				
3. _____				
4. _____				
	_____ = Total Cover			
<b>Hydrophytic Vegetation Present?</b> Yes _____      No <input checked="" type="checkbox"/>				
Remarks: (Include photo numbers here or on a separate sheet.)				



**WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region**

Job #13-053KI

Project/Site: Kittery Sewer Line Expansion Area City/County: Kittery Sampling Date: 10-9-13  
 Applicant/Owner: Kleinfelder State: ME Sampling Point: Wet 2  
 Investigator(s): Kyle Ball Section, Township, Range: Kittery (Martin Road)  
 Landform (hillslope, terrace, etc.): swale Local relief (concave, convex, none): concave  
 Slope (%): 3-5% Lat: 43 06' 39.27" Long: -70 45' 23.40" Datum: WGS84  
 Soil Map Unit Name: Lyman fine sandy loam NWI classification: PSS1E

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)   	

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one is required; check all that apply)	<b>Secondary Indicators (minimum of two required)</b>
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Surface Soil Cracks (B6) <input checked="" type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? (includes capillary fringe) Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>10</u>	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

**VEGETATION** – Use scientific names of plants.

Tree Stratum (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
_____ = Total Cover				
Sapling/Shrub Stratum (Plot size: <u>12</u> )				
1. <u>spiraea latifolia</u>	<u>30</u>	<u>yes</u>	<u>Facw</u>	
2. <u>Cornus amomum</u>	<u>20</u>	<u>yes</u>	<u>Facw</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
_____ = Total Cover				
Herb Stratum (Plot size: <u>6</u> )				
1. <u>Osmunda cinnamomea</u>	<u>30</u>	<u>Yes</u>	<u>FACW</u>	
2. <u>Carex prasina</u>	<u>8</u>	<u>yes</u>	<u>Obl</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
_____ = Total Cover				
Woody Vine Stratum (Plot size: _____ )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				
Remarks: (Include photo numbers here or on a separate sheet.)          				<p><b>Dominance Test worksheet:</b></p> Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A)  Total Number of Dominant Species Across All Strata: <u>4</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
				<p><b>Prevalence Index worksheet:</b></p> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: <u>0</u> (A) <u>0</u> (B)  Prevalence Index = B/A = _____
				<p><b>Hydrophytic Vegetation Indicators:</b></p> ___ Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> Dominance Test is >50% ___ Prevalence Index is ≤3.0 <sup>1</sup> ___ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
				<p><b>Definitions of Vegetation Strata:</b></p> <p><b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.</p> <p><b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.</p> <p><b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.</p> <p><b>Woody vines</b> – All woody vines greater than 3.28 ft in height.</p>
				<p><b>Hydrophytic Vegetation Present?</b>      Yes <input checked="" type="checkbox"/>      No _____</p>



**WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region**

Job #13-053KI

Project/Site: Kittery Sewer Line Expansion Area City/County: Kittery Sampling Date: 10-9-13  
 Applicant/Owner: Kleinfelder State: ME Sampling Point: UP 2  
 Investigator(s): Kyle Ball Section, Township, Range: Kittery (Martin Road)  
 Landform (hillslope, terrace, etc.): swale Local relief (concave, convex, none): concave  
 Slope (%): 3-5% Lat: 43 06' 39.27" Long: -70 45' 23.40" Datum: WGS84  
 Soil Map Unit Name: Lyman fine sandy loam NWI classification: PSS1E

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)   	

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? (includes capillary fringe) Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	<b>Wetland Hydrology Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  	
Remarks:	

**VEGETATION – Use scientific names of plants.**

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: <u>30</u> )				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>4</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)
1. <u>Quercus rubra</u>	<u>50</u>	<u>Yes</u>	<u>FACU</u>	
2. <u>Pinus strobus</u>	<u>20</u>	<u>YES</u>	<u>FACU</u>	
3. <u>Fraxinus americana</u>	<u>10</u>	<u>No</u>	<u>FACU</u>	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
<u>10</u> = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: <u>0</u> (A) <u>0</u> (B)  Prevalence Index = B/A = _____
<b>Sapling/Shrub Stratum</b> (Plot size: <u>12</u> )				
1. <u>Loncera tatarica</u>	<u>20</u>	<u>Yes</u>	<u>FACU</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
7. _____	_____	_____	_____	
<u>20</u> = Total Cover				
<b>Herb Stratum</b> (Plot size: <u>6</u> )				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
12. _____	_____	_____	_____	
<u>0</u> = Total Cover				
<b>Woody Vine Stratum</b> (Plot size: _____ )				<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				
Remarks: (Include photo numbers here or on a separate sheet.)				<b>Hydrophytic Vegetation Present?</b> Yes _____ No <input checked="" type="checkbox"/>



**WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region**

Job #13-053KI

Project/Site: Kittery Sewer Line Expansion Area City/County: Kittery Sampling Date: 10-9-13  
 Applicant/Owner: Kleinfelder State: ME Sampling Point: Wet 3  
 Investigator(s): Kyle Ball Section, Township, Range: Kittery (Utility Easement)  
 Landform (hillslope, terrace, etc.): Toeslope Local relief (concave, convex, none): concave  
 Slope (%): 2-5 Lat: 43 06' 16.30" Long: -70 45' 06.26" Datum: WGS84  
 Soil Map Unit Name: Lyman fine sandy loam NWI classification: PFO1E

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)   	

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one is required; check all that apply)	<b>Secondary Indicators (minimum of two required)</b>
<input type="checkbox"/> Surface Water (A1) <input checked="" type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Surface Soil Cracks (B6) <input checked="" type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u>0</u> Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u>0</u> Saturation Present? (includes capillary fringe) Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>8</u>	<b>Wetland Hydrology Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  	
Remarks:	

**VEGETATION – Use scientific names of plants.**

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: <u>30</u> )				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A)  Total Number of Dominant Species Across All Strata: <u>4</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
1. <u>Acer rubrum</u>	<u>60</u>	<u>Yes</u>	<u>FAC*</u>	
2. <u>Fraxinus americana</u>	<u>20</u>	<u>Yes</u>	<u>FACU*</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
<u>80</u> = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: <u>0</u> (A) <u>0</u> (B)  Prevalence Index = B/A = _____
<b>Sapling/Shrub Stratum</b> (Plot size: _____ )				
1. <u>Alnus incana</u>	<u>20</u>	<u>yes</u>	<u>FacW</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
7. _____	_____	_____	_____	
_____ = Total Cover				
<b>Herb Stratum</b> (Plot size: _____ )				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup> <input checked="" type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Onoclea sensibilis</u>	<u>40</u>	<u>Yes</u>	<u>FACW</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
12. _____	_____	_____	_____	
<u>40</u> = Total Cover				
<b>Woody Vine Stratum</b> (Plot size: _____ )				<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				
Remarks: (Include photo numbers here or on a separate sheet.)  <b>*Morphological adaptations: Shallow Rooting, Buttressing</b>				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____



**WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region**

Job #13-053KI

Project/Site: Kittery Sewer Line Expansion Area City/County: Kittery Sampling Date: 10-9-13  
 Applicant/Owner: Kleinfelder State: ME Sampling Point: Up 3  
 Investigator(s): Kyle Ball Section, Township, Range: Kittery (Utility Easement)  
 Landform (hillslope, terrace, etc.): Toeslope Local relief (concave, convex, none): concave  
 Slope (%): 2-5 Lat: 43 06' 16.30" Long: -70 45' 06.26" Datum: WGS84  
 Soil Map Unit Name: Lyman fine sandy loam NWI classification: PFO1E

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)   	

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one is required; check all that apply)	<b>Secondary Indicators (minimum of two required)</b>
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? (includes capillary fringe) Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	<b>Wetland Hydrology Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

**VEGETATION** – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Pinus strobus</u>	<u>30</u>	<u>Yes</u>	<u>FACU</u>
2. <u>Quercus Rubra</u>	<u>30</u>	<u>Yes</u>	<u>FACU</u>
3. <u>Fraxinus americana</u>	<u>20</u>	<u>Yes</u>	<u>FACU</u>
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____

Sapling/Shrub Stratum (Plot size: <u>12 ft</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Hamamelis virginiana</u>	<u>10</u>	<u>Yes</u>	<u>FAC-</u>
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____

\_\_\_\_\_ = Total Cover

Herb Stratum (Plot size: <u>6 ft</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____

10 = Total Cover

Woody Vine Stratum (Plot size: _____ )	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____

\_\_\_\_\_ = Total Cover

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 25% (A/B)

**Prevalence Index worksheet:**

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: <u>0</u> (A)	<u>0</u> (B)

Prevalence Index = B/A = \_\_\_\_\_

- Hydrophytic Vegetation Indicators:**
- Rapid Test for Hydrophytic Vegetation
  - Dominance Test is >50%
  - Prevalence Index is ≤3.0<sup>1</sup>
  - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
  - Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)
- <sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Vegetation Strata:**

**Tree** – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

**Sapling/shrub** – Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

**Herb** – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

**Woody vines** – All woody vines greater than 3.28 ft in height.

**Hydrophytic Vegetation Present?** Yes \_\_\_\_\_ No

Remarks: (Include photo numbers here or on a separate sheet.)





STATE OF MAINE  
DEPARTMENT OF ENVIRONMENTAL PROTECTION

PAUL R. LEPAGE  
GOVERNOR

PATRICIA AHO  
COMMISSIONER

October 30, 2014

George Kathios  
Town of Kittery  
200 Rogers Road  
Kittery, Maine 03904

SUBJECT: Town of Kittery - Route 236 Sewer Extension Project  
SRF # C230051-05 (loan pending)  
Finding of No Significant Impact

Dear Mr. Kathios:

In compliance with Section C of the "State of Maine Revolving Loan Fund Rules Chapter 595" this office has reviewed the environmental aspects of the proposed sewer extension project for your community. From this review, we have determined that a Finding of No Significant Impact (FONSI) is required.

We have distributed the Finding of No Significant Impact to all known interested parties (See attached list). The Town is required to publish a notice indicating the determination in a local newspaper of community-wide circulation stating the supporting documentation is available for public inspection.

For your convenience, we have included a suggested format for the legal advertisement. Please advertise as soon as possible to allow a 30 day comment period. Once advertised, please send a copy of the advertisement to this office for our records.

Please feel free to call me at 287-4162 if you have any questions.

Sincerely,

Karen L. Hefler, P. E.  
Division of Water Quality Management  
Bureau of Land and Water Quality

Enc. FONSI  
Environmental Assessment  
Distribution List  
Legal Advertisement

AUGUSTA  
17 STATE HOUSE STATION  
AUGUSTA, MAINE 04333-0017  
(207) 287-7688 FAX: (207) 287-7826  
RAY BLDG., HOSPITAL ST.

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 04769-2094  
(207) 764-0477 FAX: (207) 760-3143



STATE OF MAINE  
DEPARTMENT OF ENVIRONMENTAL PROTECTION

PAUL R. LEPAGE  
GOVERNOR

PATRICIA AHO  
COMMISSIONER

**FINDING OF NO SIGNIFICANT IMPACT**

To: All Interested Persons

Date: October 30, 2014

Pursuant to the State of Maine Revolving Loan Fund Rules, Chapter 595, Section C.5., the Maine Department of Environmental Protection (DEP) has prepared an Environmental Assessment (EA) for the following proposed project:

**Town of Kittery  
Route 236 Sewer Extension Project**

The attached EA provides a detailed description of the project and summary of the Department's environmental review. The results of the review, when considering the mitigation measures that will be implemented during the project and monitored by the Town, reveals that no significant adverse impacts to natural and/ or cultural resources will result from the proposed action by itself. The project is expected to improve water quality issues and eliminate potential health hazards related to wastewater disposal. At the same time, development may occur in the foreseeable future as an indirect result of the installation of the sewer extension. Mitigation measures may be required as part of the planning, design, permitting, and construction of future development, to ensure that natural and/ or cultural resources existing in the development area will not be adversely impacted.

Comments relative to this decision may be submitted to the DEP for review. No administrative action will be taken for at least thirty (30) calendar days after issuance of this Finding.

Additional information is available for public review at the DEP address located at 25 Tyson Drive, Augusta, Maine, 04330.

John N. True, Engineering Services Manager  
Division of Water Quality Management  
Bureau of Land & Water Quality

*October 30, 2014*

Date

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AUGUSTA, MAINE 04333-0017  
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STATE OF MAINE  
DEPARTMENT OF ENVIRONMENTAL PROTECTION

PAUL R. LEPAGE  
GOVERNOR

PATRICIA AHO  
COMMISSIONER

**ENVIRONMENTAL ASSESSMENT for  
the Town of Kittery  
ROUTE 236 SEWER EXTENSION PROJECT**

**A. PROJECT IDENTIFICATION**

Project Name: Kittery Route 236 Sewer Extension Project  
Address: Town of Kittery, 200 Rogers Road, Kittery, Maine 03904  
Project Location: Town of Kittery, York County (see Figure 1)  
Project Number: SRF #C230051-05 (loan pending)

**B. SUMMARY OF ENVIRONMENTAL REVIEW**

The applicant's Environmental Information Document (prepared by Kleinfelder), all other supporting documentation, and associated comments submitted in regard to this project have been reviewed, and in accordance with EPA regulations, the findings of our environmental review are summarized below.

**1. Project Description**

The Town of Kittery owns and operates a wastewater collection system and a treatment facility to process sanitary flows from Town. The collection system consists of twenty three miles of gravity sewer, six miles of force main, and twenty one sewer pumping stations. The wastewater treatment plant, named the Water Pollution Control Facility, is located on Dennett Road. (see Figure 2). The treated wastewater is discharged from the plant to the Piscataqua River.

The proposed project entails extension of the sewer collection system from the treatment plant to unsewered neighborhoods on the opposite side (northwest) of Interstate I-95. The project includes installation of a total of approximately three miles of underground gravity sewer pipe, one and a half miles of underground force main pipe, and three pumping systems. The proposed underground pipe will be installed along the existing Central Maine Power utility easement which runs from the treatment plant to Route 236. The easement is located on a former railroad bed (see Figure 2). In order to cross the interstate, the pipe will be installed underground using a trenchless method called horizontal directional drilling. Where the utility easement ends near Route 236, a new pump station will be constructed. Upstream of that pump station, the proposed underground pipe will be located below paved streets to provide sewer to the existing

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1235 CENTRAL DRIVE, SKYWAY PARK  
PRESQUE ISLE, MAINE 04769-2094  
(207) 764-0477 FAX: (207)760-3143

neighborhoods. The streets include: Martin Road, Stevenson Road, Manson Road, Dana Avenue and portions of Route 236. Two additional pump stations will be constructed in these neighborhood areas. See Figure 3 for the location of the pipe and pump stations as well as the outline of the area to be served by the proposed public sewer system.

The majority of the new sewer infrastructure will be installed in public right of ways and within the existing utility easement. However, there are locations where the Town must obtain easements from land owners. This effort will be completed before construction begins.

The work will be done in a single construction contract beginning in 2015 and will be completed in 2016.

The estimated cost of construction is approximately \$5,900,000.

## **2. Purpose and Need**

The purpose of the proposed project is to bring public sewer to unsewered areas of Kittery, both undeveloped and developed, on the northwest side of Interstate 95. This action is needed in order to improve and protect water quality in the service area and to support the Town's economic development objectives.

Studies were conducted to evaluate the suitability of undeveloped lots in the service area for on-site wastewater disposal. The study looked at lot size and soil conditions. The soil conditions included permeability, depth to groundwater, presence of bedrock and ground slope. The results of the studies found that there is a substantial portion of land that exhibits unsuitable soil characteristics for on-site disposal systems. Without public sewer, the types of development that these lots could support would be limited.

The current method of wastewater disposal in the developed areas primarily consists of privately owned residential subsurface systems. There are over 100 lots that are one acre or less. Approximately one third of these lots have poor soils. The majority of the homes were built over fifty years ago and therefore it is likely that there are many septic systems that are nearing the end of their useful life. It is known that there are systems that are currently operating poorly and / or have potential to fail in the near future. There are approximately 150 buildings that will tie into the new sewer as soon as it is constructed.

Within the residential area is a mobile home park on Dana Ave that is served by a sand filter wastewater treatment system that discharges to Chickering Creek, which is a tributary to Spruce Creek. (For location of mobile home park see Figure 2 and for location of creek see Figure 5) This system is licensed by this Department as an overboard discharge (OBD). The system is operating poorly and in need of an expensive upgrade. The situation is so inadequate that at times it is necessary to haul the untreated wastewater to the treatment plant. A replacement subsurface system cannot be constructed on the owner's property due to poor soils and lack of land.

Also within the residential area is a school located on Stevenson Road. The school must operate and maintain a pump station on their property to pump the school's wastewater approximately one half mile to a pump station on Route One. Although this system is working fairly reliably at this time, there are considerable operating expenses associated with the pump station and, if it is not well maintained at all times, there is risk of sewer back up and overflows.

The installation of public sewers proposed by this project will correct these deficiencies and provide an immediate and long term environmental benefit to the Spruce Creek watershed by eliminating the need for subsurface septic systems or advanced wastewater treatment systems in the service area.

### **3. Discussion of Alternatives**

In 1991 a Master Sewer Plan was created for the Town. This plan included a recommendation to provide sewers to the area of Town north and west of Interstate Route 95 in the area of Route 236. The Master Plan also recommended doubling the capacity of the wastewater treatment facility in order to meet the future needs of the Town. This recommended expansion of the treatment plant was completed in 1994. In 2004 and 2010, two more studies were done to further evaluate the most cost effective means for extending the municipal sewer service to the Route 236 area. Collectively these studies considered seven separate alternative concepts to provide public sewers to the project area from the treatment facility. It was determined that the most cost effective way to convey wastewater flows from the project area to the treatment plant is to install a sewer force main within an existing cross-country utility easement that is parallel to the Central Maine Power (CMP) easement located between Route 236 and the treatment plant.

The "no-action" alternative was not chosen because it would not support economic development within Kittery and it would not support betterment of the existing neighborhoods by installing public sewers that will allow failed and marginal septic systems to be decommissioned.

### **4. Direct Impacts of the Proposed Project on the Environment**

The direct effects of the proposed project on the environment are determined based on the location of the proposed work and areas of associated disturbance only.

- A. Air Quality – The proposed project will have no long term impact on air quality.
- B. Water Quality - It is anticipated that after the completion of this project there will be an improvement in the water quality of the streams (Chickering Creek and Unnamed Stream) and the tributaries that are located in the sewer service area. These streams flow to Spruce Creek, which is currently impaired. Over time, improvement in the water quality of Spruce Creek may also be realized. (See Figure 5)  
The Water Pollution Control Facility, which will receive and treat the wastewater from the project service area, is designed to handle the full built out flows. Therefore, the

project is not expected to impact the Piscataqua River, which receives the treated wastewater.

C. Socio-Economic Impacts / Environmental Justice - The proposed project will not significantly affect the pattern and type of land use or growth and distribution of population. The proposed project will have no significant or adverse environmental effects on low income or minority populations. The project will not displace population or significantly alter the characteristics of the existing residential areas.

D. Environmentally Sensitive Areas

a. Floodplains - A small area of the proposed project is located within the floodplain. As can be seen on Figure 4, there are two locations where the floodplain appears to flood the road where underground sewer pipe will be installed. The underground pipe will have no impact on the floodplain. The pump stations are not located within the floodplain.

b. Wetlands and Vernal Pools - Portions of the project pass through and/or are adjacent to wetland and vernal pool areas. See Figure 5. There will be an unavoidable temporary impact to wetlands in the area of the Central Maine Power utility easement due to the limited area available to install the sewer line. The project will not result in any permanent impact to wetland areas and vernal pools. The Town has obtained a State of Maine Department of Environmental Protection Natural Resources Protection Act Permit by Rule, a U.S. Army Corps of Engineers General Permit, as well as a Town of Kittery Wetland Alteration permit for this project. The permits require construction mitigation measures including:

- the use of a strict erosion and sedimentation control plan,
- restoring the disturbed areas expeditiously with the original vegetative materials to pre-project conditions, and
- the use of crane mats for equipment traveling or working in vegetated wetland.

c. Birding Habitats - There are no critical or significant birding habitats in the project area.

d. River, Stream, or Brook - There are three locations where underground pipe will cross a stream. See Figure 5. At all locations, the stream flows through an existing culvert. The installation of the sewer pipes will occur underneath the culvert and will not require diversion of the stream or removal of the culvert. Strict erosion and control measures will be used during construction to mitigate temporary impacts to the stream.

e. Coastal Barrier Resources - There are no coastal barrier resources in or near the project area.

f. Coastal Zones - The project is located in a coastal zone but will have no impact to it.

g. Fish and Wildlife Habitat or Endangered and Threatened Species - The portion of the proposed project located between Route 236 and Interstate 95 may be located in or adjacent to areas of New England Cottontail Rabbit habitat. The presence of the New England Cottontail (NEC) could not be confirmed at the time of the field survey (month of June) by the state wildlife official. However, mitigation measures for the project were recommended to minimize potential disturbance to the NEC, should they actually exist in or adjacent to the area of concern. They include:

- During the design phase, the proposed sewer pipe, pump station and access road to serve the pump station have been positioned to minimize the amount of shrubs to be cleared or disturbed.
- During construction, mitigation measures include limiting the contractors work area in order to minimize clearing of shrubs and to help maintain a buffer from the possible habitat area. Additionally, no construction shall be performed during the time period between March 20 and June 20 in the Central Maine Power utility easement area north of Interstate 95.

h. Agricultural Lands - There are no Prime or Unique Farmlands in or near the project.

i. Drinking Water Sources and Aquifers - The project is not located near or adjacent to any drinking water sources or aquifers. See Figure 6.

j. Botanical Features - There are no rare or unique botanical features documented within or near the project area.

k. Historical Sites and Archaeological Resources - The proposed project will not affect any historic properties. There are no known archeological resources known to be present in the project area. In the event that an artifact is found during construction, the contractor will be required to stop work in that area and notify the proper local, state, and federal authorities.

l. Wild and Scenic Rivers - There are no designated wild or scenic rivers within or near the project area.

m. Public Lands - The project is not located within or near any parklands, preserves, public land or areas of recognized scenic, aesthetic, recreational value.

n. Indian or Tribal Lands - There are no known Indian or Tribal Lands in or near the project area.

## **5. Indirect Impacts of the Proposed Project on the Environment**

The indirect impacts of the proposed project on the environment are determined based on the locations in the sewer service areas that are currently undeveloped but may be developed in the near future.

The proposed project is intended to support development and growth in the sewer service area. For the purposes of this project, it is assumed that any of the undeveloped areas may be developed in the foreseeable future. (See Figure 3 for location of service area). The impact of that growth could affect existing environmentally sensitive areas that are located in the sewer service area. However, the specifics of any planned development are not known at this time and therefore it is impossible to predict the impacts, specify mitigation measures, and commit to their implementation.

When more is known about pending development, action can be, and should be, taken by the Town, its residents, property owners, the developer(s), and / or any interested organizations to protect resources that could be adversely affected. Early involvement is important, especially in order to consider avoidance as a potential mitigation measure. Avoidance means keeping the proposed disturbance outside of the location of the resource. Generally speaking, avoidance can be addressed more easily during planning and design than it can be during construction. Property owners and developers and other involved or interested parties should contact the appropriate state and federal agencies early in the planning and design stage of the project to identify issues specific to their project, including necessary permitting and to understand what the conditions of the permits may entail.

Below is the list of the existing environmentally sensitive areas that are currently located in the sewer service area and have the potential to be impacted. The approximate location of the areas are shown in the referenced figures. Also provided is the contact information for the recommended state and federal agency (or organization) that should be consulted. Depending on the timing of the future development, the accuracy of this information may need to be verified.

A. Floodplains - See Figure 4 for locations in the sewer service area.

Susan Baker  
Floodplain Management Program  
Maine Department of Agriculture, Conservation, and Forestry  
93 State House Station  
Augusta, Maine 04333

B. Wetlands, Streams and Brooks, and Vernal Pools - See Figure 5 for locations in the sewer service area.

Mike Mullen  
Natural Resources Protection Act Program  
Maine Department of Environmental Protection  
17 State House Station  
Augusta, Maine 04333

Jay Clement  
US Army Corps of Engineers  
675 Western Ave #3  
Manchester, Maine 04351

- C. Fish and Wildlife Habitat or Endangered or Threatened Species - New England Cottontail Rabbit habitat may exist in some of the undeveloped areas in the sewer service area . A survey to confirm whether or not the state endangered rabbit is actually present will be performed over the winter (2014-2015) by the Maine Department of Inland Fisheries and Wildlife. The purpose of a winter survey is to allow the wildlife officials to examine animal tracks made in fresh snow to identify the exact species. The outcome of this survey will become public information which can be found on the Town of Kittery's website.

Cory Stearns (state official leading the winter survey)  
Maine Department of Inland Fisheries & Wildlife  
358 Shaker Road  
Gray, Maine 04039

Maine Department of Inland Fisheries & Wildlife (main office)  
41 State House Station  
Augusta, Maine 04333

Mark McCollough  
U.S. Fish & Wildlife  
17 Godfrey Drive, Suite #2  
Orono, Maine 04473

- D. Public Lands - There are no parklands, preserves, public land or areas of recognized scenic, aesthetic, recreational value in the service area. However, an undeveloped Town-owned parcel that is located in the sewer service areas abuts a preserve named Remick Preserve. See Figure 7.

Kittery Land Trust  
P.O. Box 467  
Kittery, Maine

## **6. Cumulative Impacts**

Cumulative impacts are possible when the sewer is continued north along Route 236 and connects with Eliot's sewer in the vicinity of the town line. At this time there is no sewer in place in Eliot at that location and therefore no plan for Kittery to extend their sewer. However, it is possible it could occur in the foreseeable future. The impacts from this scenario of extending public sewer and connecting the two Towns may include development and growth in Eliot. The identification of natural and cultural resources that could be impacted by Eliot growth is beyond the scope of this environmental review.

## **7. Mitigation of Direct Environmental Impacts**

The overall, long term goal of the project is to improve water quality while supporting development on the north side of Interstate 95. However the project's proximity to wetlands,

vernal pools, streams and possibly New England Cottontail habitat will require mitigation measures to insure no adverse impact to these resources. All construction mitigation measures will be incorporated into the construction contract documents. Construction inspectors will be on the project site daily to monitor and verify that the requirements are implemented properly.

The Department finds that the applicant has avoided and minimized impacts to the greatest extent practicable and that the proposed project presents no significant adverse impacts.

### 8. Summary of Agency & Public Consultation

The Town held public meetings to discuss the Town's proposed projects on January 31, 2013, February 12, 2013, March 25, 2013 and May 13, 2013. The Town has addressed public comments and concerns to the extent possible while still meeting the goals of the project. The public voted in favor of the project in a town wide vote on June 11, 2013.

The Town worked with applicable federal, state, and local agencies to address their concerns and comments and to incorporate them into the design where necessary. No agencies objected to the project.

### 9. List of Agencies and Groups Consulted

Maine Department of Environmental Protection  
Maine Historic Preservation Commission  
Maine Department of Conservation, Agriculture and Forestry  
Maine Department of Inland Fisheries and Wildlife  
Maine Department of Marine Resources  
United States Fish and Wildlife Services  
United States Department of Agriculture, NRCS  
United States Army Corps of Engineers  
Kittery Water District

### C. SIGNATURE

  
\_\_\_\_\_  
Karen L. Hefler, P.E.  
Division of Water Quality Management  
Bureau of Land & Water Quality

\_\_\_\_\_  
Date 10/30/14

The Following Notice Is To Be Placed In A Local Newspaper Of Community-Wide Circulation.

NOTICE OF FINDING OF NO SIGNIFICANT IMPACT  
NOTICE TO ALL INTERESTED PERSONS

The State of Maine, Department of Environmental Protection, has issued a Finding of No Significant Impact in compliance with Section C of "The State of Maine Revolving Loan Fund Rules Chapter 595", on behalf of the Town of Kittery as part of the environmental review requirements.

The proposed action is the extension of the sewer collection system from the treatment plant to unsewered neighborhoods on the opposite side of the Interstate 95. The proposed underground pipe will be located along the Central Maine Power utility easement which runs between the treatment plant and Route 236. Beyond that point, the proposed pipe will be located under paved roads. The streets involved are: Martin, Stevenson and Manson Road, Dana Avenue, and portions of Route 236. The project includes the construction of three pump stations.

A review of the proposed action by the DEP has indicated that it will not result in a significant adverse impact to the environment. Therefore a Finding of No Significant Impact has been issued for the project.

Further records in regard to the project are on file and are available for public review at the Kittery Town Office, 200 Rogers Road, Kittery, Maine and the office of the Department of Environmental Protection, Bureau of Land & Water Quality, 17 State House Station (Tyson Building), Augusta, Maine. Comments relative to this decision may be submitted to the district or DEP within thirty days.

**DEP DISTRIBUTION LIST  
FOR FONSI  
Town of Kittery (10/2014)**

Natural Resources Council of Maine  
3 Wade Street  
Augusta, Me 04330

Robin Reed  
Historic Preservation Commission  
65 State House Station  
Augusta, ME 04333

John Perry  
Inland Fisheries & Wildlife  
41 State House Station  
Augusta, ME 04333

Maine Coastal Program  
Dept of Conservation  
93 State House Station  
Augusta, Maine 04333

Mark McCollough  
US Fish & Wildlife Service  
17 Godfrey Drive, Suite #2  
Orono, Maine 04473

Maine Emergency Management Agency  
72 State House Station  
Augusta, Maine 04333-0072

Mike Mullen  
NRPA Permitting Program  
Dept. of Environmental Protection  
17 State House Station  
Augusta, ME 04333

Susan Baker  
Flood Plain Management Program  
Dept of Conservation  
93 State House Station  
Augusta, ME 04333

Mark Thompson  
Kleinfelder SEA  
215 First Street, Suite 320  
Cambridge, MA 02142

Dept Health and Human Services  
Drinking Water Program  
11 State House Station  
Augusta, Maine 04333

Nancy Colbert Puff  
Town Manager  
200 Rogers Road  
Kittery, Maine 03904

Southern Maine Regional Planning  
Commission  
21 Bradeen St, Suite 304  
Springvale, ME 04083

Matt Hight  
Dept of Environmental Protection  
312 Canco Road  
Portland, Maine 04103

Dept Marine Resources  
21 State House Station  
Augusta, Maine 04333

Kittery Land Trust  
P.O. Box 467  
Kittery, Maine 03904-0467

Don Cameron  
Maine Natural Areas  
Dept of Conservation  
93 State House Station  
Augusta, Maine 04333

Tony Jenkins  
USDA Natural Resources  
Conservation Service  
967 Illinois Avenue, Suite #3  
Bangor, Maine 04401

Maine Dept of Transportation  
Region 1  
51 Pleasant Hill Road  
PO Box 358  
Scarborough, Maine 04070

Cory Stearns  
Inland Fisheries and Wildlife  
358 Shaker Road  
Gray, Maine 04039

Dave Peterson  
Kleinfelder  
215 First Street, Suite 320  
Cambridge, MA 02142

Jay Clement  
US Army Corps of Engineers  
675 Western Ave #3  
Manchester, Maine 04351

Chris DiMatteo  
Town Planner  
200 Rogers Road  
Kittery, Maine 03904

Houlton Band of Maliseet Indians  
Shari Venno  
88 Bell Road  
Littleton, Maine 04730

Aroostook Band of Micmacs  
Victoria Higgins  
7 Northern Road  
Presque Isle, Maine 04769

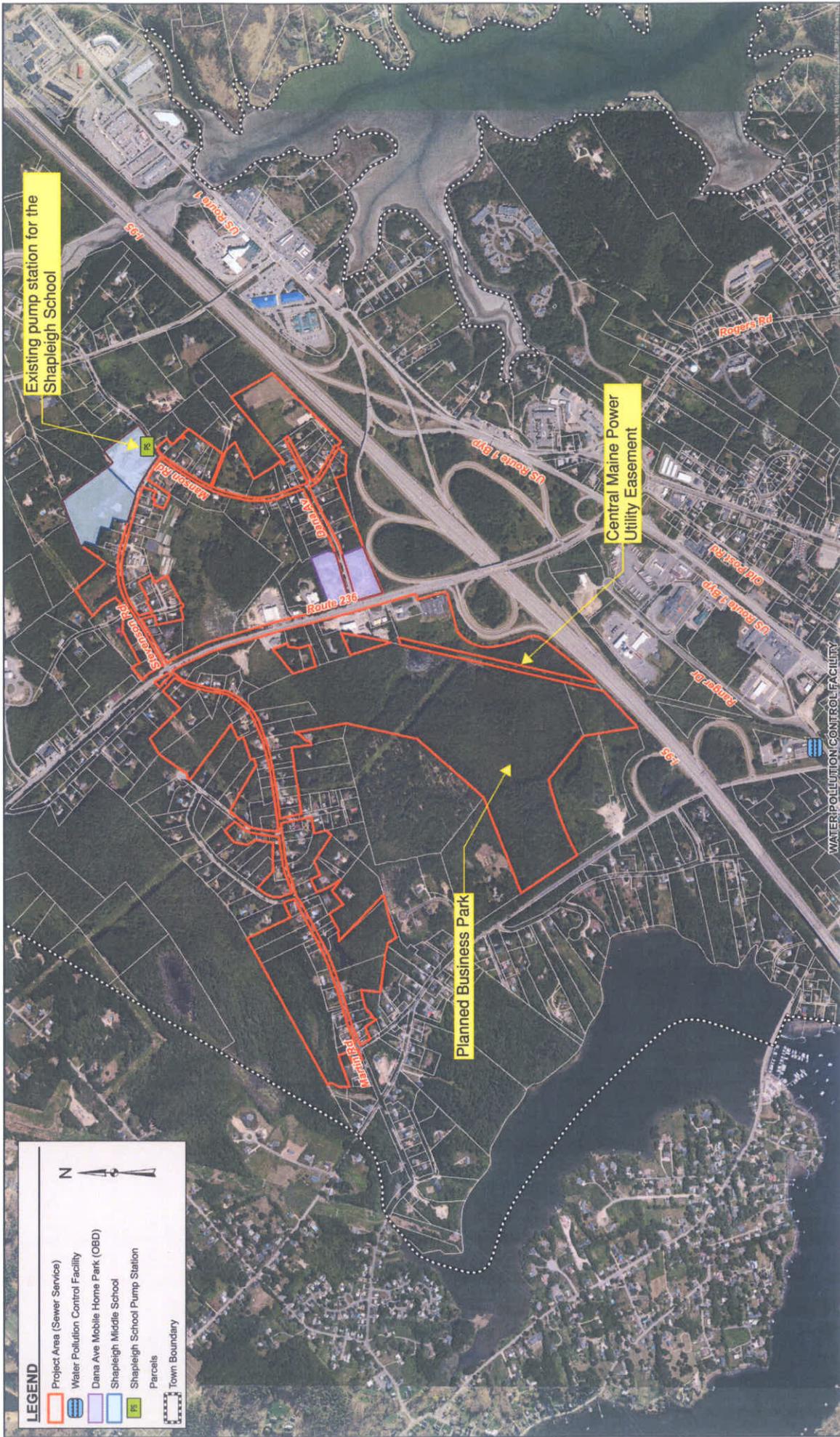
Penobscot Indian Nation  
Bonnie Newsom  
12 Wabanaki Way  
Indian Island, Maine 04468

Passamaquoddy Tribe of Indians  
Donald Soctomah  
P.O. Box 343  
Perry, Maine 04667

Passamaquoddy Tribe of Indians  
Donald Soctomah  
P.O. Box 301  
Princeton, Maine 04668



 <p><b>KLEINFELDER</b> Bright People. Right Solutions. www.kleinfelder.com</p>	PROJECT NO. 20140119	<p><b>KITTERY, MAINE</b> <b>REGIONAL LOCUS PLAN</b></p> <p>ROUTE 236 SEWER EXTENSION PROJECT TOWN OF KITTERY, MAINE</p>	FIGURE
	DRAWN: AUGUST 2014		<p><b>1</b></p>
	DRAWN BY: KJK		
	CHECKED BY: MJT		
FILE NAME: EID - Figure 1.mxd			



**LEGEND**

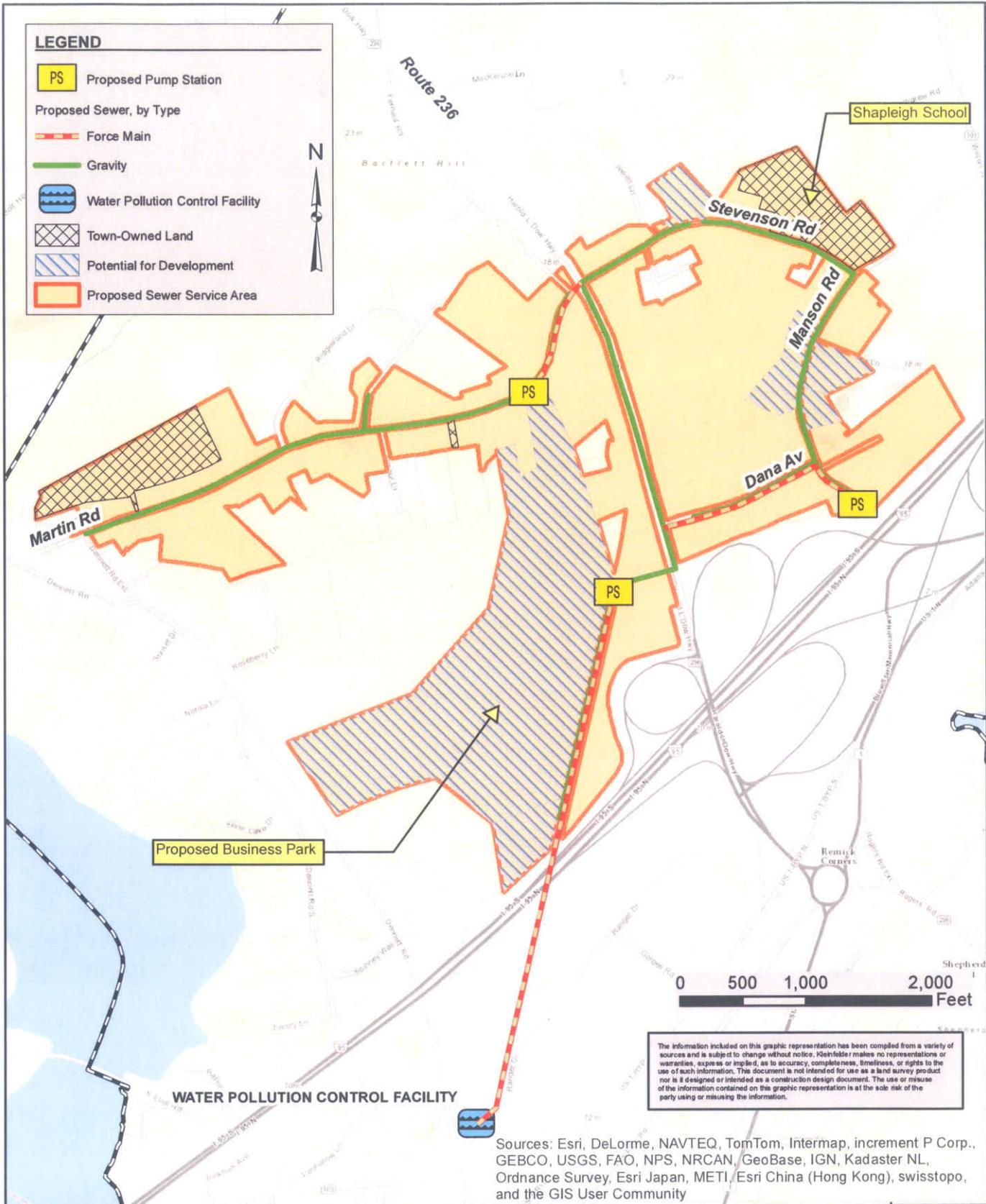
- Project Area (Sewer Service)
- Water Pollution Control Facility
- Dana Ave Mobile Home Park (DMH)
- Shapleigh Middle School
- Shapleigh School Pump Station
- Parcels
- Town Boundary



PROJECT NO.	20140119
DRAWN BY:	JULY 2014
CHECKED BY:	BN
FILE NAME:	DTP
	850 - Project 2.mxd

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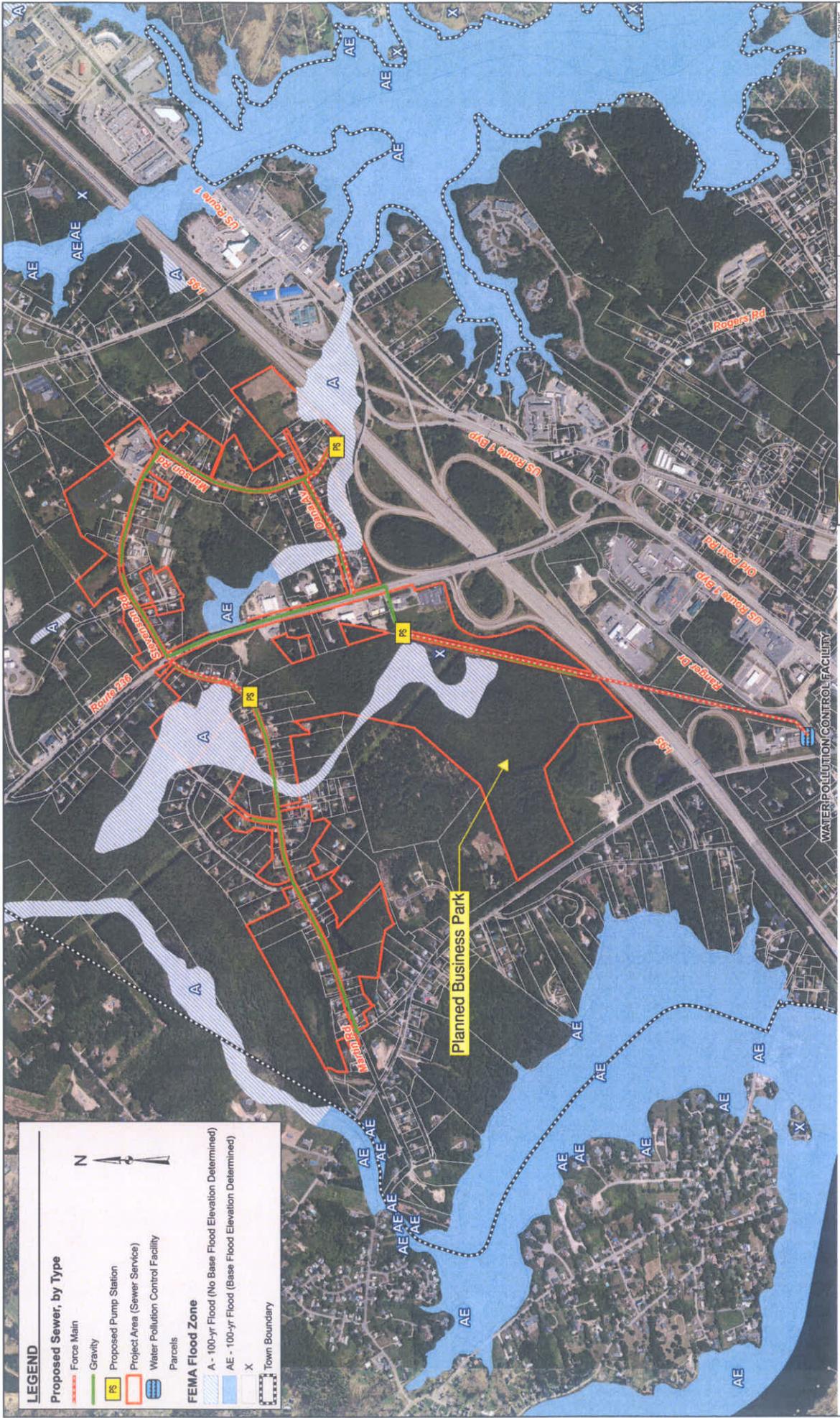
**EXISTING DEVELOPMENT & PROPOSED SEWERING PLAN**  
ROUTE 236 SEWER EXTENSION PROJECT  
TOWN OF KITTERY, MAINE



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Sources: Esri, DeLorme, NAVTEQ, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, and the GIS User Community

 <p><b>KLEINFELDER</b> Bright People. Right Solutions. www.kleinfelder.com</p>	PROJECT NO.	20140199	<p align="center"><b>SEWER SERVICE AREA &amp; POTENTIAL DEVELOPMENT PLAN</b></p> <p align="center">ROUTE 236 SEWER EXTENSION PROJECT TOWN OF KITTERY, MAINE</p>	FIGURE
	DRAWN:	JULY 2014		<p align="center"><b>3</b></p>
	DRAWN BY:	BW		
	CHECKED BY:	DTP		
	FILE NAME:	Figure3-SewerServicePlan.mxd		



**LEGEND**

**Proposed Sewer, by Type**

- Force Main
- Gravity
- Proposed Pump Station
- Project Area (Sewer Service)
- Water Pollution Control Facility

**Parcels**

**FEMA Flood Zone**

- A - 100-yr Flood (No Base Flood Elevation Determined)
- AE - 100-yr Flood (Base Flood Elevation Determined)

**Town Boundary**

**Other Symbols:**

- X

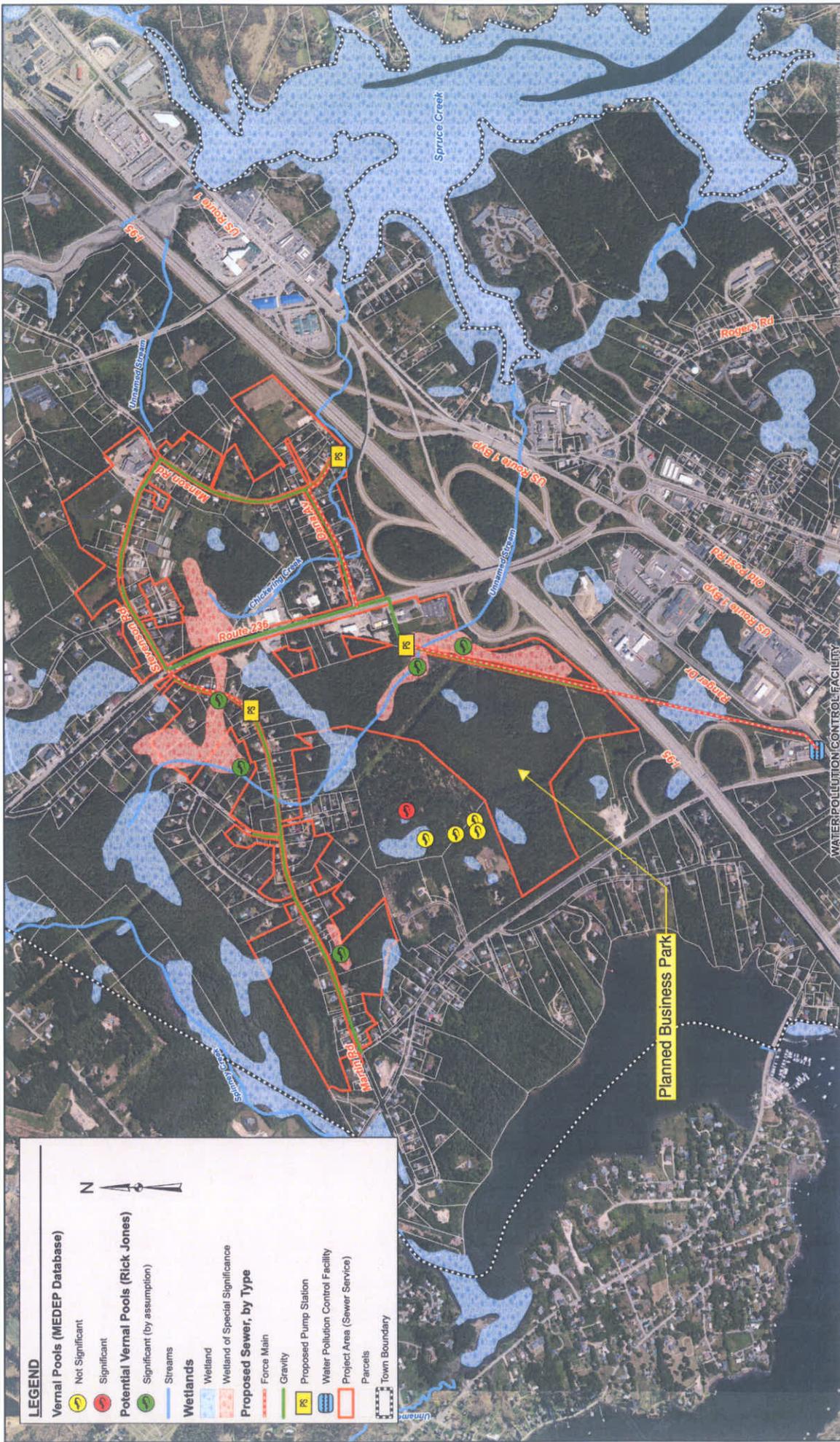


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CHECKED BY: DTF  
FILE NAME: 100 Year Flood

**FEMA FLOOD PLAIN**  
ROUTE 236 SEWER EXTENSION PROJECT  
TOWN OF KITTERY, MAINE

FIGURE **4**



**LEGEND**

**Vernal Pools (MEDEP Database)**

- Not Significant
- Significant

**Potential Vernal Pools (Rick Jones)**

- Significant (by assumption)

**Streams**

- Streams

**Wetlands**

- Wetland
- Wetland of Special Significance

**Proposed Sewer, by Type**

- Force Main
- Gravity
- Proposed Pump Station
- Water Pollution Control Facility
- Project Area (Sewer Service)

**Other Features**

- Parcels
- Town Boundary

**WETLANDS, STREAMS AND VERNAL POOLS**

ROUTE 236 SEWER EXTENSION PROJECT  
TOWN OF KITTERY, MAINE

PROJECT NO. 20140119  
DRAWN: AUGUST 2014  
DRAWN BY: [blank]  
CHECKED BY: [blank]  
FILE NAME: [blank]

DATE: 8/14/14

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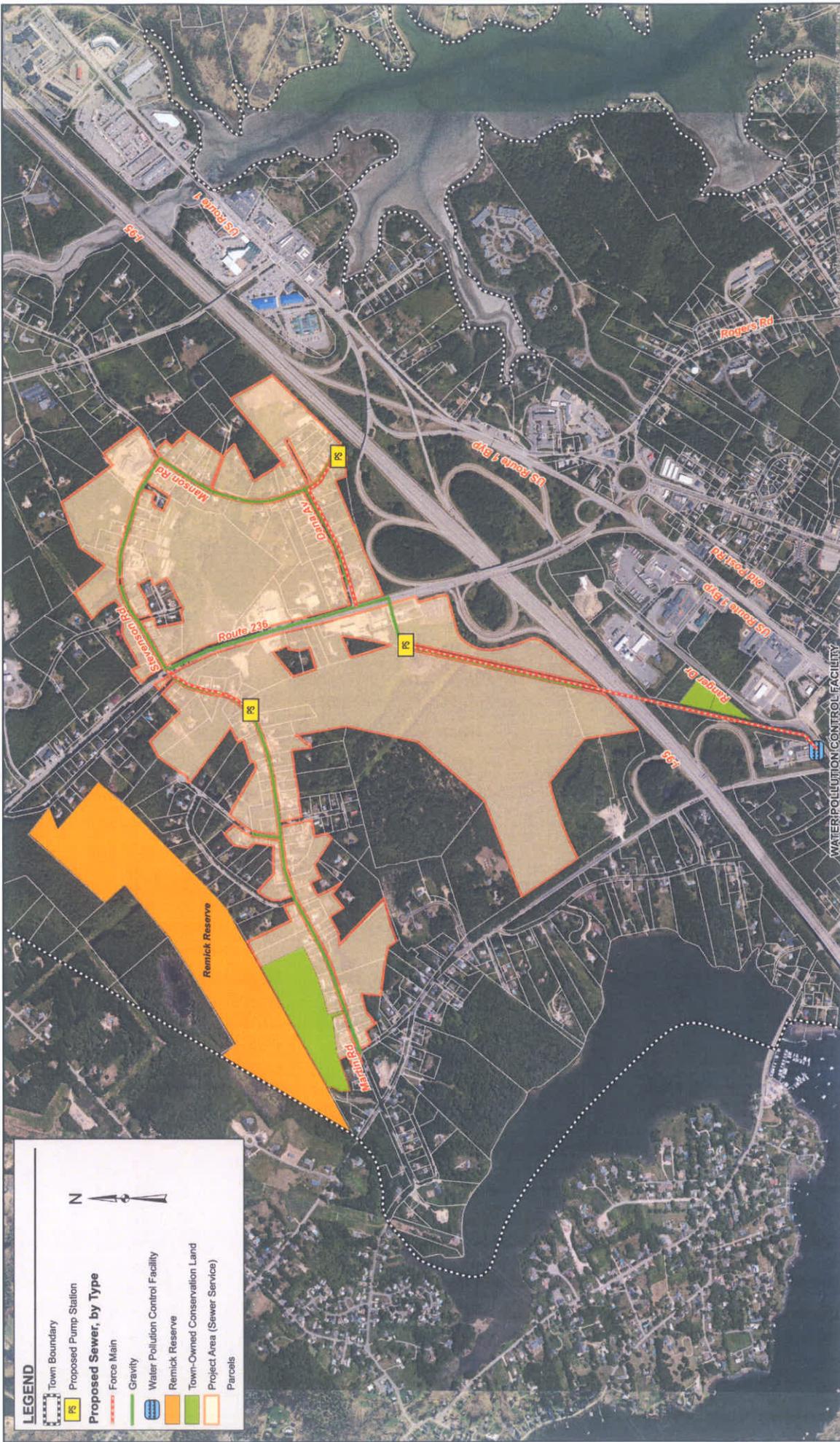
FIGURE 5

0 500 1,000 2,000 Feet

WATER POLLUTION CONTROL FACILITY

Planned Business Park





**LEGEND**

- Town Boundary
- Proposed Pump Station
- Proposed Sewer, by Type**
  - Force Main
  - Gravity
- Water Pollution Control Facility
- Remick Reserve
- Town-Owned Conservation Land
- Project Area (Sewer Service)
- Parcels

FIGURE **7**

**PRESERVATION LANDS**  
ROUTE 236 SEWER EXTENSION PROJECT  
TOWN OF KITTERY, MAINE

PROJECT NO.	20140119
DRAWN BY	AUGUST 2014
DESIGNED BY	ETP
FILE NAME	ES - Page 5.mxd

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0 500 1,000 2,000 Feet