



Surfside Avenue & Atlantic Place

Paper Street Survey, Concept Design, and Permitting Investigation

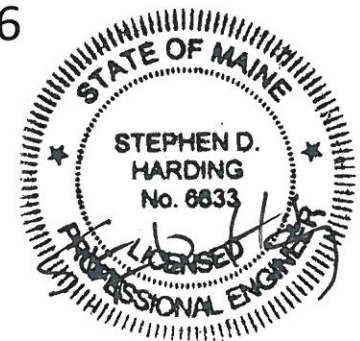
Prepared for:

Cape Elizabeth Conservation Committee
Town of Cape Elizabeth, Maine

Prepared by:

Sebago Technics, Inc.
75 John Roberts Road
Suite 1 A
South Portland, Maine 04106

May 2017



May 30, 2017

16493



May 30, 2017
16493

Cape Elizabeth Conservation Committee
Maureen O'Meara, Town Planner
Town of Cape Elizabeth
320 Ocean House Road
Cape Elizabeth, Maine 04107

**RE: Paper Street Survey, Concept Design, and Permitting Investigation
Surf Side Avenue & Atlantic Place**

Dear Committee Members and Maureen:

Introduction

Sebago Technics, Inc. (Sebago) has been retained by the Town of Cape Elizabeth (Town) in the survey, natural resource mapping, concept planning, and the potential permitting conditions associated with the paper street sections of Surf Side Avenue and Atlantic Place for the purposes of determining the feasibility of creating a new greenbelt path. Sebago has communicated with both State and Federal regulatory agencies as well as the Town staff that would have input into the design and permitting process. Sebago has not solicited public feedback on "other practical considerations" as part of this review process. The following discussion provides an assessment of the conditions associated with the proposed path project.

Potential Project Scope

The Town Council requested a feasibility review for a potential trail to extend through the paper streets of Surf Side Avenue and Atlantic Place. A 2014 USGS Quadrangle based Location Map showing the location of the potential project area within Cape Elizabeth is included within the appendix section of this report. We have also included several photographs of the project area in the appendix section of this report.

According to the February 6, 2017 Right-of-Way Survey Plan of Atlantic Place & Surf Side Avenue as prepared by Sebago which is included with this report, the paper street segment of Surf Side Avenue is approximately 1,500 feet in length and has a width of 50 feet that widens at its northeasterly end and the paper street segment of Atlantic Place is approximately 550 feet in length and has a width of 20 feet. Therefore depending on its eventual alignment, the path could be roughly 2,050 linear feet in length.

For the purposes of our evaluation, we assumed that only five feet of clear zone would be required and that the path would be an unimproved foot path similar to other rustic paths within the Town's Greenbelt with minimal isolated improvements (narrow boardwalk, stone placement, or other minimalistic improvements in wet areas or those areas crossing drainage paths). We also have assumed that similar to other Town Greenbelt rustic paths that no fill material would be placed in order to establish the path nor would any trees would be removed.

The path would begin just beyond the end of the improved bituminous asphalt pavement portion of Pilot Point Road near its intersection with Waumbek Road. From the easterly side of the gravel road extension of Pilot Point Road, the path would potentially meander southeasterly through existing trails

within the limits of Surf Side Avenue and through a parcel identified on Map U12 with no apparent owner. It is important to note that, if necessary, the path could veer away for the existing casual path alignment and completely stay within the Surf Side Avenue right-of-way limits and not enter the lot on Map U12.

From this point, the trail would then extend westward through low growing shrubs which would need to be cut back to provide access. The trail then extends westward on mowed lawn, through another section of natural vegetation, across another mowed lawn, then around a fenced garden, through an undeveloped wooded lot, and on through an expanse of mowed lawns to the intersection with Atlantic Place. Once within the Atlantic Place right-of-way, the trail would extend along a gravel driveway, alongside a mulched landscape bed, and onto the paved portion of Atlantic Place, eventually intersecting with Pilot Point Road.

There appears to be sufficient area to preserve native growth between the trail and the top of the nearby cliff and potential to also add vegetated buffers between a potential trail and abutting home owners which would better define the path alignment and help demarcate public versus private property. For the possible vegetated buffers being designed to provide a separation between private property and the path, care should be taken to select plantings that will not affect the private landowners' views of the ocean.

Resource Investigation

In order to assess the resources which would need to be considered in the placement of the path and any permitting required to be able to construct the project, Sebago Technics investigated the limits of the isolated wetland boundaries within the Surf Side Avenue right-of-way and flagged these wetlands in the field. No wetlands are present within the Atlantic Place right-of-way. The delineation was performed in April of 2017 by Sebago's Gary Fullerton and was conducted in general accordance with the 1987 Wetlands Delineation Manual and Northeast Regional Supplement authored and published by the U.S. Army Corps of Engineers (USACE). A separate report of wetland field investigation findings along with a variety of site wetland photographs are included in the appendix section of this report.

In general, our field delineation identified six isolated freshwater wetland areas and no vernal pools. Two of these wetlands are located on the northeast section of Surf Side Avenue and are currently being avoided by foot traffic. Another narrow wetland area, to the east of the gravel road extension of Pilot Point Road in the northeast section of Surf Side Avenue, is currently being crossed via several large stones being placed in the wetland which has a width of about 10 feet. This wetland could either be avoided completely by relocating the trail alignment or the crossing could be enhanced by adding some additional stepping stones or potentially a short section of boardwalk.

Three other isolated wetland pockets were located near the central area of Surf Side Avenue. All three are being crossed by foot traffic through the existing trail segments, however, the two most westerly pockets could easily be avoided by shifting the path further to the north where there are 20 to 40-foot clearances from the wetland edges available from the northerly right-of-way limits. The wetland located near lots identified as #4 (Map U12/Lot 70) and #5 (part of Map U12/Lot 71) is a bit more problematic to avoid as the wetland is very close to the northerly limits of the right-of-way and there is a nearby cliff section toward the southerly right-of-way limit. The path through this wetland could be enhanced by a short section of boardwalk. Should it be determined that the current path through this wetland needs to be avoided then it appears that a short section of a handrail or fence, such as the wrought iron fence

currently installed along the cliff section near Lot 9 (Map U12/Lot 74A), would provide an effective safety barrier.

There are other privately installed improvements within the upland sections of the Surf Side and Atlantic Place right-of-ways (a wooden deck, a granite bench, a garden area enclosed by a wooden fence, stairs, landscape planting bed, and several lawns) that could be avoided and co-exist with a path.

Permitting Considerations

If wetlands are impacted, the project may require local, state, and federal permits respectively be received from the Town of Cape Elizabeth Planning Board, the Maine Department of Environmental Protection (DEP), and the U.S. Army Corps of Engineer (USACE).

Local Level Permitting

All of the wetlands delineated along the Surf Side paper street are RP-2 wetlands as none of them are greater than 1-acre which is a necessary threshold to elevate them to an RP-1 designation. According to the Town of Cape Elizabeth Code Enforcement Officer, Ben McDougal, the local permitting needs will consist of a Resource Protection permit from the Cape Elizabeth Planning Board should any wetlands be directly impacted.

Given that the scope of the project it is a modest recreational trail, it is envisioned based on historical decisions on similar projects that the Planning Board approval would not represent a significant obstacle and could be readily achieved. A May 11, 2017 email from Ben McDougal which outlines the local permitting perspective is included within the appendix of this report. In this email, Ben also confirmed that the Town's Shoreland Zoning regulations would not contain any restrictions that would prevent this trail from being installed nor would there be any further permitting required through the Shoreland Zone.

State Level Permitting

On May 2, 2017, we met at the project site with Audie Arbo of the Maine DEP. We walked the site and reviewed the mapped wetlands within the context of the potential path project parameters. During the field visit, Ms. Arbo was able to confirm the wetlands delineation and provide clarification of the DEP's permitting requirements for this project. A copy of a May 19, 2017 email from the DEP's Audie Arbo is included in the appendix to this report.

Due to the location of the wetlands being within 250-feet of a protected coastal wetland resource, all of the delineated wetlands are considered Wetlands of Special Significance (WOSS) by the Maine DEP under the Natural Resources Protection Act (NRPA). Under NRPA, any direct impacts to these wetlands would technically require an individual NRPA permit. Impacts near these small wetlands would not require a permit as the wetlands do not have any setbacks associated with them. Therefore, a boardwalk near the wetland or the installation of a fence or handrail nearby would not require a DEP permit.

Should there be a need to impact a wetland with a boardwalk crossing, the DEP Staff does have the ability, if requested, to waive a public trail project from an individual permit status down to a minimized Tier 1 permitting level which would be much easier to prepare and process. Given this project's lack of imported fill material, and its very limited environmental disturbance both during construction and during its operational use after construction, it is very likely based on precedence that the DEP would

waive the permitting to a Tier 1 level versus the individual permit level. The Tier 1 permit level is a relatively minor permit and should be readily approved by the DEP.

Federal Level Permitting

In order to assess the permitting for the federal review process, we engaged in email communications with Jay Clement of the USACE. We reviewed the project goals with Mr. Clement so that the permitting needs of the project could be assessed. A copy of Mr. Clement's May 1, 2017 email transmission is included in appendix of this report.

The USACE has jurisdiction on all wetlands. They do not have an adjacency jurisdiction so activities outside of wetland limits which are not actively impacting the wetlands are not regulated by the USACE. Therefore, Jay Clement's advice was to avoid the wetlands altogether which would not trigger a permitting need from the USACE. In addition, if the project were able to span the wetland crossing areas with a boardwalk such as those associated with the small narrow wetland finger in the northeasterly portion of project area then no federal permits would be required.

The USACE regulates common activities in inland wetland areas under its October 2015 Maine General Permit under two levels, Category 1 and Category 2, with Category 1 standards being less demanding. Given the project circumstances, a Category 1 permit would need to be obtained by submitting a Self-Verification Notification Form pursuant to Category 1 of the ASACE's Maine General Permit for any wetland related impacted. Also in past projects, any permitting through the federal program would expose the project to the issues associated with the New England Cottontail Rabbit and the Northern Long Eared Bat being listed as a federally threatened species. Since this path project will not require tree removal and only minimal vegetation removal, it is not believed that these issues would be significant should an USACE permit be determined to be required to install the path.

Other Agency Considerations

There are also agencies within the state and federal permitting process, such as U.S. Fish & Wildlife, Maine Department of Inland Fish & Wildlife (IF&W) and the Maine Historical Preservation Commission (MHPC) that can influence permitting and design issues of projects. If the Maine DEP and the USACE permits are not triggered, these other agencies would not review the potential path improvements. Should the need to permit the path through a state and/or federal permitting program, the limited scope of the path and its minimal associated disturbances would likely not create a significant adverse reaction from these agencies.

Estimated Costs of Permitting and Construction

There are two available options to the Town to implement this path project. We have assumed that no design costs would be associated with either option as the Conservation Committee, contractors, and volunteers have constructed past projects with similar elements without detailed design drawings, details, or specifications.

Option 1

Option 1 would include the installation of boardwalks in two potential locations. Should it be desirable to cross the wetlands by placing sections of boardwalks within them, then the permitting process would become necessary with Town of Cape Elizabeth and Maine DEP permits as described previously being required. The path project may also include Greenbelt Path signage and potentially installing demarcation plantings to better define the path location and limits of the northerly abutting private land

alongside the Surf Side paper street boundary. Based on 2017 costs and as detailed as follows, it is projected that the cost to the Town to implement Option 1 is approximately \$10,000 depending on the nature and extent of the plantings installation.

Construction Cost Estimate – Option 1

Permitting (Town & Maine DEP)	\$2,500	
Plantings (assumed)	\$5,000	
Boardwalk (70 feet @ \$10/Foot)	\$ 700	
Signage	<u>\$ 200</u>	
SUBTOTAL	\$8,400	
Plus 20% Contingency	<u>\$1,680</u>	
TOTAL	\$10,080	Say \$10,000

Option 2

Option 2 would align the path to avoid the wetlands such that no permitting costs would be incurred to establish the path. Again, this option may include the placement of Greenbelt Path signage and potentially installing demarcation plantings to better define the path location and limits of the northerly abutting private land alongside the Surf Side paper street boundary, and the possible installation of a short section of handrail or wrought iron fencing to protect one section of the path from a nearby cliff. Based on 2017 costs and as detailed as follows, it is projected that the cost to the Town to implement Option 2 is approximately \$7,800 depending on the nature and extent of the plantings and fence installation.

Construction Cost Estimate – Option 2

Permitting	\$ 0	
Plantings (assumed)	\$5,000	
Handrail or fence (50 feet @ \$25/Foot)	\$1,250	
Signage	<u>\$ 200</u>	
SUBTOTAL	\$6,450	
Plus 20% Contingency	<u>\$ 1290</u>	
TOTAL	\$ 7,750	Say \$7,800

Conclusions

This report has investigated the feasibility for the Town to establish a path within the existing Surf Side Avenue and Atlantic Place paper street right-of-ways. Sebago has not solicited public feedback on "other practical considerations" as part of this review process. Based on the boundary and existing conditions survey conducted by Sebago along with the wetlands, permitting, and siting evaluations of the path alignment undertaken by Sebago in concert with the Town staff, it appears that such a path would be readily achievable.

Further, should no wetland impacts be undertaken through the development of the path, no permitting ramifications would result for the path establishment under current local, state, and federal regulations.

There are two available options to the Town to implement this path project.

Option 1 would be to install boardwalks in two potential locations. To do so, a Resource Protection Act permit from the Town of Cape Elizabeth Planning Board and a Tier 1 NRPA permit from the Maine DEP permits would be required. Both of these permits would likely be approved by both of these regulatory bodies given their past practices on similar low impact projects. Permitting through the USACE would not be required for boardwalks and would only be necessary if direct fill material was desired to be placed in the wetlands. The cost to the Town to implement Option 1 is approximately \$10,000.

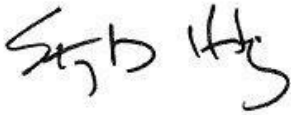
Option 2 would align the path to avoid the wetlands under which no local, state, or federal permits would be required, but a short section of handrail or wrought iron fencing may be desired to protect one isolated section of the path from a nearby cliff. The cost to the Town to implement Option 2 is approximately \$7,800.

Closing

Sebago Technics is very appreciative of the Town's request that we investigate the various aspects of the potential Surf Side Avenue and Atlantic Place paper street path project. Should there be any questions or comments regarding this report, please do not hesitate to contact us.

Sincerely,

SEBAGO TECHNICS, INC.

A handwritten signature in black ink, appearing to read "Stephen D. Harding". The signature is written in a cursive, somewhat stylized font.

Stephen D. Harding, P.E.
Town Engineer

SDH/sdh

APPENDIX

- USGS Location Map Exhibit
- April 11, 2017 Project Site Photos
- May 1, 2017 Wetland Report & Site Wetland Photos
- Gary Fullerton of Sebago Technics, Inc. Resume
- May 1, 2017 Email from Jay Clement of USACE
- May 19, 2017 Emails from Audie Arbo of Maine DEP
- May 4, and May 11, 2017 Emails from Ben McDougal, Cape Elizabeth Code Enforcement Officer
- June 13, 2017 Response Letter by Sebago Technics to May 30, 2017 Letter to Chair Jim Tasse by Jim Fisher of Northeast Civil Solutions



SEBAGO
TECHNICS

CIVIL ENGINEERING • SURVEYING • LANDSCAPE ARCHITECTURE
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Tel. 207-200-2100

250 Goddard Rd. - Suite B
Lewiston, ME 04240
Tel. 207-793-5656

**SITE LOCATION MAP
OF ATLANTIC PLACE & SURF SIDE AVE**

LOCATION:
ATLANTIC PLACE & SURF SIDE AVE
CAPE ELIZABETH, MAINE

INFORMATION:
2014 USGS QUADRANGLE
(CAPE ELIZABETH)

SCALE: 1" = 2,000'
DATE: 4/27/2017



Photo 1 (04-11-17): Photo taken looking northwest toward existing crossing of the narrow wetland alongside the gravel surface extension of Pilot Point Road. This is a potential location for a boardwalk section.



Photo 2 (04-11-17): Photo taken on existing path to outlook near the ocean looking northwest toward the gravel surface extension of Pilot Point Road.



Photo 3 (04-11-17): Photo taken looking southwest from within the northeasterly area of Surf Side Avenue paper street. Vegetation in this area is consistent and would need to be trimmed back to create a new path.



Photo 4 (04-11-17): Photo taken near Lot #1 from within the Surf Side Avenue paper street looking northeast. Flag Pole is within the paper street right of way and platform at right hand side of photo is located ocean side & outside of the right of way.



Photo 5 (04-11-17): Photo taken near Lot #4 from within the Surf Side Avenue paper street looking northeast toward grass area near Lot #3 in the background. Existing path has been trimmed through upland vegetation.



Photo 6 (04-11-17): Photo taken near Lot #5 from within the Surf Side Avenue paper street looking northeast through wetland toward grass area near Lot #4. Existing path has been trimmed through wetland vegetation and could be a potential boardwalk location.



Photo 7 (04-11-17): Photo taken near Lot #5 from within the Surf Side Avenue paper street looking northeast. Existing wetland is located on left hand side of photo (see Photo #6). To avoid the wetland, the path with potentially a handrail or fence could be installed to the right of the vegetation.



Photo 8 (04-11-17): Photo taken near Lot #5 from within the Surf Side Avenue paper street looking northeast toward wooden fence garden enclosure located in the paper street near Lot #5. Path can go around fenced area on either side.



Photo 9 (04-11-17):) Photo taken near Lot #7 from within the Surf Side Avenue paper street looking southwest toward wetland in the foreground and grass area located within the paper street near Lot #8 in background. Path can go around the wetland to the right and remain within the paper street limits and avoid the wetland pockets.



Photo 10 (04-11-17): Photo taken near Lot #8 from within the Surf Side Avenue paper street looking northeast across grass area.



Photo 11 (04-11-17): Photo taken near Lot #9 from within the Surf Side Avenue paper street looking southwest toward intersection area of Atlantic Place right of way in background. Fence on left hand side of photo is southeasterly edge of Surf Side Avenue right of way.



Photo 12 (04-11-17): Photo from within the Surf Side Avenue paper street near Atlantic Place looking southeast. Pink witness flag in right hand side of photo indicates the location of the southerly end location of Surf Side Avenue right of way.



Photo 13 (04-11-17): Photo taken near Lot #10 from within the Atlantic Place paper street near its bend looking southeast.



Photo 14 (04-11-17): Photo taken near Lot #10 from within the Atlantic Place paper street near its bend looking north.



WETLANDS REPORT

Surfside Avenue & Atlantic Place

Prepared for:

Cape Elizabeth Conservation Committee
Town of Cape Elizabeth, Maine

Prepared by:

Sebago Technics, Inc.
75 John Roberts Road
Suite 1 A
South Portland, Maine 04106

May 1, 2017

Wetlands Report

Surfside Avenue Survey

Introduction:

Sebago Technics, Inc was retained to complete a wetland assessment for the Cape Elizabeth Conservation Committee for a potential trail on the Surfside Avenue and Atlantic Place paper streets. The wetlands were found only on the Surfside Avenue portion which is located along the bank of Broad Cove (Atlantic Ocean). Attached are several photographs showing the wetland areas in the project area.

The following summary narrative describes the result of our wetland delineation.

Wetlands

The wetlands on the site were delineated by Gary M. Fullerton of Sebago Technics on April 11, 2017. This delineation was completed in general accordance with the standards and methods outlined in the 1987 Wetlands Delineation Manual and Northeast Regional Supplement authored and published by the U.S. Army Corps of Engineers. The wetlands were marked in the field with alpha numeric pink “wetland boundary” flagging. The flags were located using a Trimble Pro6H backpack gps unit capable of decimeter accuracy.

Wetland Classification

The wetlands on the site fall within two general classifications. There are seasonally flooded/saturated, palustrine scrub-shrub, broad-leaved deciduous wetlands (PSS1E) and seasonally flooded/saturated, broad-leaved deciduous palustrine forested wetlands (PFO1E) as defined by *Classification of Wetlands and Deepwater Habitats* (Cowardin, et al., 1979).

The PSS1E wetlands are the scrub-shrub wetlands on the eastern portion of the paper street and the PFO1E wetlands are the two forested wetlands on the western portion of the paper street that are separated by a stone wall. All of the wetlands found are isolated wetlands that are small depressions in the landscape between the residential lots on Pilot Point Road and the high bank along Broad Cove.

The dominant vegetation in the scrub-shrub wetlands included meadowsweet (*Spiraea latifolia*) multiflora rose (*Rosa multiflora*), willow (*Salix sp.*), soft rush (*Juncus effusus*), and sensitive fern (*Onoclea sensibilis*). The dominant vegetation in the forested wetlands included red maple (*Acer rubrum*), gray birch (*Betula populifolia*), morrows honeysuckle (*Lonicera morrowii*), and sensitive fern (*Onoclea sensibilis*).

The soils mapped in the Cumberland County Soil Survey are Hollis very rocky fine sandy loam upland soils. These soils are shallow to bedrock (between 10 and 20 inches deep). Hand-augured borings generally showed 6 to 12 inches of fine sandy loam overlying bedrock.

Wetlands of Special Significance

All of the wetlands found on this site are classified as wetlands of special significance. A wetland of special significance is defined in the Natural Resources Protection Act, Chapter 310 – Wetlands and Waterbodies Protection, Section 4. All of the wetlands identified within the project area are freshwater wetlands located within 250 feet of a coastal wetland.

We trust that this information is sufficient for your use in determining the feasibility of the proposed trail within the Surfside Avenue paper street. If you have any questions regarding this report, please feel free to contact me.




Gary M. Fullerton, CSS, LSE
Director of Natural Resources



PHOTOGRAPH #1: View of scrub-shrub wetland in the eastern portion of the paper street.



PHOTOGRAPH #2: View of wetland adjacent to the existing Surfside Avenue and Lot 1.


 <small>CIVIL ENGINEERING • SURVEYING • LANDSCAPE ARCHITECTURE</small>	Wetland Photos		SCALE: None
			DATE: April 11, 2017
75 John Roberts Road, Suite 1A South Portland, ME 04106-6963 Tel. (207) 200.2100	LOCATION: Surfside Avenue/ Atlantic Place Cape Elizabeth, ME	TAKEN BY: Gary M. Fullerton APPLICANT: Cape Elizabeth Conservation Committee	SHEET: 1 of 3



PHOTOGRAPH #3: View of drainage wetland along the existing Surfside Avenue.



PHOTOGRAPH #4: View of scrub-shrub wetland near Lot 4.


 <small>CIVIL ENGINEERING • SURVEYING • LANDSCAPE ARCHITECTURE</small>	Wetland Photos		SCALE: None
			DATE: April 11, 2017
75 John Roberts Road, Suite 1A South Portland, ME 04106-6963 Tel. (207) 200.2100	LOCATION: Surfside Avenue/ Atlantic Place Cape Elizabeth, ME	TAKEN BY: Gary M. Fullerton APPLICANT: Cape Elizabeth Conservation Committee	SHEET: 2 of 3



PHOTOGRAPH #5: View of forested wetland near Lot 6 with stone wall in background.



PHOTOGRAPH #6: View of forested wetland near Lot 7 with stone wall in background.

 <small>CIVIL ENGINEERING • SURVEYING • LANDSCAPE ARCHITECTURE</small> 75 John Roberts Road, Suite 1A South Portland, ME 04106-6963 Tel. (207) 200.2100	Wetland Photos TAKEN BY: Gary M. Fullerton		SCALE: None
			DATE: April 11, 2017
LOCATION: Surfside Avenue/ Atlantic Place Cape Elizabeth, ME	APPLICANT: Cape Elizabeth Conservation Committee	SHEET: 3 of 3	



Education:

University of Rhode Island, Kingston, RI
Bachelor of Science, Soil and Water
Resources, 1998

Registrations:

Licensed Site Evaluator:
Maine #355

Certified Soil Scientist:
Maine #462

Certified Subsurface Wastewater
Disposal System Inspector:
Maine #291

Certified Wetland Scientist:
New Hampshire #246

Certified Designer of Subsurface
Disposal Systems: New Hampshire
#1796

Memberships:

Public Service Leadership Award, 2004,
Maine Association of Professional Soils
Scientists

Maine Association of Site Evaluators

Maine Association of Wetland Scientists

Maine Historic Preservation Association

National Main Street Foundation

Training:

U.S.A.C.O.E. Wetlands Delineations
Training Course

Mr. Fullerton joined Sebago Technics in 2000 as a Soil Scientist. Gary is a Maine Licensed Site Evaluator and Certified Subsurface Wastewater Disposal Systems Inspector. He has experience with septic system design, field delineation of coastal and freshwater wetlands, and site evaluations and inspections for septic system designs. He is responsible for preparing designs for residential and commercial septic systems and management and support for natural resource issues on both residential and commercial properties. He is responsible for conducting field assessments of natural resource issues which involve performing soil evaluations for septic system designs, performing wetland delineations, and preparing high intensity soil surveys. Mr. Fullerton is also responsible for providing appropriate permitting applications and supporting documentation for wetland impacts of projects.

In 2013 Mr. Fullerton performed residential sewer inspections for illicit connections as part of our work in the Thornton Heights Sewer separation project. He will provide similar inspections for Cape Elizabeth as part of our two-man inspection teams.

Prior to joining Sebago Technics, Inc., Mr. Fullerton was a Soil Evaluator for a Rhode Island based environmental consulting and engineering firm for two years, where he worked in conjunction with the University of Rhode Island to research and design alternative and innovative septic systems for environmentally sensitive areas. While in school, he delineated freshwater wetlands in both Rhode Island and Massachusetts. Mr. Fullerton has over eleven years of experience in Maine as a natural resource specialist.

Some of the more notable assignments that have been completed by Mr. Fullerton include:

- **Maine Turnpike Authority** - 7 mile stretch of Vernal Pools and Wetlands
- **Sanford, Maine, High School** - Wetlands and Vernal Pools Mapping - 69 Acre Site
- **Brewer Business Park, Brewer, Maine** - Natural resource mapping, surveying preliminary planning and design
- **Bigelow Laboratory, East Boothbay, Maine** - soils and subsurface conditions investigation
- **Thornton Heights and Pleasantdale Sewer Separation, City of South Portland, ME**

Steve Harding

From: Clement, Jay L CIV USARMY CENAE (US) <Jay.L.Clement@usace.army.mil>
Sent: Monday, May 01, 2017 7:42 AM
To: Steve Harding
Subject: RE: Cape Elizabeth Feasibility Study

Follow Up Flag: Follow up
Flag Status: Flagged

Categories: Important

Steve and Maureen:

If you avoid the wetlands, the Corps has no jurisdiction because no matter how close you are, you don't propose any work beyond the MHW of the ocean. If you can't avoid the wetlands and all you do is construct a pile supported boardwalk with no filling, the Corps has no jurisdiction because in freshwater wetlands it's the filling that triggers Corps jurisdiction. If you can't avoid the wetlands and you can't construct a pile supported boardwalk and you need to construct a filled path in wetlands, you'll need a Corps permit and yes, submitting a Self-Verification Notification Form pursuant to Category 1 of our Maine General Permit would be the path to follow. But on paper at least, I see no reason why avoidance isn't an available and practicable alternative.

Jay Clement
Senior Project Manager
US Army Corps of Engineers
Maine Project Office

-----Original Message-----

From: Steve Harding [mailto:sharding@sebagotechnics.com]
Sent: Sunday, April 30, 2017 6:11 PM
To: Clement, Jay L CIV USARMY CENAE (US) <Jay.L.Clement@usace.army.mil>
Cc: Maureen O'Meara <maureen.omeara@capeelizabeth.org>
Subject: [Non-DoD Source] Cape Elizabeth Feasibility Study

Hi Jay -

I hope you are well and enjoying the spring season that finally arrived. Sorry for the large attachments, but I was hoping to save you a field trip by providing you with all the information that you might need to advise us. I am currently working with the Town of Cape Elizabeth to investigate the feasibility to construct a rustic foot path along two paper streets near the ocean.

The paper streets are called Surf Side Avenue and Atlantic Place and the Location Map will give you a sense of where they are located within Cape Elizabeth. We have surveyed the right of ways boundaries and developed LIDAR level topography for the paper streets which is shown on the attachments. The wetlands in Surf Side Avenue (none in Atlantic Place) are also shown on the larger file in relation to the right of way boundaries. Gary did not find any vernal pools associated with the paper streets.

The Town would like to assess the viability of constructing a rustic foot path similar to other paths in the Town's Greenbelt system. Typically, about 5-foot section of vegetation is cleared and then a foot path is developed with a width of 2 to 3-feet. On firm ground, no surface treatment occurs. In wetter areas of drainage crossings, the Town may want to put a stone material down or construct a section of boardwalk.

There are some existing trail segments that go through brush areas and wetland areas informally. Gary picked up these informal foot paths and they are shown as narrow lines on the wetlands plan. No surface improvements have been made other than some stepping stones appear to be placed in the narrow wetland along the extension to Pilot Point road to cross that wetland which is about 10 feet or so across. Vegetation in the brush areas and wetlands appear to have been trimmed back by cutting the vegetation about 6 inches from the ground to provide a narrow clearing.

I am assuming from past direction that avoiding the wetlands would be preferred by the Corps and would require no Corps' permitting action despite the path's proximity to the ocean. I believe that if we were to impact a wetland with a path that a Category 1 application would be necessary. We may be able to avoid the wetlands, but there is one wetland near Lots #4 and #5 that would be somewhat close to the nearby cliffs if we go oceanside of the wetland to avoid it. The other potential impact is the narrow wetland near the extension of Pilot Point Road that might be more passable with a boardwalk section or more stepping stones.

The project would not involve the taking of any large trees of more than 3-inches DBH and would involve the isolated trimming and removal of brush and scrub vegetation so issues related to bats and the new England Cottontail Rabbit would appear to not apply.

Let me know your thoughts so I can share the Corps' needs with the Town.

Thanks for your help, Steve

Stephen D. Harding, P.E. Senior Project Manager

Office: 207.200.2100 | Direct: 207.200.2057 | Cell: 207.749.3541

75 John Roberts Rd., Suite 1A, South Portland, ME 04106

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<Blockedhttp://www.sebagotechnics.com/>

Steve Harding

From: Arbo, Audie <Audie.Arbo@maine.gov>
Sent: Friday, May 19, 2017 1:41 PM
To: Steve Harding
Cc: Maureen O'Meara
Subject: RE: Surf Side Avenue Paper Street - Cape Elizabeth

Follow Up Flag: Follow up
Flag Status: Flagged

Categories: Important

Steve-

1. The entire feature is the path even the area through the wetlands.
2. Your wording is fine for 2.

From: Steve Harding [mailto:sharding@sebagotechnics.com]
Sent: Friday, May 19, 2017 1:32 PM
To: Arbo, Audie
Cc: Maureen O'Meara
Subject: RE: Surf Side Avenue Paper Street - Cape Elizabeth

Hi Audie – Appreciate the feedback. Can you clarify the second part of your email?

1. When you say path, you are referring to the path segments that are beyond the limits of the wetlands?
2. and by “no cutting” you mean there would be “no cutting of trees” and that the incidental cutting & trimming of brush/shrubs would not require further permitting?

Thanks for your help...Steve

From: Arbo, Audie [mailto:Audie.Arbo@maine.gov]
Sent: Friday, May 19, 2017 1:01 PM
To: Steve Harding <sharding@sebagotechnics.com>
Cc: Maureen O'Meara <maureen.omeara@capeelizabeth.org>
Subject: RE: Surf Side Avenue Paper Street - Cape Elizabeth

The Surf Side walking path would require the following steps:

-A tier 1 waiver request for the crossings within the wetland of special significance (wetland within 250' of a coastal wetland), then a tier 1 permit for the minimal amount of wetland impact for the crossings.

-The path itself would not require additional permitting as there is not cutting or grading associated with the path.

Audie Arbo, Biologist
Maine Department of Environmental Protection
Bureau of Land Resources, Land Division
Field Services and Enforcement
312 Canco Rd, Portland, ME 04103
(207) 615-3236
audie.arbo@maine.gov

From: Steve Harding [<mailto:sharding@sebagotechnics.com>]
Sent: Thursday, May 18, 2017 3:00 PM
To: Arbo, Audie
Cc: Maureen O'Meara
Subject: Surf Side Avenue Paper Street - Cape Elizabeth

Hi Audie –

I know that this time of the year is incredibly busy for you, but I was hoping that you would have some time in the near future to put together a brief Field Report with your findings of your visit to the subject project in Cape Elizabeth on May 2nd with Maureen O'Meara and I to review the mapped wetlands by Sebago Technics and the DEP permitting ramifications of a potential footpath within the paper street. Maureen and I are trying to finalize our feasibility report to the Town's Conservation Commission. While we are both confident that we captured the essence of our discussions with you, it would be invaluable to have the DEP's Field Report to collaborate our statements to the Committee and within the report.

Thank you for your help with our project. It is greatly appreciated....Steve

Stephen D. Harding, P.E. *Senior Project Manager*
Office: 207.200.2100 | Direct: 207.200.2057 | Cell: 207.749.3541
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sharding@sebagotechnics.com | www.sebagotechnics.com
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Steve Harding

From: Benjamin McDougal <benjamin.mcdougal@capeelizabeth.org>
Sent: Thursday, May 11, 2017 2:40 PM
To: Steve Harding
Cc: Maureen O'Meara
Subject: Re: Surf Side Avenue & Atlantic Place Plans

Follow Up Flag: Flag for follow up
Flag Status: Flagged

Steve,

I do not see anything in the our Shoreland Zoning regulations that would prevent the trail from being installed. There is no permitting that needs to be done, however, there are several performance standards that must be adhered to. None of these performance standards appear to prevent the installation of the trail.

Regards,
Ben

Benjamin McDougal
Code Enforcement Officer
Town of Cape Elizabeth
320 Ocean House Road
P.O. Box 6260
Cape Elizabeth, ME 04107
(207) 799-1619
benjamin.mcdougal@capeelizabeth.org

On Wed, May 10, 2017 at 4:32 PM, Steve Harding <sharding@sebagotechnics.com> wrote:

Ben – Can you provide an opinion about Shoreland Zoning in relation to this project? Thanks, Steve

From: Steve Harding
Sent: Thursday, May 04, 2017 2:53 PM
To: Benjamin McDougal <benjamin.mcdougal@capeelizabeth.org>
Cc: Maureen O'Meara <maureen.omeara@capeelizabeth.org>
Subject: RE: Surf Side Avenue & Atlantic Place Plans

Thanks Ben....s

From: Benjamin McDougal [<mailto:benjamin.mcdougal@capeelizabeth.org>]
Sent: Thursday, May 04, 2017 2:46 PM
To: Steve Harding <sharding@sebagotechnics.com>

Cc: Maureen O'Meara <maureen.omeara@capeelizabeth.org>

Subject: Re: Surf Side Avenue & Atlantic Place Plans

Hi Steve,

As we discussed in our meeting, if wetland disturbance does not occur, no town permitting is required to install the trail as described. If wetland disturbance is proposed, a Resource Protection Permit is required. Let me know if you have any additional questions.

Regards,

Ben

Benjamin McDougal

Code Enforcement Officer
Town of Cape Elizabeth

320 Ocean House Road

P.O. Box 6260

Cape Elizabeth, ME 04107
(207) 799-1619

benjamin.mcdougal@capeelizabeth.org

On Wed, May 3, 2017 at 12:04 PM, Steve Harding <sharding@sebagotechnics.com> wrote:

Maureen – Here are the plans to go with the draft report.

Ben – Here are the updated plans. If you could provide a short email summarizing yesterday review conversation, we will add it to the final version of the report.

Thanks, Steve



June 13, 2017
16493

Cape Elizabeth Conservation Committee
Maureen O'Meara, Town Planner
Town of Cape Elizabeth
320 Ocean House Road
Cape Elizabeth, Maine 04107

**RE: Paper Street Survey, Concept Design, and Permitting Investigation
Surf Side Avenue & Atlantic Place**

Dear Committee Members and Maureen:

Sebago Technics, Inc. (Sebago) has received and reviewed the May 30, 2017 letter addressed to Jim Tasse, the Chair of the Conservation Committee, regarding the subject project from Jim Fisher of Northeast Civil Solutions (NCS). NCS has been retained by various area residents to evaluate the potential of a trail along the coastline of the paper street of Surf Side Avenue. The NCS package also included a December 17, 2016 plan entitled *Right-of-Way Survey* as prepared by NCS and an April 10, 1911 dated plan entitled *Shore Acres Property of Shore Acres Land Company* which is apparently recorded in the Cumberland County Registry of Deeds (Book 12/Page 45), and a May 30, 2017 Vernal Pool Report for Lots 73 and 74 on Pilot Point Road as prepared by James Logan of Longview Partners, LLC.

We will not comment on legal issues regarding the use of the paper streets nor policy decisions regarding the implementation of the possible path. Based on our review of the NCS package and Sebago's recent *Paper Street Survey, Concept Design, and Permitting Investigation* report which is in its final draft form for confirmation by the Conservation Committee, we do offer the following comments regarding the matters which we believe were contained within the scope of our recent study.

1. *Existing Path* - As noted at the May 9th Conservation Committee, there is an existing casual walking area that would meander across maintained lawn areas, through open wooded areas, and that has been cut through sections of the more thickly vegetated areas. There is a section of the paper street for a distance of 100 to 150 feet on its northeasterly end through a vegetated area that is not clearly cut which requires stepping through and/or over the existing vegetation.
2. *Wetlands Mapping:*
There are variations between the wetlands delineation that was done by Sebago and NCS. In some places there are variations in size and in other locations presence of wetlands have been delineated by one firm and not the other. On May 2, 2017, we met at the project site with Audie Arbo, a Biologist for the Maine DEP and the DEP's Field Services Staff for Cape Elizabeth. We walked the site and reviewed the mapped wetlands within the context of the potential path project parameters. During the field visit, Ms. Arbo was able to confirm the Sebago wetlands delineation and provide clarification of the DEP's permitting requirements for this project. Based on this discussion and communications with the U.S. Army Corps of Engineers' Jay Clement, we do not believe that the presence, size, and/or location of the wetlands would be a

limiting factor in the Town's ability to install a path within the Surf Side Avenue paper street right-of-way.

3. Vernal Pools:

As an attachment to the NCS report, a Vernal Pool Report by Longview Partners, LLC was provided for a vernal pool assessment done on properties along Pilot Point Road. While no map or plan had been provided showing the location of the pool, we believe that it would be approximately 150 feet to the northwest of Surf Side Avenue. While the NCS letter correctly states that Sebago was unaware of the status of the vernal pool at the time of our report preparation, the findings of the Vernal Pool Report would have no impact upon a proposed path.

As noted in the report, the limited egg masses documented in the pool do not meet the Maine Department of Environmental Protection's (DEP) threshold for a Significant Vernal Pool. Therefore, the Maine DEP has no jurisdiction on matters related to this vernal pool and its presence would have no impact on the DEP permitting process.

The U.S. Army Corps of Engineers has no such "significance" standard and can exercise jurisdiction on a vernal pool regardless of the egg mass counts or how the vernal pool was created (i.e., manmade vernal pools can be regulated to the same extent a naturally occurring vernal pool can be regulated). The Army Corps doesn't have an adjacency jurisdiction so if the Town were to propose a trail that does not place fill in a wetland then no permit is required from the Army Corps and the presence of a vernal pool is not relevant. This excerpt below from Jay Clements' May 1, 2017 email correspondence, which is in the appendix section of our draft report, explains the Corps' jurisdictional standards with regards to paths and boardwalks.

If you avoid the wetlands, the Corps has no jurisdiction because no matter how close you are, you don't propose any work beyond the MHW of the ocean. If you can't avoid the wetlands and all you do is construct a pile supported boardwalk with no filling, the Corps has no jurisdiction because in freshwater wetlands it's the filling that triggers Corps jurisdiction. If you can't avoid the wetlands and you can't construct a pile supported boardwalk and you need to construct a filled path in wetlands, you'll need a Corps permit and yes, submitting a Self-Verification Notification Form pursuant to Category 1 of our Maine General Permit would be the path to follow. But on paper at least, I see no reason why avoidance isn't an available and practicable alternative.

Jay Clement
Senior Project Manager
US Army Corps of Engineers
Maine Project Office

Our analysis of a conceptual path along the Surf Side Paper Street right-of-way indicates that the isolated wetlands could be avoided or, if desired, crossed by an elevated boardwalk so no Corps' permit would be required.

If for some reason the Town decided it wanted to place fill within a wetland which would trigger the requirement for a U.S. Army Corps of Engineers permit, then the Corps would consider the value of the pool in the context of habitat around the pool. While the NCS letter did correctly state that the Corps would evaluate an area within a 750-foot radius, the Corps considers the habitat compromised if 25-percent of the land areas within the 750-foot have been developed

and void of wooded uplands. Given the extensive development within the nearby Shore Acres neighborhood, the land areas developed greatly exceed the 25-percent limitation. Therefore, the Corps would likely deem the vernal pool to be a non-productive habitat and as evidenced by the low egg mass counts to determine that the path project would not affect the pool given the preponderance of natural habitat that has already been altered by previous development activities. This understanding would need to be confirmed by the Corps.

4. DEP Shoreland Zone Permitting:

The NCS report states that because much of the Surf Side Avenue paper street is located within 75-feet of the Highest Annual Tide line as part of the Shoreland Zone and that *“Any type of construction activity within this 75-foot setback area, including creation of a pathway safely wide enough to allow multiple parties to pass along its entire length, is extremely limited and, according to the Shoreland zone specialist at the southern Maine regional office of the Department of Environmental Protection (DEP), would require a permit from that agency”*. We do not believe that the Maine DEP would have jurisdiction for Shoreland Zoning as we understand that the State originally established Shoreline Zoning Regulations that communities were then to either adopt or exceed. Once the Town had established and the State subsequently approved of the Town’s Shoreland Zoning Regulations, the Town would then have regulatory authority and administer their own Shoreland Zoning requirements.

We did discuss the Shoreland Zoning jurisdiction with Cape Elizabeth Code Enforcement Officer, Ben McDougal, for his confirmation of our understanding. In previous correspondence with Ben and as evidenced by his May 11, 2017 email shown below, Ben confirmed that the Shoreland Zoning regulations do not appear to affect the installation of the path.

I do not see anything in our Shoreland Zoning regulations that would prevent the trail from being installed. There is no permitting that needs to be done, however, there are several performance standards that must be adhered to. None of these performance standards appear to prevent the installation of the trail.

Regards,
Ben

Therefore, we believe that the DEP would only have jurisdiction under the Maine Natural Resource Act (NRPA) which we discussed with the DEP’s Audie Arbo at our May 2nd site walk. As she noted in a May 19, 2017 follow up email (included in the Appendix section of Sebago’s report), any wetland crossings would need an individual NRPA permit which for municipal recreational path projects are often waived upon request to a more streamlined Tier 1 process. She also noted that the areas of the path outside the footprint of the wetlands would not require a permit as long as no grading or removing of trees were proposed.

5. Physical Constraints:

The NCS letter appears to claim that the presence of the rocky coastline along the easterly edge of the Surf Side Avenue paper street and states that *“the topography is not particularly conducive to the safe creation of a pathway for public use”*. We do not believe that the topography lends itself poorly to the creation of a relatively narrow path within a predominately 50-foot wide paper street right-of-way. The elevation of the southwesterly half of the trail is relatively flat and is dominated by existing lawns and open wooded areas. The remainder of the path rises 10-feet in grade over very modest grades through a mixture of developed and

vegetated areas. Given that the rocky coastline is similar to many other publicly accessed areas in Cape Elizabeth and that physical barriers could be provided in any segments of concern, we believe topography would not be a deterrent in the siting of a path.

6. Differing Project Scope Assumptions:

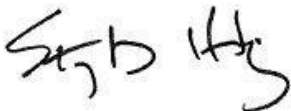
Sebago had previously been retained by the Town to provide services to survey, assess natural resources, develop concept planning, and research the potential permitting conditions associated with the development of a path in paper street areas. At the direction of the Town, our trail assessment assumed that only five feet of clear zone would be required and that the path would be an unimproved foot path similar to other rustic paths within the Town's Greenbelt with minimal isolated improvements (narrow boardwalk, stone placement, or other minimalistic improvements in wet areas or those areas crossing drainage paths). We also have assumed that similar to other Town Greenbelt rustic paths that no fill material would be placed in order to establish the path nor would any trees be removed. Based on these parameters, we have concluded that the path could be constructed with a modest cost of less than \$10,000.

The NCS study assumes a more robust path would be constructed within the paper street. This path would be constructed to a 6-foot width and be similar in characteristics to the Cliff Walk Path in Fort Williams with a stone dust surfaced constructed path over a gravel base fill layer with drainage improvements and other trail enhancements. Their conclusion that the cost of this type of path would be more expensive to design and construct is obviously correct, however we can't speculate as to how much more expensive, as we have not been tasked to confirm or provide any estimates to prepare and construct such a path. Their conclusion that the permitting of such a trail would be a challenge may be in question as essentially a path of this type of construction was permitted, built, and functions in a seemingly similar environment at Fort Williams. Again, further investigation into the permitting ramifications would need to be assessed with the regulatory agencies should the Town decide to go forward with a more robust path, but from our earlier findings, we are of the opinion that permitting for such a path is plausible.

In closing, we continue to support the findings of our recent study and trust that the Committee will find our explanation beneficial as to the apparent gaps presented between our study and the information provided by NCS. Should there be any questions or comments regarding our analysis, please do not hesitate to contact us.

Sincerely,

SEBAGO TECHNICS, INC.



Stephen D. Harding, P.E.
Town Engineer

SDH/sdh