

**Selectboard Meeting
Meeting on June 21, 2023**

**The Selectboard will hold a Meeting at
The Chebeague Island Hall on
Wednesday, June 21, 2023, at 6:00 PM**

I. Call Public Meeting to Order

II. Public Comments for items not on the agenda for discussion not action.

III. Town Reports

- Town Administrator

IV. Regular Business

23-053 To swear in the newly elected Selectboard Member

23-054 To choose a Selectboard Chair and Co-Chair

23-055 To make the following Annual Municipal Appointments

To make the following annual municipal appointments:

- Treasurer, Tax Collector, and FOAA Administrator: Viktoria Wood
- Town Clerk, Registrar of Voters and Deputy Tax Collector: Christine Auffant
- General Assistance Administrator: Viktoria Wood
- Animal Control Officer: Steven Auffant
- Fire Chief: Ralph Munroe
- Harbor Master and Shellfish Warden: Genaro Balzano
- Tax Assessor: Jacqueline Robbins
- Local Health Officer: Anita Anderson

23-056 To approve the following Municipal appointments.

- To Approve the Treasurer's appointment of Christine Auffant as Deputy Treasurer, and the Town Clerk's appointment of Kathleen Kuntz as Deputy Clerk and Deputy Register of Voters.

23-057 To appoint a Selectboard Member to represent the Town with the Maine Island Coalition

23-058 To appoint two Selectboard Members to represent the Town with the Yarmouth Joint Standing Committee.

23-059 To begin discussion about a Selectboard retreat.

23-060 To review the Weston & Sampson contract.

V. Other Business

VI. Communications

VII. To approve minutes from June 07, 2023

VIII. Items to be placed on a future agenda

IX. Adjourn

May 8, 2023

Ms. Viktoria Wood
Town Administrator
Town of Chebeague Island
192 North Road
Chebeague Island, ME 04017

Transmitted Via Email on May 8, 2023

Re: Proposal for Engineering and Coastal Modeling Services - Stone Wharf Improvement Project

Dear Ms. Wood:

Weston & Sampson Engineers, Inc. (Weston & Sampson) is pleased to provide the Town of Chebeague Island (the Town) with a proposal for completing engineering services related to the Stone Wharf Improvement Project (the project).

We understand that the Town is seeking to understand how sea level rise may impact the 2022 preferred alternative developed for Stone Wharf by others. The Town is looking for opportunities to refine the design to enhance the resiliency of the Stone Wharf in a manner that limits impact to ongoing working waterfront activities, reduces permanent fill within the intertidal zone, and will be most advantageous to ongoing commercial fishing, ferry boat, and private vessel navigation. We are grateful for the opportunity to work with the Town to achieve these goals and set up the project so that it can be advanced beyond this phase through design, permitting, and construction and successfully funded.

We have proposed the following scope of work, schedule, and fee estimate based on our qualifications statement, process presented in our interview, and understanding of your needs. The consultant team includes Woods Hole Group as our partner to provide coastal flood modeling services.

PROJECT MANAGEMENT

We have assumed bi-weekly project management check-in meetings with the Town to track and update progress (12 meetings total). These meetings will be held virtually and last 30 minutes. Additional meetings and coordination with stakeholders are called out in specific tasks below. Weston & Sampson will prepare monthly progress reports on the progress of the work to accompany invoices.

TASK 1: PROJECT INITIATION & DATA REVIEW

Task 1.1: Review of Existing Project Materials to Inform Design Recommendations in Task 3

Project initiation activities including a Project kickoff meeting to be held at the Town's preferred location on Chebeague Island.

We have reviewed the 2016 Sea Level Rise analysis and the 2022 Final Draft Preferred Alternative memorandum provided with the RFQ, and we have developed an understanding of Project details, constraints, and regulatory context based on these reviews. We believe the Final Draft Preferred Alternative is generally feasible and permissible, but we find that there may be opportunities to refine the conceptual project approach.

We propose to build on these efforts, including the community feedback gathered in the development of past plans/studies, to inform design recommendations. The consultant team will review materials developed for prior work done for the project. This is expected to include final deliverables & meeting minutes for public engagement activities following provided by the Town:

- Stone Wharf Master Plan (completed in 2018)
- Stone Wharf Assessment Study (completed in 2022)

The consultant team will prepare a brief summary of the findings of this review with targeted information that will inform design alternatives explored in Task 3. This will be presented to the Town to check understanding and provide feedback/comment on basis-of-design.

Assumptions:

- The Town will provide materials developed through prior work done for the project to the consultant team at the initiation of this contract.

Deliverables:

- Existing Project Materials Review Summary Memorandum, including community feedback, that will inform design alternatives.

Task 1.2: Review of Data to Develop Coastal Modeling in Task 2

The consultant team will research local wind, wave, tide, and storm record information and data for the area, which will be utilized to help develop storm surge and wave modelling. The consultant team will also review climate projections being incorporated into the assessments being carried out in the State of Maine. Additionally, FEMA FIS data for the area at and around the site will be gathered and evaluated.

This information will be prepared in tandem with the project materials review and presented to the Town to provide feedback/comment on what will be incorporated into Task 2 modeling.

Assumptions:

- Data will be available from governmental sources (NOAA, weather stations, FEMA FIS, etc.) and/or the Town (existing topographic/bathymetric surveys)

Deliverables:

- Recommended SLR projections to incorporate into the project.
- Summary of data gaps (if any) and proposed assumptions for modeling

TASK 2: BASELINE COASTAL MODELING

Task 2.1: Storm Surge, Wave Generation & Transformation Modeling

The modeling approach for Chebeague Island will focus on key physical processes (tides, storm surge, waves, etc.) that need to be understood to provide design recommendations, not only under current conditions, but projected climate conditions. The modeling approach is adaptable to allow for down-scaled higher resolution models in the nearshore areas to provide a more specific assessment directly at Stone Wharf.

Woods Hole Group will evaluate both extreme wind statistics and water levels and utilize those distributions to model both wave generation and wave transformation in the vicinity of Chebeague Island. This process will consist of the following:

- Collection and analysis of wind and water level data in Casco Bay that will be utilized to determine return-period wind speeds and directions, as well as return-period water levels. The wind data will be utilized, in concert with storm-based water levels, to determine the locally generated wave energy in the area.
- Local, historic wind data will be used as a basis for the wind generated wave modeling. Wind-generated waves will be determined by modeling wave growth over open-water and restricted fetches. Although wind wave generation and growth incorporates complex physical processes that are not fully understood, wave growth models provide useful estimates of wave heights and periods. Wind data, combined with estimates of fetch and depth from charts, will be used to calculate the wind-generated waves in the vicinity of Chebeague Island.
- In addition to determining the locally generated wave conditions, a site-specific 2-D wave model will then be used for establishing transformed, spatially varying wave conditions at Chebeague Island under various normal and storm event conditions. The scenarios to be modeled for each alternative will include coastal storm events having a range of annual-exceedance probabilities (1, 2, 5, 10, 30 and 50-year scenarios, etc.) and typical conditions, with and without projected increases in sea level.

Assumptions:

- There is no extensive source of measured wave data in Casco Bay; therefore, the average locally generated wave heights will be calculated using available wind data and a model for wind generated waves.
- The SLR projections integrated into the model will be consistent with assessments being carried out throughout the State of Maine.

Deliverables:

- Probability Exceedance Flood Maps under existing conditions, with and without SLR

Task 2.2: FEMA Modeling and Analysis

Woods Hole Group is familiar with the FEMA accepted models used to predict wave propagation, runup, and overtopping, as well as the mapping practices used by FEMA for developing the FIRMs. Woods Hole Group will run a suite of FEMA models for site specific transects developed from updated sources of topography and bathymetry data, including any recent elevation surveys. The model simulations will use input parameters for still water, wave setup, significant wave height and period from site specific modeling, or FEMA values where applicable. We will communicate the results of the analysis with the Town of Chebeague Island.

Deliverables:

- Flood Inundation Extent Map with base flood elevations (BFE).

TASK 3: DESIGN RECOMMENDATIONS

Task 3.1: Recommended Design Flood Elevation

The consultant team will review the results of Task 2 and compare with project materials reviewed in Task 1 to identify design flood elevation recommendations for Stone Wharf and various design components so that the design concept is functional under present day coastal conditions, and also resilient to rising sea levels. It is expected that design flood elevations will be recommended with flexible design considerations in mind. For example, multiple design flood elevations may be provided to support design concepts for the Wharf that can adapt easily over time as changing climate conditions unfold.

Additionally, other design parameters, such as wave heights, wave run-up and overtopping, sediment transport concerns, etc. will also be recommended. These additional parameters will be critical for the appropriate design of Stone Wharf and various project elements.

Assumptions:

- The design flood elevation recommended will be based on the site-specific coastal processes and will also incorporate the state standard sea level rise projections.

Deliverables:

- Recommended design flood elevations and coastal design parameters

Task 3.2: Recommended Design Modifications

The consultant team will propose strategies to revise the previously proposed plans for Stone Wharf to reduce the vulnerability from coastal flooding (current and future).

The consultant team will prepare an updated concept for the Stone Wharf Improvement Project with the following in mind:

- Prior plans proposed by the others for Stone Wharf Improvements and their basis-of-design;
- Flood maps prepared in Task 2.1 (based on integrated drainage study);
- Design flood recommendations developed in Task 3.1;
- Preliminary screening evaluation criteria (effectiveness/risk reduction; social impact/value creation; environmental benefits; design life & adaptability)
- Feedback from the community gathered through engagement during prior plan development.

Assumptions:

- The concept will be schematic and focus on size, alignments, locations, and elevations.
- Feasibility related to geotechnical, structural, environmental, and other engineering considerations are not included in this scope of work, and will need to be considered beyond this project as design advances.

Deliverables:

- Technical Report summarizing findings and recommendations (from Tasks 1 through 3)
- Proposed updated concept for Stone Wharf

TASK 4: ADDITIONAL SERVICES TO SUPPORT ADVANCEMENT OF DESIGN (upon request)

Weston & Sampson and Woods Hole Group are prepared to provide additional services not included in the above scope for related efforts as the Town may find appropriate. We have allocated \$6,700 of the total project budget to provide on-call services for the Town for these types of un-scoped requests. If additional services are requested that would exceed the proposed allocated budget, they would be provided by Weston & Sampson under separate and additional budget authorization. Based on our conversations with the Town, we anticipate these types of efforts could include only one of the following tasks (not both) listed below.

Optional Task 4.1: LOMR Filing (\$6,700)

The model results from Task 2.2 will produce maps that show the resulting flood zone boundaries and BFEs for the project site. The consultant team will present these findings to the Town to assess whether revisions to the FEMA FIRMs are warranted. If results of the analyses from Task 2.2 indicate that revisions to the FIRMs are warranted, a recommendation will be made to prepare and file a LOMR with FEMA. Woods Hole Group will prepare a LOMR for submittal to FEMA that describes the proposed map changes and provides the supporting technical documentation.

Assumptions:

- No topographical or bathymetric survey is proposed within this scope of work. Elevation surveys will be provided by the Town, if available.
- Revisions to the FEMA FIRM are warranted.
- Woods Hole Group will coordinate with FEMA during the review process to answer questions and supply additional information, if necessary.

Deliverables

- New recommended BFE and LOMR Application Materials (if necessary)

Optional Task 4.2 Grant Application Support (\$6,700k)

Weston & Sampson supports our clients by sharing communications on grant funding that is available to municipalities especially in the areas of climate resilience and transportation. We can provide assistance in scoping and preparing grant applications, which can be used to fund additional phases of design through construction. We typically look for a wide range of grant funding to support infrastructure projects including the following grants: Maine Department of Marine Resources Grant Programs, Rebuilding American Infrastructure with Sustainability and Equity (RAISE), Promoting Resilient Operations for Transformative, Efficient, and Cost-saving Transportation Program (PROTECT), and many others.

SUMMARY

To support completion of the above services, Weston & Sampson requests budget authorization in the amount of seventy-five thousand dollars (\$75,000). Our professional services will be provided on a time and materials basis in accordance with the terms and conditions articulated in our contract with the Town. We anticipate the following allocation of budget and proposed timeline.

SERVICES	ESTIMATED START DATE	ESTIMATED DURATION	ESTIMATED BUDGET
TASK 1: PROJECT INITIATION & DATA REVIEW			\$5,000
Task 1.1: Review of Existing Project Materials to Inform Design Recommendations in Task 3	<i>May 22, 2023</i>	<i>3 weeks</i>	
Task 1.2: Review of Data to Develop Coastal Modeling in Task 2	<i>June 5, 2023</i>	<i>4 weeks</i>	
TASK 2: BASELINE COASTAL MODELING			\$32,600
Task 2.1: Storm Surge, Wave Generation & Transformation Modeling	<i>July 10, 2023</i>	<i>10 weeks</i>	
Task 2.2: FEMA modeling and analysis	<i>August 10, 2023</i>	<i>4 weeks</i>	
TASK 3: DESIGN RECOMMENDATIONS			\$30,700
Task 3.1: Recommended Design Flood Elevation	<i>September 18, 2023</i>	<i>3 weeks</i>	
Task 3.2: Recommended Design Modifications	<i>October 16, 2023</i>	<i>6 weeks</i>	
TASK 4: ADDITIONAL SERVICES (ON-CALL)			\$6,700
Optional Task 4.1 FEMA LOMR Filing	<i>September 18, 2023</i>	<i>6 weeks*</i>	
Optional Task 4.2 Grant Application Support	<i>TBD</i>	<i>TBD</i>	
TOTAL			\$75,000

* Note that it can take six (6) months or longer from date of receipt for FEMA to review and make a ruling on the LOMR application.

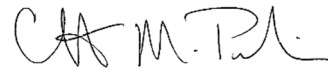
We can be ready to begin work on the project immediately after a notice to proceed. We anticipate these tasks can be completed within 6 months of project initiation, depending on the extent of the design modifications that need to be considered.

We appreciate the opportunity to serve the Town, and we look forward to working with you to drive the Stone Wharf Project to successful completion.

WESTON & SAMPSON ENGINEERS, INC.



Samuel Moffett, AICP
Senior Principal Planner



Christopher M. Perkins, PE
Vice President