

15. RECOMMENDED NEXT STEPS

15.1 Site Investigations

15.1.1 Geotechnical Boring Program

A full geotechnical boring program, in compliance with ASTM standards, will be required for the detailed design stage of the facility. This program should establish the site soil stratigraphy and soil bearing capacity. Laboratory testing (soil structural properties and characteristics) of soil samples collected during the boring program should be included. If rock is encountered during the borings, this rock should be cored and sampled. The results of this program should be summarized in a site geotechnical report with recommended pile foundation sizing and tip elevations.

15.1.2 Topographic Survey

An upland topographic survey will also be required during the detailed design stage of the project. This survey will establish the elevation of the uplands at the interface between the uplands and the proposed quay. This information will be used to set the elevation of the terminal and establish accurate cut and fill requirements.

15.1.3 Bathymetric Survey

A bathymetric survey that provides coverage of the footprint of the Sears Island Site was provided by the University of Maine. This survey was performed by Alpine in 2017. This survey is three years old and should be updated as a part of this project.

15.1.4 Discussions with Utility Providers

Sears Island currently does not have the utility systems required for the operations of a commercial port. For the purposes of this study, it has been assumed that these services could be supplied by local providers and pulled onto the island. During the 30% design effort it is recommended that the project contact the appropriate utilities to engage in high-level discussions to confirm the feasibility of this assumption.

15.2 Optimization of Design

The design level shown in the submitted drawings should be considered conceptual and preliminary. The concept is subject to local, state and federal permit processes that may require investigation of alternatives that avoid and minimize natural resource impacts. As the design process moves from the concept stage into detailed design, the design can be optimized. This optimization process identifies design items and processes that can be adjusted and translate into cost savings for the project. This can range from pile grid adjustment, to construction materials, to required geometries of proposed structures. The optimization process should explore these potential cost savings while maintaining the required facility functionality. It is recommended the selected layout design be advanced to the 30% level. The cost estimates and construction schedule should be updated to match the 30% design level. The detailed design will also consider natural resource avoidance and minimization measures.

15.3 Consultation and Permitting with State and Federal Resources and Regulatory Agencies

Acquiring the required permits and approvals for a complex marine-based project can quite often be the critical path in the overall project schedule. This project will likely require a Joint Permit Application that is submitted to and reviewed simultaneously by both the Maine DEP and the ACOE. The state environmental agency reviews the proposed work and will establish its impacts on local environmental resources. The ACOE will review the proposed work to establish its effects on navigable waterways as well as federal environmental guidelines. This permit will also pull in numerous other agencies such as national marine fisheries and the US Coast Guard that will also review the proposed work.

It is recommended that the project schedule pre-submission consultation meetings with ACOE and Maine DEP, as well as NOAA and the Coast Guard. These meetings will introduce the project to the resource and regulatory agencies and allow for them to provide initial feedback on the proposed works.

Per the directive of MaineDOT, a robust stakeholder and public communication process will be conducted as part of the permitting process including the assessment of impacts and the evaluation of alternatives.

15.4 Outreach to Aqua Ventus Program at University of Maine

The Aqua Ventus Project will require an assembly and load out port facility to facilitate installation of the turbine units. It is recommended that the State of Maine enter into discussions with the Aqua Ventus Project to establish if there may be a mutually beneficial solution for the development of a port facility to support floating OSW in the state of Maine.