

January 31, 2016

Ms. Mary Holt, Sunset Committee Chair  
Town of Chebeague Island  
192 North Road  
Chebeague Island, ME 04017

Re: Summary of Deliverables and Findings  
Phase 1 and 2 – Sunset Landing Evaluation  
MMI # 3593-02

Dear Ms. Holt:

In October 2014, Milone & MacBroom, Inc. (MMI) delivered the findings of the Phase 1 evaluation of the Sunset Landing property, which included a Boundary & Topographic survey, a wetlands inventory, a vernal pool survey, soils analysis, and a review of paper streets. Since the acceptance of that report, and following the award of a grant from the Maine Department of Agriculture, Conservation and Forestry under the Coastal Communities Program, we have performed additional tasks to further evaluate the Sunset Landing property to help you with future planning efforts. The following presents a summary of the work completed to date on the project, an explanation of how the information can be used, and a recommendation on next steps to fulfill the Committee's charge to determine the best and highest use of the property.

### Boundary Survey

Nadeau Land Surveys, Inc. has performed a standard boundary survey of the property, which was reviewed and accepted by the Committee in October of 2014. They also performed a topographic survey of the property to establish elevation contours at 1-foot contour interval referenced to NAVD88 vertical datum. The boundary and topographic survey is an extremely important tool for the planning of the property, since very little development could occur without first knowing the extents of Town ownership and the slope of the land. The contour mapping also allows for the establishment of zoning and flood protection boundaries that are typically identified as either a height above a known datum (i.e. flood hazard zone) or a horizontal distance from an established height (i.e. shoreland zoning). With boundary lines and elevations clearly established, proper planning can be done to ensure that local, state and federal laws are followed in respect to setbacks and other zoning requirements.

As part of the boundary survey work, the Surveyors researched several paper street surveys, deeds and plans of record. In the surveyor's opinion, they found sufficient evidence to establish the location of one paper street related to the Sunset Property, which was Elizabeth Road. Elizabeth Road, as shown on the Boundary Survey, was located based on deed and plan

research as well as locating the existing edges of the travelled way and found monuments with survey instrument. The field survey shows that the gravel travelled way is located within the Elizabeth Road right of way from North Road to the angle point in the Elizabeth Road right of way. No travelled way was observed from the Elizabeth Road right of way from the angle point to shore. Old Pier Road is depicted on the existing conditions plan, with deeded rights of way referenced in Notes 15, 19, 21 and 22. This includes Book 7253, Page 104 in Note 21. The information researched states that a right of way exists from North Road to the Sunset Property, however there is not sufficient information to determine the exact location of that right-of-way from the angle point in Elizabeth Road to the property. We continue to recommend that the Town consult with its attorney and work with Stewart to define and locate "Old Pier Road" where it leaves the Elizabeth Road right-of-way and consider long term maintenance responsibility of the right of way. We understand that the Town Board of Selectmen are aware of the issue of access to the property, and that they are taking measures to resolve the issue.

### Additional Topographic Survey

As mentioned previously, the property was surveyed to produce contours at 1-foot interval to just beyond the boundary extents. It is important to have an understanding of the topography beyond the boundary of the property for several reasons. Since the shoreline turns just beyond the north property line, it is important to map the Highest Annual Tide Line to the north of the property so that appropriate zoning boundaries can be established that impact the property. It is also a good practice to have an understanding of drainage patterns and tributary watershed area beyond the project boundary to appropriately plan for drainage concerns.

We have incorporated data from the Maine State Office of GIS that consists of contours at 2-foot interval in the areas outside of the property boundary. The existing conditions survey provided to the Town as part of the Phase 1 deliverables depicted the contours at 1-foot interval, but we have modified the drawing so that only 2-foot contours are shown to be consistent and avoid confusion between the information derived from multiple sources. Our experience has shown the Lidar topography to be quite accurate, and we feel it would be appropriate for the intended use of preliminary project planning. We suggest that the area to the North of the property should be field surveyed to establish the Highest Annual Tide elevation prior to any detailed planning on the property if the zoning boundaries in that area will play a significant role in project design or permitting. If the intended use of the property does not rely on the ability to develop the northern part of the property, additional topographic surveys will likely not be necessary.

### Wetland Survey and Permitting

Wetlands were found to be present in two general locations on the property. In the southwest corner, the wetlands are classified as forested wetlands, with inclusions of scrub-shrub vegetation, and are not considered Wetlands of Special Significance as defined by the Maine

Department of Environmental Protection (MDEP). Some of the wetlands found in the second area, in the northeast corner, are of similar nature. However, given the proximity of those wetlands to be within the 250' shoreland zone, the MDEP will likely classify those as Wetlands of Special Significance. A small area of wetlands in the northeast corner, draining from the spring, are in a defined ditch that drains to the ocean. According to the report prepared by Jim Logan of Albert Frick Associates, he cautions that the MDEP may classify a portion of this ditch as a "tributary stream" as defined by MDEP Shoreland Zoning guidelines. If it is classified as such, it may impose greater restrictions to any proposed activities that would require disturbance within 75 feet when compared to the other forested wetland areas on the project site.

The MDEP and U.S. Army Corps of Engineers (ACOE) have joint jurisdiction on the filling or alteration of wetlands. If development of the parcel will require impact to any of the wetlands identified on the property, it will be necessary to apply for permits from the ACOE. The MDEP will require a permit if more than 4,300 square feet of forested wetlands will be disturbed, or for any disturbance to Wetlands of Special Significance. These permits are not uncommon to land development projects. As long as appropriate measures are taken to avoid wetland impact to the greatest extent that is practical, we would expect that compensation measures (such as a payment to the in-lieu fee program) can be avoided if forested wetland impacts are less than 15,000 square feet. Based on our experience, we do not see the presence of wetlands in the amount, nature and location found on the Sunset property to be a significant burden that would restrict development of the property. We recommend getting the MDEP and ACOE involved early in the design and planning process if wetland impacts are necessary.

### Vernal Pool Survey

A vernal pool survey was conducted by Albert Frick Associates in the spring of 2014 and it was determined that the property did not contain any vernal pools.

### Soils Analysis

While conducting the wetland survey and vernal pool investigations, Albert Frick Associates examined four (4) shallow hand-dug test pits near the center of the property. Test Pits 1, 3 and 4 met the minimum criteria for first-time wastewater disposal fields inside the shoreland zone, while Test Pit 2 was found to be too shallow-to-bedrock. According to the Frick report, sufficient area was observed and exists for a system that can handle considerable wastewater flow, which he defined as up to 700 gallons per day. It will be necessary to conduct additional field work to complete a full septic system design for the site, once the specific use and associated wastewater needs of a project are determined by the Town. Septic fields can be constructed below lawn areas, on slopes, and even under parking lots if the appropriate consideration is given to the design and construction of the system. Based on our analysis of the property, availability of suitable soils for a septic system is not likely to be a difficult challenge.

## Paper Streets

In a memorandum from Brann & Isaacson dated 12-30-2014, the Town's attorney advised on the status of so called paper streets depicted in the "Sunset Beach 1907" plan and "Bayview 1916" plan. The opinion states that it is improbable that the Town's claim of public rights over paper streets depicted on the "Sunset Beach 1907" plan have been extinguished, but that it is less clear as to whether the "Bayview 1916" plan actually conveys any public rights over the paper streets depicted thereon. It was noted that "The Town's claim of public rights is particularly strong with respect to Elizabeth Road, as that way is continuously referred to, either by name or by reference, in all of the deeds after Chase".

Elizabeth Road is the only paper street depicted on the Existing Conditions Plan because there was insufficient evidence of the other paper streets. If the Town wished to investigate the other paper streets in an effort to try and determine their location, a significant amount of additional survey field work and research would need to be completed. As an alternative to trying to determine the location and status of all paper streets, the Town may want to identify the specific paper streets that serve a desired public interest, and work out a consent agreement with the impacted property owners.

## Historic Preservation Commission

There are several project scenarios which would require approval from the Maine Historic Preservation Commission (MHPC). One of the most common instances is when a project requires a General Permit from the ACOE for work in the coastal area, filling wetlands, crossing a stream or other regulated activity, it is a requirement of the Corps that MHPC be provided an opportunity to comment on the project and issue a letter of approval. It is possible that a proposed development project on the Sunset Property would require an ACOE permit, so it was prudent to notify the MHPC and begin the consultation process.

As part of the work completed under Phase 1, we contacted the MHPC to request an initial screening of the project site for the presence of known historic or pre-historic sites in their database. They identified two sites, a cellar hole and a shell midden, and notified us that they would require further investigation of those two sites prior to authorizing any development activity on the property. We contracted with Sarah Haugh, an archaeologist with Tetra Tech, to consult with the MHPC and negotiate an acceptable scope of work that would provide some answers to their questions.

Sarah completed her field work and research over the course of several weeks in the spring of 2015. Her findings are summarized in a report titled *Archaeological Survey Report, Sunset Landing Project, Town of Chebeague Island, Cumberland County, Maine, December 2015*. In addition to the report, the archaeology investigation produced 853 artifacts that will be turned over to the Town once properly cleaned and indexed.

The recommendations contained in the report are to avoid disturbance of the cellar holes that were discovered, and that a 50-foot buffer should be maintained around the sites. In a subsequent correspondence with Leith Smith from the MHPC office, they confirmed that the 50-foot buffer should be maintained and that the sites are eligible for listing on the National Register of Historic Places under Criterion D for its potential to provide important information on the historic settlement and use of Chebeague Island. The MHPC should be consulted for any work that is proposed within the depicted 50-foot buffers.

### Bathymetric Survey

A bathymetric survey was completed by the State as part of the Coastal Communities Program. Although we had solicited proposals from consultants to perform this work, the State offered to provide the information at no cost to the Town, so we accepted. After analyzing the data provided to us, we were concerned about the accuracy and coverage area. The unprocessed data had not been corrected for tidal height and the individual points were not time stamped, so an average water level during the entire sampling period was used to partially correct the data. Also, the equipment used to record the data produced an additional error of 0.2'. As a result, the contours that were produced from the unprocessed data are only reliable within 0.5'. More significantly, the vessel used to collect the data could not navigate shallow waters, so there is a gap in the data that is between 200 feet wide and 350 feet wide along the shorefront. It will be important to get additional bathymetric data in this area if a project is proposed that requires water access.

### Wind & Wave Analysis

Roberge Associates performed an analysis of anticipated wind and wave conditions for the Sunset Landing property. Since the information would be most relevant if the Town were to develop the site with a pier, the analysis was generally tailored to that potential use. The purpose of the study was to generate data that could be used in the future, and it was not intended to be a determination of whether or not this particular site was the best location for a pier. The information contained in the report can be used to determine if a structure can be properly sited such that waves can be attenuated properly and a vessel land and launch under anticipated winds. Design loads can also be determined from the waves described in the report, and alternative sites could also be analyzed to determine if a better site exists.

### Eel Grass Survey

Biologists from Normandeau Associates visited the site during the summer growing season of 2015. Utilizing scopes and GPS equipment, they mapped the limits of eel grass beds along the shoreline of the Sunset property. Eel grass beds are prevalent on Chebeague Island and impacts to eel grass beds are protected under State and Federal laws. The MDEP and ACOE will require permits for any disturbance of eel grass beds, either directly (piles, cribs, bulkheads or fill) or through indirect impacts due to shading or propeller turbulence.

The area where the old Sunset pier was located contains the narrowest strip of eel grass beds, measuring less than 100 feet wide. Other areas along the shoreline have eel grass beds that are over 250 feet wide. It will be important that any proposed activity that will impact an eel grass bed be designed so that the impacts are the least amount that is practical. This includes crossing at the shortest distance and locating any floating dock components beyond the extent of the eel grass beds, rather than over them. It will be important to notify the ACOE and MDEP early in the design process if any impact to eel grass beds is required.

## Zoning

According to the Town of Chebeague Island Zoning Map and through consultation with the Code Enforcement Officer, it was determined that portions of the property are located within three separate zoning districts.

The portion of the property located within 125' of the Highest Annual Tide elevation is zoned Commercial Fisheries/Maritime Activities (CFMA). The CFMA zone is an important designation for this property if the Town intends to pursue a water dependent use, since that zone allows for a range of uses with the notable exclusion of one and two-family residential and campgrounds. There is no required setback for water dependent uses.

The area that is within 250 feet of the Highest Annual Tide elevation and not in the CFMA zone is classified as Limited Residential (LR) Zone. The LR Zone does not allow for commercial or industrial uses.

The remaining property is located in the Island Residential (IR) zoning district, which allows a broad range of residential, agricultural and uses accessory to commercial fishing. Other uses are allowed by special exception. The required structure setbacks for parcels larger than 1.5 acres are relatively large at 55 feet in the front yard, 65 feet in the rear yard and 30 feet on the side yard.

Municipal Zoning of the property is designated by the Town and can be changed following the appropriate steps. The CFMA zone and LR zone are shoreland zoning designations and must receive approval by the State if they are proposed to be modified. The Town could also explore the option of a Contract Zone for the property if the Town's charter allows for the creation of Contract Zones.

## Summary

This report and the supporting documents are the culmination of two project phases that worked towards the goal of identifying restrictions that would prohibit any certain type of development on the Sunset property. Although we identified conditions that are regulated at the local, state and federal level, it is important to note that simply encountering these

conditions does not constitute a development restriction. Identifying the resource is the first step in the process. The next task is to determine what the Town's desired use of the land is, so that focused discussions can be had with the regulators that will have the ultimate decision on activities within their jurisdiction. Based on our analysis, development of the site as a community park or as a town wharf is possible. You can expect that the permitting process will have a strong influence on certain design aspects of the Town's project, but as long as the Town remains flexible and is willing to work with the regulatory agencies and abutting landowners I expect that a wide range of uses are possible for this property.

Thank you for the continued opportunity to be a part of this exciting project, and please let me know if you have any questions.

Sincerely,

Milone & MacBroom, Inc.

Dustin M. Roma, P.E.  
Project Manager