



# Mackworth Island

Conceptual Utilization  
Master Plan

Final Report

January 27, 2023

**Harriman**







---

# CONTENTS

## 1. Executive Summary

Acknowledgments .....	1-1
Introduction.....	1-3
Stakeholder Engagement.....	1-3
Master Plan Goals .....	1-4
Mackworth Island Regulatory Oversight .....	1-6
Mackworth Island Jurisdictional Organization.....	1-7
Existing Conditions Assessments .....	1-8
Site Assessments .....	1-8
Campus Utility Analysis .....	1-11
Building Condition Assessments .....	1-12
Historic Facilities Inventory .....	1-13
Causeway and Pier Condition Assessment .....	1-14
Traffic and Parking Assessment .....	1-16
Space Program.....	1-17
Master Planning.....	1-18

## 2. Existing Conditions

Introduction .....	2-1
Facility Assessments.....	2-1
Site Conditions .....	2-13
Historic Character Assessment.....	2-19
Causeway and Pier Assessment.....	2-23
Parking and Traffic Assessment.....	2-23

## 3. Space Program

Introduction.....	3-1
MECDHH space program .....	3-2

## 4. Master Plan

Introduction.....	4-1
Master Plan Phasing Matrix.....	4-2
Phase 1 .....	4-2
Phase 2.....	4-3
Phase 3.....	4-4

## Appendix

Full Consultant Assessment Reports and Island Survey.....	A
State Park Recommendations.....	B
Public Meeting Notes .....	C
Historical Reference Information .....	D







# 1

## EXECUTIVE SUMMARY



## ACKNOWLEDGMENTS

The Mackworth Island Conceptual Utilization Plan (referred to as the "Master Plan"), was contracted through the Maine Bureau of General Services (BGS) and was managed by BGS staff. BGS played an active role throughout the entire process, provided direction, and acted as conduits to the other stakeholder groups representing various aspects of island use. Their leadership and guidance during the planning process was instrumental in the creation of a final Master Plan that reflected the needs and interests of the Mackworth Island stakeholders, visitors, and the surrounding community.

### BGS STAFF INVOLVED IN THE MASTER PLANNING PROCESS INCLUDED

Elaine Clark		Deputy Commissioner, Department of Administrative & Financial Services
--------------	--	--

Deane Rykerson	Architect	Bureau of General Services
----------------	-----------	----------------------------

### MASTER PLAN STEERING COMMITTEE

Catherine Breen	State Senator	State of Maine
-----------------	---------------	----------------

Teresa Pierce	State Representative	State of Maine
---------------	----------------------	----------------

Pender Makin	Commissioner	Maine Department of Education
--------------	--------------	-------------------------------

Daniel Chuhta	Deputy Commissioner	Maine Department of Education
---------------	---------------------	-------------------------------

Gary Best	State Park Regional Manager	Department of Agriculture, Conservation, and Forestry; Bureau of Parks and Lands
-----------	-----------------------------	--

Amy Kuhn	Councilor	Town of Falmouth
----------	-----------	------------------

Nathan Poore	Town Manager	Town of Falmouth
--------------	--------------	------------------

Karen Hopkins	Executive Director	Maine Education Center for the Deaf and Hard of Hearing
---------------	--------------------	---

Lisette Belanger	Board Chair	Maine Education Center for the Deaf and Hard of Hearing
------------------	-------------	---

Dean Flanagan	Facilities Director	Maine Educational Center for the Deaf and Hard of Hearing
---------------	---------------------	---

Stephen Kimball	Facilities Department	Maine Educational Center for the Deaf and Hard of Hearing
-----------------	-----------------------	---



**CONSULTANT TEAM**

Harriman	Project Management, Architecture, Engineering, Planning
GEI	Marine Engineering
Kleinfelder	Architectural Historians
PCM	Cost Estimating and Project Phasing
VHB	Traffic and Parking



CONTEXT MAP

## INTRODUCTION

The Mackworth Island Conceptual Utilization Plan (referred to as the “Master Plan”) is a series of recommendations to improve multiple use areas and infrastructure for the Island. Mackworth is located in the Town of Falmouth and has a long history dating back over 10,000 years. It was initially inhabited and used for agriculture, hunting, and fishing by the Wabanaki. European settlement led to the island being gifted to its namesake, Arthur Mackworth in 1631. In 1863 the island briefly hosted Camp Berry, a training location during the Civil War.

Development of the island began in earnest following James Baxter's purchase of the island in 1885. The island passed to his son Percival Baxter who built the existing Mansion in 1917. In 1943 Percival gifted the island to the State of Maine. The deed included restrictions that the Island “always be used for State public purposes only”, that the cemetery for animals including the bronze tablets be maintained, and that the property never be used for penal or corrective institutions. In accepting the deed, the Maine State Legislature provided that the Island be “held forever by the people of Maine for state public purposes, as trustee in trust.” See Appendix D for a copy of the Deed.

A campus of eight buildings was funded by former Governor Percival Baxter and the Maine State legislature as a school for the deaf and its use restricted to that purpose. Campus construction began in 1955. The island is currently used and celebrated as the Governor Baxter School for the Deaf and Mackworth Island State Park. Its varied uses result in multiple state agencies having jurisdiction over limited areas of the island or island infrastructure. See page 1-6 for an illustration of these areas of jurisdiction.

Planning recommendations in this report are a result of a months-long process to provide short-term, long-term, and phased solutions to address identified issues and to enhance the character and quality of Mackworth Island for visitors and occupants.

### STAKEHOLDER ENGAGEMENT

A Steering Committee comprised of stakeholders representing many users and interests of Mackworth Island met monthly during the duration of the study which ran from March to October 2022. This group guided the development of project goals and priorities and provided important feedback on the variety of topics as the study progressed.

In addition to regular participation by the Falmouth Town Manager, the Chair of the Planning Committee, and elected officials representing the Town, community outreach centered around an informational meeting held at the Falmouth Town Hall in the evening of June 29th. The interactive presentation was also streamed and posted on the Town’s



MACKWORTH ISLAND SIGN



CAUSEWAY: VIEW TO FALMOUTH



STONE PIER



GOVERNOR BAXTER SCHOOL FOR THE DEAF



website with a contact to allow for follow-up inquiries. Questions and comments were reviewed, and responses provided.

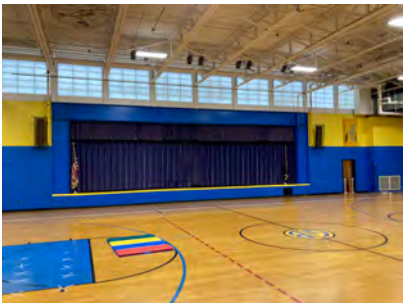
The planning team also met with members of the MECDHH school community several times to review current programs, occupant counts, program location and frequency of meeting, location suitability, and projected increases or decreases for future planning considerations. This inventory provided a basis in determining current and projected space need.



PATHWAY VIEW TO STONE PIER

### MASTER PLAN GOALS

In early discussions with Mackworth Island stakeholders, it became clear that a primary goal of the master plan would be to preserve the two important qualities that make this a very special and beloved space. Any proposed changes should not be at the expense of Mackworth's defining characteristics, a natural refuge set in Casco Bay. It was also clear that preservation of the history and legacy of Mackworth as the home the Deaf Community should be strengthened through the master plan initiatives. These and other themes emerged from the Steering Committee's work in developing a shared set of goals to guide the future of the investment in the island. The following goals were considered throughout the planning process with the intent that the complete set of master plan recommendations responded to all stated goals.



GYM INTERIOR: BUILDING J

### Preserve the Experience of Mackworth

As a state park located in close proximity to Maine's largest metropolitan area, Mackworth enjoys popularity as a destination to escape the urban realm and enjoy a natural encounter with fields, beaches, forests, walking trails and spectacular views to Casco Bay in relative calm and seclusion. A single parking lot limited to 24 spaces restricts the number of visitors to the island and maintains a quality of the experience.



BREWSTER HALL: BUILDING H

### Maintain Mackworth as the Home for the Deaf Community

Since the establishment of the school on Mackworth in 1957, the Island has been home to generations of Deaf students. The educational community encompassed friends and families of students that lived here. While the scale of the school's program on Mackworth has changed with fewer students attending at this location, there are many events throughout the year that support the Deaf community. In this way, Mackworth serves as a home base for more than the direct school functions.



SCHOOL PLAYGROUND BEHIND BUILDING I

## Honor the History of the Deaf Community

With the move of the school from Portland to Mackworth, the Island became more than simply a location for the school. Relocating the school also built on a history going back many years before the new campus was created. This history is preserved in several artifacts and stories that are maintained in a museum housed in a portion Sanders Hall. The Master Plan looks for opportunities to enhance the ability to share and honor the history of the Deaf Community in Maine.

## Right-size Campus Facilities

The campus and buildings at the Baxter School for the Deaf were planned and designed for a school that consisted of site-based living and learning for elementary, middle and high school students. The full range of academic and residential uses required significant space and operational resources that are no longer needed to support the school's needs for the foreseeable future. The Master Plan was initiated, in part, to review and make recommendations on a realignment of infrastructure to support the current needs of the Maine Educational Center for the Deaf and Hard of Hearing (MECDHH).

## Address Building Maintenance Needs and Operational Efficiencies

The Master Plan includes a facilities assessment to quantify building conditions and recommend upgrades. The majority of the structures were constructed more than 60 years ago with limited upgrades over this time period. Most building systems reach obsolescence and require replacement after a 40-year life cycle. Building and life safety code requirements are updated regularly to improve occupant safety, accessibility, and improve energy efficiency. Older buildings are also less efficient to maintain adding to high operating costs. Newer technologies consider ways to reduce both energy costs and impacts to the environment.

In addition to the stated master plan goals, the planning team and committee identified key issues to be considered in the master plan recommendations.

## The Baxter Mansion is a hidden jewel

The current building known as the Mansion was the summer home of the Baxter family from its construction in 1918 to when the island was gifted in 1943. It is both historically and architecturally significant. The development of the school campus in the 1950's surrounds the building and prohibits views from most areas of the island.



MANSION: BUILDING A



CAMPUS ACCESS DRIVES



TRAIL AT CAMPUS EDGE



DRAPER HALL: BUILDING J

**There is no clear “front door” to the school**

The sprawling nature of the multiple buildings that constitutes the school creates a condition of where there is a lack of hierarchy and intuitive sense of the school’s front door. The access drive that circulates to the primary door also lacks a clear marker of significance to route drivers to the appropriate location.

**The island lacks adequate wayfinding**

Wayfinding provides visual and spatial cues to assist staff and visitors on the location of features and resources. The island, both the state park and the school campus, lack a clear and organized wayfinding strategy.

There is no distinct perimeter to the school campus. There is no physical demarcation of the separation of the school campus from the state park. This can lead to park visitors straying onto the school grounds.

**Use of buildings and spaces is inefficient**

As program needs have changed over time, the rooms of the buildings have been re-purposed to suit new uses. In many cases, rooms are larger than necessary. Examples include the conversion of bedrooms or classrooms into offices. Some buildings also have very intermittent use.

**MACKWORTH ISLAND REGULATORY OVERSIGHT**

Master planning recommendations address Mackworth Island's many diverse needs. Response to these needs must comply with various regulations and laws. The list below includes the major regulatory entities and requirements that apply to potential projects on the island.

Maine Department of Environmental Protection (DEP) permits related to land, air and water may be required pursuant to the Maine Site Location of Development Act (“Site Law”) and the Maine Natural Resources Protection Act (NRPA).

Site Location of Development regulates development that may have a substantial environmental impact.

NRPA regulates activities in, on, over or adjacent to natural resources including water bodies, wetlands, significant wildlife habitat and vernal pools. This includes shoreland zoning.

Maine DEP also regulates Stormwater under Site Law or Stormwater Management Law.

Town of Falmouth has zoning regulation oversight.



PATHWAY VIEW TO STONE PIER



SCHOOL APPROACH SEQUENCE



MAIN SCHOOL ENTRY



STAFF WORK AREA: BUILDING D



## MACKWORTH ISLAND JURISDICTIONAL ORGANIZATION

The different uses on the island require several State of Maine organizations to share oversight and management. While the Bureau of General Services (BGS) has oversight of the island at-large (specifically the causeway and GBSD buildings and grounds), the groups below operate and maintain other specific areas of Mackworth Island.

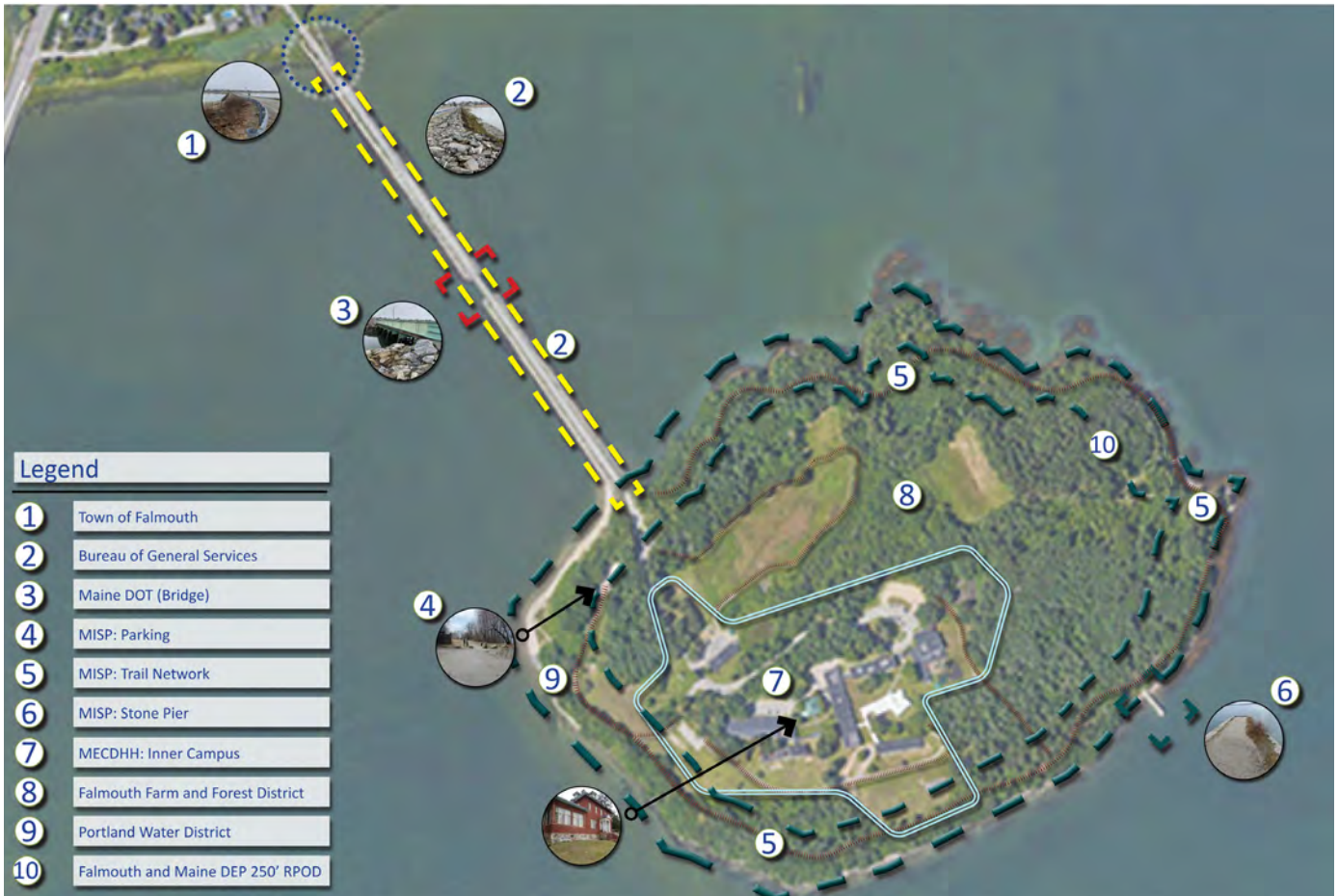
Maine Department of Transportation (Maine DOT) is responsible for the causeway bridge (not the causeway itself).

Bureau of Parks and Lands manages all natural resources on the island including Mackworth Island State Park (MISP): see Appendix D Summary.

Department of Education oversees the Maine Education Center for the Deaf and Hard of Hearing (MECDHH) also referred to as the Governor Baxter School for the Deaf (GBSD).

Town of Falmouth, regulates Zoning. Mackworth Island is zoned as: Farm and Forest (Residential Rural District) and also under Shoreland Zoning: 250 foot Resource Protection Overlay District (RPOD).

Portland Water District (operates a pump station on Mackworth that serves neighboring islands in Casco bay).



CONTEXT MAP: AREAS OF JURISDICTION

# EXISTING CONDITIONS ASSESSMENTS

The planning team reviewed and assessed site, facility, and infrastructure elements on Mackworth Island. The following information is elaborated on in subsequent sections and full report content is included as appendices to the Master Plan. Areas of focus were Site, Facilities and Utilities Condition, Historic Character, Causeway and Pier, and Traffic and Parking.

## SITE SUMMARY

Site Analysis included an inventory of existing conditions for the overall island as well as the (GBSD)/ MECDHH Campus proper. The site inventory, collected from on-site assessments, research of existing reports, documents and available mapping for the existing conditions contributed to the development of the site diagram resources as shown below. Mackworth Island falls under the Town of Falmouth and Maine DEP for regulatory and management oversight.



GOVERNOR BAXTER SCHOOL FOR THE DEAF CAMPUS EXISTING CONDITIONS SITE PLAN



## SITE FINDINGS

- The island is most vulnerable to weather from the south and east: predicted sea level rise will exacerbate this vulnerability. It is most protected from the northwest.
- Access to the island is limited to a narrow two-lane causeway.
- Visitor entrance to the GBSD/MECDHH campus is not clearly articulated and procession through the campus by car is confusing.
- Areas of waterfront erosion were noted along the State Park trail, especially in locations where informal access ways from the trail to the shore have been created.
- The island is a mix of densely wooded areas and open spaces. In general, forested areas make up the State Park trail system and legacy site features of the Baxter estate (such as the Pet Cemetery and Stone Pier) and open areas are connected to the school campus.
- Landmark resources on the island include a Wabanaki grind stone and water tower attributed to the original Baxter farm, and the Baxter Mansion.
- Locations where the natural boundary of woods does not buffer the school campus were noted as problematic as park visitors sometimes migrate into the campus areas.
- There are extensive views to Casco Bay and the mainland at locations around the island, especially the trail system.
- The zoning district, Farm and Forest (F), for Mackworth Island allows municipal uses, including Falmouth public schools. However, GBSD, a state public school, was not included as a permitted use under the zoning district for Mackworth Island.



ISLAND ACCESS: GATEHOUSE



SHORE ACCESS



LANDMARK: WATER TOWER AND GRINDSTONE



LANDMARK: PET CEMETERY

## SITE RECOMMENDATIONS

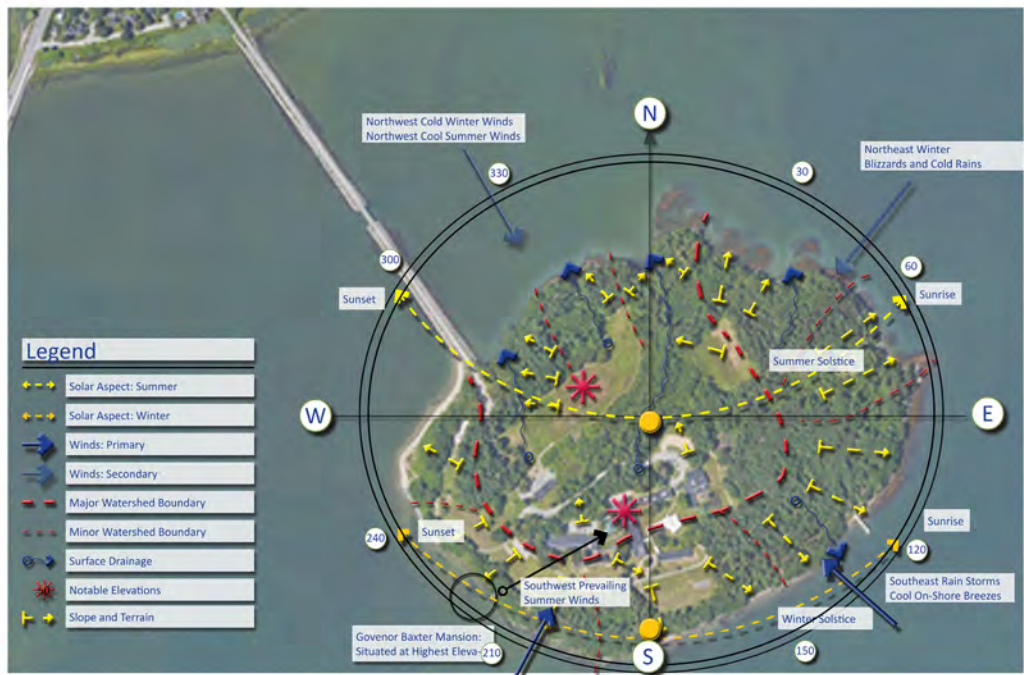
- Improve entry to campus by developing a clear gateway within sight of the State Park gatehouse and parking areas.
- Rework campus access drives and parking areas to improve navigation, create a hierarchy of approach to various campus areas, and consolidate parking to specific lots.
- Clarify campus and State Park boundaries to reduce Park visitors accessing campus areas.
- Analyze existing topography to support recommendations for trail improvements, erosion control, and dedicated shore access points.



- Create view corridors and specific access from the State Park to landmark resources such as the Mansion, Water Tower, and Grindstone.
- Communicate with the Town Falmouth to discuss revising zoning in advance of potential school projects.



EXISTING CONDITIONS SITE CONTEXT

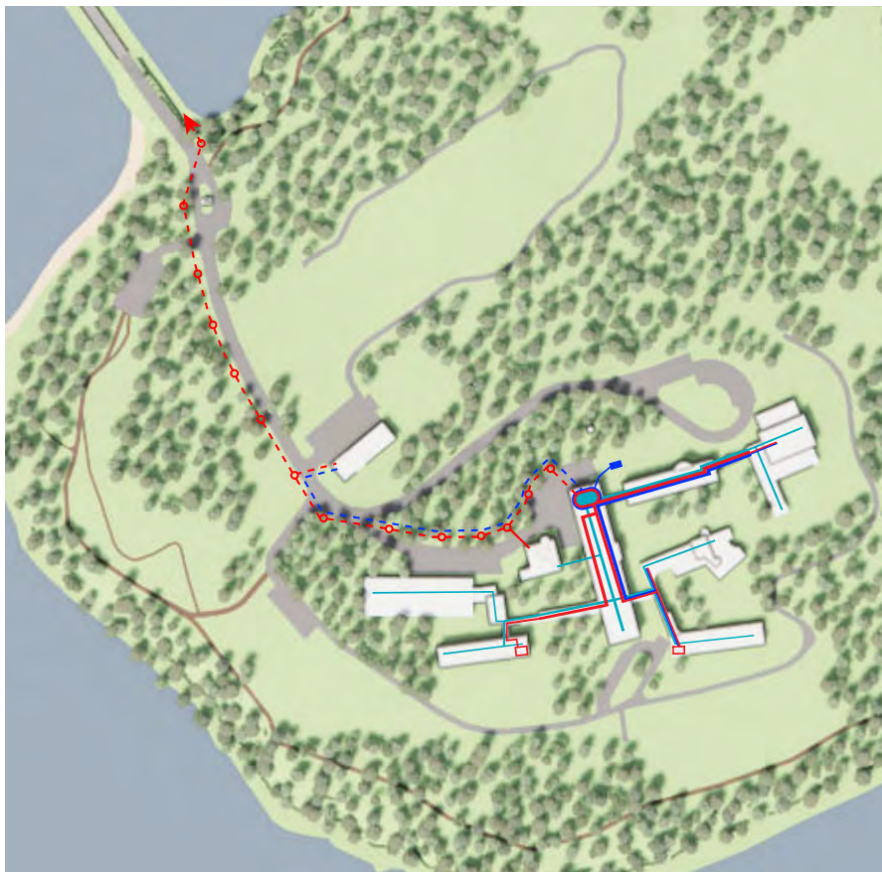


SITE INVENTORY CLIMATE AND RESOURCES

## CAMPUS UTILITIES ANALYSIS

Utilities serving Mackworth Island are generally based on a central plant model where electricity and heat are located in a central campus location then distributed throughout the individual buildings. Mackworth Island receives electricity via overhead poles from Andrews Avenue. Power is fed to Building K (Sanders Hall) then distributed to individual buildings. Water is provided by Portland Water District via underwater pipes to a pump station on the west side of the island. The pump station sends water under Casco Bay to other populated islands as well as serving Mackworth. Heat, by way of hot water, is provided by a central boiler that is located at the north end of Sanders Hall. All campus buildings have direct piping connections to Sanders. The enclosed building connectors host the piping infrastructure so that piping does not need to run outside or underground.

Master Planning recommendations include changing the utility distribution from a central plant model to creating a system where utility infrastructure serves each building independently. This change improves overall energy performance by designing systems that are optimized for each particular building. It also eliminates the need for the connector buildings which the current piping is distributed through.



CAMPUS UTILITIES PLAN DIAGRAM



KEY PLAN

### UTILITY LEGEND

- ELECTRICAL DISTRIBUTION
- EMERGENCY ELECTRICAL DISTRIBUTION
- - - OVERHEAD POWER LINES
- HOT WATER DISTRIBUTION



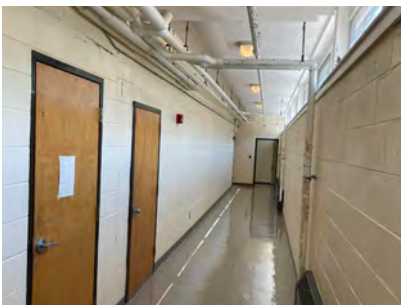
### BUILDING CONDITION ASSESSMENTS

The design team, comprised of architects and engineers, performed onsite facilities assessments accompanied by GBSD representatives. Assessments are based on observations of the visible condition of various building components and systems. All 10 campus buildings, their associated connectors, and the State Park Gatehouse were reviewed.

Facility condition varies greatly from building to building. Some buildings are in a state of extensive decline and should be considered for removal and others are in very good working order. Images and assessment summary charts below reflect overall condition: green is very good, yellow is good, orange is fair, red is poor, and dark red is very poor.



GREENLAW HALL: BUILDING D



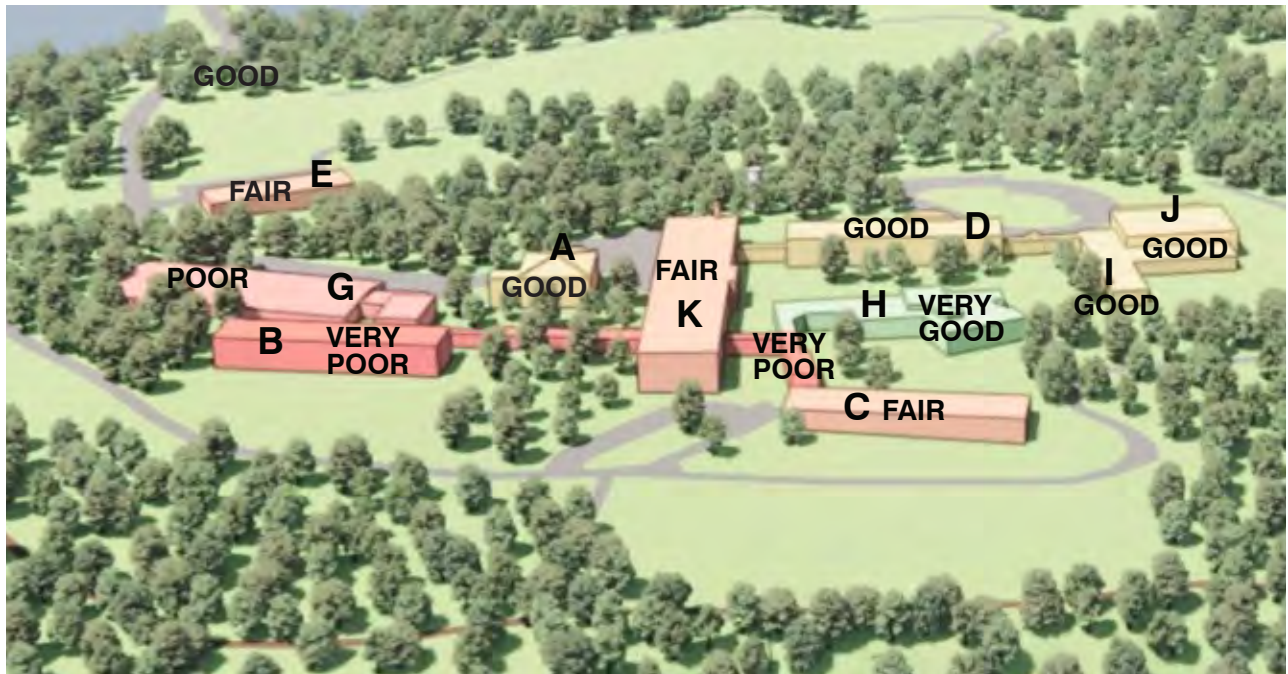
DRAPER: BUILDING J

4	VERY GOOD
3	GOOD
2	FAIR
1	POOR
0	VERY POOR

CONDITION LEGEND



KEY PLAN



FACILITIES CONDITION CAMPUS AERIAL VIEW

Building Identification	Building Name	Year Constructed	Existing Area (GSF)	Facility Condition
A	Mansion	1917	1,772	Good
B	Young Hall	1959	1,051	Very Poor/ Remove
C	Taylor Hall	1958	13,460	Fair
D	Greenlaw Hall	1959/ 1996	21,540	Good
E	Inman Garage	1961	4,800	Fair
F	Removed		0	n/a
G	Carter Hall	1957	17,600	Poor
H	Brewster Hall	2004	9,000	Very Good
I	Patrick Hall	1958	1,800	Good
J	Draper Hall	1958	12,370	Good
K	Sanders Hall	1959	34,800	Fair
	Gatehouse	1990	n/a	Good



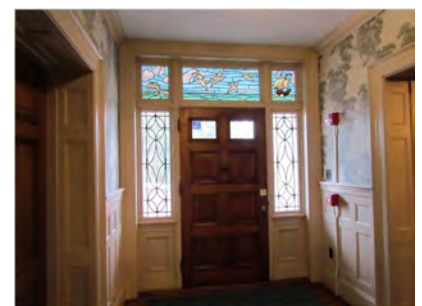
GREENLAW: CENTRAL STAIR



SANDERS: MAIN LOBBY



YOUNG: TOILET ROOM



MANSION: FRONT DOOR

### HISTORIC FACILITIES INVENTORY

Kleinfelder performed building character assessments of the existing structures on Mackworth Island that were constructed over 45 years ago. The Baxter Mansion is listed in the National Register of Historic Places and eight other buildings were identified as part of the Baxter School for the Deaf Historic District. The purpose of the survey was to identify and document all resources 45 years old or older within the study area and evaluate eligibility for listing in the National Register of Historic Places.

Buildings that are identified for removal can undergo a digital building recordation that includes digital photography, archival research, and a narrative report to document the building’s characteristics. The recordation process should be included as a project requirement and completed ahead of planned building removal. The complete Architectural Survey Report is located in Appendix A.





MANSION: EXTERIOR



MANSION STAIRCASE



MANSION: EXTERIOR



CAUSEWAY



CAUSEWAY



CAUSEWAY OVERTOPPING DURING DECEMBER 23, 2022 STORM

## CAUSEWAY AND PIER CONDITION AND RESILIENCY ASSESSMENTS

GEI Marine Engineering performed general assessments of the causeway, causeway bridge, stone pier, and the stability of the Coastal Slopes. Summary findings are listed below. GEI provided a supplementary review of the causeway, bridge, and pier following the December 23, 2022 storm. Immediate repair work is needed and significant raising (or replacement) of the causeway and bridge is recommended within the next 10-20 years to maintain safe access to and from Mackworth Island. Complete observations and recommendations are located in the full report in Appendix A. A separate report, specific to damage incurred by the December 23 storm, will be issued independent of this Master Plan.

The causeway, a stone armored filled construction, has immediate, short-term and long-term improvement needs. It is low and overtopped by wave action during significant storm events. It is reported that the low portions of the causeway are overtopped by seawater more than once per year. Each overtopping event undermines the integrity of the causeway by pulling fine material from the composition and leaving gaps which accelerates settling. Immediate concerns include utility pole damage, and transverse steel beam play at one of the bridge support locations. Short-term needs include repair and stabilization of the two locations where the marine mattresses have failed, and settlement of the causeway has occurred. Long-term needs include reducing vulnerability from sea level rise and storm surge. This may be achieved by rebuilding the causeway at a higher elevation, partial replacement of the causeway, or complete replacement with a bridge. Recommended modifications include raising the causeway between 6 feet and 10 feet above its current road height to meet the Maine Climate Council's (MCC) 'Commit to Manage' (C2M) and/or the more conservative 'Prepare to Manage' (P2M) design criteria. Depending on the forecast, the causeway and bridge will be underwater throughout the year within 27 or 47 years.

The bridge, overseen by Maine Department of Transportation (MDOT), was rehabilitated in 2011 by adding structural steel above and below the existing timber structure. It is posted with a weight limit of 22 tons. Aside from creating limitations of island access by large, heavy vehicles, the bridge is in good working condition. GEI recommends an investigation to determine whether it is cost-effective in the short-term to increase the load capacity of the bridge to fully accommodate construction traffic associated with campus improvements. In the long term, a new raised bridge will be needed to accommodate sea level rise (see MCC projections above).

The Stone Pier, a historic component of the original Baxter property, is in relatively good condition but lacks deep-water access. An extension to deep-water is needed to provide an effective boat landing and might be accommodated with the addition of a ramp and float for seasonal



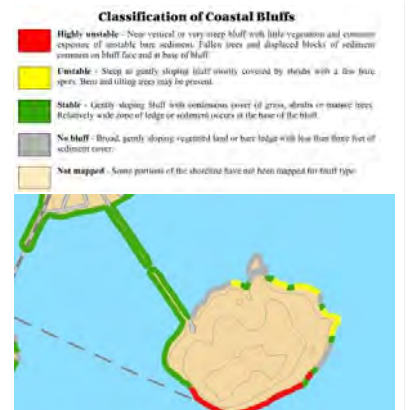
EMBANKMENT DETAIL



BRIDGE



STONE PIER



COASTAL BLUFFS CONDITION





BLUFF EROSION AND LEDGE ARMOR

access and/or a fixed pier for year-round access. Such alterations are not recommended since no specific need was identified to support it. No use beyond pedestrian recreation has been presented as a viable use for the pier in its current condition during the Master Planning process.

A review of the coastal embankments identified a history of embankment armoring at several areas of active erosion that should be monitored. Imported rip rap armoring supplements areas of natural armoring such as ledge. The most cost-effective long-term resiliency response will be to introduce a program of regrading, replanting and relocating trails and overlooks to increase the setback to the top of bank.



STATE PARK LOT

BGS procured a detailed topographical survey of Mackworth Island to be utilized for future projects such as trail stabilization and relocation. The survey, containing both topographical and aerial imagery, is included in Appendix A.

### TRAFFIC AND PARKING ASSESSMENT

VHB provided traffic and transportation planning support to Harriman for the Mackworth Island study. An existing conditions analysis included the existing traffic entering the island, parking spaces, and parking demand. VHB performed two onsite observational analyses and one traffic count analysis to gather information on the traffic and parking conditions at Mackworth Island. The assessment began with an initial onsite observation by VHB staff on March 31, 2022. Observations focused on addressing the limited parking at the Mackworth Island State Park and the amount of traffic generated along Andrews Avenue to access the Island causeway. Results did not align with stakeholder comments so a follow up onsite observation was scheduled for a fair-weather weekend day after Memorial Day. This observation occurred on June 5, 2022. After receiving additional public input about perceived traffic volume and parking issues, the assessment team contracted a follow up to record vehicle counts on August 8 and 9, 2022. The last data set provides a detailed accounting of traffic at Andrews Avenue, State Park traffic, and School campus traffic. Detailed analysis information is included in Section 2, page 2-23 and the complete Parking and Traffic Assessment is included in Appendix A.



GATEHOUSE AND STATE PARK STAFF LOT

With input from stakeholders and the public, VHB reported findings and provided recommendations. Summary conclusions from the analysis are listed below.



PARKING BEHIND K AND C BUILDINGS

- The school campus appears to have adequate parking, even if it is not convenient to all buildings.
- Traffic to the island does not appear to be consistently as heavy as



was conveyed anecdotally during the planning process. Findings from the analysis indicated that the existing traffic delay on to the island from Andrews Avenue was acceptable.

- To align with the Maine Bureau of Parks and Lands policy to limit additional impacts to the State Park and not overburden the island’s carrying capacity, additional parking is not being recommended for Mackworth Island State Park. The approach of limiting human traffic to prevent detrimental impacts to island wildlife has been a consistent policy for decades, as documented in the Mackworth Island Management Plan dated March 11, 1991.
- In response to public and Committee input, Parks and Lands is installing a web-camera facing the main parking lot. The real-time status of parking availability can be viewed on-line by potential visitors.

## SPACE PROGRAM

Space utilization of the facilities on Mackworth Island was a primary area of focus of this study. The majority of the buildings were constructed to support the Governor Baxter School for the Deaf/ The Maine Educational Center for the Deaf and Hard of Hearing. Exceptions to this are the original Baxter Summer Home that now houses the school’s administrative functions (Building A), and the entrance gate house. The nature of the school’s programs has changed significantly from when the buildings were designed and constructed. The result is a reduction in the amount of needed space to accommodate the school’s operations. Several buildings are vacant or have low utilization. The low utilization has allowed non-school functions to lease space. These currently include Disability Rights Maine, and the State of Maine Office of Information Technology. Additionally, the Deaf Community has established a museum currently in Sanders Hall that highlights the history of the school and the island. This study examines utilization in terms of whether a space is used and the frequency of its use.

**SPACE UTILIZATION OF EXISTING CAMPUS BUILDINGS:** (Current utilized square footage divided by net square footage per building)



CAMPUS UTILIZATION DIAGRAM

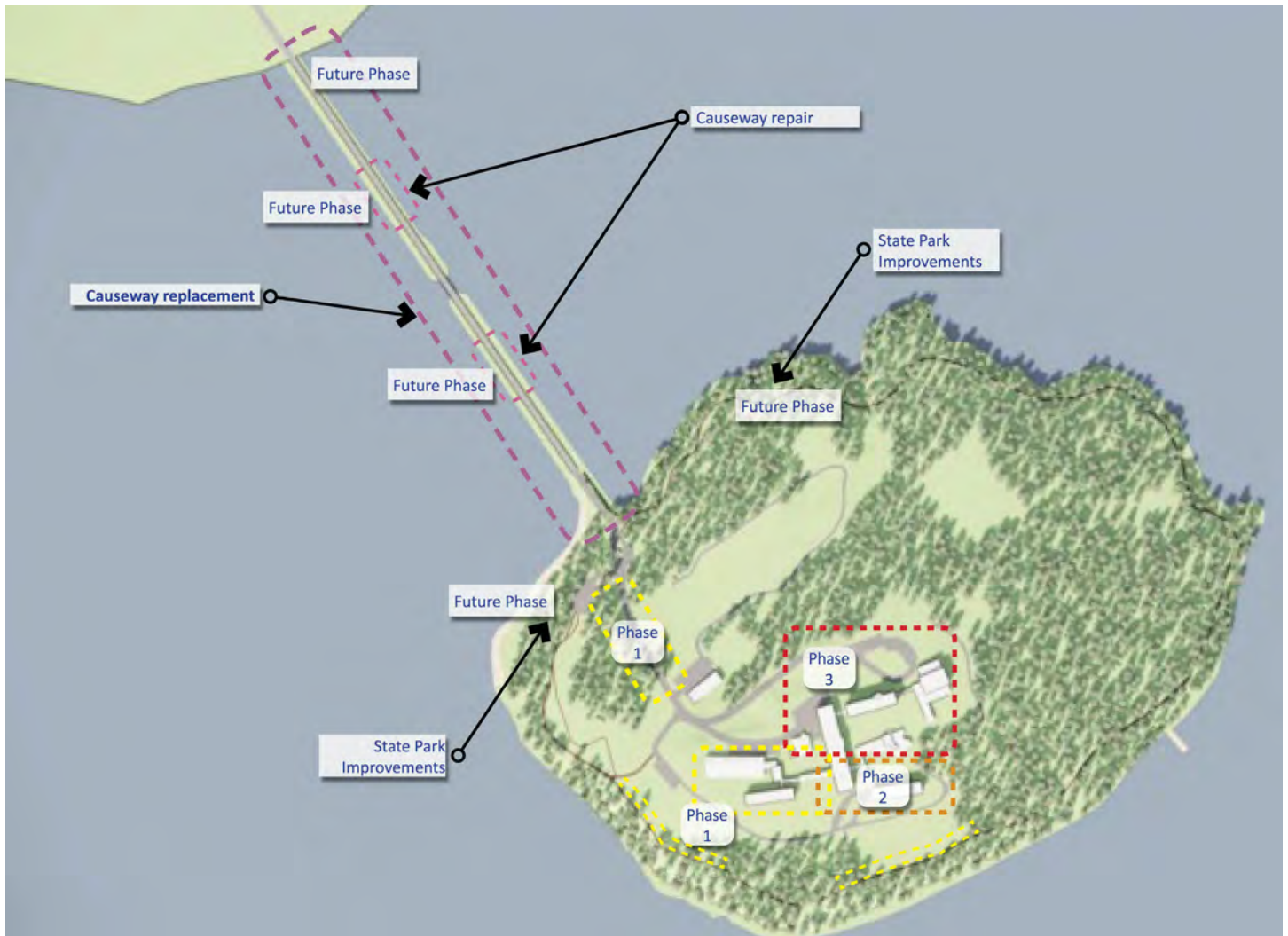
# MASTER PLANNING

## PLANNING RECOMMENDATIONS

In collaboration with the Master Plan Steering Committee, the Consultant Team developed a series of recommendations to be implemented over the next 10 years. Recommendations are intended to address the goals, issues, considerations, and drivers developed during the planning process. Additionally, the history of Mackworth Island, its unique position within the context of greater Portland and Casco Bay, and the varied agencies providing oversight over the island are reflected in the master plan.

Planning recommendations are focused on improving the facility condition of the MECDDHH/GBSD campus. They are broken into three phases and summarized below. Phase 1 focuses on building removals and wayfinding improvements. Phase 2 focuses on reorganizing and optimizing existing program spaces in preparation for future building removals.

Other initiatives such as State Park improvements and Causeway and Bridge improvements are identified as future phases and are addressed in the report Appendices.



PLANNING RECOMMENDATIONS PHASING DIAGRAM



## PHASE 1

Phase 1 accomplishes the removal of unused and potentially hazardous buildings and opens views to the Mansion. Site improvements assist in wayfinding and navigation as well as celebrating the campus as the home for the Deaf Community.

The removal of empty buildings and associated connectors. The addition of site elements including new campus gateway entrance, screening vegetation, and reduction of mowed area at State Park trail to create a better-defined buffer at the campus edge.



**PHASE 1: KEY PLAN**

## DEMOLITION

- Relocate campus utilities
- Remove Building B
- Remove Building G
- Remove Associated Connectors

## IMPROVEMENTS

- Relocate campus utilities including IT
- New Campus Entry Gate & Signage
- New Tree Screening at Building E/ Service Area
- Trail Buffer - "No Mow" Zone



**PHASE 1: REMOVALS AND DEVELOPMENT PLAN**

NOT TO SCALE



## PHASE 1 COST MODELING

Building Name		Area	Building Removal or Renovation Allowance	Site Work or Utility Infrastructure Relocation	Notes
Building A	Mansion	7,988	\$ 500,000		Front Door & Porch renovation allowance
Building B	Young	15,580	\$ 1,092,616	N/A	Building demolition: Includes abatement allowance, building removal, and associated site work
Building C	Taylor		\$ -		No work, Phase 1
Building D	Greenlaw		\$ -	\$ 300,000	Cap primary electric at B & rerun Fiber from G to D: allowance
Building E	Inman Garage		\$ -		No work, Phase 1
Building G	Carter	17,600	\$ 1,283,520	N/A	Building demolition: Includes abatement allowance, building removal, and associated site work
Building H	Brewster		\$ -		No work, Phase 1
Building I	Patrick		\$ -		No work, Phase 1
Building J	Draper		\$ -		No work, Phase 1
Building K	Sanders		\$ -	N/A	No work, Phase 1
Connector	G-K	2,550	\$ 204,260	N/A	Building demolition: Includes abatement allowance, building removal, and associated site work
Connector	C-H-K		\$ -	N/A	No work, Phase 1
Connector	D-K		\$ -	N/A	No work, Phase 1
Sitework: New campus gateway			\$ -	\$ 165,000	Gate, pillars, signage, lighting
Sitework: screening at Building E			\$ -	\$ 55,000	Screening trees
Sitework: no mowing 50' from trail at campus edge			\$ -	\$ -	Reduce landscape maintenance near trail
<b>CONSTRUCTION TOTAL: BY CATEGORY</b>		<b>43,718</b>	<b>\$ 3,080,396</b>	<b>\$ 520,000</b>	12% cost escalation included for a April 2024 construction start. Costs assume load limit cost increases for building demolition. Soft costs not included.
<b>ADD 30% FOR TOTAL PROJECT COST</b>			<b>\$ 4,004,515</b>	<b>\$ 676,000</b>	Total project cost includes total construction cost plus soft costs (Administrative costs, Owner contingencies, design & permitting fees, and other related costs incurred directly by Owner)
<b>PROJECT TOTAL: PHASE 1</b>				<b>\$ 4,680,515</b>	

## PHASE 1 ENERGY SAVINGS

Building Letter / Name - Left Over Area		Building Area	Oil Consumption (Approximation by Building)	Annual Heating Cost	Annual Electrical Cost	Annual Total Utility Cost
		Square Feet	Gallons	Assumes \$2.50/Gallon	\$0.118161/kWh	
B	Young	15,580			\$ 4,578.40	\$ 4,578.40
G	Carter	17,600	9,394	\$ 23,485	\$ 5,172.00	\$ 28,657.00
G-K	Connector	2,500		\$ -	\$ 734.66	\$ 734.66
Total Values per Category		142,402 SF	50,723	\$ 126,807.50	\$ 41,846.77	\$ 168,654.27
Removing B, C, G, & Connectors			Cost Savings	\$ 40,945.00	\$ 14,940.03	\$ 55,885.03
Removing K			Cost Savings	\$ 39,103	\$ 10,226.45	\$ 49,328.95

## PHASE 2

Phase 2 accomplishes the removal of underutilized buildings and improves utilization for existing facility spaces.

Underutilized buildings H and K will be reorganized with minimal renovation expense to allow building C to be vacated.

The removal of building C and associated connector. Renovation of the gym (building J) for improved use for assembly events.



**PHASE 2 KEY PLAN**

### DEMOLITION

- Remove Building C
- Remove Associated Connectors

### IMPROVEMENTS

- Renovate Building J gymnasium and associated support spaces
- Consolidate Building H
- Consolidate Building C lease space into Building K
- Additional plantings and site improvements along campus and trail edges



**PHASE 2: REMOVALS AND DEVELOPMENT PLAN**

NOT TO SCALE

## PHASE 2 COST MODELING

Building Name		Area	Building Removal or Renovation Allowance	Site Work or Utility Infrastructure Relocation	Notes
Building A	Mansion		\$ -		No work, Phase 2
Building C	Taylor	13,460	\$ 723,420		Demolish building
Building D	Greenlaw	4,301	\$ 387,072		Minor renovation as required
Building E	Inman Garage		\$ -		No work, Phase 2
Building H	Brewster	1,800	\$ 162,000		Minor renovation as required
Building I	Patrick	950	\$ 85,500		Minor renovation as required
Building J	Draper	6,000	\$ 648,000		Renovate Gym, annex, and limited plumbing upgrades
Building K	Sanders	2,000	\$ 180,000		Minor renovation for swing space
Connector	C-H-K	1,360	\$ 165,900		Demolish leg from H to C (75% of total cost)
Connector	D-K		\$ -		No work, Phase 2
Sitework: New campus gateway			\$ -		Complete
Sitework: screening at Building E			\$ -		Complete
Sitework: Revised parking loop at J			\$ -		No work, Phase 2
Sitework: no mow grass at campus edge			\$ -		Complete
Sitework: Allowance for planting and hardscape improvements			\$ -		No work, Phase 2
<b>CONSTRUCTION TOTAL: BY CATEGORY</b>		<b>29,871</b>	<b>\$ 2,351,892</b>	<b>\$ -</b>	20% cost escalation included for a April 2025 construction start. Costs assume load limit cost increases for building demolition. Soft costs not included.
<b>ADD 30% FOR TOTAL PROJECT COST</b>			<b>\$ 3,057,460</b>	<b>\$ -</b>	Total project cost includes total construction cost plus soft costs (Administrative costs, Owner contingencies, design & permitting fees, and other related costs incurred directly by Owner)
<b>PROJECT TOTAL: PHASE 2</b>			<b>\$ 3,057,460</b>	<b>\$ 3,057,460</b>	

## PHASE 2 ENERGY SAVINGS

Building Letter / Name - Left Over Area		Building Area	Oil Consumption (Approximation by Building)	Annual Heating Cost	Annual Electrical Cost	Annual Total Utility Cost
		Square Feet	Gallons	Assumes \$2.50/Gallon	\$0.118161/kWh	
C	Taylor	13,460	6,984	\$ 17,460	\$ 3,955.40	\$ 21,415.40
C-H-K	Connector	1,700		\$ -	\$ 499.57	\$ 499.57
Total Values per Category		142,402 SF	50,723	\$ 126,807.50	\$ 41,846.77	\$ 168,654.27
Removing B, C, G, & Connectors			Cost Savings	\$ 40,945.00	\$ 14,940.03	\$ 55,885.03
Removing K			Cost Savings	\$ 39,103	\$ 10,226.45	\$ 49,328.95



### PHASE 3

Phase 3 accomplishes the final removal of outmoded buildings and completes the MECDHH vision for a right-sized campus. Site improvements assist in wayfinding and navigation as well as celebrating the campus as the home for the Deaf Community. A replacement for building K is envisioned to connect to building D and include public-facing program spaces such as meeting rooms and food preparation.

The removal of building K and associated connector. Addition of new building. The addition of site elements including new school drop-off loop entrance and additional site improvements at State Park trail to create a better-defined buffer at the campus edge.



**PHASE 3: KEY PLAN**

### DEMOLITION

- Remove existing Building K
- Remove Associated Connectors

### IMPROVEMENTS

- Improved Access Driveways and New Loop Road
- New Access Drive to Mansion
- Build new building 'K'
- New Drop-off Loop and Turnaround Building A
- Develop campus building systems to remove central heat



**PHASE 3: REMOVALS AND DEVELOPMENT PLAN**

NOT TO SCALE

## PHASE 3 COST MODELING

Building Name		Area	Building Removal or Renovation Allowance	Site Work or Utility Infrastructure Relocation	Notes
Building D	Greenlaw		\$ -		Minor renovation as required
Building E	Inman Garage		\$ -		No work, Phase 3
Building H	Brewster		\$ -		No work, Phase 3
Building I	Patrick		\$ -		No work, Phase 3
Building J	Draper		\$ -		No work, Phase 3
Building K	Sanders		\$ 1,656,200	\$ 600,000	Demolish
New Building K'		15,000	\$ 11,550,000		2 story new construction: 7,500 SF footprint (4-5 years escalation)
Connector	D-K		\$ 82,600		Demolish
Sitework: New campus gateway			\$ -	\$ -	Complete
Sitework: screening at Building E			\$ -	\$ -	Complete
Sitework: Revised parking loop at J			\$ -	\$ 1,582,000	50,000SF parking & loop, 2500SF hardscape, 5,000SF sidewalks, Demo, Site lighting (4-5 years escalation)
Sitework: no mow grass at campus edge			\$ -	\$ -	Complete
Sitework: Allowance for planting and hardscape improvements			\$ -	\$ 80,000	As needed to complete unforeseen planting for screening and miscellaneous hardscaping.
<b>CONSTRUCTION TOTAL: BY CATEGORY</b>		<b>15,000</b>	<b>\$ 13,288,800</b>	<b>\$ 2,262,000</b>	40% cost escalation included for a April 2028 construction start. Costs assume load limit cost increases for building demolition. Soft costs not included.
<b>ADD 30% FOR TOTAL PROJECT COST</b>			<b>\$ 17,275,440</b>	<b>\$ 2,940,600</b>	Total project cost includes total construction cost plus soft costs (Administrative costs, Owner contingencies, design & permitting fees, and other related costs incurred directly by Owner)
<b>PROJECT TOTAL: PHASE 3</b>					<b>\$ 20,216,040</b>

## PHASE 3 ENERGY SAVINGS

Building Letter / Name - Left Over Area		Building Area	Oil Consumption (Approximation by Building)	Annual Heating Cost	Annual Electrical Cost	Annual Total Utility Cost
		Square Feet	Gallons	Assumes \$2.50/Gallon	\$0.118161/kWh	
K	Sanders	34,800	15,641	\$ 39,103	\$ 10,226.45	\$ 49,328.95
D-K	Connector	400		\$ -	\$ 117.55	\$ 117.55
Total Values per Category		142,402 SF	50,723	\$ 126,807.50	\$ 41,846.77	\$ 168,654.27
Removing B, C, G, & Connectors			Cost Savings	\$ 40,945.00	\$ 14,940.03	\$ 55,885.03
Removing K			Cost Savings	\$ 39,103	\$ 10,226.45	\$ 49,328.95





# 2

**EXISTING CONDITIONS**

# INTRODUCTION

The existing conditions assessment scope of the Master Plan included review of the following site and facility elements.

Facility conditions such as central plant, electrical, mechanical, plumbing, structural, architectural, and historic character. The Facility Condition Report by Harriman is located in Appendix A1.

Site conditions, utility infrastructure, traffic and parking, marine-related elements such as Causeway, Causeway Bridge, Stone Pier, and coastal embankment condition.



GATEHOUSE & MAIN ACCESS DRIVE TO CAMPUS

# FACILITY ASSESSMENTS

## BUILDING NAME

Mansion: Building A

Young Hall: Building B

Taylor Hall: Building C

Greenlaw Hall: Building D

Inman Garage: Building E

Carter Hall: Building G

Brewster Hall: Building H

Patrick Hall: Building I

Draper Hall: Building J

Sanders Hall: Building K

Gatehouse



ACCESS & PARKING FOR ADMINISTRATION



WATER TOWER

# METHODOLOGY

Facility assessments are broken into 38 categories. Condition ranking for each category allows for easy identification of facility components or systems that are in poor condition or in need of replacement. Categories that are not present are marked by a n/a designation. Overall rankings are defined numerically and qualitatively as: Very Good, Good, Fair, Poor, and Very Poor. 0 represents the worst condition and 5 represents the best. Assessment findings are used to inform planning and phasing recommendations.



GYM INTERIOR: BUILDING J



**MANSION: BUILDING A**

Year Constructed **1917**  
 Use **Office**  
 Building GSF **7,988 GSF**  
 Number of Floors **2 + Attic & Basement**  
 Construction type **Masonry & Wood (Porch floor is Concrete & Steel)**  
 Average rating (scale of 0-5) **3.5**  
 Overall Condition Rating **Good**

Building Exterior																			19 Total Review Categories	
Exposed Foundation	Brick / Masonry	Siding / Cladding	Windows	Doors	Canopies / Overhangs	Roof / Flashing	Fire Alarm / Strobes	CO / Smoke Detector	Life Safety: Exit Signs	Life Safety: Emergency Lighting	Condition of Walls	Base	Flooring	Ceiling	Stairs	Handrails	Doors	Glazing	Total Score	Building Average Rating
3	2	2	1	2	2	3	5	5	0	0	3	4	3	3	4	4	4	3	53.0	2.79
Electrical			Lighting		Mechanical				Plumbing					Structure				38 Total Review Categories		
Service Entrance	Panel / Distribution	Emergency Power	Lighting	Lighting Controls	Boiler	Fuel	HVAC	Specialty Areas	Toilet Rooms	Kitchen	Domestic Water	Sprinkler Riser	Sprinkler Distribution	Showers	Wood Trusses	Observable Masonry	Headers / Lintels	Misc Metals / Stairs	Total Score	Building Average Rating
3	4	n/a	1	1	n/a	n/a	3	n/a	2	2	2	n/a	n/a	1	3	3	n/a	n/a	78.0	3.00





### YOUNG HALL: BUILDING B

Year Constructed **1959**  
 Use **Dormitory**  
 Building GSF **15,580 GSF**  
 Number of Floors **2 + Partial Utility Basement**  
 Construction type **Masonry & Steel**  
 Average rating (scale of 0-5) **1.2**  
 Overall Condition Rating **Very Poor (Remove)**

Building Exterior																			19 Total Review Categories	
Exposed Foundation	Brick / Masonry	Siding / Cladding	Windows	Doors	Canopies / Overhangs	Roof / Flashing	Fire Alarm / Strobes	CO / Smoke Detector	Life Safety: Exit Signs	Life Safety: Emergency Lighting	Condition of Walls	Base	Flooring	Ceiling	Stairs	Handrails	Doors	Glazing	Total Score	Building Average Rating
3	3	1	1	2	0	1.5	3	n/a	1	1	1	0	0	1	1	1	1	1	22.5	1.25

Electrical																			38 Total Review Categories	
Electrical			Lighting		Mechanical				Plumbing						Structure				Total Score	Building Average Rating
Service Entrance	Panel / Distribution	Emergency Power	Lighting	Lighting Controls	Boiler	Fuel	HVAC	Specialty Areas	Toilet Rooms	Kitchen	Domestic Water	Sprinkler Riser	Sprinkler Distribution	Showers	Observable Steel	Observable Masonry	Headers / Lintels	Misc Metals / Stairs	Total Score	Building Average Rating
2	2	1	1	n/a	n/a	n/a	0	n/a	1	1	1	2	2	1	2.5	2.5	2	2	39.0	1.18



**TAYLOR HALL: BUILDING C**

Year Constructed	1958
Use	Office & Dormitory
Building GSF	13,460 GSF
Number of Floors	2
Construction type	Masonry & Steel
Average rating (scale of 0-5)	2.2
Overall Condition Rating	Fair

Building Exterior																		19 Total Review Categories		
Exposed Foundation	Brick / Masonry	Siding / Cladding	Windows	Doors	Canopies / Overhangs	Roof / Flashing	Fire Alarm / Strobes	CO / Smoke Detector	Life Safety: Exit Signs	Life Safety: Emergency Lighting	Condition of Walls	Base	Flooring	Ceiling	Stairs	Handrails	Doors	Glazing	Total Score	Building Average Rating
3	3	1	1	2	0	5	3	4	2	3	3.5	3	2.5	3	3	1	2	3	45.0	2.50

Electrical			Lighting		Mechanical				Plumbing					Structure				38 Total Review Categories		
Service Entrance	Panel / Distribution	Emergency Power	Lighting	Lighting Controls	Boiler	Fuel	HVAC	Specialty Areas	Toilet Rooms	Kitchen	Domestic Water	Sprinkler Riser	Sprinkler Distribution	Showers	Observable Steel	Observable Masonry	Headers / Lintels	Misc Metals / Stairs	Total Score	Building Average Rating
n/a	3	3	2	n/a	n/a	n/a	2	n/a	2	2	2	3	3	1	3	3	2.5	2	75.5	2.22



### GREENLAW: BUILDING D

Year Constructed **1959/ Renovated 1996**  
 Use **Classroom & Office**  
 Building GSF **21,504 GSF**  
 Number of Floors **3**  
 Construction type **Masonry & Steel**  
 Average rating (scale of 0-5) **3.4**  
 Overall Condition Rating **Good**

Building Exterior																			Life Safety		Interior								19 Total Review Categories	
Exposed Foundation	Brick / Masonry	Siding / Cladding	Windows	Doors	Canopies / Overhangs	Roof / Flashing	Fire Alarm / Strobes	CO / Smoke Detector	Life Safety: Exit Signs	Life Safety: Emergency Lighting	Condition of Walls	Base	Flooring	Ceiling	Stairs	Handrails	Doors	Glazing	Total Score	Building Average Rating										
4	4	3	4	4	3	5	4	3	4	4	3.5	3	2.5	3	3	1	2	3	63.0	3.32										

Electrical				Lighting		Mechanical				Plumbing					Structure				38 Total Review Categories	
Service Entrance	Panel / Distribution	Emergency Power	Lighting	Lighting Controls	Boiler	Fuel	HVAC	Specialty Areas	Toilet Rooms	Kitchen	Domestic Water	Sprinkler Riser	Sprinkler Distribution	Showers	Observable Steel	Observable Masonry	Headers / Lintels	Misc Metals / Stairs	Total Score	Building Average Rating
4	4	4	4	n/a	n/a	n/a	4	n/a	3	n/a	2	3	3	n/a	4	3	3	4	108.0	3.38





**INMAN GARAGE: BUILDING E**

Year Constructed **1961**  
 Use **Maintenance Garage**  
 Building GSF **4,800 GSF**  
 Number of Floors **1**  
 Construction type **Masonry & Steel**  
 Average rating (scale of 0-5) **2.1**  
 Overall Condition Rating **Fair**

Building Exterior																			Life Safety		Interior										19 Total Review Categories	
Exposed Foundation	Brick / Masonry	Siding / Cladding	Windows	Doors	Canopies / Overhangs	Roof / Flashing	Fire Alarm / Strobes	CO / Smoke Detector	Life Safety: Exit Signs	Life Safety: Emergency Lighting	Condition of Walls	Base	Flooring	Ceiling	Stairs	Handrails	Doors	Glazing	Total Score	Building Average Rating												
3	3	n/a	1	3	n/a	3	n/a	n/a	1	3	3	n/a	2	2	n/a	n/a	2	2	28.0	2.33												

Electrical				Lighting		Mechanical				Plumbing					Structure				38 Total Review Categories	
Service Entrance	Panel / Distribution	Emergency Power	Lighting	Lighting Controls	Boiler	Fuel	HVAC	Specialty Areas	Toilet Rooms	Kitchen	Domestic Water	Sprinkler Riser	Sprinkler Distribution	Showers	Observable Steel	Observable Masonry	Headers / Lintels	Misc Metals / Stairs	Total Score	Building Average Rating
4	2	4	3	n/a	n/a	n/a	4	n/a	1	2	2	3	3	1	3	2	2	n/a	55.0	2.12



### CARTER: BUILDING G

Year Constructed **1957**  
 Use **Classroom, office, and Gym**  
 Building GSF **17,600 GSF**  
 Number of Floors **1**  
 Construction type **Masonry & Steel**  
 Average rating (scale of 0-5) **1.84**  
 Overall Condition Rating **Poor**

Building Exterior																		19 Total Review Categories		
Exposed Foundation	Brick / Masonry	Siding / Cladding	Windows	Doors	Canopies / Overhangs	Roof / Flashing	Fire Alarm / Strobes	CO / Smoke Detector	Life Safety: Exit Signs	Life Safety: Emergency Lighting	Condition of Walls	Base	Flooring	Ceiling	Stairs	Handrails	Doors	Glazing	Total Score	Building Average Rating
3	3	1	1	2	1	2	4	n/a	2	2	2	2	2	2	2	1	2	2	33.0	1.83

Electrical			Lighting		Mechanical				Plumbing					Structure				38 Total Review Categories		
Service Entrance	Panel / Distribution	Emergency Power	Lighting	Lighting Controls	Boiler	Fuel	HVAC	Specialty Areas	Toilet Rooms	Kitchen	Domestic Water	Sprinkler Riser	Sprinkler Distribution	Showers	Observable Steel	Observable Masonry	Headers / Lintels	Misc Metals / Stairs	Total Score	Building Average Rating
3	2	1	1	n/a	n/a	n/a	3	n/a	1	n/a	2	3	3	1	2	2	2	n/a	57.0	1.84



### BREWSTER: BUILDING H

Year Constructed **2004**  
 Use **Classroom, Library, Office**  
 Building GSF **9,000 GSF**  
 Number of Floors **1**  
 Construction type **Steel Frame**  
 Average rating (scale of 0-5) **3.9**  
 Overall Condition Rating **Very Good**

Building Exterior																			Life Safety		Interior										19 Total Review Categories	
Exposed Foundation	Brick / Masonry	Siding / Cladding	Windows	Doors	Canopies / Overhangs	Roof / Flashing	Fire Alarm / Strobes	CO / Smoke Detector	Life Safety: Exit Signs	Life Safety: Emergency Lighting	Condition of Walls	Base	Flooring	Ceiling	Stairs	Handrails	Doors	Glazing	Total Score	Building Average Rating												
4	4	3	4	4	4	3	4	4	4	4	4.5	4.5	4.5	4.5	4.5	4.5	4	4.5	73.5	3.87												

Electrical			Lighting		Mechanical				Plumbing						Structure				38 Total Review Categories	
Service Entrance	Panel / Distribution	Emergency Power	Lighting	Lighting Controls	Boiler	Fuel	HVAC	Specialty Areas	Toilet Rooms	Kitchen	Domestic Water	Sprinkler Riser	Sprinkler Distribution	Showers	Observable Steel	Observable Masonry	Headers / Lintels	Misc Metals / Stairs	Total Score	Building Average Rating
4	4	4	4	4	n/a	n/a	4	n/a	4	4	4	4	4	n/a	5	4	4	4	134.5	3.96





### **PATRICK HALL: BUILDING I**

Year Constructed **1958**  
 Use **Classroom & Office**  
 Building GSF **1,900 GSF**  
 Number of Floors **1**  
 Construction type **Masonry & Wood**  
 Average rating (scale of 0-5) **2.69**  
 Overall Condition Rating **Fair**

Building Exterior																		19 Total Review Categories		
Exposed Foundation	Brick / Masonry	Siding / Cladding	Windows	Doors	Canopies / Overhangs	Roof / Flashing	Fire Alarm / Strobes	CO / Smoke Detector	Life Safety: Exit Signs	Life Safety: Emergency Lighting	Condition of Walls	Base	Flooring	Ceiling	Stairs	Handrails	Doors	Glazing	Total Score	Building Average Rating
3	3	3	3	3	3	3	3	n/a	n/a	n/a	3	3	2.5	2.5	3	3	3	3	44.0	2.75

Electrical																		38 Total Review Categories		
Service Entrance	Panel / Distribution	Emergency Power	Lighting	Lighting Controls	Boiler	Fuel	HVAC	Specialty Areas	Toilet Rooms	Kitchen	Domestic Water	Sprinkler Riser	Sprinkler Distribution	Showers	Observable Steel	Observable Masonry	Headers / Lintels	Misc Metals / Stairs	Total Score	Building Average Rating
n/a	n/a	n/a	2	n/a	n/a	n/a	3	n/a	n/a	n/a	2	3	3	n/a	n/a	2	2	2	63.0	2.63



### DRAPER HALL: BUILDING J

Year Constructed **1958**  
 Use **Office & Gym/Assembly**  
 Building GSF **12.370 GSF**  
 Number of Floors **1**  
 Construction type **Masonry & Wood**  
 Average rating (scale of 0-5) **2.4**  
 Overall Condition Rating **Fair**

Building Exterior																			Life Safety			Interior				19 Total Review Categories	
Exposed Foundation	Brick / Masonry	Siding / Cladding	Windows	Doors	Canopies / Overhangs	Roof / Flashing	Fire Alarm / Strobes	CO / Smoke Detector	Life Safety: Exit Signs	Life Safety: Emergency Lighting	Condition of Walls	Base	Flooring	Ceiling	Stairs	Handrails	Doors	Glazing	Total Score	Building Average Rating							
3	3	3	3	3	3	3	3	n/a	3	n/a	3.5	3	3	3	3	2	3	2	49.5	2.91							

Electrical			Lighting		Mechanical				Plumbing					Structure				38 Total Review Categories		
Service Entrance	Panel / Distribution	Emergency Power	Lighting	Lighting Controls	Boiler	Fuel	HVAC	Specialty Areas	Toilet Rooms	Kitchen	Domestic Water	Sprinkler Riser	Sprinkler Distribution	Showers	Observable Steel/Giulams	Observable Masonry	Headers / Lintels	Misc Metals / Stairs	Total Score	Building Average Rating
n/a	n/a	n/a	2	n/a	n/a	n/a	2	n/a	1	n/a	2	3	4	1	3	3	3	3	73.5	2.63



### SANDERS HALL: BUILDING K

Year Constructed 1959  
 Use Kitchen, Dining, Museum  
 Building GSF 34,800 GSF  
 Number of Floors 2  
 Construction type Masonry & Steel  
 Average rating (scale of 0-5) 2.31  
 Overall Condition Rating Fair

Building Exterior																		Life Safety		Interior										19 Total Review Categories	
Exposed Foundation	Brick / Masonry	Siding / Cladding	Windows	Doors	Canopies / Overhangs	Roof / Flashing	Fire Alarm / Strobes	CO / Smoke Detector	Life Safety: Exit Signs	Life Safety: Emergency Lighting	Condition of Walls	Base	Flooring	Ceiling	Stairs	Handrails	Doors	Glazing	Total Score	Building Average Rating											
3	3	3	1	2	2	2.5	4	n/a	2	2	2	3	2	2	2	1	2	3	41.5	2.31											

Electrical			Lighting		Mechanical				Plumbing						Structure				38 Total Review Categories	
Service Entrance	Panel / Distribution	Emergency Power	Lighting	Lighting Controls	Boiler	Fuel	HVAC	Specialty Areas	Toilet Rooms	Kitchen	Domestic Water	Sprinkler Riser	Sprinkler Distribution	Showers	Observable Steel	Observable Masonry	Headers / Lintels	Misc Metals / Stairs	Total Score	Building Average Rating
3	2	2	1	n/a	4	2	3	n/a	1	2	2	3	3	1	3	3	2.5	2	81.0	2.31





### GATEHOUSE

Year Constructed **1973**  
 Use **Office**  
 Building GSF **160 GSF**  
 Number of Floors **1**  
 Construction type **Masonry & Wood**  
 Average rating (scale of 0-5) **2.1**  
 Overall Condition Rating **Good**

Building Exterior																			19 Total Review Categories	
Exposed Foundation	Brick / Masonry	Siding / Cladding	Windows	Doors	Canopies / Overhangs	Roof / Flashing	Life Safety: Fire Alarm / Strobes	Life Safety: CO / Smoke Detector	Life Safety: Exit Signs	Life Safety: Emergency Lighting	Interior: Condition of Walls	Interior: Base	Interior: Flooring	Interior: Ceiling	Interior: Stairs	Interior: Handrails	Interior: Doors	Interior: Glazing	Total Score	Building Average Rating
3	n/a	4	4	4	2	2					3	2	1.5	3	n/a	n/a	3	n/a	31.5	2.86

Electrical														Lighting		Mechanical				Plumbing				Structure				38 Total Review Categories	
Service Entrance	Panel / Distribution	Emergency Power	Lighting	Lighting Controls	Boiler	Fuel	HVAC	Specialty Areas	Toilet Rooms	Kitchen	Domestic Water	Sprinkler Riser	Sprinkler Distribution	Showers	Wood Trusses	Observable Masonry	Headers / Lintels	Misc Metals / Stairs	Total Score	Building Average Rating									
									2	n/a	2	n/a	n/a	n/a					35.5	2.73									

# SITE CONDITIONS

The Site Analysis for Mackworth Island included an inventory of existing conditions encompassing the overall island, GBSD/ MECDHH Campus and Mackworth Island State Park. Existing site information was collected from on-site assessments, research of existing reports, documents and available mapping.

The site Inventory included the following:

- Natural features including open space, topography, drainage and climate
- Sensitive natural habitats
- Access and Circulation – drives, procession and sense of arrival, paths and trails
- Parking, service areas and signage
- Views – from the island and to GBSD
- Landmarks
- Interface between GBSD and Mackworth Island State Park



**EXISTING CONDITION SITE CONTEXT PLAN**

**SITE CONTEXT**

Mackworth Island is located in Casco Bay just north of Portland in Falmouth, Cumberland County, Maine. The 100-acre island is predominantly undeveloped. GBSD/ MECDHH occupies about 15-acres near the center of the island while Mackworth Island State Park (MISP) encompasses the remainder of the island. MISP includes a gate house, visitor and staff parking, a perimeter trail system with shore access points and all other land not part of GBSD. The Portland Water District owns a pump house and water main serving the coastal islands.

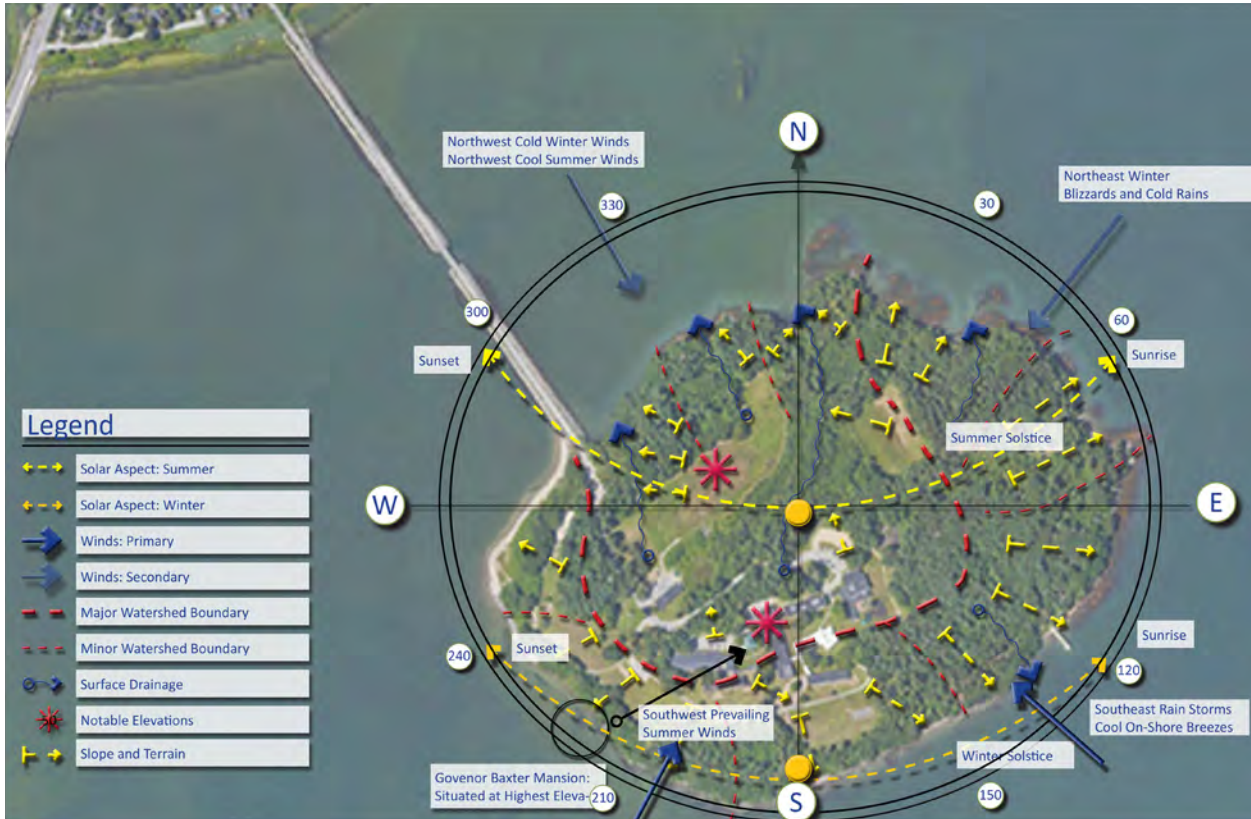


**EXISTING CONDITIONS GBSD/ MECDHH CAMPUS**

The GBSD/ MECDHH campus, developed around the Baxter Mansion is located on the height of land and includes the administrative, academic and support buildings; paved access drives and parking for staff and visitors, walks, open space, and recreation facilities. A detailed inventory of the existing buildings prepared by the architects and engineers is found in the Facilities Assessment reports. A detailed inventory of traffic and parking is provided in the Traffic Report.

The GBSD upper campus buildings are organized around the Baxter Mansion. The lower campus buildings are organized around internal open spaces. The open spaces include traditional, quadrangle-like spaces; passive and active recreation (playground) areas and buffers.





### SITE INVENTORY CLIMATE AND RESOURCES

Mackworth Island is surrounded by the ocean waters of Casco Bay to the south, east and north and the Presumpscot River to the west which temper and affect the micro-climate of the island. The summer temperatures are moderated by cooling, on-shore breezes. The island is exposed to winter “nor’easters” or on-shore blizzards and cold, northwesterly winds. Afternoon, on-shore breezes extend cool temperatures well into the spring months. Autumn temperatures are moderated by the relatively warmer ocean temperatures.

The GBSD/ MECDHH campus is located on southerly facing slopes. The Baxter Mansion (Administration Building) facade is oriented due south along with many of the other campus buildings.

Mackworth Island is comprised of three environmental zones: the coastal zone; the embankment zone; and upland zone. The GBSD/ MECDHH campus is in the upland zone. The Mackworth Island State Park trail is located along the embankment zone.

Beyond the MISP Gatehouse, a single road serves Mackworth Island/ GBSD. The roadway diverges at the approach to GBSD. The upper driveway provides access to the Baxter Mansion and upper campus. The lower driveway provides access to the Preschool and lower campus. Access to the school property is controlled by a metal gate and signage.

The coastal island environment of Mackworth Island has been preserved



**SITE INVENTORY – CIRCULATION AND ELEMENTS**

in part due to historically limited access. Of note are large forested areas, open spaces, areas previously identified as special protected resources including but not limited to: prehistoric shell middens near the stone pier; civil war era stone pier; miscellaneous rare plants; the pet cemetery and trees planted by Governor Baxter.

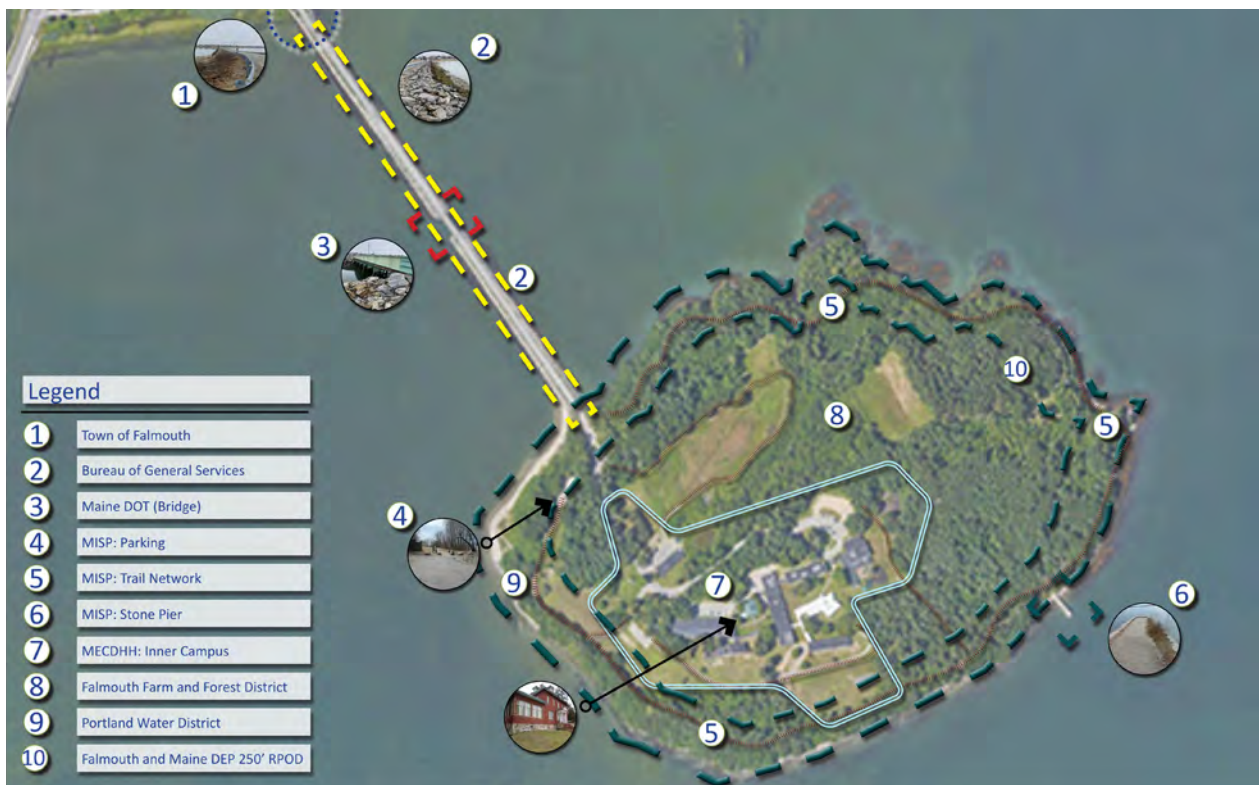
**VIEWS**

A photographic inventory included vantage points along the entire length of the MISP trail; at areas of special interest such as the pet cemetery, and the GBSD/MECDHH campus. Vantage points and potential vistas were noted along with any existing visual barriers such as vegetation and unneeded structures. Vistas include the Presumpscot River and Portland’s Eastern Promenade to the east; Casco Bay and the islands to the south and east, and Falmouth and the “Falmouth Flats” to the north and northeast. The views of and along the trail are also intriguing as the trail winds along the shore and farther inland amid mature trees, open spaces, woody under story and past wetlands.

Landmark resources include a prehistoric Wabanaki grind stone and historic water tower (located near building ‘D’); and the Baxter Mansion. The farm house was intentionally razed by fire in 2004 after the Baxter School Board voted to demolish the building due to its poor condition, cost of repairs, and dark past.

## SIGNS

Sign locations and functions were inventoried. Wayfinding is an important function for visitors to Mackworth Island State Park to maintain the safety and security for GBSD/ MECDDH as well as to orient day-visitors to the park trail system and educate them about the history, environment, ecologically sensitive areas and the boundaries of the GBSD/ MECDDH.



**SITE INVENTORY – JURISDICTION AND REGULATORY**

## LAND USE SUITABILITY ASSESSMENT

Jurisdiction Control of Mackworth Island is the responsibility of the following:

### Bureau of General Services

- Buildings and Grounds GBSD/ MECDDH campus
- Causeway (exclusive of the bridge)



State Park - The Department of Agriculture, Conservation and Forestry

- State Park gatehouse, trail, shore and parking
- The entire remaining island except the GBSD/ MECDHH campus

Maine DOT

- Bridge at the Causeway

### **LAND USE AND ENVIRONMENTAL REGULATION**

A review of regulatory and legal constraints of the buildings and site under the Town of Falmouth land use regulations included review of local ordinances and direct contact with the Community Development/ Planning Office. Mackworth Island falls under the following regulatory and management oversight:

Local: The Town of Falmouth has jurisdiction under zoning including Site Plan Review and Shoreland Zoning.

State of Maine: Maine DEP for land and shoreland related uses including environmental permitting; Maine Dept of Inland Fisheries and Wildlife; Maine DOT for the bridge spanning the causeway; The Department of Agriculture, Conservation and Forestry for the operation of the state park and overall island maintenance; Bureau of General Services for the causeway and MECDHH/ GBSD buildings and grounds.

# HISTORIC CHARACTER ASSESSMENT

The complete Historic Assessment Report is located in Appendix A2 of this report.

The following set of images depicts development of Mackworth Island over time. The period begins in 1917 with the construction of Baxter Mansion and ends in 2004 with the construction of Brewster hall, the most recent campus building.



CONSTRUCTION OF BAXTER MANSION, 1917



MAIN CAMPUS DEVELOPMENT, 1957-1959



ADDITIONAL CAMPUS DEVELOPMENT, 1973





CONSTRUCTION OF STATE PARK GATEHOUSE, 1990



RENOVATION OF D BUILDING, 1996



REMOVAL OF I BUILDING AND CONSTRUCTION OF H BUILDING -2004

# CAUSEWAY AND PIER ASSESSMENT

The complete Causeway, Causeway Bridge, Pier, and Embankment Assessment Report is located in Appendix A3.

# VHB, PARKING AND TRAFFIC ASSESSMENT

VHB performed two onsite observational analyses and one traffic count analysis to gather information on the traffic and parking conditions at Mackworth Island. Combined with historical research and input from stakeholders and the public, VHB reported findings and provided recommendations.

VHB’s assessment addressed the limited parking at the Mackworth Island State Park and the amount of traffic generated along Andrews Avenue to access the Island causeway. Initial onsite observation by VHB staff occurred on March 31, 2022. Results did not align with stakeholder comments so a follow up onsite observation was scheduled for a fair-weather weekend day after Memorial Day. This observation occurred on June 5, 2022. After receiving additional public input about perceived traffic volume and parking issues, the assessment team contracted a follow up to record vehicle counts on August 8 and 9, 2022. The last data set provides a detailed accounting of traffic at Andrews Avenue, State Park traffic, and School campus traffic.

The complete Parking and Traffic Assessment Report is located in the Appendix A4.

## SUMMARY FINDINGS FROM AUGUST 8-9, 2022 ANALYSIS

August, 8-9, 2022	AM (8:15-9:15)	PM (4:15-5:15)
Andrews Avenue Traffic	30	35
Campus Traffic	16	16
Park Traffic	22	34

State Park Traffic	Total (6/5/22) (12-1PM)
12:00	17
12:15	17
12:30	16
12:45	12

State Park Traffic	Total (8/9/22) (12-1PM)
12:00	13
12:15	14
12:30	9
12:45	12



## Traffic & Parking Assessment | Observations Summary - March 31

### Trip Generation

TIME PERIOD	TOTAL	ANDREWS AVE.	MACKWORTH ISLAND
Daily	770	251	519
AM Peak	87	19	68
PM Peak	93	24	69

### Notes:

- Route 1 & Andrews Avenue appear to have enough capacity to accommodate Mackworth Island traffic.
- Number of trips has reduced over time.
- Campus Parking capacity can accommodate typical vehicle requirements.
- School parking is restricted to MECDHH/GBSD use and exceeds current need.
- State Park parking did not reach capacity on a weekday during off-season.

### MECDHH Campus Parking

PARKING AREA	PARKING USED	TOTAL PARKING	% USED
Mansion	7	10	70%
Taylor	6	31	19%
Inman Garage	7	22	32%
Carter	2	16	10%
Draper	9	52	17%
Sanders	2	10	20%
Athletic Field	0	10	0%

### Mackworth Island State Park Parking

PARKING AREA	PARKING USED	TOTAL PARKING	% USED
Main Lot	6	22	27%
Gatehouse Lot	1	6	17%

## Traffic & Parking Assessment | Observations Summary - June 5

### Parking Data

Time	Main Parking Used	Main Parking Total	% Used	Gate Parking Used	Gate Parking Total	% Used	Main Turnover	% Turnover	Gate Turnover	% Turnover
11:00	23	24	96%	8	8	100%	4	17%	2	25%
11:15	23	24	96%	7	8	88%	2	8%	1	13%
11:30	23	24	96%	8	8	100%	7	29%	1	13%
11:45	22	24	92%	8	8	100%	3	13%	0	0%
12:00	23	24	96%	8	8	100%	6	25%	2	25%
12:15	23	24	96%	8	8	100%	5	21%	1	13%
12:30	23	24	96%	8	8	100%	8	33%	3	38%
12:45	22	24	92%	8	8	100%	4	17%	1	13%

### Turnover every 15 Minutes

Location	Total	%
Main Lot Average Turnover per 15 Min	5	20%
Gate Lot Average Turnover per 15 Min	1	17%

### Motor Vehicles

Turned Away	Total
12:00	9
12:15	11
12:30	5
12:45	7
Hour Total	32

### Bicycles

Bikes Parked	Total
12:00	4
12:15	4
12:30	4
12:45	7
Average	5



**3**

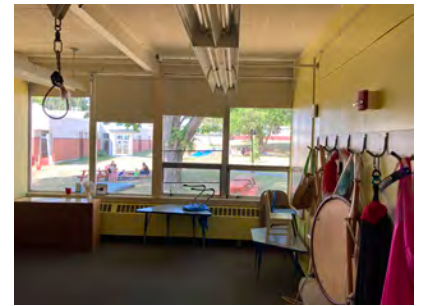
**SPACE PROGRAM**



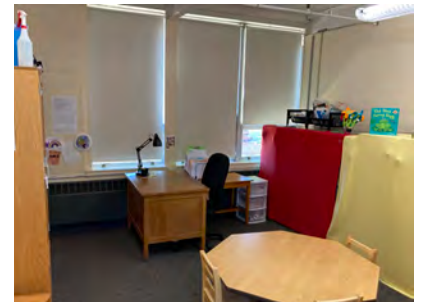
# SPACE PROGRAM

## INTRODUCTION

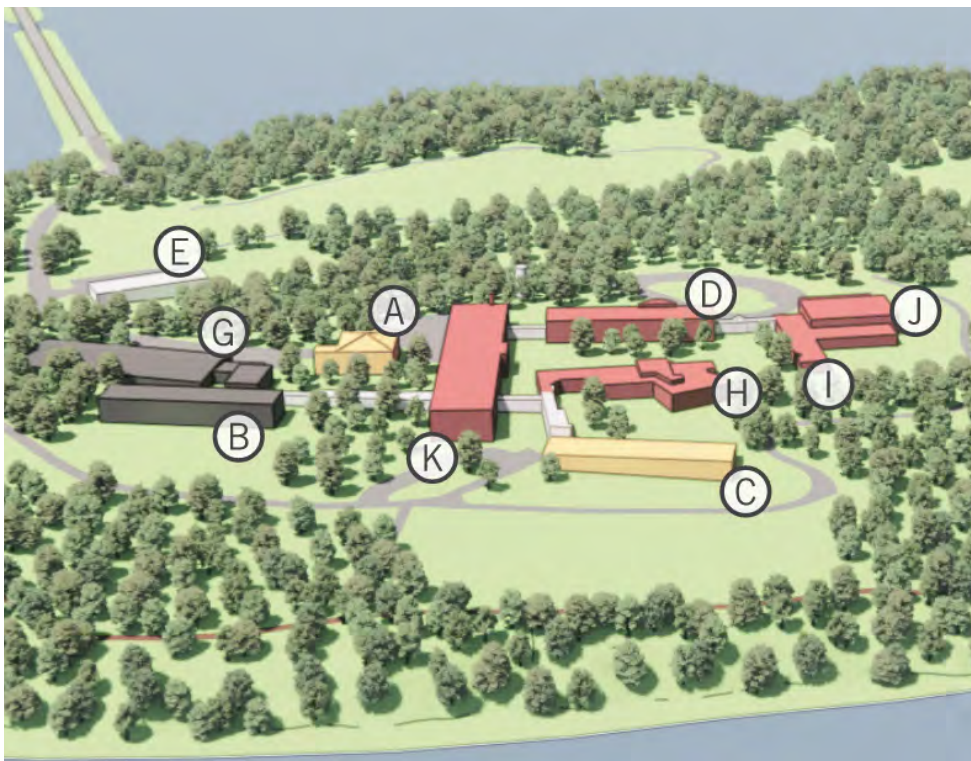
Space utilization of the facilities on Mackworth Island was a primary area of focus of this study. The majority of the buildings were constructed to support the Governor Baxter School for the Deaf/The Maine Educational Center for the Deaf and Hard of Hearing. Exceptions to this are the original Baxter Summer Home that now houses the school's administrative functions (Building A) and the entrance gate house. The nature of the school's programs has changed significantly from when the buildings were designed and constructed. The result is a reduction in the amount of needed space to accommodate the school's operations. Several buildings are vacant or have low utilization. The low utilization has allowed non-school functions to lease space. These currently include Disability Rights Maine, and the State of Maine Office of Information Technology. Additionally, the Deaf Community curates a museum currently located in Sanders Hall that highlights the history of the school and the island. This study examines utilization in terms of whether a space is used and the frequency of its use.



PT/OT CLASSROOM



CLASSROOM



### BUILDING KEY

- |                        |                         |
|------------------------|-------------------------|
| (A) GOVERNOR'S MANSION | (G) CARTER (NOT IN USE) |
| (B) YOUNG (NOT IN USE) | (H) BREWSTER            |
| (C) TAYLOR             | (I) PATRICK             |
| (D) GREENLAW           | (J) DRAPER              |
| (E) INMAN (GARAGE)     | (K) SANDERS             |

### LEGEND

- >75% UTILIZATION
- 50-75% UTILIZATION
- <50% UTILIZATION
- 0% UTILIZATION

## MECDHH SPACE PROGRAM

During the study, the consultant team met with school administration to understand its present use of the buildings, discuss space needs and how these needs are anticipated to change in the future. The resulting Space Program supported decisions about which current buildings are best suited to serve the school's needs, which were not needed, and how to accommodate future space needs.

Buildings listed below represent the total number of occupied facilities contributing to the current total MECDHH space program.

### CURRENT USE

#### Mansion (Building A)

The school's administration occupies all floors of the Mansion. Residential spaces have been converted into offices on the three primary levels of the building with the basement used for storage.

#### Greenlaw Hall (Building D)

Greenlaw Hall is a 3-story building that houses the Pre-Kindergarten Classrooms and the preschool staff offices. It has a multi-purpose room used for smaller assemblies and events. Public outreach staff occupy 2 former classrooms on the third floor.

#### Brewster Hall (Building H)

Brewster Hall is a single-story building originally designed as a secondary school. Its current use is largely offices in former classroom spaces and support spaces. Additional uses are evaluation, observations and audiology rooms. The library has been converted into a multipurpose space for a variety of functions.

#### Patrick Hall (Building I)

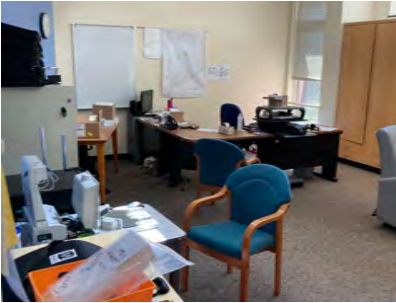
Only a portion of the original Patrick Hall still exists and houses approximately 8 rooms used as offices as well as the Nurse/Health room for the school.

#### Draper Hall (Building J)

Draper Hall is the school's gymnasium and stage and is used by the preschool and aftercare as well as for community events.

#### Sanders Hall (Building K)

Sanders was originally constructed as a dining facility. The school uses former bedroom spaces in the lower level for offices. There are also two internal spaces designed as exam rooms that are used for Zoom/Speech rooms. The former dining room is used for a variety of meetings and events. Another room known as the Tandberg Room is used as a large conference room.



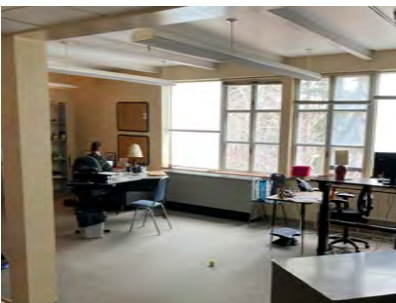
CLASSROOM USED AS OFFICE



CONFERENCE ROOM



AUDIOLOGY ROOM



CLASSROOM USED AS OFFICE

## FINDINGS AND RECOMMENDATIONS

Findings conclude that all campus buildings are underutilized. A reduction in campus square footage, renovation of some existing spaces, and replacement of incompatible program spaces with 'right-sized' new construction is recommended to reestablish a campus that meets current and future space needs. An average campus utilization of 60% - 70% is recommended to provide flexibility while maintaining a high degree of use in all campus buildings.

Current total campus building area occupied by MECDHH: 134,202 GSF

Calculated total building area needed by MECDHH: 31,650 GSF = 29% of total existing GSF.

## SPACE ALLOCATION WORKBOOK

Subject	# of Rooms	@	Room Area (sf)	=	Area (sf)
<b>Administration</b>					
Executive Director Office (Karen Hopkins)	1	@	150	=	150
Executive Asst to Director (Suzy Sargent)	1	@	120	=	120
Director of Operations (Dean Flanigan)	1	@	150	=	150
Maintenance Supervisor (Stephen Kimball)	1	@	150	=	150
Accountant (Chris Rheault)	1	@	150	=	150
Accountant Support Tech (Kathy Lagasse)	1	@	120	=	120
Director of HR (Lori Levesque)	1	@	150	=	150
Personnel File Storage	1	@	200	=	200
Interpreter Coordinator Office	1	@	200	=	200
Rotating Zoom Space	1	@	100	=	100
Transportation Coordinator (can be shared office)	1	@	120	=	120
IT Specialist Office	2	@	120	=	240
Conference/Meeting Room	1	@	300	=	300
Kitchen/Staff Workroom	1	@	150	=	150
Storage (Bldg A Basement)	1	@	200	=	200
<b>Sub-Total</b>					<b>2,500</b>
<b>Pre-Kindergarten Program</b>					
PK Classroom (Spoken Language)	2	@	1,000	=	2,000
PK Classroom (ASL)	1	@	1,000	=	1,000
PK SPED Classroom	1	@	1,000	=	1,000
Aftercare Room	1	@	500	=	500
PK Coordinator Office	1	@	120	=	120
Site-Based Coordinator	2	@	120	=	240
Teachers' Office	1	@	500	=	500
Teachers Workroom	1	@	300	=	300
Curriculum Materials Storage	1	@	300	=	300
SEL/Technology/Events/Meeting Room	1	@	400	=	400
PK Library (Book Room)	1	@	200	=	200
ASL Video Room	1	@	200	=	200
<b>ADD SPACE: Specialist Workspace</b>	4	@	120	=	480
<b>Sub-Total</b>					<b>7,240</b>

Subject	# of Rooms	@	Room Area (sf)	=	Area (sf)
<b>Statewide Education and Family Services</b>					
Public Outreach Itinerant Staff	1	@	500	=	500
<b>ADD SPACE:</b> Public Outreach Itinerant Staff Coordinator	1	@	120	=	120
Statewide Education and Family Services Main Office	1	@	120	=	120
Multipurpose Room	1	@	1,500	=	1,500
Parent Resource Room	1	@	200	=	200
Teachers Room	1	@	300	=	300
Director of Statewide Education and Family Services	1	@	150	=	150
Early Education and Family Services Coordinator	1	@	120	=	120
Admin Asst to Director of Early Intervention Office	1	@	120	=	120
Early Intervention Office	3	@	150	=	450
Audiologist Office	1	@	120	=	120
Observation Room	1	@	100	=	100
Audiology Booth	1	@	100	=	100
Storage	1	@	200	=	200
Social Worker	2	@	120	=	240
OT (Bldg K)	1	@	120	=	120
Speech and OT (Bldg K)	6	@	120	=	720
IEP Office	1	@	250	=	250
OT Room (Bldg I/J)	1	@	200	=	200
Speech Room (Bldg I/J)	2	@	200	=	400
ASL Room (Bldg I/J)	1	@	200	=	200
Nurse/Health Room	1	@	250	=	250
BCBA Office	1	@		=	120
<b>Sub-Total</b>					<b>5,860</b>
<b>Other/Additional Multipurpose Spaces</b>					
Gymnasium	1	@	4,000	=	4,000
Stage	1	@	1,000	=	1,000
Dining Room	1	@		=	0
Kitchen	1	@		=	500
<b>Sub-Total</b>					<b>5,500</b>
<b>TOTAL PROGRAM AND SUPPORT SPACE AREA</b>					<b>21,100</b>
Gross Mark-up @ 1.5					<b>10,550</b>
<b>TOTAL GROSS AREA</b>					<b>31,650</b>

The table above identified the current space needs of the school program.





**4**

**MASTER PLAN**






# PLANNING RECOMMENDATIONS

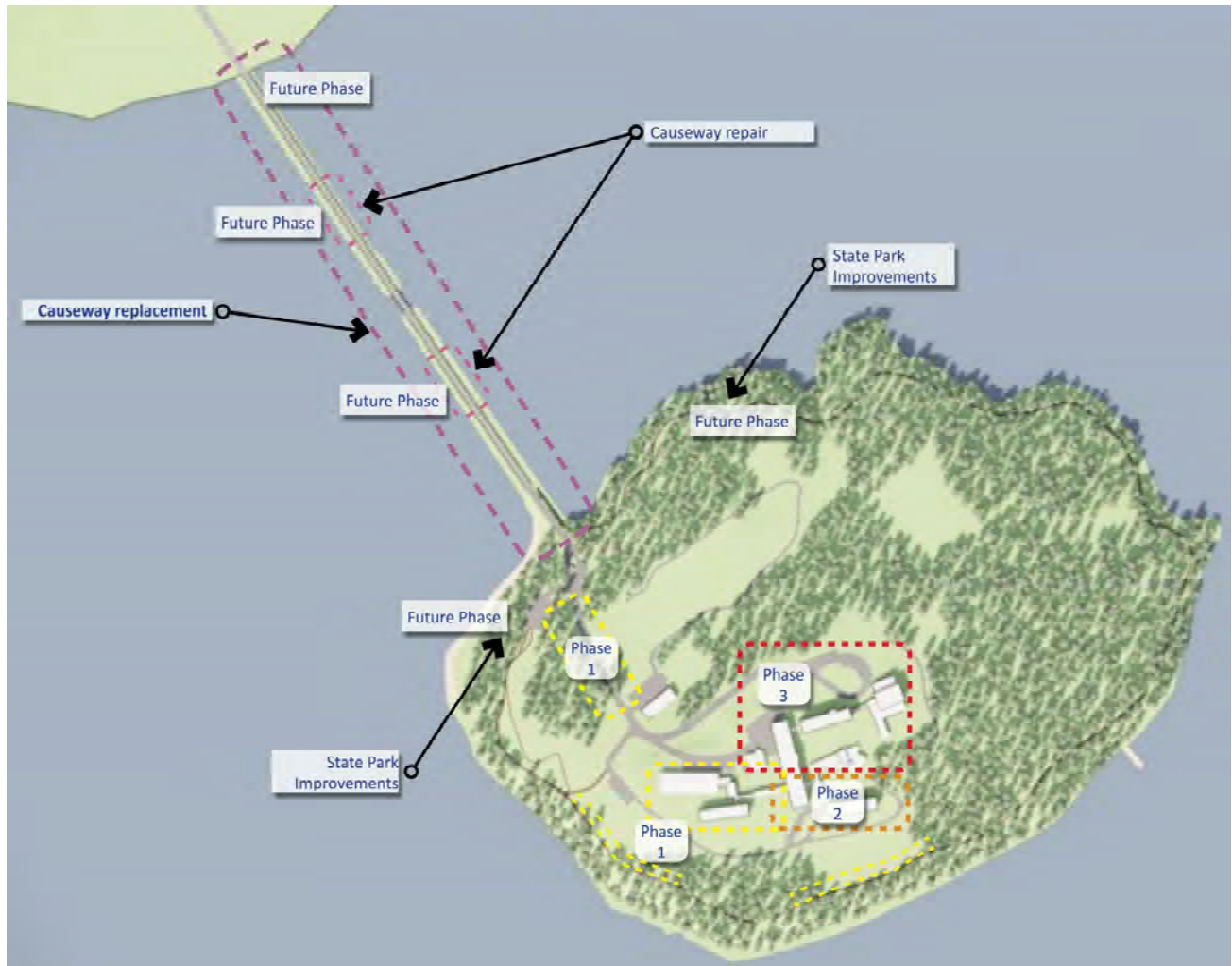
## INTRODUCTION

Planning recommendations fall into three basic categories.

1. Three-phase campus reorganization and improvement initiative
2. State Park improvements
3. Causeway and Bridge improvements

### MASTER PLAN PHASING MATRIX

CAMPUS REORGANIZATION PHASE 1	CAMPUS REORGANIZATION PHASE 2	CAMPUS REORGANIZATION PHASE 3	STATE PARK IMPROVEMENTS	CAUSEWAY AND BRIDGE IMPROVEMENTS
				
<b>REMOVALS</b>				
BUILDING B, G & ASSOCIATED CONNECTORS	BUILDING C & ASSOCIATED CONNECTORS	BUILDING K & ASSOCIATED CONNECTORS	UNKNOWN	FAILING MATERIAL AS REQUIRED
<b>IMPROVEMENTS</b>				
			PARKING LOT AND STATE PARK TRAIL IMPROVEMENTS	STABILIZATION AND REPAIR
<b>PROJECT COST (BASED ON 2022 CONSTRUCTION COSTS WITH 30% SOFT COSTS INCLUDED)</b>				
\$4,680,515	\$3,057,460	\$20,216,040	TBD	\$2,000,000 - \$3,000,000
<b>ANNUAL ENERGY SAVINGS (ESTIMATED FROM HISTORIC UTILITY BILL DATA)</b>				
\$34,000	\$22,000	\$49,000 ADD 'NEW BLDG K' TO CAMPUS ENERGY LOAD: TBD	N/A	N/A
<b>TIME FRAME</b>				
0-3 years	3-5 years	4-10 years	0-5 years	0-5 years



**MASTER PLAN PHASES MAP**



**PHASE 1:**

Removal of empty buildings and associated connectors. Addition of site elements including new campus gateway entrance, screening vegetation, and reduction of mowed area at State Park trail to create a better-defined buffer at the campus edge.

Phase 1 accomplishes the removal of unused and potentially hazardous buildings and opens views to the Mansion. Site improvements assist in wayfinding and navigation as well as celebrating the campus as the home for the Deaf Community.



**PHASE 1: KEY PLAN**

**DEMOLITION**

- Relocate campus utilities (entering Building G)
- Remove Building B (currently vacant)
- Remove Building G (currently vacant)
- Remove Associated Connectors (currently vacant)

**IMPROVEMENTS**

- Relocate campus utilities including IT entrance to directly connect to Building K
- New Campus Entry Gate & Signage to improve wayfinding and security
- New Tree Screening at Building E/ Service Area to better define access to school and improve campus aesthetics
- Trail Buffer - "No Mow" Zone approximately 50 feet from trail edge to reduce park visitors entering campus grounds



**PHASE 1: REMOVALS AND DEVELOPMENT PLAN**

NOT TO SCALE

## PHASE 1 COST MODELING

Building Name		Area	Building Removal or Renovation Allowance	Site Work or Utility Infrastructure Relocation	Notes
Building A	Mansion	7,988	\$ 500,000		Front Door & Porch renovation allow:
Building B	Young	15,580	\$ 1,092,616	N/A	Building demolition: Includes abatement allowance, buil removal, and associated site v
Building C	Taylor		\$ -		No work, Phas
Building D	Greenlaw		\$ -	\$ 300,000	Cap primary electric at B & rerun Fiber from G to D: allowa
Building E	Inman Garage		\$ -		No work, Phas
Building G	Carter	17,600	\$ 1,283,520	N/A	Building demolition: Includes abatement allowance, buil removal, and associated site v
Building H	Brewster		\$ -		No work, Phas
Building I	Patrick		\$ -		No work, Phas
Building J	Draper		\$ -		No work, Phas
Building K	Sanders		\$ -	N/A	No work, Phas
Connector	G-K	2,550	\$ 204,260	N/A	Building demolition: Includes abatement allowance, buil removal, and associated site v
Connector	C-H-K		\$ -	N/A	No work, Phas
Connector	D-K		\$ -	N/A	No work, Phas
Sitework: New campus gateway			\$ -	\$ 165,000	Gate, pillars, signage, ligl
Sitework: screening at Building E			\$ -	\$ 55,000	Screening t
Sitework: no mowing 50' from trail at campus edge			\$ -	\$ -	Reduce landscape maintenance near
<b>CONSTRUCTION TOTAL: BY CATEGORY</b>		<b>43,718</b>	<b>\$ 3,080,396</b>	<b>\$ 520,000</b>	12% cost escalation included for a April 2024 construction start. Costs assume load limit cost increases for building demolition. S costs not included.
<b>ADD 30% FOR TOTAL PROJECT COST</b>			<b>\$ 4,004,515</b>	<b>\$ 676,000</b>	Total project cost includes total construction cost plus soft costs (Administrative costs, Owner contingencies, design & permitting fees, and other related costs incurred directly by Owner)
<b>PROJECT TOTAL: PHASE 1</b>			<b>\$</b>	<b>4,680,515</b>	

## PHASE 2

Phase 2 accomplishes the removal of underutilized buildings that are very energy inefficient and require significant capital expenditure to renovate for future viability. Removal improves utilization for existing facility spaces. Although Building C is functional, it is reliant on the connector elements to supply heat and water. The need to remove the connectors influenced the recommendation to remove Building C.

Underutilized buildings H and K will be reorganized with minimal renovation expense to allow building C to be vacated. Building C and associated connector are to be removed. Renovation of the gym (building J) for improved use for assembly events.



**PHASE 2 KEY PLAN**

### DEMOLITION

- Remove Building C (currently underutilized and in need of extensive exterior envelope repair)
- Remove Associated Connectors

### IMPROVEMENTS

- Renovate Building J gymnasium and associated support spaces to improve utilization of existing large function space
- Consolidate Building H
- Consolidate Building C lease space into Building K
- Additional plantings and site improvements along campus and trail edges



**PHASE 2: REMOVALS AND DEVELOPMENT PLAN**

NOT TO SCALE

## PHASE 2 COST MODELING

Building Name		Area	Building Removal or Renovation Allowance	Site Work or Utility Infrastructure Relocation	Notes
Building A	Mansion		\$ -		No work, Phase 2
Building C	Taylor	13,460	\$ 723,420		Demolish building
Building D	Greenlaw	4,301	\$ 387,072		Minor renovation as required
Building E	Inman Garage		\$ -		No work, Phase 2
Building H	Brewster	1,800	\$ 162,000		Minor renovation as required
Building I	Patrick	950	\$ 85,500		Minor renovation as required
Building J	Draper	6,000	\$ 648,000		Renovate Gym, annex, and limited plumbing upgrades
Building K	Sanders	2,000	\$ 180,000		Minor renovation for swing space
Connector	C-H-K	1,360	\$ 165,900		Demolish leg from H to C (75% of total cost)
Connector	D-K		\$ -		No work, Phase 2
Sitework: New campus gateway			\$ -		Complete
Sitework: screening at Building E			\$ -		Complete
Sitework: Revised parking loop at J			\$ -		No work, Phase 2
Sitework: no mow grass at campus edge			\$ -		Complete
Sitework: Allowance for planting and hardscape improvements			\$ -		No work, Phase 2
<b>CONSTRUCTION TOTAL: BY CATEGORY</b>		29,871	\$ 2,351,892	\$ -	20% cost escalation included for a April 2025 construction start. Costs assume load limit cost increases for building demolition. Soft costs not included.
<b>ADD 30% FOR TOTAL PROJECT COST</b>			\$ 3,057,460	\$ -	Total project cost includes total construction cost plus soft costs (Administrative costs, Owner contingencies, design & permitting fees, and other related costs incurred directly by Owner)
<b>PROJECT TOTAL: PHASE 2</b>			<b>\$ 3,057,460</b>		



**PHASE 3:**

Phase 3 accomplishes the final removal of outdated buildings and completes the MECDHH vision for a right-sized campus. Site improvements assist in wayfinding and navigation as well as celebrating the campus as the home for the Deaf Community.

The removal of building K and associated connector. Addition of new building. The addition of site elements including new school drop-off loop entrance and additional site improvements at State Park trail to create a better-defined buffer at the campus edge.



**PHASE 3: KEY PLAN**

**DEMOLITION**

- Remove existing Building K following completion of replacement 'New Building K'
- Remove Associated Connectors

**IMPROVEMENTS**

- Improved Access Driveways and New Loop Road
- New Access Drive to Mansion
- Build new building 'K'
- New Drop-off Loop and Turnaround Building A
- Develop campus building systems to remove central heat
- Plantings to define view corridors and central quadrangle



**PHASE 3: REMOVALS AND DEVELOPMENT PLAN**

NOT TO SCALE

PHASE 3 COST MODELING

Building Name		Area	Building Removal or Renovation Allowance	Site Work or Utility Infrastructure Relocation	Notes
Building D	Greenlaw		\$ -		Minor renovation as required
Building E	Inman Garage		\$ -		No work, Phase 3
Building H	Brewster		\$ -		No work, Phase 3
Building I	Patrick		\$ -		No work, Phase 3
Building J	Draper		\$ -		No work, Phase 3
Building K	Sanders		\$ 1,656,200	\$ 600,000	Demolish
New Building K'		15,000	\$ 11,550,000		2 story new construction: 7,500 SF footprint (4-5 years escalation)
Connector	D-K		\$ 82,600		Demolish
Sitework: New campus gateway			\$ -	\$ -	Complete
Sitework: screening at Building E			\$ -	\$ -	Complete
Sitework: Revised parking loop at J			\$ -	\$ 1,582,000	50,000SF parking & loop, 2500SF hardscape, 5,000SF sidewalks, Demo, Site lighting (4-5 years escalation)
Sitework: no mow grass at campus edge			\$ -	\$ -	Complete
Sitework: Allowance for planting and hardscape improvements			\$ -	\$ 80,000	As needed to complete unforeseen planting for screening and miscellaneous hardscaping.
<b>CONSTRUCTION TOTAL: BY CATEGORY</b>		<b>15,000</b>	<b>\$ 13,288,800</b>	<b>\$ 2,262,000</b>	40% cost escalation included for a April 2028 construction start. Costs assume load limit cost increases for building demolition. Soft costs not included.
<b>ADD 30% FOR TOTAL PROJECT COST</b>			<b>\$ 17,275,440</b>	<b>\$ 2,940,600</b>	Total project cost includes total construction cost plus soft costs (Administrative costs, Owner contingencies, design & permitting fees, and other related costs incurred directly by Owner)
<b>PROJECT TOTAL: PHASE 3</b>		<b>\$</b>	<b>20,216,040</b>		



# APPENDIX



# A1: BUILDING CONDITION ASSESSMENT

## REPORT BY HARRIMAN

Report contents include facility condition assessments of all GBSD/MECDHH buildings and connector structures. Information is organized by discipline for all buildings. Each discipline category includes facility observations and recommendations that have been summarized in the Master Plan document. Discipline categories include:

- Architectural
  - Interior Systems
  - Exterior Systems
  - Building Structure Observations
- Plumbing Systems
- Fire Protection Systems
- Mechanical Systems
- Electrical Systems



## **A2: HISTORIC CHARACTER ASSESSMENT**

### **REPORT BY KLEINFELDER**

Report contents include a reconnaissance level review of all GBSD/MEC-DHH campus buildings and connector structures that are over 45 years old. Buildings are reviewed for level of intact architectural character and historic significance. Report observations and recommendations have been summarized in the Master Plan document.

### **DIGITAL RECORDATION SUMMARY**

To meet historic archival requirements, it is understood that a digital recordation process is acceptable for buildings identified for removal in the Master Plan recommendations.





## **A3: CAUSEWAY AND PIER CONDITION ASSESSMENT**

### **REPORT BY GEI**

Report contents include a general review of the condition and resilience of the following items.

- Causeway
- Bridge
- Stone Pier
- Coastal Slopes

General observations of the December 23, 2022 storm are included in the report although a separate report will be issued independently from the Master Plan to address specific damage to the causeway and bridge that stem from the December 23, 2022 storm.



## **A4: TRAFFIC AND PARKING ASSESSMENT**

### **REPORT BY VHB**

Report contents include an assessment of current parking capacity and traffic observed at three periods: March 31, June 5, and August 8-9 2022.





## **A5: ISLAND SURVEY**

### **AERIAL PHOTOGRAPH AND EXISTING CONDITIONS/ TOPOGRAPHIC SURVEY**

Content includes supplemental work to the original Master Plan scope. Information is intended to inform future projects on Mackworth Island.

#### **INTRODUCTION**

Sebago Technics/ Titcomb Associates was retained by BGS to provide an existing conditions survey of the Mackworth Island State Park trail and parking area. As an alternative to traditional survey methods, Sebago Technics utilized unmanned aerial systems (UAS) and light detection and ranging (LiDAR) remote sensing measuring methods. Aero-Geomatic/ sUAS services, including on-board camera along with aerial LiDAR sensor, provided high resolution orthophotography, and collected point cloud data for the entire island.

The resulting information provides high resolution imagery of the GBSD/ MECDHH campus as well as a complete point cloud data set of Mackworth Island. Future projects requiring survey information will be able to request the modeling of captured data sets from specific areas on the Island from Sebago Technics. This option is intended to save the State time and money as future capital initiatives move forward.

The following files and file groups are included in Appendix A5.

- High resolution, aerial photograph of Mackworth island in its entirety
- Island topographic survey without aerial photograph
- Island topographic survey with aerial photograph
- Trail detail survey without aerial photographs
- Trail detail survey with aerial photographs



## B: STATE PARK RECOMMENDATIONS

### SUMMARY

The Master Plan was focused on utilization and addressing immediate facility needs on the GBSD/MECDHH campus. Steering Committee and public input resulted in several recommendations for the State Park that are included in the Master Plan as well as topics that are outside the Master Plan scope and require additional exploration.

#### **State Park-related items included in the Master Plan**

- No mow grass buffer at boundary locations between the State Park trail and school campus that are difficult to identify.
- To maintain a rural experience on the island, do not expand existing parking lot sizes. See Master Plan Executive Summary and Parking and Traffic section for more information.
- Add a camera to provide live feed information of parking lot capacity. Camera feed to be connected to the State Park website.

#### **State Park-related items discussed during the planning process for future consideration and/or implementation.**

- Pave and stripe existing parking lots to improve efficiency and navigation. The island survey, located on Appendix 5, provides information about the parking areas.
- Identify trail areas that require maintenance relative to grading/slope, coastal bluff erosion, or other concerns. The island survey, located on Appendix 5, provides information about the entire trail loop.





## **C: PUBLIC MEETING NOTES**

### **SUMMARY**

Notes from public comments at June 30, 2022 meeting at Falmouth Town Hall.



## **D: HISTORICAL REFERENCE INFORMATION**

### **CONTENTS**

- Summary of the Governor Baxter Deed, prepared by BGS
- Deed of Gift Document
- Supporting Documentation establishing Deed, Lease, School, etc.





# APPENDIX

# A1: BUILDING CONDITION ASSESSMENT

## REPORT BY HARRIMAN

Report contents include facility condition assessments of all GBSD/MECDHH buildings and connector structures. Information is organized by discipline for all buildings. Each discipline category includes facility observations and recommendations that have been summarized in the Master Plan document. Discipline categories include:

- Architectural
  - Interior Systems
  - Exterior Systems
  - Building Structure Observations
- Plumbing Systems
- Fire Protection Systems
- Mechanical Systems
- Electrical Systems





## MACKWORTH ISLAND CONCEPTUAL UTILIZATION PLAN

### Facilities Assessments

#### *Introduction and Overview*

The Facility Assessment is the first task in the planning process for the Mackworth Island Conceptual Utilization Plan. The design team, comprised of architects, engineers, and landscape architects, performed the onsite assessment on March 31, 2022. The Team was accompanied by GBSB representatives. Structural observations and recommendations are included within the architectural assessments. Since most building structure is hidden, recommendations are limited to visible elements of concern for buildings that are currently occupied.

The buildings assessed included all school campus buildings and their associated connector structures. The State Park gatehouse was also assessed from the exterior.



*Overview, of Mackworth Island*

#### *Summary of Findings*

Facility condition varies greatly from building to building. Some buildings are in a state of extensive decline and should be considered for removal and others are in very good working order. Images below reflect overall condition: green is very good, yellow is good, orange is fair, red is poor, and dark red is very poor.





*Campus buildings colored by overall condition*



*Campus plan*



MACKWORTH ISLAND CONCEPTUAL UTILIZATION PLAN – FACILITIES ASSESSMENTS	
<b>ARCHITECTURAL SYSTEMS SUMMARY</b>	
<b>Applicable Codes</b>	
IBC, NFPA, ADA	
<b>Building A: Mansion</b>	
<b>Introduction</b>	
<p>The original building was constructed in 1917. It is 3 stories with a footprint of 3,412 GSF and total area of 7,988 GSF. The building is listed on the National Historic Register. The building’s architectural condition is good overall, with areas of concern focused mainly on exterior envelope and finishes elements: see accompanying Building Condition Summary Table for additional information.</p>	
<b>Interior Systems</b>	
<p>Interior finishes of the mansion are generally in good condition throughout. There is minor-to-moderate water damage to plaster and finishes around Chimney.</p> <p>Interior Stairs are residential in nature and are not ADA or code compliant for commercial use. Due to the historic significance of the building, improvements to vertical circulation need to be carefully considered so the integrity of the original architectural character is not compromised. A historically sensitive addition containing a lift and code compliant stair may be required if the building use changes significantly. Other options include accessibility improvements to the building interior.</p>	
	
<i>Existing foundation wall.</i>	<i>Existing slab and floor structure.</i>





**MACKWORTH ISLAND CONCEPTUAL UTILIZATION PLAN – FACILITIES ASSESSMENTS**

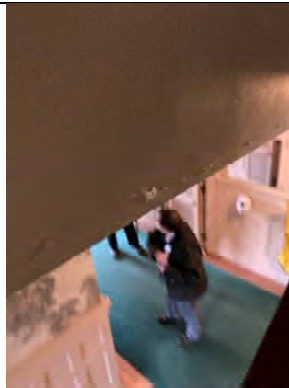
**ARCHITECTURAL SYSTEMS SUMMARY**



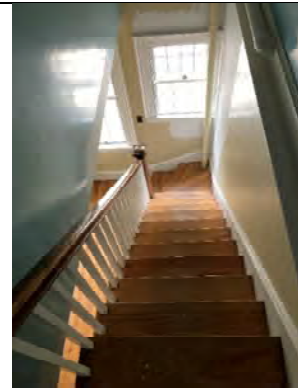
*Main stair.*



*Existing millwork.*



*Plaster damage.*



*Existing back stair.*



*Water damage at Chimney.*



*Skylight/ roof access.*



**MACKWORTH ISLAND CONCEPTUAL UTILIZATION PLAN – FACILITIES ASSESSMENTS**

**ARCHITECTURAL SYSTEMS SUMMARY**

*Exterior Systems*

The existing façade is comprised of load bearing masonry walls with mortared fieldstone foundation and brick walls. Window openings are supported by painted steel lintels and sills are made of shaped stone. Moderate pointing is needed throughout the building. Higher levels of mortar deterioration were observed around the side entrance (near door A2). Recent pointing does not appear to be in keeping with the original masonry construction and should be redone, if possible, to match the original building elements.

Windows are single pane wood with storm panels. All need painting. Existing paint should be tested for lead prior to scraping and prep.

Exterior trim and detail elements are painted wood with copper flashing at roof edges. Significant signs of rot were observed. Due to the historic significance of the building replication of rotted elements is recommended. All exterior wood trim and detail surfaces need painting. Existing paint should be tested for lead prior to scraping and prep.



*South / Southwest sides of Mansion.*



*North Façade.*



*Root infiltration at masonry*



*Mortar deterioration near door A2*





**MACKWORTH ISLAND CONCEPTUAL UTILIZATION PLAN – FACILITIES ASSESSMENTS**

**ARCHITECTURAL SYSTEMS SUMMARY**



*Wood deterioration near door A2*



*Typical exterior elements*



*Typical exterior elements*

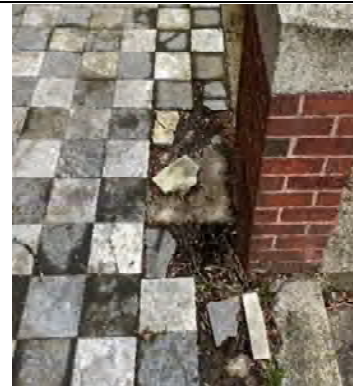


*Roof tile & EPDM.*

The roof was not easily visible from the access skylight. Photography through the skylight revealed areas of EPDM roofing in addition to the clay tiles that cover most of the sloped roof areas.





*Roof edge, dormer, and chimney detail*



*Hardscape deterioration at exterior patio*

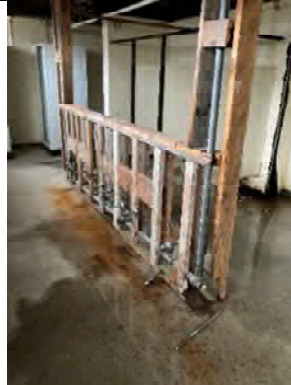


MACKWORTH ISLAND CONCEPTUAL UTILIZATION PLAN – FACILITIES ASSESSMENTS	
<b>ARCHITECTURAL SYSTEMS SUMMARY</b>	
<b>Recommendations Summary</b>	
<ul style="list-style-type: none"><li>• <i>Accessibility improvements are required from the site to the one of the first-floor entry locations. The exterior patio, which needs to be repaired, may be a good candidate for integrating an accessible entrance.</i></li><li>• <i>Main stair does not meet current ADA standards, consider historically sensitive improvements if necessary.</i></li><li>• <i>Consider replacing steel frame windows with energy efficient historically accurate windows.</i></li><li>• <i>Point masonry walls and chimneys as needed.</i></li><li>• <i>Accurately repair damaged finishes.</i></li><li>• <i>Repair/replace roof to avoid further leakage.</i></li></ul>	
<b>Building B: Young Hall</b>	
<b>Introduction</b>	
<p>The original building was constructed in 1958-1959 by Stevens and Saunders Architects of Portland, Maine. It is 2 full stories with a partial basement. The main floor footprint is approximately 6,140 GSF and total area of 15,580 GSF. The building is part of the original school campus planning and construction initiative and is designed in the modern style. The building is vacant, and the architectural condition is poor in most assessment categories. Many interiors and some exterior categories scored 0 which indicates elements will likely be a hazard and immediate replacement or removal is highly recommended: see accompanying Building Condition Summary Table for additional information.</p>	
<b>Interior Systems</b>	
<p>Overall interior is in poor condition. Roof has caused major water damage throughout building. Many areas of interior finish have been stripped and most remaining interior finishes are beyond repair. The building has a posted sign declaring the interior spaces will expose occupants to asbestos containing building materials (ACBM).</p>	
	
<p>Water damage.</p>	<p>Water damage.</p>



**MACKWORTH ISLAND CONCEPTUAL UTILIZATION PLAN – FACILITIES ASSESSMENTS**

**ARCHITECTURAL SYSTEMS SUMMARY**



*Standing water.*



*Roof leak.*



*Deterioration at existing partition wall.*

***Exterior Systems***

Existing Cast in place foundation and Brick veneer walls are in good condition. Aluminum curtain wall with single pane glass and transite panels perform poorly and do not meet current energy codes. Transite panels are highly likely to contain asbestos. All exterior doors are in fair condition.

Steel egress stairs and balconies are in in dangerous condition.





**MACKWORTH ISLAND CONCEPTUAL UTILIZATION PLAN – FACILITIES ASSESSMENTS**

**ARCHITECTURAL SYSTEMS SUMMARY**



*Canopy/overhang and exterior stair west side*



*Exterior stair detail*



*Canopy/overhang and exterior stair east side*



*Overhang at lower service level*



*Exterior siding/glazing system*



*Exterior Hollow Metal Door,*



*EPDM Roof ponding*



<b>MACKWORTH ISLAND CONCEPTUAL UTILIZATION PLAN – FACILITIES ASSESSMENTS</b>
<b>ARCHITECTURAL SYSTEMS SUMMARY</b>
<b><i>Recommendations Summary</i></b>
<ul style="list-style-type: none"><li>• Building condition is considered beyond repair and removal is recommended. The following work is required to rehabilitate the building, which the Planning Team believes is not financially worthwhile.<ul style="list-style-type: none"><li>○ Window wall infills need complete replacement.</li><li>○ Exterior balconies and Egress need complete replacement.</li><li>○ Interior is in poor condition and in need of complete gut and replacement.</li><li>○ Repair roof to prevent further water damage.</li><li>○ All building systems need to be replaced.</li></ul></li></ul>
<b>Building C: Taylor Hall</b>
<b><i>Introduction</i></b>
<p>The original building was constructed in 1958 by Stevens and Saunders Architects of Portland, Maine. It is 2 full stories. The main floor footprint is approximately 6,730 GSF and total area of 13,460 GSF. The building is part of the original school campus planning and construction initiative and is designed in the modern style. The architectural condition ranges from poor to good depending on the assessment category with the overall building condition identified as fair. One exterior category scored 0 which indicates elements will likely be a hazard and immediate replacement or removal is highly recommended: see accompanying Building Condition Summary Table for additional information.</p>
<b><i>Interior Systems</i></b>
<p>Water damage Sills on ocean side of building. Some second-floor windows have been recently replaced, majority of windows are comprised of single pane glass and do not meet current building code.</p> <p>Majority of door hardware is not to current code.</p> <p>Existing VCT Floor is in good conditions throughout the building. Carpet is in fair condition and should be replaced.</p>



**MACKWORTH ISLAND CONCEPTUAL UTILIZATION PLAN – FACILITIES ASSESSMENTS**

**ARCHITECTURAL SYSTEMS SUMMARY**



*Single pane aluminum windows.*



*Water damage.*



*Non-compliant door hardware.*



*Typical interior condition*



*Egress Stair with non-compliant railing system.*



*Roof access hatch.*



**MACKWORTH ISLAND CONCEPTUAL UTILIZATION PLAN – FACILITIES ASSESSMENTS**

**ARCHITECTURAL SYSTEMS SUMMARY**

*Exterior Systems*

Existing brick veneer and cast in place concrete foundation are in good condition. Non thermal aluminum curtainwall is in poor condition and is comprised of single pane glass and transite panels. Transite panels are highly likely to contain asbestos.

EPDM roofing and aluminum roof edge flashing are in good condition.

Steel egress and balconies are in dangerous condition.



*Existing Aluminum Curtainwall.*



*Existing Aluminum Curtainwall.*



*Exterior Windows.*



*Exterior With Remnant Canopy Frame.*



*Steel and Plywood Balcony.*



*EPDM Roofing.*





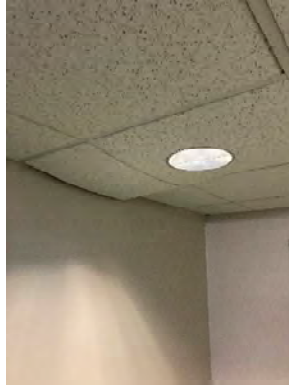
<b>MACKWORTH ISLAND CONCEPTUAL UTILIZATION PLAN – FACILITIES ASSESSMENTS</b>	
<b>ARCHITECTURAL SYSTEMS SUMMARY</b>	
<b><i>Recommendations Summary</i></b>	
<ul style="list-style-type: none"> <li>• Building condition is considered fair although extensive renovations and complete system upgrades are recommended due to building age. Building removal should be strongly considered as a long-term solution. The following work is required to rehabilitate the building, which the Planning Team believes is not financially worthwhile as a long-term investment.             <ul style="list-style-type: none"> <li>○ Replace all single pane windows to meet building code.</li> <li>○ Replace Sills will water damage on ocean side of building.</li> <li>○ Door hardware needs to be upgraded to Lever type.</li> <li>○ Carpet is in fair condition and in need of being replaced.</li> <li>○ Steel egress and balconies need complete replacement.</li> <li>○ Aluminum curtainwalls perform poorly and need complete replacement.</li> <li>○ Change in use from dormitory will likely require an extensive renovation of most interior spaces.</li> </ul> </li> </ul>	
<b>Building D: Greenlaw</b>	
<b><i>Introduction</i></b>	
<p>The original building was constructed in 1958 by Stevens and Saunders Architects of Portland, Maine and extensively renovated in 1996 by TFH Architects of Portland, Maine. It is 3 full stories with a footprint of roughly 7,170 GSF with a total area of 21,504 GSF. The building is part of the original school campus planning and construction initiative and is designed in the modern style. The architectural condition ranges from good to very good depending on the assessment category with the overall building condition identified as good. A few interior categories were identified as poor or fair: see accompanying Building Condition Summary Table for additional information.</p>	
<b><i>Interior Systems</i></b>	
<p>Moisture damage causing ACT sagging in various locations. Water infiltration from grade-level exterior doors causes periodic saturation of classroom flooring. Overall Flooring is in good condition.</p> <p>Some Door hardware is knob style but most lever-type throughout building .</p> <p>Window next to the main interior stair is currently protected by plywood. A more permanent metal protective element, ideally somewhat transparent, should replace the plywood in lieu of replacing the window with tempered glass.</p>	





**MACKWORTH ISLAND CONCEPTUAL UTILIZATION PLAN – FACILITIES ASSESSMENTS**

**ARCHITECTURAL SYSTEMS SUMMARY**



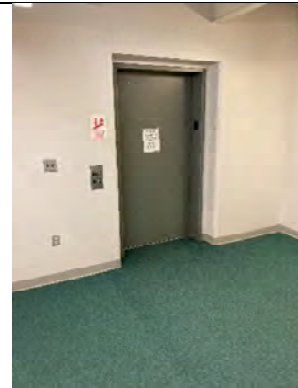
*Sagging Ceiling.*



*Grade-level exterior door.*



*Knob-style door hardware.*



*Elevator.*



*Main stair window protection.*



*Main stair.*



**MACKWORTH ISLAND CONCEPTUAL UTILIZATION PLAN – FACILITIES ASSESSMENTS**

**ARCHITECTURAL SYSTEMS SUMMARY**

*Exterior Systems*

Exterior of building is in very good condition overall. Some metal siding has been damaged along with Minor brick repairs throughout.

Steel members at overhangs need repainting .



*Exterior.*



*Exterior.*



*Curtain wall at egress.*



*Steel overhang.*




*Metal siding / windows*



*EPDM Roof.*



MACKWORTH ISLAND CONCEPTUAL UTILIZATION PLAN – FACILITIES ASSESSMENTS	
<b>ARCHITECTURAL SYSTEMS SUMMARY</b>	
 <p><i>Overhang.</i></p>	
<b>Recommendations Summary</b>	
<ul style="list-style-type: none"> <li>• Address water infiltration at ground floor at exterior doors.</li> <li>• At the main stair window a more permanent metal protective element, ideally somewhat transparent, should replace the plywood in lieu of replacing the window with tempered glass.</li> <li>• Prep and repaint exterior steel elements.</li> <li>• Repair damaged metal siding and brick veneer.</li> </ul>	
<b>Building E: Garage Inman</b>	
<b>Introduction</b>	
<p>The original building was constructed in 1961 by Stevens and Saunders Architects of Portland, Maine. It is 1 story with a total area of 4,000 GSF. The building is part of the original school campus planning and construction initiative and is designed in the modern style. The architectural condition ranges from poor to good depending on the assessment category with the overall building condition identified as fair: see accompanying Building Condition Summary Table for additional information.</p>	
<b>Interior Systems</b>	
<p>Interiors are sparse because of utilitarian building use. No major concerns were identified.</p>	

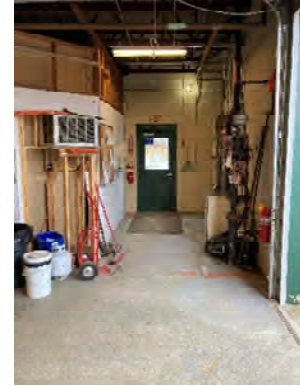


**MACKWORTH ISLAND CONCEPTUAL UTILIZATION PLAN – FACILITIES ASSESSMENTS**

**ARCHITECTURAL SYSTEMS SUMMARY**



*Interior of garage.*



*Interior of garage*

***Exterior Systems***

Garage is in overall good condition and functional for use. Foundation and brick veneer walls are in good condition at exterior. Steel framed single paned windows are in poor condition.

Lean to structure is in poor condition and should be replaced.



*Lean-to structure.*



*Front elevation.*




*Rear elevation*



*Exterior conditions.*





MACKWORTH ISLAND CONCEPTUAL UTILIZATION PLAN – FACILITIES ASSESSMENTS	
<b>ARCHITECTURAL SYSTEMS SUMMARY</b>	
 <p><i>Overhead door typ.</i></p>	
<b>Recommendations Summary</b>	
<ul style="list-style-type: none"> <li>• Replace lean-to structure.</li> <li>• Replace steel single paned window.</li> </ul>	
<b>Building G: Carter</b>	
<b>Introduction</b>	
<p>The original building was constructed in 1957 by Stevens and Saunders Architects of Portland, Maine. It is 1 story with a total area of 17,60 GSF. The building is part of the original school campus planning and construction initiative and is designed in the modern style. The building is vacant, and the architectural condition is poor to fair in most assessment categories. See accompanying Building Condition Summary Table for additional information.</p>	
<b>Interior Systems</b>	
<p>Interior walls and base are in good condition throughout. Ceilings vary in conditions from good to fair. Sills show some water damage at windows and exterior doors.</p> <p>Door approached typically do not have adequate clearance for ADA compliance. Knob hardware is located throughout.</p> <p>Toilets are lacking grab bars throughout.</p>	





**MACKWORTH ISLAND CONCEPTUAL UTILIZATION PLAN – FACILITIES ASSESSMENTS**

**ARCHITECTURAL SYSTEMS SUMMARY**



*Restroom.*



*Water damage at sill.*



*Moisture penetration at exterior doors.*



*Damaged ACT*



*Non-compliant door hardware.*



*Non-ADA compliant approach at exterior door.*



**MACKWORTH ISLAND CONCEPTUAL UTILIZATION PLAN – FACILITIES ASSESSMENTS**

**ARCHITECTURAL SYSTEMS SUMMARY**

*Exterior Systems*

Cast in place foundation and brick veneer exterior walls are in good condition. Aluminum non-thermal windows and curtain wall consist of single glass and transite panels are in poor condition.

Aluminum composite panels failed and missing at overhangs.

Roof flashing indicates that the roof was built over the original roof. Snow loading capacity may be a concern. Overall Sloped and Flat EPDM roof is in fair condition.



*Arial View.*



*Elevation.*



*Aluminum windows.*



*Aluminum curtainwall.*



*Aerial overview.*



*Exterior.*



**MACKWORTH ISLAND CONCEPTUAL UTILIZATION PLAN – FACILITIES ASSESSMENTS**

**ARCHITECTURAL SYSTEMS SUMMARY**



*Aluminum curtainwall.*



*Overhang.*



*Detail*



*Exterior door.*

***Recommendations Summary***

- Repair water damage at sills.
- Upgrade all door hardware to lever type.
- Install Handrails in restroom.
- Address non-ADA compliant approach to doors.
- Replace curtain walls and windows.
- Repair overhangs.

**Building H: Brewster**

***Introduction***

The existing building was constructed in 2004 by Barba Architecture and Preservation of Portland, Maine. It is 1 story with a total area of 9,000 GSF. The building is part of the original school campus planning and construction initiative and is designed in the modern style. The architectural condition ranges from fair to very good depending on the assessment category with the overall building





**MACKWORTH ISLAND CONCEPTUAL UTILIZATION PLAN – FACILITIES ASSESSMENTS**

**ARCHITECTURAL SYSTEMS SUMMARY**

condition identified as good: see accompanying Building Condition Summary Table for additional information.

***Interior Systems***



*Corridor.*



*Corridor.*



*Office.*



*Classroom.*

***Exterior Systems***

Overall building is in very good condition. Many Metal siding panels have been damaged in various locations.



*Aerial.*



*Elevation.*



**MACKWORTH ISLAND CONCEPTUAL UTILIZATION PLAN – FACILITIES ASSESSMENTS**

**ARCHITECTURAL SYSTEMS SUMMARY**



*Damaged siding.*



*Aluminum insulated window.*



*Shading elements.*

***Recommendations Summary***

- Replace damaged metal siding.

**Building I: Patrick Hall**

***Introduction***

The original building was constructed in 1958 by Stevens and Saunders Architects of Portland, Maine. It is a 1 story remnant of a larger building that was removed when Brewster Hall was constructed. The total building area is 1,900 GSF. The building is part of the original school campus planning and construction initiative and is designed in the modern style. The architectural condition ranges from fair to good depending on the assessment category with the overall building condition identified as fair. See accompanying Building Condition Summary Table for additional information.





**MACKWORTH ISLAND CONCEPTUAL UTILIZATION PLAN – FACILITIES ASSESSMENTS**

**ARCHITECTURAL SYSTEMS SUMMARY**

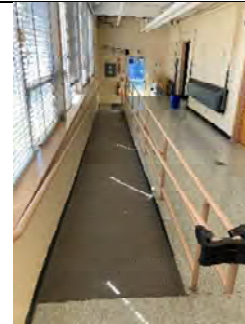
*Interior Systems*

Knob hardware is located throughout.

Floor finishes in corridor ramp are worn and should be replaced.



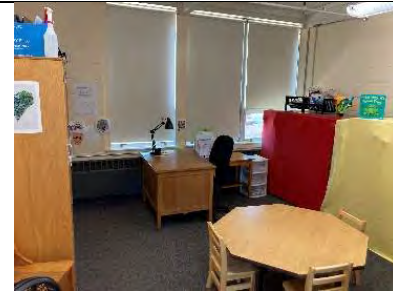
*Typical door with knob hardware*



*Interior.*



*Worn flooring.*



*Office space.*

*Exterior Systems*

Overall exterior is in good condition.

Metal siding panels have been damaged in various locations.



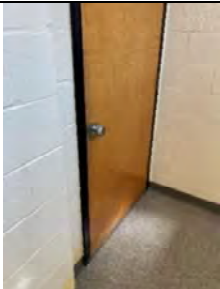



*Exterior.*









*Damaged metal siding.*







MACKWORTH ISLAND CONCEPTUAL UTILIZATION PLAN – FACILITIES ASSESSMENTS	
<b>ARCHITECTURAL SYSTEMS SUMMARY</b>	
<b>Recommendations Summary</b>	
<ul style="list-style-type: none"> <li>• Upgrade all door hardware to lever type.</li> <li>• Damaged metal siding should be replaced throughout.</li> </ul>	
<b>Building J: Draper Hall</b>	
<b>Introduction</b>	
<p>The original building was constructed in 1958 by Stevens and Saunders Architects of Portland, Maine. It is 1 total story with a double-height gymnasium space and a story-and-a-half annex. The total building area is 12,370 GSF. The building is part of the original school campus planning and construction initiative and is designed in the modern style. The architectural condition ranges from fair to good depending on the assessment category with the overall building condition identified as fair. See accompanying Building Condition Summary Table for additional information.</p>	
<b>Interior Systems</b>	
<p>Overall finishes are in good condition.</p> <p>Knob door hardware is located throughout.</p> <p>No ramp at left entrance to stage.</p>	
 <p><i>Gym.</i></p>	 <p><i>Left entrance to stage.</i></p>
 <p><i>Knob hardware.</i></p>	 <p><i>Locker and backstage corridor.</i></p>



MACKWORTH ISLAND CONCEPTUAL UTILIZATION PLAN – FACILITIES ASSESSMENTS	
<b>ARCHITECTURAL SYSTEMS SUMMARY</b>	
<i>Exterior Systems</i>	
Overall exterior is in good condition.	
 <p><i>Arial.</i></p>	 <p><i>Arial.</i></p>
 <p><i>Rear elevaiton.</i></p>	 <p><i>Rear entrance/ ramp.</i></p>
	
<b>Recommendations Summary</b>	
<ul style="list-style-type: none"> <li>• Upgrade all door hardware to lever type.</li> <li>• Damaged metal siding should be replaced throughout.</li> </ul>	
<b>Building K: Sanders Hall</b>	
<i>Introduction</i>	
<p>The original building was constructed in 1959 by Stevens and Saunders Architects of Portland, Maine. It is 3 total stories: the lowest level is smallest, the middle level occupies roughly 2/3 of the total footprint, and the upper level is the largest area. The upper floor footprint is approximately 14,100 GSF and total building area is 34,800 GSF. The building is part of the original school campus planning and construction initiative and is designed in the modern style. The architectural condition</p>	

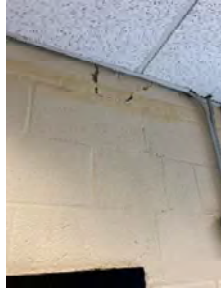


<b>MACKWORTH ISLAND CONCEPTUAL UTILIZATION PLAN – FACILITIES ASSESSMENTS</b>	
<b>ARCHITECTURAL SYSTEMS SUMMARY</b>	
ranges from poor to good depending on the assessment category with the overall building condition identified as fair. See accompanying Building Condition Summary Table for additional information.	
Notable structural concerns are included in this section under <i>Interior Systems</i> .	
<b><i>Interior Systems</i></b>	
Significant cracking of the concrete floor slab was observed in several locations of the upper and middle levels. Areas of cracking are slab on grade conditions. Cracking appears to be the result of subsurface settling or other building movement over time. Finished flooring is damaged in several locations as a result. This condition is concerning and further investigation is recommended before floor finishes are replaced.	
Water damage at sills and ceilings in various locations throughout building.	
Most doors have knob hardware throughout.	
Damaged Flooring suggest slab failure throughout building	
 <p><i>Knob hardware.</i></p>	 <p><i>Existing window sills.</i></p>
 <p><i>Damaged/cracked flooring.</i></p>	 <p><i>Damaged ceiling.</i></p>



**MACKWORTH ISLAND CONCEPTUAL UTILIZATION PLAN – FACILITIES ASSESSMENTS**

**ARCHITECTURAL SYSTEMS SUMMARY**



*Exterior CMU walls.*



*Existing window sill.*

**Exterior Systems**

Grade: No issues  
 Foundations: Cast in place concrete  
 Walls: Brick Veneer, metal siding, T-1-11 and CMU mech add-on  
 Windows: Aluminum non-thermal windows with single pane glass  
 Doors: Hollow metal in metal frames. Entrance door aluminum  
 Canopies/Overhangs: Painted panels  
 Roof/Flashing: Aluminum roof edge flashing and EPDM roofing in good condition.  
 Window wall infills need complete replacement. CMU addition is in poor condition.



*Aerial.*



*Curtainwall.*



*Mechanical addition.*



*Mechanical addition.*





**MACKWORTH ISLAND CONCEPTUAL UTILIZATION PLAN – FACILITIES ASSESSMENTS**

**ARCHITECTURAL SYSTEMS SUMMARY**



*Building exterior at grade.*



*Exterior exit stair.*



*Aluminum glazing.*



*Overhang*





*T-1-11 entry vestibule.*

**Recommendations Summary**

- Remove flooring to inspect condition of slab. Limited destructive investigation may be necessary to understand the cause of the cracking.
- Replace VCT with new flooring.
- Change door hardware to lever-type.
- Replace all exterior glazing.
- Repoint brick as required.
- Replace exterior exit stair.



<b>MACKWORTH ISLAND CONCEPTUAL UTILIZATION PLAN – FACILITIES ASSESSMENTS</b>	
<b>ARCHITECTURAL SYSTEMS SUMMARY</b>	
<b>Connector: G-B-K</b>	
<b><i>Introduction</i></b>	
<p>The connector was constructed at the same time as the original campus buildings design by Stevens and Saunders Architects of Portland, Maine. It is 1 total story: sloping to connect different campus buildings. The connector is an uninsulated enclosure that is part of the original school campus planning and construction initiative and is designed in the modern style. The architectural condition is mostly very poor to poor depending on the assessment category with the overall building condition identified as very poor with a strong recommendation to remove. See accompanying Building Condition Summary Table for additional information.</p>	
<b><i>Interior Systems</i></b>	
<p>Connector finishes are in fair-to-poor condition. Floors are in very poor condition and require repair or replacement. Building systems including hot water heating, domestic water, sprinkler piping, and electrical run through connector interiors.</p>	
	
<i>Cracked floor slab</i>	<i>Interior</i>

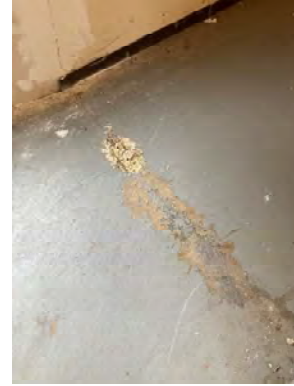


**MACKWORTH ISLAND CONCEPTUAL UTILIZATION PLAN – FACILITIES ASSESSMENTS**

**ARCHITECTURAL SYSTEMS SUMMARY**



*Interior*



*Cracked floor slab*

***Exterior Systems***

Grade: Site drains underneath through 3 pipes  
Foundations: Cast in place concrete  
Walls: T-1-11  
Windows: Site built wood frames with glass infill  
Doors: Hollow metal in metal frames.  
Canopies/Overhangs: Remove roof, retained steel frame  
Roof/Flashing: Aluminum roof edge flashing  
Connector needs to be replaced.



*Aerial.*



*Typical drain pipes at grade.*



**MACKWORTH ISLAND CONCEPTUAL UTILIZATION PLAN – FACILITIES ASSESSMENTS**

**ARCHITECTURAL SYSTEMS SUMMARY**



*Connector leg to building B.*



*Aerial.*

***Recommendations Summary***

- Replace connector or remove it completely. Building systems and utilities will need to be relocated and redistributed.

**Connector: C-H-K**

***Introduction***

The connector was constructed at the same time as the original campus buildings design by Stevens and Saunders Architects of Portland, Maine. It is 1 total story: sloping to connect different campus buildings. The connector is an uninsulated enclosure that is part of the original school campus planning and construction initiative and is designed in the modern style. The architectural condition is mostly very poor to fair depending on the assessment category with the overall building condition identified as very poor with a strong recommendation to remove. See accompanying Building Condition Summary Table for additional information.

***Interior Systems***

Connector finishes are in fair-to-poor condition. Floors are in poor condition and require repair. Building systems including hot water heating, domestic water, sprinkler piping, and electrical run through connector interiors.



**MACKWORTH ISLAND CONCEPTUAL UTILIZATION PLAN – FACILITIES ASSESSMENTS**

**ARCHITECTURAL SYSTEMS SUMMARY**



*Typical interior.*



*Interior at door to Building K.*

***Exterior Systems***

Grade: Site drains underneath through 3 pipes  
Foundations: Cast in place concrete  
Walls: T-1-11  
Windows: Site built wood frames with glass infill  
Doors: Hollow metal in metal frames.  
Canopies/Overhangs: Remove roof, retained steel frame  
Roof/Flashing: Aluminum roof edge flashing





*Aerial.*



*Aerial and T-1-11 siding.*





MACKWORTH ISLAND CONCEPTUAL UTILIZATION PLAN – FACILITIES ASSESSMENTS	
<b>ARCHITECTURAL SYSTEMS SUMMARY</b>	
	
<i>Roof detail.</i>	<i>Site drains at leg to Building K.</i>
<b>Recommendations Summary</b>	
<ul style="list-style-type: none"><li>• Replace connector or remove it completely. Building systems and utilities will need to be relocated and redistributed.</li></ul>	
<b>Connector: D-K</b>	
<b>Introduction</b>	
<p>The connector was constructed at the same time as the original campus buildings design by Stevens and Saunders Architects of Portland, Maine. It is 1 total story: connecting different campus buildings. The connector is an uninsulated enclosure that is part of the original school campus planning and construction initiative and is designed in the modern style. The architectural condition is mostly fair depending on the assessment category with the overall building condition identified as fair. See accompanying Building Condition Summary Table for additional information.</p>	
<b>Interior Systems</b>	
<p>Connector finishes are in fair-to-good condition. Building systems including hot water heating, domestic water, sprinkler piping, and electrical run through connector interiors.</p>	



**MACKWORTH ISLAND CONCEPTUAL UTILIZATION PLAN – FACILITIES ASSESSMENTS**

**ARCHITECTURAL SYSTEMS SUMMARY**



*Interior.*



*Interior.*

***Exterior Systems***

Grade: Site drains underneath through 3 pipes.  
Foundations: Cast in place concrete.  
Walls: T-1-11.  
Windows: Site built wood frames with glass infill.  
Doors: Hollow metal in metal frames.  
Canopies/Overhangs: Remove roof, retained steel frame.  
Roof/Flashing: Aluminum roof edge flashing.  
Exterior stairs are in poor-fair condition and should be repaired.



*Aerial.*



*Exterior stairs and ramp.*

***Recommendations Summary***

- Repair exterior stairs and railings.



MACKWORTH ISLAND CONCEPTUAL UTILIZATION PLAN – FACILITIES ASSESSMENTS
<b>PLUMBING SYSTEMS SUMMARY</b>
<b>Applicable Codes</b>
2021 Uniform Plumbing Code, 2015 IECC
<b>Building A: Mansion</b>
<b><i>Plumbing Systems</i></b>
<p>The building was constructed in 1917. The 1” water service rises through the floor in the basement on the east side. The water service is insulated and is copper. No brass or lead piping was found in the building.</p> <p>The domestic piping in the building is copper with soldered joints and fittings. The solder used prior to 1986 may contain lead and it is recommended to thoroughly flush piping before drink water. Because flushing is not a realistic practice, replacing all of the domestic water piping is recommended.</p> <p>Repairs and modifications to the domestic water piping have been made with Cross-linked polyethylene (PEX) in a variety of colors with ball valves. For the most part, blue PEX is connected to cold, and red PEX connected to hot except at the electric water where white PEX is hot and red is cold. The piping and valves appear to be in good condition. Old gate valves can be problematic when operating and there are many gate valves in the system. Most of the piping in the basement was insulated.</p> <p>Hot water is generated by a Rheem 30 gallon electric water heater in the basement which was manufactured in 2013. The water heater appears to be in good condition. There is not a thermostatic mixing valve or hot water recirculation through the building to maintain hot water near the fixtures.</p> <p>The sanitary sewer is comprised of cast iron with hub and spigot fittings and leaded joints. Branch drainage piping to sinks and bathtubs is galvanized steel piping. The sewer exits the basement next to the water service on the east side.</p> <p>The plumbing fixtures are a mix from 1956 and 2000’s. There is a restroom on the first and second floor with a more modern toilet and lavatory. A cast iron service sink is disconnected and a large slate sink is active in the basement. The fixtures are operable. There are no ADA compliant restrooms.</p> <p>The condition of the plumbing systems and fixtures is fair.</p>
<b><i>Recommendations Summary</i></b>
<ul style="list-style-type: none"><li>• <i>Install water meter and backflow preventer at the water service.</i></li><li>• <i>Replace all domestic water piping and valves with lead-free copper tubing, press-fit joints and fittings and ball valves.</i></li><li>• <i>Provide hot water return piping with circulating pump and control.</i></li><li>• <i>Replace sanitary and vent piping to the point of exit with PVC.</i></li></ul>



<b>MACKWORTH ISLAND CONCEPTUAL UTILIZATION PLAN – FACILITIES ASSESSMENTS</b>
<b>PLUMBING SYSTEMS SUMMARY</b>
<ul style="list-style-type: none"> <li>• <i>Replace the electric water heater with a heat pump/electric water heater.</i></li> <li>• <i>Provide a thermostatic mixing valve on the water heater discharge.</i></li> <li>• <i>Remove all plumbing fixtures and bathtubs.</i></li> <li>• <i>Replace all restroom fixtures with period style fixtures.</i></li> <li>• <i>Provide stainless steel lounge sink with single handle faucet.</i></li> <li>• <i>Provide an ADA compliant restroom on each floor.</i></li> <li>• <i>Provide bi-level water cooler/bottle filler on the ground level.</i></li> </ul>
<b>Building B: Young Hall</b>
<b><i>Plumbing Systems</i></b>
<p>It was constructed in 1959. The building is not being used and has been condemned.</p> <p>The water service is 2” copper, a 6” sanitary drainage and separate 8” storm drainage exiting the building.</p> <p>Sanitary drainage is cast iron with galvanized steel branch piping and vent piping. The storm drainage piping is cast iron.</p> <p>The domestic piping in the building is copper with soldered joints and fittings. The solder used prior to 1986 may contain lead and it is recommended to thoroughly flush piping before drink water. Because flushing is not a realistic practice, replacing all domestic water piping is recommended.</p> <p>Plumbing fixtures are 1959 vintage and have not been used for some time.</p> <p>The condition of the plumbing systems and fixtures is poor.</p>
<b><i>Recommendations Summary</i></b>
<ul style="list-style-type: none"> <li>• <i>Install backflow preventer at the water service.</i></li> <li>• <i>Replace all domestic water piping and valves with lead-free copper tubing, press-fit joints and fittings and ball valves.</i></li> <li>• <i>Provide hot water return piping with circulating pump and control.</i></li> <li>• <i>Replace sanitary and vent piping to the point of exit with PVC.</i></li> <li>• <i>Replace storm drainage piping to the point of exit PVC.</i></li> <li>• <i>Replace the electric water heater with a heat pump/electric water heater.</i></li> <li>• <i>Provide a thermostatic mixing valve on the water heater discharge.</i></li> <li>• <i>Remove all plumbing fixtures, drinking fountains and showers.</i></li> <li>• <i>Replace all restroom fixtures with water saving commercial toilets with manually operated flush valves, stainless steel sinks and lavatories with low flow faucets.</i></li> <li>• <i>Provide ADA compliant restrooms on each level.</i></li> <li>• <i>Provide bi-level water cooler/bottle filler on each level.</i></li> </ul>
<b>Building C: Taylor Hall</b>
<b><i>Plumbing Systems</i></b>



<b>MACKWORTH ISLAND CONCEPTUAL UTILIZATION PLAN – FACILITIES ASSESSMENTS</b>
<p><b>PLUMBING SYSTEMS SUMMARY</b></p> <p>The building is partially being used/leased. The building was constructed in 1958 and the plumbing systems are mostly original to the building.</p> <p>In 2019 modifications were made to a restroom on the ground floor to create two single use restrooms for ADA compliance. One of the toilets in the ADA restroom (Men’s) is not mounted to the required height. There are no ADA compliant bathing fixtures available in the building. The staff lounge with a kitchen sink that is meant to meet ADA but the plumbing piping below the sink does not allow wheelchair access. Note: Sinks in staff lounges do not require knee space below and can be used with a side approach.</p> <p>There is a 2” water service and separate cast iron 6” sanitary drain and 6” storm drain exiting the building. An electric water heater is in a closet of one the ADA restrooms.</p> <p>The domestic piping in the building is copper with soldered joints and fittings. The solder used prior to 1986 may contain lead and it is recommended to thoroughly flush piping before drink water. Because flushing is not a realistic practice, replacing all domestic water piping is recommended.</p> <p>The condition of the plumbing systems and fixtures is fair.</p>
<p><b>Recommendations Summary</b></p> <ul style="list-style-type: none"> <li>• <i>Install backflow preventer at the water service.</i></li> <li>• <i>Replace all domestic water piping and valves with lead-free copper tubing, press-fit joints and fittings and ball valves.</i></li> <li>• <i>Provide hot water return piping with circulating pump and control.</i></li> <li>• <i>Consider replacing sanitary and vent piping to the point of exit with PVC.</i></li> <li>• <i>Consider replacing storm drainage piping to the point of exit with PVC.</i></li> <li>• <i>Replace the electric water heater with a heat pump/electric water heater.</i></li> <li>• <i>Provide a thermostatic mixing valve on the water heater discharge.</i></li> <li>• <i>Remove all plumbing fixtures, drinking fountains and showers.</i></li> <li>• <i>Replace all restroom fixtures with water saving commercial toilets with manually operated flush valves, stainless steel sinks and lavatories with low flow faucets.</i></li> <li>• <i>Provide ADA compliant restrooms on each level.</i></li> <li>• <i>Provide bi-level water cooler/bottle filler on each level.</i></li> </ul>
<p><b>Building D: Greenlaw Classrooms, Offices</b></p> <p><b>Plumbing Systems</b></p> <p>The building was constructed in 1958 with substantial renovations made in 1997.</p> <p>There is a 2” water service with 1-1/2” water meter in the sprinkler room. There is no reduced pressure backflow preventer downstream of the meter. All domestic supply piping is insulated with fiberglass insulation.</p>





MACKWORTH ISLAND CONCEPTUAL UTILIZATION PLAN – FACILITIES ASSESSMENTS
<b>PLUMBING SYSTEMS SUMMARY</b>
<p>There are two sanitary drainage pipes and one storm drain drainage pipe exiting the building. The drainage pipe sizes were not verified. Drainage piping is cast iron.</p> <p>The domestic piping in the building is copper with soldered joints and fittings. The solder used prior to 1986 may contain lead and it is recommended to thoroughly flush piping before drink water. Because flushing is not a realistic practice, replacing all domestic water piping is recommended.</p> <p>The plumbing fixtures were replaced in 1997 with water saving products. The fixture are in good condition and are working as expected.</p> <p>ADA compliant restrooms were provided in 1997. Toilets are floor mounted with manually operated flush valves. Urinals are provided with manually operated flush valves. Lavatories are drop-in counter mounted with gooseneck spouts and wrist blade handles. The restroom accessibility meets the requirements for adults. There is an ADA compliant restroom and classroom sink mounted lower than adult standards to meet the requirements for young children in one area of the building.</p> <p>The water heater was installed in the 1997 renovation. The water heater is a dual fuel, 119 gallon HTP Super Stor tank with internal indirect fired heating coil which is supplied by the central heating plant hot water system. During the summer months, the water heat is switched over to the internal dual electric coils in the tank. A Bell &amp; Gossett circulating pump maintains hot water to the fixtures through a hot water return piping system.</p> <p>The condition of the plumbing systems and fixtures is good.</p>
<b>Recommendations Summary</b>
<ul style="list-style-type: none"><li>• <i>Install backflow preventer at the water service.</i></li><li>• <i>Replace pre-1997 domestic water piping and valves with lead-free copper tubing, press-fit joints and fittings and ball valves.</i></li><li>• <i>Consider replacing sanitary and vent piping to the point of exit with PVC.</i></li><li>• <i>Consider replacing storm drainage piping to the point of exit with PVC.</i></li><li>• <i>Replace the electric water heater with a heat pump/electric water heater.</i></li><li>• <i>Provide a thermostatic mixing valve on the water heater discharge.</i></li><li>• <i>Remove all plumbing fixtures, drinking fountains and showers.</i></li><li>• <i>Replace all restroom fixtures with water saving commercial toilets with manually operated flush valves, stainless steel sinks and lavatories with low flow faucets.</i></li><li>• <i>Provide ADA compliant restrooms on each level.</i></li><li>• <i>Provide bi-level water cooler/bottle filler on each level.</i></li></ul>
<b>Building E: Garage-Inman</b>
<b>Plumbing Systems</b>
<p>This building was constructed in 1961.</p>



**MACKWORTH ISLAND CONCEPTUAL UTILIZATION PLAN – FACILITIES ASSESSMENTS**

**PLUMBING SYSTEMS SUMMARY**

There is a 1” water service with 3/4” water meter and 1” reduced pressure zone backflow preventer downstream of the meter.

The restroom fixtures are original to 1961. The toilet is floor mounted with a manually operated flush valve. The lavatory has two separate faucets. There is a shower stall in the restroom with a single mixing valve and shower head. The floor of the shower is made of wood that appears to be teak.

The domestic piping in the building is copper with soldered joints and fittings. The solder used prior to 1986 may contain lead and it is recommended to thoroughly flush piping before drink water. Because flushing is not a realistic practice, replacing all domestic water piping is recommended.

The water heater was installed in 2009. The water heater is a Rudd 40 gallon, with two 6,000 watt electric coils.

The condition of the plumbing systems and fixtures is fair.

***Recommendations Summary***

- *Replace all domestic water piping and valves with lead-free copper tubing, press-fit joints and fittings and ball valves.*
- *Consider replacing sanitary and vent piping to the point of exit with PVC.*
- *Consider replacing storm drainage piping to the point of exit with PVC.*
- *Replace the electric water heater with a heat pump/electric water heater.*
- *Provide a thermostatic mixing valve on the water heater discharge.*
- *Remove all plumbing fixtures and shower.*
- *Replace all restroom fixtures with water saving commercial toilets with manually operated flush valves, stainless steel sinks and lavatories with low flow faucets.*
- *Provide ADA compliant restroom with compliant transfer shower.*
- *Provide bi-level water cooler/bottle filler.*

**Building G: Carter**

***Plumbing Systems***

This building was constructed in 1957. The building is not used except for the small Gym for wood working.

There is a 2” water service in the sprinkler room with no reduced pressure zone backflow preventer downstream of the meter. The water supply comes up through the floor and goes back down through the floor after the water meter. The shut-off valves are old gate valves.

The domestic piping in the building is copper with soldered joints and fittings. The solder used prior to 1986 may contain lead and it is recommended to thoroughly flush piping before drink water. Because flushing is not a realistic practice, replacing all domestic water piping is recommended.



## MACKWORTH ISLAND CONCEPTUAL UTILIZATION PLAN – FACILITIES ASSESSMENTS

### PLUMBING SYSTEMS SUMMARY

Sanitary drainage is cast iron with galvanized steel branch piping and vent piping. The storm drainage piping is cast iron. Domestic water piping is copper with soldered fittings and joints. Plumbing fixtures are 1957 vintage and have not been used for some time.

The restroom fixtures are original to 1957. One restroom has been remodeled with an ADA compliant toilet and lavatory. The custodial closet has a wall mounted service sink vs a mop basin. The drinking fountains are original to the building.

The water heater was installed in 2002. The water heater is a Rheem 40 gallon, with two 4,500 watt electric coils. At one time hot water was generated by the campus heating plant. There is a non-functioning heat exchanger piped in above the water heater. The electric water heater supply still passes through the old heat exchanger.

The condition of the plumbing systems and fixtures is poor.

### Recommendations Summary

- *Install backflow preventer at the water service.*
- *Replace all domestic water piping and valves with lead-free copper tubing, press-fit joints and fittings and ball valves.*
- *Consider replacing sanitary and vent piping to the point of exit with PVC.*
- *Consider replacing storm drainage piping to the point of exit with PVC.*
- *Replace the electric water heater with a heat pump/electric water heater.*
- *Provide a thermostatic mixing valve on the water heater discharge.*
- *Remove all plumbing fixtures and drinking fountains.*
- *Replace all restroom fixtures with water saving commercial toilets with manually operated flush valves, stainless steel sinks and lavatories with low flow faucets.*
- *Adjust existing semi-compliant restrooms to comply with ADA.*
- *Provide ADA compliant restrooms on each level.*
- *Provide bi-level water cooler/bottle filler on each level.*

### Building H: Brewster Library, Classrooms

#### Plumbing Systems

The building was constructed in 2004 and was certified LEED Silver.

The water service is 6" up through the floor which transitions to 2" and passes through a 2" water meter and 2" reduced pressure zone backflow preventer.

Piping is copper with soldered joints and fittings. The piping was installed post 1986 so lead solder is not a concern. All supply piping is insulated.

Sanitary and Storm drainage piping is schedule 40 PVC with solid core and solvent cemented joints and fittings.



<b>MACKWORTH ISLAND CONCEPTUAL UTILIZATION PLAN – FACILITIES ASSESSMENTS</b>
<b>PLUMBING SYSTEMS SUMMARY</b>
<p>The water heater is a Rheem/Vanguard, 50 gallon electric with two 4,500 watt electric coils. There is no thermostatic mixing valve on the discharge piping. The tank is stored at 125°F. A Taco circulator is installed with hot water return piping to maintain the hot water at 125°F.</p> <p>Plumbing fixtures are wall hung toilets with manually operated flush valves. Urinals are waterless. Lavatories have manually operated single handle faucets with 2.0 gpm aerators.</p> <p>The science room has epoxy countertops and sinks, lab faucets with gooseneck spouts and serrated tips and cross handles for hot and cold operation. A combination emergency shower and eyewash is located in the science lab with a thermostatic mixing valve to deliver tepid water. Single outlet gas turrets are mounted on the counter and there is a manually operated gas shut-off cabinet in the room. Propane gas is no longer provided at the building and therefore the gas turrets are not currently usable.</p> <p>The condition of the plumbing systems and fixtures is very good.</p>
<b>Recommendations Summary</b>
<ul style="list-style-type: none"><li>• <i>Replace the electric water heater with a heat pump/electric water heater.</i></li><li>• <i>Provide a thermostatic mixing valve on the water heater discharge.</i></li><li>• <i>Replace the 2.0 gpm aerators on lavatory faucets with low flow 0.5 gpm or consider replacing the lavatory faucets.</i></li><li>• <i>Replace water coolers with bi-level water cooler/bottle filler on each level.</i></li></ul>
<b>Building I: Patrick Classrooms</b>
<b>Plumbing Systems</b>
<p>The building was constructed in 1958. A large part of the building was demolished to make room for the playground.</p> <p>The plumbing services for the few remaining classrooms and corridor are supplied from Building J (Draper Gym).</p> <p>The domestic piping in the building is copper with soldered joints and fittings. The solder used prior to 1986 may contain lead and it is recommended to thoroughly flush piping before drink water. Because flushing is not a realistic practice, replacing all domestic water piping is recommended.</p> <p>The condition of the plumbing systems and fixtures is fair.</p>
<b>Recommendations Summary</b>
<ul style="list-style-type: none"><li>• <i>Replace all domestic water piping and valves with lead-free copper tubing, press-fit joints and fittings and ball valves.</i></li><li>• <i>Consider replacing sanitary and vent piping to the point of exit with PVC.</i></li><li>• <i>Consider replacing storm drainage piping to the point of exit with PVC.</i></li><li>• <i>Replace plumbing fixtures.</i></li></ul>



<b>MACKWORTH ISLAND CONCEPTUAL UTILIZATION PLAN – FACILITIES ASSESSMENTS</b>
<b>PLUMBING SYSTEMS SUMMARY</b>
<ul style="list-style-type: none"><li>• <i>Provide bi-level water cooler/bottle filler.</i></li></ul>
<b>Building J: Draper Gym, Classrooms</b>
<b><i>Plumbing Systems</i></b>
<p>The building was constructed in 1958.</p> <p>There is an electric water heater located off the gym to the right of the stage. It is a Rheem Vanguard 40 gallon storage with two 4,500 watt electric coils. The water heater was installed in 2002. The water temperature stored in the tank is unknown. There is no thermostatic mixing valve on the hot water supply from the tank. There is no hot water return piping with circulator to maintain hot water at the fixtures.</p> <p>The plumbing fixtures are mostly original. The toilets are wall hung with manually operated flush valves. Urinals are wall hung with manually operated flush valve and exposed drainage traps. Some fixtures have been replaced over the years.</p> <p>Lavatories are wall hung with manually operated two handle lever faucets. One restroom with floor mounted toilet looks to be ADA compliant but the lavatory faucet is not compliant, and the piping below is not covered with insulation.</p> <p>Showers have a single handle mixing valve with shower head. The men's locker rooms have group showers where the female locker room has individual fiberglass shower stalls which were installed at a later date.</p> <p>Sanitary and storm drainage piping is cast iron.</p> <p>The domestic piping in the building is copper with soldered joints and fittings. The solder used prior to 1986 may contain lead and it is recommended to thoroughly flush piping before drink water. Because flushing is not a realistic practice, replacing all domestic water piping is recommended. Most domestic water piping insulated.</p> <p>The condition of the plumbing systems and fixtures is fair.</p>
<b><i>Recommendations Summary</i></b>
<ul style="list-style-type: none"><li>• <i>Install backflow preventer at the water service.</i></li><li>• <i>Replace all domestic water piping and valves with lead-free copper tubing, press-fit joints and fittings and ball valves.</i></li><li>• <i>Consider replacing sanitary and vent piping to the point of exit with PVC.</i></li><li>• <i>Consider replacing storm drainage piping to the point of exit with PVC.</i></li><li>• <i>Replace the electric water heater with a propane fired water heater capable of supporting up to 8 showers. If showers are not required, provide a heat pump/electric water heater.</i></li><li>• <i>Provide a thermostatic mixing valve on the water heater discharge.</i></li><li>• <i>Remove all plumbing fixtures and drinking fountains.</i></li></ul>





<b>MACKWORTH ISLAND CONCEPTUAL UTILIZATION PLAN – FACILITIES ASSESSMENTS</b>
<b>PLUMBING SYSTEMS SUMMARY</b>
<ul style="list-style-type: none"><li>• <i>Replace all restroom fixtures with water saving commercial toilets with manually operated flush valves, stainless steel sinks and lavatories with low flow faucets.</i></li><li>• <i>Provide ADA compliant restrooms.</i></li><li>• <i>Provide bi-level water cooler/bottle filler.</i></li></ul>
<b>Building K: Sanders Facilities</b>
<b><i>Plumbing Systems</i></b>
<p>This building was constructed in 1959. This building has the main boiler plant as well as classrooms, museum and kitchen facilities.</p> <p>The water service is in the basement next to the laundry room. A 2” water service riser through the basement floor with a 2” water meter. There is no backflow preventer downstream of the meter. The valves and piping are original to the building. Gate valves are installed.</p> <p>Sanitary and storm drainage piping is cast iron. Floor drains are functioning in the boiler room.</p> <p>The domestic piping in the building is copper with soldered joints and fittings. The solder used prior to 1986 may contain lead and it is recommended to thoroughly flush piping before drink water. Because flushing is not a realistic practice, replacing all domestic water piping is recommended.</p> <p>One small electric water serves the restroom off from the boiler room. The 6 gallon Rheem water heater was installed in 2003.</p> <p>Plumbing fixtures are original to the building. The toilet is tank type. Lavatory is wall hung with manually operated two handle lever faucet and gooseneck spout.</p> <p>A 420 pound L.P cylinder is located outside the boiler room. The propane line is run in the same trench as the oil supply piping to the boilers. The propane serves the pilot for the burner on boiler #2. Boiler #1 has electronic ignition with no need for propane.</p> <p>The condition of the plumbing systems and fixtures is fair.</p>
<b><i>Recommendations Summary</i></b>
<ul style="list-style-type: none"><li>• <i>Replace the electric water heater in kind.</i></li><li>• <i>Provide a thermostatic mixing valve on the water heater discharge.</i></li><li>• <i>Remove all plumbing fixtures.</i></li><li>• <i>Replace restroom fixtures with water saving commercial toilet with manually operated flush valve and lavatory with low flow faucets.</i></li><li>• <i>Provide ADA compliant restroom.</i></li><li>• <i>Replace all domestic water piping and valves with lead-free copper tubing, press-fit joints and fittings and ball valves.</i></li><li>• <i>Consider replacing sanitary and vent piping to the point of exit with PVC.</i></li><li>• <i>Consider replacing storm drainage piping to the point of exit with PVC.</i></li></ul>



MACKWORTH ISLAND CONCEPTUAL UTILIZATION PLAN – FACILITIES ASSESSMENTS
<b>PLUMBING SYSTEMS SUMMARY</b>
<b>Building K: Sanders Kitchen, Museum</b>
<b><i>Plumbing Systems</i></b>
<p>The kitchen is currently not used, but everything in the kitchen is usable and can be utilized as needed except the gas range. The propane tank has been removed so there is no propane available for the gas range. There is an electric range. An internal grease interceptor is set in the floor near the large two bay sink.</p> <p>The primary water heater for the building is located in the laundry room below the kitchen. It is a Rheem 119 gallon electric water heater with two 4,500 watt electric coils. It was installed in 2003. There are no thermostatic mixing valves at either water heater. The water temperature in the tanks is unknown but expected to be 125°F. There is no hot water return piping with circulator to maintain hot water to the fixtures in the building.</p> <p>Sanitary and storm drainage piping is cast iron. A trench drain and large slate wash sink serve the laundry washing machines.</p> <p>The domestic piping in the building is copper with soldered joints and fittings. The solder used prior to 1986 may contain lead and it is recommended to thoroughly flush piping before drink water. Because flushing is not a realistic practice, replacing all domestic water piping is recommended.</p> <p>Plumbing fixtures are original to the building. Toilets are tank type. Lavatories are wall hung with manually operated two handle lever faucets.</p> <p>One restroom has a shower stall with a single handle pressure balancing shower valve with shower head. A second restroom has a bathtub with a shower head mounted to a two-handle tub faucet. The tub/shower faucet does not have anti-scald protection.</p> <p>The condition of the plumbing systems and fixtures is fair.</p>
<b><i>Recommendations Summary</i></b>
<ul style="list-style-type: none"><li>• <i>Install backflow preventer at the water service.</i></li><li>• <i>Replace all domestic water piping and valves with lead-free copper tubing, press-fit joints and fittings and ball valves.</i></li><li>• <i>Consider replacing sanitary and vent piping to the point of exit with PVC.</i></li><li>• <i>Consider replacing storm drainage piping to the point of exit with PVC.</i></li><li>• <i>Replace the electric water heater with a propane fired water heater capable of supporting up to 8 showers. If showers are not required, provide a heat pump/electric water heater.</i></li><li>• <i>Provide a thermostatic mixing valve on the water heater discharge.</i></li><li>• <i>Remove all plumbing fixtures and drinking fountains.</i></li><li>• <i>Replace all restroom fixtures with water saving commercial toilets with manually operated flush valves, stainless steel sinks and lavatories with low flow faucets.</i></li></ul>



<b>MACKWORTH ISLAND CONCEPTUAL UTILIZATION PLAN – FACILITIES ASSESSMENTS</b>
<b>PLUMBING SYSTEMS SUMMARY</b>
<ul style="list-style-type: none"><li>• <i>Provide ADA compliant restrooms.</i></li><li>• <i>Provide bi-level water cooler/bottle filler.</i></li></ul>
<b>State Park: Gatehouse &amp; Additional Parking</b>
<b><i>Plumbing Systems</i></b>
<p>The gatehouse was constructed in 1973. The water service and drain sizes and locations were not observed.</p> <p>The gate house has a tank type toilet, lavatory and 2 gallon water heater with cord and plug. The water heater has a 1,250 watt heating coil. The piping in the gate house is drained in the winter months. The water heater is installed and water is turned on during the summer months. The water heater was purchased in 2016.</p> <p>The condition of the plumbing systems and fixtures is fair.</p>
<b><i>Recommendations Summary</i></b>
<ul style="list-style-type: none"><li>• <i>Install backflow preventer at the water service.</i></li><li>• <i>Replace the electric water heater in kind.</i></li><li>• <i>Provide a thermostatic mixing valve on the water heater discharge.</i></li><li>• <i>Replace restroom fixtures with water saving toilet with tank and lavatory with low flow faucet.</i></li><li>• <i>Consider providing ADA compliant restroom (this would likely require a new gate house).</i></li><li>• <i>Provide outside lawn faucet.</i></li></ul>



<b>MACKWORTH ISLAND CONCEPTUAL UTILIZATION PLAN – FACILITIES ASSESSMENTS</b>
<b>FIRE PROTECTION SYSTEMS SUMMARY</b>
<b>Applicable Codes</b>
2016 NFPA 13, 2018 NFPA 101
<b>Building A: Mansion</b>
<b><i>Fire Protection Systems</i></b>
The building was constructed in 1917.
This is the only building on campus without a fire a fire protection system other than the connector between buildings D & J.
<b><i>Recommendations Summary</i></b>
<ul style="list-style-type: none"> <li>• <i>Provide a sprinkler service into the basement and provide a fully compliant dry sprinkler system within all spaces and attic and a 4” single outlet fire department connection.</i></li> <li>• <i>Option: Provide a wet pipe system for all areas except for the third floor and attic and provide a separate dry system for the third floor and attic.</i></li> </ul>
<b>Building B: Young Hall</b>
<b><i>Fire Protection Systems</i></b>
It was constructed in 1959.The building is not being used and has been condemned.
The 6” sprinkler service is located on the ground level and was installed in 1980. It is a wet pipe system with small glycol system outside. The system has been turned off and is not active. The system is connected to the fire alarm and has a two-outlet fire department connection, electric alarm bell and water motor gong.
Sprinklers are a mix of different style sprinklers and ages that have been installed or replaced over the years.
The condition of the fire protection system is fair.
<b><i>Recommendations Summary</i></b>
<ul style="list-style-type: none"> <li>• <i>Install a backflow preventer at the sprinkler service and rebuild the riser with new components and 4” single outlet fire department connection.</i></li> <li>• <i>Inspect the interior of the piping for corrosion from sitting empty.</i></li> <li>• <i>Replace all sprinklers with quick response type. Sprinklers in ceilings would be two-piece white finish and sprinklers in unfinished spaces will be upright or pendant bronze finish.</i></li> </ul>
<b>Building C: Taylor Hall</b>
<b><i>Fire Protection Systems</i></b>
The building is partially being used/leased.
The building was constructed in 1958 and the fire protection system was installed when in 1980.



<b>MACKWORTH ISLAND CONCEPTUAL UTILIZATION PLAN – FACILITIES ASSESSMENTS</b>
<b>FIRE PROTECTION SYSTEMS SUMMARY</b>
<p>The wet sprinkler riser is below the stair at Building C at the connector. There is no backflow preventer at the sprinkler riser.</p> <p>The system is connected to the fire alarm and has a two-outlet fire department connection, electric alarm bell and water motor gong.</p> <p>The sprinklers in the connector to Building C are supplied from Building H.</p> <p>Sprinklers are a mix of different style sprinklers and ages that have been installed or replaced over the years.</p> <p>The condition of the fire protection system is good.</p>
<b><i>Recommendations Summary</i></b>
<ul style="list-style-type: none"><li>• <i>Install a backflow preventer at the sprinkler service and rebuild the riser with new components and 4" single outlet fire department connection.</i></li><li>• <i>Replace all sprinklers with quick response type. Sprinklers in ceilings would be two-piece white finish and sprinklers in unfinished spaces will be upright or pendant bronze finish.</i></li><li>• <i>Provide sprinklers for spaces if room layouts are revised.</i></li></ul>
<b>Building D: Greenlaw Classrooms, Offices</b>
<b><i>Fire Protection Systems</i></b>
<p>The building was constructed in 1958 with substantial renovations made in 1997.</p> <p>The 6" sprinkler service is located on the ground level and was installed in 1980. It is a wet pipe system with small glycol system outside.</p> <p>There is no backflow preventer at the sprinkler riser. The system is connected to the fire alarm and has a two-outlet fire department connection, electric alarm bell and water motor gong.</p> <p>Sprinklers are a mix of different style sprinklers and ages that have been installed or replaced over the years.</p> <p>The condition of the fire protection system is good.</p>
<b><i>Recommendations Summary</i></b>
<ul style="list-style-type: none"><li>• <i>Install a backflow preventer at the sprinkler service and rebuild the riser with new components and 4" single outlet fire department connection.</i></li><li>• <i>Replace all sprinklers with quick response type. Sprinklers in ceilings would be two-piece white finish and sprinklers in unfinished spaces will be upright or pendant bronze finish.</i></li><li>• <i>Provide sprinklers for spaces if room layouts are revised.</i></li></ul>
<b>Building E: Garage-Inman</b>





<b>MACKWORTH ISLAND CONCEPTUAL UTILIZATION PLAN – FACILITIES ASSESSMENTS</b>
<b>FIRE PROTECTION SYSTEMS SUMMARY</b>
<b><i>Fire Protection Systems</i></b>
<p>This building was constructed in 1961.</p> <p>The 6” sprinkler service is believed to be installed in 1980. It is a wet pipe system.</p> <p>There is no backflow preventer at the sprinkler riser. The system is connected to the fire alarm and has a two-outlet fire department connection, electric alarm bell and water motor gong.</p> <p>Sprinklers are a mix of different style sprinklers and ages that have been installed or replaced over the years.</p> <p>The condition of the fire protection system is good.</p>
<b><i>Recommendations Summary</i></b>
<ul style="list-style-type: none"><li>• <i>Install a backflow preventer at the sprinkler service and rebuild the riser with new components and 4” single outlet fire department connection.</i></li><li>• <i>Replace all sprinklers with quick response type. Sprinklers in ceilings would be two-piece white finish and sprinklers in unfinished spaces will be upright or pendant bronze finish.</i></li><li>• <i>Provide sprinklers for spaces if room layouts are revised.</i></li></ul>
<b>Building G: Cartier</b>
<b><i>Fire Protection Systems</i></b>
<p>This building was constructed in 1957. The building is not used except for the small Gym for wood working.</p> <p>The 6” sprinkler service is believed to be installed in 1980. It is a wet pipe system.</p> <p>There is no backflow preventer at the sprinkler riser. The system is connected to the fire alarm and has a two-outlet fire department connection, electric alarm bell and water motor gong.</p> <p>Sprinklers are a mix of different style sprinklers and ages that have been installed or replaced over the years.</p> <p>The condition of the fire protection system is good.</p>
<b><i>Recommendations Summary</i></b>
<ul style="list-style-type: none"><li>• <i>Install a backflow preventer at the sprinkler service and rebuild the riser with new components and 4” single outlet fire department connection.</i></li><li>• <i>Replace all sprinklers with quick response type. Sprinklers in ceilings would be two-piece white finish and sprinklers in unfinished spaces will be upright or pendant bronze finish.</i></li><li>• <i>Provide sprinklers for spaces if room layouts are revised.</i></li></ul>



<b>MACKWORTH ISLAND CONCEPTUAL UTILIZATION PLAN – FACILITIES ASSESSMENTS</b>
<b>FIRE PROTECTION SYSTEMS SUMMARY</b>
<b>Building H: Brewster Library, Classrooms</b>
<i>Fire Protection Systems</i>
<p>The building was constructed in 2004 and was certified LEED Silver.</p> <p>The 6” sprinkler service was installed in 2004. It is a wet pipe system. There is a detector double check valve backflow preventer with a water meter and testable double check backflow preventer.</p> <p>The system is connected to the fire alarm and has a single 4” fire department connection and an electric alarm bell.</p> <p>Sprinklers are glass bulb quick response style sprinklers which have a remaining life over 30 years.</p> <p>The condition of the fire protection system is excellent.</p>
<b>Recommendations Summary</b>
<ul style="list-style-type: none"><li>• <i>Provide sprinklers for spaces if room layouts are revised.</i></li></ul>
<b>Building I: Patrick Classrooms</b>
<i>Fire Protection Systems</i>
<p>The building was constructed in 1958. A large part of the building was demolished to make room for the playground.</p> <p>The fire protection system is fed from Building J and is vintage 1980.</p> <p>The condition of the fire protection system is good.</p>
<b>Recommendations Summary</b>
<ul style="list-style-type: none"><li>• <i>Replace all sprinklers with quick response type. Sprinklers in ceilings would be two-piece white finish and sprinklers in unfinished spaces will be upright or pendant bronze finish.</i></li><li>• <i>Provide sprinklers for spaces if room layouts are revised.</i></li></ul>
<b>Building J: Draper Gym, Classrooms</b>
<i>Fire Protection Systems</i>
<p>The building was constructed in 1958.</p> <p>The 6” sprinkler service is located on the ground level and was installed in 1980. It is a wet pipe system with small glycol system outside.</p> <p>There is no backflow preventer at the sprinkler riser. The system is connected to the fire alarm and has a two-outlet fire department connection, electric alarm bell and water motor gong.</p>




<b>MACKWORTH ISLAND CONCEPTUAL UTILIZATION PLAN – FACILITIES ASSESSMENTS</b>
<b>FIRE PROTECTION SYSTEMS SUMMARY</b>
Sprinklers are a mix of different style sprinklers and ages that have been installed or replaced over the years.
The condition of the fire protection system is good.
<b><i>Recommendations Summary</i></b>
<ul style="list-style-type: none"><li>• <i>Install a backflow preventer at the sprinkler service and rebuild the riser with new components and 4” single outlet fire department connection.</i></li><li>• <i>Replace all sprinklers with quick response type. Sprinklers in ceilings would be two-piece white finish and sprinklers in unfinished spaces will be upright or pendant bronze finish.</i></li><li>• <i>Provide sprinklers for spaces if room layouts are revised.</i></li></ul>
<b>Building K: Sanders Facilities</b>
<b><i>Fire Protection Systems</i></b>
This building was constructed in 1959. This building has the main boiler plant as well as classrooms, museum and kitchen facilities.
The 6” sprinkler service is located in the boiler room and is believed to be installed in 1980. It is a wet pipe system.
There is no backflow preventer at the sprinkler riser. The system is connected to the fire alarm and has a two-outlet fire department connection, electric alarm bell and water motor gong.
Sprinklers are a mix of different style sprinklers and ages that have been installed or replaced over the years.
The condition of the fire protection system is good.
<b><i>Recommendations Summary</i></b>
<ul style="list-style-type: none"><li>• <i>Install a backflow preventer at the sprinkler service and rebuild the riser with new components and 4” single outlet fire department connection.</i></li><li>• <i>Replace all sprinklers with quick response type. Sprinklers in ceilings would be two-piece white finish and sprinklers in unfinished spaces will be upright or pendant bronze finish.</i></li><li>• <i>Provide sprinklers for spaces if room layouts are revised.</i></li></ul>
<b>Building K: Sanders Kitchen, Museum</b>
<b><i>Fire Protection Systems</i></b>
Sprinklers are a mix of different style sprinklers and ages that have been installed or replaced over the years.
The condition of the fire protection system is good.



<b>MACKWORTH ISLAND CONCEPTUAL UTILIZATION PLAN – FACILITIES ASSESSMENTS</b>
<b>FIRE PROTECTION SYSTEMS SUMMARY</b>
<b><i>Recommendations Summary</i></b>
<ul style="list-style-type: none"><li>• <i>Replace all sprinklers with quick response type. Sprinklers in ceilings would be two-piece white finish and sprinklers in unfinished spaces will be upright or pendant bronze finish.</i></li><li>• <i>Provide sprinklers for spaces if room layouts are revised.</i></li></ul>
<b>State Park: Gatehouse &amp; Additional Parking</b>
<b><i>Fire Protection Systems</i></b>
The gatehouse was constructed in 1973. The gate house does not have a fire protection system and is not required.
<b><i>Recommendations Summary</i></b>
<ul style="list-style-type: none"><li>• <i>None.</i></li></ul>




<b>MACKWORTH ISLAND CONCEPTUAL UTILIZATION PLAN – FACILITIES ASSESSMENTS</b>	
<b>MECHANICAL SYSTEMS SUMMARY</b>	
<b>Applicable Codes</b>	
2016 ASHRAE 62.1, 2016 ASHRAE 90.1, 2015 IECC	
<b>Building A: Mansion</b>	
<b><i>Mechanical Systems</i></b>	
<p>Heating hot water originates from the main boiler plant in Building K. Underground pipes enter the building in the basement from building K into the basement of Building A where it's piped to a shell and tube heat exchanger which appears to be at the end of its useful life.</p>	
	<p>Zone pumps in the basement circulate water from the load side of the heat exchanger to individual zones in the building. The 3 story building is divided into 2 zones. The first floor is zone 1. The second and third floor makeup the other zone. Each zone is controlled by a single thermostat located in a hallway. Portable, electric heaters were observed in multiple rooms indicated that the building lacks sufficient zone control.</p> <p>There are no central mechanical ventilation systems nor is there a central cooling system for the building.</p>
<p><i>Figure 1- Hot Water Entrance</i></p>	
<p>The condition of the mechanical system is fair.</p>	
<b><i>Recommendations Summary</i></b>	
<ul style="list-style-type: none"> <li>• <i>Evaluate the need for an intermediate hydronic heat exchanger.</i></li> <li>• <i>Evaluate heating loads in the building.</i></li> <li>• <i>Provide additional fin tube hydronic heat to meet heating loads.</i></li> <li>• <i>Upgrade controls to provide zone control in each room.</i></li> <li>• <i>Provide central energy recovery unit for proper ventilation of individual space.</i></li> <li>• <i>Review cooling requirements with the Owner and evaluate options for a central cooling system.</i></li> <li>• <i>Review variable refrigerant flow system as an option for heating and cooling.</i></li> </ul>	
<b>Building B: Young Hall</b>	
<b><i>Mechanical Systems</i></b>	
<p>It was constructed in 1959. The building is not being used and has been condemned.</p>	





<b>MACKWORTH ISLAND CONCEPTUAL UTILIZATION PLAN – FACILITIES ASSESSMENTS</b>
<b>MECHANICAL SYSTEMS SUMMARY</b>
The building's heating hot water loop has been disconnected from the central heating plant loop.  The condition of the mechanical system is poor.
<b><i>Recommendations Summary</i></b>
<ul style="list-style-type: none"><li>• <i>A complete replacement of the mechanical system is needed to occupy the building.</i></li></ul>
<b>Building C: Taylor Hall</b>
<b><i>Mechanical Systems</i></b>
Heating hot water originates from the main boiler plant in Building K. Pipes are installed in the connectors from Building K to Building C. Most spaces are heated with perimeter fin tube with cabinet unit heaters in some of the larger rooms.  A single thermostat on the first floor controls heat for the entire 2 story, 13,000 square foot building. Most of the piping is exposed in the first floor corridor where it's piped to first floor terminal units and up through the second floor.  There are no central mechanical ventilation systems nor is there a central cooling system for the building. One of the shower rooms lacks proper exhaust.  The condition of the mechanical system is fair.
<b><i>Recommendations Summary</i></b>
<ul style="list-style-type: none"><li>• <i>Upgrade controls to provide zone control in each room.</i></li><li>• <i>Provide central energy recovery unit for proper ventilation of individual space.</i></li><li>• <i>Review cooling requirements with the Owner and evaluate options for a central cooling system.</i></li><li>• <i>Review variable refrigerant flow system as an option for heating and cooling.</i></li></ul>



<b>Building D: Greenlaw Classrooms, Offices</b>	
<b><i>Mechanical Systems</i></b>	
<p>The building was renovated in 1997 when new mechanical systems were installed. Heating hot water originates from the main boiler plant in Building K. Pipes are installed in the connector from Building K to Building D. Pipes are connected to a single circulating pump which is capable of boosting water flow in the building if the central campus pumps cannot provide adequate flow.</p>	
	<p>Two air handlers provide heating and ventilation to parts of the building. Classrooms along the south wall are served with unit ventilators connect to outdoor air louvers for ventilation. Pressure relief louvers were designed to allow air to exhaust to the outside when the unit ventilators are in economizer mode. Many of the louvers at the ground floor have been blocked with plywood indicating that at least one unit ventilator is not capable of providing outdoor air for ventilation as well as preventing economizing. The unit ventilators are past their typical useful life.</p>
<p><i>Figure 2 - Booster Pump</i></p>	
<p>There is no central cooling system for the building.</p>	
<p>The condition of the mechanical systems are very good.</p>	
<b><i>Recommendations Summary</i></b>	
<ul style="list-style-type: none"><li>• <i>Consider replacing existing unit ventilators</i></li><li>• <i>Repair and replace intake and relief louvers at the ground floor.</i></li><li>• <i>Review cooling requirements with the Owner and evaluate options for a central cooling system.</i></li></ul>	



**Building E: Garage-Inman**

***Mechanical Systems***

The main garage is served by a single, oil-fired furnace which is connected to a simple ducted air distribution system. The furnace was installed approximately 6 years ago and appears to be in excellent condition.



*Figure 3 - Oil-fired Furnace*

The associated office space is cooled with terminal air conditioner typically installed in the windows of homes. The air conditioner rejects heat into the main garage rather than be installed in a window.

Ventilation is achieved through air infiltration when garage doors are opened.

The condition of the mechanical systems are very good.

***Recommendations Summary***

- *Consider adding a small heat recovery unit with electric heat for proper ventilation of the office.*



<b>Building G: Carter</b>
<b><i>Mechanical Systems</i></b>
<p>Heating hot water originates from the main boiler plant in Building K. Pipes are installed in the connector from Building K to Building G. Pipes are connected to circulating pumps which are capable of boosting water flow in the building if the central campus pumps cannot provide adequate flow.</p> <p>Hot water is piped to perimeter fin tube as well as some heating and ventilation units which provide ventilation to limited areas of the building. One unit is dedicated to the recreation room which is currently used as a carpentry space for the campus. Another unit is located above the ceiling in the classroom area and only serves 4 of the classrooms along the north wall and some support spaces. Rooms along the south wall are not ventilated.</p> <p>The condition of the mechanical systems are good.</p>
<b><i>Recommendations Summary</i></b>
<ul style="list-style-type: none"><li>• <i>Upgrade controls.</i></li><li>• <i>Remove existing classroom ventilation unit and provide central energy recovery unit for proper ventilation of the entire classroom wing.</i></li><li>• <i>Review cooling requirements with the Owner and evaluate options for a central cooling system.</i></li><li>• <i>Review variable refrigerant flow system as an option for heating and cooling.</i></li></ul>



**Building H: Brewster Library, Classrooms**

***Mechanical Systems***

The building was constructed around 2003. Heating hot water originates from the main boiler plant in Building K. Pipes are installed in the connector from Building K to Building H. Pipes are connected to a single circulating pump which is capable of boosting water flow in the building if the central campus pumps cannot provide adequate flow.

A single air handler provides warm and cool air to variable air volume boxes and then supply diffusers throughout the building which are a mix of displacement diffusers and overhead ceiling diffusers. Typically, displacement diffusers should not be served by the same air handler as overhead ceiling diffusers when cooling is provided. This has the potential to create temperature control issues in spaces when cooling is required. Typical displacement systems supply cooler air in the winter and warmer air in the summer which is not compatible with some overhead delivery systems.



*Figure 4 - Radiant Floor Pumps*

Heating is achieved mostly through radiant floors which is served by a separate hydronic loop providing low temperature water from a dedicated set of pumps is in the mechanical mezzanine. Heat is also achieved with some perimeter fin tube and cabinet unit heaters which is connected to main, high temperature water loop. The scope of the control system was reduced when the building was constructed so there are spaces that are not maintaining a comfortable temperature.

It was observed that the air systems in the main lobby outside the Library were noisy.

The condition of the mechanical systems are very good.

***Recommendations Summary***


- *Review controls and upgrade to provide proper control of radiant floor and displacement systems.*
- *Review and provide sound attenuation for the air side systems.*





<b>Building I: Patrick Classrooms</b>
<b><i>Mechanical Systems</i></b>
Heating hot water originates from the main boiler plant in Building K and serves perimeter fin tube.
The building lacks mechanical ventilation.
The condition of the mechanical systems are good.
<b><i>Recommendations Summary</i></b>
<ul style="list-style-type: none"><li>• <i>Upgrade controls.</i></li><li>• <i>Provide central energy recovery unit for proper ventilation. Could be combined with ventilation upgrades to Building J.</i></li><li>• <i>Review cooling requirements with the Owner and evaluate options for a central cooling system.</i></li><li>• <i>Review variable refrigerant flow system as an option for heating and cooling.</i></li></ul>



<b>Building J: Draper Gym, Classrooms</b>	
<b><i>Mechanical Systems</i></b>	
Heating hot water originates from the main boiler plant in Building K and serves air handlers, unit ventilators, and perimeter fin tube. Pipes are connected to a single circulating pump which is capable of boosting water flow to the auxiliary gym if the central campus pumps cannot provide adequate flow.	
	The main gym is served by two air handlers that are hung from the structure and mounted high in the space and appear to be in good condition. The air handlers provide heat and ventilation with some exposed ductwork and low returns. The smaller auxiliary space is served with unit ventilator hung in the adjacent storage room. The supply grille is missing and return air is transferred through louvers in the storage room doors which are in need of repair.
<i>Figure 5 - Gym AHU</i>	
The locker rooms exhaust systems were installed in manner that required drip trays or diverters to prevent cold air drafts.	
The condition of the mechanical systems are fair.	
<b><i>Recommendations Summary</i></b>	
<ul style="list-style-type: none"><li>• <i>Repair supply grille in the auxiliary gym</i></li><li>• <i>Repair storage room doors.</i></li><li>• <i>Replace locker room exhaust system.</i></li><li>• <i>Upgrade controls.</i></li><li>• <i>Provide central energy recovery unit for proper ventilation. Could be combined with ventilation upgrades to Building I.</i></li><li>• <i>Review cooling requirements with the Owner and evaluate options for a central cooling system.</i></li><li>• <i>Review variable refrigerant flow system as an option for heating and cooling.</i></li></ul>	



## Building K: Sanders Facilities

### *Mechanical Systems*

Heating hot water originates from the boiler room in this building which provide heating hot water for the entire campus.

A majority of the building is heated with perimeter fin tube which can be boosted with pumps located in the basement. Most spaces lack mechanical ventilation. The conference room area is the only space that is cooled and ventilated which is done with a packaged rooftop unit. The computer technology spaces are cooled with two ductless units.



The building contains a commercial kitchen with an island type hood that is oversized for the amount of cooking equipment under it. The kitchen freezer and cooler condensing units are located in the basement in a mechanical room which can be exhausted when the space gets too warm.

There are commercial dryers located in the basement which are manifolded into a common exhaust before terminating outside the building.

*Figure 6 - Kitchen Hood*

The boiler plant consists of two oil-fired boilers. Boiler 1 has a capacity of 3,562 MBTU and Boiler 2 has a capacity of 4,023 MBTU. One boiler is used as the lead boiler without sharing lead responsibility with the other boiler which only acts as a lag boiler when the lead boiler cannot keep up with demand. Oil for the boilers is stored in an underground 10,000 gallon tank. Oil is pumped directly to the boiler burners and bypasses the oil pre-heater which is abandoned in place.



*Figure 7 - Main Heating Pumps*



Three base mounted pumps circulate water from the boiler plant to the heating loop that extends to each building on campus.

The condition of the mechanical systems outside of the boiler room are good. The boiler plant has been well maintained and is in very good condition.



<b><i>Recommendations Summary</i></b>
<ul style="list-style-type: none"><li>• <i>Upgrade controls.</i></li><li>• <i>Provide central energy recovery unit for proper ventilation.</i></li><li>• <i>Review cooling requirements with the Owner and evaluate options for a central cooling system.</i></li><li>• <i>Review variable refrigerant flow system as an option for heating and cooling.</i></li></ul>



<b>MACKWORTH ISLAND CONCEPTUAL UTILIZATION PLAN – FACILITIES ASSESSMENTS</b>	
<b>ELECTRICAL SYSTEMS SUMMARY</b>	
<b>Applicable Codes</b>	
NEC, NFPA, IEC	
<b>Site Power Distribution</b>	
<i>Electrical Systems</i>	
<p>The existing power distribution system for the island is fed from two main sets of Central Maine Power transformers located in vaults, likely utilizing exposed parts based on age (1950s). These vaults were not accessible at the time of survey, and are original to the installation of the buildings in which they reside (Buildings B and C). These transformers bring the voltage down to 120/208V 3PH which is distributed around the island to each remote building via overhead power lines. Connections from these lines are made directly into the majority of the buildings, without the use of pole mounted transformers.</p> <p>There is one additional small transformer located at the gatehouse, and one meter located at this pole which serves to meter the usage of all buildings on the island.</p>	
	
<i>Incoming Power and transformers at Gatehouse</i>	<i>Main Island Meter at Gatehouse</i>
<b>Building A: Mansion</b>	
<i>Electrical Systems</i>	
<p>Power distribution – the building is provided with power directly from the island overhead poles into the building main power panel at 120/240V, 1PH which is located on the second floor. There is an additional electrical panel in the basement. GFCI receptacles were located at appropriate</p>	





**MACKWORTH ISLAND CONCEPTUAL UTILIZATION PLAN – FACILITIES ASSESSMENTS**

**ELECTRICAL SYSTEMS SUMMARY**

locations, but appeared to be old style and are recommended to be changed out. TR type receptacles are also recommended for any areas accessible to the general public such as corridors and conference/meeting rooms.

Lighting is generally fluorescent, and only one instance of dimming was noted. No vacancy/occupancy sensors are provided. Generally, the lighting levels in this building were low. An upgrade to LED lighting with appropriate code required energy controls based on building type are recommended.

Minimal exit lights were provided – some locations were lacking appropriate exit lights. Signs are old, but functional. Paths of egress will need to be coordinated with any reuse design and paths properly marked.

Emergency lighting is existing battery units (EBU) and will need to be tested to ensure compliance with NFPA 101 life safety code and egress paths properly lite.

Fire alarm – the panel and devices appear to have been replaced within the last few years to a Simplex panel. Existing devices appeared to be in good condition, though only Smoke Detectors and Speaker Strobes were witnessed. Carbon monoxide detection was not observed and is recommended to be added to code required areas based on building occupancy type.





*Fire Alarm Devices*



*Existing GFCI Receptacles*

Existing IT and communications equipment appears to enter in the basement. IT rack is also located in basement. Equipment appeared to be in good condition. Additional communications cables may



<b>MACKWORTH ISLAND CONCEPTUAL UTILIZATION PLAN – FACILITIES ASSESSMENTS</b>	
<b>ELECTRICAL SYSTEMS SUMMARY</b>	
be required based on updates to building usage. No existing wireless access points or public speakers were observed.	
<b>Building B: Young Hall</b>	
<b><i>Electrical Systems</i></b>	
<p>The electrical service to this building is provided via a bank of CMP transformers located in a vault on the lowest level (walkout basement level). The transformers feed several of the other campus buildings (exact buildings served is to be determined). There is a main electrical room on the same (basement) level which contains a 225A MDP, a transfer switch that is no longer in use, and feeds to Building G. Two additional distribution panels are located on the floors above. Age of the panels was noted as beyond recommended life.</p> <p>Lighting is comprised of fluorescent fixtures, many of which have been broken due to vandalism. Much of the lighting is not powered and currently not in use. Minimal dimming controls were noted.</p> <p>There is Exit signage that will require removal and proper disposal.</p> <p>Emergency lighting is existing battery units (EBU) and will need to be removed and the batteries recycled and the remaining components disposed of properly.</p> <p>Fire alarm – existing fire alarm cabinet is a Simplex panel located on one of the upper floors. It appeared to be in fair condition. Existing devices could not be determined to be functional. It is recommended to remove panel and devices and return to owner for testing and possible re-use.</p> <p>Demolition – It is recommended that electrically, the building systems be demolished and new, safer transformers from CMP be located on the site in order to replace existing old transformers.</p>	
	
<i>Existing Light Fixtures</i>	



MACKWORTH ISLAND CONCEPTUAL UTILIZATION PLAN – FACILITIES ASSESSMENTS	
<b>ELECTRICAL SYSTEMS SUMMARY</b>	
	<i>CMP Xfmr Vault</i>
<b>Building C: Taylor Hall</b>	
<i>Electrical Systems</i>	
<p>The main electrical panel is on the upper floor. There is a second panel on this floor provided with emergency power. The normal power panels are older, but in fair condition. The emergency panel is newer, a 100A Square D panel in good condition. Both normal and emergency power to Building C are fed from Building K via connectors through Building H. There is an additional power pole extending from Building C out to an outdoor picnic area.</p> <p>Lighting is comprised of various styles of surface mounted fluorescent fixtures of which demolition will require the lamps to be recycled and properly disposed of. The majority of fixtures are beyond their recommended life, and many are dirty. No visible dimming or occupancy controls were witnessed. Reuse of these fixtures is not expected with LED technology replacing fluorescent lamp technology and the age of the light fixtures.</p> <p>Existing exit signage is present, but unlit. Exit signs will need to be replaced. Paths of egress will need to be coordinated with any reuse design and paths properly marked.</p> <p>Emergency lighting is existing battery units (EBU). The units will need to be tested to ensure they function properly before re-using.</p> <p>Fire alarm – existing speaker strobes and smoke detectors were witness. Locations will need to be reviewed for compliance with the latest NFPA code, and tested for functionality. No specific fire alarm cabinet was witnessed in this building – it may be sub-fed from Building H or Building K.</p> <p>Telecommunications systems (data drops, telephones) were noted in the building, however a dedicated telecommunications closet was not noted during the survey.</p>	



**MACKWORTH ISLAND CONCEPTUAL UTILIZATION PLAN – FACILITIES ASSESSMENTS**

**ELECTRICAL SYSTEMS SUMMARY**



*Existing Light Fixtures*



*Existing Elec Paenl*

**Building D: Greenlaw Classrooms, Offices**

***Electrical Systems***

The MDP for this building is fed from a pad mounted transformer outside the building and is located on the lower floor, and shares a room with the fire pump and riser. This poses a risk to allow water in the electrical room. This does not meet the requirements of the current NFPA 70 code requirements. In addition to the MDP, the bottom floor electrical room also contains two additional panels (one normal, one emergency) and an ASCO transfer switch. Two additional panels (one normal, one electrical) are located in a closet near the stairs on the middle floor of the building. The panels in this building are a mix of GE and Square D. GE panels appear to be older, and nearing end of life. The emergency ATS appears to be fed from Building K, via connector.

Elevator – This building has two elevators. The elevator machine room is located near the Main Elevator on the ground floor, next to a stairwell.

Lighting is comprised of various styles of surface and pendant mounted fluorescent fixtures of which demolition will require the lamps to be recycled and properly disposed of. The majority of fixtures are beyond their recommended life, and many are dirty. No visible dimming or occupancy controls were witnessed. Reuse of these fixtures is not expected with LED technology replacing fluorescent lamp technology and the age of the light fixtures.

Exit signage is present and lit. The signs are old but functional.

Emergency lighting is existing battery units (EBU) and will need to be tested to ensure compliance with NFPA 101 life safety code.



**MACKWORTH ISLAND CONCEPTUAL UTILIZATION PLAN – FACILITIES ASSESSMENTS**

**ELECTRICAL SYSTEMS SUMMARY**

The fire alarm system appears to be in good condition. A Simplex FACP is provided adjacent to the Elevators on the bottom floor. Smoke Detectors, covered fire alarm pull stations, and speaker strobes were witnessed during the survey. The locations of all devices are recommended to be reviewed to ensure compliance with the latest NFPA 72 requirements.

Card Access is provided at several doors into this facility. It appears that the locks only prevent ingress, and pose no barrier to egress.

Other existing telecommunications systems in the building appeared to be functional. Dedicated IT rooms were noted.



*Fluorescent Pendant Strip Lights*



*Ex. Space – Needs Daylight/Vacancy Controls*

**Building E: Garage-Inman**

***Electrical Systems***

This building is powered via overhead connection from the campus pole system. Both a normal power and an emergency power panel are provided. Emergency power appears to also be run to the building via the overhead lines, separated by about 12” of space on the poles. The emergency panel is 100A, newer panel (less than 10 years). The normal panel is quite old and degraded and will need replacement. The panels are often exposed to weather as one side of the building has large garage bay doors that are frequently open.

Much of the building is provided with stainless steel junction boxes and receptacles. GFCI’s are provide in many locations. Large power draws in this building include the garage door openers and heaters. The Door openers, lights, and office computer receptacles are provided with emergency power.

Existing lighting is open suspended fluorescent bulb type fixtures, of which demolition will require the lamps to be recycled and properly disposed of. The majority of fixtures appear functional for





**MACKWORTH ISLAND CONCEPTUAL UTILIZATION PLAN – FACILITIES ASSESSMENTS**

**ELECTRICAL SYSTEMS SUMMARY**

their industrial use. No visible dimming or occupancy controls were witnessed. Reuse of these fixtures is not expected with LED technology replacing fluorescent lamp technology and the age of the light fixtures.

There is no existing fire alarm system. Fire extinguishers are provided throughout the facility.

Communications systems were not reviewed as a part of this survey. It is expected that this building has minimal telecommunications connections for computers and phones.



*Deteriorated Panelboard*



*Incoming Overhead Power*

**Building G: Cartier**

***Electrical Systems***

Existing Electrical service is provided via connector to building K. The building is currently not occupied, and undergoing some renovation. Two panels are provided in the corridors, one normal and one emergency. The main panel is 100A. Extensive MC cable was noted above the ceiling.

Existing lighting is suspended fluorescent bulb low bay type fixtures, of which demolition will require the lamps to be recycled and properly disposed of. No visible dimming or occupancy controls were witnessed. Reuse of these fixtures is not expected with LED technology replacing fluorescent lamp technology and the age of the light fixtures.

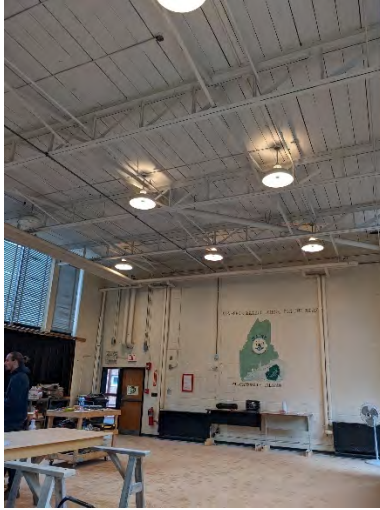
Existing fire alarm is provided via a Simplex FA panel. Smoke detectors were noted inside old classrooms.

Existing telecommunications system were not witnessed at the time of survey.



**MACKWORTH ISLAND CONCEPTUAL UTILIZATION PLAN – FACILITIES ASSESSMENTS**

**ELECTRICAL SYSTEMS SUMMARY**



*Existing Low Bay Light Fixtures*



*Existing Lighting Controls*

**Building H: Brewster Library, Classrooms**

***Electrical Systems***

The newest building on campus (2004), this building is served via a Main Electrical room on the bottom floor. The electrical room shares space with the Fire Sprinkler room, which has reportedly leaked in the past. This does not meet the latest requirements of NFPA 70. The MDP was locked at the time of survey (estimated at 400A). A Cummins transfer switch is also provided in the main electrical room for emergency power. Power for both Normal and Emergency is run via the connector to Building K. Panels were Eaton Cutler-Hammer and in like-new condition.

Fire Alarm – An existing Simplex panel is located in the main electrical room. Speaker strobes, were witnessed throughout the building. The system is in good condition. The locations of all devices are recommended to be reviewed to ensure compliance with the latest NFPA 72 requirements.

Lighting is comprised of various styles of surface and pendant mounted fluorescent fixtures of which demolition will require the lamps to be recycled and properly disposed of. The majority of fixtures are beyond their recommended life, and many are dirty. Dimming and occupancy sensor capability was witnessed in specific areas (“the lab”) of the building. A Sapling time and control system was noted on the wall in the Electrical room. Reuse of these fixtures is not expected with LED technology replacing fluorescent lamp technology and the age of the light fixtures.

Exit signage is present and fixtures are lit. The signs are newer, and may be LED. They appeared fully functional.

Emergency lighting is existing battery units (EBU) and will need to be tested to ensure compliance with NFPA 101 life safety code.





**MACKWORTH ISLAND CONCEPTUAL UTILIZATION PLAN – FACILITIES ASSESSMENTS**

**ELECTRICAL SYSTEMS SUMMARY**

Fire alarm pull stations and speaker strobes were noted during the survey. No smoke detectors, CO detectors, etc. were noted. A dedicated fire alarm panel was not noted in the building. This building may be connected to Building D Fire Alarm Control Panel.

A telecommunications room is provided, however it is shared with general storage.



*Lights, Elec Pnl, Exit Lights*



*Push to Exit Button.*

**Building J: Draper Gym, Classrooms**

***Electrical Systems***

The Main Electrical panel for this facility is in the lobby. The 225A panel is fully backed by the generator in Building K. There are two additional panels, one located in the main gymnasium area, and one provided behind the stage to provide power to the stage lighting system. Existing power panels are Square D type and in fair condition.

Lighting in the main gymnasium is high bay type with guard rails and on-luminaire occupancy/vacancy sensors that slowly dim fixtures based on percentage. Additional theatrical lighting is provided at the stage area. All fixtures appear to be fluorescent type, pendant or rail mounted. Reuse of these fixtures is possible, utilizing LED replacement bulbs. Stage lighting if still required, appears functional and able to be re-used.

Existing sound system for stage appeared to be outdated. It was not witnessed during the survey whether the system is functional.

Exit signage is present and fixtures are lit. The signs are newer, and may be LED. They appeared fully functional.





**MACKWORTH ISLAND CONCEPTUAL UTILIZATION PLAN – FACILITIES ASSESSMENTS**

**ELECTRICAL SYSTEMS SUMMARY**

Emergency lighting is existing battery units (EBU) and will need to be tested to ensure compliance with NFPA 101 life safety code.

Fire alarm speaker strobe devices and pull stations (with protective wire guards in gymnasium area) were witnessed as a part of the survey. No fire alarm control panel was witnessed as a part of the survey. Building may be connected to Building D fire alarm system.

Existing communications systems were not noted during the survey with the exception of the stage sound system speakers. No public address speakers, telecommunications data drops, or wireless access points were noted.



*Gymnasium fixture with Controls*



*Stage Lighting*

**Building K: Sanders Facilities**

***Electrical Systems***

This section addresses the facilities area only of Building K. This building houses the campus boilers, emergency generator, as well as other main campus equipment. The normal power for this building is provided from the campus power poles, via an overhead connection. Three square D type panels are provided within the building area, as well as an Onan transfer switch. All three panels appear to be on emergency power via the transfer switch, and all equipment is in fair condition.

The existing emergency generator is a 208V, 3PH 100kW Onan Genset that is approximately 20 years old. The generator is fed via an underground #2 diesel fuel tank, which is separate from the diesel fuel tank feeding the boilers and other mechanical equipment. This generator serves emergency power for the entire campus. It was reportedly able to run for close to a week without additional fuel requirements at the current campus load. Clearance around the generator does not meet the latest code requirements as it is placed very close to an expansion tank.





**MACKWORTH ISLAND CONCEPTUAL UTILIZATION PLAN – FACILITIES ASSESSMENTS**

**ELECTRICAL SYSTEMS SUMMARY**

Existing lighting is open suspended fluorescent bulb type fixtures, of which demolition will require the lamps to be recycled and properly disposed of. The majority of fixtures appear functional for their industrial use. No visible dimming or occupancy controls were witnessed. Reuse of these fixtures is not expected with LED technology replacing fluorescent lamp technology and the age of the light fixtures.

Exit signage is present however they are reflective signs and not illuminated. New, LED type signs should be provided to meet current code requirements.

Emergency lighting is existing battery units (EBU) and will need to be tested to ensure compliance with NFPA 101 life safety code.

Fire alarm speaker strobe devices and pull stations were witnessed as a part of the survey. No smoke detectors were witnessed. Fire extinguishers were provided. Fire alarm control panel appears to be inside the building office, however it was not directly witnessed as a part of the survey. Per the panel schedules, a Siemens panel is provided. Fire alarm devices appear to be in good condition.

A siren system is provided in this building.

Existing communications systems were not noted during the survey. No public address speakers, telecommunications data drops, or wireless access points were noted. It is assumed that telecommunications is provided within the building office, however the office was not accessible for survey at the time of entry.



*Generator Adjacent to Expansion Tanks*



*Electrical Panels and Transfer Switch.*

**Building K: Sanders Kitchen, Museum**

***Electrical Systems***



**MACKWORTH ISLAND CONCEPTUAL UTILIZATION PLAN – FACILITIES ASSESSMENTS**

**ELECTRICAL SYSTEMS SUMMARY**

The remainder of Building K is provided with Normal and Emergency Power via the Main Electrical room in the facilities area. Additional distribution panels include a small power panel within a conference room, and power panel in a corridor, and several panels provided in the Kitchen area. All panels were older, painted in walls, and not accessible. They appeared to be older (20+ years). The kitchen area is still used, however not at full capacity. An additional electrical room at the other end of the building on the lower level includes several square D panels, a Kohler transfer switch, and subfeeds to buildings A and C. One very old panel in this room is beyond its useable life. The rest are in fair condition.

Building K houses the second bank of CMP transformers located in a vault on the lowest level (walkout basement level). The transformers feed several of the other campus buildings (exact buildings served is to be determined). This room was not accessible at the time of survey, and it is expected that the transformers are approximately 50 years old and likely of the open/exposed parts type.

Lighting in the building includes surface mounted, pendant type, as well as downlights in lay in ceilings, 1x4 Lay-in type fixtures, Low Bay lighting (storage area), and U-tube fluorescent lay in 2x2 fixtures throughout the building. No dimming controls or occupancy/vacancy sensing were noted during the survey. All fixtures appear to be fluorescent type. Reuse of these fixtures is not expected with LED technology replacing fluorescent lamp technology and the age of the light fixtures.

Exit signage is present and fixtures are lit. The signs are older, non-LED type. They appeared fully functional. New, LED type signs should be provided to meet current code requirements.

Emergency lighting is existing battery units (EBU) appear original to building in some cases. Old fixtures should be replaced, and newer fixtures and will need to be tested to ensure compliance with NFPA 101 life safety code.

Fire alarm speaker strobe devices and pull stations as well as smoke detectors were witnessed as a part of the survey. No fire alarm control panel was witnessed as a part of the survey. Building may be connected to Building D fire alarm system.

Existing communications systems including wireless access points (WAPs), data drops, and telephone connections were noted during the survey. A telecommunications rack was found to be located in the lower level electrical room. No public address speakers were noted in the facility.



**MACKWORTH ISLAND CONCEPTUAL UTILIZATION PLAN – FACILITIES ASSESSMENTS**

**ELECTRICAL SYSTEMS SUMMARY**



*Exit Sign, WAP, Battery Light*



*Ex. Inaccessible Panels Serving Kitchen*

**State Park: Gatehouse & Additional Parking**

***Electrical Systems***

Service to the Gatehouse is provided from a site utility pole via a small transformer (as the pole in this location has not yet been transformed down to 208/120V power). The feeder is then routed underground and up into the site of the Gatehouse. An electrical panel was not witnessed inside the facility, however no access was available at the time of survey and observations were made through various windows. It is assumed a small electrical panel is present within the building to serve lights, power, and security cameras as well as the traffic arm. There is no emergency power provided at the Gatehouse.

Lighting in the building includes surface mounted circular fluorescent fixtures as well as inlaid down lights on the interior, and several inlaid downlights under the overhang of the exterior. No dimming controls or occupancy/vacancy sensing were noted during the survey. All fixtures appear to be fluorescent type. Reuse of these fixtures is not expected with LED technology replacing fluorescent lamp technology and the age of the light fixtures.

Exit signage is not provided as the building appears to be only one or two rooms with direct access to an egress door.

No emergency lighting is provided.

No fire alarm devices are present at the gatehouse. A Fire extinguisher is provided within the building.



**MACKWORTH ISLAND CONCEPTUAL UTILIZATION PLAN – FACILITIES ASSESSMENTS**

**ELECTRICAL SYSTEMS SUMMARY**

No existing telecommunications systems were noted at the gatehouse. No phones were provided, though a computer workstation was noted. Communications connection to the workstation was not able to be confirmed.

A security camera system is installed on the exterior of the gatehouse.



*Power Entry to Gatehouse*



*Ext Lighting and Security Camera*

## **A2: HISTORIC CHARACTER ASSESSMENT**

### **REPORT BY KLEINFELDER**

Report contents include a reconnaissance level review of all GBSD/MEC-DHH campus buildings and connector structures that are over 45 years old. Buildings are reviewed for level of intact architectural character and historic significance. Report observations and recommendations have been summarized in the Master Plan document.

### **DIGITAL RECORDATION SUMMARY**

To meet historic archival requirements, it is understood that a digital recordation process is acceptable for buildings identified for removal in the Master Plan recommendations.

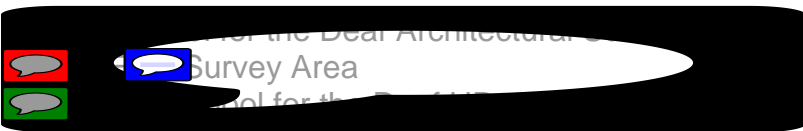
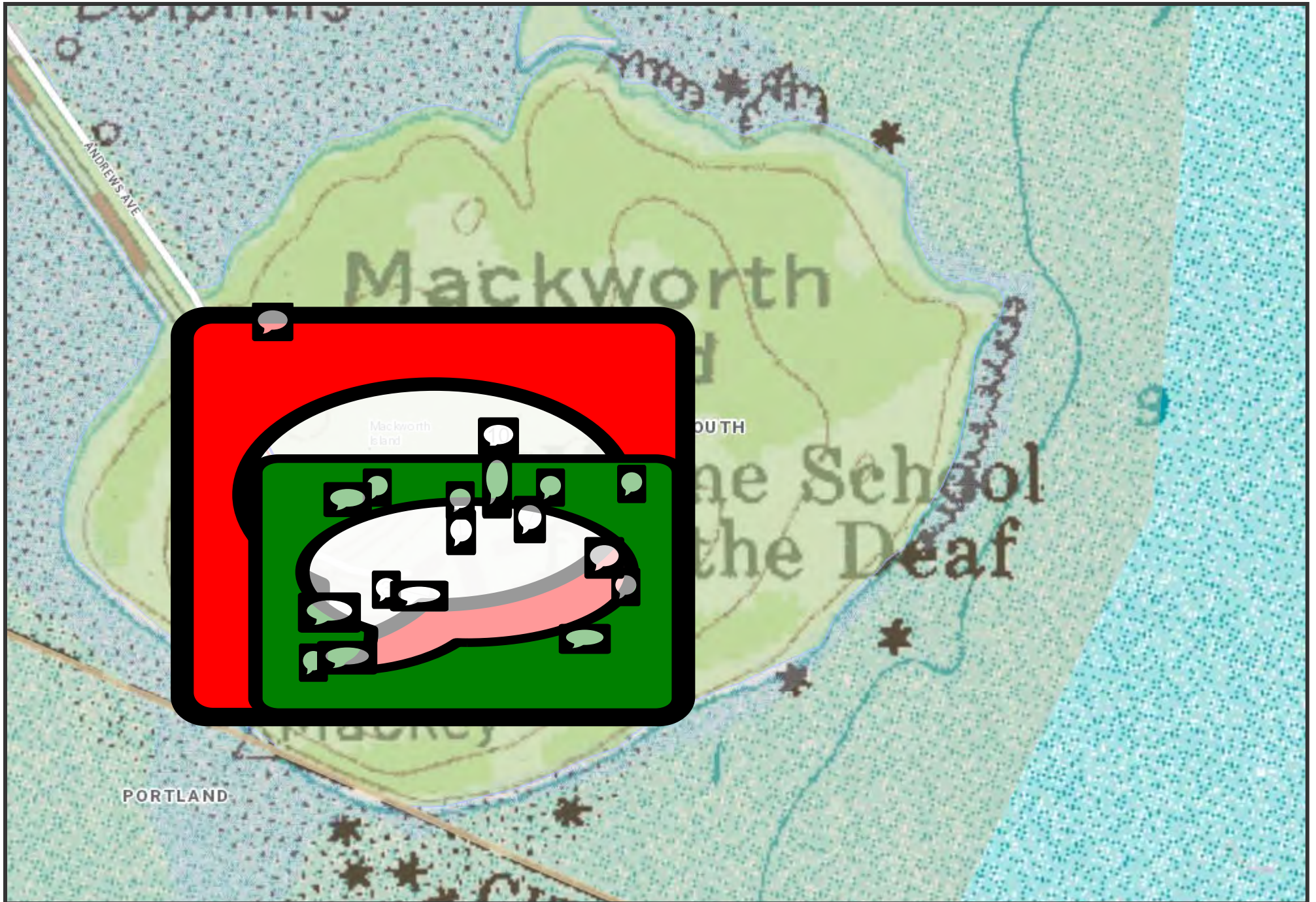




**APPENDIX A**  
**ARCHITECTURAL HISTORY SURVEY**

---

# MACKWORTH ISLAND STUDY



0.1 Miles  
1 inch = 0.09 miles



Architectural Survey Report  
Conceptual Utilization Plan  
Mackworth Island  
Falmouth, Maine

Erin Ware  
Kleinfelder  
16 Commerce Drive, Suite 2  
Augusta, Maine 04330  
eware@kleinfelder.com  
(207)626-4919

Prepared for: *Sponsoring agency or entity*  
Harriman on behalf of Maine Bureau of General Services

Dates: *Provide the dates from when the project was started up through when the report was written and/or revised and submitted.*  
March 31, 2022 – April 15, 2022

Level: *Reconnaissance or Intensive*  
Reconnaissance

Name of surveyors: *(If different from author, provide contact information for each surveyor.)*  
Erin Ware

Continuing project? *If so, please summarize previous efforts.*  
No.

## I. EXECUTIVE SUMMARY

Harriman, on behalf of the Maine Bureau of General Services, is completing a Conceptual Utilization Plan for Mackworth Island in Falmouth. There are eleven properties in the survey area that were identified as 45 years or older. Two resources were previously surveyed. One resource is listed in the National Register of Historic Places and eight resources are eligible for the National Register as part of the Baxter School for the Deaf Historic District.

## II. RESEARCH DESIGN AND BACKGROUND RESEARCH

A. Basis: *Describe the purpose of this survey. Identify the Federal or State regulations mandating this survey, or any Programmatic Agreements associated with this project.*

The purpose of the survey is to identify and document all resources 45 years old or older within the study area and evaluate eligibility for listing in the National Register of Historic Places.

B. Project Description/  
Scope of Work: *Describe the underlying project, specifically citing the type of project and duration of project. Summarize planned or anticipated alterations to landscapes, buildings, structures, districts, objects or sites.*

Harriman, on behalf of Maine Bureau of General Services, is completing a Conceptual Utilization Plan for Mackworth Island in Falmouth.

C. Area of Potential *1. On a USGS topographic map draw the outermost boundary of the area of potential effect in red. Label this line "Project APE". If necessary, additional topographic maps or overlays may be submitted showing the limits of each*

Effect:

*specific APE if more than one potential effect is present within the project area.*

*2. List all the potential effects associated with the above cited scope of work. Distinguish between direct and indirect effects when applicable.*

The current scope of work is a conceptual utilization plan. As part of this plan, the historic structures related to the Baxter School for the Deaf were surveyed. Any effects, direct or indirect, would occur during later planning phases yet to be determined. Effects will be further outlined once more information including design plans are detailed for future projects. At this time, the architectural survey is capturing any historic resources that could be potentially affected by future projects.

*3. Provide a narrative of how the geographical limit of each potential effect within the project area was established.*

The Area of Potential Effect is defined as the area in which the project may cause alterations to the visual setting or characteristics of properties in the vicinity of the project. This definition is illustrated on the topographic map submitted with the survey package.

D. Survey Boundaries:

*1. Draw the boundaries of the survey on the topographic map in blue or black and label this line "Survey Boundaries." The boundaries of a survey map include portions of a property that lie outside the APE.*

*2. Describe the limits of the surveyed area. The survey boundary may be larger than the APE. Make reference to geographic landmarks, addresses or political boundaries. Utilize reasonable demarcations – tree lines, back lots.*

The survey area mimics the APE. The APE encompasses the boundaries of the Baxter School for the Deaf.

E. Survey Methodology:

*1. Describe background research method.*

The National Register Information System and MHPC files were consulted to determine if there are any properties in the APE that are listed in, or officially eligible for listing in, the National Register. Additionally the surveyor looked at MHPC files to determine if they contained any previously recorded resources within the APE. The surveyor researched local histories at the Maine State Library for information about properties in the survey area

*2. Describe field research method.*

The surveyor conducted an initial drive through the project area and determined there were resources present greater than forty-five years of age. Next, the surveyor walked the project area and recorded on MHPC survey forms all of the buildings, structures, sites, objects, and landscape features within the boundaries that appeared to be forty-five years old or older, and photographs were taken of each resource.

*3. Did you undertake a file search at MHPC for NR or previously recorded properties?*

Yes.

### III. SURVEY FINDINGS

A. Acres:

*Provide the total number of acres within the survey boundaries.*

The survey area is approximately 10 acres.



B. Setting:

*Provide a general overview of the setting, including topography, development, and landscape.*

Mackworth Island, located approximately 2000' from shore, was named for Arthur Mackworth, deputy of Sir Ferdinando Gorges, who was gifted the island in 1631. During the Civil War, Camp Berry was established on the island. Known as Mackey's Island in the nineteenth century, it was purchased by James Phinney Baxter, a successful Portland businessman and future mayor, in 1885 from the Cushing family. Baxter constructed a summer home on the island for his large family. He also established a farm on the island that included dairy cows, hens, sheep, pigs, geese, and rabbits and produced 50 tons of hay and oats annually, in addition to various fruits and vegetables. The island passed to his son Percival Proctor Baxter and he built a second house in 1917. In 1943 Percival gifted the island to the State of Maine for use as either a correctional institution for minor children or school for the deaf. A campus made up of eight buildings was constructed beginning in 1955 and the most recent was completed in 2004. The first Baxter summer house was demolished in 1959 and most of the farm buildings were demolished in 1960. The farmhouse was burned in 2004. No farm buildings remain except for a stone water tower. The island is reached from the mainland via a causeway. There is a small parking lot and gate house near the entrance to the island. A walking path lines the perimeter of the island. The island is largely wooded with grassy fields surrounding the school buildings. The buildings are located on the high point of the island and the land slopes down gradually towards the water on all sides.

C. Number of Resources Recorded:

*Count each individually recorded building, structure, object, or site.*

11 resources were surveyed.

D. Previously Inventoried Properties:

*Address whether any of the resources had been previously surveyed. If so, how many, and how were these properties represented and evaluated within the current project?*

SM #3 and 10 were surveyed by J. Roberts in 1992. No determinations of eligibility were made at that time. New forms and photos have been uploaded to CARMA.

E. Types of Properties:

*1. Summarize general trends within the project area: commercial, residential, urban, rural, etc.*

The resources are educational, with the exception of SM #10 which had an agricultural use and is now unused, and SM #11 which is recreational. The setting is built-up rural.

*2. Summarize the age, style, and condition of the resources within the project area.*

SM #1, 2, 4-9 date from 1957-1961 and are Modern in style. SM #3 dates from 1917 and is Colonial Revival in style. SM #10 is a vernacular water tower from c.1885. SM #11 is vernacular and dates from 1973. The resources are in good to fair condition.

*3. Describe in detail any potentially eligible individual properties or historic districts.*

The Baxter Summer Home (SM #3) is listed in the National Register and is a contributing resource to the National Register-eligible Baxter School for the Deaf Historic District. The house is a two-story brick building on a fieldstone foundation. There are entrances on both the southern and eastern

elevations, both sheltered by porticoes. The southern portico is pedimented, supported by fluted ionic columns. The door is framed by a transom and sidelights. On either side of the entrance are a set of five casement windows topped by five smaller fixed windows. The casements are made up of six panes while the fixed windows contain nine panes. The sills are brownstone and the headers are flared brick. The second floor contains five bays, each with a pair of casement-fixed window configurations, excepting the center bay above the entry which contains a sixed paned casement flanked by two three paned casements and topped by an arched fixed pane. A stained-glass window sits above the center casement. There is a one-story enclosed porch on the western side of the southern elevation. The entry porch on the eastern elevation has a flat roof supported by paired Ionic fluted columns. The porch has been enclosed and a modern metal entry door added. The windows of eastern elevation are identical to those on the southern elevation. There is a circular solarium at the northeast corner of the house. The hipped roof is tiled. Two hipped dormers that contain sixteen-over-twelve double hung windows are located on each slope of the roof. The northern slope also contains a shed dormer in the center. There is an interior brick chimney on each slope of the roof.

The Baxter School for the Deaf (SM #1-9) is eligible for listing in the National Register. The school is a complex of eight interconnected buildings, as well as a free-standing garage and the Baxter Summer Home. The school is set on the high point of Mackworth Island. The buildings are long and rectangular. Most are placed horizontally and sited close to one another, with the Baxter Summer Home near the center of the complex. The buildings are connected by walkways that are enclosed either with glass or plywood and have flat roofs. The walkways have concrete foundations. One walkway is partially supported by concrete piers due to the slope of the site. There are remnants of recreational facilities adjacent to some of the buildings. The campus is connected via a mixture of paved and gravel paths and narrow roads. The area to the north, west, and east of the school is wooded and open to the south. One of the buildings, Brewster Hall, was constructed in 2004 and does not contribute to the eligibility of the school.

Carter Hall (SM #1), located on the western end of the school complex, is a one-story brick building on a concrete foundation with a shallow side gable roof. The façade is nine bays wide with the entrance located in the eastern-most bay. The entry is a set of metal doors flanked by full-height fixed windows and topped by fixed transoms. The other bays consist of sets of four two-over-two double-hung metal windows. The windows are recessed and surrounded by red and blue glazed bricks. East of the entrance is a large bronze plaque commemorating Governor Percival Baxter. Above the plaque are metal letters spelling out "Governor Baxter School for the Deaf." The western elevation contains a metal casement window and a metal entry door sheltered by a flat roof porch. The southern elevation contains bands of fixed metal windows alternating with metal doors. The center windows contain awning windows at the bottom. The eastern elevation contains an L-shaped extension off of which two enclosed walkways radiate.

Young Hall (SM #2) is located southeast of Carter Hall and is connected to it via an enclosed walkway. The two-story brick building sits on a concrete foundation and has a flat roof. The northern elevation is largely blocked

from view by the walkway. There are narrow bands of fixed windows at the top of either floor. The southern elevation is made up of bands of tall, fixed metal windows, most with awning windows at the bottom. Metal panels sit below the windows. Metal doors leading to metal balconies and staircases are located at either end of the elevation on the second floor. The staircases are floating, supported by concrete plinths set away from the building.

Sanders Hall (SM #4) is located east of Carter Hall and Young Hall in the center of the complex. It is connected to Carter Hall via a long enclosed walkway. The one-story brick building sits on a concrete foundation and has a flat roof. Due to the slope of the site, the southern third of the building contains two floors. The western elevation contains three entrances divided by narrow bands of metal framed windows just below the roofline. The northern most entrance is recessed. The center entrance is sheltered by a small enclosed porch with a gable roof. The southern entrance is located within the enclosed walkway. South of the walkway, the building reaches two stories in height, with each floor containing bands of tall, fixed metal windows, most with awning windows at the bottom. Metal panels sit below the windows. The southern elevation is made up of a center grouping of four tall metal windows framed by bands of narrow metal windows. The lower floor contains an entry in place of one of the tall center windows. The eastern elevation contains a band of tall, fixed metal windows with squares of colored glass placed in an irregular pattern. The northern elevation contains an entrance at the western corner. A narrow band of metal windows runs along the western half of the elevation. A large external brick chimney sits at the center of the elevation.

Greenlaw Hall (SM #5) is a two-story brick building on a concrete foundation with a flat roof located east of Sanders Hall. Due to the slope of the site, the western end of the building is only one story. It is connected to Sanders Hall via an enclosed walkway. The building has six bays with the entrance located in the eastern end. The entry is a set of double metal doors sheltered by a flat roofed overhang. Large, fixed metal windows with narrow transoms sit to the east of the entry doors. The section above the entry is clad in metal panels. West of the entrance is a protruding nearly full-height atrium which connects to a rounded metal clad protrusion that contains a staircase. The three western bays contain sets of fixed metal windows with muntin inserts, flanked by metal panels. The eastern elevation contains a set of tall, fixed metal windows with transoms at the northern corner. A glass enclosed walkway occupies the center of the elevation. A section of metal cladding runs up the center of the elevation. A band of four square fixed metal windows sits just below the roof line within the metal cladding.

East of Greenlaw Hall is Draper Hall (SM #6). The building is brick on a concrete foundation with a flat roof. It consists of a two-story center block with one-story extensions off the north, west, and south elevations. The northern extension contains a narrow former window that has been filled with a vent, a second window identical in size to the filled opening, a metal entry door, and a band of five fixed metal windows. The west extension contains the primary entrance. It consists of double metal entry doors topped by a transom and flanked by large, fixed metal windows also topped by transoms. A glass enclosed walkway on the western end connects to Greenlaw Hall (SM #5). The southern extension contains a band of narrow

fixed windows just below the roof line. The center block contains a row of clerestory windows on each elevation.

Patrick Hall (SM #7) is located along the western elevation of Greenlaw Hall. It is constructed of brick on a concrete foundation. The western elevation contains a band of tall, fixed metal windows with awning windows below. The southern elevation contains a large section of standing seam metal cladding and a metal entry door.

Taylor Hall (SM #8) is located south of Greenlaw Hall. It is a two-story brick building on a concrete foundation with a flat roof. Each bay of the north elevation is identical on the first and second floors. The eastern end contains a block of four tall, fixed windows with awning windows below. The next bay to the west is a band of four fixed narrow metal windows placed near the top of each floor. The center three bays contain sets of four tall, fixed windows with small sliding windows located at the bottom of the middle two windows. The eastern most bay contains another band of four fixed narrow metal windows placed near the top of each floor. The eastern elevation contains two metal entry doors, one at the north end and one in the center. The center door is paired with a tall, fixed metal window. There is one opening on the second floor, located in the center of the elevation and consisting of a large, fixed metal window. There is a concrete patio off the eastern elevation, covered by a metal pergola. The southern elevation contains bands of tall, fixed metal windows, most with awning windows at the bottom. Metal panels sit below the windows. At the center of the second floor is a metal door that leads to a balcony with a metal railing. The western elevation contains a block of six tall, fixed metal windows with awning windows below on both the first and second floors. A metal entry door takes the place of one of the windows on the first floor.

The Inman Garage (SM #9) is a one-story brick building on a concrete foundation with a flat roof. It contains seven garage bays on the northern elevation. The western elevation contains a metal entry door and two four-paned fixed horizontal windows with concrete sills. It is located northwest of the rest of the school buildings.

#### F. NR Eligibility:

*1. Address resource integrity, NR criteria, area of significance and period of significance.*

The Baxter Summer Home (SM #3) is listed in the National Register under Criteria A and C, Conservation and Architecture. It was built in 1917 for Percival P. Baxter, governor of Maine from 1921-1925 and a conservationist who donated the land that would become Baxter State Park to the state, as well as Mackworth Island. The house was designed by Frederick Thompson, an established Portland architect. It is an excellent example of the Colonial Revival style with some elements of the Renaissance Revival style. It has lost some integrity of design due to the enclosure of one of the entry porches. Its period of significance is its date of construction, 1917.

The Baxter School for the Deaf (SM #1-9) is eligible for listing in the National Register under Criteria A and C, Education and Architecture on the state level. The school is significant as the only public school in Maine devoted to the education of deaf and hard of hearing children. Founded in 1876 as the Portland School for the Deaf, the school had grown beyond the

capacity of its Spring Street location and lacked adequate recreational facilities. Former Maine Governor Percival Baxter donated the entire island to the state for use as a school in 1943. The site on Mackworth Island would allow the school to expand its course offerings to include high school curriculum. In addition to donating the site, Baxter also donated \$750,000 towards the construction of the school buildings and a bridge between the island and the mainland. The school was relocated from Portland to Mackworth Island in 1957 and its name was officially changed. The new campus also included dormitories, allowing students from outside the area to more easily attend the school.

The Baxter School for the Deaf is an excellent example of Modern-style architecture in an educational use. It is an example of the post-World War II movement for school buildings to focus on simplicity and functionality with an emphasis on economical building materials such as steel and concrete. Large windows were preferred as they provided a connection to the outdoors. The Baxter School's lack of ornamentation, use of brick and steel, and bands of windows embody the characteristics of school design in the 1950s. Overall, the school retains a high level of integrity. The enclosed walkways were not part of the original design and were added c.1970. However, their addition does not greatly impact the integrity of design of the school buildings. Greenlaw Hall (SM #5) underwent significant alterations to the north elevation in 2003 and the windows were replaced throughout the building. The massing and placement of the windows are unaltered, allowing the building to convey significance. The southern end of Patrick Hall (SM #7), which originally housed the high school, was demolished in 2003. However, it retains enough of its original features to convey significance. Brewster Hall took the place of Barton Hall, the middle school building demolished in 2003. The addition of Brewster Hall does not significantly effect the integrity of the school due to its use of similar massing, fenestration, and materials. Some minor changes have been made to the setting including the demolition of the farmhouse in 2004. The period of significance is 1957-1972, fifty years from the current year.

Note: Research did not reveal sufficient information about the water tower (SM #10) to determine its relationship to the Baxter Summer Home and Baxter School for the Deaf and therefore its eligibility is undetermined.

2. For a historic district provide a topographic map showing the limits of the proposed district illustrating street or landscape views and all non-historic or non-contributing resources.

#### IV. BIBLIOGRAPHY

Baker, Lindsay. *A History of School Design and Its Indoor Environmental Standards, 1900 to Today*. Washington, D.C.: National Clearinghouse for Educational Facilities, January 2012.

Cumberland County Registry of Deeds, Portland, Maine  
\_\_\_\_\_, Catherine Cushing, et al to James P. Baxter, Book 514, Page 486, 14 January 1885.

\_\_\_\_\_, Percival Procter Baxter to the State of Maine, Book 1706, Page 54, 13 January 1943.



*Bangor Daily News*

\_\_\_\_\_, "Former Governor Baxter Offers State \$625,000 Gift," 5 March 1953.

\_\_\_\_\_, "Maine Briefs," 9 May 1956.

*The Boston Globe*

\_\_\_\_\_, "Maine's Baxter school for deaf hires new superintendent," 5 March 2000.

\_\_\_\_\_, "School demolishes symbol of abuse," 25 April 2004.

*Portland Sunday Telegram*

\_\_\_\_\_, "A Man With a Dream; Superintendent Wants to Move Deaf School," 11 May 1952.

"History," The Maine Educational Center for the Deaf and Hard of Hearing, <https://www.mecdhh.org/39-2/history/>, accessed 12 April 2022.

Maine Historic Preservation Commission, Mackworth Folder.

National Register of Historic Places, Baxter Summer Home, Cumberland County, Falmouth, Maine, NR #85003155.

Rolde, Neil. *The Baxters of Maine: Downeast Visionaries*. Gardiner: Tillbury House, Publishers, 1997.

United States Department of the Interior, Geological Survey. "Portland East Quadrangle, Maine Cumberland County, 7.5 Minute Series."

<b>Town(s):</b>	Mackworth Island, Falmouth						
<b>MHPC #</b>							
<b>Surveyor:</b>		Erin Ware Kleinfelder 16 Commerce Drive, Suite 2 Augusta, ME 022230 (207) 626-4919					
<b>Survey Date:</b>		3/31/2022					
<b>Map No.</b>	<b>Street No.</b>	<b>Address</b>	<b>Town</b>	<b>Individually Eligible for NR</b>	<b>Contributing to an NR District</b>	<b>Criteria</b>	<b>Aspects of Integrity</b>
1	n/a	Andrews Avenue	Falmouth	n	Y	A, C	Retains sufficient integrity to convey significance under Architecture and Education.
2	n/a	Andrews Avenue	Falmouth	n	Y	A, C	Retains sufficient integrity to convey significance under Architecture and Education.
3	n/a	Andrews Avenue	Falmouth	Y	Y	A, C	Retains sufficient integrity to convey significance under Architecture and Conservation.
4	n/a	Andrews Avenue	Falmouth	n	Y	A, C	Retains sufficient integrity to convey significance under Architecture and Education.
5	n/a	Andrews Avenue	Falmouth	n	Y	A, C	Retains sufficient integrity to convey significance under Architecture and Education.
6	n/a	Andrews Avenue	Falmouth	n	Y	A, C	Retains sufficient integrity to convey significance under Architecture and Education.
7	n/a	Andrews Avenue	Falmouth	n	Y	A, C	Retains sufficient integrity to convey significance under Architecture and Education.
8	n/a	Andrews Avenue	Falmouth	n	Y	A, C	Retains sufficient integrity to convey significance under Architecture and Education.

Map No.	Street No.	Address	Town	Individually Eligible for NR	Contributing to an NR District	Criteria	Aspects of Integrity
9	n/a	Andrews Avenue	Falmouth	n	Y	A, C	Retains sufficient integrity to convey significance under Architecture and Education.
10	n/a	Andrews Avenue	Falmouth	n	ND	n/a	Loss of integrity of feeling and association due to loss of associated farm.
11	n/a	Andrews Avenue	Falmouth	n	n	n/a	Retains integrity but is not associated with the original design of the school.

**Photo Index**

Erin Ware, Photographer

03/31/22

<b>SURVEY MAP #</b>	<b>STREET NO.</b>	<b>ADDRESS</b>	<b>TOWN</b>	<b>DIGITAL IMAGE #S</b>
1	n/a	Andrews Avenue	Falmouth	Mackworth Island Study_001 Mackworth Island Study_001a Mackworth Island Study_001b
2	n/a	Andrews Avenue	Falmouth	Mackworth Island Study_002 Mackworth Island Study_002a
3	n/a	Andrews Avenue	Falmouth	Mackworth Island Study_003 Mackworth Island Study_003a
4	n/a	Andrews Avenue	Falmouth	Mackworth Island Study_004 Mackworth Island Study_004a
5	n/a	Andrews Avenue	Falmouth	Mackworth Island Study_005
6	n/a	Andrews Avenue	Falmouth	Mackworth Island Study_006 Mackworth Island Study_006a
7	n/a	Andrews Avenue	Falmouth	Mackworth Island Study_007 Mackworth Island Study_007a
8	n/a	Andrews Avenue	Falmouth	Mackworth Island Study_008
9	n/a	Andrews Avenue	Falmouth	Mackworth Island Study_009
10	n/a	Andrews Avenue	Falmouth	Mackworth Island Study_010
11	n/a	Andrews Avenue	Falmouth	Mackworth Island Study_011

MHPC USE ONLY

INVENTORY NO.

## MAINE HISTORIC PRESERVATION COMMISSION Historic Building/Structure Survey Form

1. PROPERTY NAME (HISTORIC): Carter Hall, Baxter School for the Deaf
2. PROPERTY NAME (OTHER): Building G
3. STREET ADDRESS: Andrews Avenue
4. TOWN: Falmouth 5. COUNTY: Cumberland
6. DATE RECORDED: 3/31/2022 7. SURVEYOR: Ware, Erin
8. OWNER NAME: State of Maine 9. ADDRESS: \_\_\_\_\_
10. PRIMARY USE (PRESENT):
- |   |                                       |   |                                      |
|---|---------------------------------------|---|--------------------------------------|
| <input type="checkbox"/> SINGLE FAMILY      | <input type="checkbox"/> AGRICULTURE  | <input type="checkbox"/> COMMERCIAL/TRADE     | <input type="checkbox"/> FUNERARY    |
| <input type="checkbox"/> MULTI-FAMILY       | <input type="checkbox"/> GOVERNMENTAL | <input checked="" type="checkbox"/> EDUCATION | <input type="checkbox"/> HEALTH CARE |
| <input type="checkbox"/> INDUSTRY           | <input type="checkbox"/> RELIGIOUS    | <input type="checkbox"/> HOTEL                | <input type="checkbox"/> LANDSCAPE   |
| <input type="checkbox"/> TRANSPORTATION     | <input type="checkbox"/> DEFENSE      | <input type="checkbox"/> SUMMER COTTAGE/CAMP  | <input type="checkbox"/> SOCIAL      |
| <input type="checkbox"/> RECREATION/CULTURE | <input type="checkbox"/> UNKNOWN      |   |                                      |
| <input type="checkbox"/> OTHER _____        |                                       |   |                                      |
11. CONDITION:  GOOD  FAIR  POOR  DESTROYED, DATE \_\_\_\_\_

### ARCHITECTURAL DATA

12. PRIMARY STYLISTIC CATEGORY:
- |   |  |  |   |
|---|--|--|---|
| <input type="checkbox"/> GEORGIAN       | <input type="checkbox"/> STICK STYLE       | <input type="checkbox"/> 19 <sup>TH</sup> /20 <sup>TH</sup> C. REVIVAL | <input checked="" type="checkbox"/> MODERN/CONTEMPORARY |
| <input type="checkbox"/> FEDERAL        | <input type="checkbox"/> QUEEN ANNE        | <input type="checkbox"/> COMMERCIAL STYLE                              | <input type="checkbox"/> MINIMAL TRADITIONAL            |
| <input type="checkbox"/> GREEK REVIVAL  | <input type="checkbox"/> SHINGLE STYLE     | <input type="checkbox"/> CRAFTSMAN                                     | <input type="checkbox"/> RANCH                          |
| <input type="checkbox"/> GOTHIC REVIVAL | <input type="checkbox"/> ROMANESQUE        | <input type="checkbox"/> ART DECO / MODERNE                            | <input type="checkbox"/> SPLIT LEVEL                    |
| <input type="checkbox"/> ITALIANATE     | <input type="checkbox"/> NEO-CLASSICAL REV | <input type="checkbox"/> INTERNATIONAL                                 | <input type="checkbox"/> VERNACULAR                     |
| <input type="checkbox"/> SECOND EMPIRE  | <input type="checkbox"/> RENAISSANCE REV   | <input type="checkbox"/> OTHER _____                                   |   |
13. SECONDARY STYLISTIC CATEGORY:
- |   |  |  |  |
|---|--|--|--|
| <input type="checkbox"/> GEORGIAN       | <input type="checkbox"/> STICK STYLE       | <input type="checkbox"/> 19 <sup>TH</sup> /20 <sup>TH</sup> C. REVIVAL | <input type="checkbox"/> MODERN/CONTEMPORARY |
| <input type="checkbox"/> FEDERAL        | <input type="checkbox"/> QUEEN ANNE        | <input type="checkbox"/> COMMERCIAL STYLE                              | <input type="checkbox"/> MINIMAL TRADITIONAL |
| <input type="checkbox"/> GREEK REVIVAL  | <input type="checkbox"/> SHINGLE STYLE     | <input type="checkbox"/> CRAFTSMAN                                     | <input type="checkbox"/> RANCH               |
| <input type="checkbox"/> GOTHIC REVIVAL | <input type="checkbox"/> ROMANESQUE        | <input type="checkbox"/> ART DECO / MODERNE                            | <input type="checkbox"/> SPLIT LEVEL         |
| <input type="checkbox"/> ITALIANATE     | <input type="checkbox"/> NEO-CLASSICAL REV | <input type="checkbox"/> INTERNATIONAL                                 | <input type="checkbox"/> VERNACULAR          |
| <input type="checkbox"/> SECOND EMPIRE  | <input type="checkbox"/> RENAISSANCE REV   | <input type="checkbox"/> OTHER _____                                   |  |
14. HEIGHT:
- 1 STORY  1 1/2 STORY  2 STORY  2 1/2 STORY  3 STORY  4 STORY
- 5 STORY  OVER 5 (\_\_\_\_\_)
15. PRIMARY FACADE WIDTH (MAIN BLOCK; USE GROUND FLOOR):
- 1 BAY  2 BAY  3 BAY  4 BAY  5 BAY  MORE THAN 5 (9 \_\_\_\_\_)
16. APPENDAGES:  SIDE ELL  REAR ELL  FRONT  ADDED STORIES  SHED
- DORMERS  PORCH  TOWER  CUPOLA  BAY WINDOW

### **PHOTOGRAPH:**





17. PORCH:

ATTACHED  ENGAGED  ONE STORY  MORE THAN ONE STORY  
 FULL WIDTH  WRAPAROUND  SLEEPING PORCH  SECONDARY PORCH

18. PLAN OR FORM

HALL AND PARLOR  1/2 CAPE  CAPE  CENTRAL HALL  2-STORY DOUBLE PILE  
 SIDE HALL  BACK HALL  IRREGULAR  FOURSQUARE  BUNGALOW  
 MOBILE HOME  MODULAR  OTHER school

19. PRIMARY STRUCTURAL SYSTEM:

TIMBER FRAME  BRACED FRAME  BRICK  STONE  BALLOON FRAME  
 CONCRETE  STEEL  LOG  PLANK WALL  PLATFORM FRAME  
 FRAME CONSTRUCTION - TYPE UNKNOWN  OTHER

20. CHIMNEY PLACEMENT:

INTERIOR  INTERIOR FRONT/REAR  CENTER  INTERIOR END  EXTERIOR  
 OTHER

21. ROOF CONFIGURATION:

GABLE SIDE  GABLE FRONT  HIP  MANSARD  FLAT  
 GAMBREL  PARAPET GABLE  SHED  CROSS GABLE  
 COMPOUND  OTHER

22. ROOF MATERIAL:  WOOD  METAL  TILE  SLATE  ASPHALT  ASBESTOS

23. EXTERIOR WALL MATERIALS:

CLAPBOARD  BRICK  FLUSH SHEATHING  WOOD SHINGLE  STONE  
 LOG  PRESSED METAL  CONCRETE  STUCCO  ASPHALT  
 GRANITE  ASBESTOS  TERRA COTTA  BOARD AND BATTEN  ALUMINUM/VINYL  
 OTHER

24. FOUNDATION MATERIAL:

FIELDSTONE  BRICK  WOOD  CONCRETE  GRANITE  ORNAMENTAL CONC. BLOCK  
 OTHER

25. OUTBUILDINGS/FEATURES:

CARRIAGE HOUSE  FENCE OR WALL  CEMETERY  BARN (CONNECTED)  
 BARN (DETACHED)  FORMAL GARDEN  LANDSCAPE/PLANT MAT  ARCHAEOLOGICAL SITE  
 GARAGE  OTHER

**HISTORICAL DATA**

26. DOCUMENTED DATE OF CONSTRUCTION: 1957 27. ESTIMATED DATE OF CONSTRUCTION:

28. DATE MAJOR ADDITIONS/ALTERATIONS:

29. ARCHITECT: 30. CONTRACTOR:

31. ORIGINAL OWNER:

32. SUBSEQUENT SIGNIFICANT OWNER: DATES:

33. CULTURAL/ETHNIC AFFILIATION:

ENGLISH  FRENCH ACADIAN  NATIVE AMERICAN  SCOTTISH  FRENCH CANADIAN  
 EAST EUROPEAN  IRISH  OTHER

34. HISTORIC CONTEXT(S):

COMMERCE  INDUSTRY  TRANSPORTATION  AGRICULTURE  MILITARY  
 RELIGION  CIVIC AFFAIRS  RECREATION  HABITATION  EDUCATION  
 ART, LIT, SCIENCE  SOCIAL

35. COMMENTS/SOURCES: Rubber roof. Primary school until 1996. C.1970 glass enclosed walkway extends from eastern end of southern elevation, connecting to Sanders Hall/Building K; second plywood enclosed walkway extends south to Young Hall/Bui

36. HISTORICAL DRAWINGS EXIST:  YES  NO 37. KIT HOUSE  YES  NO 38. PATTERN BOOK HOUSE  YES  NO

**ENVIRONMENTAL DATA**

39. SITE INTEGRITY:  ORIGINAL  MOVED DATE MOVED

40. SETTING:  RURAL/UNDISTURBED  RURAL/BUILT UP  SMALL TOWN  URBAN  SUBURBAN

41. QUADRANGLE MAP USED: Portland East

42. UTM NORTHING: 5417254.8098316 43. UTM EASTING: -7818316.0653904

44. FACADE DIRECTION (CIRCLE ONE): (N) S E W NE NW SE SW

MHPC USE ONLY

DATE ENTERED IN INVENTORY: PHOTO FILE #:

NR STATUS:  L  HD  E  NE  ND REVIEWER

DATA SOURCE:  HPF  CLG  R&C  STAFF  STATE SURVEY OTHER LEVEL OF SURVEY:  R  I

SURVEY MAP NO. 1

SURVEY NAME Mackworth Island Study

SURVEY ID M17451

MHPC USE ONLY

INVENTORY NO.

**MAINE HISTORIC PRESERVATION COMMISSION**  
**Historic Building/Structure Survey Form**  
**Continuation Sheet**

PROPERTY NAME: Carter Hall, Baxter School for the Deaf

TOWN: Falmouth COUNTY: Cumberland

SURVEYOR: Ware, Erin DATE: 3/31/2022

DATA FIELD # (From Survey Form): 0

Facade detail



This page intentionally left blank.

SURVEY MAP NO. 1

SURVEY NAME Mackworth Island Study

SURVEY ID M17451

MHPC USE ONLY

INVENTORY NO.

**MAINE HISTORIC PRESERVATION COMMISSION**  
**Historic Building/Structure Survey Form**  
**Continuation Sheet**

PROPERTY NAME: Carter Hall, Baxter School for the Deaf

TOWN: Falmouth COUNTY: Cumberland

SURVEYOR: Ware, Erin DATE: 3/31/2022

DATA FIELD # (From Survey Form): 0

Entrance



This page intentionally left blank.



MHPC USE ONLY

INVENTORY NO.

## MAINE HISTORIC PRESERVATION COMMISSION Historic Building/Structure Survey Form

1. PROPERTY NAME (HISTORIC): Young Hall, Baxter School for the Deaf

2. PROPERTY NAME (OTHER): Building B

3. STREET ADDRESS: Andrews Avenue

4. TOWN: Falmouth 5. COUNTY: Cumberland

6. DATE RECORDED: 3/31/2022 7. SURVEYOR: Ware, Erin

8. OWNER NAME: State of Maine 9. ADDRESS: \_\_\_\_\_

10. PRIMARY USE (PRESENT):
- |   |                                       |  |                                      |
|---|---------------------------------------|--|--------------------------------------|
| <input type="checkbox"/> SINGLE FAMILY                  | <input type="checkbox"/> AGRICULTURE  | <input type="checkbox"/> COMMERCIAL/TRADE    | <input type="checkbox"/> FUNERARY    |
| <input type="checkbox"/> MULTI-FAMILY                   | <input type="checkbox"/> GOVERNMENTAL | <input type="checkbox"/> EDUCATION           | <input type="checkbox"/> HEALTH CARE |
| <input type="checkbox"/> INDUSTRY                       | <input type="checkbox"/> RELIGIOUS    | <input type="checkbox"/> HOTEL               | <input type="checkbox"/> LANDSCAPE   |
| <input type="checkbox"/> TRANSPORTATION                 | <input type="checkbox"/> DEFENSE      | <input type="checkbox"/> SUMMER COTTAGE/CAMP | <input type="checkbox"/> SOCIAL      |
| <input type="checkbox"/> RECREATION/CULTURE             | <input type="checkbox"/> UNKNOWN      |  |                                      |
| <input checked="" type="checkbox"/> OTHER <u>vacant</u> |                                       |  |                                      |

11. CONDITION:  GOOD  FAIR  POOR  DESTROYED, DATE \_\_\_\_\_

### ARCHITECTURAL DATA

12. PRIMARY STYLISTIC CATEGORY:
- |   |  |  |   |
|---|--|--|---|
| <input type="checkbox"/> GEORGIAN       | <input type="checkbox"/> STICK STYLE       | <input type="checkbox"/> 19 <sup>TH</sup> /20 <sup>TH</sup> C. REVIVAL | <input checked="" type="checkbox"/> MODERN/CONTEMPORARY |
| <input type="checkbox"/> FEDERAL        | <input type="checkbox"/> QUEEN ANNE        | <input type="checkbox"/> COMMERCIAL STYLE                              | <input type="checkbox"/> MINIMAL TRADITIONAL            |
| <input type="checkbox"/> GREEK REVIVAL  | <input type="checkbox"/> SHINGLE STYLE     | <input type="checkbox"/> CRAFTSMAN                                     | <input type="checkbox"/> RANCH                          |
| <input type="checkbox"/> GOTHIC REVIVAL | <input type="checkbox"/> ROMANESQUE        | <input type="checkbox"/> ART DECO / MODERNE                            | <input type="checkbox"/> SPLIT LEVEL                    |
| <input type="checkbox"/> ITALIANATE     | <input type="checkbox"/> NEO-CLASSICAL REV | <input type="checkbox"/> INTERNATIONAL                                 | <input type="checkbox"/> VERNACULAR                     |
| <input type="checkbox"/> SECOND EMPIRE  | <input type="checkbox"/> RENAISSANCE REV   | <input type="checkbox"/> OTHER _____                                   |   |

13. SECONDARY STYLISTIC CATEGORY:
- |   |  |  |  |
|---|--|--|--|
| <input type="checkbox"/> GEORGIAN       | <input type="checkbox"/> STICK STYLE       | <input type="checkbox"/> 19 <sup>TH</sup> /20 <sup>TH</sup> C. REVIVAL | <input type="checkbox"/> MODERN/CONTEMPORARY |
| <input type="checkbox"/> FEDERAL        | <input type="checkbox"/> QUEEN ANNE        | <input type="checkbox"/> COMMERCIAL STYLE                              | <input type="checkbox"/> MINIMAL TRADITIONAL |
| <input type="checkbox"/> GREEK REVIVAL  | <input type="checkbox"/> SHINGLE STYLE     | <input type="checkbox"/> CRAFTSMAN                                     | <input type="checkbox"/> RANCH               |
| <input type="checkbox"/> GOTHIC REVIVAL | <input type="checkbox"/> ROMANESQUE        | <input type="checkbox"/> ART DECO / MODERNE                            | <input type="checkbox"/> SPLIT LEVEL         |
| <input type="checkbox"/> ITALIANATE     | <input type="checkbox"/> NEO-CLASSICAL REV | <input type="checkbox"/> INTERNATIONAL                                 | <input type="checkbox"/> VERNACULAR          |
| <input type="checkbox"/> SECOND EMPIRE  | <input type="checkbox"/> RENAISSANCE REV   | <input type="checkbox"/> OTHER _____                                   |  |

14. HEIGHT:  1 STORY  1 1/2 STORY  2 STORY  2 1/2 STORY  3 STORY  4 STORY  
 5 STORY  OVER 5 (\_\_\_\_\_)

15. PRIMARY FACADE WIDTH (MAIN BLOCK; USE GROUND FLOOR):  
 1 BAY  2 BAY  3 BAY  4 BAY  5 BAY  MORE THAN 5 (\_\_\_\_\_)

16. APPENDAGES:  SIDE ELL  REAR ELL  FRONT  ADDED STORIES  SHED  
 DORMERS  PORCH  TOWER  CUPOLA  BAY WINDOW

### **PHOTOGRAPH:**



17. PORCH:

\_\_\_ ATTACHED \_\_\_ ENGAGED \_\_\_ ONE STORY \_\_\_ MORE THAN ONE STORY
\_\_\_ FULL WIDTH \_\_\_ WRAPAROUND \_\_\_ SLEEPING PORCH \_\_\_ SECONDARY PORCH

18. PLAN OR FORM

\_\_\_ HALL AND PARLOR \_\_\_ 1/2 CAPE \_\_\_ CAPE \_\_\_ CENTRAL HALL \_\_\_ 2-STORY DOUBLE PILE
\_\_\_ SIDE HALL \_\_\_ BACK HALL \_\_\_ IRREGULAR \_\_\_ FOURSQUARE \_\_\_ BUNGALOW
\_\_\_ MOBILE HOME \_\_\_ MODULAR [X] OTHER dormitory

19. PRIMARY STRUCTURAL SYSTEM:

\_\_\_ TIMBER FRAME \_\_\_ BRACED FRAME \_\_\_ BRICK \_\_\_ STONE \_\_\_ BALLOON FRAME
\_\_\_ CONCRETE [X] STEEL \_\_\_ LOG \_\_\_ PLANK WALL \_\_\_ PLATFORM FRAME
\_\_\_ FRAME CONSTRUCTION - TYPE UNKNOWN \_\_\_ OTHER

20. CHIMNEY PLACEMENT:

\_\_\_ INTERIOR \_\_\_ INTERIOR FRONT/REAR \_\_\_ CENTER \_\_\_ INTERIOR END \_\_\_ EXTERIOR
\_\_\_ OTHER

21. ROOF CONFIGURATION:

\_\_\_ GABLE SIDE \_\_\_ GABLE FRONT \_\_\_ HIP \_\_\_ MANSARD [X] FLAT
\_\_\_ GAMBREL \_\_\_ PARAPET GABLE \_\_\_ SHED \_\_\_ CROSS GABLE
\_\_\_ COMPOUND \_\_\_ OTHER

22. ROOF MATERIAL: \_\_\_ WOOD \_\_\_ METAL \_\_\_ TILE \_\_\_ SLATE \_\_\_ ASPHALT \_\_\_ ASBESTOS

23. EXTERIOR WALL MATERIALS:

\_\_\_ CLAPBOARD [X] BRICK \_\_\_ FLUSH SHEATHING \_\_\_ WOOD SHINGLE \_\_\_ STONE
\_\_\_ LOG [X] PRESSED METAL \_\_\_ CONCRETE \_\_\_ STUCCO \_\_\_ ASPHALT
\_\_\_ GRANITE \_\_\_ ASBESTOS \_\_\_ TERRA COTTA \_\_\_ BOARD AND BATTEN \_\_\_ ALUMINUM/VINYL
\_\_\_ OTHER

24. FOUNDATION MATERIAL:

\_\_\_ FIELDSTONE \_\_\_ BRICK \_\_\_ WOOD [X] CONCRETE \_\_\_ GRANITE \_\_\_ ORNAMENTAL CONC. BLOCK
\_\_\_ OTHER

25. OUTBUILDINGS/FEATURES:

\_\_\_ CARRIAGE HOUSE \_\_\_ FENCE OR WALL \_\_\_ CEMETERY \_\_\_ BARN (CONNECTED)
\_\_\_ BARN (DETACHED) \_\_\_ FORMAL GARDEN \_\_\_ LANDSCAPE/PLANT MAT \_\_\_ ARCHAEOLOGICAL SITE
\_\_\_ GARAGE \_\_\_ OTHER

**HISTORICAL DATA**

26. DOCUMENTED DATE OF CONSTRUCTION: 1958 27. ESTIMATED DATE OF CONSTRUCTION:

28. DATE MAJOR ADDITIONS/ALTERATIONS:

29. ARCHITECT: 30. CONTRACTOR:

31. ORIGINAL OWNER:

32. SUBSEQUENT SIGNIFICANT OWNER: DATES:

33. CULTURAL/ETHNIC AFFILIATION:

\_\_\_ ENGLISH \_\_\_ FRENCH ACADIAN \_\_\_ NATIVE AMERICAN \_\_\_ SCOTTISH \_\_\_ FRENCH CANADIAN
\_\_\_ EAST EUROPEAN \_\_\_ IRISH \_\_\_ OTHER

34. HISTORIC CONTEXT(S):

\_\_\_ COMMERCE \_\_\_ INDUSTRY \_\_\_ TRANSPORTATION \_\_\_ AGRICULTURE \_\_\_ MILITARY
\_\_\_ RELIGION \_\_\_ CIVIC AFFAIRS \_\_\_ RECREATION \_\_\_ HABITATION \_\_\_ EDUCATION
\_\_\_ ART, LIT, SCIENCE \_\_\_ SOCIAL

35. COMMENTS/SOURCES: c.1970 plywood enclosed walkway extends from northern elevation, connecting to Carter Hall/Buildin
g G

36. HISTORICAL DRAWINGS EXIST: \_\_\_ YES [X] NO 37. KIT HOUSE \_\_\_ YES [X] NO 38. PATTERN BOOK HOUSE \_\_\_ YES [X] NO

**ENVIRONMENTAL DATA**

39. SITE INTEGRITY: [X] ORIGINAL \_\_\_ MOVED DATE MOVED

40. SETTING: \_\_\_ RURAL/UNDISTURBED [X] RURAL/BUILT UP \_\_\_ SMALL TOWN \_\_\_ URBAN \_\_\_ SUBURBAN

41. QUADRANGLE MAP USED: Portland East

42. UTM NORTHING: 5417215.44890076 43. UTM EASTING: -7818267.21187265

44. FACADE DIRECTION (CIRCLE ONE): N S E W NE (NW) SE SW

MHPC USE ONLY

DATE ENTERED IN INVENTORY: PHOTO FILE #:

NR STATUS: \_\_\_ L \_\_\_ HD \_\_\_ E \_\_\_ NE \_\_\_ ND REVIEWER

DATA SOURCE: \_\_\_ HPF \_\_\_ CLG \_\_\_ R&C \_\_\_ STAFF \_\_\_ STATE SURVEY OTHER LEVEL OF SURVEY: \_\_\_ R \_\_\_ I

MHPC USE ONLY

INVENTORY NO.

## MAINE HISTORIC PRESERVATION COMMISSION Historic Building/Structure Survey Form

1. PROPERTY NAME (HISTORIC): Baxter Summer Home
2. PROPERTY NAME (OTHER): Baxter School for the Deaf Building A, MHPC #152-0002
3. STREET ADDRESS: Andrews Avenue
4. TOWN: Falmouth 5. COUNTY: Cumberland
6. DATE RECORDED: 3/31/2022 7. SURVEYOR: Ware, Erin
8. OWNER NAME: State of Maine 9. ADDRESS: \_\_\_\_\_
10. PRIMARY USE (PRESENT):
- |   |                                       |   |                                      |
|---|---------------------------------------|---|--------------------------------------|
| <input type="checkbox"/> SINGLE FAMILY      | <input type="checkbox"/> AGRICULTURE  | <input type="checkbox"/> COMMERCIAL/TRADE     | <input type="checkbox"/> FUNERARY    |
| <input type="checkbox"/> MULTI-FAMILY       | <input type="checkbox"/> GOVERNMENTAL | <input checked="" type="checkbox"/> EDUCATION | <input type="checkbox"/> HEALTH CARE |
| <input type="checkbox"/> INDUSTRY           | <input type="checkbox"/> RELIGIOUS    | <input type="checkbox"/> HOTEL                | <input type="checkbox"/> LANDSCAPE   |
| <input type="checkbox"/> TRANSPORTATION     | <input type="checkbox"/> DEFENSE      | <input type="checkbox"/> SUMMER COTTAGE/CAMP  | <input type="checkbox"/> SOCIAL      |
| <input type="checkbox"/> RECREATION/CULTURE | <input type="checkbox"/> UNKNOWN      |   |                                      |
| <input type="checkbox"/> OTHER _____        |                                       |   |                                      |
11. CONDITION:  GOOD  FAIR  POOR  DESTROYED, DATE \_\_\_\_\_

### ARCHITECTURAL DATA

12. PRIMARY STYLISTIC CATEGORY:
- |   |  |   |  |
|---|--|---|--|
| <input type="checkbox"/> GEORGIAN       | <input type="checkbox"/> STICK STYLE       | <input checked="" type="checkbox"/> 19 <sup>TH</sup> /20 <sup>TH</sup> C. REVIVAL | <input type="checkbox"/> MODERN/CONTEMPORARY |
| <input type="checkbox"/> FEDERAL        | <input type="checkbox"/> QUEEN ANNE        | <input type="checkbox"/> COMMERCIAL STYLE   | <input type="checkbox"/> MINIMAL TRADITIONAL |
| <input type="checkbox"/> GREEK REVIVAL  | <input type="checkbox"/> SHINGLE STYLE     | <input type="checkbox"/> CRAFTSMAN  | <input type="checkbox"/> RANCH               |
| <input type="checkbox"/> GOTHIC REVIVAL | <input type="checkbox"/> ROMANESQUE        | <input type="checkbox"/> ART DECO / MODERNE                                       | <input type="checkbox"/> SPLIT LEVEL         |
| <input type="checkbox"/> ITALIANATE     | <input type="checkbox"/> NEO-CLASSICAL REV | <input type="checkbox"/> INTERNATIONAL  | <input type="checkbox"/> VERNACULAR          |
| <input type="checkbox"/> SECOND EMPIRE  | <input type="checkbox"/> RENAISSANCE REV   | <input type="checkbox"/> OTHER _____  |  |
13. SECONDARY STYLISTIC CATEGORY:
- |   |   |  |  |
|---|---|--|--|
| <input type="checkbox"/> GEORGIAN       | <input type="checkbox"/> STICK STYLE                | <input type="checkbox"/> 19 <sup>TH</sup> /20 <sup>TH</sup> C. REVIVAL | <input type="checkbox"/> MODERN/CONTEMPORARY |
| <input type="checkbox"/> FEDERAL        | <input type="checkbox"/> QUEEN ANNE                 | <input type="checkbox"/> COMMERCIAL STYLE                              | <input type="checkbox"/> MINIMAL TRADITIONAL |
| <input type="checkbox"/> GREEK REVIVAL  | <input type="checkbox"/> SHINGLE STYLE              | <input type="checkbox"/> CRAFTSMAN                                     | <input type="checkbox"/> RANCH               |
| <input type="checkbox"/> GOTHIC REVIVAL | <input type="checkbox"/> ROMANESQUE                 | <input type="checkbox"/> ART DECO / MODERNE                            | <input type="checkbox"/> SPLIT LEVEL         |
| <input type="checkbox"/> ITALIANATE     | <input type="checkbox"/> NEO-CLASSICAL REV          | <input type="checkbox"/> INTERNATIONAL                                 | <input type="checkbox"/> VERNACULAR          |
| <input type="checkbox"/> SECOND EMPIRE  | <input checked="" type="checkbox"/> RENAISSANCE REV | <input type="checkbox"/> OTHER _____                                   |  |
14. HEIGHT:  1 STORY  1 1/2 STORY  2 STORY  2 1/2 STORY  3 STORY  4 STORY  5 STORY  OVER 5 (\_\_\_\_\_)
15. PRIMARY FACADE WIDTH (MAIN BLOCK; USE GROUND FLOOR):  1 BAY  2 BAY  3 BAY  4 BAY  5 BAY  MORE THAN 5 (\_\_\_\_\_)
16. APPENDAGES:  SIDE ELL  REAR ELL  FRONT  ADDED STORIES  SHED  
 DORMERS  PORCH  TOWER  CUPOLA  BAY WINDOW

### PHOTOGRAPH:



17. PORCH:

ATTACHED  ENGAGED  ONE STORY  MORE THAN ONE STORY
 FULL WIDTH  WRAPAROUND  SLEEPING PORCH  SECONDARY PORCH

18. PLAN OR FORM

HALL AND PARLOR  1/2 CAPE  CAPE  CENTRAL HALL  2-STORY DOUBLE PILE
 SIDE HALL  BACK HALL  IRREGULAR  FOURSQUARE  BUNGALOW
 MOBILE HOME  MODULAR  OTHER

19. PRIMARY STRUCTURAL SYSTEM:

TIMBER FRAME  BRACED FRAME  BRICK  STONE  BALLOON FRAME
 CONCRETE  STEEL  LOG  PLANK WALL  PLATFORM FRAME
 FRAME CONSTRUCTION - TYPE UNKNOWN  OTHER

20. CHIMNEY PLACEMENT:

INTERIOR  INTERIOR FRONT/REAR  CENTER  INTERIOR END  EXTERIOR
 OTHER

21. ROOF CONFIGURATION:

GABLE SIDE  GABLE FRONT  HIP  MANSARD  FLAT
 GAMBREL  PARAPET GABLE  SHED  CROSS GABLE
 COMPOUND  OTHER

22. ROOF MATERIAL:  WOOD  METAL  TILE  SLATE  ASPHALT  ASBESTOS

23. EXTERIOR WALL MATERIALS:

CLAPBOARD  BRICK  FLUSH SHEATHING  WOOD SHINGLE  STONE
 LOG  PRESSED METAL  CONCRETE  STUCCO  ASPHALT
 GRANITE  ASBESTOS  TERRA COTTA  BOARD AND BATTEN  ALUMINUM/VINYL
 OTHER

24. FOUNDATION MATERIAL:

FIELDSTONE  BRICK  WOOD  CONCRETE  GRANITE  ORNAMENTAL CONC. BLOCK
 OTHER

25. OUTBUILDINGS/FEATURES:

CARRIAGE HOUSE  FENCE OR WALL  CEMETERY  BARN (CONNECTED)
 BARN (DETACHED)  FORMAL GARDEN  LANDSCAPE/PLANT MAT  ARCHAEOLOGICAL SITE
 GARAGE  OTHER

**HISTORICAL DATA**

26. DOCUMENTED DATE OF CONSTRUCTION: 1917 27. ESTIMATED DATE OF CONSTRUCTION:

28. DATE MAJOR ADDITIONS/ALTERATIONS:

29. ARCHITECT: 30. CONTRACTOR:

31. ORIGINAL OWNER:

32. SUBSEQUENT SIGNIFICANT OWNER: DATES:

33. CULTURAL/ETHNIC AFFILIATION:

ENGLISH  FRENCH ACADIAN  NATIVE AMERICAN  SCOTTISH  FRENCH CANADIAN
 EAST EUROPEAN  IRISH  OTHER

34. HISTORIC CONTEXT(S):

COMMERCE  INDUSTRY  TRANSPORTATION  AGRICULTURE  MILITARY
 RELIGION  CIVIC AFFAIRS  RECREATION  HABITATION  EDUCATION
 ART, LIT, SCIENCE  SOCIAL

35. COMMENTS/SOURCES: Listed in the National Register in 1985 under Criteria A and C, Conservation and Architecture.

36. HISTORICAL DRAWINGS EXIST:  YES  NO 37. KIT HOUSE  YES  NO 38. PATTERN BOOK HOUSE  YES  NO

**ENVIRONMENTAL DATA**

39. SITE INTEGRITY:  ORIGINAL  MOVED DATE MOVED

40. SETTING:  RURAL/UNDISTURBED  RURAL/BUILT UP  SMALL TOWN  URBAN  SUBURBAN

41. QUADRANGLE MAP USED: Portland East

42. UTM NORTHING: 5417287.80193573 43. UTM EASTING: -7818223.51378464

44. FACADE DIRECTION (CIRCLE ONE): N S (E) W NE NW SE SW

MHPC USE ONLY

DATE ENTERED IN INVENTORY: PHOTO FILE #:

NR STATUS:  L  HD  E  NE  ND REVIEWER

DATA SOURCE:  HPF  CLG  R&C  STAFF  STATE SURVEY OTHER LEVEL OF SURVEY:  R  I

SURVEY MAP NO. 3

SURVEY NAME Mackworth Island Study

SURVEY ID M17451

MHPC USE ONLY

INVENTORY NO.

**MAINE HISTORIC PRESERVATION COMMISSION**  
**Historic Building/Structure Survey Form**  
**Continuation Sheet**

PROPERTY NAME: Baxter Summer Home

TOWN: Falmouth COUNTY: Cumberland

SURVEYOR: Ware, Erin DATE: 3/31/2022

DATA FIELD # (From Survey Form): 0





This page intentionally left blank.

MHPC USE ONLY

INVENTORY NO.

## MAINE HISTORIC PRESERVATION COMMISSION Historic Building/Structure Survey Form

1. PROPERTY NAME (HISTORIC): Sanders Hall, Baxter School for the Deaf

2. PROPERTY NAME (OTHER): Building K

3. STREET ADDRESS: Andrews Avenue

4. TOWN: Falmouth 5. COUNTY: Cumberland

6. DATE RECORDED: 3/31/2022 7. SURVEYOR: Ware, Erin

8. OWNER NAME: State of Maine 9. ADDRESS: \_\_\_\_\_

10. PRIMARY USE (PRESENT):
- |   |                                       |   |                                      |
|---|---------------------------------------|---|--------------------------------------|
| <input type="checkbox"/> SINGLE FAMILY      | <input type="checkbox"/> AGRICULTURE  | <input type="checkbox"/> COMMERCIAL/TRADE     | <input type="checkbox"/> FUNERARY    |
| <input type="checkbox"/> MULTI-FAMILY       | <input type="checkbox"/> GOVERNMENTAL | <input checked="" type="checkbox"/> EDUCATION | <input type="checkbox"/> HEALTH CARE |
| <input type="checkbox"/> INDUSTRY           | <input type="checkbox"/> RELIGIOUS    | <input type="checkbox"/> HOTEL                | <input type="checkbox"/> LANDSCAPE   |
| <input type="checkbox"/> TRANSPORTATION     | <input type="checkbox"/> DEFENSE      | <input type="checkbox"/> SUMMER COTTAGE/CAMP  | <input type="checkbox"/> SOCIAL      |
| <input type="checkbox"/> RECREATION/CULTURE | <input type="checkbox"/> UNKNOWN      |   |                                      |
| <input type="checkbox"/> OTHER _____        |                                       |   |                                      |

11. CONDITION:  GOOD  FAIR  POOR  DESTROYED, DATE \_\_\_\_\_

### ARCHITECTURAL DATA

12. PRIMARY STYLISTIC CATEGORY:
- |   |  |  |   |
|---|--|--|---|
| <input type="checkbox"/> GEORGIAN       | <input type="checkbox"/> STICK STYLE       | <input type="checkbox"/> 19 <sup>TH</sup> /20 <sup>TH</sup> C. REVIVAL | <input checked="" type="checkbox"/> MODERN/CONTEMPORARY |
| <input type="checkbox"/> FEDERAL        | <input type="checkbox"/> QUEEN ANNE        | <input type="checkbox"/> COMMERCIAL STYLE                              | <input type="checkbox"/> MINIMAL TRADITIONAL            |
| <input type="checkbox"/> GREEK REVIVAL  | <input type="checkbox"/> SHINGLE STYLE     | <input type="checkbox"/> CRAFTSMAN                                     | <input type="checkbox"/> RANCH                          |
| <input type="checkbox"/> GOTHIC REVIVAL | <input type="checkbox"/> ROMANESQUE        | <input type="checkbox"/> ART DECO / MODERNE                            | <input type="checkbox"/> SPLIT LEVEL                    |
| <input type="checkbox"/> ITALIANATE     | <input type="checkbox"/> NEO-CLASSICAL REV | <input type="checkbox"/> INTERNATIONAL                                 | <input type="checkbox"/> VERNACULAR                     |
| <input type="checkbox"/> SECOND EMPIRE  | <input type="checkbox"/> RENAISSANCE REV   | <input type="checkbox"/> OTHER _____                                   |   |

13. SECONDARY STYLISTIC CATEGORY:
- |   |  |  |  |
|---|--|--|--|
| <input type="checkbox"/> GEORGIAN       | <input type="checkbox"/> STICK STYLE       | <input type="checkbox"/> 19 <sup>TH</sup> /20 <sup>TH</sup> C. REVIVAL | <input type="checkbox"/> MODERN/CONTEMPORARY |
| <input type="checkbox"/> FEDERAL        | <input type="checkbox"/> QUEEN ANNE        | <input type="checkbox"/> COMMERCIAL STYLE                              | <input type="checkbox"/> MINIMAL TRADITIONAL |
| <input type="checkbox"/> GREEK REVIVAL  | <input type="checkbox"/> SHINGLE STYLE     | <input type="checkbox"/> CRAFTSMAN                                     | <input type="checkbox"/> RANCH               |
| <input type="checkbox"/> GOTHIC REVIVAL | <input type="checkbox"/> ROMANESQUE        | <input type="checkbox"/> ART DECO / MODERNE                            | <input type="checkbox"/> SPLIT LEVEL         |
| <input type="checkbox"/> ITALIANATE     | <input type="checkbox"/> NEO-CLASSICAL REV | <input type="checkbox"/> INTERNATIONAL                                 | <input type="checkbox"/> VERNACULAR          |
| <input type="checkbox"/> SECOND EMPIRE  | <input type="checkbox"/> RENAISSANCE REV   | <input type="checkbox"/> OTHER _____                                   |  |

14. HEIGHT:

1 STORY  1 1/2 STORY  2 STORY  2 1/2 STORY  3 STORY  4 STORY

5 STORY  OVER 5 (\_\_\_\_\_)

15. PRIMARY FACADE WIDTH (MAIN BLOCK; USE GROUND FLOOR):

1 BAY  2 BAY  3 BAY  4 BAY  5 BAY  MORE THAN 5 (\_\_\_\_\_)

16. APPENDAGES:  SIDE ELL  REAR ELL  FRONT  ADDED STORIES  SHED

DORMERS  PORCH  TOWER  CUPOLA  BAY WINDOW

### **PHOTOGRAPH:**



17. PORCH:

\_\_\_ ATTACHED \_\_\_ ENGAGED \_\_\_ ONE STORY \_\_\_ MORE THAN ONE STORY
\_\_\_ FULL WIDTH \_\_\_ WRAPAROUND \_\_\_ SLEEPING PORCH \_\_\_ SECONDARY PORCH

18. PLAN OR FORM

\_\_\_ HALL AND PARLOR \_\_\_ 1/2 CAPE \_\_\_ CAPE \_\_\_ CENTRAL HALL \_\_\_ 2-STORY DOUBLE PILE
\_\_\_ SIDE HALL \_\_\_ BACK HALL \_\_\_ IRREGULAR \_\_\_ FOURSQUARE \_\_\_ BUNGALOW
\_\_\_ MOBILE HOME \_\_\_ MODULAR [X] OTHER school

19. PRIMARY STRUCTURAL SYSTEM:

\_\_\_ TIMBER FRAME \_\_\_ BRACED FRAME \_\_\_ BRICK \_\_\_ STONE \_\_\_ BALLOON FRAME
\_\_\_ CONCRETE [X] STEEL \_\_\_ LOG \_\_\_ PLANK WALL \_\_\_ PLATFORM FRAME
\_\_\_ FRAME CONSTRUCTION - TYPE UNKNOWN \_\_\_ OTHER

20. CHIMNEY PLACEMENT:

\_\_\_ INTERIOR \_\_\_ INTERIOR FRONT/REAR \_\_\_ CENTER \_\_\_ INTERIOR END [X] EXTERIOR
\_\_\_ OTHER

21. ROOF CONFIGURATION:

\_\_\_ GABLE SIDE \_\_\_ GABLE FRONT \_\_\_ HIP \_\_\_ MANSARD [X] FLAT
\_\_\_ GAMBREL \_\_\_ PARAPET GABLE \_\_\_ SHED \_\_\_ CROSS GABLE
\_\_\_ COMPOUND \_\_\_ OTHER

22. ROOF MATERIAL: \_\_\_ WOOD \_\_\_ METAL \_\_\_ TILE \_\_\_ SLATE \_\_\_ ASPHALT \_\_\_ ASBESTOS

23. EXTERIOR WALL MATERIALS:

\_\_\_ CLAPBOARD [X] BRICK \_\_\_ FLUSH SHEATHING \_\_\_ WOOD SHINGLE \_\_\_ STONE
\_\_\_ LOG [X] PRESSED METAL \_\_\_ CONCRETE \_\_\_ STUCCO \_\_\_ ASPHALT
\_\_\_ GRANITE \_\_\_ ASBESTOS \_\_\_ TERRA COTTA \_\_\_ BOARD AND BATTEN \_\_\_ ALUMINUM/VINYL
\_\_\_ OTHER

24. FOUNDATION MATERIAL:

\_\_\_ FIELDSTONE \_\_\_ BRICK \_\_\_ WOOD [X] CONCRETE \_\_\_ GRANITE \_\_\_ ORNAMENTAL CONC. BLOCK
\_\_\_ OTHER

25. OUTBUILDINGS/FEATURES:

\_\_\_ CARRIAGE HOUSE \_\_\_ FENCE OR WALL \_\_\_ CEMETERY \_\_\_ BARN (CONNECTED)
\_\_\_ BARN (DETACHED) \_\_\_ FORMAL GARDEN \_\_\_ LANDSCAPE/PLANT MAT \_\_\_ ARCHAEOLOGICAL SITE
\_\_\_ GARAGE \_\_\_ OTHER

**HISTORICAL DATA**

26. DOCUMENTED DATE OF CONSTRUCTION: 1959 27. ESTIMATED DATE OF CONSTRUCTION:

28. DATE MAJOR ADDITIONS/ALTERATIONS:

29. ARCHITECT: 30. CONTRACTOR:

31. ORIGINAL OWNER:

32. SUBSEQUENT SIGNIFICANT OWNER: DATES:

33. CULTURAL/ETHNIC AFFILIATION:

\_\_\_ ENGLISH \_\_\_ FRENCH ACADIAN \_\_\_ NATIVE AMERICAN \_\_\_ SCOTTISH \_\_\_ FRENCH CANADIAN
\_\_\_ EAST EUROPEAN \_\_\_ IRISH \_\_\_ OTHER

34. HISTORIC CONTEXT(S):

\_\_\_ COMMERCE \_\_\_ INDUSTRY \_\_\_ TRANSPORTATION \_\_\_ AGRICULTURE \_\_\_ MILITARY
\_\_\_ RELIGION \_\_\_ CIVIC AFFAIRS \_\_\_ RECREATION \_\_\_ HABITATION \_\_\_ EDUCATION
\_\_\_ ART, LIT, SCIENCE \_\_\_ SOCIAL

35. COMMENTS/SOURCES: c.1970 plywood and glass enclosed walkway extends from west elevation to connect with Carter Hall/
Building G; second walkway extends from eastern elevation to connect with Brewster Hall

36. HISTORICAL DRAWINGS EXIST: \_\_\_ YES [X] NO 37. KIT HOUSE \_\_\_ YES [X] NO 38. PATTERN BOOK HOUSE \_\_\_ YES [X] NO

**ENVIRONMENTAL DATA**

39. SITE INTEGRITY: [X] ORIGINAL \_\_\_ MOVED DATE MOVED

40. SETTING: \_\_\_ RURAL/UNDISTURBED [X] RURAL/BUILT UP \_\_\_ SMALL TOWN \_\_\_ URBAN \_\_\_ SUBURBAN

41. QUADRANGLE MAP USED: Portland East

42. UTM NORTHING: 5417285.60393883 43. UTM EASTING: -7818179.1116994

44. FACADE DIRECTION (CIRCLE ONE): N S E W NE NW SE (SW)

MHPC USE ONLY

DATE ENTERED IN INVENTORY: PHOTO FILE #:

NR STATUS: \_\_\_ L \_\_\_ HD \_\_\_ E \_\_\_ NE \_\_\_ ND REVIEWER

DATA SOURCE: \_\_\_ HPF \_\_\_ CLG \_\_\_ R&C \_\_\_ STAFF \_\_\_ STATE SURVEY OTHER LEVEL OF SURVEY: \_\_\_ R \_\_\_ I

SURVEY MAP NO. 4

SURVEY NAME Mackworth Island Study

SURVEY ID M17451

MHPC USE ONLY

INVENTORY NO.

**MAINE HISTORIC PRESERVATION COMMISSION**  
**Historic Building/Structure Survey Form**  
**Continuation Sheet**

PROPERTY NAME: Sanders Hall, Baxter School for the Deaf

TOWN: Falmouth COUNTY: Cumberland

SURVEYOR: Ware, Erin DATE: 3/31/2022

DATA FIELD # (From Survey Form): 0

South elevation



This page intentionally left blank.



MHPC USE ONLY

INVENTORY NO.

## MAINE HISTORIC PRESERVATION COMMISSION Historic Building/Structure Survey Form

1. PROPERTY NAME (HISTORIC): Greenlaw Hall, Baxter School for the Deaf

2. PROPERTY NAME (OTHER): Building D

3. STREET ADDRESS: Andrews Avenue

4. TOWN: Falmouth 5. COUNTY: Cumberland

6. DATE RECORDED: 3/31/2022 7. SURVEYOR: Ware, Erin

8. OWNER NAME: State of Maine 9. ADDRESS: \_\_\_\_\_

10. PRIMARY USE (PRESENT):
- |   |                                       |   |                                      |
|---|---------------------------------------|---|--------------------------------------|
| <input type="checkbox"/> SINGLE FAMILY      | <input type="checkbox"/> AGRICULTURE  | <input type="checkbox"/> COMMERCIAL/TRADE     | <input type="checkbox"/> FUNERARY    |
| <input type="checkbox"/> MULTI-FAMILY       | <input type="checkbox"/> GOVERNMENTAL | <input checked="" type="checkbox"/> EDUCATION | <input type="checkbox"/> HEALTH CARE |
| <input type="checkbox"/> INDUSTRY           | <input type="checkbox"/> RELIGIOUS    | <input type="checkbox"/> HOTEL                | <input type="checkbox"/> LANDSCAPE   |
| <input type="checkbox"/> TRANSPORTATION     | <input type="checkbox"/> DEFENSE      | <input type="checkbox"/> SUMMER COTTAGE/CAMP  | <input type="checkbox"/> SOCIAL      |
| <input type="checkbox"/> RECREATION/CULTURE | <input type="checkbox"/> UNKNOWN      |   |                                      |
| <input type="checkbox"/> OTHER _____        |                                       |   |                                      |

11. CONDITION:  GOOD  FAIR  POOR  DESTROYED, DATE \_\_\_\_\_

### ARCHITECTURAL DATA

12. PRIMARY STYLISTIC CATEGORY:
- |   |  |  |   |
|---|--|--|---|
| <input type="checkbox"/> GEORGIAN       | <input type="checkbox"/> STICK STYLE       | <input type="checkbox"/> 19 <sup>TH</sup> /20 <sup>TH</sup> C. REVIVAL | <input checked="" type="checkbox"/> MODERN/CONTEMPORARY |
| <input type="checkbox"/> FEDERAL        | <input type="checkbox"/> QUEEN ANNE        | <input type="checkbox"/> COMMERCIAL STYLE                              | <input type="checkbox"/> MINIMAL TRADITIONAL            |
| <input type="checkbox"/> GREEK REVIVAL  | <input type="checkbox"/> SHINGLE STYLE     | <input type="checkbox"/> CRAFTSMAN                                     | <input type="checkbox"/> RANCH                          |
| <input type="checkbox"/> GOTHIC REVIVAL | <input type="checkbox"/> ROMANESQUE        | <input type="checkbox"/> ART DECO / MODERNE                            | <input type="checkbox"/> SPLIT LEVEL                    |
| <input type="checkbox"/> ITALIANATE     | <input type="checkbox"/> NEO-CLASSICAL REV | <input type="checkbox"/> INTERNATIONAL                                 | <input type="checkbox"/> VERNACULAR                     |
| <input type="checkbox"/> SECOND EMPIRE  | <input type="checkbox"/> RENAISSANCE REV   | <input type="checkbox"/> OTHER _____                                   |   |

13. SECONDARY STYLISTIC CATEGORY:
- |   |  |  |  |
|---|--|--|--|
| <input type="checkbox"/> GEORGIAN       | <input type="checkbox"/> STICK STYLE       | <input type="checkbox"/> 19 <sup>TH</sup> /20 <sup>TH</sup> C. REVIVAL | <input type="checkbox"/> MODERN/CONTEMPORARY |
| <input type="checkbox"/> FEDERAL        | <input type="checkbox"/> QUEEN ANNE        | <input type="checkbox"/> COMMERCIAL STYLE                              | <input type="checkbox"/> MINIMAL TRADITIONAL |
| <input type="checkbox"/> GREEK REVIVAL  | <input type="checkbox"/> SHINGLE STYLE     | <input type="checkbox"/> CRAFTSMAN                                     | <input type="checkbox"/> RANCH               |
| <input type="checkbox"/> GOTHIC REVIVAL | <input type="checkbox"/> ROMANESQUE        | <input type="checkbox"/> ART DECO / MODERNE                            | <input type="checkbox"/> SPLIT LEVEL         |
| <input type="checkbox"/> ITALIANATE     | <input type="checkbox"/> NEO-CLASSICAL REV | <input type="checkbox"/> INTERNATIONAL                                 | <input type="checkbox"/> VERNACULAR          |
| <input type="checkbox"/> SECOND EMPIRE  | <input type="checkbox"/> RENAISSANCE REV   | <input type="checkbox"/> OTHER _____                                   |  |

14. HEIGHT:  1 STORY  1 1/2 STORY  2 STORY  2 1/2 STORY  3 STORY  4 STORY  
 5 STORY  OVER 5 (\_\_\_\_\_)

15. PRIMARY FACADE WIDTH (MAIN BLOCK; USE GROUND FLOOR):  
 1 BAY  2 BAY  3 BAY  4 BAY  5 BAY  MORE THAN 5 (6 \_\_\_\_\_)

16. APPENDAGES:  SIDE ELL  REAR ELL  FRONT  ADDED STORIES  SHED  
 DORMERS  PORCH  TOWER  CUPOLA  BAY WINDOW

### **PHOTOGRAPH:**



17. PORCH:

\_\_\_ ATTACHED \_\_\_ ENGAGED \_\_\_ ONE STORY \_\_\_ MORE THAN ONE STORY
\_\_\_ FULL WIDTH \_\_\_ WRAPAROUND \_\_\_ SLEEPING PORCH \_\_\_ SECONDARY PORCH

18. PLAN OR FORM

\_\_\_ HALL AND PARLOR \_\_\_ 1/2 CAPE \_\_\_ CAPE \_\_\_ CENTRAL HALL \_\_\_ 2-STORY DOUBLE PILE
\_\_\_ SIDE HALL \_\_\_ BACK HALL \_\_\_ IRREGULAR \_\_\_ FOURSQUARE \_\_\_ BUNGALOW
\_\_\_ MOBILE HOME \_\_\_ MODULAR [X] OTHER school

19. PRIMARY STRUCTURAL SYSTEM:

\_\_\_ TIMBER FRAME \_\_\_ BRACED FRAME \_\_\_ BRICK \_\_\_ STONE \_\_\_ BALLOON FRAME
\_\_\_ CONCRETE [X] STEEL \_\_\_ LOG \_\_\_ PLANK WALL \_\_\_ PLATFORM FRAME
\_\_\_ FRAME CONSTRUCTION - TYPE UNKNOWN \_\_\_ OTHER

20. CHIMNEY PLACEMENT:

\_\_\_ INTERIOR \_\_\_ INTERIOR FRONT/REAR \_\_\_ CENTER \_\_\_ INTERIOR END \_\_\_ EXTERIOR
\_\_\_ OTHER

21. ROOF CONFIGURATION:

\_\_\_ GABLE SIDE \_\_\_ GABLE FRONT \_\_\_ HIP \_\_\_ MANSARD [X] FLAT
\_\_\_ GAMBREL \_\_\_ PARAPET GABLE \_\_\_ SHED \_\_\_ CROSS GABLE
\_\_\_ COMPOUND \_\_\_ OTHER

22. ROOF MATERIAL: \_\_\_ WOOD \_\_\_ METAL \_\_\_ TILE \_\_\_ SLATE \_\_\_ ASPHALT \_\_\_ ASBESTOS

23. EXTERIOR WALL MATERIALS:

\_\_\_ CLAPBOARD [X] BRICK \_\_\_ FLUSH SHEATHING \_\_\_ WOOD SHINGLE \_\_\_ STONE
\_\_\_ LOG [X] PRESSED METAL \_\_\_ CONCRETE \_\_\_ STUCCO \_\_\_ ASPHALT
\_\_\_ GRANITE \_\_\_ ASBESTOS \_\_\_ TERRA COTTA \_\_\_ BOARD AND BATTEN \_\_\_ ALUMINUM/VINYL
\_\_\_ OTHER

24. FOUNDATION MATERIAL:

\_\_\_ FIELDSTONE \_\_\_ BRICK \_\_\_ WOOD [X] CONCRETE \_\_\_ GRANITE \_\_\_ ORNAMENTAL CONC. BLOCK
\_\_\_ OTHER

25. OUTBUILDINGS/FEATURES:

\_\_\_ CARRIAGE HOUSE \_\_\_ FENCE OR WALL \_\_\_ CEMETERY \_\_\_ BARN (CONNECTED)
\_\_\_ BARN (DETACHED) \_\_\_ FORMAL GARDEN \_\_\_ LANDSCAPE/PLANT MAT \_\_\_ ARCHAEOLOGICAL SITE
\_\_\_ GARAGE \_\_\_ OTHER

**HISTORICAL DATA**

26. DOCUMENTED DATE OF CONSTRUCTION: 1958 27. ESTIMATED DATE OF CONSTRUCTION:

28. DATE MAJOR ADDITIONS/ALTERATIONS: 1996

29. ARCHITECT: 30. CONTRACTOR:

31. ORIGINAL OWNER:

32. SUBSEQUENT SIGNIFICANT OWNER: DATES:

33. CULTURAL/ETHNIC AFFILIATION:

\_\_\_ ENGLISH \_\_\_ FRENCH ACADIAN \_\_\_ NATIVE AMERICAN \_\_\_ SCOTTISH \_\_\_ FRENCH CANADIAN
\_\_\_ EAST EUROPEAN \_\_\_ IRISH \_\_\_ OTHER

34. HISTORIC CONTEXT(S):

\_\_\_ COMMERCE \_\_\_ INDUSTRY \_\_\_ TRANSPORTATION \_\_\_ AGRICULTURE \_\_\_ MILITARY
\_\_\_ RELIGION \_\_\_ CIVIC AFFAIRS \_\_\_ RECREATION \_\_\_ HABITATION \_\_\_ EDUCATION
\_\_\_ ART, LIT, SCIENCE \_\_\_ SOCIAL

35. COMMENTS/SOURCES: originally a dorm, converted to elementary school in 1996; glass enclosed walkways extend from eastern and western elevations to Draper Hall/Building J and Sanders Hall/Building K

36. HISTORICAL DRAWINGS EXIST: \_\_\_ YES [X] NO 37. KIT HOUSE \_\_\_ YES [X] NO 38. PATTERN BOOK HOUSE \_\_\_ YES [X] NO

**ENVIRONMENTAL DATA**

39. SITE INTEGRITY: [X] ORIGINAL \_\_\_ MOVED DATE MOVED

40. SETTING: \_\_\_ RURAL/UNDISTURBED [X] RURAL/BUILT UP \_\_\_ SMALL TOWN \_\_\_ URBAN \_\_\_ SUBURBAN

41. QUADRANGLE MAP USED: Portland East

42. UTM NORTHING: 5417347.24430274 43. UTM EASTING: -7818127.66867911

44. FACADE DIRECTION (CIRCLE ONE): N S E W NE (NW) SE SW

MHPC USE ONLY

DATE ENTERED IN INVENTORY: PHOTO FILE #:

NR STATUS: \_\_\_ L \_\_\_ HD \_\_\_ E \_\_\_ NE \_\_\_ ND REVIEWER

DATA SOURCE: \_\_\_ HPF \_\_\_ CLG \_\_\_ R&C \_\_\_ STAFF \_\_\_ STATE SURVEY OTHER LEVEL OF SURVEY: \_\_\_ R \_\_\_ I

MHPC USE ONLY

INVENTORY NO.

## MAINE HISTORIC PRESERVATION COMMISSION Historic Building/Structure Survey Form

1. PROPERTY NAME (HISTORIC): Draper Hall, Baxter School for the Deaf

2. PROPERTY NAME (OTHER): Building J

3. STREET ADDRESS: Andrews Avenue

4. TOWN: Falmouth 5. COUNTY: Cumberland

6. DATE RECORDED: 3/31/2022 7. SURVEYOR: Ware, Erin

8. OWNER NAME: State of Maine 9. ADDRESS: \_\_\_\_\_

10. PRIMARY USE (PRESENT):
- |   |                                       |   |                                      |
|---|---------------------------------------|---|--------------------------------------|
| <input type="checkbox"/> SINGLE FAMILY      | <input type="checkbox"/> AGRICULTURE  | <input type="checkbox"/> COMMERCIAL/TRADE     | <input type="checkbox"/> FUNERARY    |
| <input type="checkbox"/> MULTI-FAMILY       | <input type="checkbox"/> GOVERNMENTAL | <input checked="" type="checkbox"/> EDUCATION | <input type="checkbox"/> HEALTH CARE |
| <input type="checkbox"/> INDUSTRY           | <input type="checkbox"/> RELIGIOUS    | <input type="checkbox"/> HOTEL                | <input type="checkbox"/> LANDSCAPE   |
| <input type="checkbox"/> TRANSPORTATION     | <input type="checkbox"/> DEFENSE      | <input type="checkbox"/> SUMMER COTTAGE/CAMP  | <input type="checkbox"/> SOCIAL      |
| <input type="checkbox"/> RECREATION/CULTURE | <input type="checkbox"/> UNKNOWN      |   |                                      |
| <input type="checkbox"/> OTHER _____        |                                       |   |                                      |

11. CONDITION:  GOOD  FAIR  POOR  DESTROYED, DATE \_\_\_\_\_

### ARCHITECTURAL DATA

12. PRIMARY STYLISTIC CATEGORY:
- |   |  |  |   |
|---|--|--|---|
| <input type="checkbox"/> GEORGIAN       | <input type="checkbox"/> STICK STYLE       | <input type="checkbox"/> 19 <sup>TH</sup> /20 <sup>TH</sup> C. REVIVAL | <input checked="" type="checkbox"/> MODERN/CONTEMPORARY |
| <input type="checkbox"/> FEDERAL        | <input type="checkbox"/> QUEEN ANNE        | <input type="checkbox"/> COMMERCIAL STYLE                              | <input type="checkbox"/> MINIMAL TRADITIONAL            |
| <input type="checkbox"/> GREEK REVIVAL  | <input type="checkbox"/> SHINGLE STYLE     | <input type="checkbox"/> CRAFTSMAN                                     | <input type="checkbox"/> RANCH                          |
| <input type="checkbox"/> GOTHIC REVIVAL | <input type="checkbox"/> ROMANESQUE        | <input type="checkbox"/> ART DECO / MODERNE                            | <input type="checkbox"/> SPLIT LEVEL                    |
| <input type="checkbox"/> ITALIANATE     | <input type="checkbox"/> NEO-CLASSICAL REV | <input type="checkbox"/> INTERNATIONAL                                 | <input type="checkbox"/> VERNACULAR                     |
| <input type="checkbox"/> SECOND EMPIRE  | <input type="checkbox"/> RENAISSANCE REV   | <input type="checkbox"/> OTHER _____                                   |   |

13. SECONDARY STYLISTIC CATEGORY:
- |   |  |  |  |
|---|--|--|--|
| <input type="checkbox"/> GEORGIAN       | <input type="checkbox"/> STICK STYLE       | <input type="checkbox"/> 19 <sup>TH</sup> /20 <sup>TH</sup> C. REVIVAL | <input type="checkbox"/> MODERN/CONTEMPORARY |
| <input type="checkbox"/> FEDERAL        | <input type="checkbox"/> QUEEN ANNE        | <input type="checkbox"/> COMMERCIAL STYLE                              | <input type="checkbox"/> MINIMAL TRADITIONAL |
| <input type="checkbox"/> GREEK REVIVAL  | <input type="checkbox"/> SHINGLE STYLE     | <input type="checkbox"/> CRAFTSMAN                                     | <input type="checkbox"/> RANCH               |
| <input type="checkbox"/> GOTHIC REVIVAL | <input type="checkbox"/> ROMANESQUE        | <input type="checkbox"/> ART DECO / MODERNE                            | <input type="checkbox"/> SPLIT LEVEL         |
| <input type="checkbox"/> ITALIANATE     | <input type="checkbox"/> NEO-CLASSICAL REV | <input type="checkbox"/> INTERNATIONAL                                 | <input type="checkbox"/> VERNACULAR          |
| <input type="checkbox"/> SECOND EMPIRE  | <input type="checkbox"/> RENAISSANCE REV   | <input type="checkbox"/> OTHER _____                                   |  |

14. HEIGHT:  1 STORY  1 1/2 STORY  2 STORY  2 1/2 STORY  3 STORY  4 STORY  
 5 STORY  OVER 5 (\_\_\_\_\_)

15. PRIMARY FACADE WIDTH (MAIN BLOCK; USE GROUND FLOOR):  
 1 BAY  2 BAY  3 BAY  4 BAY  5 BAY  MORE THAN 5 (\_\_\_\_\_)

16. APPENDAGES:  SIDE ELL  REAR ELL  FRONT  ADDED STORIES  SHED  
 DORMERS  PORCH  TOWER  CUPOLA  BAY WINDOW

### PHOTOGRAPH:



17. PORCH:

\_\_\_ ATTACHED \_\_\_ ENGAGED \_\_\_ ONE STORY \_\_\_ MORE THAN ONE STORY
\_\_\_ FULL WIDTH \_\_\_ WRAPAROUND \_\_\_ SLEEPING PORCH \_\_\_ SECONDARY PORCH

18. PLAN OR FORM

\_\_\_ HALL AND PARLOR \_\_\_ 1/2 CAPE \_\_\_ CAPE \_\_\_ CENTRAL HALL \_\_\_ 2-STORY DOUBLE PILE
\_\_\_ SIDE HALL \_\_\_ BACK HALL \_\_\_ IRREGULAR \_\_\_ FOURSQUARE \_\_\_ BUNGALOW
\_\_\_ MOBILE HOME \_\_\_ MODULAR [X] OTHER school

19. PRIMARY STRUCTURAL SYSTEM:

\_\_\_ TIMBER FRAME \_\_\_ BRACED FRAME \_\_\_ BRICK \_\_\_ STONE \_\_\_ BALLOON FRAME
\_\_\_ CONCRETE [X] STEEL \_\_\_ LOG \_\_\_ PLANK WALL \_\_\_ PLATFORM FRAME
\_\_\_ FRAME CONSTRUCTION - TYPE UNKNOWN \_\_\_ OTHER

20. CHIMNEY PLACEMENT:

\_\_\_ INTERIOR \_\_\_ INTERIOR FRONT/REAR \_\_\_ CENTER \_\_\_ INTERIOR END \_\_\_ EXTERIOR
\_\_\_ OTHER

21. ROOF CONFIGURATION:

\_\_\_ GABLE SIDE \_\_\_ GABLE FRONT \_\_\_ HIP \_\_\_ MANSARD [X] FLAT
\_\_\_ GAMBREL \_\_\_ PARAPET GABLE \_\_\_ SHED \_\_\_ CROSS GABLE
\_\_\_ COMPOUND \_\_\_ OTHER

22. ROOF MATERIAL: \_\_\_ WOOD \_\_\_ METAL \_\_\_ TILE \_\_\_ SLATE \_\_\_ ASPHALT \_\_\_ ASBESTOS

23. EXTERIOR WALL MATERIALS:

\_\_\_ CLAPBOARD [X] BRICK \_\_\_ FLUSH SHEATHING \_\_\_ WOOD SHINGLE \_\_\_ STONE
\_\_\_ LOG [X] PRESSED METAL \_\_\_ CONCRETE \_\_\_ STUCCO \_\_\_ ASPHALT
\_\_\_ GRANITE \_\_\_ ASBESTOS \_\_\_ TERRA COTTA \_\_\_ BOARD AND BATTEN \_\_\_ ALUMINUM/VINYL
\_\_\_ OTHER

24. FOUNDATION MATERIAL:

\_\_\_ FIELDSTONE \_\_\_ BRICK \_\_\_ WOOD [X] CONCRETE \_\_\_ GRANITE \_\_\_ ORNAMENTAL CONC. BLOCK
\_\_\_ OTHER

25. OUTBUILDINGS/FEATURES:

\_\_\_ CARRIAGE HOUSE \_\_\_ FENCE OR WALL \_\_\_ CEMETERY \_\_\_ BARN (CONNECTED)
\_\_\_ BARN (DETACHED) \_\_\_ FORMAL GARDEN \_\_\_ LANDSCAPE/PLANT MAT \_\_\_ ARCHAEOLOGICAL SITE
\_\_\_ GARAGE \_\_\_ OTHER

**HISTORICAL DATA**

26. DOCUMENTED DATE OF CONSTRUCTION: 1958 27. ESTIMATED DATE OF CONSTRUCTION:

28. DATE MAJOR ADDITIONS/ALTERATIONS:

29. ARCHITECT: 30. CONTRACTOR:

31. ORIGINAL OWNER:

32. SUBSEQUENT SIGNIFICANT OWNER: DATES:

33. CULTURAL/ETHNIC AFFILIATION:

\_\_\_ ENGLISH \_\_\_ FRENCH ACADIAN \_\_\_ NATIVE AMERICAN \_\_\_ SCOTTISH \_\_\_ FRENCH CANADIAN
\_\_\_ EAST EUROPEAN \_\_\_ IRISH \_\_\_ OTHER

34. HISTORIC CONTEXT(S):

\_\_\_ COMMERCE \_\_\_ INDUSTRY \_\_\_ TRANSPORTATION \_\_\_ AGRICULTURE \_\_\_ MILITARY
\_\_\_ RELIGION \_\_\_ CIVIC AFFAIRS \_\_\_ RECREATION \_\_\_ HABITATION \_\_\_ EDUCATION
\_\_\_ ART, LIT, SCIENCE \_\_\_ SOCIAL

35. COMMENTS/SOURCES: originally housed gym, vocational classrooms, and offices. Glass enclosed walkway extends from west elevation to Greenlaw Hall/Building K

36. HISTORICAL DRAWINGS EXIST: \_\_\_ YES [X] NO 37. KIT HOUSE \_\_\_ YES [X] NO 38. PATTERN BOOK HOUSE \_\_\_ YES [X] NO

**ENVIRONMENTAL DATA**

39. SITE INTEGRITY: [X] ORIGINAL \_\_\_ MOVED DATE MOVED

40. SETTING: \_\_\_ RURAL/UNDISTURBED [X] RURAL/BUILT UP \_\_\_ SMALL TOWN \_\_\_ URBAN \_\_\_ SUBURBAN

41. QUADRANGLE MAP USED: Portland East

42. UTM NORTHING: 5417383.18627458 43. UTM EASTING: -7818042.88264878

44. FACADE DIRECTION (CIRCLE ONE): N S E W NE (NW) SE SW

MHPC USE ONLY

DATE ENTERED IN INVENTORY: PHOTO FILE #:

NR STATUS: \_\_\_ L \_\_\_ HD \_\_\_ E \_\_\_ NE \_\_\_ ND REVIEWER

DATA SOURCE: \_\_\_ HPF \_\_\_ CLG \_\_\_ R&C \_\_\_ STAFF \_\_\_ STATE SURVEY OTHER LEVEL OF SURVEY: \_\_\_ R \_\_\_ I

SURVEY MAP NO. 6

SURVEY NAME Mackworth Island Study

SURVEY ID M17451

MHPC USE ONLY

INVENTORY NO.

**MAINE HISTORIC PRESERVATION COMMISSION**  
**Historic Building/Structure Survey Form**  
**Continuation Sheet**

PROPERTY NAME: Draper Hall, Baxter School for the Deaf

TOWN: Falmouth COUNTY: Cumberland

SURVEYOR: Ware, Erin DATE: 3/31/2022

DATA FIELD # (From Survey Form): 0

South elevation





This page intentionally left blank.

MHPC USE ONLY

INVENTORY NO.

**MAINE HISTORIC PRESERVATION COMMISSION  
Historic Building/Structure Survey Form**

1. PROPERTY NAME (HISTORIC): Patrick Hall, Baxter School for the Deaf

2. PROPERTY NAME (OTHER): Building I

3. STREET ADDRESS: Andrews Avenue

4. TOWN: Falmouth 5. COUNTY: Cumberland

6. DATE RECORDED: 3/31/2022 7. SURVEYOR: Ware, Erin

8. OWNER NAME: State of Maine 9. ADDRESS: \_\_\_\_\_

10. PRIMARY USE (PRESENT):
- |   |                                       |   |                                      |
|---|---------------------------------------|---|--------------------------------------|
| <input type="checkbox"/> SINGLE FAMILY      | <input type="checkbox"/> AGRICULTURE  | <input type="checkbox"/> COMMERCIAL/TRADE     | <input type="checkbox"/> FUNERARY    |
| <input type="checkbox"/> MULTI-FAMILY       | <input type="checkbox"/> GOVERNMENTAL | <input checked="" type="checkbox"/> EDUCATION | <input type="checkbox"/> HEALTH CARE |
| <input type="checkbox"/> INDUSTRY           | <input type="checkbox"/> RELIGIOUS    | <input type="checkbox"/> HOTEL                | <input type="checkbox"/> LANDSCAPE   |
| <input type="checkbox"/> TRANSPORTATION     | <input type="checkbox"/> DEFENSE      | <input type="checkbox"/> SUMMER COTTAGE/CAMP  | <input type="checkbox"/> SOCIAL      |
| <input type="checkbox"/> RECREATION/CULTURE | <input type="checkbox"/> UNKNOWN      |   |                                      |
| <input type="checkbox"/> OTHER _____        |                                       |   |                                      |

11. CONDITION:  GOOD  FAIR  POOR  DESTROYED, DATE \_\_\_\_\_

**ARCHITECTURAL DATA**

12. PRIMARY STYLISTIC CATEGORY:
- |   |  |  |   |
|---|--|--|---|
| <input type="checkbox"/> GEORGIAN       | <input type="checkbox"/> STICK STYLE       | <input type="checkbox"/> 19 <sup>TH</sup> /20 <sup>TH</sup> C. REVIVAL | <input checked="" type="checkbox"/> MODERN/CONTEMPORARY |
| <input type="checkbox"/> FEDERAL        | <input type="checkbox"/> QUEEN ANNE        | <input type="checkbox"/> COMMERCIAL STYLE                              | <input type="checkbox"/> MINIMAL TRADITIONAL            |
| <input type="checkbox"/> GREEK REVIVAL  | <input type="checkbox"/> SHINGLE STYLE     | <input type="checkbox"/> CRAFTSMAN                                     | <input type="checkbox"/> RANCH                          |
| <input type="checkbox"/> GOTHIC REVIVAL | <input type="checkbox"/> ROMANESQUE        | <input type="checkbox"/> ART DECO / MODERNE                            | <input type="checkbox"/> SPLIT LEVEL                    |
| <input type="checkbox"/> ITALIANATE     | <input type="checkbox"/> NEO-CLASSICAL REV | <input type="checkbox"/> INTERNATIONAL                                 | <input type="checkbox"/> VERNACULAR                     |
| <input type="checkbox"/> SECOND EMPIRE  | <input type="checkbox"/> RENAISSANCE REV   | <input type="checkbox"/> OTHER _____                                   |   |

13. SECONDARY STYLISTIC CATEGORY:
- |   |  |  |  |
|---|--|--|--|
| <input type="checkbox"/> GEORGIAN       | <input type="checkbox"/> STICK STYLE       | <input type="checkbox"/> 19 <sup>TH</sup> /20 <sup>TH</sup> C. REVIVAL | <input type="checkbox"/> MODERN/CONTEMPORARY |
| <input type="checkbox"/> FEDERAL        | <input type="checkbox"/> QUEEN ANNE        | <input type="checkbox"/> COMMERCIAL STYLE                              | <input type="checkbox"/> MINIMAL TRADITIONAL |
| <input type="checkbox"/> GREEK REVIVAL  | <input type="checkbox"/> SHINGLE STYLE     | <input type="checkbox"/> CRAFTSMAN                                     | <input type="checkbox"/> RANCH               |
| <input type="checkbox"/> GOTHIC REVIVAL | <input type="checkbox"/> ROMANESQUE        | <input type="checkbox"/> ART DECO / MODERNE                            | <input type="checkbox"/> SPLIT LEVEL         |
| <input type="checkbox"/> ITALIANATE     | <input type="checkbox"/> NEO-CLASSICAL REV | <input type="checkbox"/> INTERNATIONAL                                 | <input type="checkbox"/> VERNACULAR          |
| <input type="checkbox"/> SECOND EMPIRE  | <input type="checkbox"/> RENAISSANCE REV   | <input type="checkbox"/> OTHER _____                                   |  |

14. HEIGHT:  
 1 STORY  1 1/2 STORY  2 STORY  2 1/2 STORY  3 STORY  4 STORY  
 5 STORY  OVER 5 (\_\_\_\_\_)

15. PRIMARY FACADE WIDTH (MAIN BLOCK; USE GROUND FLOOR):  
 1 BAY  2 BAY  3 BAY  4 BAY  5 BAY  MORE THAN 5 (\_\_\_\_\_)

16. APPENDAGES:  SIDE ELL  REAR ELL  FRONT  ADDED STORIES  SHED  
 DORMERS  PORCH  TOWER  CUPOLA  BAY WINDOW

**PHOTOGRAPH:**



17. PORCH:

\_\_\_ ATTACHED \_\_\_ ENGAGED \_\_\_ ONE STORY \_\_\_ MORE THAN ONE STORY
\_\_\_ FULL WIDTH \_\_\_ WRAPAROUND \_\_\_ SLEEPING PORCH \_\_\_ SECONDARY PORCH

18. PLAN OR FORM

\_\_\_ HALL AND PARLOR \_\_\_ 1/2 CAPE \_\_\_ CAPE \_\_\_ CENTRAL HALL \_\_\_ 2-STORY DOUBLE PILE
\_\_\_ SIDE HALL \_\_\_ BACK HALL [X] IRREGULAR \_\_\_ FOURSQUARE \_\_\_ BUNGALOW
\_\_\_ MOBILE HOME \_\_\_ MODULAR \_\_\_ OTHER

19. PRIMARY STRUCTURAL SYSTEM:

\_\_\_ TIMBER FRAME \_\_\_ BRACED FRAME \_\_\_ BRICK \_\_\_ STONE \_\_\_ BALLOON FRAME
\_\_\_ CONCRETE [X] STEEL \_\_\_ LOG \_\_\_ PLANK WALL \_\_\_ PLATFORM FRAME
\_\_\_ FRAME CONSTRUCTION - TYPE UNKNOWN \_\_\_ OTHER

20. CHIMNEY PLACEMENT:

\_\_\_ INTERIOR \_\_\_ INTERIOR FRONT/REAR \_\_\_ CENTER \_\_\_ INTERIOR END \_\_\_ EXTERIOR
\_\_\_ OTHER

21. ROOF CONFIGURATION:

\_\_\_ GABLE SIDE \_\_\_ GABLE FRONT \_\_\_ HIP \_\_\_ MANSARD [X] FLAT
\_\_\_ GAMBREL \_\_\_ PARAPET GABLE \_\_\_ SHED \_\_\_ CROSS GABLE
\_\_\_ COMPOUND \_\_\_ OTHER

22. ROOF MATERIAL: \_\_\_ WOOD \_\_\_ METAL \_\_\_ TILE \_\_\_ SLATE \_\_\_ ASPHALT \_\_\_ ASBESTOS

23. EXTERIOR WALL MATERIALS:

\_\_\_ CLAPBOARD [X] BRICK \_\_\_ FLUSH SHEATHING \_\_\_ WOOD SHINGLE \_\_\_ STONE
\_\_\_ LOG \_\_\_ PRESSED METAL \_\_\_ CONCRETE \_\_\_ STUCCO \_\_\_ ASPHALT
\_\_\_ GRANITE \_\_\_ ASBESTOS \_\_\_ TERRA COTTA \_\_\_ BOARD AND BATTEN \_\_\_ ALUMINUM/VINYL
\_\_\_ OTHER

24. FOUNDATION MATERIAL:

\_\_\_ FIELDSTONE \_\_\_ BRICK \_\_\_ WOOD [X] CONCRETE \_\_\_ GRANITE \_\_\_ ORNAMENTAL CONC. BLOCK
\_\_\_ OTHER

25. OUTBUILDINGS/FEATURES:

\_\_\_ CARRIAGE HOUSE \_\_\_ FENCE OR WALL \_\_\_ CEMETERY \_\_\_ BARN (CONNECTED)
\_\_\_ BARN (DETACHED) \_\_\_ FORMAL GARDEN \_\_\_ LANDSCAPE/PLANT MAT \_\_\_ ARCHAEOLOGICAL SITE
\_\_\_ GARAGE \_\_\_ OTHER

**HISTORICAL DATA**

26. DOCUMENTED DATE OF CONSTRUCTION: 1958 27. ESTIMATED DATE OF CONSTRUCTION:

28. DATE MAJOR ADDITIONS/ALTERATIONS: c.2002

29. ARCHITECT: 30. CONTRACTOR:

31. ORIGINAL OWNER:

32. SUBSEQUENT SIGNIFICANT OWNER: DATES:

33. CULTURAL/ETHNIC AFFILIATION:

\_\_\_ ENGLISH \_\_\_ FRENCH ACADIAN \_\_\_ NATIVE AMERICAN \_\_\_ SCOTTISH \_\_\_ FRENCH CANADIAN
\_\_\_ EAST EUROPEAN \_\_\_ IRISH \_\_\_ OTHER

34. HISTORIC CONTEXT(S):

\_\_\_ COMMERCE \_\_\_ INDUSTRY \_\_\_ TRANSPORTATION \_\_\_ AGRICULTURE \_\_\_ MILITARY
\_\_\_ RELIGION \_\_\_ CIVIC AFFAIRS \_\_\_ RECREATION \_\_\_ HABITATION \_\_\_ EDUCATION
\_\_\_ ART, LIT, SCIENCE \_\_\_ SOCIAL

35. COMMENTS/SOURCES: originally housed high school. Southern section demolished 2003.

36. HISTORICAL DRAWINGS EXIST: \_\_\_ YES [X] NO 37. KIT HOUSE \_\_\_ YES [X] NO 38. PATTERN BOOK HOUSE \_\_\_ YES [X] NO

**ENVIRONMENTAL DATA**

39. SITE INTEGRITY: [X] ORIGINAL \_\_\_ MOVED DATE MOVED

40. SETTING: \_\_\_ RURAL/UNDISTURBED [X] RURAL/BUILT UP \_\_\_ SMALL TOWN \_\_\_ URBAN \_\_\_ SUBURBAN

41. QUADRANGLE MAP USED: Portland East

42. UTM NORTHING: 5417353.9393683 43. UTM EASTING: -7818055.49055667

44. FACADE DIRECTION (CIRCLE ONE): (N) S E W NE NW SE SW

MHPC USE ONLY

DATE ENTERED IN INVENTORY: PHOTO FILE #:

NR STATUS: \_\_\_ L \_\_\_ HD \_\_\_ E \_\_\_ NE \_\_\_ ND REVIEWER

DATA SOURCE: \_\_\_ HPF \_\_\_ CLG \_\_\_ R&C \_\_\_ STAFF \_\_\_ STATE SURVEY OTHER LEVEL OF SURVEY: \_\_\_ R \_\_\_ I

MHPC USE ONLY

INVENTORY NO.

### MAINE HISTORIC PRESERVATION COMMISSION Historic Building/Structure Survey Form

1. PROPERTY NAME (HISTORIC): Taylor Hall, Baxter School for the Deaf

2. PROPERTY NAME (OTHER): Building C

3. STREET ADDRESS: Andrews Avenue

4. TOWN: Falmouth 5. COUNTY: Cumberland

6. DATE RECORDED: 3/31/2022 7. SURVEYOR: Ware, Erin

8. OWNER NAME: State of Maine 9. ADDRESS: \_\_\_\_\_

10. PRIMARY USE (PRESENT):
- |   |                                       |  |                                      |
|---|---------------------------------------|--|--------------------------------------|
| <input type="checkbox"/> SINGLE FAMILY      | <input type="checkbox"/> AGRICULTURE  | <input checked="" type="checkbox"/> COMMERCIAL/TRADE | <input type="checkbox"/> FUNERARY    |
| <input type="checkbox"/> MULTI-FAMILY       | <input type="checkbox"/> GOVERNMENTAL | <input type="checkbox"/> EDUCATION                   | <input type="checkbox"/> HEALTH CARE |
| <input type="checkbox"/> INDUSTRY           | <input type="checkbox"/> RELIGIOUS    | <input type="checkbox"/> HOTEL                       | <input type="checkbox"/> LANDSCAPE   |
| <input type="checkbox"/> TRANSPORTATION     | <input type="checkbox"/> DEFENSE      | <input type="checkbox"/> SUMMER COTTAGE/CAMP         | <input type="checkbox"/> SOCIAL      |
| <input type="checkbox"/> RECREATION/CULTURE | <input type="checkbox"/> UNKNOWN      |  |                                      |
| <input type="checkbox"/> OTHER _____        |                                       |  |                                      |

11. CONDITION:  GOOD  FAIR  POOR  DESTROYED, DATE \_\_\_\_\_

### ARCHITECTURAL DATA

12. PRIMARY STYLISTIC CATEGORY:
- |   |  |  |   |
|---|--|--|---|
| <input type="checkbox"/> GEORGIAN       | <input type="checkbox"/> STICK STYLE       | <input type="checkbox"/> 19 <sup>TH</sup> /20 <sup>TH</sup> C. REVIVAL | <input checked="" type="checkbox"/> MODERN/CONTEMPORARY |
| <input type="checkbox"/> FEDERAL        | <input type="checkbox"/> QUEEN ANNE        | <input type="checkbox"/> COMMERCIAL STYLE                              | <input type="checkbox"/> MINIMAL TRADITIONAL            |
| <input type="checkbox"/> GREEK REVIVAL  | <input type="checkbox"/> SHINGLE STYLE     | <input type="checkbox"/> CRAFTSMAN                                     | <input type="checkbox"/> RANCH                          |
| <input type="checkbox"/> GOTHIC REVIVAL | <input type="checkbox"/> ROMANESQUE        | <input type="checkbox"/> ART DECO / MODERNE                            | <input type="checkbox"/> SPLIT LEVEL                    |
| <input type="checkbox"/> ITALIANATE     | <input type="checkbox"/> NEO-CLASSICAL REV | <input type="checkbox"/> INTERNATIONAL                                 | <input type="checkbox"/> VERNACULAR                     |
| <input type="checkbox"/> SECOND EMPIRE  | <input type="checkbox"/> RENAISSANCE REV   | <input type="checkbox"/> OTHER _____                                   |   |

13. SECONDARY STYLISTIC CATEGORY:
- |   |  |  |  |
|---|--|--|--|
| <input type="checkbox"/> GEORGIAN       | <input type="checkbox"/> STICK STYLE       | <input type="checkbox"/> 19 <sup>TH</sup> /20 <sup>TH</sup> C. REVIVAL | <input type="checkbox"/> MODERN/CONTEMPORARY |
| <input type="checkbox"/> FEDERAL        | <input type="checkbox"/> QUEEN ANNE        | <input type="checkbox"/> COMMERCIAL STYLE                              | <input type="checkbox"/> MINIMAL TRADITIONAL |
| <input type="checkbox"/> GREEK REVIVAL  | <input type="checkbox"/> SHINGLE STYLE     | <input type="checkbox"/> CRAFTSMAN                                     | <input type="checkbox"/> RANCH               |
| <input type="checkbox"/> GOTHIC REVIVAL | <input type="checkbox"/> ROMANESQUE        | <input type="checkbox"/> ART DECO / MODERNE                            | <input type="checkbox"/> SPLIT LEVEL         |
| <input type="checkbox"/> ITALIANATE     | <input type="checkbox"/> NEO-CLASSICAL REV | <input type="checkbox"/> INTERNATIONAL                                 | <input type="checkbox"/> VERNACULAR          |
| <input type="checkbox"/> SECOND EMPIRE  | <input type="checkbox"/> RENAISSANCE REV   | <input type="checkbox"/> OTHER _____                                   |  |

14. HEIGHT:  1 STORY  1 1/2 STORY  2 STORY  2 1/2 STORY  3 STORY  4 STORY  
 5 STORY  OVER 5 (\_\_\_\_\_)

15. PRIMARY FACADE WIDTH (MAIN BLOCK; USE GROUND FLOOR):  
 1 BAY  2 BAY  3 BAY  4 BAY  5 BAY  MORE THAN 5 (7 \_\_\_\_\_)

16. APPENDAGES:  SIDE ELL  REAR ELL  FRONT  ADDED STORIES  SHED  
 DORMERS  PORCH  TOWER  CUPOLA  BAY WINDOW

### **PHOTOGRAPH:**



17. PORCH:

\_\_\_ ATTACHED \_\_\_ ENGAGED \_\_\_ ONE STORY \_\_\_ MORE THAN ONE STORY
\_\_\_ FULL WIDTH \_\_\_ WRAPAROUND \_\_\_ SLEEPING PORCH \_\_\_ SECONDARY PORCH

18. PLAN OR FORM

\_\_\_ HALL AND PARLOR \_\_\_ 1/2 CAPE \_\_\_ CAPE \_\_\_ CENTRAL HALL \_\_\_ 2-STORY DOUBLE PILE
\_\_\_ SIDE HALL \_\_\_ BACK HALL \_\_\_ IRREGULAR \_\_\_ FOURSQUARE \_\_\_ BUNGALOW
\_\_\_ MOBILE HOME \_\_\_ MODULAR [X] OTHER dormitory

19. PRIMARY STRUCTURAL SYSTEM:

\_\_\_ TIMBER FRAME \_\_\_ BRACED FRAME \_\_\_ BRICK \_\_\_ STONE \_\_\_ BALLOON FRAME
\_\_\_ CONCRETE [X] STEEL \_\_\_ LOG \_\_\_ PLANK WALL \_\_\_ PLATFORM FRAME
\_\_\_ FRAME CONSTRUCTION - TYPE UNKNOWN \_\_\_ OTHER

20. CHIMNEY PLACEMENT:

\_\_\_ INTERIOR \_\_\_ INTERIOR FRONT/REAR \_\_\_ CENTER \_\_\_ INTERIOR END \_\_\_ EXTERIOR
\_\_\_ OTHER

21. ROOF CONFIGURATION:

\_\_\_ GABLE SIDE \_\_\_ GABLE FRONT \_\_\_ HIP \_\_\_ MANSARD [X] FLAT
\_\_\_ GAMBREL \_\_\_ PARAPET GABLE \_\_\_ SHED \_\_\_ CROSS GABLE
\_\_\_ COMPOUND \_\_\_ OTHER

22. ROOF MATERIAL: \_\_\_ WOOD \_\_\_ METAL \_\_\_ TILE \_\_\_ SLATE \_\_\_ ASPHALT \_\_\_ ASBESTOS

23. EXTERIOR WALL MATERIALS:

\_\_\_ CLAPBOARD [X] BRICK \_\_\_ FLUSH SHEATHING \_\_\_ WOOD SHINGLE \_\_\_ STONE
\_\_\_ LOG [X] PRESSED METAL \_\_\_ CONCRETE \_\_\_ STUCCO \_\_\_ ASPHALT
\_\_\_ GRANITE \_\_\_ ASBESTOS \_\_\_ TERRA COTTA \_\_\_ BOARD AND BATTEN \_\_\_ ALUMINUM/VINYL
\_\_\_ OTHER

24. FOUNDATION MATERIAL:

\_\_\_ FIELDSTONE \_\_\_ BRICK \_\_\_ WOOD [X] CONCRETE \_\_\_ GRANITE \_\_\_ ORNAMENTAL CONC. BLOCK
\_\_\_ OTHER

25. OUTBUILDINGS/FEATURES:

\_\_\_ CARRIAGE HOUSE \_\_\_ FENCE OR WALL \_\_\_ CEMETERY \_\_\_ BARN (CONNECTED)
\_\_\_ BARN (DETACHED) \_\_\_ FORMAL GARDEN \_\_\_ LANDSCAPE/PLANT MAT \_\_\_ ARCHAEOLOGICAL SITE
\_\_\_ GARAGE \_\_\_ OTHER

**HISTORICAL DATA**

26. DOCUMENTED DATE OF CONSTRUCTION: 1958 27. ESTIMATED DATE OF CONSTRUCTION:

28. DATE MAJOR ADDITIONS/ALTERATIONS:

29. ARCHITECT: 30. CONTRACTOR:

31. ORIGINAL OWNER:

32. SUBSEQUENT SIGNIFICANT OWNER: DATES:

33. CULTURAL/ETHNIC AFFILIATION:

\_\_\_ ENGLISH \_\_\_ FRENCH ACADIAN \_\_\_ NATIVE AMERICAN \_\_\_ SCOTTISH \_\_\_ FRENCH CANADIAN
\_\_\_ EAST EUROPEAN \_\_\_ IRISH \_\_\_ OTHER

34. HISTORIC CONTEXT(S):

\_\_\_ COMMERCE \_\_\_ INDUSTRY \_\_\_ TRANSPORTATION \_\_\_ AGRICULTURE \_\_\_ MILITARY
\_\_\_ RELIGION \_\_\_ CIVIC AFFAIRS \_\_\_ RECREATION \_\_\_ HABITATION \_\_\_ EDUCATION
\_\_\_ ART, LIT, SCIENCE \_\_\_ SOCIAL

35. COMMENTS/SOURCES: c.1970 plywood enclosed walkway extends from northern elevation to Sanders Hall/Building K and Brewster Hall/Building H

36. HISTORICAL DRAWINGS EXIST: \_\_\_ YES [X] NO 37. KIT HOUSE \_\_\_ YES [X] NO 38. PATTERN BOOK HOUSE \_\_\_ YES [X] NO

**ENVIRONMENTAL DATA**

39. SITE INTEGRITY: [X] ORIGINAL \_\_\_ MOVED DATE MOVED

40. SETTING: \_\_\_ RURAL/UNDISTURBED [X] RURAL/BUILT UP \_\_\_ SMALL TOWN \_\_\_ URBAN \_\_\_ SUBURBAN

41. QUADRANGLE MAP USED: Portland East

42. UTM NORTHING: 5417226.29709687 43. UTM EASTING: -7818089.91139651

44. FACADE DIRECTION (CIRCLE ONE): (N) S E W NE NW SE SW

MHPC USE ONLY

DATE ENTERED IN INVENTORY: PHOTO FILE #:

NR STATUS: \_\_\_ L \_\_\_ HD \_\_\_ E \_\_\_ NE \_\_\_ ND REVIEWER

DATA SOURCE: \_\_\_ HPF \_\_\_ CLG \_\_\_ R&C \_\_\_ STAFF \_\_\_ STATE SURVEY OTHER LEVEL OF SURVEY: \_\_\_ R \_\_\_ I



SURVEY MAP NO. 8

SURVEY NAME Mackworth Island Study

SURVEY ID M17451

MHPC USE ONLY

INVENTORY NO.

**MAINE HISTORIC PRESERVATION COMMISSION**  
**Historic Building/Structure Survey Form**  
**Continuation Sheet**

PROPERTY NAME: Taylor Hall, Baxter School for the Deaf

TOWN: Falmouth COUNTY: Cumberland

SURVEYOR: Ware, Erin DATE: 3/31/2022

DATA FIELD # (From Survey Form): 0

South and east elevations



This page intentionally left blank.

SURVEY MAP NO. 8

SURVEY NAME Mackworth Island Study

SURVEY ID M17451

MHPC USE ONLY

INVENTORY NO.

**MAINE HISTORIC PRESERVATION COMMISSION**  
**Historic Building/Structure Survey Form**  
**Continuation Sheet**

PROPERTY NAME: Taylor Hall, Baxter School for the Deaf

TOWN: Falmouth COUNTY: Cumberland

SURVEYOR: Ware, Erin DATE: 3/31/2022

DATA FIELD # (From Survey Form): 0

West elevation and enclosed walkway



This page intentionally left blank.

MHPC USE ONLY

INVENTORY NO.

## MAINE HISTORIC PRESERVATION COMMISSION Historic Building/Structure Survey Form

1. PROPERTY NAME (HISTORIC): Inman Garage, Baxter School for the Deaf

2. PROPERTY NAME (OTHER): Building E

3. STREET ADDRESS: Andrews Avenue

4. TOWN: Falmouth 5. COUNTY: Cumberland

6. DATE RECORDED: 3/31/2022 7. SURVEYOR: Ware, Erin

8. OWNER NAME: State of Maine 9. ADDRESS: \_\_\_\_\_

10. PRIMARY USE (PRESENT):
- |   |                                       |   |                                      |
|---|---------------------------------------|---|--------------------------------------|
| <input type="checkbox"/> SINGLE FAMILY      | <input type="checkbox"/> AGRICULTURE  | <input type="checkbox"/> COMMERCIAL/TRADE     | <input type="checkbox"/> FUNERARY    |
| <input type="checkbox"/> MULTI-FAMILY       | <input type="checkbox"/> GOVERNMENTAL | <input checked="" type="checkbox"/> EDUCATION | <input type="checkbox"/> HEALTH CARE |
| <input type="checkbox"/> INDUSTRY           | <input type="checkbox"/> RELIGIOUS    | <input type="checkbox"/> HOTEL                | <input type="checkbox"/> LANDSCAPE   |
| <input type="checkbox"/> TRANSPORTATION     | <input type="checkbox"/> DEFENSE      | <input type="checkbox"/> SUMMER COTTAGE/CAMP  | <input type="checkbox"/> SOCIAL      |
| <input type="checkbox"/> RECREATION/CULTURE | <input type="checkbox"/> UNKNOWN      |   |                                      |
| <input type="checkbox"/> OTHER _____        |                                       |   |                                      |

11. CONDITION:  GOOD  FAIR  POOR  DESTROYED, DATE \_\_\_\_\_

### ARCHITECTURAL DATA

12. PRIMARY STYLISTIC CATEGORY:
- |   |  |  |   |
|---|--|--|---|
| <input type="checkbox"/> GEORGIAN       | <input type="checkbox"/> STICK STYLE       | <input type="checkbox"/> 19 <sup>TH</sup> /20 <sup>TH</sup> C. REVIVAL | <input checked="" type="checkbox"/> MODERN/CONTEMPORARY |
| <input type="checkbox"/> FEDERAL        | <input type="checkbox"/> QUEEN ANNE        | <input type="checkbox"/> COMMERCIAL STYLE                              | <input type="checkbox"/> MINIMAL TRADITIONAL            |
| <input type="checkbox"/> GREEK REVIVAL  | <input type="checkbox"/> SHINGLE STYLE     | <input type="checkbox"/> CRAFTSMAN                                     | <input type="checkbox"/> RANCH                          |
| <input type="checkbox"/> GOTHIC REVIVAL | <input type="checkbox"/> ROMANESQUE        | <input type="checkbox"/> ART DECO / MODERNE                            | <input type="checkbox"/> SPLIT LEVEL                    |
| <input type="checkbox"/> ITALIANATE     | <input type="checkbox"/> NEO-CLASSICAL REV | <input type="checkbox"/> INTERNATIONAL                                 | <input type="checkbox"/> VERNACULAR                     |
| <input type="checkbox"/> SECOND EMPIRE  | <input type="checkbox"/> RENAISSANCE REV   | <input type="checkbox"/> OTHER _____                                   |   |

13. SECONDARY STYLISTIC CATEGORY:
- |   |  |  |  |
|---|--|--|--|
| <input type="checkbox"/> GEORGIAN       | <input type="checkbox"/> STICK STYLE       | <input type="checkbox"/> 19 <sup>TH</sup> /20 <sup>TH</sup> C. REVIVAL | <input type="checkbox"/> MODERN/CONTEMPORARY |
| <input type="checkbox"/> FEDERAL        | <input type="checkbox"/> QUEEN ANNE        | <input type="checkbox"/> COMMERCIAL STYLE                              | <input type="checkbox"/> MINIMAL TRADITIONAL |
| <input type="checkbox"/> GREEK REVIVAL  | <input type="checkbox"/> SHINGLE STYLE     | <input type="checkbox"/> CRAFTSMAN                                     | <input type="checkbox"/> RANCH               |
| <input type="checkbox"/> GOTHIC REVIVAL | <input type="checkbox"/> ROMANESQUE        | <input type="checkbox"/> ART DECO / MODERNE                            | <input type="checkbox"/> SPLIT LEVEL         |
| <input type="checkbox"/> ITALIANATE     | <input type="checkbox"/> NEO-CLASSICAL REV | <input type="checkbox"/> INTERNATIONAL                                 | <input type="checkbox"/> VERNACULAR          |
| <input type="checkbox"/> SECOND EMPIRE  | <input type="checkbox"/> RENAISSANCE REV   | <input type="checkbox"/> OTHER _____                                   |  |

14. HEIGHT:  
 1 STORY  1 1/2 STORY  2 STORY  2 1/2 STORY  3 STORY  4 STORY  
 5 STORY  OVER 5 (\_\_\_\_\_)

15. PRIMARY FACADE WIDTH (MAIN BLOCK; USE GROUND FLOOR):  
 1 BAY  2 BAY  3 BAY  4 BAY  5 BAY  MORE THAN 5 (7 \_\_\_\_\_)

16. APPENDAGES:  SIDE ELL  REAR ELL  FRONT  ADDED STORIES  SHED  
 DORMERS  PORCH  TOWER  CUPOLA  BAY WINDOW

### **PHOTOGRAPH:**





17. PORCH:

\_\_\_ ATTACHED \_\_\_ ENGAGED \_\_\_ ONE STORY \_\_\_ MORE THAN ONE STORY
\_\_\_ FULL WIDTH \_\_\_ WRAPAROUND \_\_\_ SLEEPING PORCH \_\_\_ SECONDARY PORCH

18. PLAN OR FORM

\_\_\_ HALL AND PARLOR \_\_\_ 1/2 CAPE \_\_\_ CAPE \_\_\_ CENTRAL HALL \_\_\_ 2-STORY DOUBLE PILE
\_\_\_ SIDE HALL \_\_\_ BACK HALL \_\_\_ IRREGULAR \_\_\_ FOURSQUARE \_\_\_ BUNGALOW
\_\_\_ MOBILE HOME \_\_\_ MODULAR [X] OTHER maintenance garage

19. PRIMARY STRUCTURAL SYSTEM:

\_\_\_ TIMBER FRAME \_\_\_ BRACED FRAME \_\_\_ BRICK \_\_\_ STONE \_\_\_ BALLOON FRAME
\_\_\_ CONCRETE [X] STEEL \_\_\_ LOG \_\_\_ PLANK WALL \_\_\_ PLATFORM FRAME
\_\_\_ FRAME CONSTRUCTION - TYPE UNKNOWN \_\_\_ OTHER

20. CHIMNEY PLACEMENT:

\_\_\_ INTERIOR \_\_\_ INTERIOR FRONT/REAR \_\_\_ CENTER \_\_\_ INTERIOR END \_\_\_ EXTERIOR
\_\_\_ OTHER

21. ROOF CONFIGURATION:

\_\_\_ GABLE SIDE \_\_\_ GABLE FRONT \_\_\_ HIP \_\_\_ MANSARD [X] FLAT
\_\_\_ GAMBREL \_\_\_ PARAPET GABLE \_\_\_ SHED \_\_\_ CROSS GABLE
\_\_\_ COMPOUND \_\_\_ OTHER

22. ROOF MATERIAL: \_\_\_ WOOD \_\_\_ METAL \_\_\_ TILE \_\_\_ SLATE \_\_\_ ASPHALT \_\_\_ ASBESTOS

23. EXTERIOR WALL MATERIALS:

\_\_\_ CLAPBOARD [X] BRICK \_\_\_ FLUSH SHEATHING \_\_\_ WOOD SHINGLE \_\_\_ STONE
\_\_\_ LOG \_\_\_ PRESSED METAL \_\_\_ CONCRETE \_\_\_ STUCCO \_\_\_ ASPHALT
\_\_\_ GRANITE \_\_\_ ASBESTOS \_\_\_ TERRA COTTA \_\_\_ BOARD AND BATTEN \_\_\_ ALUMINUM/VINYL
\_\_\_ OTHER

24. FOUNDATION MATERIAL:

\_\_\_ FIELDSTONE \_\_\_ BRICK \_\_\_ WOOD [X] CONCRETE \_\_\_ GRANITE \_\_\_ ORNAMENTAL CONC. BLOCK
\_\_\_ OTHER

25. OUTBUILDINGS/FEATURES:

\_\_\_ CARRIAGE HOUSE \_\_\_ FENCE OR WALL \_\_\_ CEMETERY \_\_\_ BARN (CONNECTED)
\_\_\_ BARN (DETACHED) \_\_\_ FORMAL GARDEN \_\_\_ LANDSCAPE/PLANT MAT \_\_\_ ARCHAEOLOGICAL SITE
\_\_\_ GARAGE \_\_\_ OTHER

**HISTORICAL DATA**

26. DOCUMENTED DATE OF CONSTRUCTION: 1961 27. ESTIMATED DATE OF CONSTRUCTION:

28. DATE MAJOR ADDITIONS/ALTERATIONS:

29. ARCHITECT: 30. CONTRACTOR:

31. ORIGINAL OWNER:

32. SUBSEQUENT SIGNIFICANT OWNER: DATES:

33. CULTURAL/ETHNIC AFFILIATION:

\_\_\_ ENGLISH \_\_\_ FRENCH ACADIAN \_\_\_ NATIVE AMERICAN \_\_\_ SCOTTISH \_\_\_ FRENCH CANADIAN
\_\_\_ EAST EUROPEAN \_\_\_ IRISH \_\_\_ OTHER

34. HISTORIC CONTEXT(S):

\_\_\_ COMMERCE \_\_\_ INDUSTRY \_\_\_ TRANSPORTATION \_\_\_ AGRICULTURE \_\_\_ MILITARY
\_\_\_ RELIGION \_\_\_ CIVIC AFFAIRS \_\_\_ RECREATION \_\_\_ HABITATION \_\_\_ EDUCATION
\_\_\_ ART, LIT, SCIENCE \_\_\_ SOCIAL

35. COMMENTS/SOURCES:

36. HISTORICAL DRAWINGS EXIST: \_\_\_ YES [X] NO 37. KIT HOUSE \_\_\_ YES [X] NO 38. PATTERN BOOK HOUSE \_\_\_ YES [X] NO

**ENVIRONMENTAL DATA**

39. SITE INTEGRITY: [X] ORIGINAL \_\_\_ MOVED DATE MOVED

40. SETTING: \_\_\_ RURAL/UNDISTURBED [X] RURAL/BUILT UP \_\_\_ SMALL TOWN \_\_\_ URBAN \_\_\_ SUBURBAN

41. QUADRANGLE MAP USED: Portland East

42. UTM NORTHING: 5417363.83295347 43. UTM EASTING: -7818364.05591793

44. FACADE DIRECTION (CIRCLE ONE): N S E W NE (NW) SE SW

MHPC USE ONLY

DATE ENTERED IN INVENTORY: PHOTO FILE #:

NR STATUS: \_\_\_ L \_\_\_ HD \_\_\_ E \_\_\_ NE \_\_\_ ND REVIEWER

DATA SOURCE: \_\_\_ HPF \_\_\_ CLG \_\_\_ R&C \_\_\_ STAFF \_\_\_ STATE SURVEY OTHER LEVEL OF SURVEY: \_\_\_ R \_\_\_ I

MHPC USE ONLY

INVENTORY NO.

## MAINE HISTORIC PRESERVATION COMMISSION Historic Building/Structure Survey Form

1. PROPERTY NAME (HISTORIC): Mackworth Farm Watertower
2. PROPERTY NAME (OTHER): MHPC #152-0004
3. STREET ADDRESS: Andrews Avenue
4. TOWN: Falmouth 5. COUNTY: Cumberland
6. DATE RECORDED: 3/31/2022 7. SURVEYOR: Ware, Erin
8. OWNER NAME: State of Maine 9. ADDRESS: \_\_\_\_\_
10. PRIMARY USE (PRESENT):
- |   |                                       |  |                                      |
|---|---------------------------------------|--|--------------------------------------|
| <input type="checkbox"/> SINGLE FAMILY                  | <input type="checkbox"/> AGRICULTURE  | <input type="checkbox"/> COMMERCIAL/TRADE    | <input type="checkbox"/> FUNERARY    |
| <input type="checkbox"/> MULTI-FAMILY                   | <input type="checkbox"/> GOVERNMENTAL | <input type="checkbox"/> EDUCATION           | <input type="checkbox"/> HEALTH CARE |
| <input type="checkbox"/> INDUSTRY                       | <input type="checkbox"/> RELIGIOUS    | <input type="checkbox"/> HOTEL               | <input type="checkbox"/> LANDSCAPE   |
| <input type="checkbox"/> TRANSPORTATION                 | <input type="checkbox"/> DEFENSE      | <input type="checkbox"/> SUMMER COTTAGE/CAMP | <input type="checkbox"/> SOCIAL      |
| <input type="checkbox"/> RECREATION/CULTURE             | <input type="checkbox"/> UNKNOWN      |  |                                      |
| <input checked="" type="checkbox"/> OTHER <u>vacant</u> |                                       |  |                                      |
11. CONDITION:  GOOD  FAIR  POOR  DESTROYED, DATE \_\_\_\_\_

### ARCHITECTURAL DATA

12. PRIMARY STYLISTIC CATEGORY:
- |   |  |  |  |
|---|--|--|--|
| <input type="checkbox"/> GEORGIAN       | <input type="checkbox"/> STICK STYLE       | <input type="checkbox"/> 19 <sup>TH</sup> /20 <sup>TH</sup> C. REVIVAL | <input type="checkbox"/> MODERN/CONTEMPORARY   |
| <input type="checkbox"/> FEDERAL        | <input type="checkbox"/> QUEEN ANNE        | <input type="checkbox"/> COMMERCIAL STYLE                              | <input type="checkbox"/> MINIMAL TRADITIONAL   |
| <input type="checkbox"/> GREEK REVIVAL  | <input type="checkbox"/> SHINGLE STYLE     | <input type="checkbox"/> CRAFTSMAN                                     | <input type="checkbox"/> RANCH                 |
| <input type="checkbox"/> GOTHIC REVIVAL | <input type="checkbox"/> ROMANESQUE        | <input type="checkbox"/> ART DECO / MODERNE                            | <input type="checkbox"/> SPLIT LEVEL           |
| <input type="checkbox"/> ITALIANATE     | <input type="checkbox"/> NEO-CLASSICAL REV | <input type="checkbox"/> INTERNATIONAL                                 | <input checked="" type="checkbox"/> VERNACULAR |
| <input type="checkbox"/> SECOND EMPIRE  | <input type="checkbox"/> RENAISSANCE REV   | <input type="checkbox"/> OTHER _____                                   |  |
13. SECONDARY STYLISTIC CATEGORY:
- |   |  |  |  |
|---|--|--|--|
| <input type="checkbox"/> GEORGIAN       | <input type="checkbox"/> STICK STYLE       | <input type="checkbox"/> 19 <sup>TH</sup> /20 <sup>TH</sup> C. REVIVAL | <input type="checkbox"/> MODERN/CONTEMPORARY |
| <input type="checkbox"/> FEDERAL        | <input type="checkbox"/> QUEEN ANNE        | <input type="checkbox"/> COMMERCIAL STYLE                              | <input type="checkbox"/> MINIMAL TRADITIONAL |
| <input type="checkbox"/> GREEK REVIVAL  | <input type="checkbox"/> SHINGLE STYLE     | <input type="checkbox"/> CRAFTSMAN                                     | <input type="checkbox"/> RANCH               |
| <input type="checkbox"/> GOTHIC REVIVAL | <input type="checkbox"/> ROMANESQUE        | <input type="checkbox"/> ART DECO / MODERNE                            | <input type="checkbox"/> SPLIT LEVEL         |
| <input type="checkbox"/> ITALIANATE     | <input type="checkbox"/> NEO-CLASSICAL REV | <input type="checkbox"/> INTERNATIONAL                                 | <input type="checkbox"/> VERNACULAR          |
| <input type="checkbox"/> SECOND EMPIRE  | <input type="checkbox"/> RENAISSANCE REV   | <input type="checkbox"/> OTHER _____                                   |  |
14. HEIGHT:
- 1 STORY  1 1/2 STORY  2 STORY  2 1/2 STORY  3 STORY  4 STORY
- 5 STORY  OVER 5 (\_\_\_\_\_)
15. PRIMARY FACADE WIDTH (MAIN BLOCK; USE GROUND FLOOR):
- 1 BAY  2 BAY  3 BAY  4 BAY  5 BAY  MORE THAN 5 (\_\_\_\_\_)
16. APPENDAGES:  SIDE ELL  REAR ELL  FRONT  ADDED STORIES  SHED
- DORMERS  PORCH  TOWER  CUPOLA  BAY WINDOW

### PHOTOGRAPH:



17. PORCH:

\_\_\_ ATTACHED \_\_\_ ENGAGED \_\_\_ ONE STORY \_\_\_ MORE THAN ONE STORY
\_\_\_ FULL WIDTH \_\_\_ WRAPAROUND \_\_\_ SLEEPING PORCH \_\_\_ SECONDARY PORCH

18. PLAN OR FORM

\_\_\_ HALL AND PARLOR \_\_\_ 1/2 CAPE \_\_\_ CAPE \_\_\_ CENTRAL HALL \_\_\_ 2-STORY DOUBLE PILE
\_\_\_ SIDE HALL \_\_\_ BACK HALL \_\_\_ IRREGULAR \_\_\_ FOURSQUARE \_\_\_ BUNGALOW
\_\_\_ MOBILE HOME \_\_\_ MODULAR [X] OTHER watertower

19. PRIMARY STRUCTURAL SYSTEM:

\_\_\_ TIMBER FRAME \_\_\_ BRACED FRAME \_\_\_ BRICK [X] STONE \_\_\_ BALLOON FRAME
\_\_\_ CONCRETE \_\_\_ STEEL \_\_\_ LOG \_\_\_ PLANK WALL \_\_\_ PLATFORM FRAME
\_\_\_ FRAME CONSTRUCTION - TYPE UNKNOWN \_\_\_ OTHER

20. CHIMNEY PLACEMENT:

\_\_\_ INTERIOR \_\_\_ INTERIOR FRONT/REAR \_\_\_ CENTER \_\_\_ INTERIOR END \_\_\_ EXTERIOR
\_\_\_ OTHER

21. ROOF CONFIGURATION:

\_\_\_ GABLE SIDE \_\_\_ GABLE FRONT \_\_\_ HIP \_\_\_ MANSARD \_\_\_ FLAT
\_\_\_ GAMBREL \_\_\_ PARAPET GABLE \_\_\_ SHED \_\_\_ CROSS GABLE
\_\_\_ COMPOUND \_\_\_ OTHER

22. ROOF MATERIAL: \_\_\_ WOOD \_\_\_ METAL \_\_\_ TILE \_\_\_ SLATE \_\_\_ ASPHALT \_\_\_ ASBESTOS

23. EXTERIOR WALL MATERIALS:

\_\_\_ CLAPBOARD \_\_\_ BRICK \_\_\_ FLUSH SHEATHING \_\_\_ WOOD SHINGLE \_\_\_ STONE
\_\_\_ LOG \_\_\_ PRESSED METAL \_\_\_ CONCRETE \_\_\_ STUCCO \_\_\_ ASPHALT
\_\_\_ GRANITE \_\_\_ ASBESTOS \_\_\_ TERRA COTTA \_\_\_ BOARD AND BATTEN \_\_\_ ALUMINUM/VINYL
\_\_\_ OTHER

24. FOUNDATION MATERIAL:

[X] FIELDSTONE \_\_\_ BRICK \_\_\_ WOOD \_\_\_ CONCRETE \_\_\_ GRANITE \_\_\_ ORNAMENTAL CONC. BLOCK
\_\_\_ OTHER

25. OUTBUILDINGS/FEATURES:

\_\_\_ CARRIAGE HOUSE \_\_\_ FENCE OR WALL \_\_\_ CEMETERY \_\_\_ BARN (CONNECTED)
\_\_\_ BARN (DETACHED) \_\_\_ FORMAL GARDEN \_\_\_ LANDSCAPE/PLANT MAT \_\_\_ ARCHAEOLOGICAL SITE
\_\_\_ GARAGE \_\_\_ OTHER

**HISTORICAL DATA**

26. DOCUMENTED DATE OF CONSTRUCTION: \_\_\_\_\_ 27. ESTIMATED DATE OF CONSTRUCTION: c. 1885

28. DATE MAJOR ADDITIONS/ALTERATIONS: \_\_\_\_\_

29. ARCHITECT: \_\_\_\_\_ 30. CONTRACTOR: \_\_\_\_\_

31. ORIGINAL OWNER: \_\_\_\_\_

32. SUBSEQUENT SIGNIFICANT OWNER: \_\_\_\_\_ DATES: \_\_\_\_\_

33. CULTURAL/ETHNIC AFFILIATION:

\_\_\_ ENGLISH \_\_\_ FRENCH ACADIAN \_\_\_ NATIVE AMERICAN \_\_\_ SCOTTISH \_\_\_ FRENCH CANADIAN
\_\_\_ EAST EUROPEAN \_\_\_ IRISH \_\_\_ OTHER

34. HISTORIC CONTEXT(S):

\_\_\_ COMMERCE \_\_\_ INDUSTRY \_\_\_ TRANSPORTATION \_\_\_ AGRICULTURE \_\_\_ MILITARY
\_\_\_ RELIGION \_\_\_ CIVIC AFFAIRS \_\_\_ RECREATION \_\_\_ HABITATION \_\_\_ EDUCATION
\_\_\_ ART, LIT, SCIENCE \_\_\_ SOCIAL

35. COMMENTS/SOURCES: \_\_\_\_\_

36. HISTORICAL DRAWINGS EXIST: \_\_\_ YES [X] NO 37. KIT HOUSE \_\_\_ YES [X] NO 38. PATTERN BOOK HOUSE \_\_\_ YES [X] NO

**ENVIRONMENTAL DATA**

39. SITE INTEGRITY: [X] ORIGINAL \_\_\_ MOVED DATE MOVED \_\_\_\_\_

40. SETTING: \_\_\_ RURAL/UNDISTURBED [X] RURAL/BUILT UP \_\_\_ SMALL TOWN \_\_\_ URBAN \_\_\_ SUBURBAN

41. QUADRANGLE MAP USED: Portland East

42. UTM NORTHING: 5417370.09731071 43. UTM EASTING: -7818165.45378554

44. FACADE DIRECTION (CIRCLE ONE): N (S) E W NE NW SE SW

=====  
MHPC USE ONLY

DATE ENTERED IN INVENTORY: \_\_\_\_\_ PHOTO FILE #: \_\_\_\_\_

NR STATUS: \_\_\_ L \_\_\_ HD \_\_\_ E \_\_\_ NE \_\_\_ ND REVIEWER \_\_\_\_\_

DATA SOURCE: \_\_\_ HPF \_\_\_ CLG \_\_\_ R&C \_\_\_ STAFF \_\_\_ STATE SURVEY OTHER \_\_\_\_\_ LEVEL OF SURVEY: \_\_\_ R \_\_\_ I

MHPC USE ONLY

[Empty box for inventory number]

INVENTORY NO.

### MAINE HISTORIC PRESERVATION COMMISSION Historic Building/Structure Survey Form

1. PROPERTY NAME (HISTORIC): Mackworth Island Gatehouse

2. PROPERTY NAME (OTHER): \_\_\_\_\_

3. STREET ADDRESS: Andrews Avenue

4. TOWN: Falmouth 5. COUNTY: Cumberland

6. DATE RECORDED: 3/31/2022 7. SURVEYOR: Ware, Erin

8. OWNER NAME: State of Maine 9. ADDRESS: \_\_\_\_\_

10. PRIMARY USE (PRESENT):
- |  |                                       |  |                                      |
|--|---------------------------------------|--|--------------------------------------|
| <input type="checkbox"/> SINGLE FAMILY                 | <input type="checkbox"/> AGRICULTURE  | <input type="checkbox"/> COMMERCIAL/TRADE    | <input type="checkbox"/> FUNERARY    |
| <input type="checkbox"/> MULTI-FAMILY                  | <input type="checkbox"/> GOVERNMENTAL | <input type="checkbox"/> EDUCATION           | <input type="checkbox"/> HEALTH CARE |
| <input type="checkbox"/> INDUSTRY                      | <input type="checkbox"/> RELIGIOUS    | <input type="checkbox"/> HOTEL               | <input type="checkbox"/> LANDSCAPE   |
| <input type="checkbox"/> TRANSPORTATION                | <input type="checkbox"/> DEFENSE      | <input type="checkbox"/> SUMMER COTTAGE/CAMP | <input type="checkbox"/> SOCIAL      |
| <input checked="" type="checkbox"/> RECREATION/CULTURE | <input type="checkbox"/> UNKNOWN      |  |                                      |
| <input type="checkbox"/> OTHER _____                   |                                       |  |                                      |

11. CONDITION:  GOOD  FAIR  POOR  DESTROYED, DATE \_\_\_\_\_

### ARCHITECTURAL DATA

12. PRIMARY STYLISTIC CATEGORY:
- |   |  |  |  |
|---|--|--|--|
| <input type="checkbox"/> GEORGIAN       | <input type="checkbox"/> STICK STYLE       | <input type="checkbox"/> 19 <sup>TH</sup> /20 <sup>TH</sup> C. REVIVAL | <input type="checkbox"/> MODERN/CONTEMPORARY |
| <input type="checkbox"/> FEDERAL        | <input type="checkbox"/> QUEEN ANNE        | <input type="checkbox"/> COMMERCIAL STYLE                              | <input type="checkbox"/> MINIMAL TRADITIONAL |
| <input type="checkbox"/> GREEK REVIVAL  | <input type="checkbox"/> SHINGLE STYLE     | <input type="checkbox"/> CRAFTSMAN                                     | <input type="checkbox"/> RANCH               |
| <input type="checkbox"/> GOTHIC REVIVAL | <input type="checkbox"/> ROMANESQUE        | <input type="checkbox"/> ART DECO / MODERNE                            | <input type="checkbox"/> SPLIT LEVEL         |
| <input type="checkbox"/> ITALIANATE     | <input type="checkbox"/> NEO-CLASSICAL REV | <input type="checkbox"/> INTERNATIONAL                                 | <input type="checkbox"/> VERNACULAR          |
| <input type="checkbox"/> SECOND EMPIRE  | <input type="checkbox"/> RENAISSANCE REV   | <input checked="" type="checkbox"/> OTHER <u>Neo-craftsman</u>         |  |

13. SECONDARY STYLISTIC CATEGORY:
- |   |  |  |  |
|---|--|--|--|
| <input type="checkbox"/> GEORGIAN       | <input type="checkbox"/> STICK STYLE       | <input type="checkbox"/> 19 <sup>TH</sup> /20 <sup>TH</sup> C. REVIVAL | <input type="checkbox"/> MODERN/CONTEMPORARY |
| <input type="checkbox"/> FEDERAL        | <input type="checkbox"/> QUEEN ANNE        | <input type="checkbox"/> COMMERCIAL STYLE                              | <input type="checkbox"/> MINIMAL TRADITIONAL |
| <input type="checkbox"/> GREEK REVIVAL  | <input type="checkbox"/> SHINGLE STYLE     | <input type="checkbox"/> CRAFTSMAN                                     | <input type="checkbox"/> RANCH               |
| <input type="checkbox"/> GOTHIC REVIVAL | <input type="checkbox"/> ROMANESQUE        | <input type="checkbox"/> ART DECO / MODERNE                            | <input type="checkbox"/> SPLIT LEVEL         |
| <input type="checkbox"/> ITALIANATE     | <input type="checkbox"/> NEO-CLASSICAL REV | <input type="checkbox"/> INTERNATIONAL                                 | <input type="checkbox"/> VERNACULAR          |
| <input type="checkbox"/> SECOND EMPIRE  | <input type="checkbox"/> RENAISSANCE REV   | <input type="checkbox"/> OTHER _____                                   |  |

14. HEIGHT:  1 STORY  1 1/2 STORY  2 STORY  2 1/2 STORY  3 STORY  4 STORY  5 STORY  OVER 5 (\_\_\_\_\_)

15. PRIMARY FACADE WIDTH (MAIN BLOCK; USE GROUND FLOOR):  1 BAY  2 BAY  3 BAY  4 BAY  5 BAY  MORE THAN 5 (\_\_\_\_\_)

16. APPENDAGES:  SIDE ELL  REAR ELL  FRONT  ADDED STORIES  SHED  DORMERS  PORCH  TOWER  CUPOLA  BAY WINDOW

### PHOTOGRAPH:



17. PORCH:

ATTACHED  ENGAGED  ONE STORY  MORE THAN ONE STORY  
 FULL WIDTH  WRAPAROUND  SLEEPING PORCH  SECONDARY PORCH

18. PLAN OR FORM

HALL AND PARLOR  1/2 CAPE  CAPE  CENTRAL HALL  2-STORY DOUBLE PILE  
 SIDE HALL  BACK HALL  IRREGULAR  FOURSQUARE  BUNGALOW  
 MOBILE HOME  MODULAR  OTHER gatehouse

19. PRIMARY STRUCTURAL SYSTEM:

TIMBER FRAME  BRACED FRAME  BRICK  STONE  BALLOON FRAME  
 CONCRETE  STEEL  LOG  PLANK WALL  PLATFORM FRAME  
 FRAME CONSTRUCTION - TYPE UNKNOWN  OTHER

20. CHIMNEY PLACEMENT:

INTERIOR  INTERIOR FRONT/REAR  CENTER  INTERIOR END  EXTERIOR  
 OTHER

21. ROOF CONFIGURATION:

GABLE SIDE  GABLE FRONT  HIP  MANSARD  FLAT  
 GAMBREL  PARAPET GABLE  SHED  CROSS GABLE  
 COMPOUND  OTHER

22. ROOF MATERIAL:  WOOD  METAL  TILE  SLATE  ASPHALT  ASBESTOS

23. EXTERIOR WALL MATERIALS:

CLAPBOARD  BRICK  FLUSH SHEATHING  WOOD SHINGLE  STONE  
 LOG  PRESSED METAL  CONCRETE  STUCCO  ASPHALT  
 GRANITE  ASBESTOS  TERRA COTTA  BOARD AND BATTEN  ALUMINUM/VINYL  
 OTHER

24. FOUNDATION MATERIAL:

FIELDSTONE  BRICK  WOOD  CONCRETE  GRANITE  ORNAMENTAL CONC. BLOCK  
 OTHER

25. OUTBUILDINGS/FEATURES:

CARRIAGE HOUSE  FENCE OR WALL  CEMETERY  BARN (CONNECTED)  
 BARN (DETACHED)  FORMAL GARDEN  LANDSCAPE/PLANT MAT  ARCHAEOLOGICAL SITE  
 GARAGE  OTHER

**HISTORICAL DATA**

26. DOCUMENTED DATE OF CONSTRUCTION: 1973 27. ESTIMATED DATE OF CONSTRUCTION:

28. DATE MAJOR ADDITIONS/ALTERATIONS:

29. ARCHITECT: 30. CONTRACTOR:

31. ORIGINAL OWNER:

32. SUBSEQUENT SIGNIFICANT OWNER: DATES:

33. CULTURAL/ETHNIC AFFILIATION:

ENGLISH  FRENCH ACADIAN  NATIVE AMERICAN  SCOTTISH  FRENCH CANADIAN  
 EAST EUROPEAN  IRISH  OTHER

34. HISTORIC CONTEXT(S):

COMMERCE  INDUSTRY  TRANSPORTATION  AGRICULTURE  MILITARY  
 RELIGION  CIVIC AFFAIRS  RECREATION  HABITATION  EDUCATION  
 ART, LIT, SCIENCE  SOCIAL

35. COMMENTS/SOURCES:

36. HISTORICAL DRAWINGS EXIST:  YES  NO 37. KIT HOUSE  YES  NO 38. PATTERN BOOK HOUSE  YES  NO

**ENVIRONMENTAL DATA**

39. SITE INTEGRITY:  ORIGINAL  MOVED DATE MOVED

40. SETTING:  RURAL/UNDISTURBED  RURAL/BUILT UP  SMALL TOWN  URBAN  SUBURBAN

41. QUADRANGLE MAP USED: Portland East

42. UTM NORTHING: 5417555.19797953 43. UTM EASTING: -7818487.63003487

44. FACADE DIRECTION (CIRCLE ONE): N S E (W) NE NW SE SW

=====  
MHPC USE ONLY

DATE ENTERED IN INVENTORY: PHOTO FILE #:

NR STATUS:  L  HD  E  NE  ND REVIEWER

DATA SOURCE:  HPF  CLG  R&C  STAFF  STATE SURVEY OTHER LEVEL OF SURVEY:  R  I

## **A3: CAUSEWAY AND PIER CONDITION ASSESSMENT**

### **REPORT BY GEI**

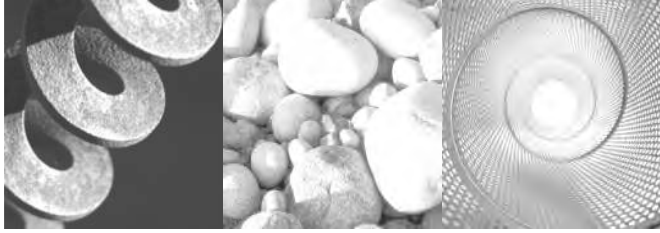
Report contents include a general review of the condition and resilience of the following items.

- Causeway
- Bridge
- Stone Pier
- Coastal Slopes

General observations of the December 23, 2022 storm are included in the report although a separate report will be issued independently from the Master Plan to address specific damage to the causeway and bridge that stem from the December 23, 2022 storm.







Consulting  
Engineers and  
Scientists



## Mackworth Island Vulnerability Assessment

Falmouth, Maine

**Submitted to:**

Harriman  
46 Harriman Drive  
Auburn, ME 04210

**Submitted by:**

GEI Consultants, Inc.  
5 Milk Street  
Portland, ME 04101  
207-347-2370

January 2023, Rev. 1  
Project 2201456



Barney Baker, P.E.  
Coastal Practice Leader

Dan Bannon, P.E., CFM.  
Project Manager / Senior Engineer

# Table of Contents

---

<b>Glossary of Terms</b>	<b>iii</b>
<b>1. Executive Summary</b>	<b>1</b>
1.1 Introduction	1
1.2 Island Transportation Connections Review	3
1.3 Connection Infrastructure Vulnerability	4
1.4 Options to Improve Resiliency of Island Connection	6
<b>2. History of Access to the island</b>	<b>8</b>
<b>3. Structure Condition Review</b>	<b>10</b>
3.1 General	10
3.2 Causeway Embankment & Bridge	10
3.3 Causeway Utilities	12
3.4 Causeway Repair Cost Estimate	13
3.5 Granite Pier	15
3.6 South and West Coastal Slopes	16
<b>4. Transportation Connection Resiliency</b>	<b>19</b>
4.1 FEMA Inundation Model	21
4.2 December 23, 2022 Storm Event	21
4.3 Portland Tidal Gage	22
4.4 Sea Level Rise Impact on Inundation	24
<b>5. References</b>	<b>26</b>

## Tables

---

1. Mackworth Island Connections Overview	4
2. Elevation Table for Mackworth Island	5
3. Options to Improve the Resiliency of the Mackworth Island Connection	7
4. Causeway/Bridge Construction and Repair History	14
5. Tabulated Inundation for Mackworth Island	19
6. Existing and Future Nuisance Flooding	24
7. Maine Climate Council Recommendations for Sea Level Rise	24

## Figures

---

1. Causeway Overtopping During December 23, 2022 Storm Event	1
2. Mackworth Island Location NOAA CHART 13290- Casco Bay	2
3. Causeway Connection to Mackworth Point - USGS Map	2
4. Flooding with Tidal Action, Storm Surge and Sea Level Rise	5
5. 1853 Chart No 54378_Part of Portland Harbor - NOAA Office of Coast Survey	8
6. 1896 Chart No 315 Casco Bay - Historical Charts NOAA Office of Coast Survey	8
7. 1914 ME Casco Bay USGS Quadrangle	9
8. 2019 Chart 13290 Casco Bay _ NOAA Office of Coast Survey	9
9. Mackworth Island Bridge Looking East from Boat	10
10. Mackworth Island Bridge Looking East from Mainland	11
11. West Causeway - Northside Armoring in Need of Repair	12
12. Granite Pier at Low Tide	15
13. MGS 2020 Coastal Bluff Map; No. 20-15	16
14. Section of Trail Located at The Top of a Steep Coastal Slope	17
15. Natural Ledge and Imported Riprap Protect the Coastal Embankment	17
16. Pocket Erosion in the Area where the Embankment Toe is Exposed	18
17. Mackworth Island Causeway- Tidal Data + 5-ft Wave, No Sea Level Rise	20
18. FEMA Flood Insurance Rate Map (Preliminary)	21
19. Station CASM1 Location	22
20. Portland Tidal Gage Data December 23, 2022 Storm Event	22
21. Portland Tidal Gage	23
22. Mackworth Island Causeway- Tidal Data + 2.4-ft SLR (2070 C2M) + 5-ft Wave	25
23. Mackworth Island Causeway- Tidal Data + 5-ft SLR (2070 P2M) + 5-ft Wave	25

## Appendices

---

### A. Project Plans

BJB/DJB:bdp

B:\Working\HARRIMAN ASSOCIATES\2201456 Concept Utilization Plan for Mackworth Island\01\_ADMIN\Resiliency Study\Rev1\_GEI Mackworth Island Resiliency Study\_2023-01-26.docx

## Glossary of Terms

---

**1% Annual Chance Storm:** Also known as the “100-year storm,” this storm has a 1% chance of occurring in any given year. It is also the storm condition that FEMA uses to determine their flood insurance maps.

**1% Flood Elevation:** Also referred to as the Base Flood Elevation (BFE), this is the water elevation that is expected to be seen during a 1% annual chance storm, or “100-year storm.” This elevation accounts for wave action (wave crests, wave setup, and wave runup) on top of the Still Water Elevation (SWEL).

**FEMA:** The Federal Emergency Management Agency, responsible for distributing Flood Insurance Rate Maps (FIRMs) and determining present-day 1% Flood Elevations.

**FIRMs:** Flood Insurance Rate Maps, or maps showing the flood extents and 1% Flood Elevations for present-day conditions, distributed by FEMA.

**FIS:** Flood Insurance Study, issued by FEMA to accompany the FIRMs and provide details regarding the basis of the 1% Flood Elevations and extents.

**HAT:** Highest Annual Tide, the highest elevation tidal water elevation in any given year as reported by the Maine Department of Environmental Protection.

**MHHW:** Mean Higher High Water, the average of the higher high-water height of each tidal day observed over the National Tidal Datum Epoch.

**MHW:** Mean High Water, the average of all the high-water heights observed over the National Tidal Datum Epoch.

**MLLW:** Mean Lower Low Water, the average of the lower low water height of each tidal day observed over the National Tidal Datum Epoch.

**MLW:** Mean Low Water, the average of all the low water heights observed over the National Tidal Datum Epoch.

**MSL:** Mean Sea Level, the arithmetic mean of hourly heights observed over the National Tidal Datum Epoch.

**NAVD88:** The North American Vertical Datum of 1988, the vertical datum used for all elevations in this report, unless stated otherwise.

**NOAA:** The National Atmospheric and Oceanic Administration, responsible for data buoys providing tidal datums and observed water levels.

**SLR:** Sea Level Rise, the relative increase in sea level over time that has been observed to occur historically or is projected to occur in the future.

**SWEL:** Still Water Elevation, or “storm surge.” The SWEL is the rise in the static water elevation during storms due to a decrease in atmospheric pressure and an increase in offshore winds. The SWEL does not include the additional water elevation often seen during storms due to wave setup, wave runup, or wave crests.



# 1. Executive Summary

---

## 1.1 Introduction

The Mackworth Island property located in Casco Bay is host to the Maine Education Center for the Deaf and Hard of Hearing at the Governor Baxter School for the Deaf. The island is also a State Park administered by the Maine Bureau of Parks and Lands.



**Fig. 1. Causeway Overtopping During December 23, 2022 Storm Event**

The State of Maine Bureau of General Services retained the firm of Harriman to prepare a Resource Utilization Plan for the built environment on Mackworth Island. The work includes an assessment of the buildings, utilities, parking and transportation and environmental impacts associated with existing and future land use on Mackworth Island.

The role of GEI Consultants, Inc. on the Harriman team was to provide an assessment of the vulnerability of the causeway and bridge structures to coastal flooding and sea level rise. GEI staff were able to reference and draw from involvement with 2007 and 2011 maintenance projects on the causeway and bridge.

The report also considered the resiliency of the historical granite

pier on the southern shore of the island that may one day be restored for vessel access and the steep slopes adjacent to the island perimeter trail system that is used year-round by park visitors.

The chart below illustrates the Casco Bay location of Mackworth Island relative to the Gulf of Maine. Although partially protected by the island chain formed by Cushing, Peaks, Great Diamond, Long Island and Chebeague islands, Mackworth Island is exposed to wave and storm surge conditions that develop with sustained winds from the South and East quadrants.

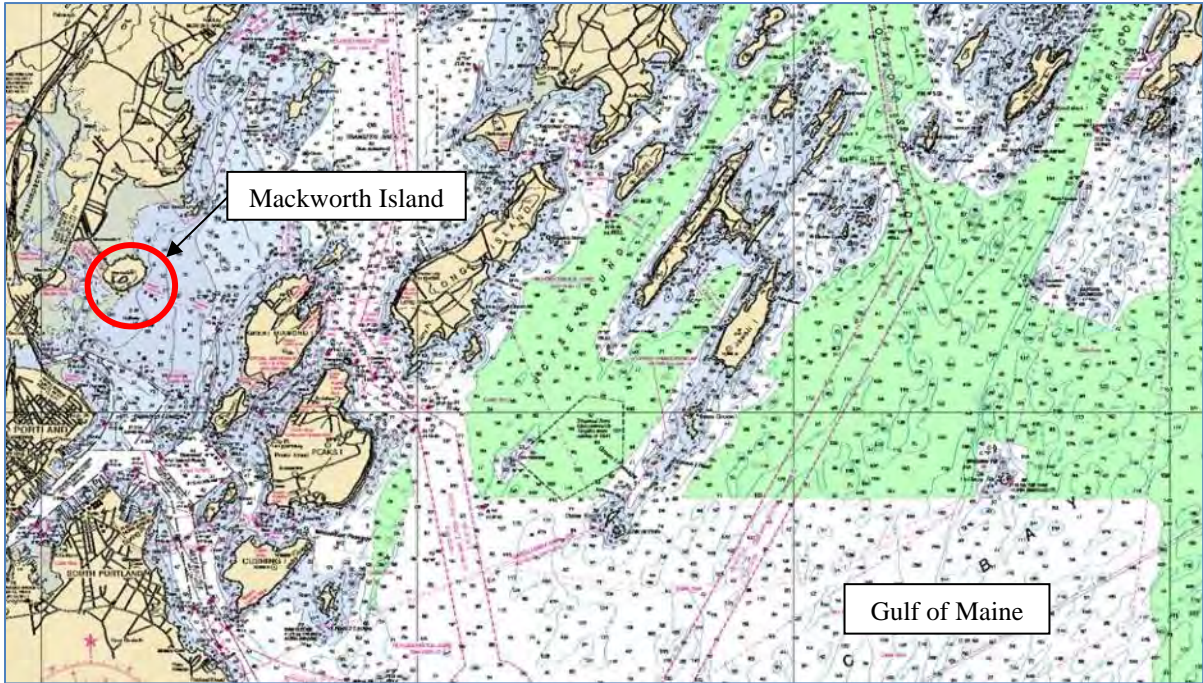


Fig. 2. Mackworth Island Location NOAA CHART 13290- Casco Bay



Fig. 3. Causeway Connection to Mackworth Point - USGS Map

## 1.2 Island Transportation Connections Review

Refer to the plans provided in Appendix A that refer to the causeway, bridge, and pier structures that comprise the Island Transportation Connections infrastructure considered in this report.

The vulnerability assessment investigated the condition and resiliency of the existing transportation infrastructure at risk to coastal flooding and damage. The causeway embankment and bridge are considered ‘critical’ infrastructure because these structures provide the only access to the island. The granite pier is currently unused as a transportation structure but might one day be improved to provide island access from the water. The stability of the south to west coastal embankment was added because of the park trail location at the top of the slope.

A site inspection was completed for each structure to provide a visual assessment of the condition and vulnerability to storm damage. This was supplemented by a desk top review of site exposure and a review of available storm damage and repair history documentation. Finally, a review of potential climate change impacts was undertaken to support an assessment of predicted sea level rise.

A transportation infrastructure assessment summary is provided in Table 1 with key observations and conclusions listed below.

- The total causeway length of 1,950 ft supports a 2-lane vehicle (and pedestrian) road with steel guardrail and pole mounted overhead utilities. Causeway sections, 850 ft East and 1,100 ft West are connected by a 5-span 102-foot bridge.
- The bridge is posted as not suitable for truck loading that exceeds 22 tons. This Load Rating reduces the capacity of the causeway crossing by 21% of the minimum required highway design load. In anticipation of construction on the island to upgrade buildings and infrastructure, the posted load limit will need to be considered in the selection of construction equipment used for the project. Reduced payloads may be necessary to comply with the 22 Ton limit.
- The entire causeway and bridge are subject to overtopping in a storm event that will become more frequent with sea level rise associated with climate change.
- Maine Climate Council Predictions for Sea Level Rise over the next 80-years will have a significant impact on ‘nuisance flooding’ which will result in road closures that are more frequent and for longer duration as time progresses.



**Table 1. Mackworth Island Connections Overview**

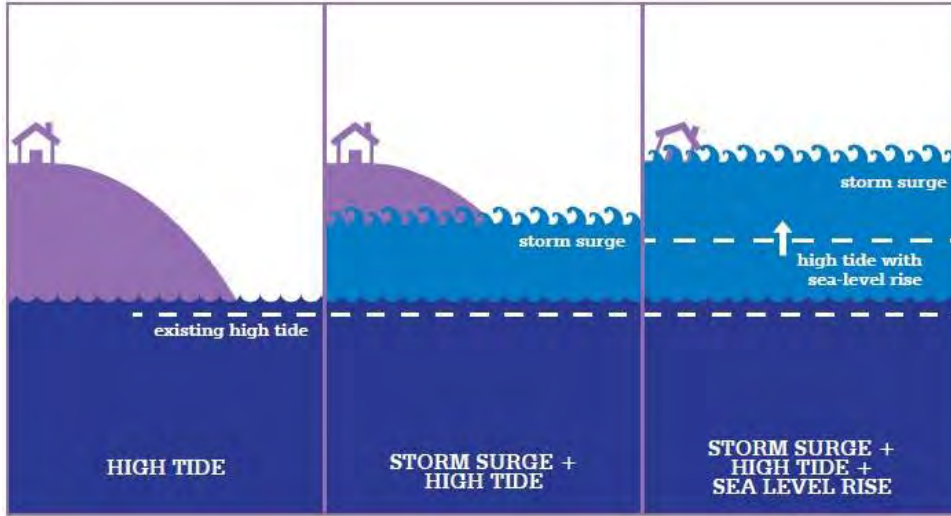
MACKWORTH ISLAND TRANSPORTATION CONNECTIONS				
Structure	Causeway	Bridge	Granite Pier	South & West Coastal Slope Trail
Year Built	1955	1955 2007, 2015 upgrades	~1900	Varies
Primary User	<b>Vehicles (Only Access)</b> & Pedestrians		Pedestrians	
Importance to Island Access/	<b>HIGH (Critical Island Link)</b>		<b>LOW</b>	<b>LOW</b>
Alternate Mainland Connection	<b>NONE Evacuation by Helicopter or Boat</b>		Move inland from Trail	
Responsible Party	Bureau of General Services	MaineDOT	Bureau of Parks and Lands	
Maintenance Partner	CMP- Overhead Service	Maine DOT (2 year Inspection)	NA	Bureau of Parks & Lands
Condition Rating	Serviceable	Serviceable Posted at 22 Tons	Serviceable for Pedestrian use	<b>Areas Impacted By Slope erosion</b>
Wave Action (current)	<b>Embankment Exposure</b>	<b>Yes</b>	<b>Yes</b>	Embankment Exposure
Flooding Overtopping	<b>Yes</b>	<b>Yes</b>	<b>Yes</b>	NA
Climate Change Vulnerability	<b>Sea Level Rise increases nuisance flooding and need for remedial action to address storm damage.</b>		Alternative route available. Increase in remedial action to address flood damage.	

### 1.3 Connection Infrastructure Vulnerability

Two sources were used to evaluate site flooding and the impact of climate change on the Mackworth Island transportation infrastructure.

- The Federal Emergency Management Agency (FEMA) develops flood models that use historical flood data to develop probability predictions for site inundation. The model considers the combined effect of tidal action, wind generated waves and storm surge with site specific transect corrections for coastal exposure and bathymetry.
- The Maine Climate Council (MCC) has published (*Maine Won't Wait, A Four-Year Plan for Climate Action, December 2020*) recommendations for future sea level rise that increase the predicted FEMA inundation model elevations based on the expected life of the structure. MCC provides a minimum "Commit to Manage" (C2M) sea level rise value, but also recommends considering the impact of more conservative "Prepare to Manage" (P2M) elevations in design development.

The figure below shows how tidal elevation, wind driven storm surge, and sea level rise are combined to determine the water elevation that a structure is likely to be exposed to during its design life.



**Fig. 4. Flooding with Tidal Action, Storm Surge and Sea Level Rise**

Tidal elevations, FEMA storm surge results and MCC recommendations for Sea Level Rise are compiled in Table 2. The tabulated information provides threshold water elevations that are used to assess the vulnerability of the Mackworth Island transportation infrastructure. The Table includes the MCC 2070 sea level rise predictions as it would be reasonable to use a minimum design life of 50-years for causeway, bridge, or pier improvements.

**Table 2. Elevation Table for Mackworth Island**

PROJECT ELEVATIONS (BY DATUM)			
ELEVATION	CHART	NAVD88	Notes
	(ft)	(ft)	
Prepare to Manage_5.0 + BFE	23.3	18.0	Maine Climate Council Sea Level 2070 Rise
Commit to Manage_2.4 + BFE	20.7	15.4	
Pier -Shoreside End	21.3	16	Approx. from Drone Suvey/LIDAR Data
FEMA BFE Causeway West Side	20.3	15.0	FIRM PRELIMINARY, ZONE VE, 4.14.2017
FEMA BFE Causeway East Side & Pier	18.3	13.0	
Pier- Seaward End	16.3	11	Approx. from Drone Suvey/LIDAR Data
Causeway Bridge Deck	16.3	11	Approx. from Drone Survey/LIDAR Data
Causeway Low Point North Side	14.3	9	
Causeway Low Point South Side	13.8	8.5	
FEMA Stillwater 0.2% Annual Chance	14.8	9.5	FIS Cumberland County Transect 058 (Casco BAY)
FEMA Stillwater 1% Annual Chance	14.1	8.8	
FEMA Stillwater 2% Annual Chance	13.8	8.5	
FEMA Stillwater 10% Annual Chance	13.2	7.9	
HAT Highest Annual Tide	11.3	6.7	2018 MEDEP Predictions for Cow Island
MHHW	9.9	4.6	BASED ON NOAA TIDAL BM 8418150 "Portland"
NAVD88	5.3	0.0	
MLLW	0.0	-5.3	

The tabulated information, supplemented by the conditions experienced in the recent December 23, 2022 storm support the following conclusions and observations regarding causeway, bridge, and pier vulnerability to flooding.

1. High water elevations have been recorded at the Portland Harbor Tidal Gage for more than 100 years. The recorded Dec 23, 2022, storm peak elevation was 8.46' NAVD88 (2.4 ft above normal) which is 1.1-inches higher than that recorded (8.37' NAVD88) during the 1978 storm of record. The protected location of the Portland Harbor Tidal Gage results in an elevation that can be transferred to other sites in Casco Bay with a correction for site specific wave height.
2. The December 23, 2022 conditions at Mackworth Island included wave action that built up with the southeast wind. Fig. 1 shows the causeway breaching at the low point on the north side of the bridge. Inspection after the storm revealed debris on the bridge approaches suggesting peak water elevations was close to bridge deck height (i.e., approximately 2.5 ft above Portland Tidal Gage). Therefore, the wave height correction is estimated to have been about 5 ft.
3. The December 23, 2022 inundation elevation estimate at the Mackworth Island Causeway (11.0 NAVD88) falls short of the 2018 FEMA BFE (Preliminary) model that predicts the bridge will be submerged by approximately two (2) to four (4) feet in a storm with an annual probability occurrence of 1% (the 100-year storm).
4. The sea level rise predicted by the Maine Climate Council to occur by 2070 will result in storm flooding with a 1% annual probability of occurrence resulting in water levels over the existing bridge of 4.5 ft to 7 ft.

## **1.4 Options to Improve Resiliency of Island Connection**

GEI recommends the findings from this vulnerability assessment be used to guide planning decisions to mitigate the impact of coastal flooding on the Mackworth Island causeway that periodically results in road closure that will only become more frequent with the future sea level rise associated with climate change. Three (3) options to address the current deficiencies of the Mackworth Island crossing are compared in the Table below. The option selected must balance site safety, environmental impact, and long-term resiliency of the island connection.

- OPTION A repairs and maintains the existing causeway elevation and alignment which will continue the cycle of storm damage, road closure and repairs required to maintain the crossing. The cost for maintenance repairs to the causeway outlined in Section 3.1 is estimated to be \$2 to \$2.5.
- Both OPTION B and OPTION C address the impact of sea level rise associated with climate change by raising the road crossing to prevent wave overtopping thereby ensuring unrestricted access to the island during a storm event.



**Table 3. Options to Improve the Resiliency of the Mackworth Island Connection**

RESILIENCY OPTIONS SUMMARY	OPTION A Repair Existing Crossing	OPTION B Raise Causeway/New Bridge	OPTION C New Bridge for Entire Crossing
<b>Structure Type</b>	Armored Causeway/Bridge	Armored Causeway/Bridge	Pile Supported Bridge
Cost	Lowest Cost	High Cost	High Cost
Maintenance	Overtopping Maintenance	Low Maintenance	Low Maintenance
Utilities Upgrade	No Change_Overhead Poles	Below Grade Conduits	Conduits Under Bridge Deck
<b>Environmental Impact</b>			
Intertidal Footprint	No Change	Increased mudflat footprint	Reduced mudflat footprint
Tidal Flow	No Change	No Change	Restores cove circulation to 1955 condition
Mainland/Island Approaches	No Change	Elevated Approach See Figures 2 & 3	Elevated Approach See Figures 2 & 3
Visual Impact	No Change	Raised Structure	Raised Structure
<b>Resiliency</b>			
Bridge Clearance	No Change Bridge Deck < 11.0 NAVD88	MCC 2070 P2M Bridge Deck > 18.0 NAVD88	MCC 2070 P2M Bridge Deck > 21.0 NAVD88
Overtopping/Road Closure	Current and Increasing with Sea Level Rise	NA	NA

## 2. History of Access to the island

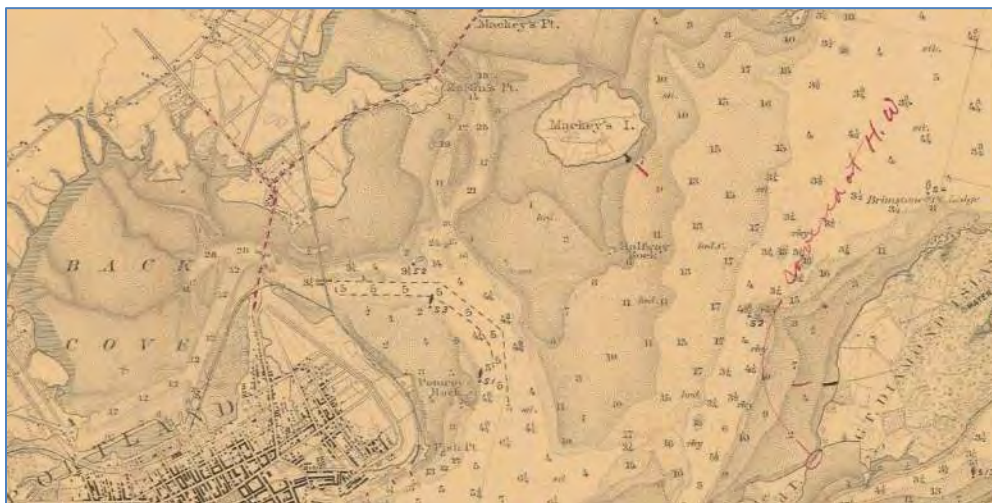
---

Historical charts and Maps were researched to determine the evolution of island access in part to determine what alternative routes might exist if the existing causeway/bridge link were replaced. A chronology is provided below:



**Fig. 5. 1853 Chart No 54378\_Part of Portland Harbor - NOAA Office of Coast Survey**

The 1853 chart above notes: “Flats passable for teams at Low Water to the island”. The granite pier appears on the 1896 chart on what was then called Mackey’s Island. The pier served as the only dedicated access until a timber bridge was built prior to WW1.



**Fig. 6. 1896 Chart No 315 Casco Bay - Historical Charts NOAA Office of Coast Survey**





Fig. 7. 1914 ME Casco Bay USGS Quadrangle

The Timber bridge connecting Mackworth Island to Mackworth Point shows up in the 1914 chart above. We know this was replaced by the causeway/bridge in 1955. Refer to the 2019 Casco Bay chart below.

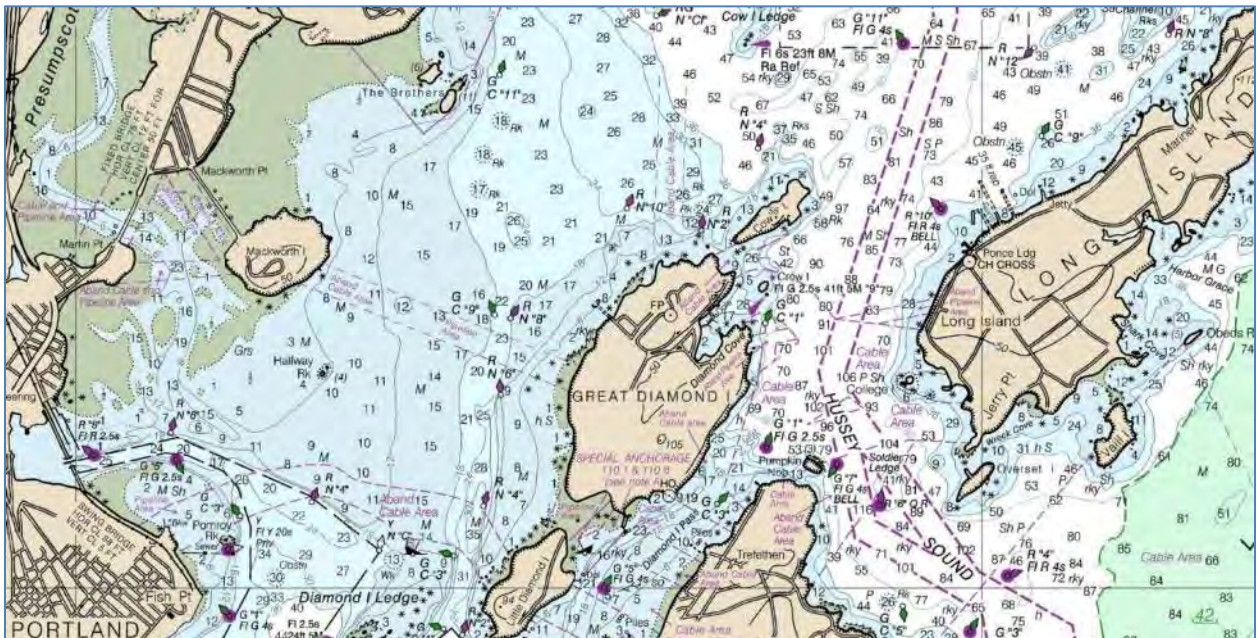


Fig. 8. 2019 Chart 13290 Casco Bay \_ NOAA Office of Coast Survey

## 3. Structure Condition Review

---

### 3.1 General

Mackworth Island is on a hurricane coastline and therefore has a shorefront that is subject to coastal storm activity. Good protection is provided by the mainland to the north and west and to a lesser extent from offshore islands to the south and east. The island is most vulnerable to wave action and storm surge that develops with sustained winds from the northeast quadrant clockwise to the southwest quadrant.

The coastal geology is a mix of ledge outcrops, mudflat, and glacial deposits. The latter formations, being highly erodible, require embankments (and structures) to be armored and reinforced.

Casco Bay has been known to freeze over in the winter. A concentration of ice build-up on the causeway shore together with tidal action can damage existing shorefront armoring. There appears to be evidence of this on the northwest side of the causeway where the stone filled mattresses are broken and deformed.

### 3.2 Causeway Embankment & Bridge

Refer to Drawings 2-1 and 2-2 located in Appendix A.



**Fig. 9. Mackworth Island Bridge Looking East from Boat**

The causeway and bridge were constructed in 1955 to make the 2,050-foot crossing from Mackworth Island to the Falmouth mainland. The construction provided 2-lanes of vehicle travel to the island that replaced a timber bridge that was removed at the time. The 101-foot, 5-span timber pile supported bridge crosses a tidal channel that flows through the causeway. Currently, both these structures are in 'Serviceable' condition providing road access to the island except during extreme storm conditions when the causeway is overtopped by wave action. When overtopped, the causeway embankment is subject to attack from and



overtopped by wave action, making it vulnerable to washout and migration of fines that create voids below the pavement.



**Fig. 10. Mackworth Island Bridge Looking East from Mainland**

An extensive program of remedial action has been necessary to maintain this causeway/bridge crossing as evidenced by the chronology of repairs tabulated in Table 4. The causeway stone armor has been repaired and upgraded in intervals to mitigate storm damage and overtopping. The presence of soft soils at two (2) locations (one east and one west of the bridge) have resulted in causeway settlement of approximately 2 ft as measured in 1966, 2007 and in the recent drone survey completed for this assessment.

MaineDOT inspects the causeway bridge every two (2) years with the most recent inspection dated 05/26/2022. Features of the bridge (railing, guardrail, load capacity) are listed as substandard and it is noted that the bridge abutment armoring, and piles are subject to channel tidal flow scour. The bridge load capacity was upgraded in 2015 with the addition of new exterior girders that provide additional support to the bridge superstructure. In its current configuration with the added exterior girders, the bridge is listed as ‘fracture critical’ meaning there is little redundancy in the structure if these members fail or are damaged. All these factors contribute to the load rating of 22 Tons.

The original bridge structure is still intact but has been strengthened with extensive repairs in 1981 and 2015. This included deck reinforcement (1981) and exterior girders with independent abutments (2015). Refer to Table 4 for a chronology of recorded storm damage and repair history.

### 3.3 Causeway Utilities

There are no underground utilities on the causeway. A sewer line is buried in the seabed north of the causeway and the waterline crosses the mudflats south of the causeway.

Pole mounted overhead power, telephone and cable lines connect the island to the mainland. These are supported by poles on the causeway that have proved vulnerable to storm damage and associated power outages.

It is recommended that with any future upgrade or replacement of the causeway that overhead utilities be eliminated and placed in conduits buried on the embankment and/or supported under a bridge structure.



**Fig. 11. West Causeway - Northside Armoring in Need of Repair**



### 3.4 Causeway Repair Opinion of Probable Costs

The bridge is subject to overtopping in extreme storm conditions and should be checked for damage after each storm event. A site walk undertaken after the December 23, 2022 coastal storm<sup>1</sup> confirmed that sections of the causeway had been overtopped with evidence of debris deposits on the causeway and areas where pavement layers had peeled off.

The rough costs presented in this section are based on 2022 prices and corridor condition at the time of the field inspection and drone survey completed in April 2022. The extent of deficiencies will need to be reaffirmed in advance of construction year and a cost escalation of approximately 6% -10% per year should be applied with a 25-30% contingency added to cover engineering, survey, and permitting associated with the rehabilitation program. A further adjustment will also be needed to account for construction phasing and maintenance of traffic during the work activity. Ballpark total project costs could approach \$2-\$3 million.

- **West Causeway** - Northside Armoring- The Stone mattress armoring is deteriorating and needs to be replaced. Refer to Fig. 11. The metal mattress is compromised in multiple locations and the interior stone is getting washed out above the toe of the slope. Gaps have developed in the armoring and the top of the slope is starting to unravel at the guardrail. It is estimated that approximately 900ft of the embankment needs to be reconstructed to restore slope protection at an estimated \$1,500 to \$2,000 per linear foot.
- **East & West Causeway** - Overhead Utilities- Several poles are not straight suggesting wind damage and/or shifting subsurface support. Embedment in the existing slope has been compromised by wave action. The cost of re-setting new utility poles in-kind is estimated to be \$10,000 to \$20,000.
- **East & West Causeway** - Raise low points- Two (2) areas that have settled should be raised approximately 18 inches to match the adjacent causeway grade. This will increase the freeboard of the causeway in these areas and raise the overtopping threshold in future flood events that requires a road closure. The cost estimate for this work is \$60,000 when combined with embankment armoring and paving. If completed separately an increased cost should be anticipated.
- **East & West Causeway** - Paving- Existing paving is intact, but in fair to poor condition. A \$150,000 to \$175,000 overlay following the repairs above is likely to be necessary.
- **Bridge** - Visual inspection from road surface only. One steel beam to abutment nut on the Northeast corner is missing. Otherwise, no obvious deterioration observed.

---

<sup>1</sup> A separate GEI assessment has been authorized to review site damage from the 23Dec2022 storm event and to make observations related to corridor safety. The information presented in this section is intended to provide a ballpark indication of rehabilitation requirements with the limited visual assessment completed for this study.

**Table 4. Causeway/Bridge Construction and Repair History**

Causeway/Bridge Construction and Repair History		
Year	Causeway/Bridge deterioration/storm damage	Rehabilitation Measures Taken
1954	Mackworth Island Causeway & Bridge Constructed.	
1954 - 1966	Two sags develop; from STA 15+50 to STA 17+50 and STA 22+75 (edge of bridge) to STA 25+00.	1966-Geotechnical subsurface study- William Gorrill- loss of fines and fill material over 12 years.
1969	Winter storm, damage to road from overtopping.	Temporary Repairs to road surface.
1971		Causeway rehabilitation from winter storm 69'; Stone Fill and Guardrail replacement.
1973		Temporary repairs are done to the road and guardrail. Crushed stone used to fill holes in pavement, holes are of varying depths.
1974	April 2 storm causes damage to embankment and road. Wave damage lifts pavement on causeway between bridge & mainland. Between bridge & island damage limited to embankment.	Gabions are installed along the north side of the causeway, between the mainland and bridge, approximately 2/3 of the total length.
1978-86	Storm on January 9th causes damage to the southerly side of the causeway.	1979 Wetlands Alteration Permit awarded to Mackworth Island.
		1980- Phase I (length of road between the mainland and bridge) rehabilitation starts; the addition of riprap and paving of the roadway surface.
		1981 Bridge on the causeway has steel beams added under the decking for additional support.
		1982 Phase II (length of road between the bridge and Island) is completed; the addition of riprap and paving.
		1983 Railing along bridge converted from timber to steel.
		1986 Additional bridge repair.
1986 - 2007	Periodical events overtopping the causeway, minor repairs done by Island maintenance.	
2007	Storm causes severe damage to the east bridge approach.	Emergency repairs done to reopen causeway. Jersey barriers, stone and sand used to fill large void in road section then repaved.
2007- 2011	Additional events overtop the causeway producing further damage to the roadway surface and the embankments. Gabions have severe failure.	2008 Minor repairs done by Island maintenance staff to the road surface only. Damaged/deteriorated utility pole replacement by CMP.
		2011 Bridge and Northside Riprap repairs.
2015	Bridge Upgrade	MaineDOT adds structural exo-skeleton to bridge to address superstructure deterioration and load capacity
2022	Bridge Inspection	Posted Weight Limit of 22 Tons

### 3.5 Granite Pier

The granite pier first appears on historical charts in 1896 and until a timber bridge was installed (sometime between 1909 and 1914) would have been the primary access to the island. The 1943 chart shows a utility crossing to Great Diamond Island which the current Casco Bay chart identifies as an ‘abandoned cable’ and ‘pipeline area’ crossing suggesting the granite pier may have served military interests at one time. There is evidence of cribs directly offshore from the pier that likely extended the structure to deep-water. No documentation was found to suggest the pier was used for island access after the causeway was constructed.

The granite block structure looks to be in good condition and appears to have been restored and overtopped with grass to provide a stable Casco Bay overlook for park visitors.

In its current configuration it has little use except for the occasional high tide landing. It might be extended with an ADA ramp and seasonal float for small boat access. It would not be suitable for a year-round ferry landing without extensive modification to address flood inundation, deep-water access, and the need for wave protection.

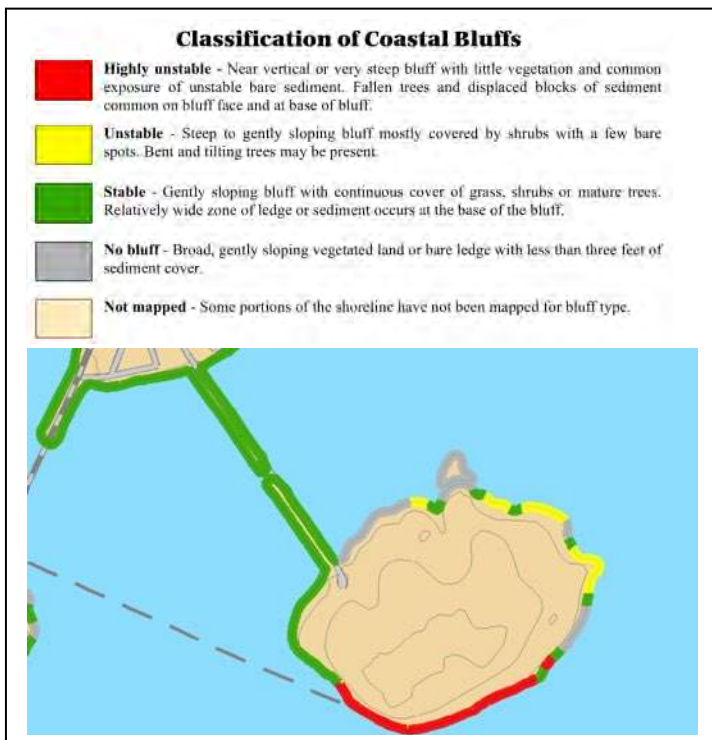
The seaward end of the pier was overtopped during the December 23, 2022 coastal storm causing minor washout in the fill at the end of the pier. The fill material and salt-tolerant grass/ plantings should be replaced in the spring for an estimated \$2,000 to \$3,000.



**Fig. 12. Granite Pier at Low Tide**  
(Remnants offshore suggest the original pier extended into deep-water)

### 3.6 South and West Coastal Slopes

The coastal slopes that face from West to South on the island are the highest on the island. A location inventory of the pictures taken to document the condition of these slopes is provided in Appendix A in Drawings 5-1, 5-2, and 5-3. A separate file of the pictures is available with this report. The pictures provide evidence of active erosion and evidence of prior efforts to armor the slope. The condition of the site is consistent with the Maine Geological Survey classification of these slopes as ‘Highly Unstable Bluffs.’ Refer to the MGS Mapping in the figure below.



**Fig. 13. MGS 2020 Coastal Bluff Map; No. 20-15**

A park trail circumnavigates the island and provides the trail user with impressive views of Casco Bay. The trail is contiguous with the high coastal slope that extend south to east (i.e., along the shore from visitor parking to the granite pier).

Although beyond the scope of this study, it is recommended that a detailed survey<sup>2</sup> be undertaken on the perimeter trail to identify those areas where bluff erosion is encroaching on the stability and safe use of the trail. See Fig. 14

which shows the trail at the top of the slope with no buffer. In these areas, it must be determined whether slope stabilization is warranted to protect the trail. Generally, an adaptative solution that relocates the trail inland from the top of slope is the most practical alternative to improve trail safety at least cost and is the solution that is most compatible with current Maine and Falmouth shoreland zoning standards.

A visual inspection of these slopes from the beach reveals natural armoring from ledge outcrops at the toe of the slope. Where no ledge outcrops are present, stone riprap armoring has been installed resulting in an estimated 90% of the shoreline being protected. See Fig. 15. In isolated sections where the slope is not protected, active surficial failures have developed that threaten to encroach on the trail system above. This erosion is caused by undercutting of the toe by wave action leading to the development of erosion pockets that

<sup>2</sup> The survey was procured as an additional service by BGS and will be included as an Appendix to the final Harriman report.



migrate up the slope over time. In areas where the root system of a tree is undercut, the erosion occurs quickly when the tree fails. Refer to Fig. 16.



**Fig. 14. Section of Trail Located at The Top of a Steep Coastal Slope**

(Note evidence of surficial slide and subsequent repair.)



**Fig. 15. Natural Ledge and Imported Riprap Protect the Coastal Embankment**





**Fig. 16. Pocket Erosion in the Area where the Embankment Toe is Exposed**



## 4. Transportation Connection Resiliency

The sources used to determine tidal elevations, wave action, storm surge and associated flooding on the Mackworth Island transportation infrastructure are summarized in Table 5 below (same as Table 2 duplicated for easy reference). The Table provides cumulative threshold water elevations for Mackworth Island that contribute to the peak coastal flooding that threatens the Mackworth Island transportation infrastructure.

Finally, Maine Climate Council (MCC) recommendations for future sea level rise are presented in the Table and in *Section 4.4 Sea Level Rise Impact on Inundation*.

**Table 5. Tabulated Inundation for Mackworth Island**

PROJECT ELEVATIONS (BY DATUM)			
ELEVATION	CHART	NAVD88	Notes
	(ft)	(ft)	
Prepare to Manage_5.0 + BFE	23.3	18.0	Maine Climate Council Sea Level 2070 Rise
Commit to Manage_2.4 + BFE	20.7	15.4	
Pier -Shoreside End	21.3	16	Approx. from Drone Suvey/LIDAR Data
FEMA BFE Causeway West Side	20.3	15.0	FIRM PRELIMINARY, ZONE VE, 4.14.2017
FEMA BFE Causeway East Side & Pier	18.3	13.0	
Pier- Seaward End	16.3	11	Approx. from Drone Suvey/LIDAR Data
Causeway Bridge Deck	16.3	11	Approx. from Drone Survey/LIDAR Data
Causeway Low Point North Side	14.3	9	
Causeway Low Point South Side	13.8	8.5	
FEMA Stillwater 0.2% Annual Chance	14.8	9.5	FIS Cumberland County Transect 058 (Casco BAY)
FEMA Stillwater 1% Annual Chance	14.1	8.8	
FEMA Stillwater 2% Annual Chance	13.8	8.5	
FEMA Stillwater 10% Annual Chance	13.2	7.9	
HAT Highest Annual Tide	11.3	6.7	2018 MEDEP Predictions for Cow Island
MHHW	9.9	4.6	BASED ON NOAA TIDAL BM 8418150 "Portland"
NAVD88	5.3	0.0	
MLLW	0.0	-5.3	

The flooding of the causeway, pier, and bridge is also graphically depicted by Fig. 17 using data from the recent *December 23, 2022 Storm Event*. The characteristics of this storm are detailed in *Section 4.2*. Pictures and reports of conditions at the site that occurred during the event serve to validate the elevation data presented for the site and support the following observations regarding causeway, bridge, and pier vulnerability to flooding.

1. High water elevations have been recorded at the Portland Harbor Tidal Gage for more than 100 years. The recorded data indicate the water elevation measured at the peak of the December 23, 2022 storm was 8.46 ft NAVD88 (2.4 ft above normal) which is 1.1-inches higher than that recorded (8.37 ft NAVD88) during the 1978 storm of record. It is also noted that the elevations recorded at the Portland Harbor Tidal Gage do not include the additional contribution of wave height to total water elevation.
2. Wave height contribution to flooding is site specific and dependent on exposure and fetch. The December 23, 2022 conditions at Mackworth Island included wave action that built up with high and sustained winds from the southeast quadrant. Fig. 1 shows the causeway breached at the low point on the north side of the bridge. Inspection after the storm revealed debris on the bridge approaches suggesting it was close to being overtopped (an elevation approximately 2.5 ft above the Portland Tidal Gage). Therefore, the wave height is estimated to have been about 5 ft.
3. The December 23, 2022 storm inundation elevation estimate at the Mackworth Island Causeway (11.0 NAVD88) falls marginally short of the 2018 FEMA BFE model that predicts the bridge will be submerged by approximately two (2) to four (4) feet in a storm with a probability occurrence of 1% (the 100-year storm).
4. The sea level rise predicted by the Maine Climate Council to occur by 2070 under the C2M condition must be verified by site specific modeling. An approximate estimate results in storm flooding with a 1% probability occurrence over the existing bridge of 4.5 ft to 7 ft.

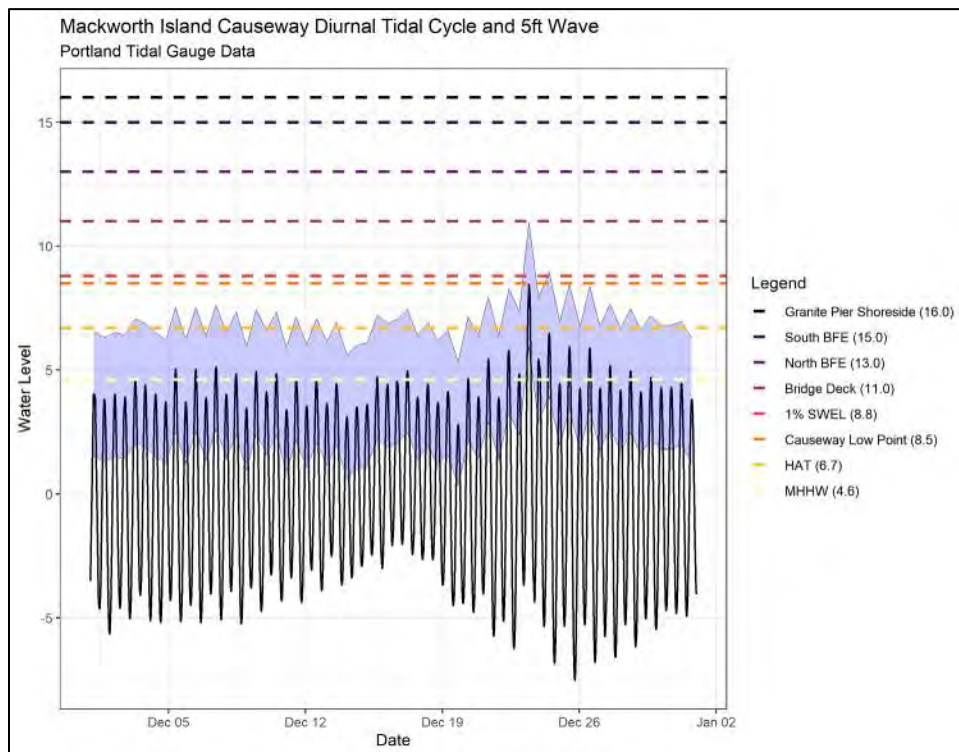


Fig. 17. Mackworth Island Causeway- Tidal Data + 5-ft Wave, No Sea Level Rise

## 4.1 FEMA Inundation Model

The Federal Emergency Management Agency (FEMA) develops flood models that use historical flood data to develop probability predictions for site inundation. The model considers the combined effect of tidal action, wind generated waves and storm surge with site specific transect corrections for coastal exposure and seabed bathymetry. The FEMA models are the accepted standard for community flood insurance programs that use FEMA published data as a benchmark to assess site vulnerability.

Fig. 18 shows the FEMA flood modeling results for the “100-year storm” overlaid on an aerial image of the site. This storm is predicted to have a 1% chance of occurring in any given year, also known as the Base Flood Elevation (BFE). The BFE on the north side of the causeway is VE EL 15.0 NAVD88. The VE designation indicates the wave height that contributes to the BFE is greater than 3 ft.

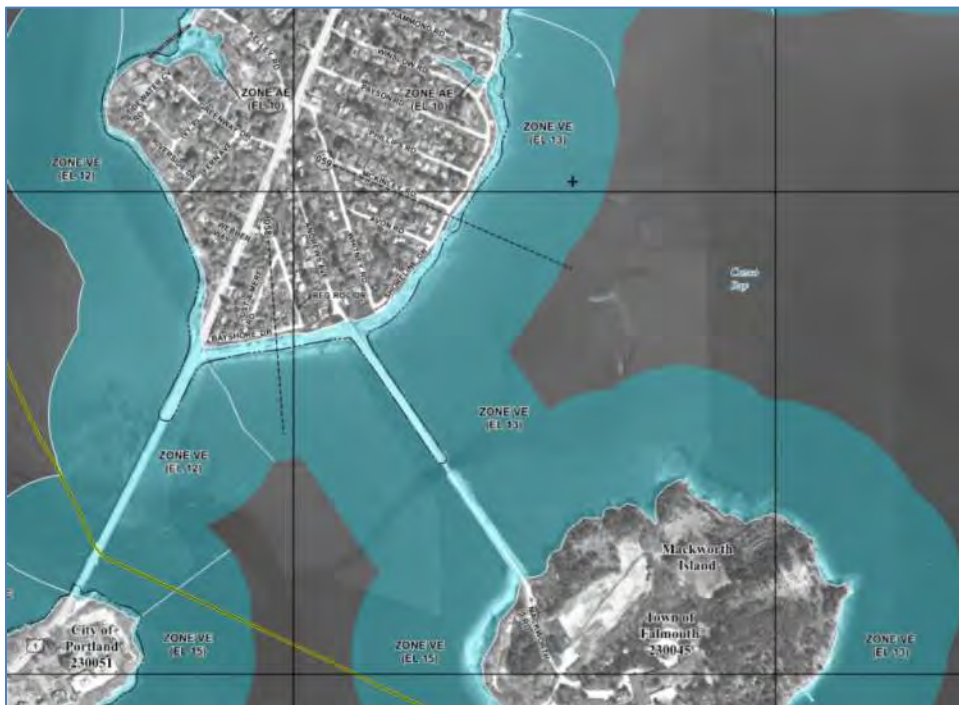


Fig. 18. FEMA Flood Insurance Rate Map (Preliminary)

## 4.2 December 23, 2022 Storm Event

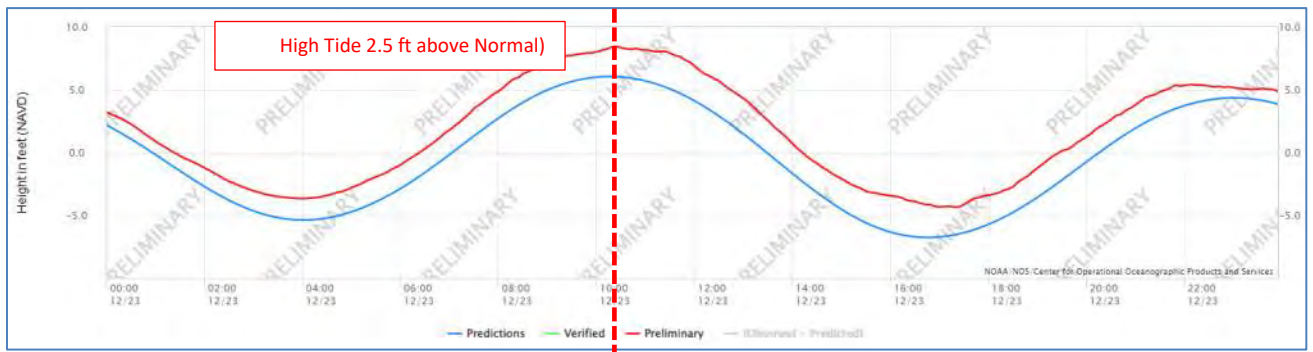
The December 23, 2022 storm event overtopped the Mackworth Island causeway and required the road to be closed. Storm characteristics can be defined by the recorded data from Portland Station CASM1 noted below and reports and pictures of site flooding.



**Fig. 19. Station CASM1 Location**

Date: December 23, 2022 (24-hr period):

Predicted High Tide:	Elev. 6.07 NAVD88 @ 10:12 AM
Recorded Highwater (preliminary):	Elev. 8.46 NAVD88 @ 10:42 AM
Average Wind Direction (24-hr day):	118 Degrees (ESE)
Average Wind Speed (24-hr day):	28 knots
Maximum Wind Gust:	52.5 knots @ 12:10 EST
Average Wave Height (24-hr day):	4 m
Maximum Wave Height:	6.5 m @ 13:20 EST



**Fig. 20. Portland Tidal Gage Data December 23, 2022 Storm Event**

### 4.3 Portland Tidal Gage

The following synopsis of historical sea level rise measurement is posted on the NOAA website and is based on monthly Portland Harbor Mean Sea Level (MSL) tidal gage data recorded between 1912 and 2006.



*“The monthly extreme water levels include a Mean Sea Level (MSL) trend of 1.82 millimeters/year with a 95% confidence interval of +/- 0.17 millimeters/year based on monthly MSL data from 1912 to 2006 which is equivalent to a change of 0.60 feet in 100 years”*



**Fig. 21. Portland Tidal Gage**

Table 6 provides a prediction for ‘Nuisance Flooding’ which is defined as the period when the causeway and bridge are overtopped in tidal and/or storm surge conditions without wave action. The Table uses Portland Tidal Gage data (1910- 2023) recorded at hourly intervals to determine the average time in hours/day key points on the causeway, bridge and pier are overtopped. Maine Climate Council projected sea level rise values are superimposed on this data to show how the flooding interval is predicted to increase from 2030 to 2100. Although not considered in this Table, it is recognized that the addition of wave action will increase the frequency and timeframe of the intervals provided in the table.

Nuisance Flooding is significant for two main reasons:

1. Road closure is necessary to maintain site safety during overtopping conditions, requiring an alternative Fire or Rescue response to be developed.
2. Overtopping is accompanied by breaking waves, suction forces and saturated soils that result in migration of fines and damage to the causeway that may render the road impassable until repairs can be made further isolating island operations.



**Table 6. Existing and Future Nuisance Flooding**

NUISANCE FLOODING (Based on FEMA Historical Data and MCC Predictions for Sea Level Rise)										
Site Feature			Maine Climate Council predicted SLR added to Portland Tidal Gage data (i.e. site specific wave height and runup not included) Year (Height Increase)							
Location		Elevation NAVD88-FT	Average Inundation Per Day (hours)							
			COMMIT to Manage (C2M)				PREPARE to Manage (P2M)			
			2030 (0.8 ft)	2050 (1.5 ft)	2070 (2.4 ft)	2100 (3.9 ft)	2030 (1.4 ft)	2050 (3.0 ft)	2070 (5.0 ft)	2100 (8.8 ft)
Causeway	Low Point North Side	<b>9.0</b>	0.0	0.0	<b>0.1</b>	<b>1.1</b>	0.0	<b>0.3</b>	<b>3.4</b>	<b>11.4</b>
	Bridge Deck	<b>11.0</b>	0.0	0.0	0.0	0.0	0.0	0.0	<b>0.3</b>	<b>8.0</b>
	Low Point South Side	<b>8.5</b>	0.0	0.0	<b>0.2</b>	<b>1.9</b>	0.0	<b>0.6</b>	<b>4.7</b>	<b>12.2</b>

#### 4.4 Sea Level Rise Impact on Inundation

The Maine Climate Council (MCC) publishes recommendations for future sea level rise that should be added to the FEMA inundation model results based on the design life planned for the structure. MCC provides a minimum “Commit to Manage” (C2M) sea level rise value based on the lifespan of the proposed improvements. MCC also provides a more conservative “Prepare to Manage” (P2M) recommendation that should also be considered in design development. The Table below summarizes MCC recommendations for future sea level rise based on the structure life cycle.

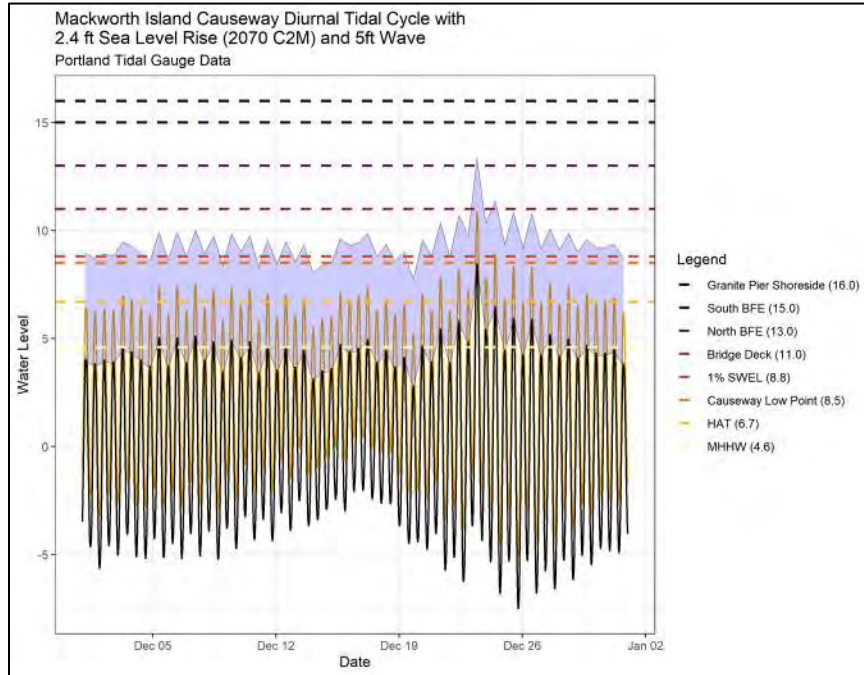
**Table 7. Maine Climate Council Recommendations for Sea Level Rise**

Planning Scenario	"Commit to Manage"	"Prepare to Manage"
Year	Intermediate Scenario	High Scenario
<b>2030</b>	0.8	1.4
<b>2050</b>	1.5	3
<b>2070</b>	2.4	5
<b>2100</b>	3.9	8.8

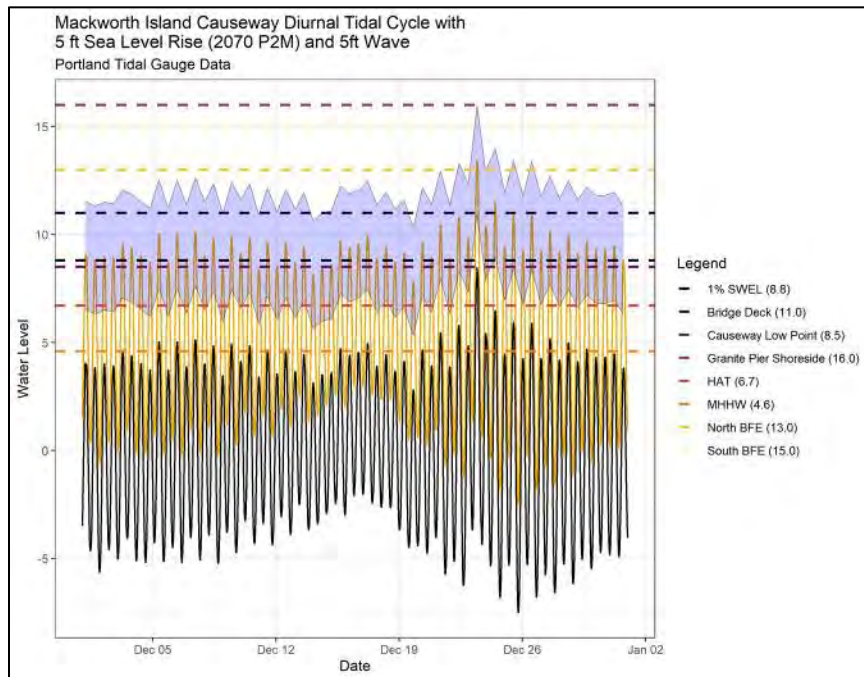
*Relative Sea Level Rise (feet) from 2000*

*Taken from Maine Climate Council's "Scientific Assessment of Climate Change and Its Effects in Maine",  
 Dated August 2020*

Figs. 22 and 23 superimpose the MCC 2070 sea level rise predictions on the current flood model (See Fig. 17) as it would be reasonable to expect that a causeway, bridge, or pier when improved or replaced would have a design life of 50-years.



**Fig. 22. Mackworth Island Causeway- Tidal Data + 2.4-ft SLR (2070 C2M) + 5-ft Wave**



**Fig. 23. Mackworth Island Causeway- Tidal Data + 5-ft SLR (2070 P2M) + 5-ft Wave**

## 5. References

---

1. Coastal Geology
  - a. Bedrock Geology of the Portland 7.5' Quadrangle, Cumberland County, Maine; Arthur Hussey; 2003.
  - b. Bedrock Geology Mapping; Portland East Quadrangle, Maine; Me Geological Survey; 03-90; 2003
  - c. Coastal Landside Hazards Mapping; Portland East Quadrangle, Me; Maine Geological Survey; 01-534; 2001.
  - d. Coastal Bluffs Mapping; Portland East Quadrangle, Me; Maine Geological Survey; 02-205; 2002.
  - e. Surficial Geology Mapping; Portland East Quadrangle, Me; Maine Geological Survey; 99-95; 1999.
  - f. Surficial Materials Mapping; Portland East Quadrangle, Me; Maine Geological Survey; 99-39; 1999.
  - g. Coastal Marine Geological Environments Mapping; Portland East Quadrangle, Me; Maine Geological Survey; 76-121; Barry Timson; 1976
2. Flood studies and Mapping
  - a. FEMA NFIP FIRM; Community Panel 230045 0009 B; Town of Falmouth; Cumberland County, Maine; Effective 10/16/1984.
  - b. FEMA NFIP FIRM; Community Panel 230045 0013 B; Town of Falmouth; Cumberland County, Maine; Effective 10/16/1984.
  - c. FEMA NFIP FIRM; Community Panel 230045 0703 F; Town of Falmouth; Cumberland County, Maine; Preliminary 4/14/2017.
  - d. FEMA NFIP FIS; Community; Falmouth 230045; Cumberland County, Maine; Preliminary 8/30/2019.
  - e. Maine Climate Council Technical Reports and references; <http://climatecouncil.maine.gov/>
  - f. Northeastern Regional Association of Coastal Ocean Observing Systems (NERACOOS); <http://neracoos.org/>
  - g. National Oceanic and Atmospheric Administration; National Ocean Service; <https://tidesandcurrents.noaa.gov/waterlevel>
  - h. Federal Emergency Management Agency (FEMA) (2017). Atlantic Ocean and Gulf of Mexico Coastal Guidelines Update. FEMA Region VI, FEMA Headquarters.

3. Regulatory Documents

- a. Chapter 305 -Permit by Rule- Maine Natural Resources Protection Act; Amended to June 8, 2012. <https://www.maine.gov/dep/land/nrpa/index.html>
- b. Chapter 310-Wetlands- Maine Natural Resources Protection Act; Amended to November 11, 2018. <https://www.maine.gov/dep/land/nrpa/index.html>
- c. Maine General Permit; Dept of the Army; October 2020 <https://www.nae.usace.army.mil/Missions/Regulatory/State-General-Permits/Maine-General-Permit/>
- d. Maine Department of Environmental Protection (Maine DEP) (2018). Highest Annual Tide (HAT) Levels for Year 2018 Maine Coast from Eastport to Kittery.

4. Survey Data

- a. GEI Drone Survey and Imagery; 2022 04
- b. Maine GIS: Various Land Use Data Sets that include aerial imagery and lidar contour information.
- c. NOAA Chart 13292; Portland Harbor and Vicinity

5. Town of Falmouth

- a. Property: Falmouth Tax Map Reference: R02-012

6. Legacy Drawings

<b>Date</b>	<b>Drawing Set Description</b>	<b>Company Reference</b>
<b>1953</b>	Shts 1-12 (of12)- Caseway Construction	State Highway Commission Bridge Division
<b>1972</b>	Shts 1 & 5 (of10)- Force Main Nth of Causeway	Edward C. Jordan Co., Inc.
<b>1973</b>	Sht 1 of 1- Gabion Revetment to East Embnkment North Sta 3 to 11+20; Sth Sta 12+22 to 18+00	State Highway Commission
<b>1980/81</b>	Shts 1-5. (of 5)- Riprap & Paving Repairs	Doten Associates; Engineers & Surveyors
<b>1981</b>	Sht 1 of 1- Bridge Repairs	
<b>1982</b>	Shts 1,2 (of 5)- Riprap repairs	
<b>2007</b>	Emergency Bridge Repairs - SK1 of 1	Baker Design Consultants
<b>2011</b>	Shts T1-T3,C1-C6 (of 9), Bridge and RipRap Repairs	
<b>2014</b>	Shts 1-10 (of 10)- Structural Reinforcement	Bridge Maintenance, Maine DOT

## 7. Repair History Documents

<b>Date</b>	<b>Document</b>	<b>Description/Company</b>
<b>Oct-66</b>	Report of Subsurface Investigation	William R. Gorrill Consulting Engineer
<b>Jul-68</b>	Specifications for Causeway Repair	Joseph P. Youngs, Jr., Superintendent, State Department of Mental Health and corrections, Bureau of Public Improvements, Jordan Gorrill Associates
<b>Jan-70</b>	Project Application for Supplemental Federal Financial	Flood Damage, Office of Emergency Preparedness
<b>Jan-71</b>	Contract Documents	State of Maine Bureau of Public Improvements, Jordan Gorrill Associates
<b>Apr-73</b>	Causeway Damage Correspondence- Subject: Causeway Repair Funds	Chester T. booth, Director- Div. Of Finance, Fred A. Cole, Business Manager
<b>Jan-74</b>	Photos of Causeway	3 Photos of Causeway
<b>Jan-78</b>	Causeway File	January 1978 Storm Damage
<b>Feb-75</b>	Executive Order	Office of the Governor- Affirmative Action
<b>Jan-79</b>	Baxter School: Department of Environmental Protection: Board Order	Alteration of coastal wetlands act and water quality certifications: Findings of fact and order.
<b>Apr-80</b>	Memo Re: Geotechnical Engineering Proposal	Memo from the Business Manager: Doten Associates/Morrison, Joseph P. Youngs, Jr.
<b>Apr-80</b>	Letter Re: Repair of Causeway	Doten Associates, Joseph P. Youngs, Jr.
<b>May-80</b>	Morrison Geotechnical Engineering Proposal	Doten Associates, Morrison Geotechnical Engineers
<b>Jun-80</b>	Contract Documents	Doten Associates
<b>Jan-80</b>	Standard General Conditions and Contract Work on State Projects	
<b>Jun-80</b>	Application for Wetlands Alteration Permit and Water Quality Certification	Applicant- State of maine acting through its Dept. of Educational & Cultural Services
<b>Jun-80</b>	Letter Re: A Corps of Engineers permit	Department of the Army, Doten Associates
<b>Jun-80</b>	Letter Re: Project Jurisdiction	Board of Harbor Commissioners for the Harbor of Portland
<b>Jul-80</b>	Inter-Departmental Memorandum: Mackworth Island Causeway	Bureau of Public Improvements
<b>Aug-80</b>	Memo Re: Causeway	Business Manager
<b>Oct-80</b>	U.S. Coast Guard Letter	Doten Associates, U.S. Coast Guard
<b>Jul-81</b>	Letter Re: Structural Capacity of Bridge	Doten Associates, Joseph P. Youngs, Jr. Superintendent
<b>Jul-81</b>	Contract Change Order #2 Request Form	Blue Rock Industries
<b>Jul-81</b>	Letter Re: Mackworth Island Bridge	Doten Associates, Joseph P. Youngs, Jr. Superintendent
<b>Jul-81</b>	Contract Change Order #3 Request Form	Blue Rock Industries
<b>Oct-81</b>	Letter Re: Mackworth Island Bridge Improvements	Project Estimates: William Dunning, Business Manager, Colwell Construction Company, Inc.
<b>Dec-81</b>	Certificate of Acceptance	Blue Rock Industries, Bureau of Public Improvements
<b>Jun-82</b>	Letter Re: Phase 2 Rehabilitation	Bridge Construction Corporation, Bureau of Public Improvements
<b>Jul-82</b>	Letter: Phase 2 Rehabilitation	Bridge Construction Corporation, Hunter-Ballew Associates
<b>Aug-82</b>	Letter: Phase 2 Rehabilitation	Bridge Construction Corporation, Hunter-Ballew Associates
<b>Aug-82</b>	Contract Change Order #2 Request Form	Bridge Construction Corporation, Bureau of Public Improvements
<b>Oct-82</b>	Letter: Causeway	Bureau of Public Improvements, Hunter-Ballew Associates
<b>Jan-82</b>	Causeway Photos	
<b>Jun-83</b>	Scope of Work/Plan	
<b>Jan-83</b>	Wage Determination	
<b>Jun-83</b>	Contract Agreement- Short Form	Dept. of Education & Cultural Services, Colwell Construction Co. Inc.
<b>Jul-86</b>	Specification for Bridge Repair	Bureau of Public Improvements



# Appendix A

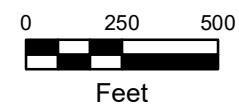
---

## Project Plans

- 1-1 Mackworth Island Project Location Map
- 2-1 Mackworth Island Vulnerability Map - West Causeway
- 2-2 Mackworth Island Vulnerability Map - East Causeway
- 3-1 Mackworth Island Storm Surge with Sea Level Rise Map - West Causeway
- 3-2 Mackworth Island Storm Surge with Sea Level Rise Map - East Causeway
- 4-1 Mackworth Island Vulnerability Map - Stone Pier
- 5-1 Mackworth Island Drone Photo Location Map - Overview
- 5-2\* Mackworth Island Drone Photo Location Map - Western Shore
- 5-3\* Mackworth Island Drone Photo Location Map - South Shore

\*A separate file with referenced pictures is available





Mackworth Island  
Vulnerability Project  
Falmouth, Maine

Town of Falmouth  
Falmouth, Maine

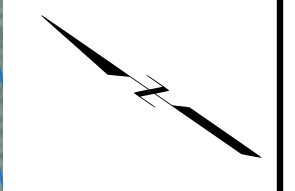
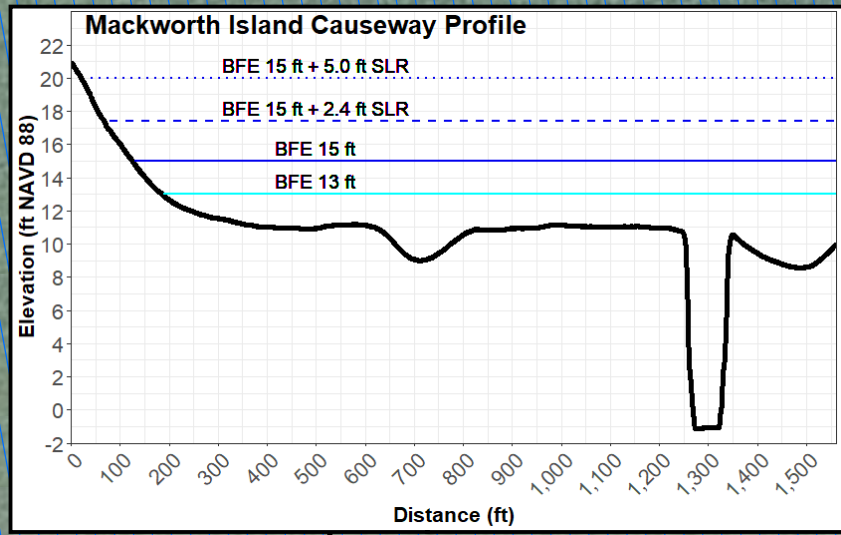


MACKWORTH ISLAND  
PROJECT LOCATION  
MAP

January 2023

1-1





**LEGEND:**

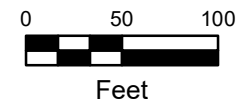
- Mackworth Island causeway profile
- Contours (1ft)
- ⊞ FEMA 1-percent chance inundation boundary (effective)
- ⊞ Mapped eelgrass locations

**Maine Coastal Bluff Stability**

- Highly unstable
- Unstable
- Stable
- - Not a bluff
- Unmapped/undetermined

**SOURCE:**

1. Contours generated from 2020 USGS Lidar: South Coastal Maine (QL2).
2. FEMA 1-percent chance inundation labels identify base flood elevations referenced to North American Vertical Datum of 1988.
3. Eelgrass locations developed by Maine DEP (2018).
4. Maine coastal bluff stability shapefile mapped at 1:24,000 scale (Maine Geological Survey, 2019).
5. Aerial imagery: Mackworth Island Pier: GEI drone flight (no ground control), April 21, 2022 and ESRI Online (2021). Mackworth Island Causeway: Nearmap, 2021).



Mackworth Island  
Vulnerability Project  
Falmouth, Maine

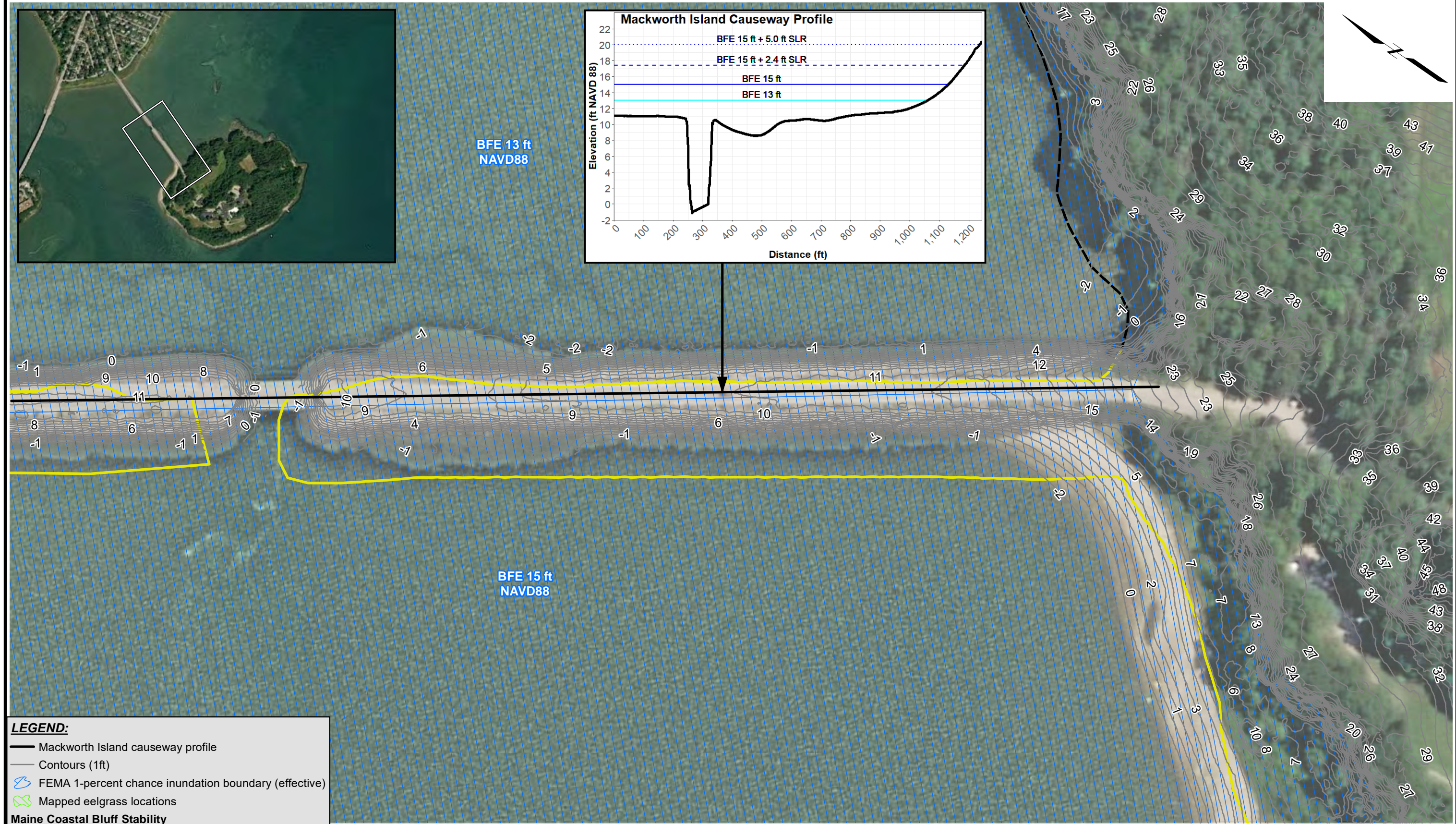
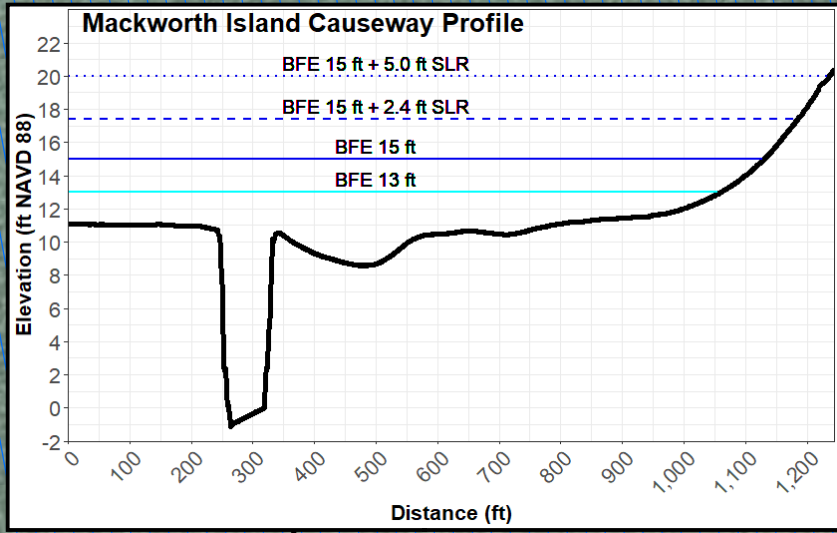
Town of Falmouth  
Falmouth, Maine

Project 610029

MACKWORTH ISLAND  
VULNERABILITY MAP -  
WEST CAUSEWAY

January 2023





**LEGEND:**

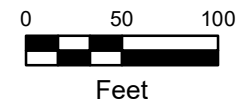
- Mackworth Island causeway profile
- Contours (1ft)
- - - FEMA 1-percent chance inundation boundary (effective)
- 🌿 Mapped eelgrass locations

**Maine Coastal Bluff Stability**

- Highly unstable
- Unstable
- Stable
- - - Not a bluff
- Unmapped/undetermined

**SOURCE:**

1. Contours generated from 2020 USGS Lidar: South Coastal Maine (QL2).
2. FEMA 1-percent chance inundation labels identify base flood elevations referenced to North American Vertical Datum of 1988.
3. Eelgrass locations developed by Maine DEP (2018).
4. Maine coastal bluff stability shapefile mapped at 1:24,000 scale (Maine Geological Survey, 2019).
5. Aerial imagery: Mackworth Island Pier: GEI drone flight (no ground control), April 21, 2022 and ESRI Online (2021). Mackworth Island Causeway: Nearmap, 2021).



Mackworth Island  
Vulnerability Project  
Falmouth, Maine

Town of Falmouth  
Falmouth, Maine

Project 610029

MACKWORTH ISLAND  
VULNERABILITY MAP -  
EAST CAUSEWAY

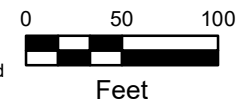
January 2023





**LEGEND:**  
 1-Percent chance flood with 5 ft sea level rise

**SOURCE:**  
 1. 1-Percent chance storm with 5 ft of sea level rise boundary used a Digital Elevation Model generated from 2020 USGS Lidar: South Coastal Maine (QL2) and Base Flood Elevations (BFE) from FEMA.  
 2. Aerial imagery: Nearmap, 2022).



Mackworth Island  
 Vulnerability Project  
 Falmouth, Maine

---

Town of Falmouth  
 Falmouth, Maine

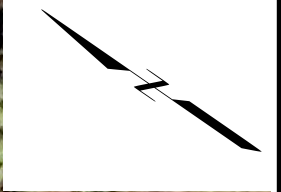


**GEI** Consultants  
 Project 610029

MACKWORTH ISLAND  
 STORM SURGE WITH SEA  
 LEVEL RISE MAP - WEST  
 CAUSEWAY

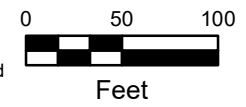
January 2023





**LEGEND:**  
 1-Percent chance flood with 5 ft sea level rise

**SOURCE:**  
 1. 1-Percent chance storm with 5 ft of sea level rise boundary used a Digital Elevation Model generated from 2020 USGS Lidar: South Coastal Maine (QL2) and Base Flood Elevations (BFE) from FEMA.  
 2. Aerial imagery: Nearmap, 2022).

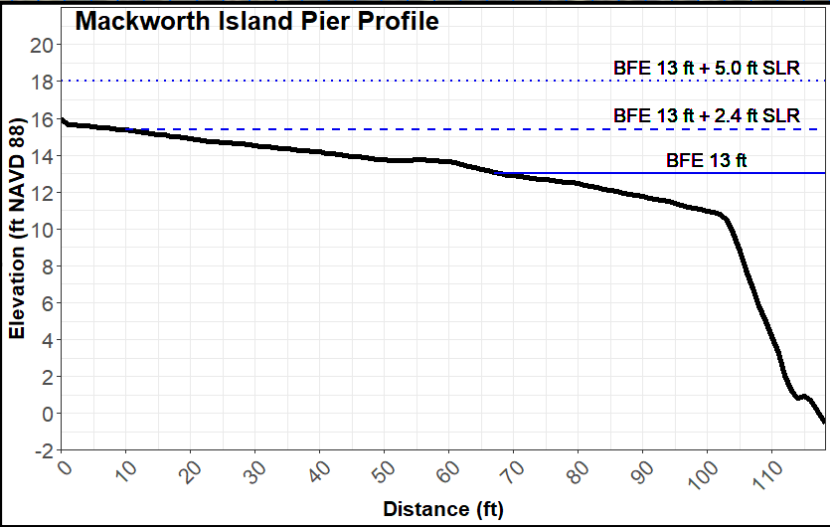
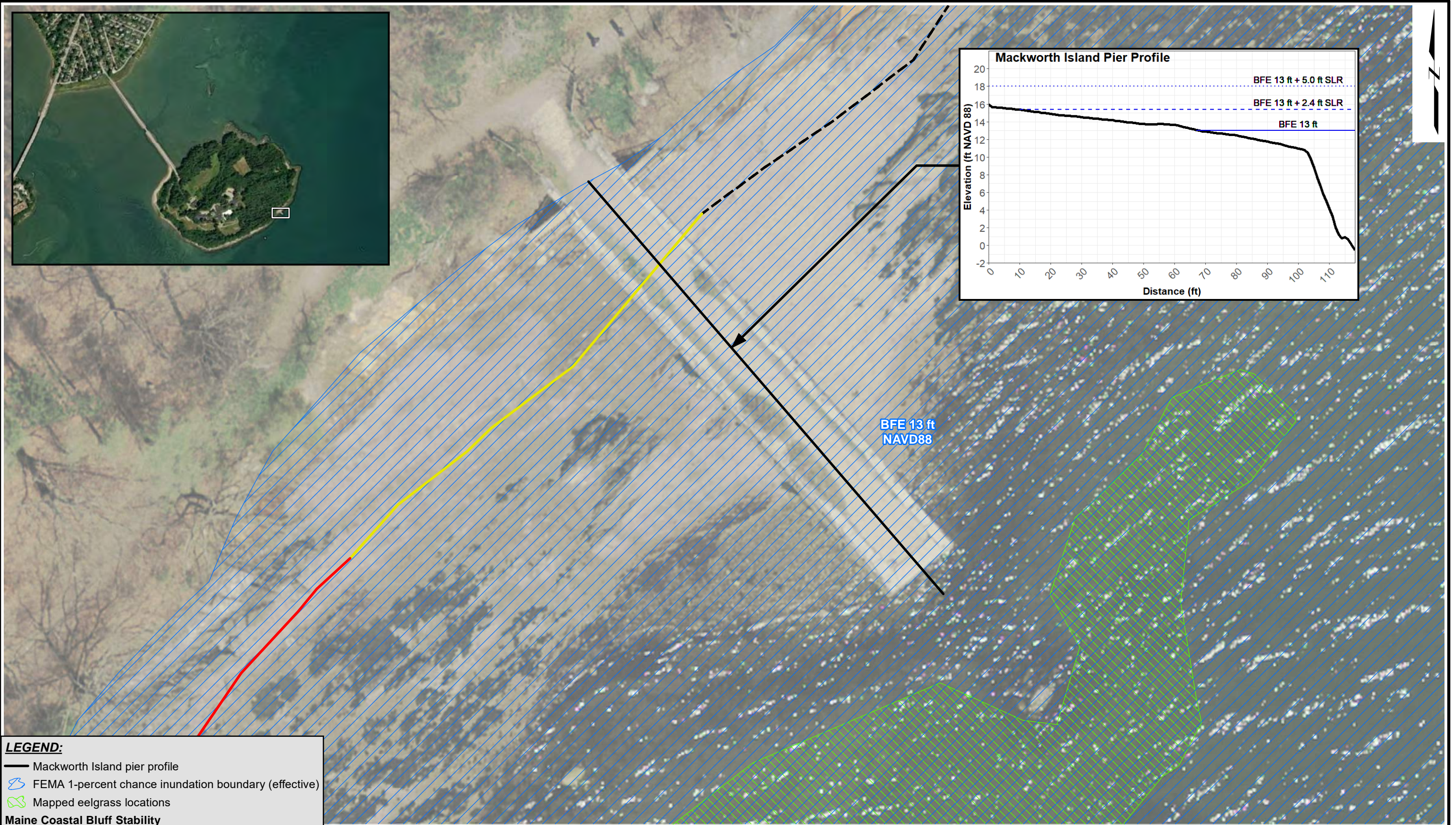


Mackworth Island  
 Vulnerability Project  
 Falmouth, Maine  
 Town of Falmouth  
 Falmouth, Maine



MACKWORTH ISLAND  
 STORM SURGE WITH SEA  
 LEVEL RISE MAP - EAST  
 CAUSEWAY  
 January 2023





**LEGEND:**

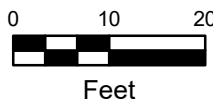
- Mackworth Island pier profile
- ⊞ FEMA 1-percent chance inundation boundary (effective)
- ⊞ Mapped eelgrass locations

**Maine Coastal Bluff Stability**

- Highly unstable
- Unstable
- Stable
- - Not a bluff
- Unmapped/undetermined

**SOURCE:**

1. Contours generated from 2020 USGS Lidar: South Coastal Maine (QL2).
2. FEMA 1-percent chance inundation labels identify base flood elevations referenced to North American Vertical Datum of 1988.
3. Eelgrass locations developed by Maine DEP (2018).
4. Maine coastal bluff stability shapefile mapped at 1:24,000 scale (Maine Geological Survey, 2019).
5. Aerial imagery: Mackworth Island Pier: GEI drone flight (no ground control), April 21, 2022 and ESRI Online (2021). Mackworth Island Causeway: Nearmap, 2021).



Mackworth Island  
Vulnerability Project  
Falmouth, Maine

Town of Falmouth  
Falmouth, Maine

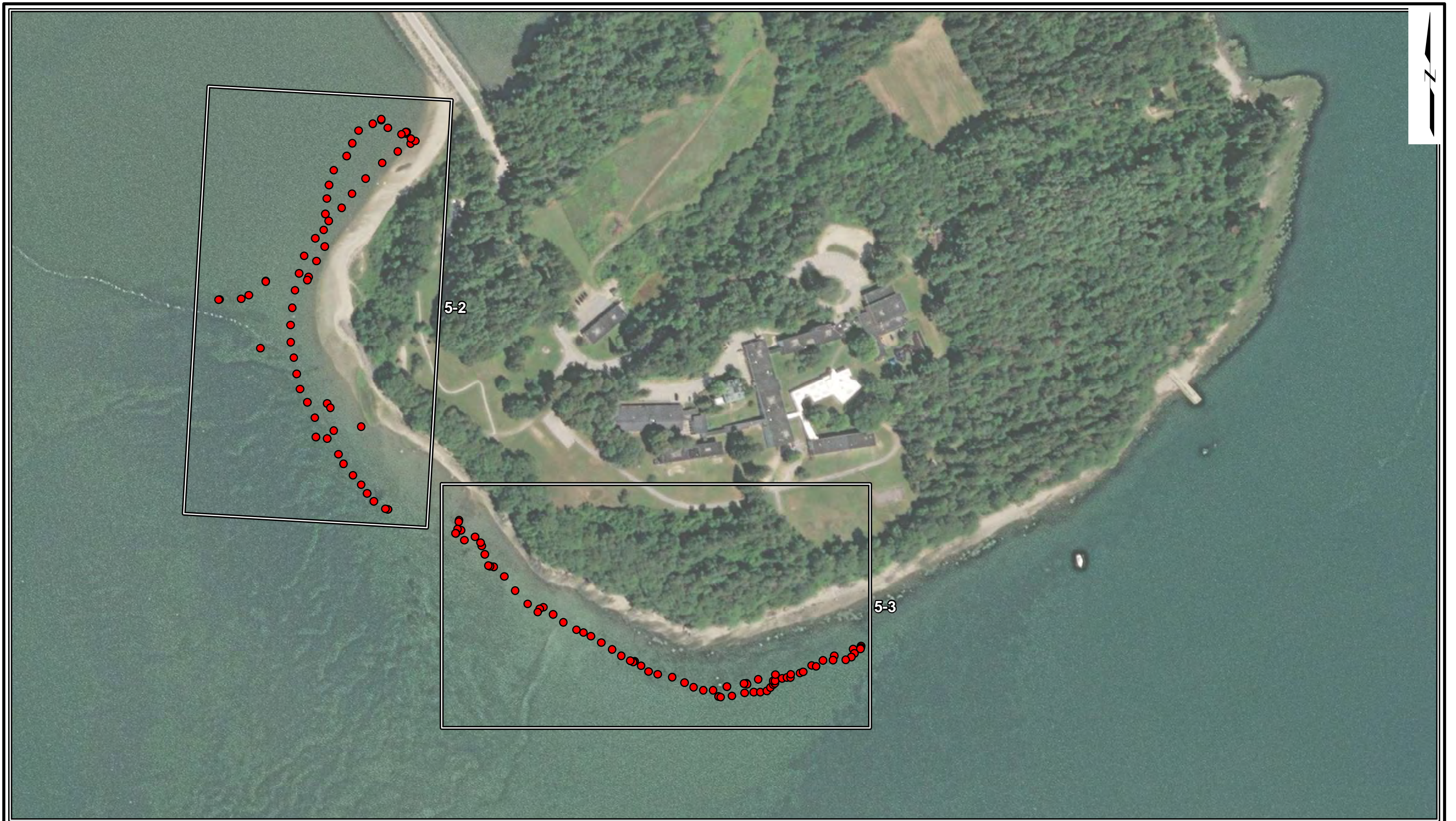
Project 610029

MACKWORTH ISLAND  
VULNERABILITY MAP -  
STONE PIER

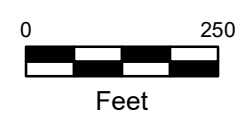
January 2023

4-1





**LEGEND:**  
 ● Drone photo location

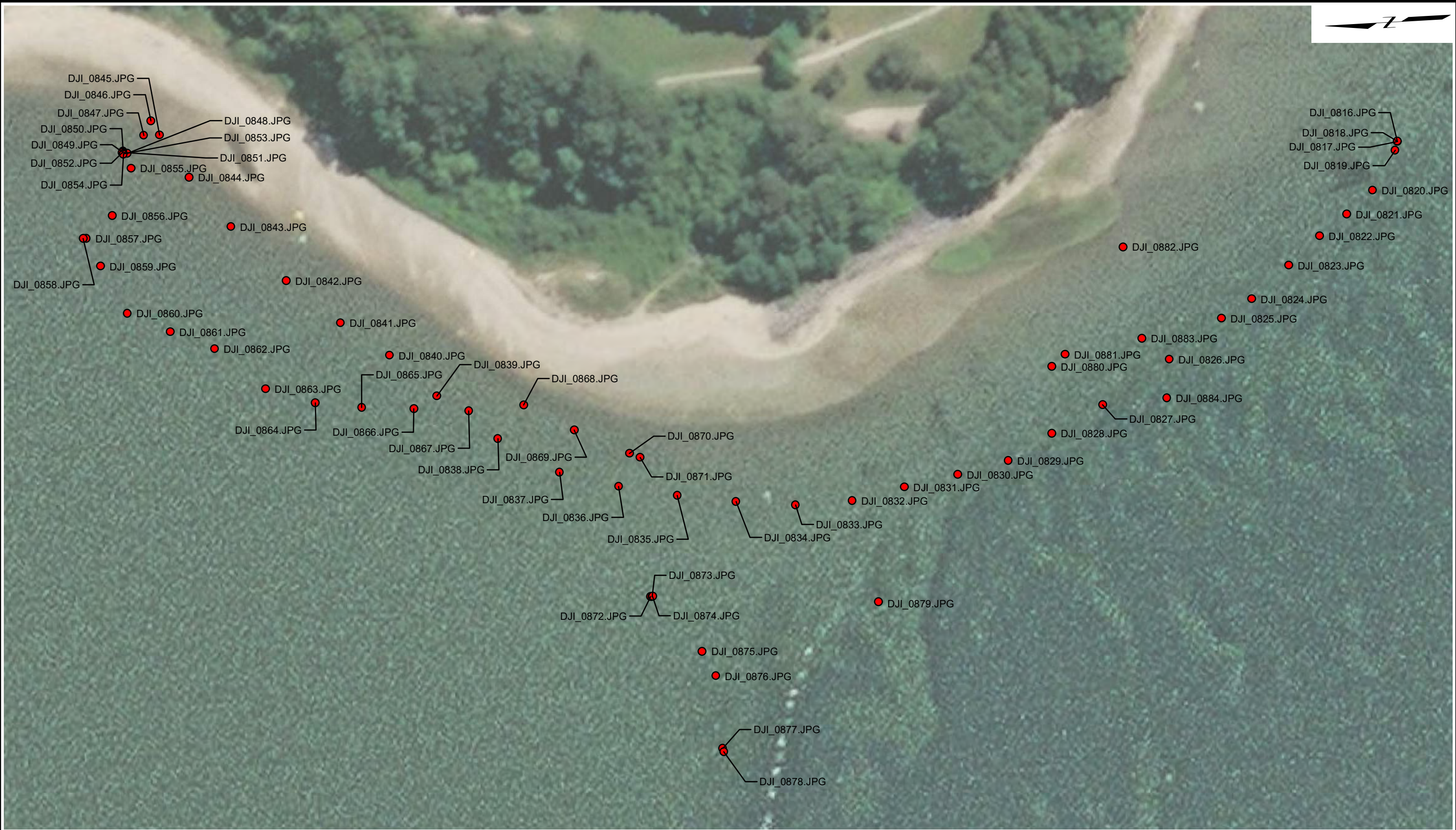


Mackworth Island  
 Vulnerability Project  
 Falmouth, Maine  
 Town of Falmouth  
 Falmouth, Maine

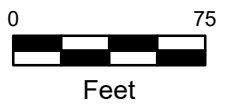


MACKWORTH ISLAND  
 DRONE PHOTO LOCATION  
 MAP - OVERVIEW  
 Project 610029 January 2023





**LEGEND:**  
● Drone photo location

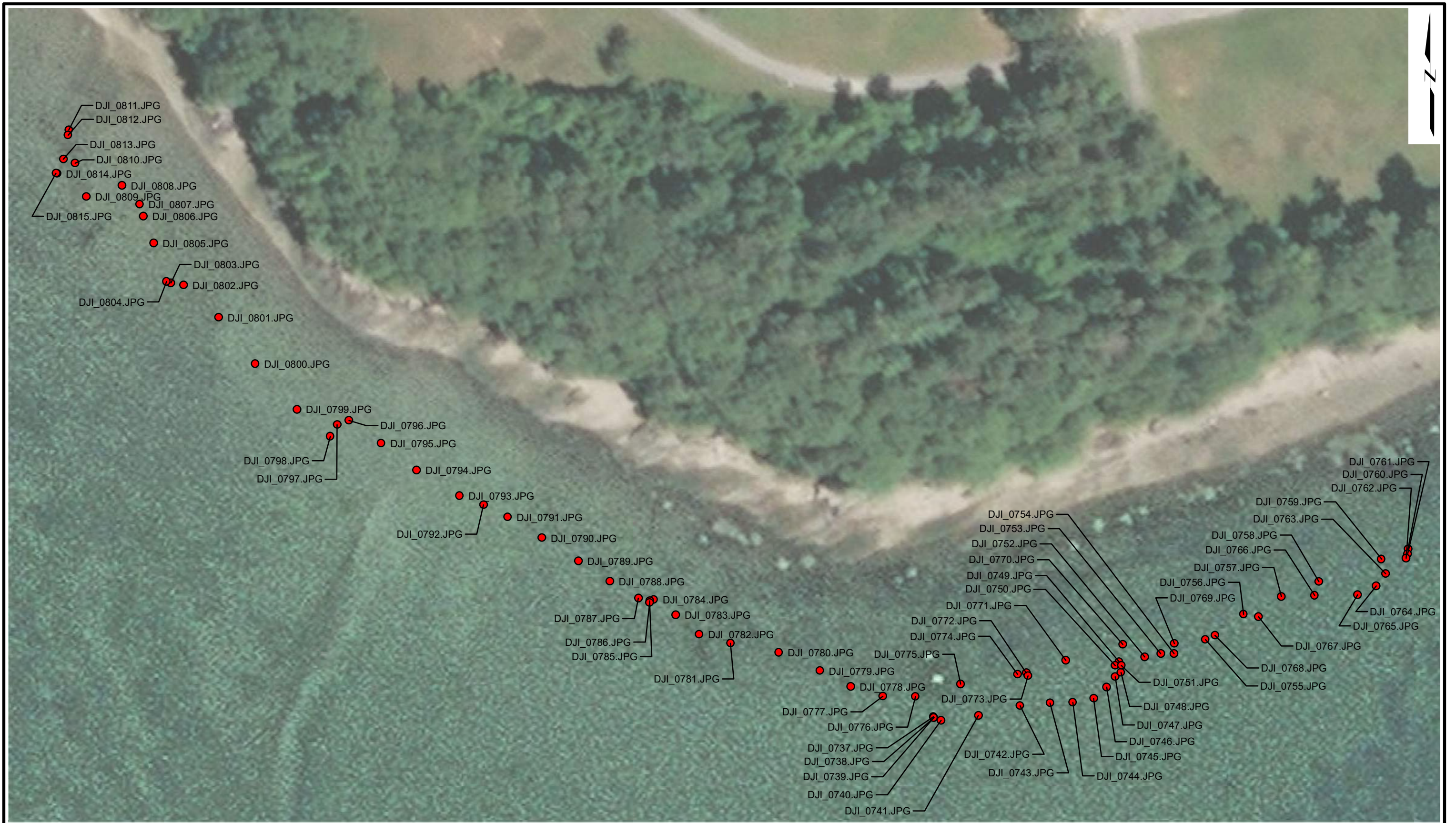


Mackworth Island  
Vulnerability Project  
Falmouth, Maine  
  
Town of Falmouth  
Falmouth, Maine

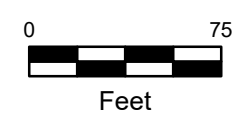
**GEI** Consultants  
Project 610029

**MACKWORTH ISLAND  
DRONE PHOTO LOCATION  
MAP - WESTERN SHORE**  
January 2023





**LEGEND:**  
 ● Drone photo location



Mackworth Island  
 Vulnerability Project  
 Falmouth, Maine  
 Town of Falmouth  
 Falmouth, Maine

**GEI** Consultants  
 Project 610029

**MACKWORTH ISLAND  
 DRONE PHOTO LOCATION  
 MAP - SOUTH SHORE**  
 January 2023 5-3



## **A4: TRAFFIC AND PARKING ASSESSMENT**

### **REPORT BY VHB**

Report contents include an assessment of current parking capacity and traffic observed at three periods: March 31, June 5, and August 8-9 2022.





Planning Report

# Mackworth Island Redevelopment

## Transportation and Parking Analysis

PREPARED FOR



HARRIMAN

Harriman  
46 Harriman Drive  
Auburn, ME 04210  
207.784.5100

**4/20/2022**

PREPARED BY



VHB  
157 Capitol Street, Suite 2  
Augusta, ME 04330  
207.889.3150

## Table of Contents

<b>1</b>	<b>Existing Conditions.....</b>	<b>1</b>
	Island Structures.....	2
	Existing Parking.....	2
	Building A: Baxter Mansion.....	3
	Building C: Taylor.....	3
	Building E: Inman Garage.....	4
	Building G: Carter.....	4
	Building J: Draper.....	5
	Building K: Sanders.....	5
	Athletic Field.....	6
	State Park - Public.....	6
	State Park - Gatehouse.....	7
	Campus Parking.....	7
<b>2</b>	<b>Vehicle Traffic and Parking .....</b>	<b>9</b>
	Traffic.....	9
	Hourly Traffic Data.....	10
	Trip Generation Estimates.....	13
	Capacity Analysis.....	14
	Signs.....	15
	Parking.....	15
	Falmouth Parking Ordinances.....	16



# 1

## Existing Conditions

VHB was tasked by Harriman to provide transportation planning and engineering consulting services in support of the Mackworth Island study in Falmouth, Maine. The project is located on Mackworth Island, connected via Andrews Avenue and a causeway bridge. Mackworth Island houses the Baxter School for the Deaf and Maine Educational Center for the Deaf and Hard of Hearing (MECDHH) with structures built over the last century. The efforts will assist Harriman with understanding existing traffic and parking that will advance redevelopment and/or re-occupancy of existing structures within Mackworth Island.





## Island Structures

To understand the potential trips generated by the buildings on Mackworth Island, VHB collected data for the existing buildings and their current uses. A summary of the building land use data is provided in Table 1 below.

**Table 1 Mackworth Island Buildings**

Building	Name	Land Use	SF
A	Baxter Mansion	Office/Administration	2,377
B	Young Hall	Vacant	15,580
C	Taylor Hall	Office	7,000
D	Greenlaw Hall	School	17,600
E	Inman Building	Garage/Storage	4,800
G	Carter Hall	Vacant	17,600
H	Brewster Hall	Office	12,550
I	Patrick Hall	School	6,180
J	Draper Hall	Office	7,500
K	Sanders Hall	Office	34,800

## Existing Parking

VHB inventoried the existing parking supply for Mackworth Island. The parking is a mix of marked/unmarked and paved/unpaved stalls. The parking inventory was gathered for both the MECDHH campus and the Mackworth Island State Park on March 31<sup>st</sup>, 2022 in the late morning. In some cases, a parking area will be able to serve additional buildings. The titles here are indicative of the nearest major building adjacent to the parking. The campus office parking should not fluctuate significantly through the year, with the school use perhaps having a reduction of use during the summer months. The state park parking should see less use during the winter season, and increased use during the summer.

## Building A: Baxter Mansion



Photo 1: Building A: Baxter Mansion parking lot

Total Parking	Parking Type	Surface Type	Available Parking	% Used
10	Marked	Paved	3	70%

## Building C: Taylor



Photo 2: Building C: Taylor parking lot

Total Parking	Parking Type	Surface Type	Available Parking	% Used
31	Unmarked	Unpaved	25	19%



### Building E: Inman Garage



Photo 3: Building E: Inman Garage parking lot

Total Parking	Parking Type	Surface Type	Available Parking	% Used
22	Unmarked	Unpaved	15	32%

*Building E, the Inman Building, which serves as a maintenance garage and storage building, was not considered for the overall analysis and the available parking was considered sufficient for the building without impacting total campus parking supply as a standalone use.*

### Building G: Carter



Photo 4: Building G: Carter parking lot

Total Parking	Parking Type	Surface Type	Available Parking	% Used
16	Marked/Unmarked	Paved/Unpaved	26	10%



### Building J: Draper



Photo 5: Building J: Draper parking lot

Total Parking	Parking Type	Surface Type	Available Parking	% Used
52	Marked/Unmarked	Paved/Unpaved	43	17%

### Building K: Sanders



Photo 6: Building K: Sanders parking lot

Total Parking	Parking Type	Surface Type	Available Parking	% Used
10	Marked	Paved	8	20%

The Sanders Building also houses a cafeteria, dining hall, and the museum.



## Athletic Field



Photo 7: Athletic Field area parking lot

Total Parking	Parking Type	Surface Type	Available Parking	% Used
10	Marked	Paved	10	0%

## State Park - Public



Photo 8: Mackworth Island State Park parking lot

Total Parking	Parking Type	Surface Type	Available Parking	% Used
22	Unmarked	Unpaved	16	27%

As the data collected for the public State Park parking lot was during a non-peak season, the data is only representative for the time of year in which it was taken. Interviews with staff from Mackworth Island indicate that the public parking is consistently at capacity.



## State Park - Gatehouse



Photo 9: Mackworth Island State Park gate parking lot

Total Parking	Parking Type	Surface Type	Available Parking	% Used
6	Unmarked	Unpaved	5	17%

As the data collected for the gatehouse State Park parking lot was during a non-peak season, the data is only representative for the time of year in which it was taken. With the gatehouse for the state park unoccupied, this reserved parking would be utilized at a higher rate during the summer peak season with increased staffing.

### Museum

The MECDHH campus also features a museum with goals to "to serve as a center for the collection, preservation, storage, and displays related to deafness, Deaf Culture, the education of Deaf persons, the heritage of the Deaf Community, Mackworth Island and the Baxter family and to provide a program of educational activities, exhibitions, group tours, and publications." With the desire to see expanded use of the museum, the expected number of trips to the island and need for parking would increase.

### Campus Parking

Parking for the MECDHH campus was totaled to determine the overall available parking. While Table 2 below would serve as a summary, the individual parking utilization for each area should be taken into context to understand the concentration of parking. Parking should also be provided within a comfortable walk of a building, with standard industry practice defining 500' as the maximum distance from the space to the entrance. The parking for Building E, the Inman Building, which serves as a maintenance garage and storage building, was not considered for the analysis and the available parking was considered sufficient for the building, without impacting total campus parking supply.

A summary of the available parking shows that the MECDHH campus serving its existing operations have ample parking.

## Mackworth Island Existing Conditions

**Table 2 Mackworth Island Campus Parking**

Total Parking	Available Parking	% Used
131	115	12%

A summary of the available parking shows that the MECDHH campus serving its existing operations have ample parking. However, the MECDHH campus has significantly reduced operations over the years. Two buildings, Young Hall and Carter Hall (buildings B and G) are currently vacant with pending analysis for their future usability. MECDHH served about 32 students in 2019 (Pre-COVID pandemic) and 24 students in 2022 (Post-COVID pandemic.) While the move away from student classroom teaching has occurred, a return to pre-pandemic students on campus is expected in the future. MECDHH also has social emotional programming that happens four times a year and weekly family programming (with approximately 10 families), plus family weekends 2-3 times a year (with more than 20 families). Summer programming for the extended school year brings 50 - 60 students to the island.

The vacant buildings have been leased as office space for different organizations. A tour of the MECDHH campus shows the availability of expansion for both the school and leased office space.



*Photo 10: MECDHH Main Entrance*

# 2

## Vehicle Traffic and Parking

To determine the present level of impact to the island, an analysis was conducted for vehicle traffic and parking limitations on the island. Two types of analysis were completed to understand the level of congestion: what levels of traffic currently operate on the island and if the parking is sufficient for present uses.



*Photo 11: The causeway to Mackworth Island*

### Traffic

VHB utilized Maine Department of Transportation (MaineDOT) traffic records and found recent average daily traffic (ADT) information for Andrews Avenue, the single road that provides access to Mackworth Island. ADT is an estimate of the average number of vehicles that traverse on a road segment, which takes into account seasonal variability of the location and road type. The Andrews Avenue data had a factor of 0.92 applied to the raw traffic count. The traffic data is presented in Table 3 below.

**Table 3 Andrews Avenue Historical Traffic Counts in Falmouth, Maine**

Year	ADT
2013	1160
2019	770

The traffic data shows a decline in traffic from 2013 to 2019, showing a decrease in use on the island. Due to the lack of data for other years, more detailed trends and assumptions cannot be made.

## Hourly Traffic Data

Traffic data collected from MaineDOT also showed the hourly distribution of traffic. The traffic data does not differentiate between inbound and outbound traffic. The traffic count was collected on October 30<sup>th</sup> and 31<sup>st</sup>, which would have considered school related traffic that may not have otherwise been collected had the traffic counts been completed during the summer. The traffic data, though collected on that date, has been factored to account for an average day of the year, taking into consideration fluctuations through the year (e.g. more trips in the summer and less trips during the winter.) The complete traffic record is shown in Table 4 below.

**Table 4 Andrews Avenue Hourly Traffic Count in Falmouth, Maine – 10/30/2019**

Time	Volume
12:00 am	0
01:00 am	1
02:00 am	1
03:00 am	0
04:00 am	0
05:00 am	4
06:00 am	9
07:00 am	35
08:00 am	95
09:00 am	40
10:00 am	52
11:00 am	52
12:00 pm	104
01:00 pm	73
02:00 pm	78
03:00 pm	75
04:00 pm	101
05:00 pm	62
06:00 pm	31
07:00 pm	11
08:00 pm	7
09:00 pm	5
10:00 pm	3
11:00 pm	1

Source: MaineDOT Traffic Records

The data shows the peak AM volume to occur between 8:00 AM and 9:00 AM with a total of 95 vehicles and a PM volume to occur between 12:00 PM and 1:00 PM with a total of 104 vehicles. As Andrews Avenue is a residential based road with Mackworth Island Institutional and office land uses, the traffic patterns of peak hours for the AM, noon, and PM time periods are not unexpected. Chart 1 below graphically shows the 2019 hourly traffic data on Andrews Avenue.



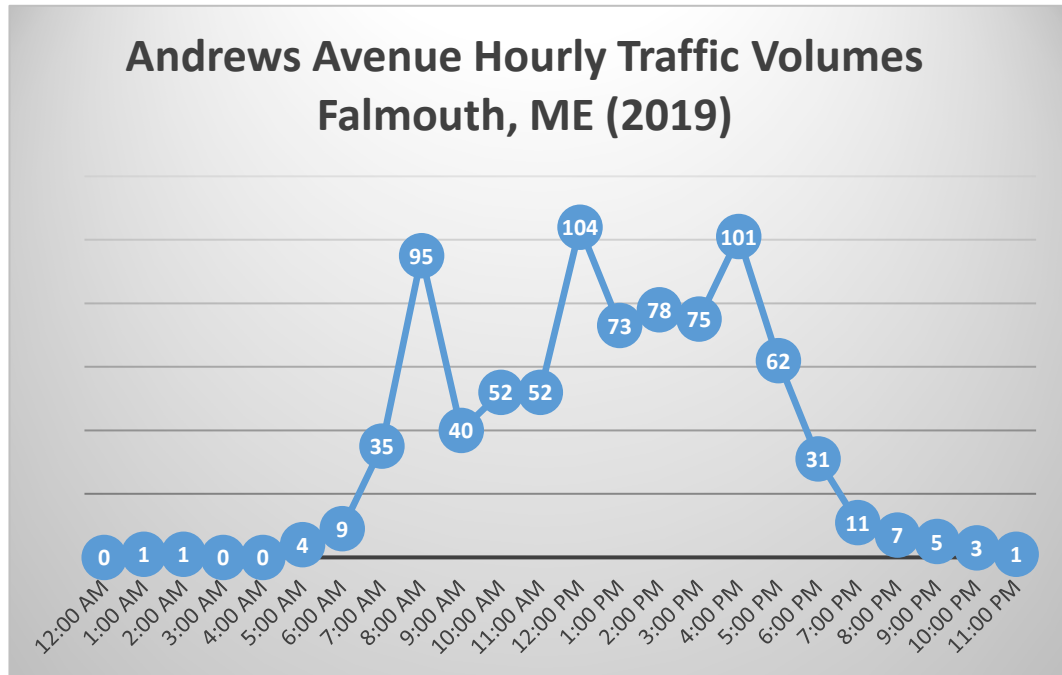


Figure 1 Andrews Avenue Hourly Traffic Volumes - 2019

Due to the location of the vehicle count, traffic specific to Mackworth Island cannot be distinguished from the residences along Andrews Avenue.

To supplement this historical data, VHB collected additional traffic data to understand both the current traffic counts, and to distinguish the traffic from Andrews Avenue, Mackworth Island State Park, and the school campus.

Table 5 Andrews Avenue Hourly Traffic Count in Falmouth, Maine – 8/10/2022

Time	Volume
0:00	1
1:00	1
2:00	0
3:00	1
4:00	2
5:00	9
6:00	16
7:00	39
8:00	62
9:00	69
10:00	75
11:00	74
12:00	74
13:00	68
14:00	79
15:00	66

## Mackworth Island Existing Conditions

16:00	93
17:00	76
18:00	65
19:00	55
20:00	27
21:00	7
22:00	6
23:00	2

Source: Accurate Counts data collection, August 9<sup>th</sup> and 10<sup>th</sup>, 2022

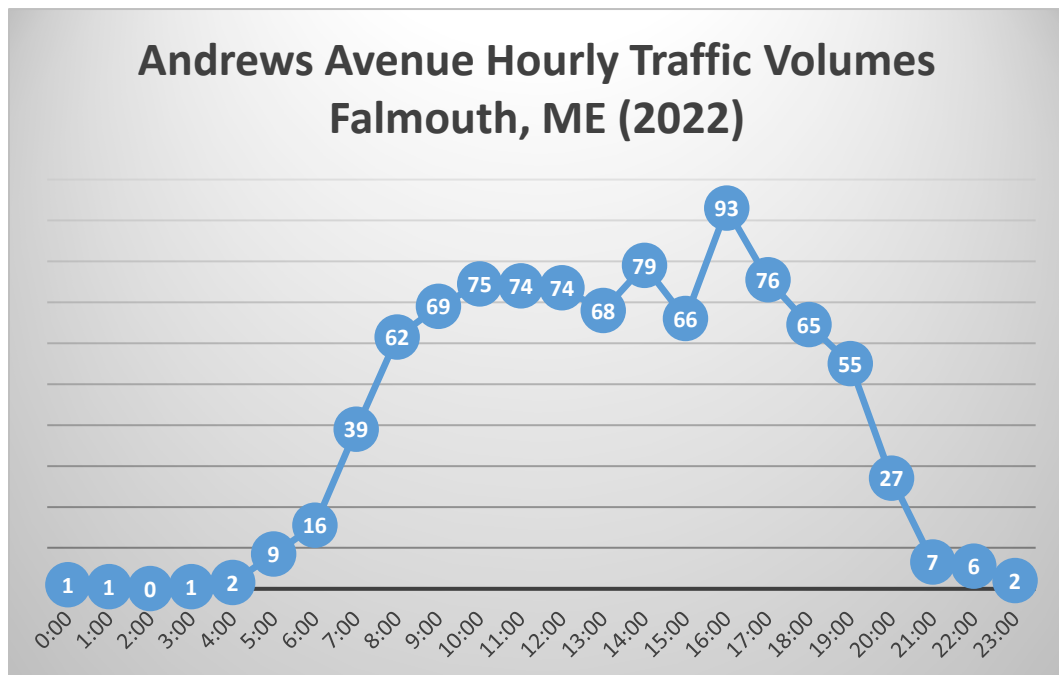


Figure 2 Andrews Avenue Hourly Traffic Volumes - 2022

The updated traffic data shows very similar data from 2019 in overall volumes, but with less variation in the data. The morning peak hour is less pronounced and without a reduction into the midday.

The updated traffic data also allows a comparison of the June and August data. The newly collected data shows that traffic to the park was slightly higher in June than August. However, the June data was on the weekend vs. the August weekday data, and park traffic is heavily dependent on external factors such as weather making direct comparisons difficult (both data collection days were during sunny weather). Table 6 below shows a single hour of vehicle volume between 12 and 1 PM in June and August for Mackworth Island State Park.

Table 6 Mackworth Island State Park 12-1 PM Visitation

Time Period	Volume
<u>6/5/22</u>	
12:00	17
12:15	17
12:30	16

## Mackworth Island Existing Conditions

12:45	12
<u>8/10/22</u>	
12:00	13
12:15	14
12:30	9
12:45	12

The peak hour of vehicle traffic could also be determined from the collected traffic data. The total data will be slightly different from the Andrews Avenue data in Table 5 above as Table 7 is showing the peak hour in a 15 minute increment, instead of by the whole hour (8:15-9:15 AM vs. 8:00-9:00 AM).

**Table 7 AM and PM Peak Hour Vehicle Traffic**

Location	AM (8:15-9:15)	PM (4:15-5:15)
Andrews Avenue Traffic	30	35
Campus Traffic	16	16
Park Traffic	22	34
<b>Total</b>	<b>68</b>	<b>85</b>

## Trip Generation Estimates

An estimate of the expected number of trips to the island can be determined using statistical data from the Institute of Transportation Engineers (ITE) Trip Generation Manual. There are 22 residential detached housing units on Andrews Avenue that would have been a part of the traffic data collected in 2013 and 2019. Using the ITE 11<sup>th</sup> Edition Trip Generation Manual, traffic data was estimated for the 22 residences in Table 8 below.

**Table 8 Trip Generation Estimates (LUC 210)**

Time Period	Units	Rate	Total
Daily	22	$\text{Ln}(T) = 0.92 \text{Ln}(X) + 2.68$	251
AM Peak	22	$\text{Ln}(T) = 0.91 \text{Ln}(X) + 0.12$	19
PM Peak	22	$\text{Ln}(T) = 0.94 \text{Ln}(X) + 0.27$	24

Source: ITE Trip Generation Manual, 11<sup>th</sup> Edition

To determine the estimated number of trips to and from Mackworth Island, the total trip generation was compared against the estimated trip generation of the residential units. The difference between the values represents the estimated number of trips with an origin or destination on Mackworth Island. Table 9 below summarizes these estimated values, with the peak hour values from Table 2 above given a factor of .92 to account for seasonal variability that was accounted for in the daily data but not for the hourly data.

**Table 9 Mackworth Island Trip Generation Estimates**

Time Period	Total	Andrews Ave.	Mackworth Island
Daily	770	251	<b>519</b>
AM Peak	87	19	<b>68</b>
PM Peak	93	24	<b>69</b>

## Mackworth Island Existing Conditions

Table 6 provides the estimated number of trips (entering and exiting) specific to Mackworth Island, which includes both trips to the MECDHH campus and the state park and trail system.

### Capacity Analysis

A short capacity analysis was conducted to understand the approximate existing delay for roadways and intersections on the island. The analysis will utilize the Highway Capacity Manual (HCM) from a *Synchro* software traffic model. A summary of the traffic delay and queuing for the intersection of US-1 at Andrews Avenue in Falmouth is shown in Table 10 and 11 below.

**Table 10 Capacity Analysis US-1 at Andrews Ave – AM Peak Hour**

Approach	Delay (seconds)	LOS	Queue (feet)
EB Greenway Dr	19.9	C	6
WB Andrews Ave	21.2	C	12
NB Route 1	0.1	A	0
SB Route 1	0.4	A	2
Overall	1.4	A	-

**Table 11 Capacity Analysis US-1 at Andrews Ave – PM Peak Hour**

Approach	Delay	LOS	Queue
EB Greenway Dr	21.9	C	6
WB Andrews Ave	32.2	D	32
NB Route 1	0.2	A	0
SB Route 1	0.3	A	2
Overall	2.4	A	-

The capacity analysis from the traffic model shows some amount of existing delay for Greenway Drive and Andrews Avenue for both the AM and PM peak hours, which is to be expected based on the high volumes on US Route 1 and the Stop sign traffic control on those minor streets.

Based on the minor traffic counts by the campus, there does not appear to be a traffic delay issue from traffic control with the relatively low impact island land uses and lack of parking at Mackworth Island State Park being the limiting factor for traffic. A major change in land use on the campus which substantially increases trip generation would require traffic studies to assure that acceptable levels of vehicle delay would be provided.



## Signs

Site observations on the campus show a number of signs for traffic control, parking restrictions, and speed limits. A cursory analysis of the signs reveal that they are generally in poor and deteriorating condition. The signs should be replaced and adhere to the Manual on Uniform Traffic Control Devices (MUTCD) and provide a retroreflective surface to be more visible to drivers.



## Parking

To determine the estimated number of parking spaces needed to serve the MECDHH campus, existing uses were considered. Mackworth Island generally has three land uses: school, office, and park. The Institute of Transportation Engineers 5<sup>th</sup> Edition Parking Manual provides statistical measurements of the estimated parking needs for these land uses. The vacant buildings were considered for the parking estimates. The parking for Building E, the Inman Building, which serves as a maintenance garage and storage building, was not considered for the analysis and the available parking was considered sufficient for the building, with existing parking not considered for this analysis.

The school space was determined by the total number of students currently enrolled. The office space was determined by adding the total square footage of the buildings designated as offices from Table 1, buildings A, C, H, J, and K. Mackworth Island State Park was estimated to be approximately 50 acres in area total, accounting for a total of 100 acres on the island and 50 acres being the private property of the MECDHH campus.

Table 12 below provides an estimate of the number of parking spaces needed for Mackworth Island.

**Table 12 Mackworth Island Campus Parking Estimates - Existing**

Land Use Code (LUC)	Land Use	Units	Variable	Rate	Total
536	Private School	22.0	Students	0.35	<b>8</b>
710	General Office	60.7	KSF	2.39	<b>145</b>
411	Public Park	50.0	Acres	0.47	<b>24</b>
				Total	<b>177</b>

It should be noted that the school is currently operating well below historical enrollment and the offices are not fully utilizing the space of each building. It is also important to understand that the public park estimates do not have a lot of statistical data associated for their use, and significant variance could be anticipated due to the site location and popularity.

A second parking analysis was considered utilizing historical land uses. Table 13 below outlines needed parking estimates based on the past use of Mackworth Island.

**Table 13 Mackworth Island Campus Parking Estimates - Historical**

Land Use Code (LUC)	Land Use	Units	Variable	Rate	Total
536	Private School	32	Students	0.35	<b>11</b>
710	General Office	0	KSF	2.39	<b>0</b>
411	Public Park	50	Acres	0.47	<b>24</b>
				Total	<b>35</b>

## Falmouth Parking Ordinances

The Town of Falmouth has ordinances regarding the use of off-street parking. However, the town is generally not seeking to establish the minimum number of spaces in which a development must provide, seeking instead “to match actual demand for parking with supply.” In not requiring a minimum number of spaces, the town will be able to allow developments to demonstrate what their need is. Div. II-19-1-5 Section 19-38 of the town’s ordinances does require a minimum of 5 parking spaces to be provided for each teaching classroom of a school. Table 14 below shows parking requirements by ordinance relevant to Mackworth Island, which is far exceeded by the current number of parking spaces.

**Table 143 Off-Street Parking Requirements – Town of Falmouth**

Land Use	Units	Variable	Rate	Total
School	4	Classrooms	5	<b>20</b>
Office		Not Specified		
Public Park		Not Specified		
			Total	<b>20</b>

## **A5: ISLAND SURVEY**

### **AERIAL PHOTOGRAPH AND EXISTING CONDITIONS/ TOPOGRAPHIC SURVEY**

Content includes supplemental work to the original Master Plan scope. Information is intended to inform future projects on Mackworth Island.

#### **INTRODUCTION**

Sebago Technics/ Titcomb Associates was retained by BGS to provide an existing conditions survey of the Mackworth Island State Park trail and parking area. As an alternative to traditional survey methods, Sebago Technics utilized unmanned aerial systems (UAS) and light detection and ranging (LiDAR) remote sensing measuring methods. Aero-Geomatic/ sUAS services, including on-board camera along with aerial LiDAR sensor, provided high resolution orthophotography, and collected point cloud data for the entire island.

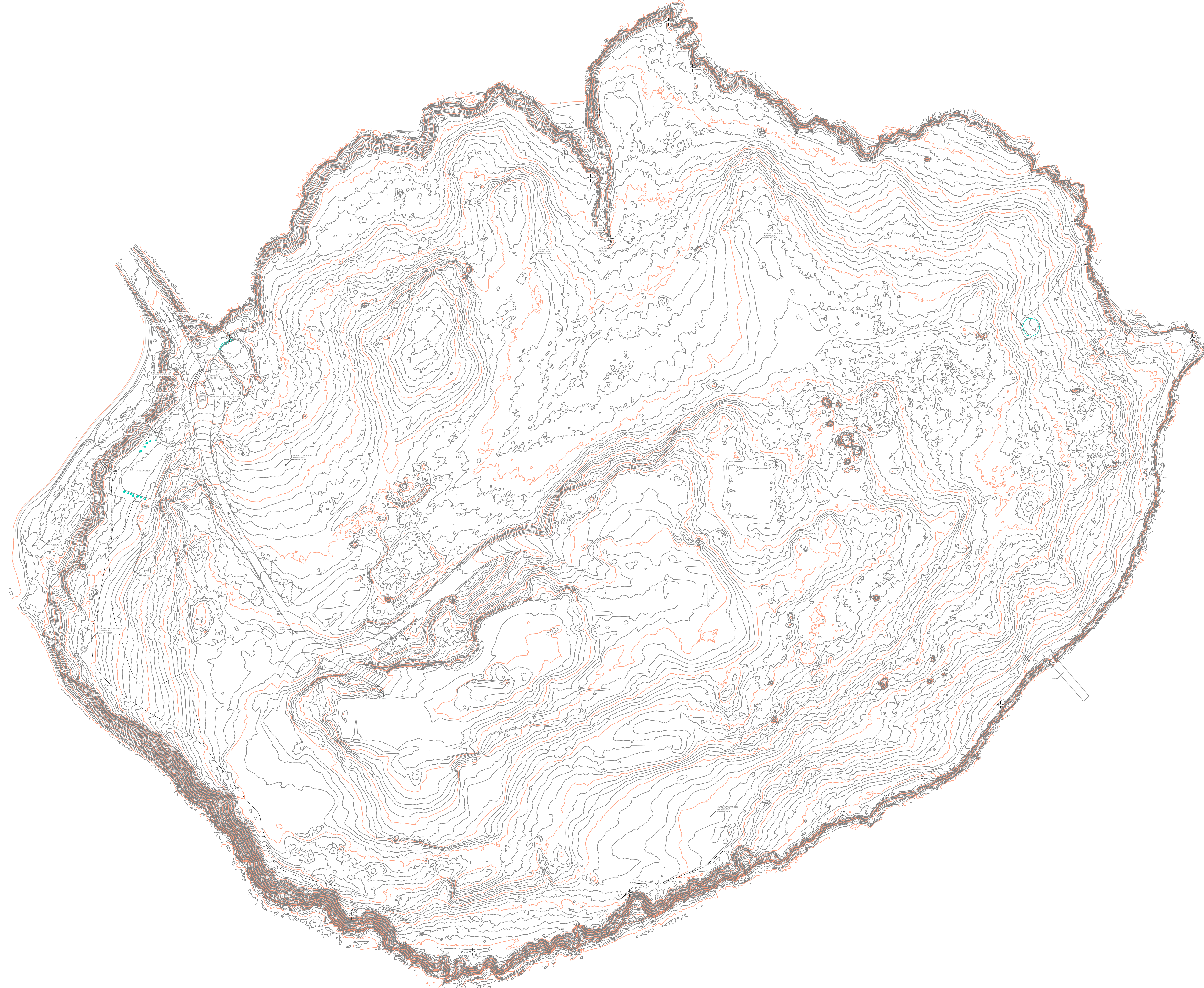
The resulting information provides high resolution imagery of the GBSD/ MECDHH campus as well as a complete point cloud data set of Mackworth Island. Future projects requiring survey information will be able to request the modeling of captured data sets from specific areas on the Island from Sebago Technics. This option is intended to save the State time and money as future capital initiatives move forward.

The following files and file groups are included in Appendix A5.

- High resolution, aerial photograph of Mackworth island in its entirety
- Island topographic survey without aerial photograph
- Island topographic survey with aerial photograph
- Trail detail survey without aerial photographs
- Trail detail survey with aerial photographs



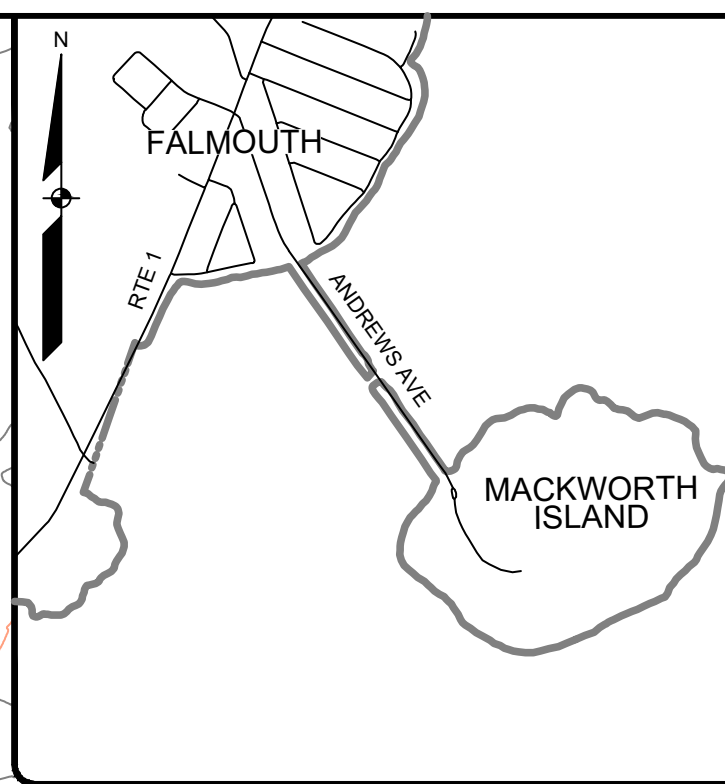












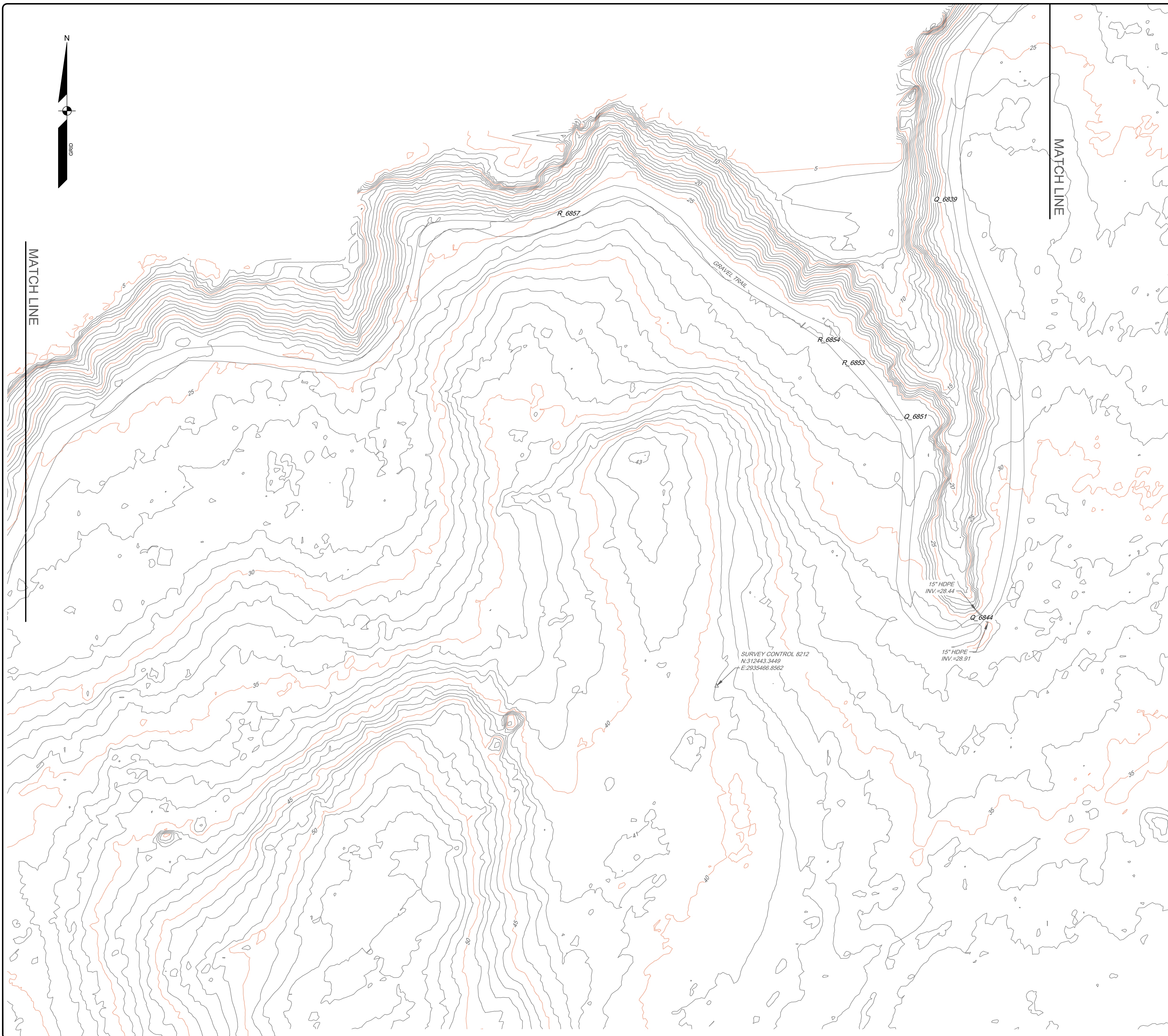
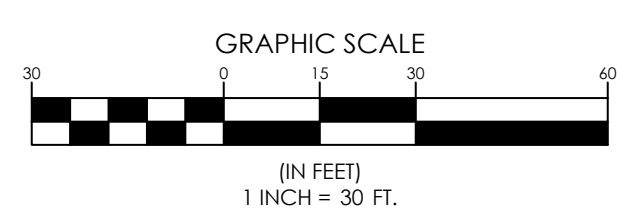
LOCATION MAP

GENERAL NOTES:

1. TOPOGRAPHIC INFORMATION SHOWN HEREON IS BASED UPON FIELD WORK PERFORMED BY SEBAGO TECHNICS, INC. IN NOVEMBER, 2022.  
TOPOGRAPHIC INFORMATION SHOWN HEREON IS BASED UPON FIELD WORK PERFORMED BY SEBAGO TECHNICS, INC. IN NOVEMBER 2022. TRADITIONAL SURVEY MEANS AND METHODS SUPPLEMENTED WITH LIDAR WERE EMPLOYED IN THE COLLECTION OF THIS TOPOGRAPHIC INFORMATION.
2. PLAN ORIENTATION IS GRID NORTH, MAINE STATE PLANE COORDINATE SYSTEM, WEST ZONE 1802-NAD83. ELEVATIONS DEPICTED HEREON ARE NAVD88, BASED ON DUAL FREQUENCY GPS OBSERVATIONS.
3. BENCHMARK:  
BM-1 DESCRIPTION ELEVATION: (NAVD88)
4. UTILITY INFORMATION DEPICTED HEREON, UNLESS OTHERWISE NOTED, IS OF QUALITY LEVEL D PER AMERICAN SOCIETY OF CIVIL ENGINEERS (ASCE) STANDARD C/ASCE 38-02. UTILITIES DEPICTED HEREON MAY NOT NECESSARILY REPRESENT ALL EXISTING UTILITIES. CONTRACTORS AND/OR DESIGNERS NEED TO CONTACT DIG-SAFE SYSTEMS, INC. (1-888-DIG-SAFE) AND FIELD VERIFY EXISTING UTILITIES WITHIN THE PROJECT AREA PRIOR TO CONSTRUCTION AND/OR EXCAVATION.

LEGEND

- DECIDUOUS TREE
- SIGN
- WATER GATE VALVE
- WATER SHUT OFF
- HYDRANT
- CONTOURS
- SANITARY MANHOLE
- CULVERT
- LIGHT POLE
- UTILITY POLE
- GUY WIRE
- BOULDER
- PHOTO LOCATION
- SURVEY CONTROL



MATCH LINE

MATCH LINE

NICHOLAS S. ELLISTON, PLS 2518

REV	NO	DATE	STATUS

THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM SEBAGO TECHNICS, INC. ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO SEBAGO TECHNICS, INC.

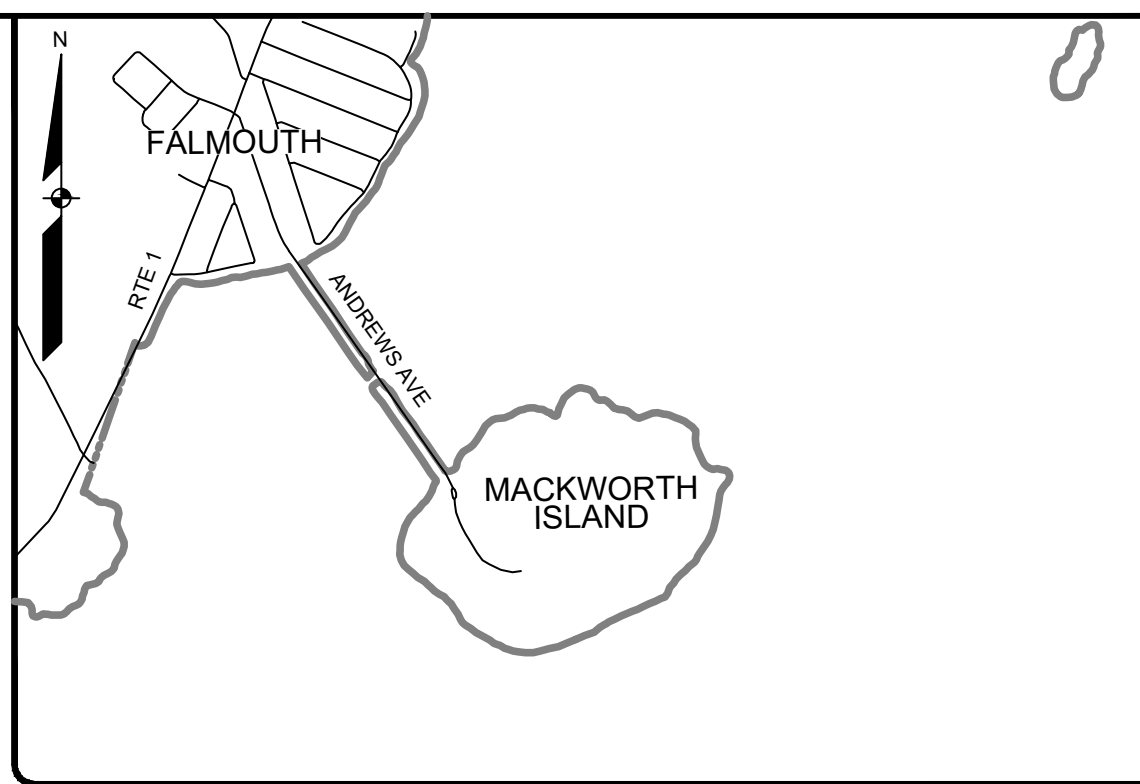
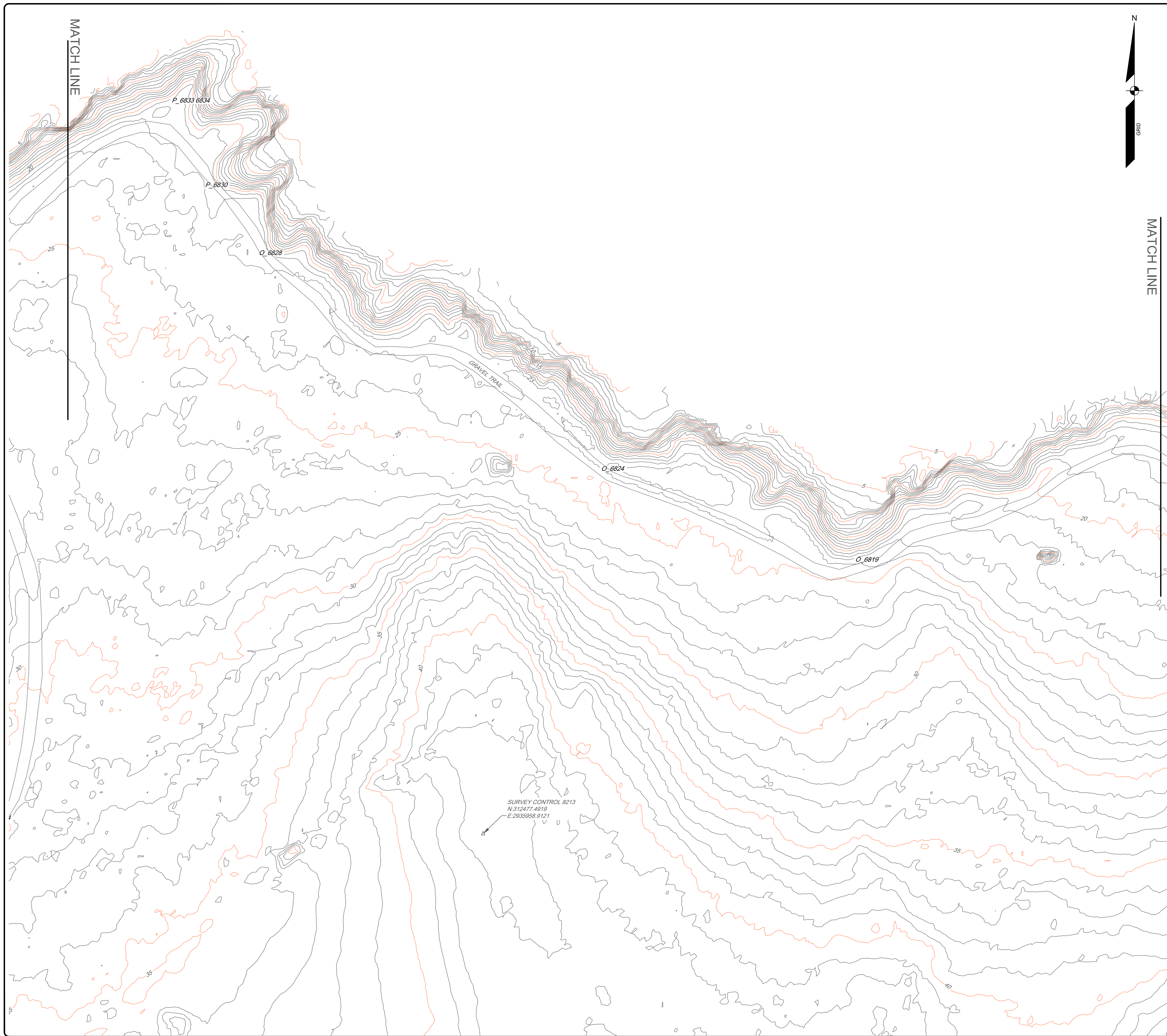
**TITCOMB ASSOCIATES**  
A Division of Sebago Technics  
75 John Roberts Rd.  
Suite 4A  
South Portland, ME 04106  
Tel: 207-200-2100

EXISTING CONDITIONS SURVEY  
OF:  
MACKWORTH ISLAND TRAIL LOOP  
ANDREWS AVENUE CAUSEWAY  
FALMOUTH, MAINE 04105  
FOR:  
HARRIMAN  
23 HARRIMAN DRIVE  
AUBURN, MAINE 04210

DESIGNED	-
DRAWN	JMC
CHECKED	NSE
DATE	11/15/22
SCALE	1" = 30'
PROJECT	220594

220594.dwg, TAB NSE Sh. 2





LOCATION MAP

GENERAL NOTES:

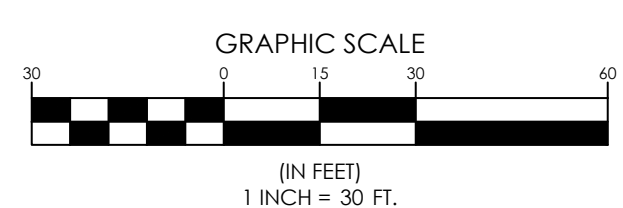
1. TOPOGRAPHIC INFORMATION SHOWN HEREON IS BASED UPON FIELD WORK PERFORMED BY SEBAGO TECHNICS, INC. IN NOVEMBER, 2022.
2. TOPOGRAPHIC INFORMATION SHOWN HEREON IS BASED UPON FIELD WORK PERFORMED BY SEBAGO TECHNICS, INC. IN NOVEMBER 2022. TRADITIONAL SURVEY MEANS AND METHODS SUPPLEMENTED WITH LIDAR WERE EMPLOYED IN THE COLLECTION OF THIS TOPOGRAPHIC INFORMATION.
3. PLAN ORIENTATION IS GRID NORTH, MAINE STATE PLANE COORDINATE SYSTEM, WEST ZONE 1802-NAD83. ELEVATIONS DEPICTED HEREON ARE NAVD88, BASED ON DUAL FREQUENCY GPS OBSERVATIONS.
4. BENCHMARK: ELEVATION: (NAVD88)
5. UTILITY INFORMATION DEPICTED HEREON, UNLESS OTHERWISE NOTED, IS OF QUALITY LEVEL D PER AMERICAN SOCIETY OF CIVIL ENGINEERS (ASCE) STANDARD C/ASCE 38-02. UTILITIES DEPICTED HEREON MAY NOT NECESSARILY REPRESENT ALL EXISTING UTILITIES. CONTRACTORS AND/OR DESIGNERS NEED TO CONTACT DIG-SAFE SYSTEMS, INC. (1-888-DIG-SAFE) AND FIELD VERIFY EXISTING UTILITIES WITHIN THE PROJECT AREA PRIOR TO CONSTRUCTION AND/OR EXCAVATION.

MATCH LINE

MATCH LINE

LEGEND

- DECIDUOUS TREE
- SIGN
- WATER GATE VALVE
- WATER SHUT OFF
- HYDRANT
- CONTOURS
- SANITARY MANHOLE
- CULVERT
- LIGHT POLE
- UTILITY POLE
- GUY WIRE
- BOULDER
- PHOTO LOCATION
- SURVEY CONTROL



NICHOLAS S. ELLISTON, PLS 2518

PLS DR PE

REV	NO	DATE	STATUS

THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM SEBAGOTECHNICS, INC. ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO SEBAGO TECHNICS, INC.

**TITCOMB ASSOCIATES**  
A Division of Sebago Technics  
75 John Roberts Rd.  
Suite 4A  
South Portland, ME 04106  
Tel: 207-200-2100

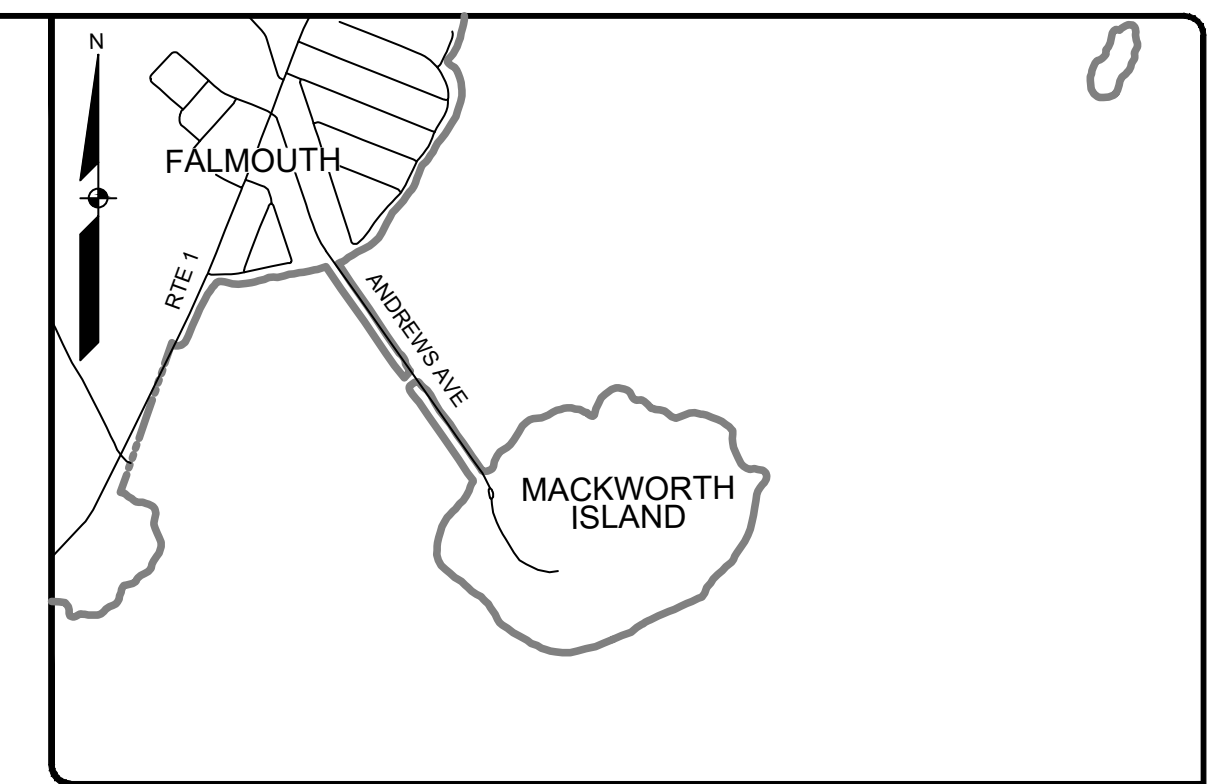
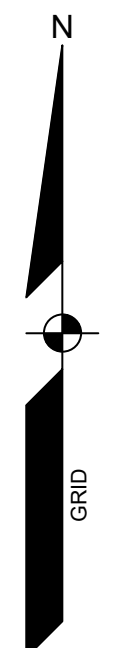
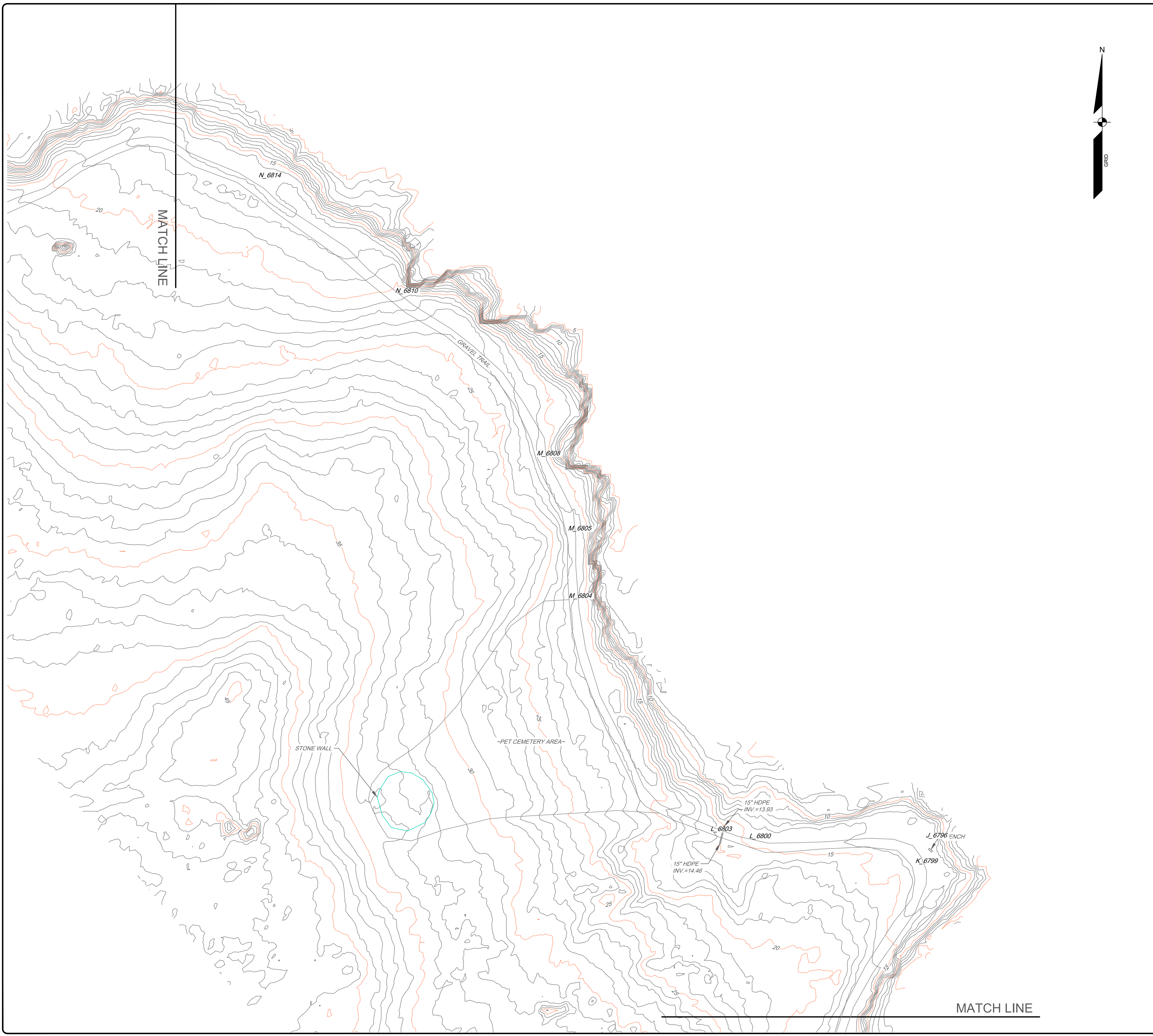
EXISTING CONDITIONS SURVEY  
OF:  
MACKWORTH ISLAND TRAIL LOOP  
ANDREWS AVENUE CAUSEWAY  
FALMOUTH, MAINE 04105  
FOR:  
**HARRIMAN**  
23 HARRIMAN DRIVE  
AUBURN, MAINE 04210

DESIGNED	-
DRAWN	JMC
CHECKED	NSE
DATE	11/15/22
SCALE	1" = 30'
PROJECT	220594

SHEET 3 OF 10

220594.dwg, TAB: NSE Sh. 3





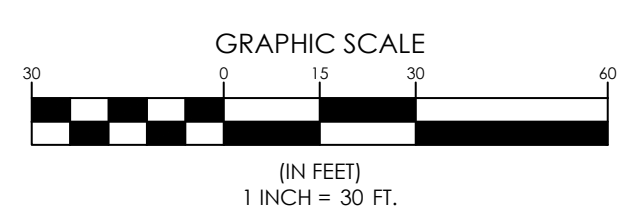
LOCATION MAP

GENERAL NOTES:

- TOPOGRAPHIC INFORMATION SHOWN HEREON IS BASED UPON FIELD WORK PERFORMED BY SEBAGO TECHNICS, INC. IN NOVEMBER, 2022.
- TOPOGRAPHIC INFORMATION SHOWN HEREON IS BASED UPON FIELD WORK PERFORMED BY SEBAGO TECHNICS, INC. IN NOVEMBER 2022. TRADITIONAL SURVEY MEANS AND METHODS SUPPLEMENTED WITH LIDAR WERE EMPLOYED IN THE COLLECTION OF THIS TOPOGRAPHIC INFORMATION.
- PLAN ORIENTATION IS GRID NORTH, MAINE STATE PLANE COORDINATE SYSTEM, WEST ZONE 1802-NAD83. ELEVATIONS DEPICTED HEREON ARE NAVD88, BASED ON DUAL FREQUENCY GPS OBSERVATIONS.
- BENCHMARK: ELEVATION: (NAVD88)
- UTILITY INFORMATION DEPICTED HEREON, UNLESS OTHERWISE NOTED, IS OF QUALITY LEVEL D PER AMERICAN SOCIETY OF CIVIL ENGINEERS (ASCE) STANDARD C/ASCE 38-02. UTILITIES DEPICTED HEREON MAY NOT NECESSARILY REPRESENT ALL EXISTING UTILITIES. CONTRACTORS AND/OR DESIGNERS NEED TO CONTACT DIG-SAFE SYSTEMS, INC. (1-888-DIG-SAFE) AND FIELD VERIFY EXISTING UTILITIES WITHIN THE PROJECT AREA PRIOR TO CONSTRUCTION AND/OR EXCAVATION.

LEGEND

- DECIDUOUS TREE
- SIGN
- WATER GATE VALVE
- WATER SHUT OFF
- HYDRANT
- CONTOURS
- SANITARY MANHOLE
- CULVERT
- LIGHT POLE
- UTILITY POLE
- GUY WIRE
- BOULDER
- PHOTO LOCATION
- SURVEY CONTROL



NICHOLAS S. ELLISTON, PLS 2518  
PLS OR PE

REV	NOSE	DATE	STATUS

THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM SEBAGOTECHNICS, INC. ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO SEBAGO TECHNICS, INC.

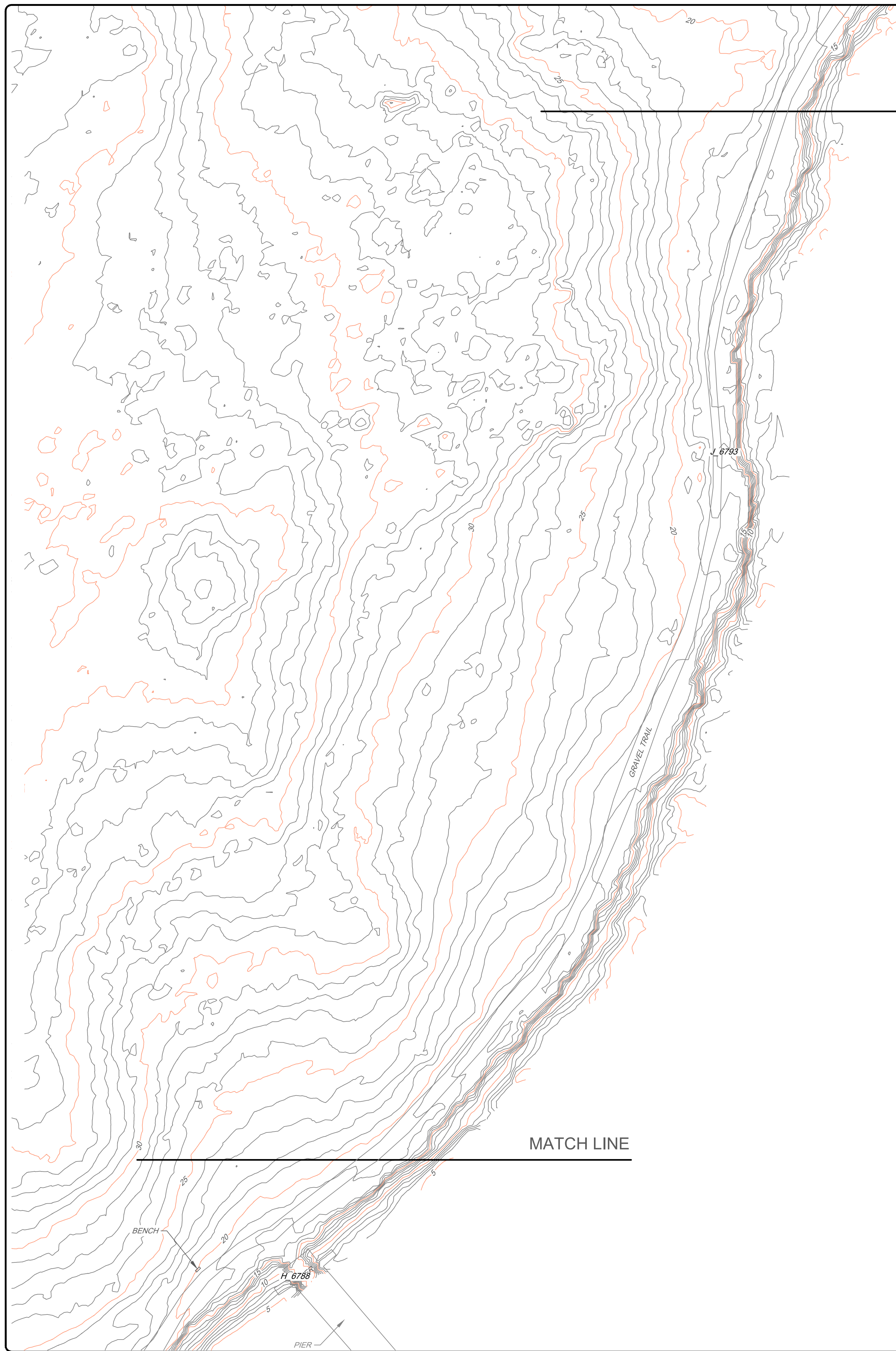
**TITCOMB ASSOCIATES**  
A Division of Sebago Technics  
75 John Roberts Rd.  
Suite 4A  
South Portland, ME 04106  
Tel: 207-200-2100

EXISTING CONDITIONS SURVEY  
OF:  
MACKWORTH ISLAND TRAIL LOOP  
ANDREWS AVENUE CAUSEWAY  
FALMOUTH, MAINE 04105  
FOR:  
HARRIMAN  
23 HARRIMAN DRIVE  
ALBURN, MAINE 04210

DESIGNED	JMC
DRAWN	NSE
CHECKED	NSE
DATE	11/15/22
SCALE	1" = 30'
PROJECT	220594

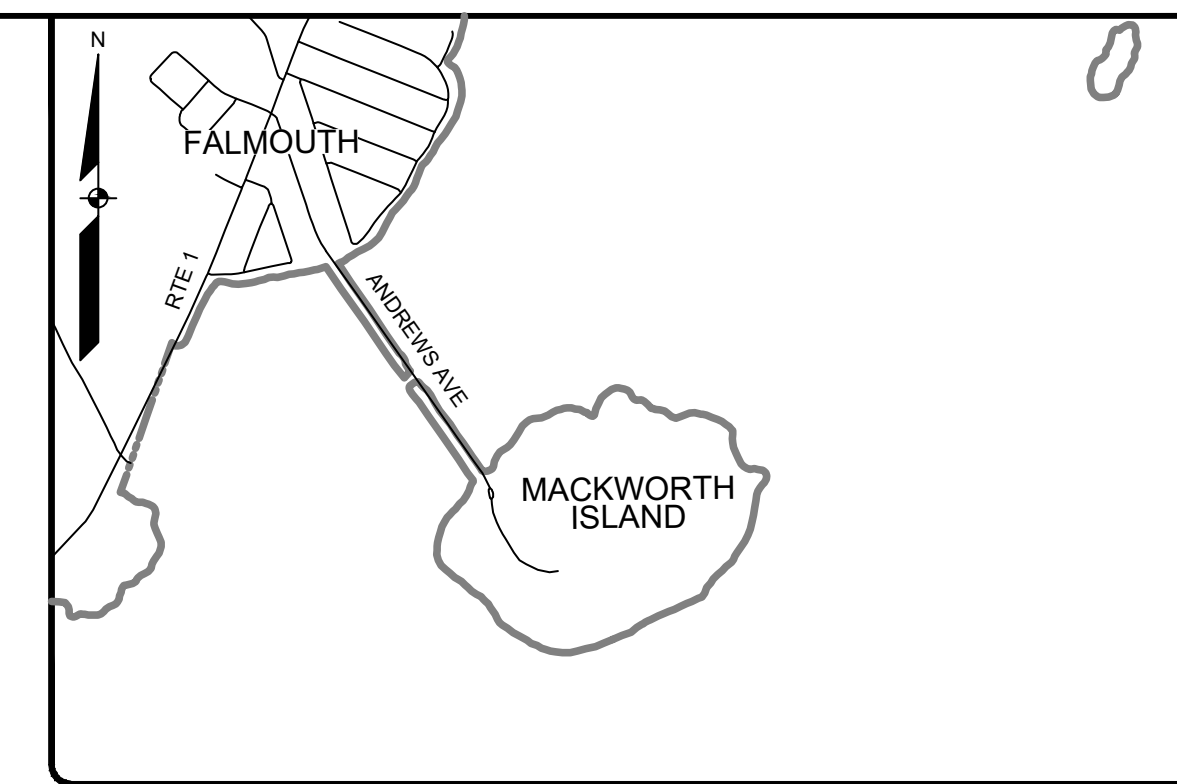
220594.dwg, TAB NSE Sh. 4





MATCH LINE

MATCH LINE



LOCATION MAP

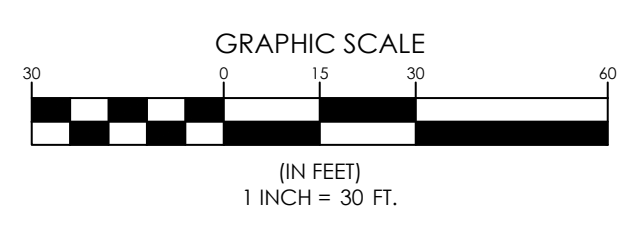
GENERAL NOTES:

- TOPOGRAPHIC INFORMATION SHOWN HEREON IS BASED UPON FIELD WORK PERFORMED BY SEBAGO TECHNICS, INC. IN NOVEMBER, 2022.
- TOPOGRAPHIC INFORMATION SHOWN HEREON IS BASED UPON FIELD WORK PERFORMED BY SEBAGO TECHNICS, INC. IN NOVEMBER 2022. TRADITIONAL SURVEY MEANS AND METHODS SUPPLEMENTED WITH LIDAR WERE EMPLOYED IN THE COLLECTION OF THIS TOPOGRAPHIC INFORMATION.
- PLAN ORIENTATION IS GRID NORTH, MAINE STATE PLANE COORDINATE SYSTEM, WEST ZONE 1802-NA083. ELEVATIONS DEPICTED HEREON ARE NAVD88, BASED ON DUAL FREQUENCY GPS OBSERVATIONS.
- BENCHMARK:
 

BM-1	DESCRIPTION	ELEVATION: (NAVD88)
- UTILITY INFORMATION DEPICTED HEREON, UNLESS OTHERWISE NOTED, IS OF QUALITY LEVEL D PER AMERICAN SOCIETY OF CIVIL ENGINEERS (ASCE) STANDARD C/ASCE 38-02. UTILITIES DEPICTED HEREON MAY NOT NECESSARILY REPRESENT ALL EXISTING UTILITIES. CONTRACTORS AND/OR DESIGNERS NEED TO CONTACT DIG-SAFE SYSTEMS, INC. (1-888-DIG-SAFE) AND FIELD VERIFY EXISTING UTILITIES WITHIN THE PROJECT AREA PRIOR TO CONSTRUCTION AND/OR EXCAVATION.

LEGEND

- DECIDUOUS TREE
- SIGN
- WATER GATE VALVE
- WATER SHUT OFF
- HYDRANT
- CONTOURS
- SANITARY MANHOLE
- CULVERT
- LIGHT POLE
- UTILITY POLE
- GUY WIRE
- BOULDER
- PHOTO LOCATION
- SURVEY CONTROL



NICHOLAS S. ELLISTON, PLS 2518  
PLS OR PE

REV	NO	DATE	STATUS

THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM SEBAGO TECHNICS, INC. ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO SEBAGO TECHNICS, INC.

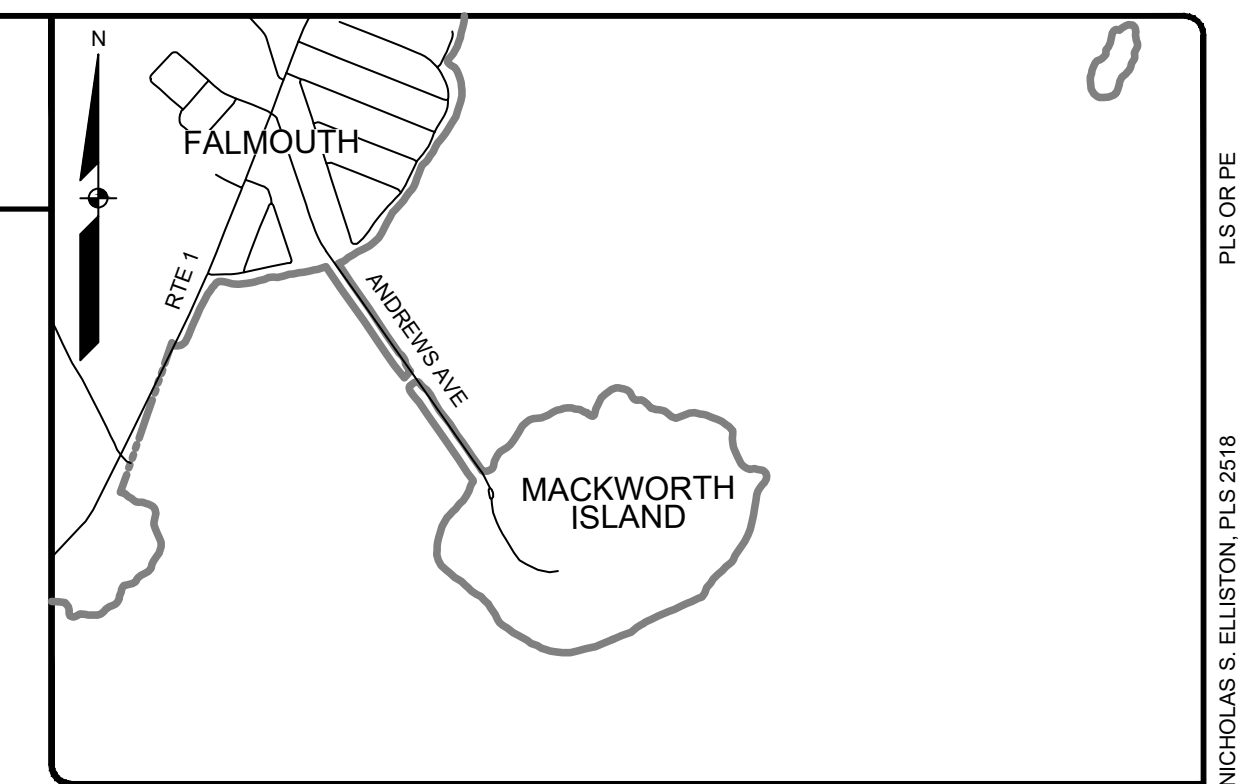
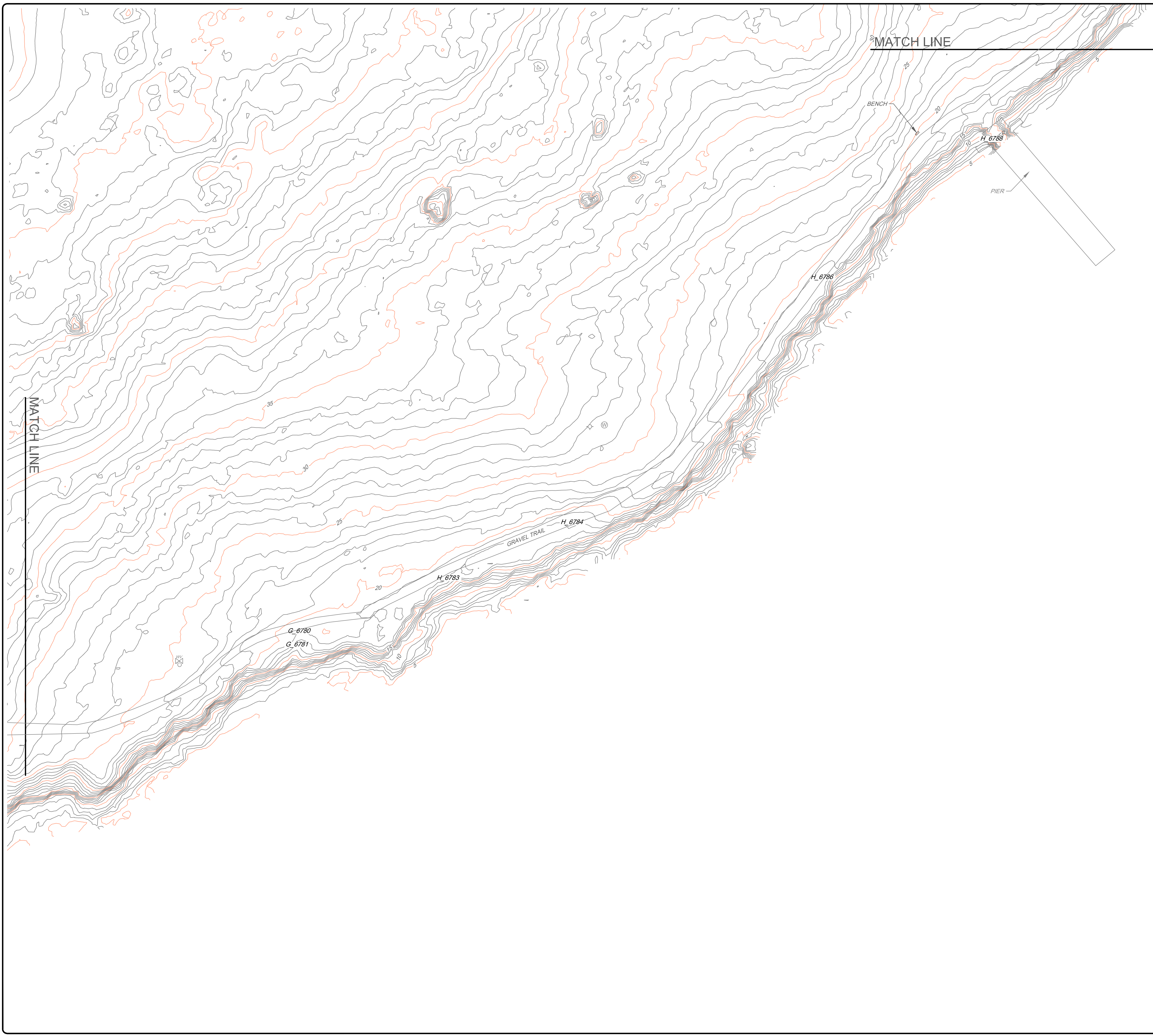
**TITCOMB ASSOCIATES**  
A Division of Sebago Technics  
75 John Roberts Rd.  
Suite 4A  
South Portland, ME 04106  
Tel: 207-200-2100

EXISTING CONDITIONS SURVEY  
OF:  
MACKWORTH ISLAND TRAIL LOOP  
ANDREWS AVENUE CAUSEWAY  
FALMOUTH, MAINE 04105  
FOR:  
HARRIMAN  
23 HARRIMAN DRIVE  
ALBURN, MAINE 04210

DESIGNED	
DRAWN	JMC
CHECKED	NSE
DATE	11/15/22
SCALE	1" = 30'
PROJECT	220594

220594.dwg, TAB NSE SH. 5





**LOCATION MAP**

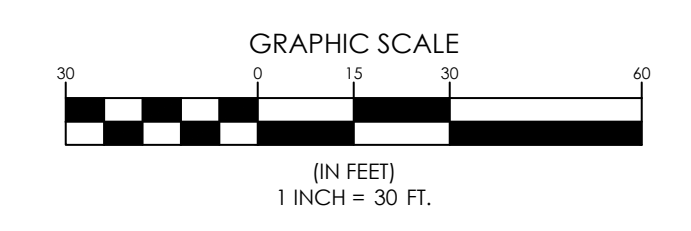
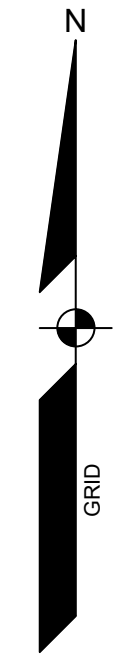
**GENERAL NOTES:**

- TOPOGRAPHIC INFORMATION SHOWN HEREON IS BASED UPON FIELD WORK PERFORMED BY SEBAGO TECHNICS, INC. IN NOVEMBER, 2022.
- TOPOGRAPHIC INFORMATION SHOWN HEREON IS BASED UPON FIELD WORK PERFORMED BY SEBAGO TECHNICS, INC. IN NOVEMBER 2022. TRADITIONAL SURVEY MEANS AND METHODS SUPPLEMENTED WITH LIDAR WERE EMPLOYED IN THE COLLECTION OF THIS TOPOGRAPHIC INFORMATION.
- PLAN ORIENTATION IS GRID NORTH, MAINE STATE PLANE COORDINATE SYSTEM, WEST ZONE 1802-NAD83. ELEVATIONS DEPICTED HEREON ARE NAVD88, BASED ON DUAL FREQUENCY GPS OBSERVATIONS.
- BENCHMARK:
 

BM-1	DESCRIPTION	ELEVATION: (NAVD88)
- UTILITY INFORMATION DEPICTED HEREON, UNLESS OTHERWISE NOTED, IS OF QUALITY LEVEL D PER AMERICAN SOCIETY OF CIVIL ENGINEERS (ASCE) STANDARD C/ASCE 38-02. UTILITIES DEPICTED HEREON MAY NOT NECESSARILY REPRESENT ALL EXISTING UTILITIES. CONTRACTORS AND/OR DESIGNERS NEED TO CONTACT DIG-SAFE SYSTEMS, INC. (1-888-DIG-SAFE) AND FIELD VERIFY EXISTING UTILITIES WITHIN THE PROJECT AREA PRIOR TO CONSTRUCTION AND/OR EXCAVATION.

**LEGEND**

- DECIDUOUS TREE
- SIGN
- WATER GATE VALVE
- WATER SHUT OFF
- HYDRANT
- CONTOURS
- SANITARY MANHOLE
- CULVERT
- LIGHT POLE
- UTILITY POLE
- GUY WIRE
- BOULDER
- PHOTO LOCATION
- SURVEY CONTROL



NICHOLAS S. ELLISTON, PLS 2518

PLS OR PE

REV	NOSE	DATE	STATUS

THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM SEBAGO TECHNICS, INC. ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO SEBAGO TECHNICS, INC.

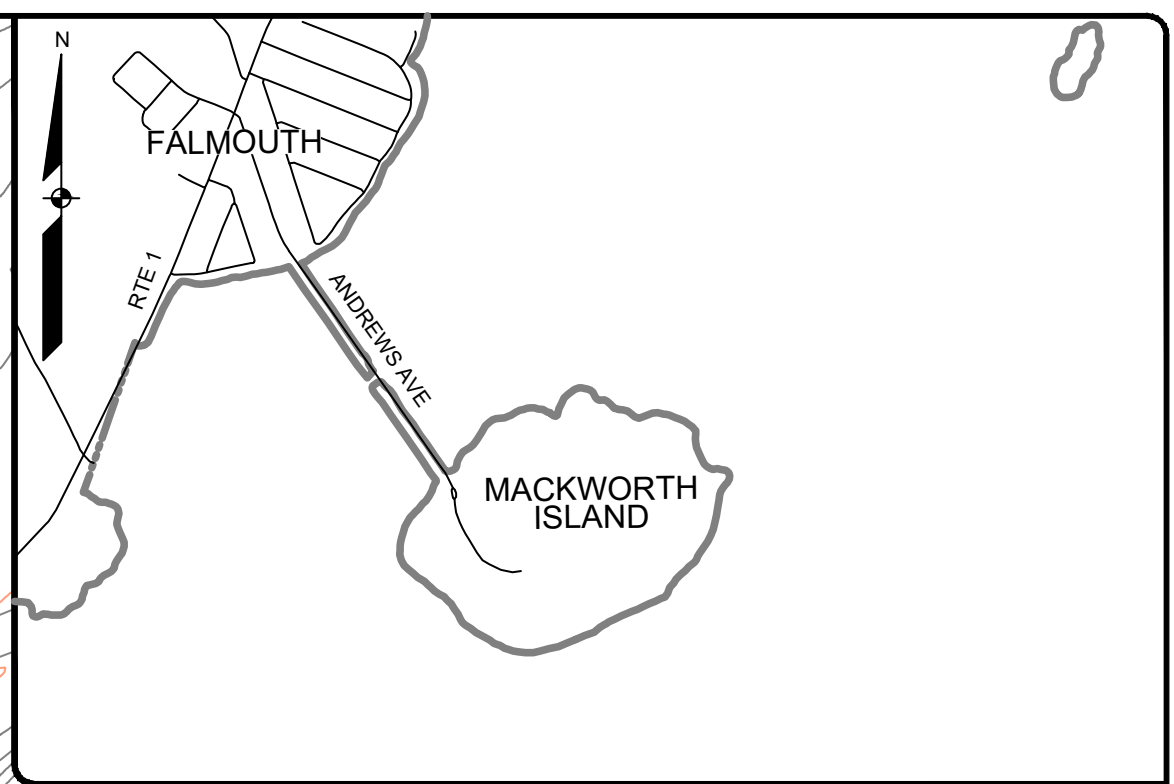
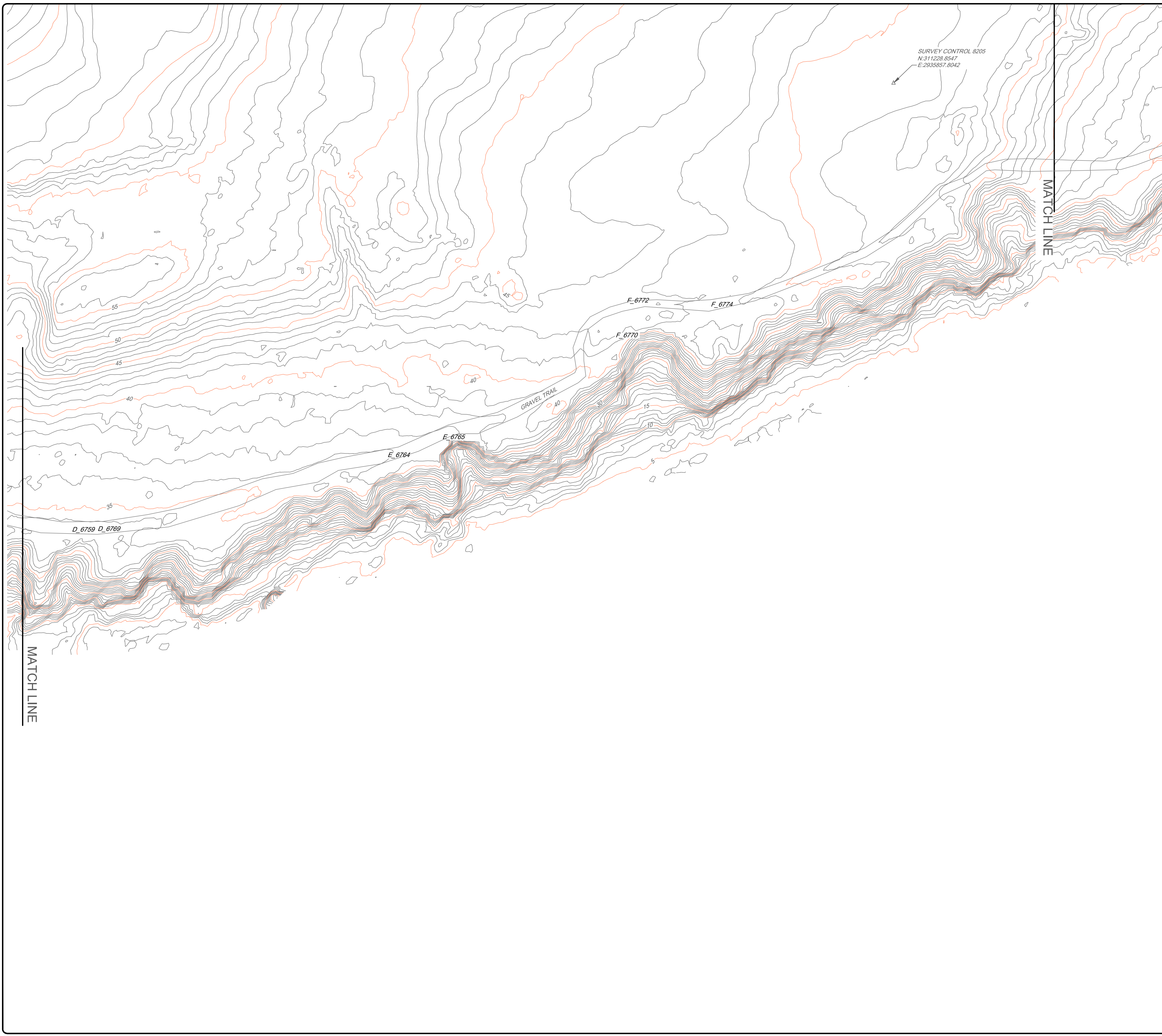
**TITCOMB ASSOCIATES**  
 A Division of Sebago Technics  
 75 John Roberts Rd.  
 Suite 4A  
 South Portland, ME 04106  
 Tel: 207-200-2100

EXISTING CONDITIONS SURVEY  
 OF:  
**MACKWORTH ISLAND TRAIL LOOP**  
 ANDREWS AVENUE CAUSEWAY  
 FALMOUTH, MAINE 04105  
 FOR:  
**HARRIMAN**  
 23 HARRIMAN DRIVE  
 ALBURN, MAINE 04210

DESIGNED	
DRAWN	JMC
CHECKED	NSE
DATE	11/15/22
SCALE	1" = 30'
PROJECT	220594

220594.dwg, TAB: NSE Sh. 6





**LOCATION MAP**

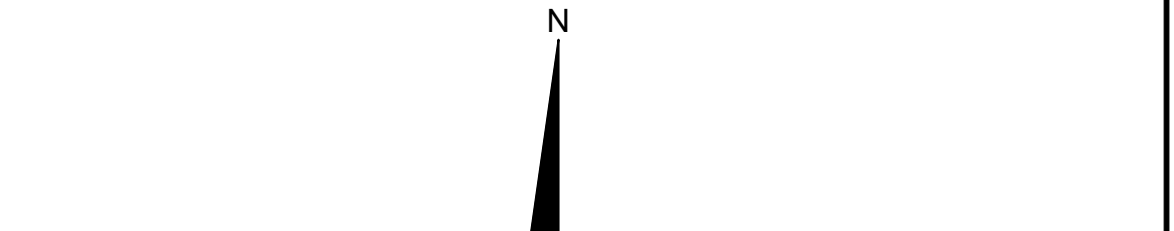
**GENERAL NOTES:**

- TOPOGRAPHIC INFORMATION SHOWN HEREON IS BASED UPON FIELD WORK PERFORMED BY SEBAGO TECHNICS, INC. IN NOVEMBER, 2022.
- TOPOGRAPHIC INFORMATION SHOWN HEREON IS BASED UPON FIELD WORK PERFORMED BY SEBAGO TECHNICS, INC. IN NOVEMBER 2022. TRADITIONAL SURVEY MEANS AND METHODS SUPPLEMENTED WITH LIDAR WERE EMPLOYED IN THE COLLECTION OF THIS TOPOGRAPHIC INFORMATION.
- PLAN ORIENTATION IS GRID NORTH, MAINE STATE PLANE COORDINATE SYSTEM, WEST ZONE 1802-NAD83. ELEVATIONS DEPICTED HEREON ARE NAVD88, BASED ON DUAL FREQUENCY GPS OBSERVATIONS.
- BENCHMARK: ELEVATION: (NAVD88)
- UTILITY INFORMATION DEPICTED HEREON, UNLESS OTHERWISE NOTED, IS OF QUALITY LEVEL D PER AMERICAN SOCIETY OF CIVIL ENGINEERS (ASCE) STANDARD C1ASCE 38-02. UTILITIES DEPICTED HEREON MAY NOT NECESSARILY REPRESENT ALL EXISTING UTILITIES. CONTRACTORS AND/OR DESIGNERS NEED TO CONTACT DIG-SAFE SYSTEMS, INC. (1-888-DIG-SAFE) AND FIELD VERIFY EXISTING UTILITIES WITHIN THE PROJECT AREA PRIOR TO CONSTRUCTION AND/OR EXCAVATION.

REV	NO	DATE	STATUS

**LEGEND**

- DECIDUOUS TREE
- SIGN
- WATER GATE VALVE
- WATER SHUT OFF
- HYDRANT
- CONTOURS
- SANITARY MANHOLE
- CULVERT
- LIGHT POLE
- UTILITY POLE
- GUY WIRE
- BOULDER
- PHOTO LOCATION
- SURVEY CONTROL



NICHOLAS S. ELLISTON, PLS 2518

PLS OR FE

THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM SEBAGOTECHNICS, INC. ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO SEBAGO TECHNICS, INC.

**TITCOMB ASSOCIATES**  
 A Division of Sebago Technics  
 75 John Roberts Rd.  
 Suite 4A  
 South Portland, ME 04106  
 Tel: 207-200-2100

EXISTING CONDITIONS SURVEY  
 OF:  
 MACKWORTH ISLAND TRAIL LOOP  
 ANDREWS AVENUE CAUSEWAY  
 FALMOUTH, MAINE 04105  
 FOR:  
**HARRIMAN**  
 23 HARRIMAN DRIVE  
 ALBURN, MAINE 04210

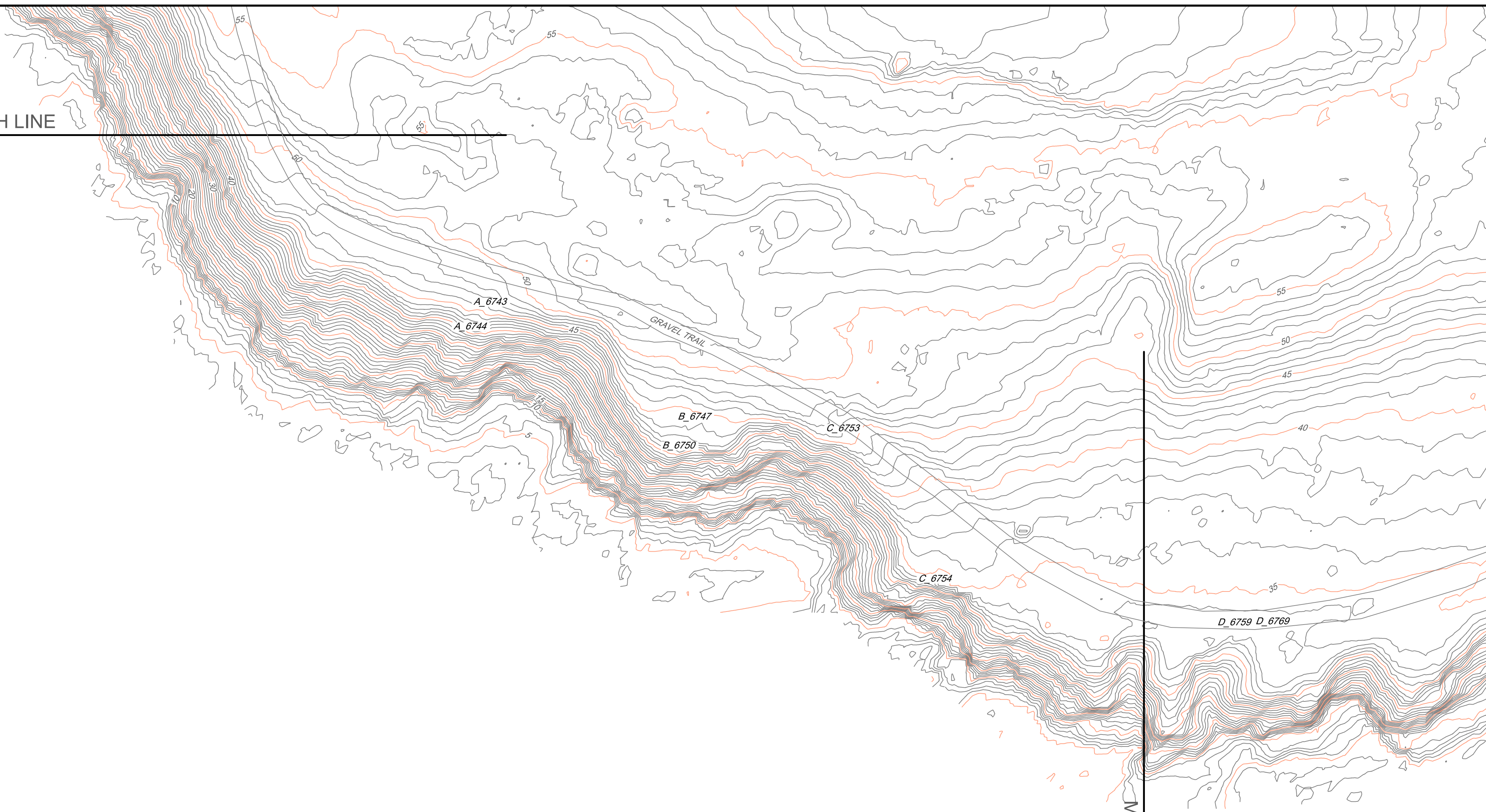
DESIGNED	JMC
DRAWN	JMC
CHECKED	NSE
DATE	11/15/22
SCALE	1" = 30'
PROJECT	220594

220594.dwg, TAB NSE Sh. 7

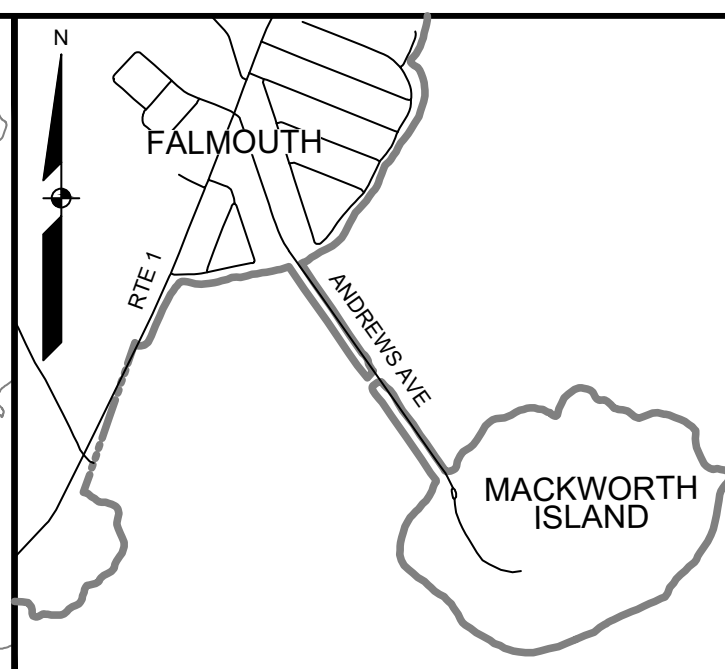




MATCH LINE



MATCH LINE



LOCATION MAP

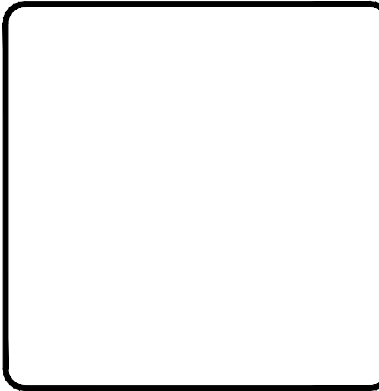
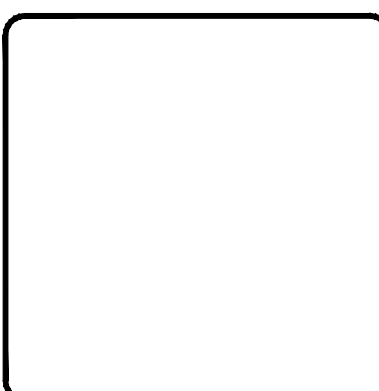
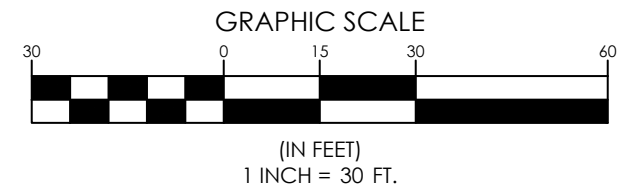
GENERAL NOTES:

1. TOPOGRAPHIC INFORMATION SHOWN HEREON IS BASED UPON FIELD WORK PERFORMED BY SEBAGO TECHNICS, INC. IN NOVEMBER, 2022.
2. TOPOGRAPHIC INFORMATION SHOWN HEREON IS BASED UPON FIELD WORK PERFORMED BY SEBAGO TECHNICS, INC. IN NOVEMBER 2022. TRADITIONAL SURVEY MEANS AND METHODS SUPPLEMENTED WITH LIDAR WERE EMPLOYED IN THE COLLECTION OF THIS TOPOGRAPHIC INFORMATION.
3. PLAN ORIENTATION IS GRID NORTH, MAINE STATE PLANE COORDINATE SYSTEM, WEST ZONE 1802-NAD83. ELEVATIONS DEPICTED HEREON ARE NAVD88, BASED ON DUAL FREQUENCY GPS OBSERVATIONS.
4. BENCHMARK:
 

BM-1	DESCRIPTION	ELEVATION: (NAVD88)
------	-------------	---------------------
5. UTILITY INFORMATION DEPICTED HEREON, UNLESS OTHERWISE NOTED, IS OF QUALITY LEVEL D PER AMERICAN SOCIETY OF CIVIL ENGINEERS (ASCE) STANDARD C/ASCE 38-02. UTILITIES DEPICTED HEREON MAY NOT NECESSARILY REPRESENT ALL EXISTING UTILITIES. CONTRACTORS AND/OR DESIGNERS NEED TO CONTACT DIG-SAFE SYSTEMS, INC. (1-888-DIG-SAFE) AND FIELD VERIFY EXISTING UTILITIES WITHIN THE PROJECT AREA PRIOR TO CONSTRUCTION AND/OR EXCAVATION.

LEGEND

- DECIDUOUS TREE
- SIGN
- WATER GATE VALVE
- WATER SHUT OFF
- HYDRANT
- CONTOURS
- SANITARY MANHOLE
- CULVERT
- LIGHT POLE
- UTILITY POLE
- GUY WIRE
- BOULDER
- PHOTO LOCATION
- SURVEY CONTROL



REV	NO	DATE	STATUS

THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM SEBAGO TECHNICS, INC. ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO SEBAGO TECHNICS, INC.

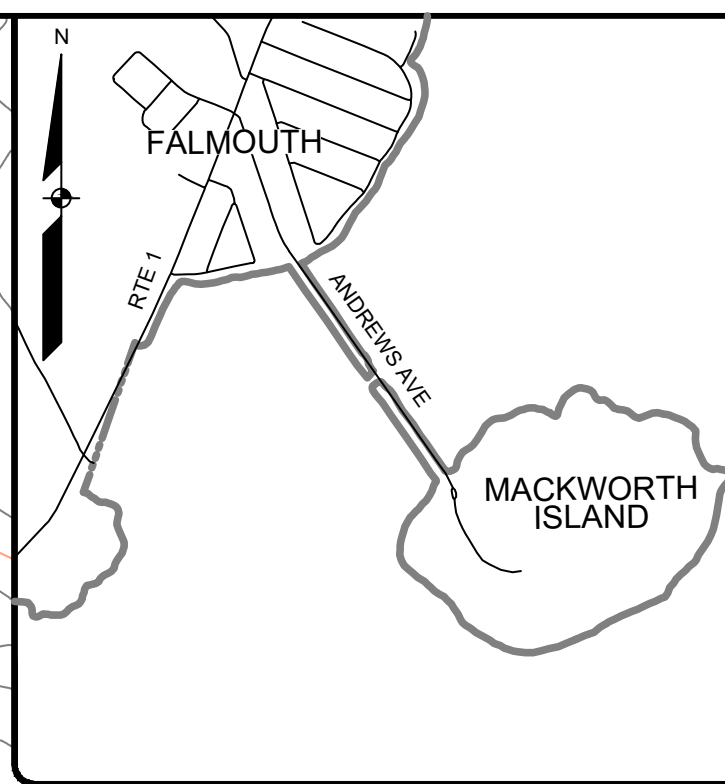
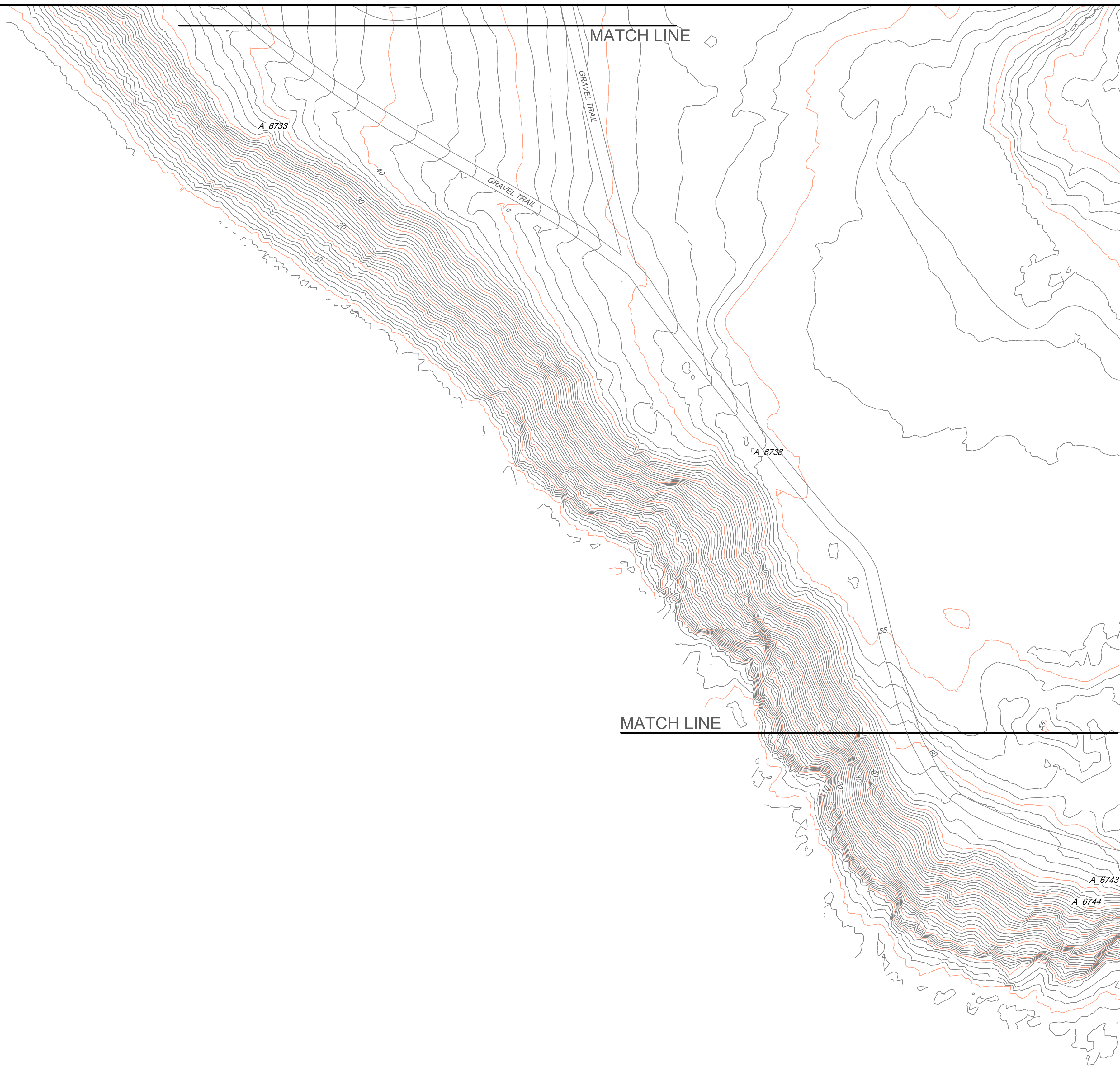
**TITCOMB ASSOCIATES**  
 A Division of Sebago Technics  
 75 John Roberts Rd.  
 Suite 4A  
 South Portland, ME 04106  
 Tel: 207-200-2100

EXISTING CONDITIONS SURVEY  
 OF:  
 MACKWORTH ISLAND TRAIL LOOP  
 ANDREWS AVENUE CAUSEWAY  
 FALMOUTH, MAINE 04105  
 FOR:  
**HARRIMAN**  
 23 HARRIMAN DRIVE  
 ALBURN, MAINE 04210

DESIGNED	
DRAWN	JMC
CHECKED	NSE
DATE	11/15/22
SCALE	1" = 30'
PROJECT	220594

NICHOLAS S. ELLISTON, PLS 2218





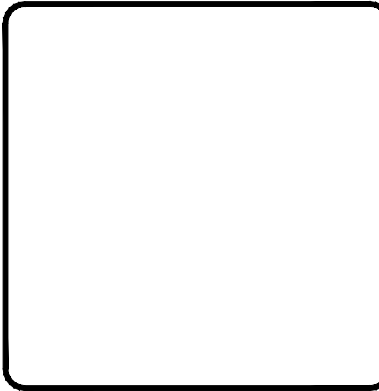
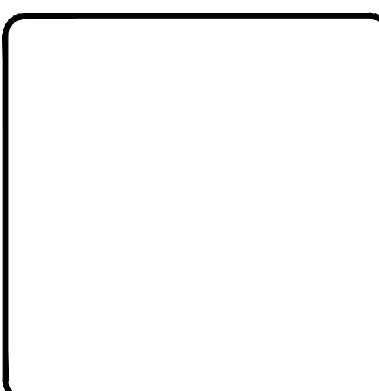
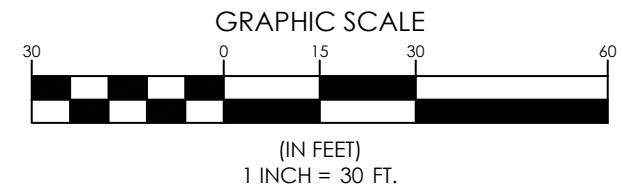
LOCATION MAP

GENERAL NOTES:

1. TOPOGRAPHIC INFORMATION SHOWN HEREON IS BASED UPON FIELD WORK PERFORMED BY SEBAGO TECHNICS, INC. IN NOVEMBER, 2022.  
TOPOGRAPHIC INFORMATION SHOWN HEREON IS BASED UPON FIELD WORK PERFORMED BY SEBAGO TECHNICS, INC. IN NOVEMBER 2022. TRADITIONAL SURVEY MEANS AND METHODS SUPPLEMENTED WITH LIDAR WERE EMPLOYED IN THE COLLECTION OF THIS TOPOGRAPHIC INFORMATION.
2. PLAN ORIENTATION IS GRID NORTH, MAINE STATE PLANE COORDINATE SYSTEM, WEST ZONE 1802-NAD83. ELEVATIONS DEPICTED HEREON ARE NAVD88, BASED ON DUAL FREQUENCY GPS OBSERVATIONS.
3. BENCHMARK:  
BM-1 DESCRIPTION: ELEVATION: (NAVD88)
4. UTILITY INFORMATION DEPICTED HEREON, UNLESS OTHERWISE NOTED, IS OF QUALITY LEVEL D PER AMERICAN SOCIETY OF CIVIL ENGINEERS (ASCE) STANDARD C/ASCE 38-02. UTILITIES DEPICTED HEREON MAY NOT NECESSARILY REPRESENT ALL EXISTING UTILITIES. CONTRACTORS AND/OR DESIGNERS NEED TO CONTACT DIG-SAFE SYSTEMS, INC. (1-888-DIG-SAFE) AND FIELD VERIFY EXISTING UTILITIES WITHIN THE PROJECT AREA PRIOR TO CONSTRUCTION AND/OR EXCAVATION.

LEGEND

- DECIDUOUS TREE
- SIGN
- WATER GATE VALVE
- WATER SHUT OFF
- HYDRANT
- CONTOURS
- SANITARY MANHOLE
- CULVERT
- LIGHT POLE
- UTILITY POLE
- GUY WIRE
- BOULDER
- PHOTO LOCATION
- SURVEY CONTROL



REV	NO	DATE	STATUS

THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM SEBAGO TECHNICS, INC. ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO SEBAGO TECHNICS, INC.

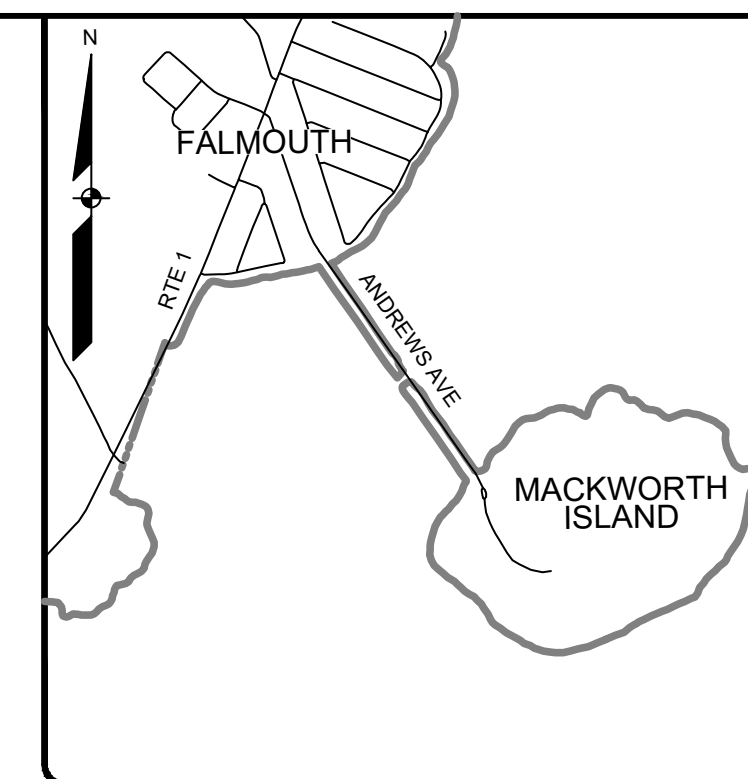
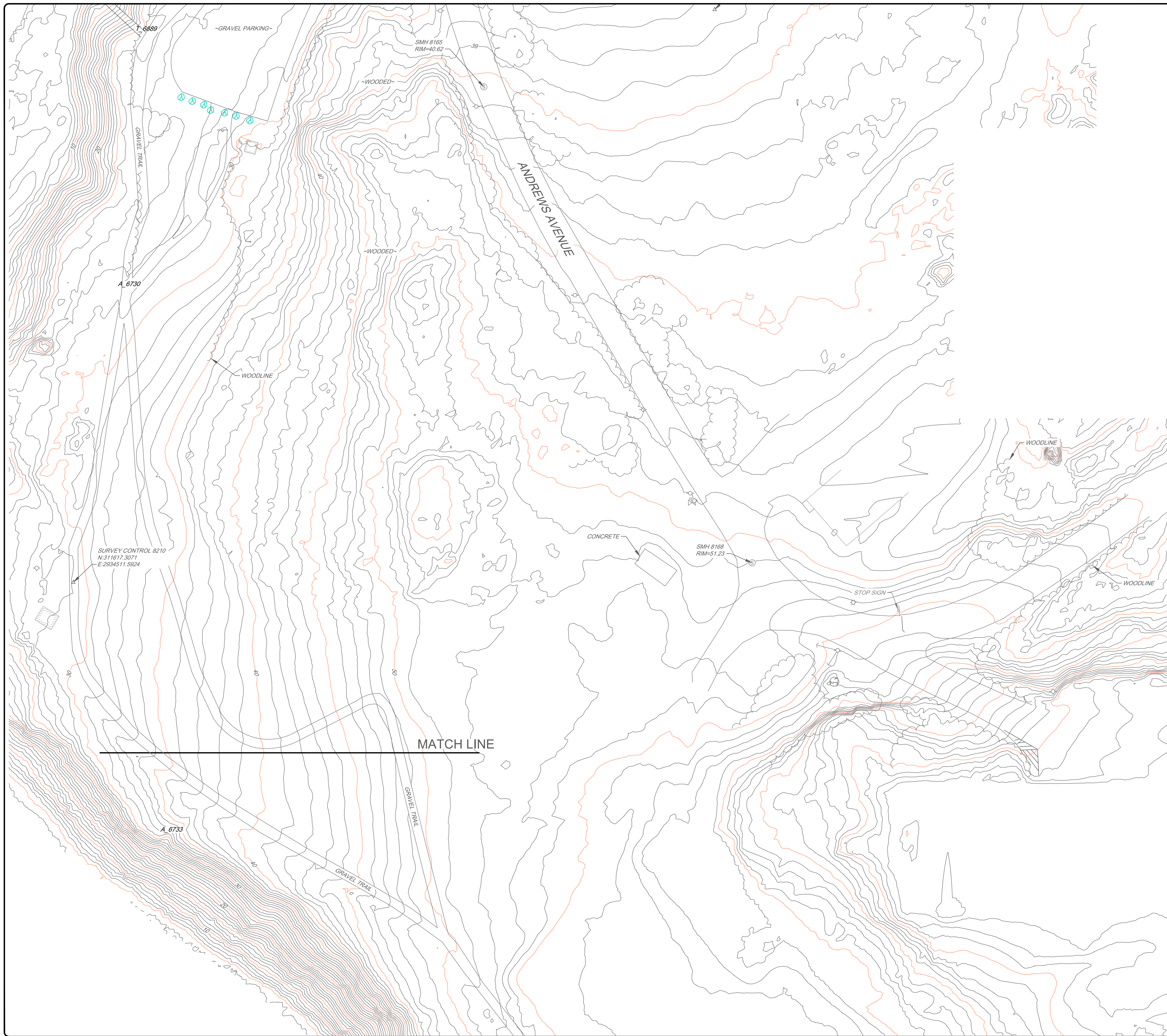
**TITCOMB ASSOCIATES**  
A Division of Sebago Technics  
75 John Roberts Rd.  
Suite 4A  
South Portland, ME 04106  
Tel: 207-200-2100

EXISTING CONDITIONS SURVEY  
OF:  
MACKWORTH ISLAND TRAIL LOOP  
ANDREWS AVENUE CAUSEWAY  
FALMOUTH, MAINE 04105  
FOR:  
**HARRIMAN**  
23 HARRIMAN DRIVE  
ALBURN, MAINE 04210

DESIGNED	
DRAWN	JMC
CHECKED	NSE
DATE	11/15/22
SCALE	1" = 30'
PROJECT	220594

220594.dwg, TAB: NSE Sh. 9 NICHOLAS S. ELLISTON, PLS 2218 PLS OR PE





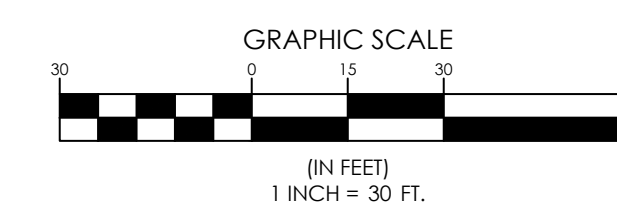
**LOCATION MAP**

**GENERAL NOTES:**

- TOPOGRAPHIC INFORMATION SHOWN HEREON IS BASED UPON FIELD WORK PERFORMED BY SEBAGO TECHNICS, INC. IN NOVEMBER, 2022.
- TOPOGRAPHIC INFORMATION SHOWN HEREON IS BASED UPON FIELD WORK PERFORMED BY SEBAGO TECHNICS, INC. IN NOVEMBER 2022. TRADITIONAL SURVEY MEANS AND METHODS SUPPLEMENTED WITH LIDAR WERE EMPLOYED IN THE COLLECTION OF THIS TOPOGRAPHIC INFORMATION.
- PLAN ORIENTATION IS GRID NORTH, MAINE STATE PLANE COORDINATE SYSTEM, WEST ZONE 1802-NA083. ELEVATIONS DEPICTED HEREON ARE NAVD88, BASED ON DUAL FREQUENCY GPS OBSERVATIONS.
- BENCHMARK: ELEVATION: (NAVD88)
- UTILITY INFORMATION DEPICTED HEREON, UNLESS OTHERWISE NOTED, IS OF QUALITY LEVEL D PER AMERICAN SOCIETY OF CIVIL ENGINEERS (ASCE) STANDARD C/ASCE 38-02. UTILITIES DEPICTED HEREON MAY NOT NECESSARILY REPRESENT ALL EXISTING UTILITIES. CONTRACTORS AND/OR DESIGNERS NEED TO CONTACT DIG-SAFE SYSTEMS, INC. (1-888-DIG-SAFE) AND FIELD VERIFY EXISTING UTILITIES WITHIN THE PROJECT AREA PRIOR TO CONSTRUCTION AND/OR EXCAVATION.

**LEGEND**

- DECIDUOUS TREE
- SIGN
- WATER GATE VALVE
- WATER SHUT OFF
- HYDRANT
- CONTOURS
- SANITARY MANHOLE
- CULVERT
- LIGHT POLE
- UTILITY POLE
- GUY WIRE
- BOULDER
- PHOTO LOCATION
- SURVEY CONTROL



NICHOLAS S. ELLISTON, PLS 2518

REV	NO	DATE	STATUS

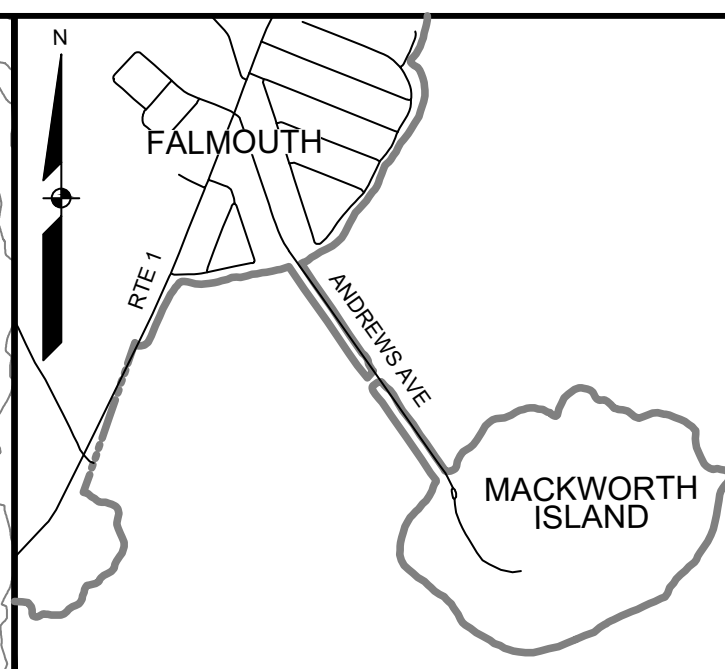
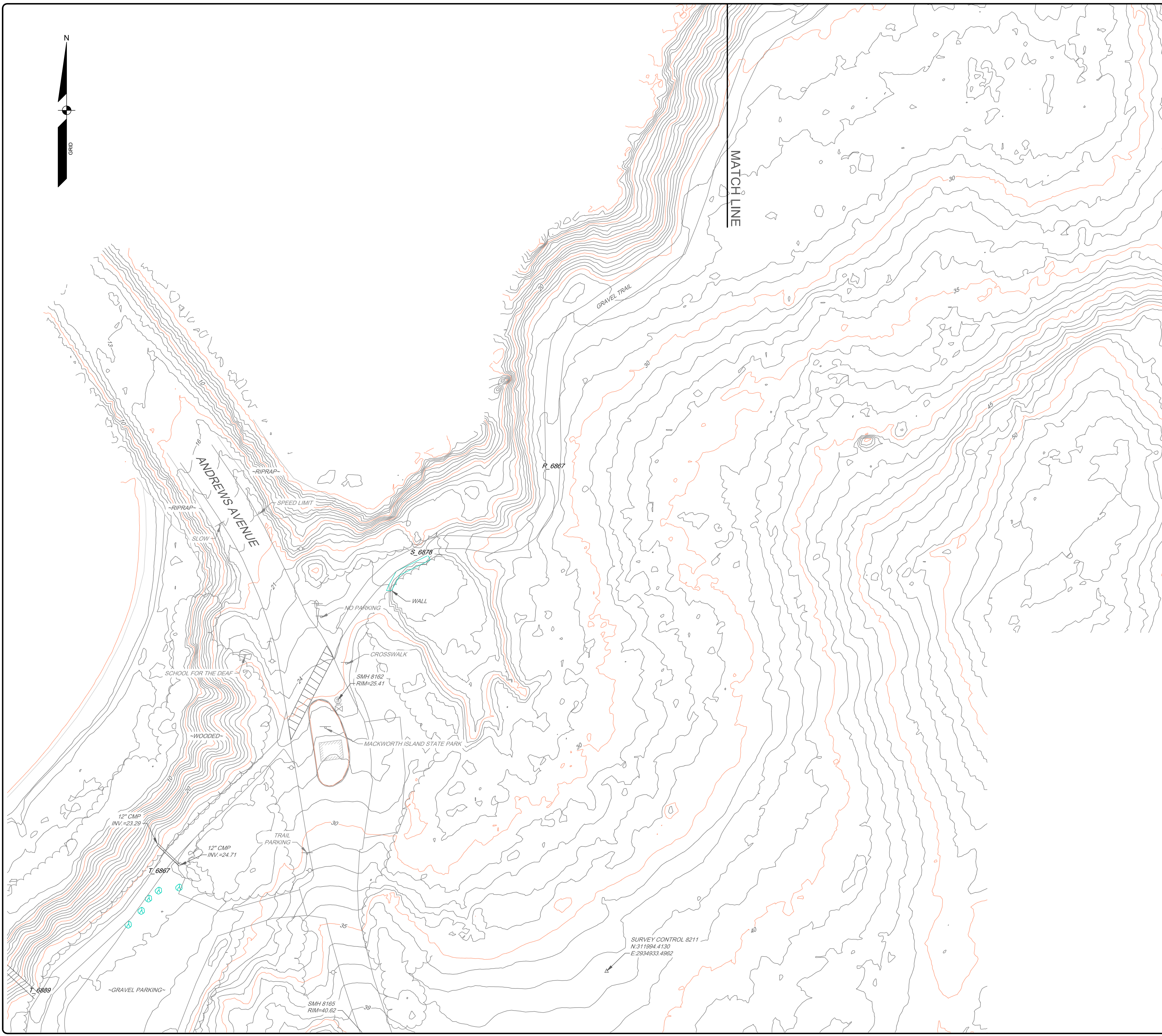
THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM SEBAGO TECHNICS, INC. ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO SEBAGO TECHNICS, INC.

**TITCOMB ASSOCIATES**  
A Division of Sebago Technics  
75 John Roberts Rd.  
Suite 4A  
South Portland, ME 04106  
Tel: 207-200-2100

EXISTING CONDITIONS SURVEY  
OF:  
MACKWORTH ISLAND TRAIL LOOP  
ANDREWS AVENUE CAUSEWAY  
FALMOUTH, MAINE 04105  
FOR:  
HARRIMAN  
23 HARRIMAN DRIVE  
ALBURN, MAINE 04210

DESIGNED	
DRAWN	JMC
CHECKED	NSE
DATE	11/15/22
SCALE	1" = 30'
PROJECT	220594





**LOCATION MAP**

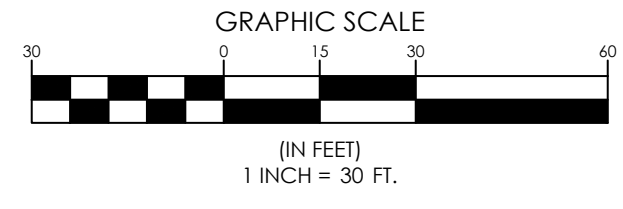
**GENERAL NOTES:**

1. TOPOGRAPHIC INFORMATION SHOWN HEREON IS BASED UPON FIELD WORK PERFORMED BY SEBAGO TECHNICS, INC. IN NOVEMBER, 2022.
2. TOPOGRAPHIC INFORMATION SHOWN HEREON IS BASED UPON FIELD WORK PERFORMED BY SEBAGO TECHNICS, INC. IN NOVEMBER 2022. TRADITIONAL SURVEY MEANS AND METHODS SUPPLEMENTED WITH LIDAR WERE EMPLOYED IN THE COLLECTION OF THIS TOPOGRAPHIC INFORMATION.
3. PLAN ORIENTATION IS GRID NORTH, MAINE STATE PLANE COORDINATE SYSTEM, WEST ZONE 1802-NAD83. ELEVATIONS DEPICTED HEREON ARE NAVD88, BASED ON DUAL FREQUENCY GPS OBSERVATIONS.
4. BENCHMARK:
 

BM-1	DESCRIPTION	ELEVATION: (NAVD88)
------	-------------	---------------------
5. UTILITY INFORMATION DEPICTED HEREON, UNLESS OTHERWISE NOTED, IS OF QUALITY LEVEL D PER AMERICAN SOCIETY OF CIVIL ENGINEERS (ASCE) STANDARD C/ASCE 38-02. UTILITIES DEPICTED HEREON MAY NOT NECESSARILY REPRESENT ALL EXISTING UTILITIES. CONTRACTORS AND/OR DESIGNERS NEED TO CONTACT DIG-SAFE SYSTEMS, INC. (1-888-DIG-SAFE) AND FIELD VERIFY EXISTING UTILITIES WITHIN THE PROJECT AREA PRIOR TO CONSTRUCTION AND/OR EXCAVATION.

**LEGEND**

- DECIDUOUS TREE
- SIGN
- WATER GATE VALVE
- WATER SHUT OFF
- HYDRANT
- CONTOURS
- SANITARY MANHOLE
- CULVERT
- LIGHT POLE
- UTILITY POLE
- GUY WIRE
- BOULDER
- PHOTO LOCATION
- SURVEY CONTROL



NICHOLAS S. ELLISTON, PLS 2518

REV	NO	DATE	STATUS

THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM SEBAGO TECHNICS, INC. ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO SEBAGO TECHNICS, INC.

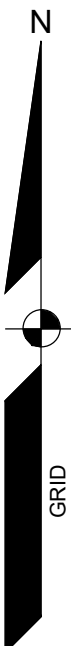
**TITCOMB**  
ASSOCIATES  
A Division of Sebago Technics

75 John Roberts Rd.  
Suite 4A  
South Portland, ME 04106  
Tel: 207-200-2100

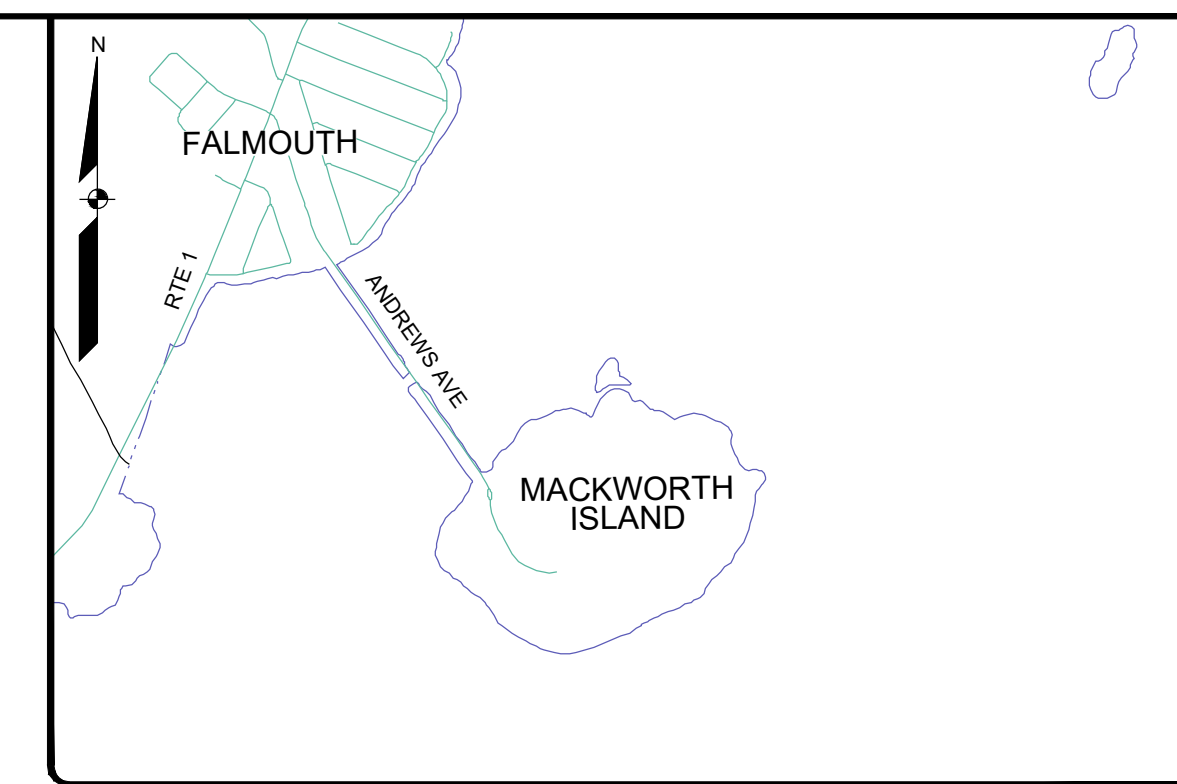
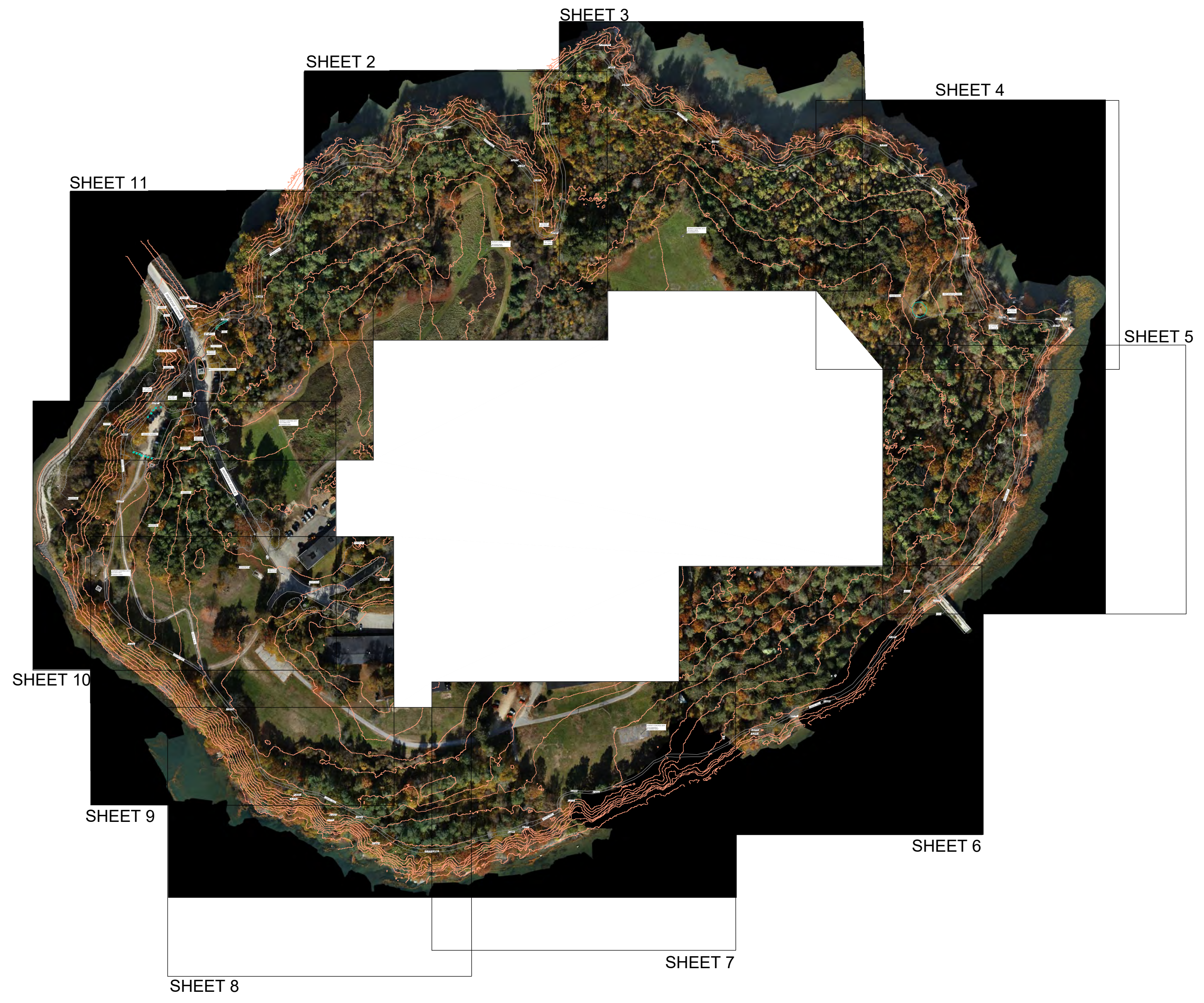
EXISTING CONDITIONS SURVEY  
OF:  
MACKWORTH ISLAND TRAIL LOOP  
ANDREWS AVENUE CAUSEWAY  
FALMOUTH, MAINE 04105  
FOR:  
**HARRIMAN**  
23 HARRIMAN DRIVE  
ALBURY, MAINE 04210

DESIGNED	
DRAWN	JMC
CHECKED	NSE
DATE	11/15/22
SCALE	1" = 30'
PROJECT	220594





MACWORTH ISLAND PROJECT LAYOUT  
NOT TO SCALE



LOCATION MAP

GENERAL NOTES:

1. TOPOGRAPHIC INFORMATION SHOWN HEREON IS BASED UPON FIELD WORK PERFORMED BY SEBAGO TECHNICS, INC. IN NOVEMBER, 2022.
2. TOPOGRAPHIC INFORMATION SHOWN HEREON IS BASED UPON FIELD WORK PERFORMED BY SEBAGO TECHNICS, INC. IN NOVEMBER 2022. TRADITIONAL SURVEY MEANS AND METHODS SUPPLEMENTED WITH LIDAR WERE EMPLOYED IN THE COLLECTION OF THIS TOPOGRAPHIC INFORMATION.
3. PLAN ORIENTATION IS GRID NORTH, MAINE STATE PLANE COORDINATE SYSTEM, WEST ZONE 1802-NAD83. ELEVATIONS DEPICTED HEREON ARE NAVD88, BASED ON DUAL FREQUENCY GPS OBSERVATIONS.
4. BENCHMARK: BM-1 DESCRIPTION: ELEVATION: (NAVD88)
5. UTILITY INFORMATION DEPICTED HEREON, UNLESS OTHERWISE NOTED, IS OF QUALITY LEVEL D PER AMERICAN SOCIETY OF CIVIL ENGINEERS (ASCE) STANDARD C/ASCE 38-02. UTILITIES DEPICTED HEREON MAY NOT NECESSARILY REPRESENT ALL EXISTING UTILITIES. CONTRACTORS AND/OR DESIGNERS NEED TO CONTACT DIG-SAFE SYSTEMS, INC. (1-888-DIG-SAFE) AND FIELD VERIFY EXISTING UTILITIES WITHIN THE PROJECT AREA PRIOR TO CONSTRUCTION AND/OR EXCAVATION.

NICHOLAS S. ELLISTON, PLS 2518

REV.	BY	DATE	STATUS

THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM SEBAGO TECHNICS, INC. ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO SEBAGO TECHNICS, INC.

**TITCOMB ASSOCIATES**  
A Division of Sebago Technics  
75 John Roberts Rd.  
Suite 4A  
South Portland, ME 04106  
Tel: 207-200-2100

EXISTING CONDITIONS SURVEY  
OF:  
MACWORTH ISLAND TRAIL LOOP  
ANDREWS AVENUE CAUSEWAY  
FALMOUTH, MAINE 04105  
FOR:  
HARRIMAN  
23 HARRIMAN DRIVE  
AUBURN, MAINE 04210

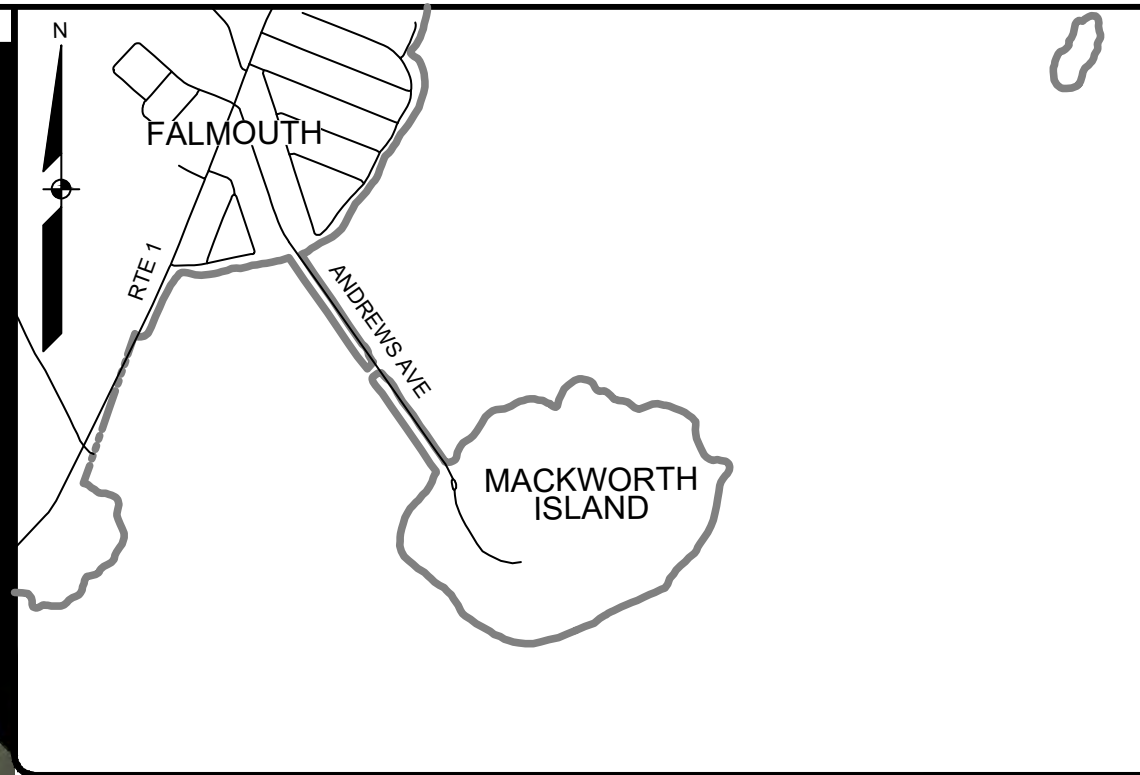
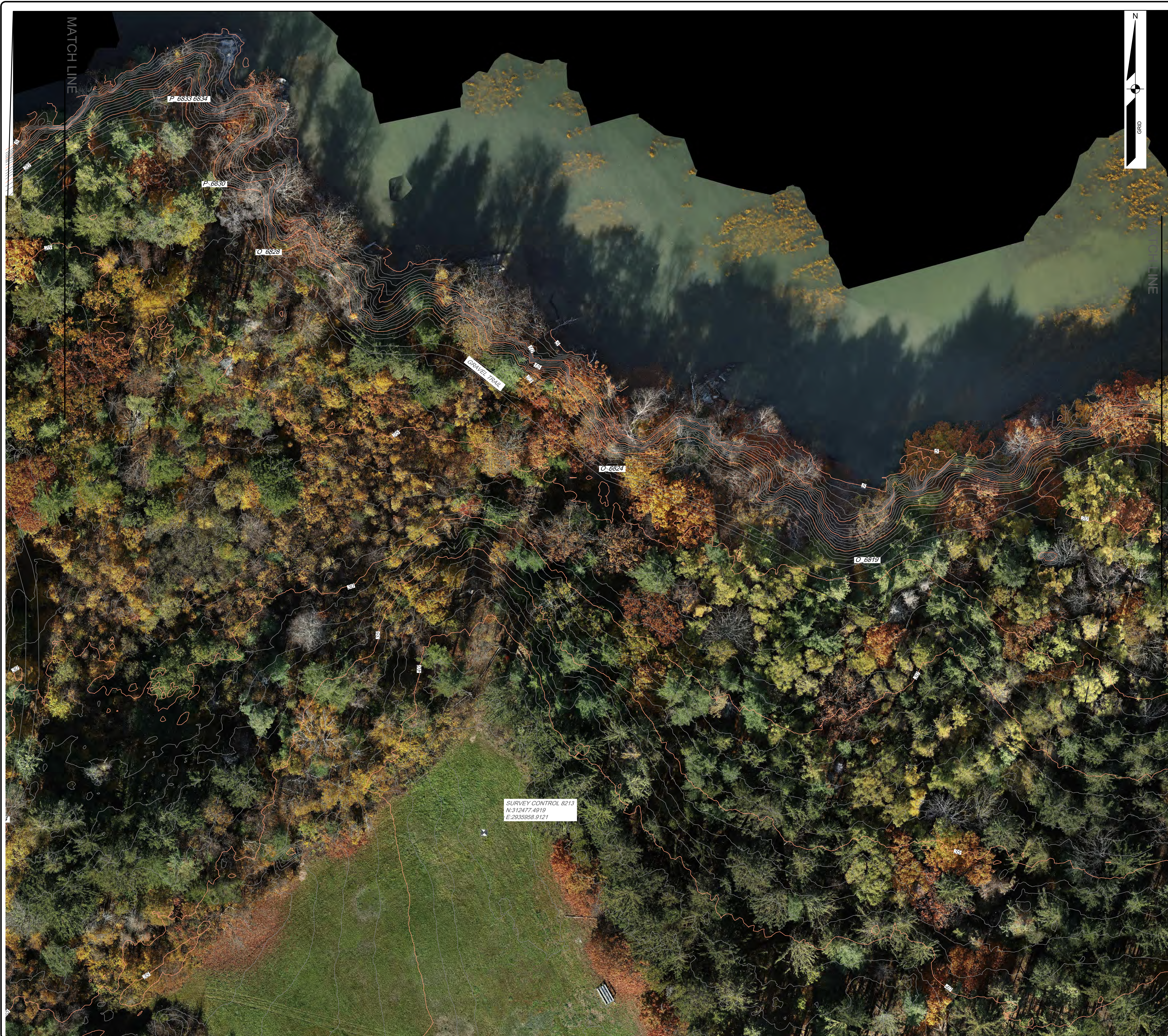
DESIGNED	-
DRAWN	JMC/CNG
CHECKED	NSE
DATE	11/15/22
SCALE	1" = 30'
PROJECT	220594

220594.dwg, TAB: NSE Sh. 1









**LOCATION MAP**

**GENERAL NOTES:**

1. TOPOGRAPHIC INFORMATION SHOWN HEREON IS BASED UPON FIELD WORK PERFORMED BY SEBAGO TECHNICS, INC. IN NOVEMBER, 2022.
2. TOPOGRAPHIC INFORMATION SHOWN HEREON IS BASED UPON FIELD WORK PERFORMED BY SEBAGO TECHNICS, INC. IN NOVEMBER 2022. TRADITIONAL SURVEY MEANS AND METHODS SUPPLEMENTED WITH LIDAR WERE EMPLOYED IN THE COLLECTION OF THIS TOPOGRAPHIC INFORMATION.
3. PLAN ORIENTATION IS GRID NORTH, MAINE STATE PLANE COORDINATE SYSTEM, WEST ZONE 1802-NAD83. ELEVATIONS DEPICTED HEREON ARE NAVD88, BASED ON DUAL FREQUENCY GPS OBSERVATIONS.
4. UTILITY INFORMATION DEPICTED HEREON, UNLESS OTHERWISE NOTED, IS OF QUALITY LEVEL D PER AMERICAN SOCIETY OF CIVIL ENGINEERS (ASCE) STANDARD C/ASCE 38-02. UTILITIES DEPICTED HEREON MAY NOT NECESSARILY REPRESENT ALL EXISTING UTILITIES. CONTRACTORS AND/OR DESIGNERS NEED TO CONTACT DIG-SAFE SYSTEMS, INC. (1-888-DIG-SAFE) AND FIELD VERIFY EXISTING UTILITIES WITHIN THE PROJECT AREA PRIOR TO CONSTRUCTION AND/OR EXCAVATION.

BENCHMARK:

BM-1	DESCRIPTION	ELEVATION: (NAVD88)

**LEGEND**

	DECIDUOUS TREE
	SIGN
	WATER GATE VALVE
	WATER SHUT OFF
	HYDRANT
	CONTOURS
	SANITARY MANHOLE
	CULVERT
	LIGHT POLE
	UTILITY POLE
	GUY WIRE
	BOULDER
	PHOTO LOCATION
	SURVEY CONTROL



NICHOLAS S. ELLISTON, PLS 2518

REV	NOSE	DATE	STATUS

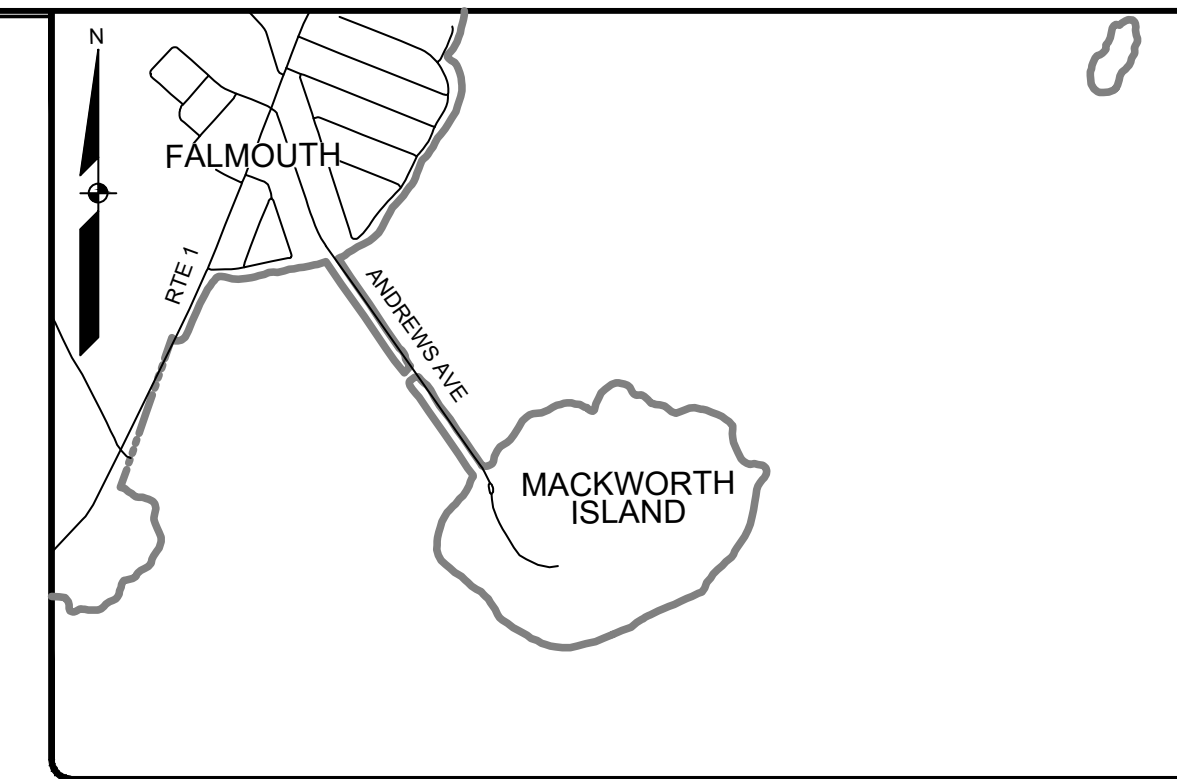
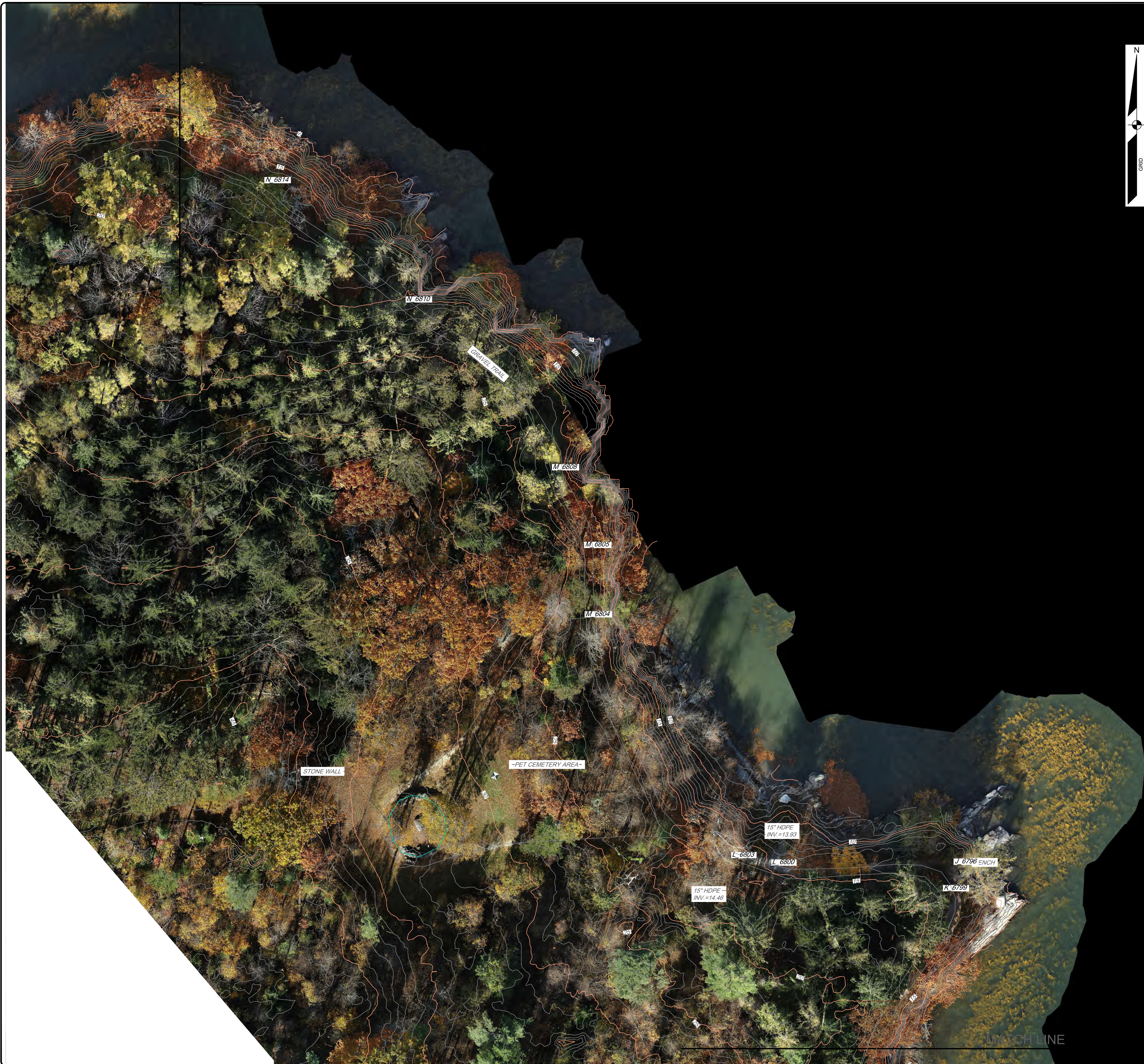
THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM SEBAGO TECHNICS, INC. ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO SEBAGO TECHNICS, INC.

**TITCOMB ASSOCIATES**  
 A Division of Sebago Technics  
 75 John Roberts Rd.  
 Suite 4A  
 South Portland, ME 04106  
 Tel: 207-200-2100

EXISTING CONDITIONS SURVEY  
 OF:  
 MACKWORTH ISLAND TRAIL LOOP  
 ANDREWS AVENUE CAUSEWAY  
 FALMOUTH, MAINE 04105  
 FOR:  
**HARRIMAN**  
 23 HARRIMAN DRIVE  
 AUBURN, MAINE 04210

DESIGNED	-
DRAWN	JMC
CHECKED	NSE
DATE	11/15/22
SCALE	1" = 30'
PROJECT	220594





**LOCATION MAP**

**GENERAL NOTES:**

1. TOPOGRAPHIC INFORMATION SHOWN HEREON IS BASED UPON FIELD WORK PERFORMED BY SEBAGO TECHNICS, INC. IN NOVEMBER, 2022.
2. TOPOGRAPHIC INFORMATION SHOWN HEREON IS BASED UPON FIELD WORK PERFORMED BY SEBAGO TECHNICS, INC. IN NOVEMBER 2022. TRADITIONAL SURVEY MEANS AND METHODS SUPPLEMENTED WITH LIDAR WERE EMPLOYED IN THE COLLECTION OF THIS TOPOGRAPHIC INFORMATION.
3. PLAN ORIENTATION IS GRID NORTH, MAINE STATE PLANE COORDINATE SYSTEM, WEST ZONE 1802-NAD83. ELEVATIONS DEPICTED HEREON ARE NAVD88, BASED ON DUAL FREQUENCY GPS OBSERVATIONS.
4. BENCHMARK:
 

BM-1	DESCRIPTION	ELEVATION: (NAVD88)
------	-------------	---------------------
5. UTILITY INFORMATION DEPICTED HEREON, UNLESS OTHERWISE NOTED, IS OF QUALITY LEVEL D PER AMERICAN SOCIETY OF CIVIL ENGINEERS (ASCE) STANDARD C/ASCE 38-02. UTILITIES DEPICTED HEREON MAY NOT NECESSARILY REPRESENT ALL EXISTING UTILITIES. CONTRACTORS AND/OR DESIGNERS NEED TO CONTACT DIG-SAFE SYSTEMS, INC. (1-888-DIG-SAFE) AND FIELD VERIFY EXISTING UTILITIES WITHIN THE PROJECT AREA PRIOR TO CONSTRUCTION AND/OR EXCAVATION.

**LEGEND**

- DECIDUOUS TREE
- SIGN
- WATER GATE VALVE
- WATER SHUT OFF
- HYDRANT
- CONTOURS
- SANITARY MANHOLE
- CULVERT
- LIGHT POLE
- UTILITY POLE
- GUY WIRE
- BOULDER
- PHOTO LOCATION
- SURVEY CONTROL

220594.dwg, TAB: NSE SH. 4
NICHOLAS S. ELLISTON, PLS 2518

REV	NOSE	DATE	STATUS

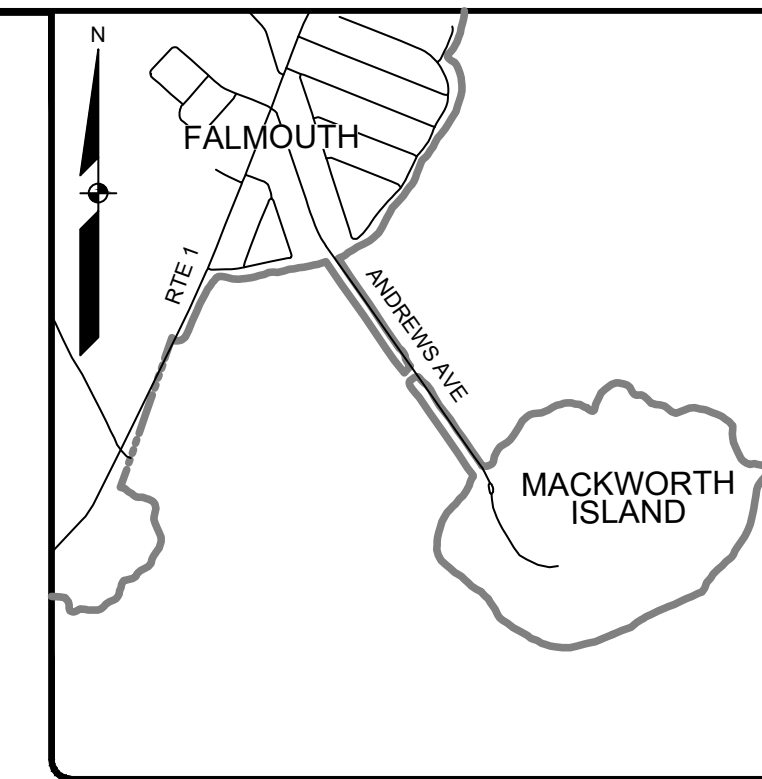
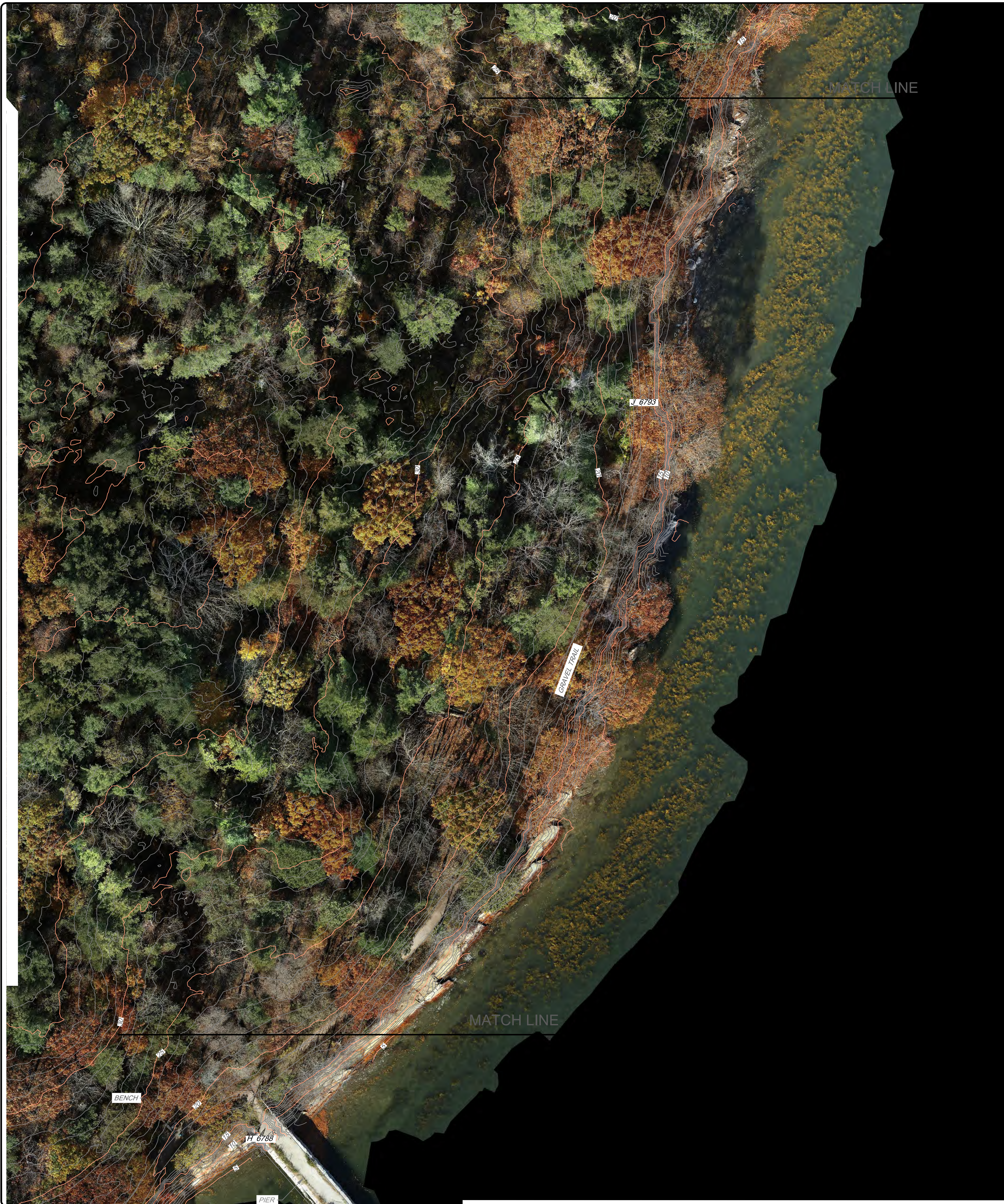
**TITCOMB ASSOCIATES**  
A Division of Sebago Technics  
75 John Roberts Rd.  
Suite 4A  
South Portland, ME 04106  
Tel: 207-200-2100

EXISTING CONDITIONS SURVEY  
OF:  
MACKWORTH ISLAND TRAIL LOOP  
ANDREWS AVENUE CAUSEWAY  
FALMOUTH, MAINE 04105  
FOR:  
**HARRIMAN**  
23 HARRIMAN DRIVE  
ALBURNY, MAINE 04210

DESIGNED	
DRAWN	JMC
CHECKED	NSE
DATE	11/15/22
SCALE	1" = 30'
PROJECT	220594

**SHEET 4 OF 10**





**LOCATION MAP**

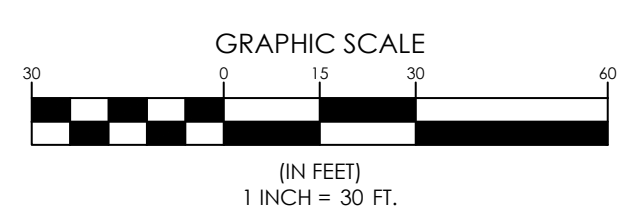
**GENERAL NOTES:**

1. TOPOGRAPHIC INFORMATION SHOWN HEREON IS BASED UPON FIELD WORK PERFORMED BY SEBAGO TECHNICS, INC. IN NOVEMBER, 2022.
2. TOPOGRAPHIC INFORMATION SHOWN HEREON IS BASED UPON FIELD WORK PERFORMED BY SEBAGO TECHNICS, INC. IN NOVEMBER 2022. TRADITIONAL SURVEY MEANS AND METHODS SUPPLEMENTED WITH LIDAR WERE EMPLOYED IN THE COLLECTION OF THIS TOPOGRAPHIC INFORMATION.
3. PLAN ORIENTATION IS GRID NORTH, MAINE STATE PLANE COORDINATE SYSTEM, WEST ZONE 1802-NAD83. ELEVATIONS DEPICTED HEREON ARE NAVD88, BASED ON DUAL FREQUENCY GPS OBSERVATIONS.
4. BENCHMARK:
 

BM-1	DESCRIPTION	ELEVATION: (NAVD88)
------	-------------	---------------------
5. UTILITY INFORMATION DEPICTED HEREON, UNLESS OTHERWISE NOTED, IS OF QUALITY LEVEL D PER AMERICAN SOCIETY OF CIVIL ENGINEERS (ASCE) STANDARD C/ASCE 38-02. UTILITIES DEPICTED HEREON MAY NOT NECESSARILY REPRESENT ALL EXISTING UTILITIES. CONTRACTORS AND/OR DESIGNERS NEED TO CONTACT DIG-SAFE SYSTEMS, INC. (1-888-DIG-SAFE) AND FIELD VERIFY EXISTING UTILITIES WITHIN THE PROJECT AREA PRIOR TO CONSTRUCTION AND/OR EXCAVATION.

**LEGEND**

- DECIDUOUS TREE
- SIGN
- WATER GATE VALVE
- WATER SHUT OFF
- HYDRANT
- CONTOURS
- SANITARY MANHOLE
- CULVERT
- LIGHT POLE
- UTILITY POLE
- GUY WIRE
- BOULDER
- PHOTO LOCATION
- SURVEY CONTROL



NICHOLAS S. ELLISTON, PLS 2518

REV	NOSE	DATE	STATUS

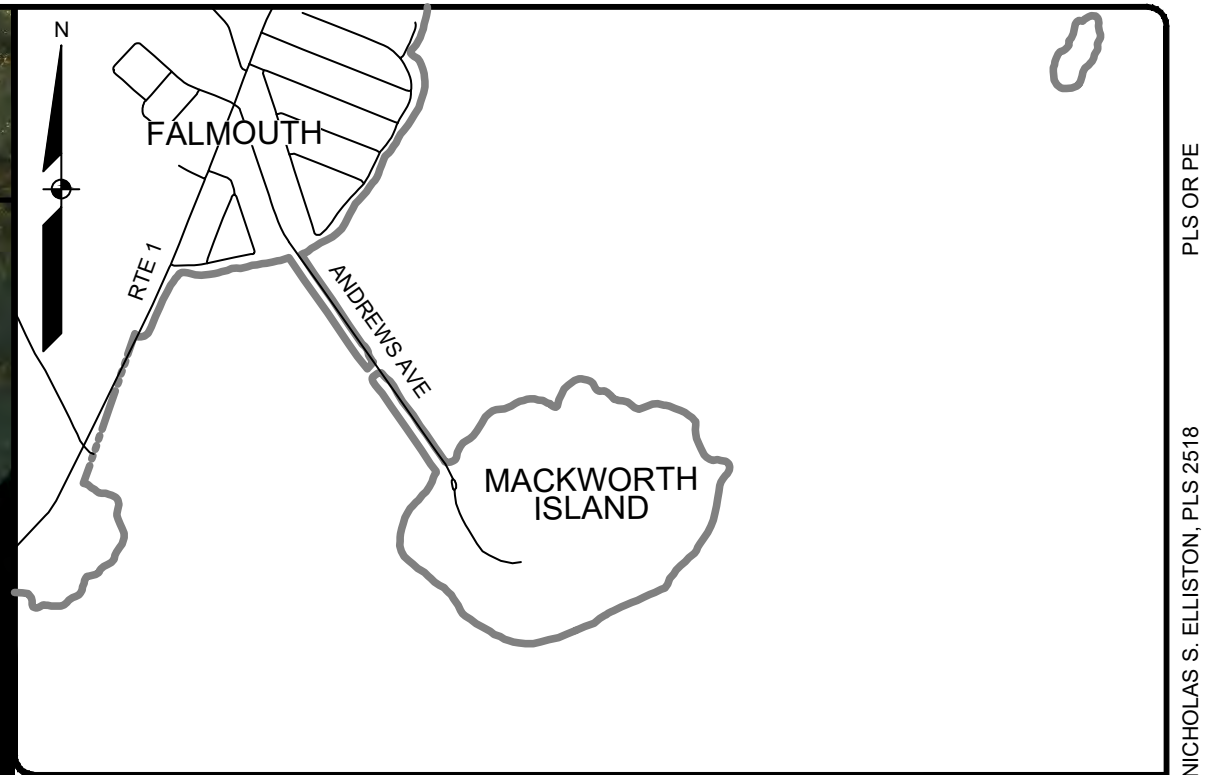
THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM SEBAGOTECHNICS, INC. ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO SEBAGO TECHNICS, INC.

**TITCOMB ASSOCIATES**  
A Division of Sebago Technics  
75 John Roberts Rd.  
Suite 4A  
South Portland, ME 04106  
Tel: 207-200-2100

EXISTING CONDITIONS SURVEY  
OF:  
**MACKWORTH ISLAND TRAIL LOOP**  
ANDREWS AVENUE CAUSEWAY  
FALMOUTH, MAINE 04105  
FOR:  
**HARRIMAN**  
23 HARRIMAN DRIVE  
ALBURN, MAINE 04210

DESIGNED	
DRAWN	JMC
CHECKED	NSE
DATE	11/15/22
SCALE	1" = 30'
PROJECT	220594





**LOCATION MAP**

**GENERAL NOTES:**

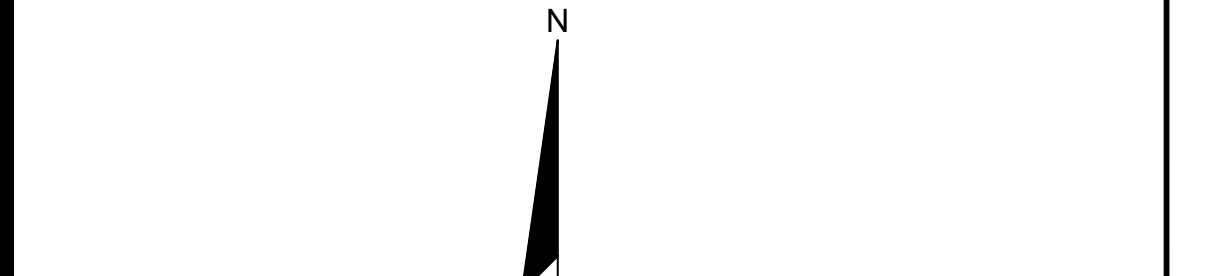
- TOPOGRAPHIC INFORMATION SHOWN HEREON IS BASED UPON FIELD WORK PERFORMED BY SEBAGO TECHNICS, INC. IN NOVEMBER, 2022.
- TOPOGRAPHIC INFORMATION SHOWN HEREON IS BASED UPON FIELD WORK PERFORMED BY SEBAGO TECHNICS, INC. IN NOVEMBER 2022. TRADITIONAL SURVEY MEANS AND METHODS SUPPLEMENTED WITH LIDAR WERE EMPLOYED IN THE COLLECTION OF THIS TOPOGRAPHIC INFORMATION.
- PLAN ORIENTATION IS GRID NORTH, MAINE STATE PLANE COORDINATE SYSTEM, WEST ZONE 1802-NAD83. ELEVATIONS DEPICTED HEREON ARE NAVD88, BASED ON DUAL FREQUENCY GPS OBSERVATIONS.
- BENCHMARK:
 

BM-1	DESCRIPTION	ELEVATION: (NAVD88)
- UTILITY INFORMATION DEPICTED HEREON, UNLESS OTHERWISE NOTED, IS OF QUALITY LEVEL D PER AMERICAN SOCIETY OF CIVIL ENGINEERS (ASCE) STANDARD C/ASCE 38-02. UTILITIES DEPICTED HEREON MAY NOT NECESSARILY REPRESENT ALL EXISTING UTILITIES. CONTRACTORS AND/OR DESIGNERS NEED TO CONTACT DIG-SAFE SYSTEMS, INC. (1-888-DIG-SAFE) AND FIELD VERIFY EXISTING UTILITIES WITHIN THE PROJECT AREA PRIOR TO CONSTRUCTION AND/OR EXCAVATION.

REV	NOSE	DATE	STATUS

**LEGEND**

- DECIDUOUS TREE
- SIGN
- WATER GATE VALVE
- WATER SHUT OFF
- HYDRANT
- CONTOURS
- SANITARY MANHOLE
- CULVERT
- LIGHT POLE
- UTILITY POLE
- GUY WIRE
- BOULDER
- PHOTO LOCATION
- SURVEY CONTROL



NICHOLAS S. ELLISTON, PLS 2218

THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM SEBAGO TECHNICS, INC. ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO SEBAGO TECHNICS, INC.

**TITCOMB ASSOCIATES**  
 A Division of Sebago Technics  
 75 John Roberts Rd.  
 Suite 4A  
 South Portland, ME 04106  
 Tel: 207-200-2100

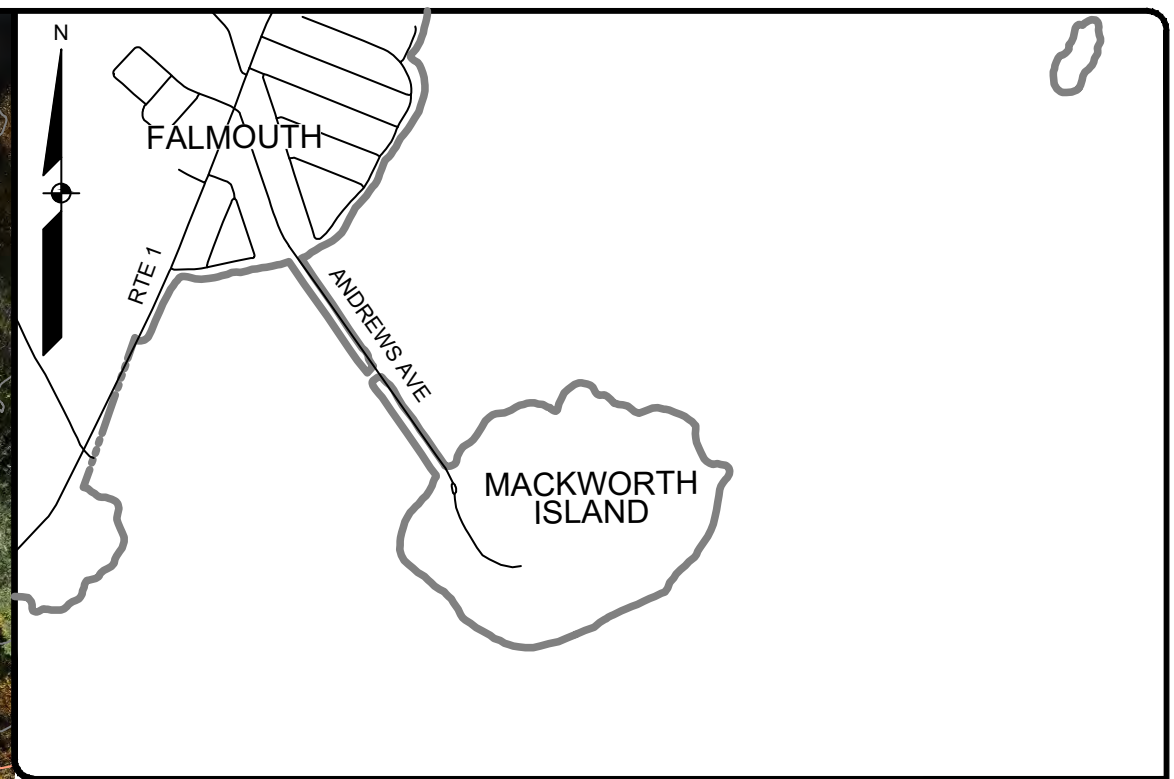
**EXISTING CONDITIONS SURVEY**  
 OF: MACKWORTH ISLAND TRAIL LOOP  
 ANDREWS AVENUE CAUSEWAY  
 FALMOUTH, MAINE 04105  
 FOR: HARRIMAN  
 23 HARRIMAN DRIVE  
 AUBURN, MAINE 04210

DESIGNED	
DRAWN	JMC
CHECKED	NSE
DATE	11/15/22
SCALE	1" = 30'
PROJECT	220594









**LOCATION MAP**

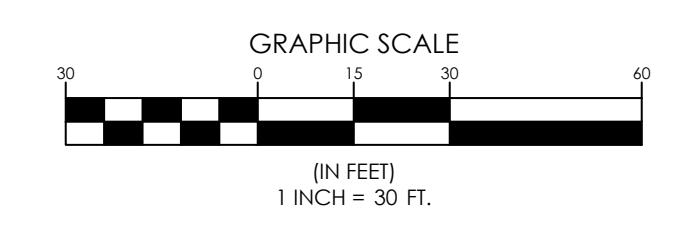
**GENERAL NOTES:**

- TOPOGRAPHIC INFORMATION SHOWN HEREON IS BASED UPON FIELD WORK PERFORMED BY SEBAGO TECHNICS, INC. IN NOVEMBER, 2022.
- TOPOGRAPHIC INFORMATION SHOWN HEREON IS BASED UPON FIELD WORK PERFORMED BY SEBAGO TECHNICS, INC. IN NOVEMBER 2022. TRADITIONAL SURVEY MEANS AND METHODS SUPPLEMENTED WITH LIDAR WERE EMPLOYED IN THE COLLECTION OF THIS TOPOGRAPHIC INFORMATION.
- PLAN ORIENTATION IS GRID NORTH, MAINE STATE PLANE COORDINATE SYSTEM, WEST ZONE 1802-NAD83. ELEVATIONS DEPICTED HEREON ARE NAVD88, BASED ON DUAL FREQUENCY GPS OBSERVATIONS.
- BENCHMARK:
 

BM-1	DESCRIPTION	ELEVATION: (NAVD88)
------	-------------	---------------------
- UTILITY INFORMATION DEPICTED HEREON, UNLESS OTHERWISE NOTED, IS OF QUALITY LEVEL D PER AMERICAN SOCIETY OF CIVIL ENGINEERS (ASCE) STANDARD C/ASCE 38-02. UTILITIES DEPICTED HEREON MAY NOT NECESSARILY REPRESENT ALL EXISTING UTILITIES. CONTRACTORS AND/OR DESIGNERS NEED TO CONTACT DIG-SAFE SYSTEMS, INC. (1-888-DIG-SAFE) AND FIELD VERIFY EXISTING UTILITIES WITHIN THE PROJECT AREA PRIOR TO CONSTRUCTION AND/OR EXCAVATION.

**LEGEND**

	DECIDUOUS TREE
	SIGN
	WATER GATE VALVE
	WATER SHUT OFF
	HYDRANT
	CONTOURS
	SANITARY MANHOLE
	CULVERT
	LIGHT POLE
	UTILITY POLE
	GUY WIRE
	BOULDER
	PHOTO LOCATION
	SURVEY CONTROL



NICHOLAS S. ELLISTON, PLS 2518

REV	NO	DATE	STATUS

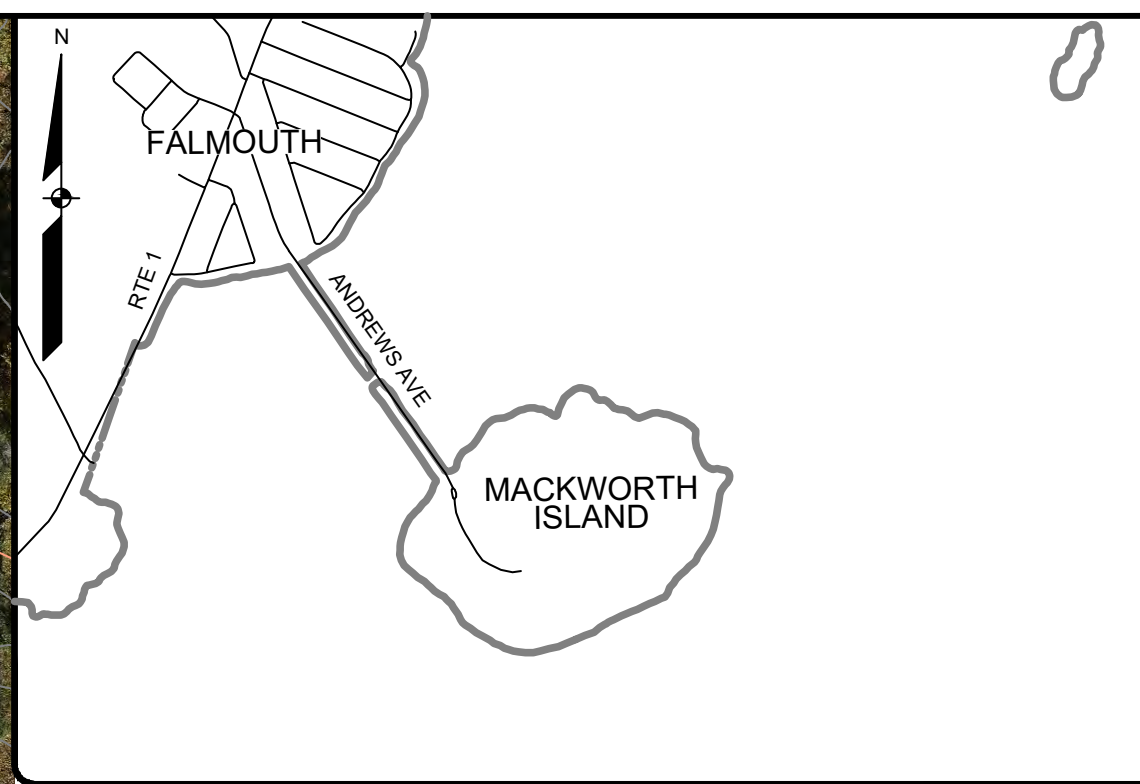
THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM SEBAGO TECHNICS, INC. ANY ALTERATIONS AUTHORIZED OR OTHERWISE SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO SEBAGO TECHNICS, INC.

**TITCOMB ASSOCIATES**  
 A Division of Sebago Technics  
 75 John Roberts Rd.  
 Suite 4A  
 South Portland, ME 04106  
 Tel: 207-200-2100

EXISTING CONDITIONS SURVEY  
 OF:  
**MACKWORTH ISLAND TRAIL LOOP**  
 ANDREWS AVENUE CAUSEWAY  
 FALMOUTH, MAINE 04105  
 FOR:  
**HARRIMAN**  
 23 HARRIMAN DRIVE  
 ALBURY, MAINE 04210

DESIGNED	
DRAWN	JMC
CHECKED	NSE
DATE	11/15/22
SCALE	1" = 30'
PROJECT	220594





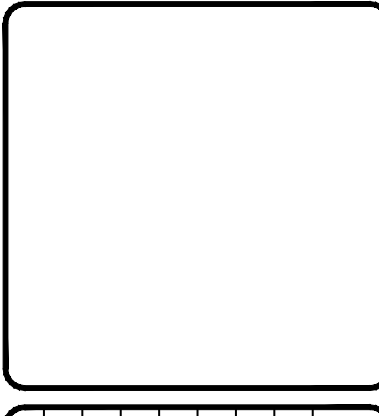
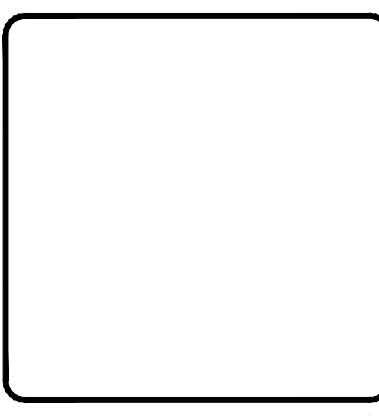
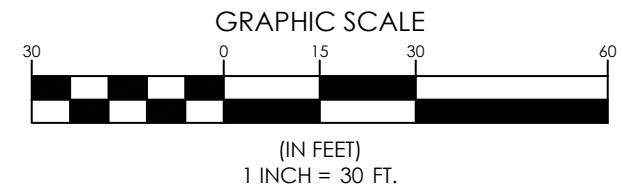
LOCATION MAP

GENERAL NOTES:

1. TOPOGRAPHIC INFORMATION SHOWN HEREON IS BASED UPON FIELD WORK PERFORMED BY SEBAGO TECHNICS, INC. IN NOVEMBER, 2022.  
TOPOGRAPHIC INFORMATION SHOWN HEREON IS BASED UPON FIELD WORK PERFORMED BY SEBAGO TECHNICS, INC. IN NOVEMBER 2022. TRADITIONAL SURVEY MEANS AND METHODS SUPPLEMENTED WITH LIDAR WERE EMPLOYED IN THE COLLECTION OF THIS TOPOGRAPHIC INFORMATION.
2. PLAN ORIENTATION IS GRID NORTH, MAINE STATE PLANE COORDINATE SYSTEM, WEST ZONE 1802-NAD83. ELEVATIONS DEPICTED HEREON ARE NAVD88, BASED ON DUAL FREQUENCY GPS OBSERVATIONS.
3. BENCHMARK:  
BM-1 DESCRIPTION: ELEVATION: (NAVD88)
4. UTILITY INFORMATION DEPICTED HEREON, UNLESS OTHERWISE NOTED, IS OF QUALITY LEVEL D PER AMERICAN SOCIETY OF CIVIL ENGINEERS (ASCE) STANDARD C/ASCE 38-02. UTILITIES DEPICTED HEREON MAY NOT NECESSARILY REPRESENT ALL EXISTING UTILITIES. CONTRACTORS AND/OR DESIGNERS NEED TO CONTACT DIG-SAFE SYSTEMS, INC. (1-888-DIG-SAFE) AND FIELD VERIFY EXISTING UTILITIES WITHIN THE PROJECT AREA PRIOR TO CONSTRUCTION AND/OR EXCAVATION.

LEGEND

- DECIDUOUS TREE
- SIGN
- WATER GATE VALVE
- WATER SHUT OFF
- HYDRANT
- CONTOURS
- SANITARY MANHOLE
- CULVERT
- LIGHT POLE
- UTILITY POLE
- GUY WIRE
- BOULDER
- PHOTO LOCATION
- SURVEY CONTROL



REV	NO	DATE	STATUS

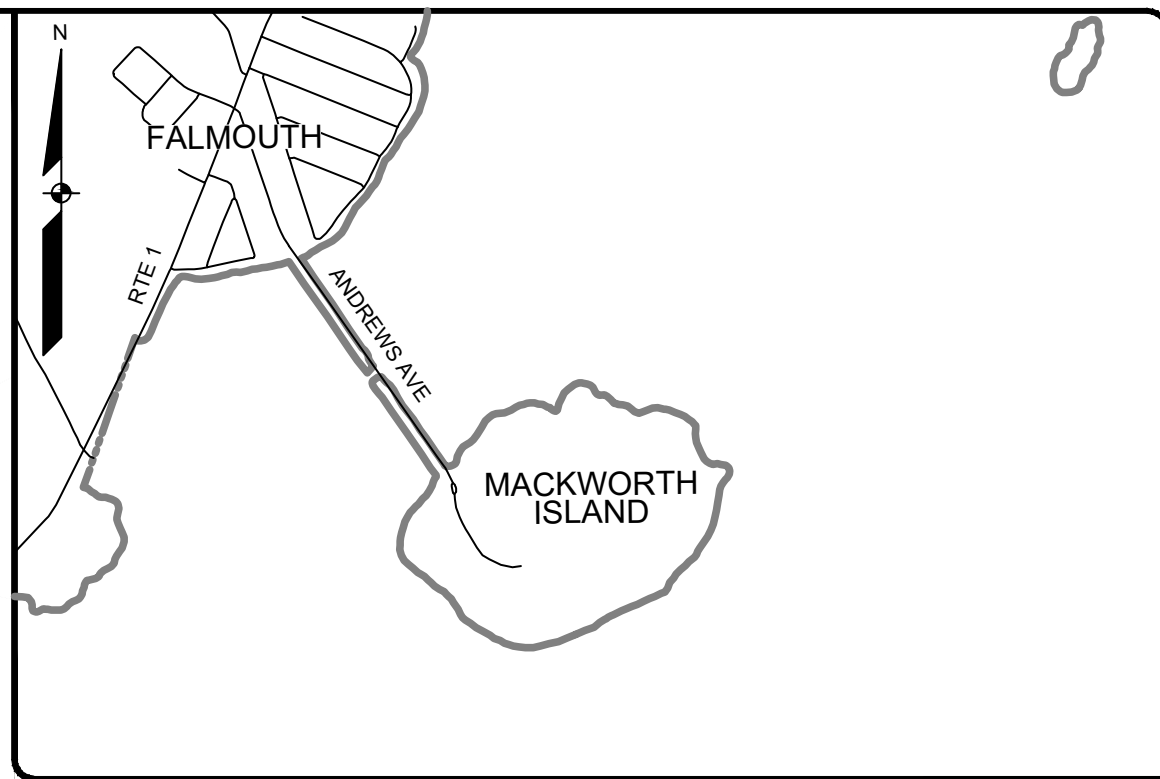
**TITCOMB ASSOCIATES**  
A Division of Sebago Technics  
75 John Roberts Rd.  
Suite 4A  
South Portland, ME 04106  
Tel: 207-200-2100

EXISTING CONDITIONS SURVEY  
OF:  
MACKWORTH ISLAND TRAIL LOOP  
ANDREWS AVENUE CAUSEWAY  
FALMOUTH, MAINE 04105  
FOR:  
**HARRIMAN**  
23 HARRIMAN DRIVE  
ALBURN, MAINE 04210

DESIGNED	
DRAWN	JMC
CHECKED	NSE
DATE	11/15/22
SCALE	1" = 30'
PROJECT	220594

220594.dwg, TAB: NSE Sh. 9 NICHOLAS S. ELLISTON, PLS 2518





**LOCATION MAP**

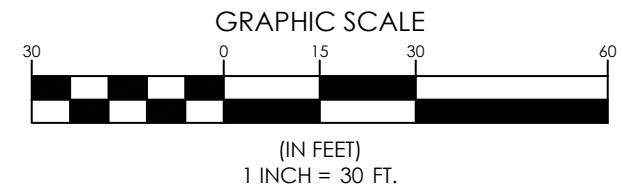
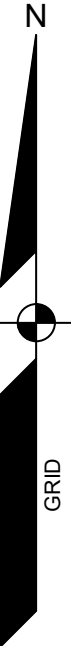
**GENERAL NOTES:**

- TOPOGRAPHIC INFORMATION SHOWN HEREON IS BASED UPON FIELD WORK PERFORMED BY SEBAGO TECHNICS, INC. IN NOVEMBER, 2022.
- TOPOGRAPHIC INFORMATION SHOWN HEREON IS BASED UPON FIELD WORK PERFORMED BY SEBAGO TECHNICS, INC. IN NOVEMBER 2022. TRADITIONAL SURVEY MEANS AND METHODS SUPPLEMENTED WITH LIDAR WERE EMPLOYED IN THE COLLECTION OF THIS TOPOGRAPHIC INFORMATION.
- PLAN ORIENTATION IS GRID NORTH, MAINE STATE PLANE COORDINATE SYSTEM, WEST ZONE 1802-NAD83. ELEVATIONS DEPICTED HEREON ARE NAVD88, BASED ON DUAL FREQUENCY GPS OBSERVATIONS.
- BENCHMARK:
 

BM-1	DESCRIPTION	ELEVATION: (NAVD88)
- UTILITY INFORMATION DEPICTED HEREON, UNLESS OTHERWISE NOTED, IS OF QUALITY LEVEL D PER AMERICAN SOCIETY OF CIVIL ENGINEERS (ASCE) STANDARD C/ASCE 38-02. UTILITIES DEPICTED HEREON MAY NOT NECESSARILY REPRESENT ALL EXISTING UTILITIES. CONTRACTORS AND/OR DESIGNERS NEED TO CONTACT DIG-SAFE SYSTEMS, INC. (1-888-DIG-SAFE) AND FIELD VERIFY EXISTING UTILITIES WITHIN THE PROJECT AREA PRIOR TO CONSTRUCTION AND/OR EXCAVATION.

**LEGEND**

- DECIDUOUS TREE
- SIGN
- WATER GATE VALVE
- WATER SHUT OFF
- HYDRANT
- CONTOURS
- SANITARY MANHOLE
- CULVERT
- LIGHT POLE
- UTILITY POLE
- GUY WIRE
- BOULDER
- PHOTO LOCATION
- SURVEY CONTROL



NICHOLAS S. ELLISTON, PLS 2518  
PLS OR PE

REV	NO	DATE	STATUS

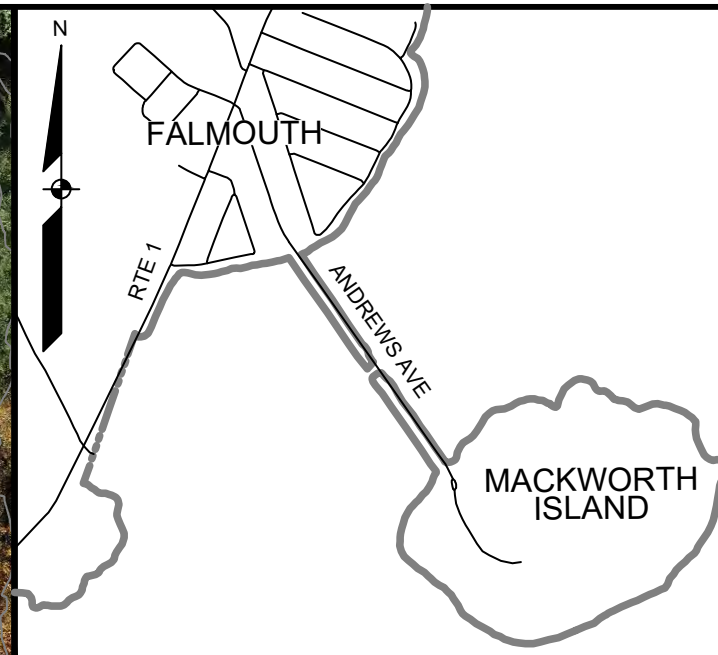
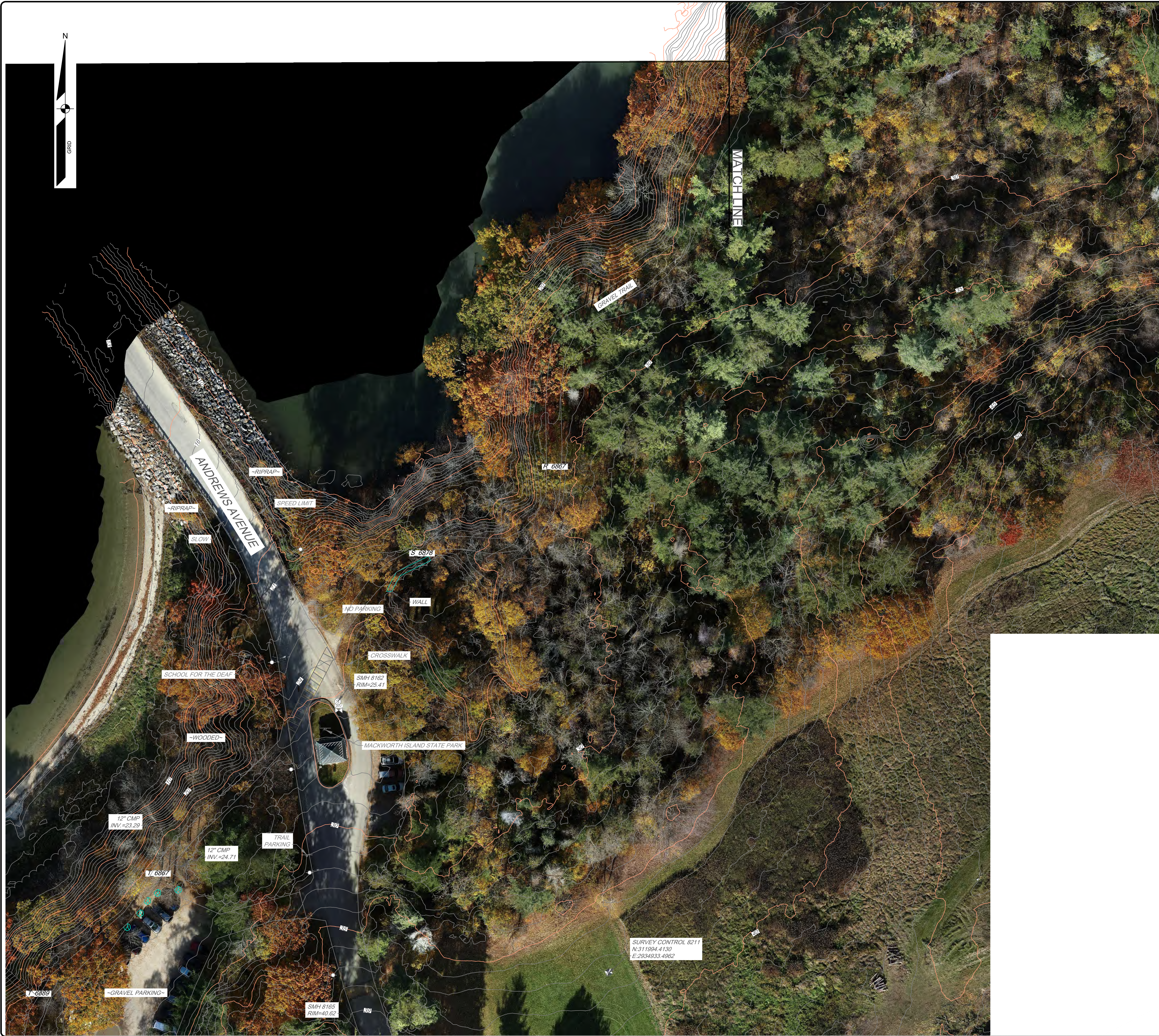
THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM SEBAGO TECHNICS, INC. ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO SEBAGO TECHNICS, INC.

**TITCOMB ASSOCIATES**  
A Division of Sebago Technics  
75 John Roberts Rd.  
Suite 4A  
South Portland, ME 04106  
Tel: 207-200-2100

EXISTING CONDITIONS SURVEY  
OF:  
MACKWORTH ISLAND TRAIL LOOP  
ANDREWS AVENUE CAUSEWAY  
FALMOUTH, MAINE 04105  
FOR:  
HARRIMAN  
23 HARRIMAN DRIVE  
ALBURNY, MAINE 04210

DESIGNED	
DRAWN	JMC
CHECKED	NSE
DATE	11/15/22
SCALE	1" = 30'
PROJECT	220594





**LOCATION MAP**

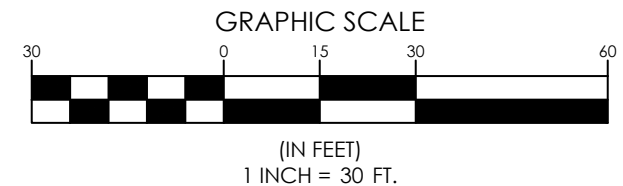
**GENERAL NOTES:**

1. TOPOGRAPHIC INFORMATION SHOWN HEREON IS BASED UPON FIELD WORK PERFORMED BY SEBAGO TECHNICS, INC. IN NOVEMBER, 2022.
2. TOPOGRAPHIC INFORMATION SHOWN HEREON IS BASED UPON FIELD WORK PERFORMED BY SEBAGO TECHNICS, INC. IN NOVEMBER 2022. TRADITIONAL SURVEY MEANS AND METHODS SUPPLEMENTED WITH LIDAR WERE EMPLOYED IN THE COLLECTION OF THIS TOPOGRAPHIC INFORMATION.
3. PLAN ORIENTATION IS GRID NORTH, MAINE STATE PLANE COORDINATE SYSTEM, WEST ZONE 1802-NAD83. ELEVATIONS DEPICTED HEREON ARE NAVD88, BASED ON DUAL FREQUENCY GPS OBSERVATIONS.
4. BENCHMARK:
 

BM-1	DESCRIPTION	ELEVATION: (NAVD88)
5. UTILITY INFORMATION DEPICTED HEREON, UNLESS OTHERWISE NOTED, IS OF QUALITY LEVEL D PER AMERICAN SOCIETY OF CIVIL ENGINEERS (ASCE) STANDARD C1/ASCE 38-02. UTILITIES DEPICTED HEREON MAY NOT NECESSARILY REPRESENT ALL EXISTING UTILITIES. CONTRACTORS AND/OR DESIGNERS NEED TO CONTACT DIG-SAFE SYSTEMS, INC. (1-888-DIG-SAFE) AND FIELD VERIFY EXISTING UTILITIES WITHIN THE PROJECT AREA PRIOR TO CONSTRUCTION AND/OR EXCAVATION.

**LEGEND**

- DECIDUOUS TREE
- SIGN
- WATER GATE VALVE
- WATER SHUT OFF
- HYDRANT
- CONTOURS
- SANITARY MANHOLE
- CULVERT
- LIGHT POLE
- UTILITY POLE
- GUY WIRE
- BOULDER
- PHOTO LOCATION
- SURVEY CONTROL



NICHOLAS S. ELLISTON, PLS 2518

--	--

--	--

REV	NOSE	DATE	STATUS

THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM SEBAGO TECHNICS, INC. ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO SEBAGO TECHNICS, INC.

**TITCOMB ASSOCIATES**  
 A Division of Sebago Technics  
 75 John Roberts Rd.  
 Suite 4A  
 South Portland, ME 04106  
 Tel: 207-200-2100

EXISTING CONDITIONS SURVEY  
 OF:  
**MACKWORTH ISLAND TRAIL LOOP**  
 ANDREWS AVENUE CAUSEWAY  
 FALMOUTH, MAINE 04105  
 FOR:  
**HARRIMAN**  
 23 HARRIMAN DRIVE  
 AUBURN, MAINE 04210

DESIGNED	
DRAWN	JMC
CHECKED	NSE
DATE	11/15/22
SCALE	1" = 30'
PROJECT	220594

220594.dwg, TAB: NSE Sh. 11



## B: STATE PARK RECOMMENDATIONS

### SUMMARY

The Master Plan was focused on utilization and addressing immediate facility needs on the GBSD/MECDHH campus. Steering Committee and public input resulted in several recommendations for the State Park that are included in the Master Plan as well as topics that are outside the Master Plan scope and require additional exploration.

#### **State Park-related items included in the Master Plan**

- No mow grass buffer at boundary locations between the State Park trail and school campus that are difficult to identify.
- To maintain a rural experience on the island, do not expand existing parking lot sizes. See Master Plan Executive Summary and Parking and Traffic section for more information.
- Add a camera to provide live feed information of parking lot capacity. Camera feed to be connected to the State Park website.

#### **State Park-related items discussed during the planning process for future consideration and/or implementation.**

- Pave and stripe existing parking lots to improve efficiency and navigation. The island survey, located on Appendix 5, provides information about the parking areas.
- Identify trail areas that require maintenance relative to grading/slope, coastal bluff erosion, or other concerns. The island survey, located on Appendix 5, provides information about the entire trail loop.





## **C: PUBLIC MEETING NOTES**

### **SUMMARY**

Notes from public comments at June 30, 2022 meeting at Falmouth Town Hall.





## Town of Falmouth Public Presentation Comments

Public Presentation meeting June 29, 2022

Falmouth Town Hall

Notes from Question and Answer period for Mackworth Island

Neighbor

My husband and I called and wrote letters. 2 or 3 lights out on a causeway. Woman had gone into homes lighting state said, lights are not ours...town said lights are not ours. Something is happening over there at night. Cars go in. Concerned about what's going on for crime or just camper staying overnight.

Elaine Clark, BGS –

Probably partly both state, town and maybe law enforcement. They can help address that issue.

Holly – worked at school

Was staff of school. Involved in deaf education. Situation of building is no longer acceptable to state. Asked if any kind of historic look at consistently cut budget over the years - trickle down problem that money wasn't there. Going forward, want to make sure doesn't happen again.

Elaine Clark, BGS –

Definitely a backlog of capital improvements at the facilities - very under-invested . Will try to produce costs estimates that will become a budget request but no guarantee of what will happen with budget request.

Part of the study – Lisa from Harriman working with Karen on program to determine how much square footage is needed for the school's programming. See the resource and not let that happen again.

Holly - Utilization percentage?

Lisa Sawin, Harriman -

Utilization was based on that type of program and how much square footage used to build a new program for that utilization.

Holly – the report said that the pier does not have deep water access. Vessels should not be landing on the Island. Asked if parks department was thinking about adding?

(Response was just an observation)

## Town of Falmouth Public Presentation Comments

### School Parking spaces - impromptu spaces counted?

Jason Ready, VHB –

There is parking near leased office space. Some people parked up on the lawn, historical use, but not paved spot. Part of ADA spaces, complying with state law.

Holly

June 4<sup>th</sup> is not a good representation of the amount of traffic. Recommend taking one more day to get a better idea Since in early June, Kids not on vacation, early in season, etc.

Harriman confirmed later they will circle back and observe a summer day in high season.

Gary Best, Maine Bureau of Parks and Lands -

Good observation. Every park is different. Intent of state park is to provide a recreational trail, for “refreshment in body and spirit.” Trying to provide a space just outside of Portland. Can get out on a trail, have space. Parking that we have, is really what we’re looking at for the visitor experience. But can look at organizing parking and turn-around, and perhaps provide better public information.

(Talked about Popham, creating text alert system when parking lots full, but not necessarily for Mackworth, since turnover is faster.)

Perhaps webcam. Looking more at - is there some real time public information to help visitors determine whether this is the best time to visit. But they will NOT build parking garage and fit more cars.

Julia – Neighbor

Lives on Andrews Ave. Grew up with Mackworth island. Grew up with students from the island. It is a beautiful place. Knew Gov. Baxter. Was his huge desire to be deaf school. Don’t think he ever thought it was going to turn into a tourist attraction. Have seen island advertised in MA, NY news. Many out of state license plates. Not the neighborhood, not the state.

We were told a number a years ago, number of parking lot spaces wasn’t enlarged because of erosion, didn’t want to encourage more parking. When busy, people ignore spaces for Falmouth and parking in a way to create more spaces. Not fair to people who live at the end of the street.

Gates were always closed at dusk in the past. Why don’t they close them? They need to be closed.

People are going in at all hours of the day and night. All hours. There was a former neighbor who used to patrol and act as safety officer but has since gone. Park itself is open from 9 am to sunset. But people are going in at night.

Gary Best, Maine Bureau of Parks and Lands -

Park open from 9 am to sunset. We don’t want people there at night. Can we do this better? All state parks 9 – sunset. This is really helpful, to have this planning discussion to determine how

## Town of Falmouth Public Presentation Comments

to do things better. To listen. Certain parks that we do promote but Mackworth island is not one of them. Already so popular for its capacity.

### Neighbor

Are there formulas for how many parking spaces are appropriate for 100 acre island? How do people think about that? Does that suggest that we ought to limit access intentionally to keep use really low or do you build up like Popham.

Gary Best, Maine Bureau of Parks and Lands -

We have an average of 2.5 visitors per vehicle. Bikes and Walking. Even though 100-acre park, utilization is only around the Perimeter trail. Not encouraging people to go off trail. Thinking about what visitor experience is.

### Holly Winger – neighbor.

Take deeper look and find out if visitors to island are local, (Falmouth), State of Maine resident, or out of state visitor. Helpful to get that info. I don't know what Falmouth's contribution is financially to fund any of activities, police. Wondering if could look at priority access for Falmouth residents or Maine state residents vs out of state visitors?

### Debra Coyman – neighbor.

Share intentions around animal and bird sanctuary aspects of charter. Seen increased cases of people diving off path to beach, steep and erosion sensitive areas. "I hate those fairy houses." Originally a designated zone for that but now people going into the woods and ripping stuff off trees – looks like a garbage pile. Now happening on half the island and off the trail and into the woods. Real detriment to enjoying a natural space. Bradbury has staff year-round. Mackworth is much smaller and urban oriented and deserving of staff. Interesting in decision making around those things.

Gary Best, Maine Bureau of Parks and Lands -

Bank erosion concern – very valid. We are looking at that trail. Did go over and walk around island. Wolf Neck woods had similar erosion area – they put in set of stairs to help get people down to ocean and shoreline. One approach would be to try to harden and improve those areas that people are going down.

Mackworth Island unique for fairy houses. We don't encourage that at other parks. Welcome all of these thoughts. State parks trying to do better every single day. We can look at that. Is there a better way to frame children to have a nature activity.

Staffing - do have 2 staff members seasonal 20 weeks. Stagger them. Isn't enough to cover full coverage. Would need at least 3 staff for full coverage- Just keeping someone in booth. Bradbury does provide some support. Mackworth not alone with staffing shortage.



## Town of Falmouth Public Presentation Comments

Holly – worked at school

Not people patrolling trails. And all of a sudden and people are walking up and wanting to go into the school. Small fence around the trail perhaps to protect going off trail and into school. More traffic coming in and more people who could walk into the schools. Safety issue to think about. More people to potentially walk to school.

Gary Best, Maine Bureau of Parks and Lands -

Not looking at increasing state park parking. Maybe improved signage and design or living fence, shrubs. Encourage and educate visitors about separating state park and school.

Neighbor - How does state park strategic plan fit as far as park since began with looking at school buildings.

Gary Best, Maine Bureau of Parks and Lands -

Main reason started was because of school and school buildings. Pleased parks and lands pulled into the discussion. Focus on doing everything we can with the funding that we have. Grants. All starts with us getting together, what the vision, how do we make things better. Incrementally make improvements. That's the reality of funding and staffing situation.

Mary – neighbor

Curious about additional input outside of this meeting. We know focus is school itself.

Gary Best, Maine Bureau of Parks and Lands -

Over all park comments, Mackworth island is under direct management of Bradbury Mountain State Park. Bradbury Mountain great place to reach out to or to Gary West (gary.west@maine.gov)

Deane Rykerson – Bureau of General Service

Want discussion to be as widely disseminated as possible Will be posting this meeting on website with possibility of additional comments and questions and discussion.

Elaine Clark, BGS

Next phase of work for Harriman is looking at parking, queueing, trail, erosion – all the things have discussed tonight. Studied by engineers and architects and added to the report.

Neighbor

Idea – have Friends of Acadia which is big. Would we have “ Friends of Mackworth Island”

Gary Best, Maine Bureau of Parks and Lands -

Have Maine Volunteers and Parks. Could help with organizing MVP program.

## Town of Falmouth Public Presentation Comments

John Woodcock

Asked about game plan for removal of underground oil tanks?

Will Gatchell, Harriman -

Looking at utility infrastructure in general. Some of those specific areas are connected to things and making series of recommendations about how to improve.

John Woodcock

Water tower older than Baxter family. Just took the top off to run AC transformer down to gym. That could be restored and on the national historical register. Three story water tower. Mansion and water tower should be restored. Historic site. (per Harriman, Part of Harriman report will include historical details as well)

Any additional comments can also be sent to the town of Falmouth to Maggie Fleming - [mfleming@falmouthme.org](mailto:mfleming@falmouthme.org)

Neighbor

Pointed out that tracked/counted cars at peak times should not be excluded to meet a deadline. Why aren't you taking your time and checking to see how many cars are going over there?

Harriman agreed to circle back during high summer season and capture data for a high traffic summer day.

Holly Winger - Neighbor

Fisherman already parking there at 5 am. Things are happening day and night. See cars from NY, NJ, CT, everybody is very aware of Mackworth island. Covid has made this island just come alive. Concern for school safety - at 6 pm saw a man coming down from school to his car in parking lot. What is he doing? Worried about security of the children. Definitely had come from the school. The traffic now is unbelievable has been in home for 25 years and really increased.

Neighbor

Also been concern boats after dark. Curious to know - When fire engines and police where are they going to? Another stat might be worth looking into.

Karen Hopkins – GBSD/MECDHH

Have seen increase around the island in the evening. Have called police. Need to close the fence in evening.

## Town of Falmouth Public Presentation Comments

Holly – works on island

Consideration to have only open certain days to locals only? Locals more respectful. Anything to consider?

Gary Best, Maine Bureau of Parks and Lands -

A lot of our parks received federal funding. That prohibits any sort of exclusive use. Very unlikely. Here to serve people of Maine. Also, tourism is an economic engine. And tourist economy. I don't see that an option. Same with park passholders only – don't see that happening.

Holly Winger – neighbor

When did Mackworth become a state park or Perimeter designated as state park? That's changed in last 5 years. When started to have a park employee. That had never been done before. Has always been and didn't know it? Are all state parks, called that. Or are there different designations

Gary Best, Maine Bureau of Parks and Lands -

It's been in state ownership under jurisdiction of Bureau of Parks and Lands for decades and decades and decades. Early on considered public reserved land. Most big, giant parcels. Managed for resources, timber, etc. around 2010, the designation from public lands to state park. Used for recreation. More of a park. So became a park. Partnered with school. Early on, school had staff in the booth for a time. But over time, positions got cut. Period of time, not Dept of Ed, not Bureau of Parks and Land. - Parking on causeway, overflowing parking, on grass. State park system request to control and received funding and got two seasonal positions. Most of time when there, in the booth. Staggered. Core 12 weeks with both, then stretch on either side.

Parking fees go to general fund. Certain amount of general fund is appropriated to parks every year.



## **D: HISTORICAL REFERENCE INFORMATION**

### **CONTENTS**

- Summary of the Governor Baxter Deed, prepared by BGS
- Deed of Gift Document
- Supporting Documentation establishing Deed, Lease, School, etc.





Summary  
Percival Baxter's Gift of Mackworth Island to the State of Maine

Ownership of and Responsibility for the Land  
and for the Buildings Occupied by the Maine Educational Center for the Deaf and  
Hard of Hearing

A. 1943

1. Offer of Gift – Letter

In a letter dated January 13, 1943 to Governor Sumner Sewall, the President of the Senate and the Speaker of the House, former Governor Percival Baxter offered a gift of Mackworth Island in the Town of Falmouth to the State, to be held “in trust by the State for public purposes.”

See **Attachment 1** for P. Baxter's letter.

2. Property Offered to the State with Deed Restrictions

- Mackworth Island is 100 acres +/- settled in 1631 by Arthur Mackworth.
- The deed to include the “bridge and right-of-way connecting it with State Highway No. 1.”
- The condition of the gift is that it “always be used for State public purposes only.”
- These could be “recreational and educational, for a hospital or a home for sick or under-privileged children, for forestry, park or agricultural experimental purposes, or for any of the numerous activities of the State which require a large area in the country conveniently located near the advantages of a City. Its use for children would be especially pleasing to me.”
- It may never be used for penal or corrective institutions nor for any purpose connected with the enforcement of the laws of the State relating to criminals.

See **Attachment 2** for P. Baxter's deed to the State.

3. 1943 Trust Fund

- The offer included \$10,000 to establish a trust fund for some State public purpose in connection with the State's ownership of the Island.

#### 4. Legislative Acceptance of the Gift

By Private and Special Laws of 1943, Chapter 1, the 91<sup>st</sup> Legislature accepted the gift of Mackworth Island, a bridge, a right of way and pole rights, to be held forever by the people of Maine for state public purposes, as trustee in trust, subject to the conditions and reservations set forth in the deed of conveyance. The Law also accepted the \$10,000 gift in Trust.

See **Attachment 3** for the 1943 Private and Special Law.

#### 5. The Deed

The deed conveyed Mackworth Island with the bridge, right-of-way and pole rights, subject to the condition that the pet cemetery be maintained, and the property be used for State Public Purposes only but never for corrective or penal institutions nor for any purpose connected with the enforcement of laws of the state relating to criminals.

Percival Baxter retained a lease for his use of the property “as long as [he] ... desired.”

See **Attachment 4** for the Lease.

#### B. 1949

Percival Baxter, who spent summers on the Island from 1943-1949, “moved from the Island and thereafter the State assumed full ownership and responsibility.” In 1949, therefore, all legal and financial responsibility for the Island was assumed by the State.

See **Attachment 5** for P. Baxter’s notification of his departure from the Island.

#### C. 1953

##### 1. Offer of Construction Funds

Former Governor Baxter offered the State \$500,000 to construct a “new school for the Deaf or toward the construction of a new Home and School for the wards of the State” and \$125,000 for construction of a new bridge to same. The Legislature was given the choice of which facility to build. He offered an additional \$50,000 for the bridge by letter dated March 9, 1953 (total \$175,000 for the bridge).

Construction was required to begin by January 1, 1955.



## 2. Acceptance of Construction Funds

By Private and Special Laws of 1953, Chapter 44, the 96<sup>th</sup> Maine Legislature accepted the total sum of \$675,000 to be used toward construction of a State institution on Mackworth Island and for a Bridge thereto in the Town of Falmouth.

See **Attachment 6** for acceptance of the construction funds.

### D. 1954

An additional \$25,000 was added to the construction fund. When combined with the original \$10,000 and the above \$675,000, the new total was \$710,000.

### E. 1958

As of December 31, 1958, the State had spent its state appropriation of \$1,240,000 on the school. Percival Baxter's gift had gained \$75,244.74 in interest (raising the principal plus interest total to \$785,244.74). \$712,051.12 of the gift was spent, leaving an unexpended balance of \$73,193.62.

### F. 1968

Governor Baxter asked that the "Mackworth Island Deaf School Fund" (by then approximately \$90,000) be closed with the balance transferred to the Baxter State Park Trust Account. Following vote of the Legislative Council, the State Controller transferred \$88,000 to the Baxter Fund and closed the Mackworth Island Fund.

### G. 1992

The Department of Conservation, predecessor to the consolidated Department of Agriculture, Conservation and Forestry (ACF), and the Department of Education on behalf of the Governor Baxter School for the Deaf entered into an agreement with ACF in 1992 to manage the tidal shoreline, embankment, beach, and public open space zones, including forested areas, of the Island. Management of the school zone remained with the DOE/GBSD.

### H. 1999

#### 1. The Governor Baxter School for the Deaf (GBSD)

GBSD is a public school with the purpose of educating deaf and hard of hearing students. It was established as a "body politic and corporate and instrumentality and agency of the State" under 20-A M.R.S. § 7401. See **Attachment 7**.

## 2. Mackworth Island and Buildings Are State Property

Under 20-A M.R.S. § 7407 (9), the school board “may” make improvements to facilities; however, the State retains ownership of Mackworth Island and the school facilities.

See **Attachment 8**.

Note that the school board “may” make improvements, but the school facilities are owned by the State (not the Department of Education) and thus are the responsibility of DAFS/BGS.

## 3. DAFS/BGS Assistance to GBSD

Under P.L. 1999, ch. 775 § 12, DAFS/BGS was to provide “any necessary assistance” to the School Board of the GBSD to assist in the orderly implementation of the act for 2 years. Following the 2-year period, DAFS/BGS was to serve as a “liaison to the School Board of the Governor Baxter School to assist the school board in properly managing the ... state-owned facilities on the island.”

The “liaison” language was later repealed.

## I. 2014

By Memo of Agreement signed by Richard Rosen and David Bernhardt and by Financial Order, responsibility for the Bridge located along the Causeway to Mackworth Island was transferred to MDOT.

See **Attachment 9**.

The causeway remains the responsibility of DAFS/BGS, **the bridge is the responsibility of MDOT**.

## J. Conclusions

The Maine Educational Center for the Deaf and Hard of Hearing is an independent agency and instrumentality of the State of Maine.

Due to the State’s retained ownership of Mackworth Island and school facilities, DAFS/BGS is responsible for buildings of the GBSD/Maine Educational Center for the Deaf and Hard of Hearing on Mackworth Island and for the causeway linking the mainland with Mackworth Island.



DAFS has statutory authority to lease school property consistent with Governor Baxter's deed and in accordance with state law and policy on the lease of state-owned facilities. A portion of the funds may be retained by the school for "statutorily authorized programs."

Buildings constructed with Governor Baxter's gift are restricted to use as a "Maine School for the Deaf." An open question is whether subsequent renovations caused a pro-rata portion of any renovated building to be released from the use restriction.

Any buildings constructed with state funds subsequent to Governor Baxter's gift, such as Brewster Hall, are subject to deed restrictions but not to the gift restriction (use as a "Maine School for the Deaf.")

ACF manages the tidal shoreline, embankment, beach, and public open space zones, including forested areas, of the Island under a 1992 agreement with the DOE/GBSD. Management of the school zone remained with the DOE/GBSD.

ACF manages its portions of the Island as a state park, however access to the school area is restricted except with special permission.

MDOT is responsible for maintaining the bridge situated within the causeway.

The school board has the option to make improvements to facilities that are necessary to fulfill the purposes of 20-A M.R.S. Chapter 304.

## CHAP. I

2—by deeds dated October 7, 1931 and November 9, 1938, which were accepted on behalf of the state of Maine by the forest commissioner with the approval of the governor and executive council and the attorney general all acting under the power conferred upon them by sections fifteen (15) and sixteen (16) of chapter eleven (11) of the revised statutes of 1930, all the said gifts and conveyances being subject to the trust and to the conditions therein specified, and all the said deeds having been recorded in the Piscataquis county registry; and

**WHEREAS**, the said Baxter now desires to convey and donate to the state of Maine as Trustee to be held by said state in Trust an additional area of approximately twelve thousand (12,000) acres the same being the northeasterly one-quarter ( $\frac{1}{4}$ ) and the southwesterly one-quarter ( $\frac{1}{4}$ ) of township five (5) range nine (9) W. E. L. S. Piscataquis County together with one-half ( $\frac{1}{2}$ ) the right to cut and carry away the timber and grass from the public lot in said township;

**NOW THEREFORE**, the state of Maine by act of the legislature hereby accepts from the said Percival Proctor Baxter the deed of gift and conveyance of the northeasterly one-quarter ( $\frac{1}{4}$ ) and the southwesterly one-quarter ( $\frac{1}{4}$ ) of township five (5) range nine (9) W. E. L. S. Piscataquis county, the same containing twelve thousand (12,000) acres more or less together with one-half ( $\frac{1}{2}$ ) the right to cut and carry away the timber and grass from the public lot in said township as described in the following deed of conveyance, the same to be forever held by the said state as trustee in trust for the benefit of the people of Maine for state forest, public park and public recreational purposes and also to be held forever by said state as trustee in trust subject to the conditions set forth and expressed in the following deed of conveyance.

## DEED

**KNOW ALL MEN BY THESE PRESENTS** that I Percival Proctor Baxter of Portland in the County of Cumberland, State of Maine in consideration of one (\$1.00) dollar and other valuable considerations paid by the State of Maine the receipt whereof is hereby acknowledged and in furtherance of my desire to convey and donate to the State of Maine an extensive area of land in the Mount Katahdin region to be held forever by the State as Trustee in Trust for the benefit of the People of Maine do hereby remise, release, sell and forever QUIT-CLAIM unto the said State of Maine the following described land in township five (5) range nine (9) W. E. L. S. Piscataquis county, Maine—

the northeasterly one-quarter ( $\frac{1}{4}$ ) and the southwesterly one-quarter ( $\frac{1}{4}$ ) of township five (5) in the ninth (9th) range of townships west from the east line of said State in the County of Piscataquis in said State includ-



## CHAP. 1

2—by deeds dated October 7, 1931 and November 9, 1938, which were accepted on behalf of the state of Maine by the forest commissioner with the approval of the governor and executive council and the attorney general all acting under the power conferred upon them by sections fifteen (15) and sixteen (16) of chapter eleven (11) of the revised statutes of 1930, all the said gifts and conveyances being subject to the trust and to the conditions therein specified, and all the said deeds having been recorded in the Piscataquis county registry; and

**WHEREAS**, the said Baxter now desires to convey and donate to the state of Maine as Trustee to be held by said state in Trust an additional area of approximately twelve thousand (12,000) acres the same being the northeasterly one-quarter ( $\frac{1}{4}$ ) and the southwesterly one-quarter ( $\frac{1}{4}$ ) of township five (5) range nine (9) W. E. L. S. Piscataquis County together with one-half ( $\frac{1}{2}$ ) the right to cut and carry away the timber and grass from the public lot in said township;

**NOW THEREFORE**, the state of Maine by act of the legislature hereby accepts from the said Percival Proctor Baxter the deed of gift and conveyance of the northeasterly one-quarter ( $\frac{1}{4}$ ) and the southwesterly one-quarter ( $\frac{1}{4}$ ) of township five (5) range nine (9) W. E. L. S. Piscataquis county, the same containing twelve thousand (12,000) acres more or less together with one-half ( $\frac{1}{2}$ ) the right to cut and carry away the timber and grass from the public lot in said township as described in the following deed of conveyance, the same to be forever held by the said state as trustee in trust for the benefit of the people of Maine for state forest, public park and public recreational purposes and also to be held forever by said state as trustee in trust subject to the conditions set forth and expressed in the following deed of conveyance.

## DEED

**KNOW ALL MEN BY THESE PRESENTS** that I Percival Proctor Baxter of Portland in the County of Cumberland, State of Maine in consideration of one (\$1.00) dollar and other valuable considerations paid by the State of Maine the receipt whereof is hereby acknowledged and in furtherance of my desire to convey and donate to the State of Maine an extensive area of land in the Mount Katahdin region to be held forever by the State as Trustee in Trust for the benefit of the People of Maine do hereby remise, release, sell and forever QUIT-CLAIM unto the said State of Maine the following described land in township five (5) range nine (9) W. E. L. S. Piscataquis county, Maine—

the northeasterly one-quarter ( $\frac{1}{4}$ ) and the southwesterly one-quarter ( $\frac{1}{4}$ ) of township five (5) in the ninth (9th) range of townships west from the east line of said State in the County of Piscataquis in said State includ-

ing one-half (1/2) the right to cut and carry away the timber and grass from the public lot in said township.

This conveyance is made subject to the following reservations and conditions namely said land shall forever be retained and used by said State for state forest, public park and public recreational purposes, shall forever be left in the natural wild state and shall forever be kept as a sanctuary for wild beasts and birds.

TO HAVE AND TO HOLD the above described premises with all the privileges and appurtenances thereto to the State of Maine as Trustee to be held forever in Trust for the benefit of the People of Maine for and as a state forest, public park and for public recreational purposes, the same forever to be kept in its natural wild state and as a sanctuary for wild beasts and birds all as above defined and subject to the above mentioned reservations and conditions, and I the said Percival Proctor Baxter covenant with the said State of Maine that I will WARRANT AND DEFEND the said premises to the said State against the lawful claims and demands of all persons claiming by, through or under me.

IN WITNESS WHEREOF I the said Percival Proctor Baxter being unmarried have hereunto set my hand and seal this thirteenth day of January in the year of our Lord one thousand nine hundred and forty-three.

Signed and Sealed  
in the presence of

CHARLES J. NICHOLS

PERCIVAL PROCTOR BAXTER (SEAL)

State of Maine }  
Cumberland } SS

Portland, January 13, 1943.

Personally appeared the above named Percival Proctor Baxter and acknowledged the above instrument to be his free act and deed.

Before me

FRANK I. COWAN  
Notary Public  
(Notarial Seal)

**MACKWORTH ISLAND, TOWN OF FALMOUTH, CASCO BAY**

WHEREAS, Percival Proctor Baxter also desires to convey and donate to the state of Maine as trustee to be held by said state in trust the island called Mackworth Island situated in the town of Falmouth in Portland Harbor, Casco Bay, the same being one hundred (100) acres more or less



## CHAP. I

in extent, together with Mackworth or Half-way rock situated southerly of said island and also together with the bridge connecting said island with the mainland of said Falmouth, the right-of-way leading from said Falmouth end of said bridge across the Look Estate so called as defined in deed from Ensena L. and Frederick H. Wilson to said Baxter dated July 27, 1911 and recorded in Cumberland registry book 879, page 108, and certain pole rights as described in deed from Emma L. Webber to said Baxter dated August 2, 1916 and recorded in said registry book 975, page 119;

**NOW THEREFORE**, the state of Maine by act of the legislature hereby accepts from said Percival Proctor Baxter the deed and gift of said Mackworth Island, said Mackworth or Half-way rock, said bridge, said right-of-way and said pole rights all as described in the following deed of conveyance the same to be held forever by the said state of Maine as trustee in trust for the benefit of the people of Maine for state public purposes, and also to be held forever by said state as trustee in trust subject to the conditions and reservations set forth and expressed in the following deed of conveyance.

## DEED

**KNOW ALL MEN BY THESE PRESENTS** that I Percival Proctor Baxter of Portland in the County of Cumberland, State of Maine, in consideration of one dollar and other valuable considerations paid by the State of Maine, the receipt whereof is hereby acknowledged and in furtherance of my desire to convey and donate to the State of Maine, Mackworth Island with the buildings thereon, Mackworth or Half-way rock and the bridge, right-of-way and pole rights all as hereinafter described to be held forever by the State of Maine as Trustee in Trust for the benefit of the People of Maine, do hereby remise, release, sell and forever **QUIT-CLAIM** unto the said State of Maine the following described real estate in the town of Falmouth, Portland Harbor, Casco Bay:—

Mackworth Island with the buildings thereon the same being one hundred (100) acres more or less in extent together with Mackworth or Half-way rock situated southerly of said Island and also together with the bridge connecting said Island with the mainland of said Falmouth, the right-of-way leading from said Falmouth end of said bridge across the Look Estate so called as defined in deed from Ensena L. and Frederick H. Wilson to Percival Proctor Baxter dated July 27, 1911, recorded in Cumberland Registry Book 879, Page 108, and the pole rights as described in deed from Emma M. Webber to Percival Proctor Baxter dated August 2, 1916, recorded in Cumberland Registry of Deeds Book 975, Page 119.

## CHAP. 1

This conveyance is made subject to the following reservations and conditions namely;

said State forever shall maintain the small cemetery for animals and the bronze tablets on the boulder therein situated on the easterly point of said Island;

said Island, rock, bridge, right-of-way and pole rights forever shall be retained and used by said State of Maine for State Public Purposes only, but the same never shall be used for corrective or penal institutions, nor for any purpose connected with the enforcement of the laws of the State relating to criminals;

said Island and the surrounding waters as described in Revised Statutes chapter 38 section 85 as amended by chapter 184 of the laws of Maine 1935 forever shall be maintained as a sanctuary for wild beasts and birds;

said State by the hand of the Governor and Executive Council may lease said Mackworth Island and the bridge leading thereto to said Baxter in accordance with the terms of a lease hereinafter described;

said Island is and shall be subject to four (4) easements as follows—

1—easement for certain pole rights granted to the Cumberland County Power and Light Company by deed dated July 3, 1916, recorded in Cumberland County Registry Book 971, Page 465;

2—easement for a water pipe line granted to the United States of America by deed dated June 22, 1918, recorded in Cumberland County Registry Book 1005, Page 150;

3—easement for a water pipe line granted to the Portland Water District by deed dated July 25, 1929, recorded in Cumberland County Registry Book 1341, Page 319;

4—and an easement shall be granted by said State to the United States of America for the construction of a twelve (12") inch water main across the Island; the deed for said easement shall be signed by the Governor acting for and in the name of said State, and whatever sum shall be paid to said State as damages for said easement shall be paid to the said Baxter;

**TO HAVE AND TO HOLD** the above described premises with all the privileges and appurtenances thereto to the State of Maine as Trustee to be held forever in Trust for the benefit of the People of Maine the same forever to be used for State public purposes all as above defined and subject to the above mentioned reservations and conditions and I the said PERCIVAL PROCTOR BAXTER COVENANT with the said State of Maine that I will WARRANT AND DEFEND the said premises to the



**CHAP. 1**

State of Maine against the lawful claims and demands of all persons claiming by, through or under me.

**IN WITNESS WHEREOF** I the said PERCIVAL PROCTOR BAXTER being unmarried have hereunto set my hand and seal this thirteenth day of January in the year of our Lord one thousand nine hundred and forty-three.

Signed and Sealed  
in presence of  
CHARLES J. NICHOLS.

PERCIVAL PROCTOR BAXTER (SEAL)

STATE OF MAINE }  
CUMBERLAND } SS

Portland, January 13, 1943

Personally appeared the above named PERCIVAL PROCTOR BAXTER and acknowledged the above instrument to be his free act and deed.

Before me

FRANK I. COWAN  
Notary Public (Notarial Seal)

**WHEREAS**, in the above described deed and conveyance it is provided that the state may lease to the said Baxter the island and bridge described therein,

**NOW THEREFORE**, the governor and executive council of the state acting for and in behalf of said state are hereby authorized and empowered to execute and deliver to said Baxter a lease of said island and bridge of the following tenor—

**LEASE**

This Indenture made this thirteenth day of January, 1943, **WITNESSETH** that the State of Maine by the hand of its Governor and Executive Council hereunto duly authorized by Act of the Ninety-first Legislature does hereby let, demise and lease to Percival Proctor Baxter, Mackworth Island situated in the Town of Falmouth, Casco Bay, Maine, and the bridge leading thereto from the Falmouth shore near Martin's Point so-called;

**TO HOLD** for the term of fifteen (15) years beginning January 13, 1943, and ending January 12, 1958, subject to termination previous to that date as herein provided, and lessee shall have the right to renew this lease upon the same terms and conditions for an additional period of fifteen (15) years beginning January 13, 1958 and ending January 12, 1973, subject to termination previous to that date as herein provided, provided lessee gives

## Order

ORDERED, the House concurring, that in order that the Records of the Gift by PERCIVAL PROCTOR BAXTER to the State of Maine as Trustee in Trust of approximately twelve thousand (12,000) acres in Township four (4), Range nine (9) W. E. L. S. Piscataquis County (BAXTER STATE PARK) to be complete and in enduring form, the communication dated January twelfth, 1942, addressed by said Baxter to Honorable Sumner Sewall, Governor, and to the Honorable Senate and House of Representatives together with the message of Governor Sewall transmitting the said communication to the Legislature be printed in the Laws of Maine for 1941-1942. (S. P. 582)

Came from the Senate, read and passed.

In the House, read and passed in concurrence.

STATE OF MAINE  
Executive Department  
Augusta

SUMNER SEWALL  
Governor

January 13, 1943.

The Honorable President of the Senate

The Honorable Speaker of the House  
Ninety-first Legislature

Dear Sirs:

It is my great pleasure to transmit herewith a letter from the Honorable Percival P. Baxter of Portland, in which he generously offers substantial gifts of land for public purposes.

Baxter State Park, including Mount Katahdin, now comprises 47,000 acres. If it is the pleasure of the Ninety-first Legislature to accept this present offer, the area of the Park will be brought to 59,000 acres.

Mr. Baxter's generosity in undertaking to set up and give to the State one of the most magnificent natural recreational areas in the nation for our benefit and that of our children should command the deepest appreciation and gratitude.

Included with this present gift of additional land to the Katahdin tract,



Mr. Baxter proposes to give to the State, Mackworth Island located in the town of Falmouth in Portland Harbor.

Looking forward to the time when there will be maintenance costs in connection with the various structures on this property Mr. Baxter advises that he plans the establishment of a trust fund, to which he now donates \$10,000 as the initial gift. During his lifetime he wishes to retain his use of this Island without expense to the State.

Mr. Baxter has lived many years on this Island and believes its dedication to appropriate public use will prove of real benefit to the people of Maine.

It is well that we view these matters with vision and imagination, for the future may show human needs of great urgency which are not clearly perceptible today.

I, therefore, commend this proposal to your very thoughtful consideration, and urge acceptance of these gifts as being in the public interest.

Respectfully submitted,

SUMNER SEWALL.

(S. P. 27)

January 13, 1943.

To the Honorable Sumner Sewall, Governor  
and the Honorable Senate and House of Representatives of the ninety-first Legislature of the State of Maine:

Governor Sumner Sewall and many of the members of this Legislature are familiar with my plans to donate to the State an extensive area of land in the Mount Katahdin region, the same to be held in Trust by the State for certain public purposes.

During the past thirteen years from time to time the State has accepted from me a total of forty-seven thousand (47,000) acres and I now offer you the gift of an additional area of twelve thousand (12,000) acres, which if accepted will give the State fifty-nine thousand (59,000) acres, all of which is located in Piscataquis County.

In order that those of you who were not members of the ninetieth Legislature may understand why these donations are made separately over a period of years instead of being transferred under a single deed, I refer you to a communication dated January 12, 1942, addressed by me to Governor Sewall and the ninetieth Legislature and published in the Legislative Record of the Special Session of that date, page 15 Senate Record and page

33 House Record under date of January 13, 1942. By joint order of the Senate and House this communication was ordered published in the Laws of Maine and Mr. Smith Dunnack, the Revisor of Statutes, informs me it will be printed in the Laws of Maine for 1943.

It will be recalled that shortly after I made my first gift of Katahdin land to the State certain persons attempted to take this from the State and transfer it to the National Government. Those responsible for this proposed breach of Trust have since assured me that never again will they seek to break this Trust and that they are content to abide by the Trusts created by the several acts of the Maine Legislature. However, in the future other persons may make a similar attempt and this I seek to guard against.

My plan to create a long line of precedents whereby one Legislature after another accepts my gifts in Trust by laws duly passed and printed in the Laws of Maine for successive years, have been approved by several of the leading judges and lawyers of our State. Under this plan each gift becomes a sacred trust accepted by those who directly represent the people. Each Legislature to protect these Trusts in the years to come erects a barrier similar to the barrier erected by its predecessor, a barrier against a breach of Trust.

Before I finish my work at least ten Maine Legislatures and as many Maine Governors will have placed their seal of approval on my plans and thus they will have made these Trusts absolutely unbreakable. Certainly he is a bold and reckless person who, even after I have deceased, attempts to induce this State to violate the Trust provisions created under a long series of Deeds and Acts of Acceptance extending from 1931 almost until 1950.

I have acquired and now own fifty-four thousand (54,000) acres in addition to the fifty-nine thousand (59,000) acres above referred to, making a total of one hundred thirteen thousand (113,000) acres, and each year hereafter beginning with 1944 I shall continue to deed to the State of Maine certain portions of this fifty-four thousand (54,000) acres until it all has been so transferred. In case of my decease before my work is completed, whatever portion of this fifty-four thousand (54,000) acres has not been given to and accepted by the State will pass under my Will and thus become a part of what by State law is BAXTER STATE PARK.

This Park project has become my life work and before it is completed I hope to secure an additional thirty-one thousand (31,000) acres which will comprise six entire townships totaling one hundred forty-four thousand (144,000) acres. To do this requires time and patience for just at present the owners do not care to sell their lands. Even though I may not



succeed in completing this in my life time, I have made provision in my Will so that in due time my plans will be carried through as I desire.

In the Act submitted herewith I have recited the several Deeds and conveyances made by me to the State in order that the record thereof may be clear and understandable to future generations of Maine people.

~~IT NOW IS MY DESIRE~~ to make a second gift to the State of Maine and in the Deed and Act that accompanies this communication I have included MACKWORTH ISLAND, situated in the Town of Falmouth in Portland Harbor, Casco Bay, together with MACKWORTH or HALF-WAY ROCK southerly of said Island and also together with the Bridge to said Island, a right-of-way from the bridge to the State Highway, and certain Pole rights leading to said Island.

This Island means everything to me. For fifty-six (56) years I have spent the happiest days of my life there and I want the people of Maine to own and enjoy this Island in the years to come. This Island must never be exploited for private gain nor would I ever sell it for any price. My giving this Island to the State is not the result of any sudden impulse, because for twenty-nine (29) years there has been a provision in my Will that upon my decease it becomes the property of the people of Maine. In order, however, to make doubly sure that my wishes are carried out I now offer Mackworth Island as a gift to the State to be held forever in Trust by the State for State public purposes. A man does well to attend to these matters while living, rather than to leave them for others to do after he has gone.

Mackworth Island in many ways is unique. It was first settled by Arthur Mackworth, an Englishman, in 1631. This man lived there many years and became the leading citizen of the Casco Bay area. He often went to Boston to represent his fellow colonists in matters that came before the King's authorities in the Massachusetts Colonial government. According to ancient deeds the Island is "one hundred acres more or less" in extent. It lies at the mouth of the Presumpscot River on the westerly border of the Town of Falmouth and within less than one-half a mile from the easterly line of the City of Portland. For unknown centuries this Island was the home of the Indian and many unusual relics have been unearthed there. In the Museum here at the State Capitol is a collection of arrow heads and implements taken over a period of years from the Indian camp sites on the Island. Some time ago I donated this collection to the State and Mr. Joseph Wilson, curator in charge of the Museum, has made of it a most interesting display.

About one-quarter of the Island is well wooded with pine and spruce, one-quarter is pasture-land and the remainder is excellent land for such

crops as usually are found in southwestern Maine. I, myself, have planted in excess of 50,000 pine and spruce on this Island. There also is an orchard of about seventy-five fruit trees, apples, pears, cherries, plums and peaches. There are extensive clam flats on the northerly side and a good depth of water for boating on the southerly and easterly shores. Moreover the Island has several beaches suitable for bathing. The Island also has ample water supply from its own springs but these are not now in use because two large pipe lines bringing water from Sebago Lake cross the Island and carry water to the outlying Islands of Casco Bay now being fortified by the U. S. Army and Navy. These water lines are tapped on the Island for use there, and telephone and electric services also come to the Island over the bridge that connects it with the mainland. The buildings on the Island consist of a complete set of farm buildings, house, barn and other structures together with three residences, one brick and two wooden, all in good repair. This Island with the surrounding waters by State law is a wild life sanctuary and I have provided that it always shall so remain. A small colony of pheasants and one of partridges live there and occasionally one or two deer swim across the channel from the mainland and remain for a few days.

The uses to which this Island can be put by the State are numerous. In the deed I offer you it is provided that the Island always shall be used for State public purposes only. It is well adapted for recreational and educational purposes, for a hospital, for a home for sick or under-privileged children, for forestry, park or agricultural experimental purposes, or for any of the numerous activities of the State which require a large area in the country conveniently located near the advantages of a City. Its use for children would be especially pleasing to me. Certainly I ask that it never be used for penal or corrective institutions nor for any purpose connected with the enforcement of the laws of the State relating to criminals. The deed includes the bridge and right-of-way connecting it with State Highway No. 1, also certain pole rights and a rocky islet south of the Island.

As this Island is my home I wish to live there for some time to come and so have provided in the Deed of Gift and Act of Acceptance that the State may lease this to me for a period of fifteen (15) years with the right on my part to renew the same for a similar term. During the period of the lease, as Lessee I shall assume all expenses in connection with my occupation of the Island, including insurance and repairs on the buildings and bridge. It further is provided that in case at any time I no longer shall desire to occupy the Island I may terminate the lease. In such case and also upon my decease the lease terminates and the State then takes immediate possession.

It long has been my intention, subject to the vicissitudes of business, to



establish a fund to be donated to the State, the same to be held in Trust by the State and to be used in the discretion of the Governor and Council for some State public purpose in connection with the State's ownership of this Island. In order now that a beginning be made in this direction I hereby offer to the State of Maine the sum of ten thousand (\$10,000) dollars and in the accompanying Act it is provided that this sum, together with such gifts as later may be added to it by me, be accepted by said State as a Trust Fund as therein stated.

In offering you the gift of my Island I ask you to look beyond the present and into the future. Some may raise objections to its acceptance and may say "What will the State do with it". I am confident such a short-sighted view will not prevail.

As I look into the years ahead, I see great social changes coming. There is no stopping them, nor would I do so. Our State is destined to expand its activities far beyond what it now is doing. It will assume added responsibilities for the care of children, the sick, the crippled, the needy. New institutions will be established, new methods adopted for the care of the unfortunate and defective. The State is bound to play a far more important part than ever in the regulation and conduct of our lives and methods of living. Whether some persons approve or not, all of us will be profoundly affected. The good things of life are destined to be more widely distributed and we should prepare for the changes that are sure to come. My gifts though perhaps not now fully appreciated will, in the future, be regarded as valuable contributions to the public welfare. In this connection it is significant to recall certain incidents of the past.

Almost sixty years ago my late father James Phinney Baxter donated a public library building to the City of Portland. He was a pioneer in public giving. It is hard to believe, but certain persons of influence objected to the acceptance of the gift by the City. They openly opposed it. "What shall we do with it; it may cost the City something to maintain it" was the cry. Never for a moment, however, did my father regret having made the gift. He brushed aside this opposition and completed his task.

Again my father laid the plans for the construction of the Baxter Boulevard in Portland with which you all are familiar. Again those without vision opposed him and said "What shall we do with it". He drove ahead, however, and lived to see the project so far advanced that no one dared stop it. Today the Boulevard is the City's chief natural attraction.

In my own life I have had a similar experience. Twenty-six years ago when I first conceived the idea of a State Park at Katahdin there was determined opposition. I was attacked as a dreamer and branded as a socialist. Several of our newspapers came out against me, "We don't want a Park, leave things as they are; what shall we do with it", again was

heard. Session after session I fought on and made speech after speech up and down the State. It was a long road to travel, but to-day the State Park is acknowledged to be one of the State's great natural attractions and the people of the future will appreciate it even more than do those of to-day.

In accepting the gifts I now offer there is no reason for anxiety as to what the State will do with the Island. In the ordinary course of events my life may continue for a number of years, and during the period of my occupancy of the Island under the lease, all expenses are assumed by me. Meanwhile I hope to increase the Trust Fund which is established under the Act and which is a part of the Gift.

As an example of what increases may mean, I remind you that my first gift of Katahdin land thirteen years ago was an area of but 6,000 acres. To-day, a total of 113,000 acres have been acquired by me for this project, with more to come.

I have a vision of what this Island is to be in the future. It will be a haven for those, young and old, who need refreshment in body and in spirit. From it will radiate kind and wholesome influences that will go far toward making Maine a better State in which to work and live.

In this communication I have gone into some detail so that all may understand my purpose. I desire to do something worth while for my native State and want the People of Maine to enjoy both the Park at Katahdin and my Island in Casco Bay. I ask you men and women who for the time being guard our destinies, to take the broad, long vision and accept that which I now offer to my fellow citizens.

Respectfully,

PERCIVAL PROCTOR BAXTER.

Order

ORDERED, the House concurring, that in order that the records of the gift by Percival Proctor Baxter to the State of Maine as Trustee in Trust of approximately twelve thousand (12,000) acres in township five (5) range nine (9) W. E. L. S. Piscataquis County (Baxter State Park), and the gift of Mackworth Island together with the ten thousand (\$10,000) dollars Trust Fund given for said Island, be complete and in enduring form, the communication dated January 13, 1943, addressed by the said Baxter to the Honorable Sumner Sewall and the Honorable Senate and House of Representatives of the Ninety-first Legislature, together with the message of Governor Sumner Sewall transmitting the said communication to this Legislature, be printed in the laws of Maine for 1943. (S. P. 30)

Came from the Senate, read and passed.

In the House, read and passed in concurrence.



ing one-half (1/2) the right to cut and carry away the timber and grass from the public lot in said township.

This conveyance is made subject to the following reservations and conditions namely said land shall forever be retained and used by said State for state forest, public park and public recreational purposes, shall forever be left in the natural wild state and shall forever be kept as a sanctuary for wild beasts and birds.

TO HAVE AND TO HOLD the above described premises with all the privileges and appurtenances thereto to the State of Maine as Trustee to be held forever in Trust for the benefit of the People of Maine for and as a state forest, public park and for public recreational purposes, the same forever to be kept in its natural wild state and as a sanctuary for wild beasts and birds all as above defined and subject to the above mentioned reservations and conditions, and I the said Percival Proctor Baxter covenant with the said State of Maine that I will WARRANT AND DEFEND the said premises to the said State against the lawful claims and demands of all persons claiming by, through or under me.

IN WITNESS WHEREOF I the said Percival Proctor Baxter being unmarried have hereunto set my hand and seal this thirteenth day of January in the year of our Lord one thousand nine hundred and forty-three.

Signed and Sealed  
in the presence of  
CHARLES J. NICHOLS

PERCIVAL PROCTOR BAXTER (SEAL)

State of Maine }  
Cumberland } SS

Portland, January 13, 1943.

Personally appeared the above named Percival Proctor Baxter and acknowledged the above instrument to be his free act and deed.

Before me

FRANK I. COWAN  
Notary Public  
(Notarial Seal)

MACKWORTH ISLAND, TOWN OF FALMOUTH, CASCO BAY

WHEREAS, Percival Proctor Baxter also desires to convey and donate to the state of Maine as trustee to be held by said state in trust the island called Mackworth Island situated in the town of Falmouth in Portland Harbor, Casco Bay, the same being one hundred (100) acres more or less

## CHAP. 1

in extent, together with Mackworth or Half-way rock situated southerly of said island and also together with the bridge connecting said island with the mainland of said Falmouth, the right-of-way leading from said Falmouth end of said bridge across the Look Estate so called as defined in deed from Ensena L. and Frederick H. Wilson to said Baxter dated July 27, 1911 and recorded in Cumberland registry book 879, page 108, and certain pole rights as described in deed from Emma L. Webber to said Baxter dated August 2, 1916 and recorded in said registry book 975, page 119;

NOW THEREFORE, the state of Maine by act of the legislature hereby accepts from said Percival Proctor Baxter the deed and gift of said Mackworth Island, said Mackworth or Half-way rock, said bridge, said right-of-way and said pole rights all as described in the following deed of conveyance the same ~~to be held forever by the said state of Maine as trustee in trust for the benefit of the people of Maine for state public purposes~~ and also to be held forever by said state as trustee in trust subject to the conditions and reservations set forth and expressed in the following deed of conveyance.

## DEED

KNOW ALL MEN BY THESE PRESENTS that I Percival Proctor Baxter of Portland in the County of Cumberland, State of Maine, in consideration of one dollar and other valuable considerations paid by the State of Maine, the receipt whereof is hereby acknowledged and in furtherance of my desire to convey and donate to the State of Maine, Mackworth Island with the buildings thereon, Mackworth or Half-way rock and the bridge, right-of-way and pole rights all as hereinafter described to be held forever by the State of Maine as Trustee in Trust for the benefit of the People of Maine, do hereby remise, release, sell and forever QUIT-CLAIM unto the said State of Maine the following described real estate in the town of Falmouth, Portland Harbor, Casco Bay:—

Mackworth Island with the buildings thereon the same being one hundred (100) acres more or less in extent together with Mackworth or Half-way rock situated southerly of said Island and also together with the bridge connecting said Island with the mainland of said Falmouth, the right-of-way leading from said Falmouth end of said bridge across the Look Estate so called as defined in deed from Ensena L. and Frederick H. Wilson to Percival Proctor Baxter dated July 27, 1911, recorded in Cumberland Registry Book 879, Page 108, and the pole rights as described in deed from Emma M. Webber to Percival Proctor Baxter dated August 2, 1916, recorded in Cumberland Registry of Deeds Book 975, Page 119.



CHAP. 1

State of Maine against the lawful claims and demands of all persons claiming by, through or under me.

IN WITNESS WHEREOF I the said PERCIVAL PROCTOR BAXTER being unmarried have hereunto set my hand and seal this thirteenth day of January in the year of our Lord one thousand nine hundred and forty-three.

Signed and Sealed  
in presence of  
CHARLES J. NICHOLS.

PERCIVAL PROCTOR BAXTER (SEAL)

STATE OF MAINE }  
CUMBERLAND } SS

Portland, January 13, 1943

Personally appeared the above named PERCIVAL PROCTOR BAXTER and acknowledged the above instrument to be his free act and deed.

Before me

FRANK I. COWAN  
Notary Public (Notarial Seal)

WHEREAS, in the above described deed and conveyance it is provided that the state may lease to the said Baxter the island and bridge described therein,

NOW THEREFORE, the governor and executive council of the state acting for and in behalf of said state are hereby authorized and empowered to execute and deliver to said Baxter a lease of said island and bridge of the following tenor—

LEASE

This Indenture made this thirteenth day of January, 1943, WITNESSETH that the State of Maine by the hand of its Governor and Executive Council hereunto duly authorized by Act of the Ninety-first Legislature does hereby let, demise and lease to Percival Proctor Baxter, Mackworth Island situated in the Town of Falmouth, Casco Bay, Maine, and the bridge leading thereto from the Falmouth shore near Martin's Point so-called;

TO HOLD for the term of fifteen (15) years beginning January 13, 1943, and ending January 12, 1958, subject to termination previous to that date as herein provided, and lessee shall have the right to renew this lease upon the same terms and conditions for an additional period of fifteen (15) years beginning January 13, 1958 and ending January 12, 1973, subject to termination previous to that date as herein provided, provided lessee gives

CHAP. 1

written notice of his intention so to renew said lease at least sixty (60) days before January 12, 1958, yielding and paying therefore an annual rental of one (\$1.00) dollar in advance on the thirteenth (13th) day of January of each year during the term of this lease and any renewal thereof.

Lessee at his expense shall make such repairs on the leased premises as he deems advisable and at his expense shall insure the said premises for the benefit of lessee in such amounts as lessee in his discretion may determine. The leased premises shall be free from all taxes.

This lease may be terminated at any time by lessee by written notice given by the lessee to the Governor and Executive Council of the State, and in case of the decease of lessee this lease thereupon shall terminate, and upon such termination, either by notice from or by decease of lessee said State thereupon shall take immediate possession of the leased premises and shall administer them under the provisions of the Trust created in the deed to said State and the Act of Acceptance thereof.

IN WITNESS WHEREOF the said State of Maine by the hand of its Governor and Executive Council hereunto duly authorized by Act of the Ninety-first Legislature, and the said Percival Proctor Baxter have set their hands and seals this thirteenth day of January, 1943.

In the presence of

STATE OF MAINE

By .....  
Governor

.....  
.....  
.....  
.....  
.....  
.....  
.....

(STATE SEAL)

Executive Council

PERCIVAL PROCTOR BAXTER (SEAL)

MACKWORTH ISLAND TRUST FUND

WHEREAS, PERCIVAL PROCTOR BAXTER desires to establish a TRUST FUND the same to be held by the state of Maine as trustee in trust the principal and income thereon to be used by the state of Maine in the discretion of the governor and executive council for some state public purpose in connection with said MACKWORTH ISLAND;



to be held in Trust for the People of Maine. Under the terms of this Trust the State has full authority to use the Island, Bridge and Rock in any way it may choose provided the use is for "STATE PUBLIC PURPOSES."

In the Deed of Trust this property was leased to me for my use as long as I desired provided I assumed all expenses incident to its care and operation. At that time I also donated to the State of Maine the sum of ten thousand (\$10,000.00) dollars as a TRUST FUND for Island, Bridge and Rock purposes.

~~From 1943 to 1949~~ during the Summer months I lived on the Island and maintained it and the Bridge without expense to the State. In 1949, however, I moved from the Island and thereafter the State assumed full ownership and responsibility.

In an OFFICIAL COMMUNICATION addressed to the Legislature (pages 703 to 708 of the said Laws of 1943) this property is described and I suggested that it be used as "a home for sick and underprivileged children" and further stated that "ITS USE FOR CHILDREN WOULD BE ESPECIALLY PLEASING TO ME." This is merely a suggestion and imposes no obligation upon the State other than the "State Public Purposes" provision as specified in the Deed of Trust. Ten years have passed and now I am desirous of having my Gift put to a useful purpose during my lifetime.

I now offer the State the sum of six hundred twenty-five thousand (\$625,000.00) dollars in two items: five hundred thousand (\$500,000.00) dollars ~~to be expended toward the construction of a new school for the Deaf or toward the construction of a new Home and School for the wards of the State as hereafter described,~~ and one hundred twenty-five thousand (\$125,000.00) dollars for the construction of a new bridge to the same. The Bridge Engineer of the Highway Department has given me the latter figure as his estimate of the cost of a suitable Bridge.

My suggestion is that you ~~first construct a new Maine School for the Deaf on the Island,~~ and that later you erect thereon a Home and School for such of the State's younger wards as it may be desirable to take from some of the private homes throughout the State where they now are boarding at an expense to the State of about five hundred (\$500.00) dollars per year per child. My thought as to a second institution is that in the boarding homes referred to no doubt there are certain younger children of exceptional promise whose removal to a special institution might give them a better chance to develop into useful citizens. It well may be

### Chapter 44

AN ACT Accepting from Percival Proctor Baxter the Gift of Six Hundred Seventy-five Thousand (\$675,000) Dollars for the new Maine State School for the Deaf to be Constructed on Mackworth Island in the Town of Falmouth, Maine, and for a new Bridge Connecting said Island with the Mainland of said Town.

Emergency preamble. Whereas, in the judgment of the legislature the acceptance of the gifts as offered by the Honorable Percival Proctor Baxter creates an emergency within the meaning of section 16 of Article XXXI of the constitution of Maine, and requires the following legislation as immediately necessary for the preservation of the public peace, health and safety; now, therefore,

*Be it enacted by the People of the State of Maine, as follows:*

WHEREAS, PERCIVAL PROCTOR BAXTER, Governor of Maine during the years 1921-1925, by Deed dated January 13, 1943, and recorded in the Cumberland County Registry of Deeds, Book 1706, Page 54, donated and conveyed to the State of Maine, IN TRUST, Mackworth Island, Mackworth Rock, and the Bridge leading to said Island, all in the Town of Falmouth, and

WHEREAS, the said State by Legislative Act, Chapter 1 of the Private and Special Laws of Maine 1943, accepted the said Gifts, the same forever to be held by said State IN TRUST to be used for State Public Purposes as stated in said conveyance, the said acceptance being recorded in said Registry, Book 1727, Page 361, and

WHEREAS, the said Baxter in a Communication dated March 4, 1953 addressed to His Excellency Burton M. Cross, Governor of Maine, and to the Honorable Senate and House of Representatives of the Ninety-sixth Legislature, expressed his desire that his Gifts be used during his life time for State Public Purposes within the provisions of said Trust, and

WHEREAS, the said Baxter in said Communication offers to donate to said State the sum of five hundred thousand (\$500,000) dollars toward the establishment on said Island of a new Maine School for the Deaf, and

WHEREAS, the said Baxter further offers to donate to the said State the sum of one hundred twenty-five thousand (\$125,000) dollars for the construction of a Bridge to said Island, together with an additional sum of fifty thousand (\$50,000) dollars for the said Bridge, as offered by letter



addressed to His Excellency Burton M. Cross, Governor of Maine, dated March 9, 1953, making a total of one hundred seventy-five thousand (\$175,000) dollars for the said Bridge.

NOW THEREFORE, the 96th Legislature of the State of Maine hereby accepts the offer by said Baxter to donate the total sum of six hundred seventy-five thousand (\$675,000) dollars to the said State to be used for the Purposes as specified in said Communication of March 4, 1953.

Emergency clause. In view of the emergency cited in the preamble, this act shall take effect when approved.

Effective April 9, 1953

---

---

## Chapter 45

### AN ACT Relating to Time of Sessions of Bath Municipal Court.

*Be it enacted by the People of the State of Maine, as follows:*

P. & S. L., 1937, c. 64, amended. The 2nd sentence of that part designated "Sec. II." of chapter 64 of the private and special laws of 1937 is hereby amended to read as follows:

'Said court shall be in session every Monday at ~~to~~ 9 o'clock in the forenoon for the entry of civil actions and the entering up of judgments in all defaulted actions and for the trial of actions of forcible entry and detainer, and on the 1st and 3rd Mondays of each month for the trial and determination of all other civil processes.'

Effective August 8, 1953

---

---

## Chapter 46

### AN ACT Relating to Knox County General Hospital.

*Be it enacted by the People of the State of Maine, as follows:*

P. & S. L., 1903, c. 99, § 2, amended. Section 2 of chapter 99 of the private and special laws of 1903 is hereby amended to read as follows:

'Sec. 2. May hold property. Said corporation may take, receive, purchase, hold and possess lands and tenements in fee simple, in trust, upon

**Title 20-A: EDUCATION**  
**Part 4: SPECIFIC EDUCATION PROGRAMS**  
**Subpart 1: SPECIAL EDUCATION**  
**Chapter 304: MAINE EDUCATIONAL CENTER FOR THE DEAF AND**  
**HARD OF HEARING AND THE GOVERNOR BAXTER SCHOOL FOR THE**  
**DEAF**

**§7401. School established**

The Maine Educational Center for the Deaf and Hard of Hearing and the Governor Baxter School for the Deaf is established as a public school pursuant to this chapter for the purpose of educating deaf and hard-of-hearing students. The school is a body politic and corporate and is an instrumentality and agency of the State. The exercise by the school of the powers conferred by this chapter is the performance of an essential public function by and on behalf of the State. [2005, c. 279, §6 (AMD).]

SECTION HISTORY

1995, c. 676, §5 (NEW). 1995, c. 676, §13 (AFF). 1999, c. 775, §1 (AMD). 2005, c. 279, §6 (AMD).

The Revisor's Office cannot provide legal advice or interpretation of Maine law to the public.  
If you need legal advice, please consult a qualified attorney.

[Office of the Revisor of Statutes \(mailto:webmaster\\_ros@legislature.maine.gov\)](mailto:webmaster_ros@legislature.maine.gov) · 7 State House Station · State House Room 108 · Augusta, Maine 04333-0007

Data for this page extracted on 12/11/2018 05:18:35.



[ 2017, c. 413, §1 (AMD) .]

**7. Indemnification.** The school board shall indemnify the employees and other agents of the school and purchase and maintain insurance to indemnify those persons to the extent provided in Title 13-B, section 714. The school board may indemnify members of the school board.

[ 1995, c. 676, §5 (NEW); 1995, c. 676, §13 (AFF) .]

**8. Bonds.** The school board shall require security for the faithful performance of duties by employees and other agents of the school who are entrusted with the custody of the school securities or authorized to disburse the funds of the school. The security must consist of a bond, either a blanket bond or individual bond with a surety bond, or bonds having a minimum limitation of \$100,000 coverage for each insured person. The expense of a bond is assumed by the school.

[ 1995, c. 676, §5 (NEW); 1995, c. 676, §13 (AFF) .]

**9. Property management.** The school board may acquire by purchase any property, lands, buildings, structures, facilities or equipment and make improvements to facilities necessary to fulfill the purposes of this chapter. The State retains ownership of Mackworth Island and the school facilities. Notwithstanding section 7403, the school board may make alternative plans regarding the location of the school.

[ 1995, c. 676, §5 (NEW); 1995, c. 676, §13 (AFF) .]

**10. Island access.** The school board shall consult annually with the Department of Agriculture, Conservation and Forestry, Bureau of Parks and Lands on public access and management of that portion of Mackworth Island under the jurisdiction of that bureau.

[ 1999, c. 775, §11 (AMD); 2011, c. 657, Pt. W, §§5, 7 (REV); 2013, c. 405, Pt. A, §24 (REV) .]

**11. Certificates and diplomas.** The school board shall offer courses of study and grant diplomas and certificates on completion of courses of study. This granting of diplomas and certificates may be done in cooperation with the sending school.

[ 1995, c. 676, §5 (NEW); 1995, c. 676, §13 (AFF) .]

**12. Contracts and agreements.** The school board may enter into any contracts and agreements, to the extent that funds are available, in the execution of its powers under this chapter.

[ 1995, c. 676, §5 (NEW); 1995, c. 676, §13 (AFF) .]

**12-A. Lease of school property.** The Department of Administrative and Financial Services may enter into lease agreements consistent with the deed of gift from Governor Percival Baxter and in accordance with state law and policy on the lease of state-owned facilities, including but not limited to the provisions of Title 5, chapter 154. Any funds received pursuant to this subsection must first be applied in accordance with Title 5, section 1784. Any excess revenue above the requirements of Title 5, section 1784 may be retained by the Maine Educational Center for the Deaf and Hard of Hearing and the Governor Baxter School for the Deaf to be applied to statutorily authorized programs.

**MEMORANDUM OF AGREEMENT  
BETWEEN  
STATE OF MAINE, DEPARTMENT OF TRANSPORTATION  
AND  
STATE OF MAINE, DEPARTMENT OF ADMINISTRATIVE  
AND FINANCIAL SERVICES**

This Memorandum of Agreement ("Memorandum") is between the State of Maine, Department of Transportation ("MaineDOT") and the State of Maine, Department of Administrative and Financial Services ("DAFS").

WHEREAS, the State of Maine is the owner of a certain piece of property known as Mackworth Island, including a causeway and bridge linking the Island with the mainland, all of which are located in Casco Bay in the County of Cumberland, Town of Falmouth, State of Maine (the "Property"); and

WHEREAS, DAFS has historically been responsible for maintaining and repairing the bridge known to MaineDOT as bridge #5600 (the "Bridge") linking Mackworth Island to the mainland. For the purposes of this document, the Bridge is the structure designed to carry vehicular and pedestrian traffic over the free flowing tidal channel between the Falmouth mainland and Mackworth Island. The Bridge's limits are from one bridge abutment to the other bridge abutment; and

WHEREAS, DAFS does not have technical expertise necessary to maintain and repair the Bridge; and

WHEREAS, MaineDOT has the technical expertise to maintain and repair the Bridge; and

WHEREAS, the Parties agree that it is in the best interest of the State that DAFS assign to MaineDOT the responsibility for the maintenance and repair of the Bridge; and

WHEREAS, DAFS is willing to assign to MaineDOT, and MaineDOT is willing to accept the assignment of the responsibility for the maintenance and repair of the Bridge.

NOW THEREFORE, in consideration of the premises, and the covenants set forth herein, the Parties agree as follows:



1. DAFS hereby assigns, and MaineDOT accepts, the assignment of the responsibility for the maintenance and repair of the Bridge linking Mackworth Island to the mainland. To effectuate the assignment, the parties agree to execute and submit a Financial Order to the Governor for approval and signature.
2. MaineDOT agrees to undertake the maintenance and repair of the Bridge, at its expense, for so long as such maintenance and repair is for State Public Purposes as set forth in a deed to the State of Maine from Percival Proctor Baxter dated January 13, 1943, recorded in the Cumberland County Registry of Deeds in Book 1706, Page 54, and pursuant to 1943 P.&S. ch. 1. All such work shall be conducted in accordance with MaineDOT's standard practices for work of a similar kind and nature.
3. DAFS agrees to provide such information to MaineDOT as MaineDOT may request from time to time with regard to the condition of the Bridge and causeway, including without limitation any drawings, analyses, opinions, recommendations or any other documents or materials regarding or related to the ownership, use, condition, maintenance or repair of the Bridge and causeway.
4. DAFS agrees to cooperate with MaineDOT with regard to any work undertaken by MaineDOT or any contractors or subcontractors that MaineDOT may engage in the maintenance and repair of the Bridge and any contiguous property as such may be required by MaineDOT, in its sole discretion.
5. MaineDOT agrees to request from the Maine State Legislature such appropriations as it deems necessary to carry out its responsibility for the maintenance and repair of the Bridge. DAFS agrees to support MaineDOT in all such requests.
6. The Parties agree that nothing in this Memorandum is intended, or to be construed, to relieve DAFS of any responsibility it may have as owner of the Property for the maintenance and repair of the Property except as provided herein.

7. The Parties agree that nothing in this Memorandum is intended, or to be construed, to relieve DAFS of any other responsibility it may have as owner of the Property to provide adequate liability insurance or self-insurance to protect the interests of the State, DAFS and MaineDOT.

8. The Parties agree that MaineDOT shall be solely responsible for any and all claims of whatever nature arising out of the work to be performed under this Memorandum. Nothing herein shall, nor is intended to, waive any defense, immunity or limitation of liability which may be available to MaineDOT, its officers, agents or employees, under the Maine Tort Claims Act or any other privileges and/or immunities provided by law.

9. MaineDOT agrees that in undertaking any maintenance or repair of the Bridge all such work will be conducted in such a manner as to limit the obstruction or flow of traffic on the Bridge and will consult, as necessary or requested, with any entity located on Mackworth Island with regard to any work undertaken. In this regard, MaineDOT agrees to notify any such entity of any work that may result in limiting or obstructing the flow of traffic on the Bridge or causeway.

10. This Memorandum shall be interpreted in accordance with the laws of Maine.

11. This Memorandum shall be effective upon the date of last signature below.

12. This Memorandum contains the entire understanding of the Parties with regard to the matters set forth herein and may not be amended without the express written agreement of both Parties.

**[SIGNATURES ON FOLLOWING PAGE]**



WHEREFORE, the Parties, by their duly authorized representatives, executed this Memorandum upon the dates set forth below.

Dated: September 18, 2014

DEPARTMENT OF TRANSPORTATION

A handwritten signature in black ink, appearing to read "D. Bernhardt", written over a horizontal line.

David Bernhardt, P. E., Commissioner

Dated: September 17, 2014

DEPARTMENT OF ADMINISTRATIVE AND  
FINANCIAL SERVICES

A handwritten signature in black ink, appearing to read "Richard W. Rosen", written over a horizontal line.

Richard W. Rosen, Acting Commissioner



Paul R. LePage  
GOVERNOR

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
16 STATE HOUSE STATION  
AUGUSTA, MAINE 04333-0016

LEGAL SERVICES Tel: (207)624-3034 Fax: (207)624-3545  
TTY Users dial Maine Relay 711  
October 14, 2014

David Bernhardt  
COMMISSIONER

Ed Dahl, Director  
Bureau of General Services  
Department of Administrative and Financial Services  
78 State House Station  
Augusta, ME 04333-0078

RECEIVED  
OCT 15 2014  
DAFS Comm. Office

RE: Mackworth Island Bridge, Falmouth

Dear Mr. Dahl :

Enclosed please find a State of Maine Financial Order between the Department of Administrative and Financial Services and the Department of Transportation. We are asking that Commissioner Rosen sign this document which transfers responsibility for the repair and maintenance of the bridge in the causeway between state-owned Mackworth Island and the mainland to the Department of Transportation. The Financial Order formally authorizes what has previously been agreed to by the Commissioners of both agencies pursuant to a Memorandum of Agreement dated September 18, 2014, a copy of which is also enclosed.

Historically the Bureau of General Services has been responsible for maintenance of the bridge along with the other facilities at Mackworth Island; however, the bridge is now in need of some structural repair and in light of the in-house technical expertise that MaineDOT has, both agencies agreed that transfer of the responsibility for both the immediate repair and the ongoing bridge maintenance would be the more efficient practice.

Please review the Financial Order and if you find it acceptable, please forward this to Commissioner Rosen for his signature. I would appreciate having the signed document returned to my attention at the above address. We would like to have the document available for review at the State Budget Office for their meeting on November 6, 2014. After the State Budget Office and Governor approvals have been obtained, I will see that your agency receives a copy for your records.

Please feel free to contact me at 624-3034 or Toni Kemmerle, MaineDOT's Chief Counsel, if you should have any questions regarding the Financial Order.

Sincerely,

Amy E. Hughes  
Legal Administrator

AEH/st

Enclosures

cc: Dale Doughty, Director, MaineDOT Bureau of Maintenance & Operations



PRINTED ON RECYCLED PAPER



*State of Maine*  
*Executive Department*  
**FINANCIAL ORDER**




**ORDERED,**

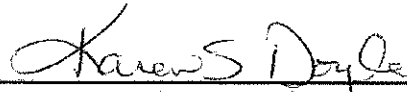
That the Department of Administrative and Financial Services, pursuant to a Memorandum of Agreement dated September 18, 2014 and 5 M.R.S. §282-A, assigns the responsibility for the maintenance and repair of a certain State-owned bridge situated on the causeway connecting Mackworth Island with the mainland in the Town of Falmouth, County of Cumberland and State of Maine, to the Department of Transportation.

Said bridge is identified by the Department of Transportation as Bridge #5600 and is located on the causeway that links state-owned Mackworth Island in Casco Bay to the mainland. The limits of the structure are from bridge abutment to bridge abutment. The Department of Transportation shall undertake maintenance and repair of said bridge for so long as such maintenance and repair is for State Public Purposes as set forth in a deed to the State of Maine from Percival Proctor Baxter dated January 13, 1943, recorded in the Cumberland County Registry of Deeds in Book 1706, Page 54, and pursuant to 1943 Private and Special Laws, ch. 1.

**Statement of Fact**

The assignment of responsibility of maintenance and repair of the subject bridge is made pursuant to a Memorandum of Agreement between the Department of Transportation and the Department of Administrative and Financial Services dated September 18, 2014. The Department of Transportation has the technical expertise to perform the inspection, maintenance and repair that the bridge requires to continue to carry pedestrian and vehicular traffic, including emergency response vehicles, construction equipment and heating fuel delivery vehicles, to the State's facilities on Mackworth Island. The Department of Transportation will request from the Maine State Legislature such appropriations as it deems necessary for the maintenance and repair of the bridge.

  
\_\_\_\_\_  
RICHARD W. ROSEN, ACTING COMMISSIONER  
DEPT. OF ADMINISTRATIVE AND FINANCIAL SVCS.

  
\_\_\_\_\_  
*Signature of Department Head*  
KAREN S. DOYLE, DIRECTOR OF FINANCE  
\_\_\_\_\_  
*Name and Title*

FOR BUREAU OF THE BUDGET USE ONLY

  
\_\_\_\_\_  
*Signature of State Budget Officer*

**Policy Area:** 08 - Transportation Safety and Development

**Umbrella:** TRC00 - DEPARTMENT OF TRANSPORTATION

**Agency Contact:** KAREN S. DOYLE

**Agency Phone:** (207) 624-3200

*nyw 10/15/14*

TRC00-0007

### TRANSFER AGREEMENT

This agreement is entered into by and between the Bureau of Public Lands ("Public Lands"), Department of Conservation and the Governor Baxter School for the Deaf, Department of Education ("GBSD"). Pursuant and subject to the provisions of MRSA Title 12, Chapter 202 §552-E, GBSD hereby transfers to Public Lands responsibility for the management of the natural resources of Mackworth Island, Town of Falmouth, County of Cumberland State of Maine, said island being one hundred (100) acres more or less in extent as described in deed from Percival Proctor Baxter to the State of Maine dated January 13, 1943 and recorded in Cumberland County Registry of Deeds at Book 1706, Page 54, subject to the following terms and conditions:

*As illustrated  
#5 in ml  
Plan*

1. The natural resources of Mackworth Island shall be managed by the Bureau of Public Lands in a manner that is in accordance with the terms of Governor Baxter's January 13, 1943 Deed of Conveyance. For the purposes of this agreement the natural resources of Mackworth Island to be managed by the Bureau of Public Lands are those areas identified as tidal shoreline, embankment, beach, and public open space zones, including forested areas, on the aerial map of Mackworth Island attached hereto and made a part hereof as Exhibit A.
2. The Bureau of Public Lands shall adhere to the resource management recommendations presented in the document entitled Mackworth Island Management Plan (pg. 35 and 36) within the financial constraints of the Public Lands Management Fund.
3. The Bureau of Public Lands shall work closely with the administration of the Governor Baxter School for the Deaf in exercising management of the natural resources of Mackworth Island. GBSD and Public Lands shall cooperate with each other and provide to each other upon request such

Post-It Fax Note	7671	Date	2/16	# of pages	3
To	Tom Perrin	From	Swanthony		
Co./Dept.	BPEL	Co.			
Phone #	287-3061	Phone #	778-4111		
Fax #	287-8111	Fax #			



information, inventory data and other materials useful for natural resource management as may be in the possession or subject to the control of either agency.

- 4. The term of this agreement shall commence upon its approval by the Commissioners of Education and Conservation and by the Governor and shall continue until terminated by agreement of all parties hereto.

Dated at Augusta this 29th day of June, 1992

Department of Education

By: Polly B. Ward Date: 6/18/92  
Polly B. Ward, Acting Commissioner

Department of Conservation

By: C. Edwin Meadows, Jr. Date: 6/27/92  
C. Edwin Meadows, Commissioner

Governor of Maine

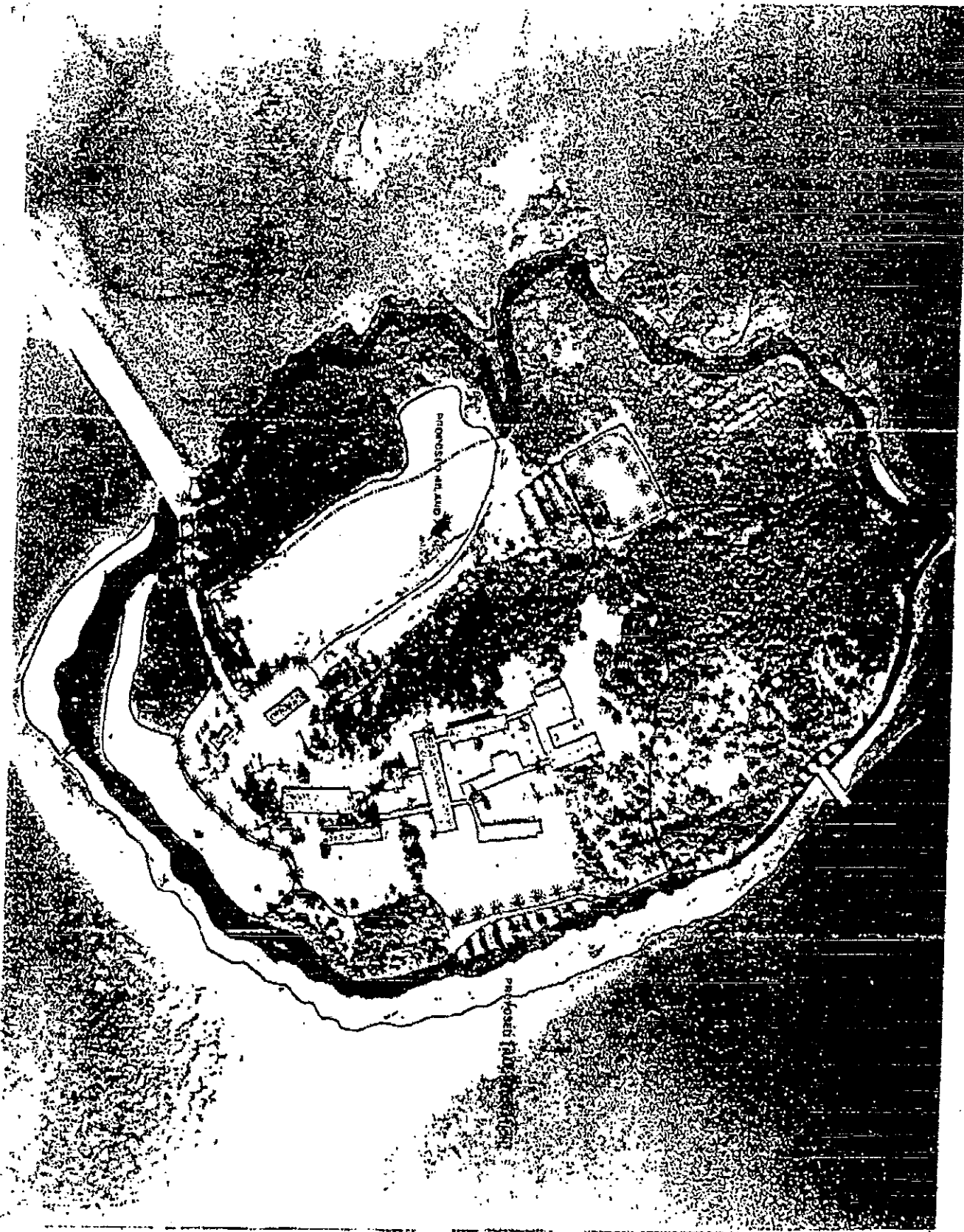
By: John R. McKernan Date: 6/26/92  
John R. McKernan, Governor

Governor Baxter School for the Deaf

By: Kathleen M. Fries Date: April 30, 1992  
Kathleen M. Fries, Superintendent

Bureau of Public Lands

By: Thomas A. Morrison Date: April 23, 1992  
Thomas A. Morrison, Director



Scale  
1 inch = 1 mile  
1:62,500

1996



**Maine Department of Conservation  
Bureau of Parks and Lands ("BP&L")  
Director's Land Classification  
Mackworth Island**

Whereas, Title 12 § 1804-2, authorizes the Director of BP&L to classify lands as either Parks, Historic Sites, Public Reserved or Public Non-Reserved Lands; and

Whereas, under Title 12 § 1801,7,B, a "Park" can be "Any area not exceeding 1,000 acres that is with or without distinctive characteristics but contains natural features that afford ample opportunity for development and use for active recreation"; and

Whereas, public recreational use of Mackworth Island has increase significantly over time requiring additional facilities, management and stewardship; and

Whereas, the 100 acres of Mackworth Island under the Bureau's jurisdiction is now classified as Non-Reserved Public Lands, is managed primarily to provide public recreation opportunities, and there are no other actively managed Public Reserved Lands or Non Reserved Public Lands in the general vicinity of the Island; and

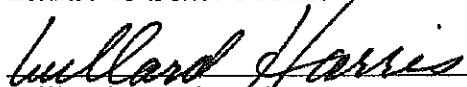
Whereas, the Parks staff of BP&L are actively managing other nearby Parks and Mackworth Island has exceptional walking, aesthetic and other recreational opportunities at a location adjacent to the city of Portland; and

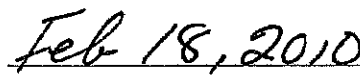
Whereas, Parks staff can provide an increased level of stewardship and the current and future recreational use of the island can be better provided for as a Park; and

Whereas, increasing stewardship, management and facilities on the Island will require additional staff time and funding, which can be better provided by the Parks system;

Now therefore,

By signing below, the Director of the Maine Bureau of Parks and Lands hereby converts the land classification of Mackworth Island from Non-Reserved Public Lands to State Parks.

  
\_\_\_\_\_  
Willard Harris, Director  
Maine Department of Conservation  
Bureau of Parks and Lands

  
\_\_\_\_\_  
Date

## Order

ORDERED, the House concurring, that in order that the Records of the Gift by PERCIVAL PROCTOR BAXTER to the State of Maine as Trustee in Trust of approximately twelve thousand (12,000) acres in Township four (4), Range nine (9) W. E. L. S. Piscataquis County (BAXTER STATE PARK) to be complete and in enduring form, the communication dated January twelfth, 1942, addressed by said Baxter to Honorable Sumner Sewall, Governor, and to the Honorable Senate and House of Representatives together with the message of Governor Sewall transmitting the said communication to the Legislature be printed in the Laws of Maine for 1941-1942. (S. P. 582)

Came from the Senate, read and passed.

In the House, read and passed in concurrence.

---

STATE OF MAINE  
Executive Department  
Augusta

SUMNER SEWALL  
Governor

January 13, 1943.

The Honorable President of the Senate

The Honorable Speaker of the House  
Ninety-first Legislature

Dear Sirs:

It is my great pleasure to transmit herewith a letter from the Honorable Percival P. Baxter of Portland, in which he generously offers substantial gifts of land for public purposes.

Baxter State Park, including Mount Katahdin, now comprises 47,000 acres. If it is the pleasure of the Ninety-first Legislature to accept this present offer, the area of the Park will be brought to 59,000 acres.

Mr. Baxter's generosity in undertaking to set up and give to the State one of the most magnificent natural recreational areas in the nation for our benefit and that of our children should command the deepest appreciation and gratitude.

Included with this present gift of additional land to the Katahdin tract,



Mr. Baxter proposes to give to the State, Mackworth Island located in the town of Falmouth in Portland Harbor.

Looking forward to the time when there will be maintenance costs in connection with the various structures on this property Mr. Baxter advises that he plans the establishment of a trust fund, to which he now donates \$10,000 as the initial gift. During his lifetime he wishes to retain his use of this Island without expense to the State.

Mr. Baxter has lived many years on this Island and believes its dedication to appropriate public use will prove of real benefit to the people of Maine.

It is well that we view these matters with vision and imagination, for the future may show human needs of great urgency which are not clearly perceptible today.

I, therefore, commend this proposal to your very thoughtful consideration, and urge acceptance of these gifts as being in the public interest.

Respectfully submitted,

SUMNER SEWALL.

(S. P. 27)

---

January 13, 1943.

To the Honorable Sumner Sewall, Governor  
and the Honorable Senate and House of Representatives of the ninety-first Legislature of the State of Maine:

Governor Sumner Sewall and many of the members of this Legislature are familiar with my plans to donate to the State an extensive area of land in the Mount Katahdin region, the same to be held in Trust by the State for certain public purposes.

During the past thirteen years from time to time the State has accepted from me a total of forty-seven thousand (47,000) acres and I now offer you the gift of an additional area of twelve thousand (12,000) acres, which if accepted will give the State fifty-nine thousand (59,000) acres, all of which is located in Piscataquis County.

In order that those of you who were not members of the ninetieth Legislature may understand why these donations are made separately over a period of years instead of being transferred under a single deed, I refer you to a communication dated January 12, 1942, addressed by me to Governor Sewall and the ninetieth Legislature and published in the Legislative Record of the Special Session of that date, page 15 Senate Record and page

33 House Record under date of January 13, 1942. By joint order of the Senate and House this communication was ordered published in the Laws of Maine and Mr. Smith Dunnack, the Revisor of Statutes, informs me it will be printed in the Laws of Maine for 1943.

It will be recalled that shortly after I made my first gift of Katahdin land to the State certain persons attempted to take this from the State and transfer it to the National Government. Those responsible for this proposed breach of Trust have since assured me that never again will they seek to break this Trust and that they are content to abide by the Trusts created by the several acts of the Maine Legislature. However, in the future other persons may make a similar attempt and this I seek to guard against.

My plan to create a long line of precedents whereby one Legislature after another accepts my gifts in Trust by laws duly passed and printed in the Laws of Maine for successive years, have been approved by several of the leading judges and lawyers of our State. Under this plan each gift becomes a sacred trust accepted by those who directly represent the people. Each Legislature to protect these Trusts in the years to come erects a barrier similar to the barrier erected by its predecessor, a barrier against a breach of Trust.

Before I finish my work at least ten Maine Legislatures and as many Maine Governors will have placed their seal of approval on my plans and thus they will have made these Trusts absolutely unbreakable. Certainly he is a bold and reckless person who, even after I have deceased, attempts to induce this State to violate the Trust provisions created under a long series of Deeds and Acts of Acceptance extending from 1931 almost until 1950.

I have acquired and now own fifty-four thousand (54,000) acres in addition to the fifty-nine thousand (59,000) acres above referred to, making a total of one hundred thirteen thousand (113,000) acres, and each year hereafter beginning with 1944 I shall continue to deed to the State of Maine certain portions of this fifty-four thousand (54,000) acres until it all has been so transferred. In case of my decease before my work is completed, whatever portion of this fifty-four thousand (54,000) acres has not been given to and accepted by the State will pass under my Will and thus become a part of what by State law is BAXTER STATE PARK.

This Park project has become my life work and before it is completed I hope to secure an additional thirty-one thousand (31,000) acres which will comprise six entire townships totaling one hundred forty-four thousand (144,000) acres. To do this requires time and patience for just at present the owners do not care to sell their lands. Even though I may not



succeed in completing this in my life time, I have made provision in my Will so that in due time my plans will be carried through as I desire.

In the Act submitted herewith I have recited the several Deeds and conveyances made by me to the State in order that the record thereof may be clear and understandable to future generations of Maine people.

~~IT NOW IS MY DESIRE~~ to make a second gift to the State of Maine and in the Deed and Act that accompanies this communication I have included MACKWORTH ISLAND, situated in the Town of Falmouth in Portland Harbor, Casco Bay, together with MACKWORTH or HALF-WAY ROCK southerly of said Island and also together with the Bridge to said Island, a right-of-way from the bridge to the State Highway, and certain Pole rights leading to said Island.

This Island means everything to me. For fifty-six (56) years I have spent the happiest days of my life there and I want the people of Maine to own and enjoy this Island in the years to come. This Island must never be exploited for private gain nor would I ever sell it for any price. My giving this Island to the State is not the result of any sudden impulse, because for twenty-nine (29) years there has been a provision in my Will that upon my decease it becomes the property of the people of Maine. In order, however, to make doubly sure that my wishes are carried out I now offer Mackworth Island as a gift to the State to be held forever in Trust by the State for State public purposes. A man does well to attend to these matters while living, rather than to leave them for others to do after he has gone.

Mackworth Island in many ways is unique. It was first settled by Arthur Mackworth, an Englishman, in 1631. This man lived there many years and became the leading citizen of the Casco Bay area. He often went to Boston to represent his fellow colonists in matters that came before the King's authorities in the Massachusetts Colonial government. According to ancient deeds the Island is "one hundred acres more or less" in extent. It lies at the mouth of the Presumpscot River on the westerly border of the Town of Falmouth and within less than one-half a mile from the easterly line of the City of Portland. For unknown centuries this Island was the home of the Indian and many unusual relics have been unearthed there. In the Museum here at the State Capitol is a collection of arrow heads and implements taken over a period of years from the Indian camp sites on the Island. Some time ago I donated this collection to the State and Mr. Joseph Wilson, curator in charge of the Museum, has made of it a most interesting display.

About one-quarter of the Island is well wooded with pine and spruce, one-quarter is pasture-land and the remainder is excellent land for such

crops as usually are found in southwestern Maine. I, myself, have planted in excess of 50,000 pine and spruce on this Island. There also is an orchard of about seventy-five fruit trees, apples, pears, cherries, plums and peaches. There are extensive clam flats on the northerly side and a good depth of water for boating on the southerly and easterly shores. Moreover the Island has several beaches suitable for bathing. The Island also has ample water supply from its own springs but these are not now in use because two large pipe lines bringing water from Sebago Lake cross the Island and carry water to the outlying Islands of Casco Bay now being fortified by the U. S. Army and Navy. These water lines are tapped on the Island for use there, and telephone and electric services also come to the Island over the bridge that connects it with the mainland. The buildings on the Island consist of a complete set of farm buildings, house, barn and other structures together with three residences, one brick and two wooden, all in good repair. This Island with the surrounding waters by State law is a wild life sanctuary and I have provided that it always shall so remain. A small colony of pheasants and one of partridges live there and occasionally one or two deer swim across the channel from the mainland and remain for a few days.

The uses to which this Island can be put by the State are numerous. In the deed I offer you it is provided that the Island always shall be used for State public purposes only. It is well adapted for recreational and educational purposes, for a hospital, for a home for sick or under-privileged children, for forestry, park or agricultural experimental purposes, or for any of the numerous activities of the State which require a large area in the country conveniently located near the advantages of a City. Its use for children would be especially pleasing to me. Certainly I ask that it never be used for penal or corrective institutions nor for any purpose connected with the enforcement of the laws of the State relating to criminals. The deed includes the bridge and right-of-way connecting it with State Highway No. 1, also certain pole rights and a rocky islet south of the Island.

As this Island is my home I wish to live there for some time to come and so have provided in the Deed of Gift and Act of Acceptance that the State may lease this to me for a period of fifteen (15) years with the right on my part to renew the same for a similar term. During the period of the lease, as Lessee I shall assume all expenses in connection with my occupation of the Island, including insurance and repairs on the buildings and bridge. It further is provided that in case at any time I no longer shall desire to occupy the Island I may terminate the lease. In such case and also upon my decease the lease terminates and the State then takes immediate possession.

It long has been my intention, subject to the vicissitudes of business, to



establish a fund to be donated to the State, the same to be held in Trust by the State and to be used in the discretion of the Governor and Council for some State public purpose in connection with the State's ownership of this Island. In order now that a beginning be made in this direction I hereby offer to the State of Maine the sum of ten thousand (\$10,000) dollars and in the accompanying Act it is provided that this sum, together with such gifts as later may be added to it by me, be accepted by said State as a Trust Fund as therein stated.

In offering you the gift of my Island I ask you to look beyond the present and into the future. Some may raise objections to its acceptance and may say "What will the State do with it". I am confident such a short-sighted view will not prevail.

As I look into the years ahead, I see great social changes coming. There is no stopping them, nor would I do so. Our State is destined to expand its activities far beyond what it now is doing. It will assume added responsibilities for the care of children, the sick, the crippled, the needy. New institutions will be established, new methods adopted for the care of the unfortunate and defective. The State is bound to play a far more important part than ever in the regulation and conduct of our lives and methods of living. Whether some persons approve or not, all of us will be profoundly affected. The good things of life are destined to be more widely distributed and we should prepare for the changes that are sure to come. My gifts though perhaps not now fully appreciated will, in the future, be regarded as valuable contributions to the public welfare. In this connection it is significant to recall certain incidents of the past.

Almost sixty years ago my late father James Phinney Baxter donated a public library building to the City of Portland. He was a pioneer in public giving. It is hard to believe, but certain persons of influence objected to the acceptance of the gift by the City. They openly opposed it. "What shall we do with it; it may cost the City something to maintain it" was the cry. Never for a moment, however, did my father regret having made the gift. He brushed aside this opposition and completed his task.

Again my father laid the plans for the construction of the Baxter Boulevard in Portland with which you all are familiar. Again those without vision opposed him and said "What shall we do with it". He drove ahead, however, and lived to see the project so far advanced that no one dared stop it. Today the Boulevard is the City's chief natural attraction.

In my own life I have had a similar experience. Twenty-six years ago when I first conceived the idea of a State Park at Katahdin there was determined opposition. I was attacked as a dreamer and branded as a socialist. Several of our newspapers came out against me, "We don't want a Park, leave things as they are; what shall we do with it", again was

heard. Session after session I fought on and made speech after speech up and down the State. It was a long road to travel, but to-day the State Park is acknowledged to be one of the State's great natural attractions and the people of the future will appreciate it even more than do those of to-day.

In accepting the gifts I now offer there is no reason for anxiety as to what the State will do with the Island. In the ordinary course of events my life may continue for a number of years, and during the period of my occupancy of the Island under the lease, all expenses are assumed by me. Meanwhile I hope to increase the Trust Fund which is established under the Act and which is a part of the Gift.

As an example of what increases may mean, I remind you that my first gift of Katahdin land thirteen years ago was an area of but 6,000 acres. To-day, a total of 113,000 acres have been acquired by me for this project, with more to come.

I have a vision of what this Island is to be in the future. It will be a haven for those, young and old, who need refreshment in body and in spirit. From it will radiate kind and wholesome influences that will go far toward making Maine a better State in which to work and live.

In this communication I have gone into some detail so that all may understand my purpose. I desire to do something worth while for my native State and want the People of Maine to enjoy both the Park at Katahdin and my Island in Casco Bay. I ask you men and women who for the time being guard our destinies, to take the broad, long vision and accept that which I now offer to my fellow citizens.

Respectfully,

PERCIVAL PROCTOR BAXTER.

Order

ORDERED, the House concurring, that in order that the records of the gift by Percival Proctor Baxter to the State of Maine as Trustee in Trust of approximately twelve thousand (12,000) acres in township five (5) range nine (9) W. E. L. S. Piscataquis County (Baxter State Park), and the gift of Mackworth Island together with the ten thousand (\$10,000) dollars Trust Fund given for said Island, be complete and in enduring form, the communication dated January 13, 1943, addressed by the said Baxter to the Honorable Sumner Sewall and the Honorable Senate and House of Representatives of the Ninety-first Legislature, together with the message of Governor Sumner Sewall transmitting the said communication to this Legislature, be printed in the laws of Maine for 1943. (S. P. 30)

Came from the Senate, read and passed.

In the House, read and passed in concurrence.



**Maine Department of Conservation  
Bureau of Parks and Lands ("BP&L")  
Director's Land Classification  
Mackworth Island**

Whereas, Title 12 § 1804-2, authorizes the Director of BP&L to classify lands as either Parks, Historic Sites, Public Reserved or Public Non-Reserved Lands; and

Whereas, under Title 12 § 1801,7,B, a "Park" can be "Any area not exceeding 1,000 acres that is with or without distinctive characteristics but contains natural features that afford ample opportunity for development and use for active recreation"; and

Whereas, public recreational use of Mackworth Island has increase significantly over time requiring additional facilities, management and stewardship; and

Whereas, the 100 acres of Mackworth Island under the Bureau's jurisdiction is now classified as Non-Reserved Public Lands, is managed primarily to provide public recreation opportunities, and there are no other actively managed Public Reserved Lands or Non Reserved Public Lands in the general vicinity of the Island; and

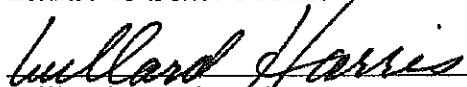
Whereas, the Parks staff of BP&L are actively managing other nearby Parks and Mackworth Island has exceptional walking, aesthetic and other recreational opportunities at a location adjacent to the city of Portland; and

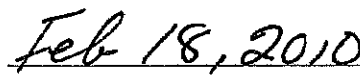
Whereas, Parks staff can provide an increased level of stewardship and the current and future recreational use of the island can be better provided for as a Park; and

Whereas, increasing stewardship, management and facilities on the Island will require additional staff time and funding, which can be better provided by the Parks system;

Now therefore,

By signing below, the Director of the Maine Bureau of Parks and Lands hereby converts the land classification of Mackworth Island from Non-Reserved Public Lands to State Parks.

  
\_\_\_\_\_  
Willard Harris, Director  
Maine Department of Conservation  
Bureau of Parks and Lands

  
\_\_\_\_\_  
Date

### TRANSFER AGREEMENT

This agreement is entered into by and between the Bureau of Public Lands ("Public Lands"), Department of Conservation and the Governor Baxter School for the Deaf, Department of Education ("GBSD"). Pursuant and subject to the provisions of MRSA Title 12, Chapter 202 §552-E, GBSD hereby transfers to Public Lands responsibility for the management of the natural resources of Mackworth Island, Town of Falmouth, County of Cumberland State of Maine, said island being one hundred (100) acres more or less in extent as described in deed from Percival Proctor Baxter to the State of Maine dated January 13, 1943 and recorded in Cumberland County Registry of Deeds at Book 1706, Page 54, subject to the following terms and conditions:

*As illustrated  
#5 in ml  
Plan*

1. The natural resources of Mackworth Island shall be managed by the Bureau of Public Lands in a manner that is in accordance with the terms of Governor Baxter's January 13, 1943 Deed of Conveyance. For the purposes of this agreement the natural resources of Mackworth Island to be managed by the Bureau of Public Lands are those areas identified as tidal shoreline, embankment, beach, and public open space zones, including forested areas, on the aerial map of Mackworth Island attached hereto and made a part hereof as Exhibit A.
2. The Bureau of Public Lands shall adhere to the resource management recommendations presented in the document entitled Mackworth Island Management Plan (pg. 35 and 36) within the financial constraints of the Public Lands Management Fund.
3. The Bureau of Public Lands shall work closely with the administration of the Governor Baxter School for the Deaf in exercising management of the natural resources of Mackworth Island. GBSD and Public Lands shall cooperate with each other and provide to each other upon request such

Post-It Fax Note	7671	Date	2/16	# of pages	3
To	Tom Perrin	From	Swanthiny		
Co./Dept.	BPEL	Co.			
Phone #	287-3061	Phone #	778-4111		
Fax #	287-8111	Fax #			



information, inventory data and other materials useful for natural resource management as may be in the possession or subject to the control of either agency.

- 4. The term of this agreement shall commence upon its approval by the Commissioners of Education and Conservation and by the Governor and shall continue until terminated by agreement of all parties hereto.

Dated at Augusta this 29th day of June, 1992

Department of Education

By: Polly B. Ward Date: 6/18/92  
Polly B. Ward, Acting Commissioner

Department of Conservation

By: C. Edwin Meadows, Jr. Date: 6/27/92  
C. Edwin Meadows, Commissioner

Governor of Maine

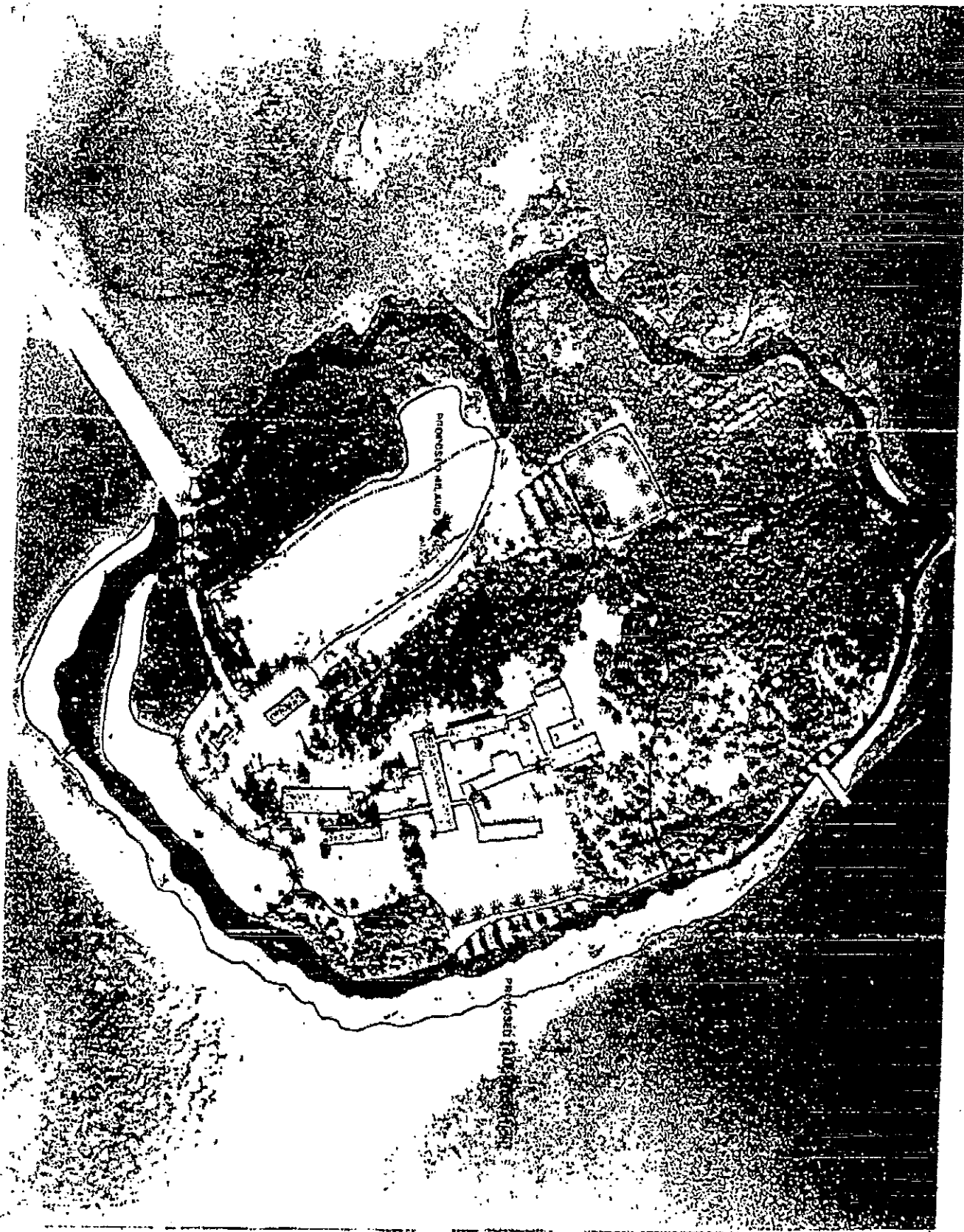
By: John R. McKernan Date: 6/26/92  
John R. McKernan, Governor

Governor Baxter School for the Deaf

By: Kathleen M. Fries Date: April 30, 1992  
Kathleen M. Fries, Superintendent

Bureau of Public Lands

By: Thomas A. Morrison Date: April 23, 1992  
Thomas A. Morrison, Director



Scale  
1 inch = 1 mile  
1 centimeter = 1 kilometer

City of [illegible]  
[illegible]