Mackworth Island

Conceptual Utilization Master Plan

Final Report

January 27, 2023

Harriman

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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 Flanagin	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.

MACKWORTH ISLAND SIGN

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.

CAUSEWAY: VIEW TO FALMOUTH

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.

STONE PIER

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.

GOVERNOR BAXTER SCHOOL FOR THE DEAF

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

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

GYM INTERIOR: BUILDING J

BREWSTER HALL: BUILDING H

SCHOOL PLAYGROUND BEHIND BUILDING I

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.

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.

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.

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.

MANSION: BUILDING A

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 long 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).

CAMPUS ACCESS DRIVES

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.

TRAIL AT CAMPUS EDGE

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.

DRAPER HALL: BUILDING J

PATHWAY VIEW TO STONE PIER

SCHOOL APPROACH SEQUENCE

MAIN SCHOOL ENTRY

STAFF WORK AREA: BUILDING D

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.

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.

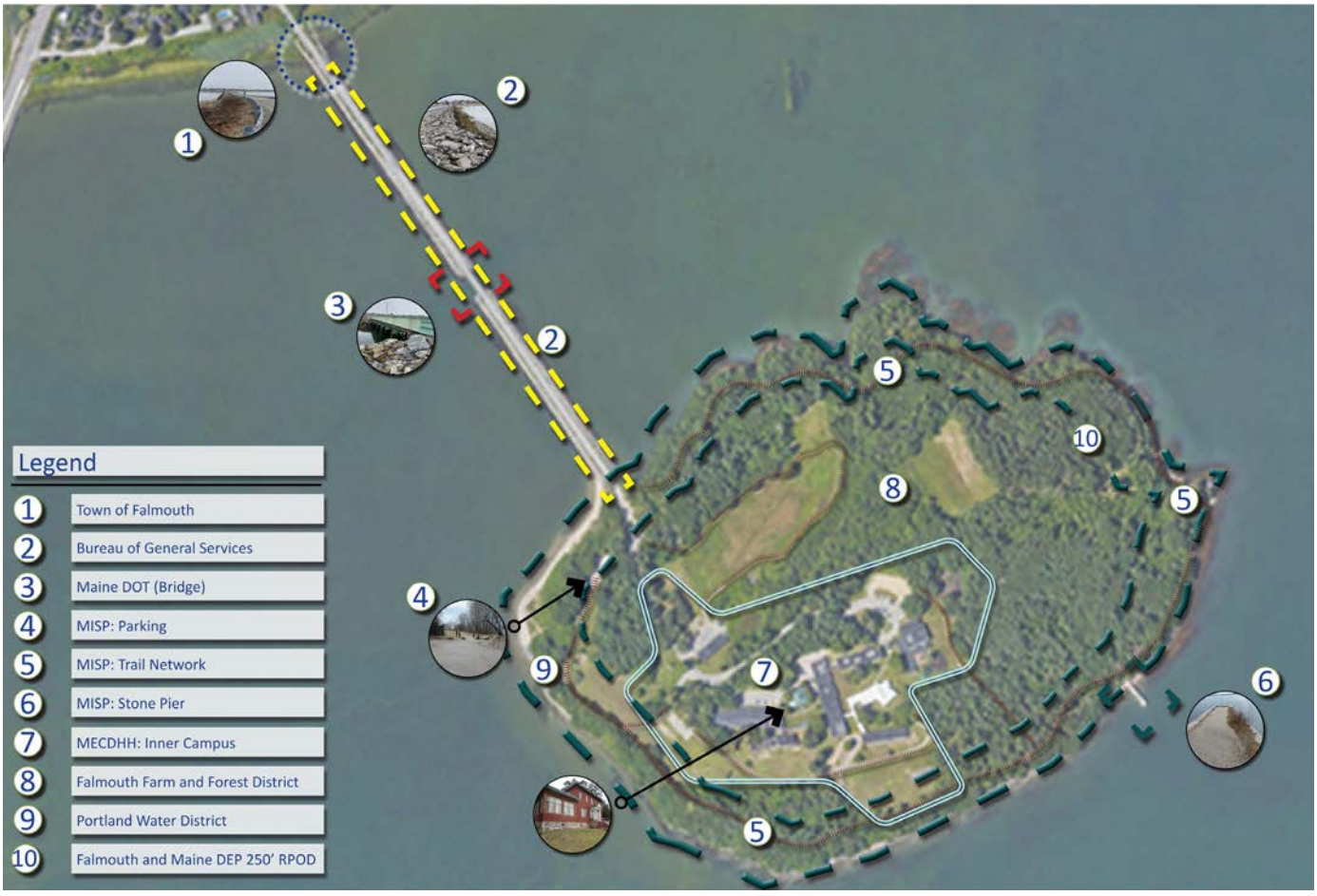
Maine Department of Transportation (Maine DOT) is responsible for the causeway bridge (not the causeway itself).

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.



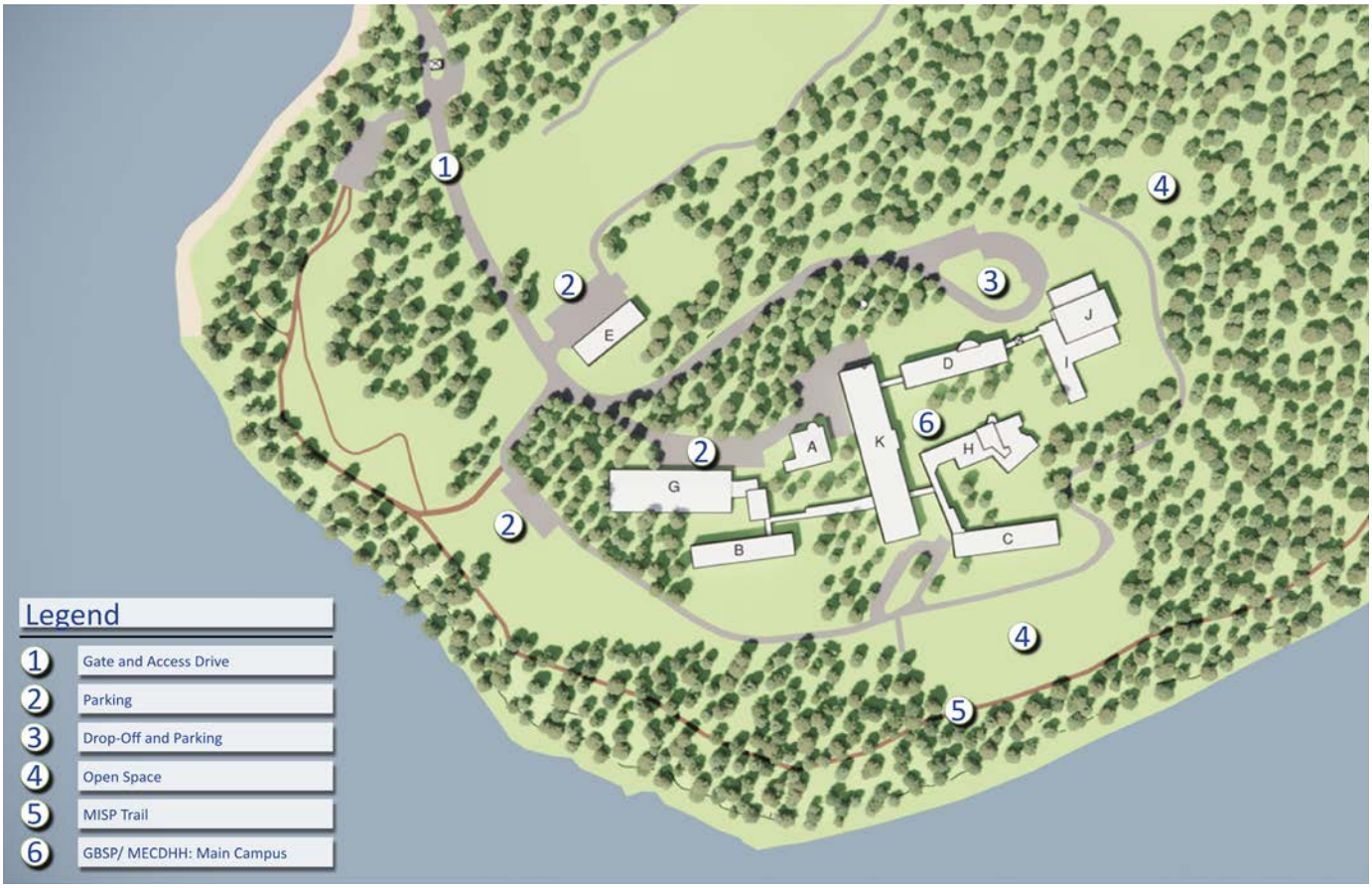
CONTEXT MAP: AREAS OF JURISDICTION

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

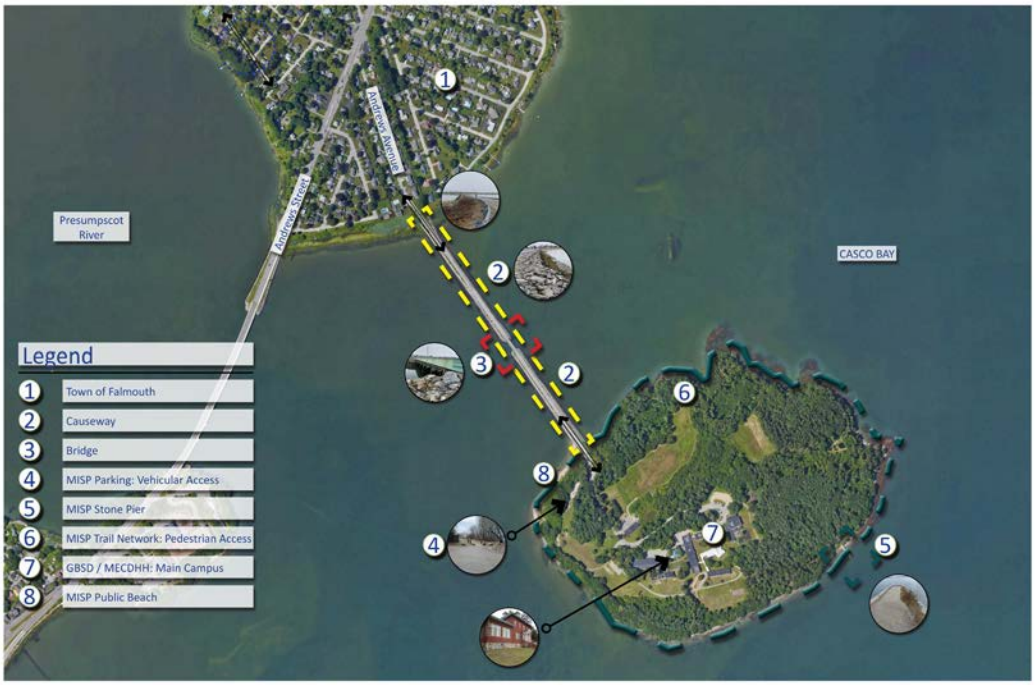
LANDMARK: WATER TOWER AND GRINDSTONE

SITE RECOMMENDATIONS

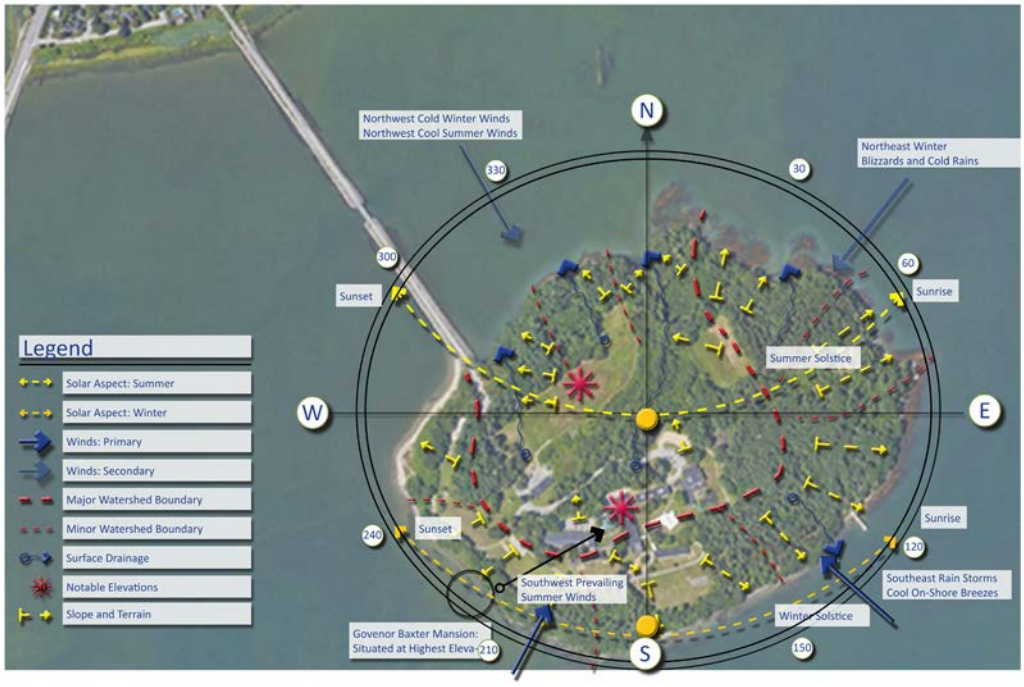
- Improve entry to campus by developing a clear gateway within sight of the State Park gatehouse and parking areas.
- Rework campus access drives and parking areas to improve navigation, create a hierarchy of approach to various campus areas, and consolidate parking to specific lots.
- Clarify campus 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.

LANDMARK: PET CEMETERY

- 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

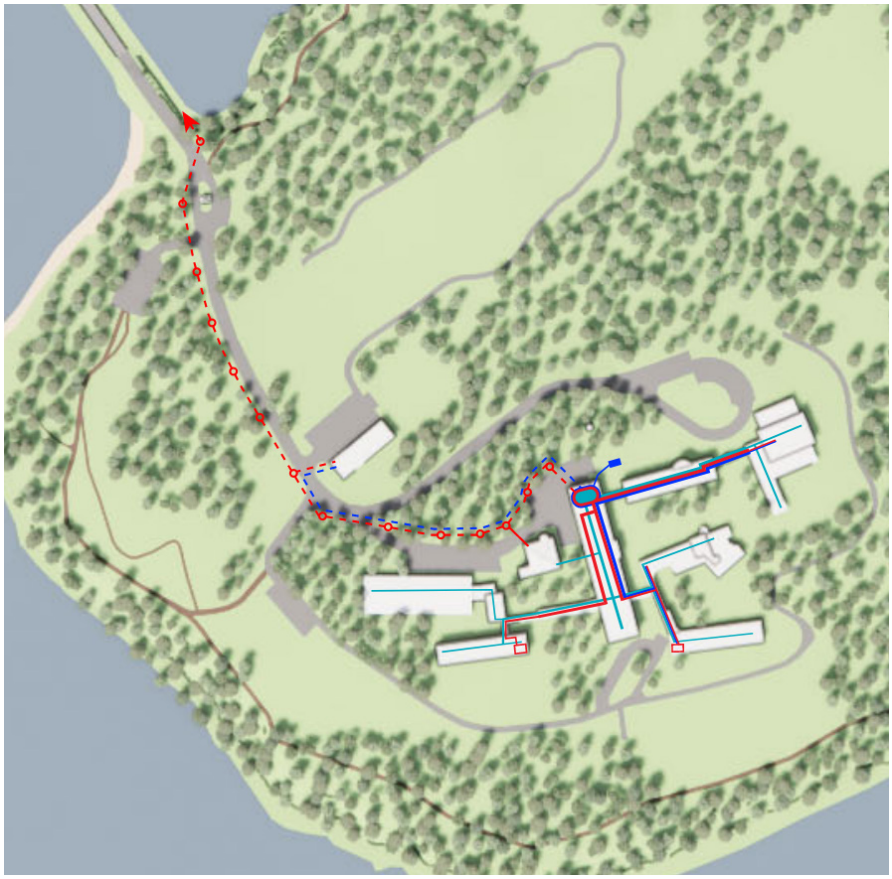


SITE INVENTORY CLIMATE AND RESOURCES

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

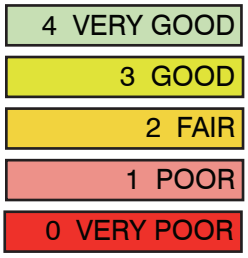
BUILDING CONDITION ASSESSMENTS

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.

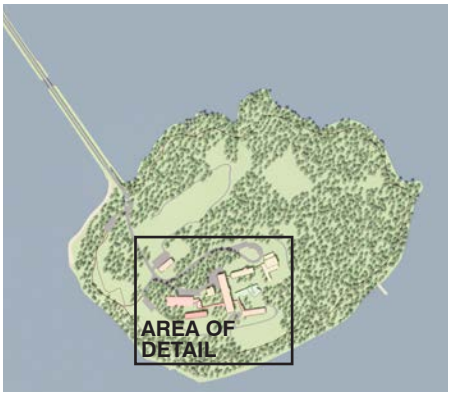
Facility condition varies greatly from building to building. Some buildings are in a state of extensive decline and should be considered for removal and others are in very good working order. Images and assessment summary charts below reflect overall condition: green is very good, yellow is good, orange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

GREENLAW HALL: BUILDING D

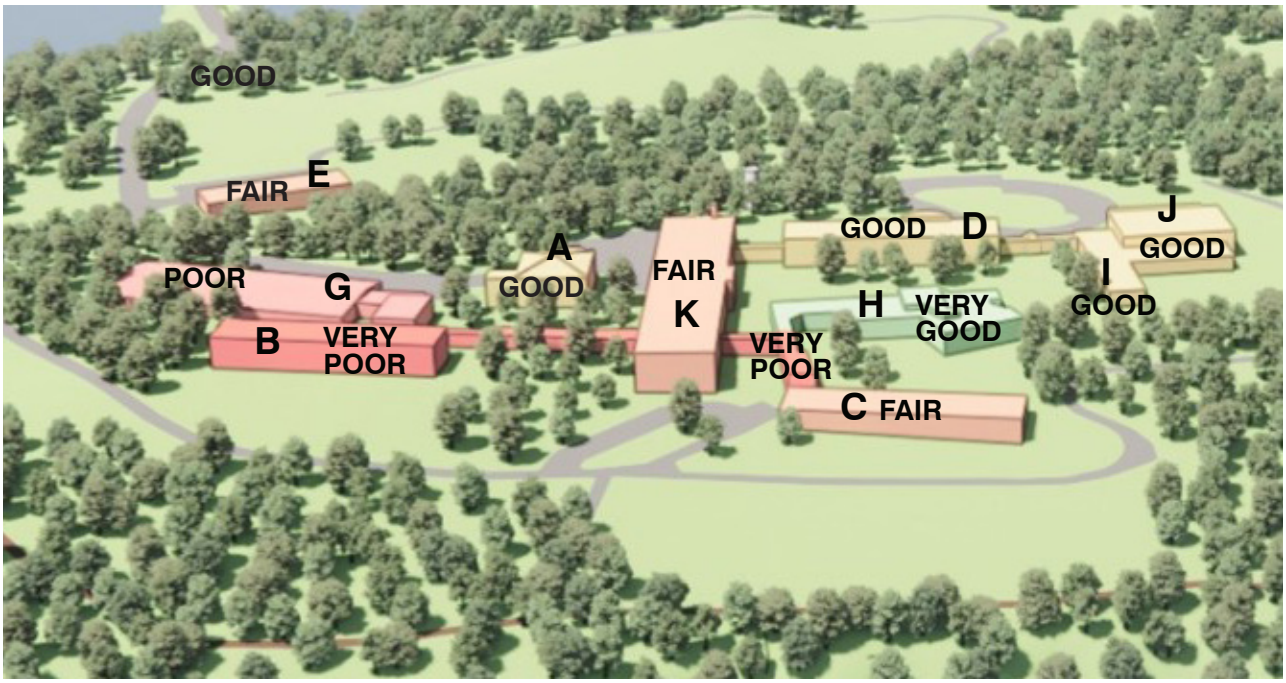
DRAPER: BUILDING J



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

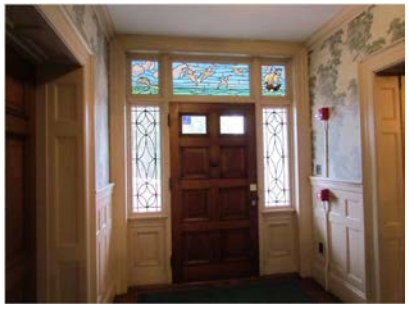
SANDERS: MAIN LOBBY

YOUNG: TOILET ROOM

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: FRONT DOOR

MANSION: EXTERIOR

MANSION: EXTERIOR

MANSION STAIRCASE

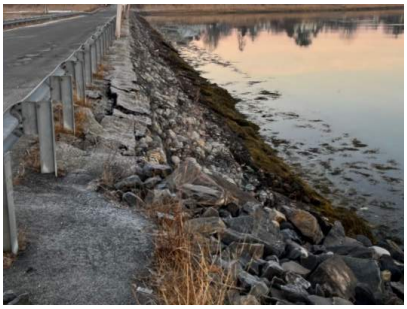
CAUSEWAY

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.



EMBANKMENT DETAIL

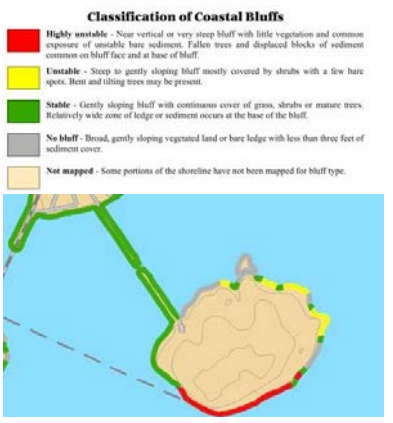
The causeway, a stone armored filled construction, has immediate, short-term and long-term improvement needs. It is low and overtopped by wave action during significant storm events. It is reported that the low portions of the causeway are overtopped by seawater more than once per year. Each overtopping 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.

BRIDGE

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).

STONE PIER

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



COASTAL BLUFFS CONDITION

BLUFF EROSION AND LEDGE ARMOR

STATE PARK LOT

GATEHOUSE AND STATE PARK STAFF LOT

PARKING BEHIND K AND C BUILDINGS

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.

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.

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

- 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

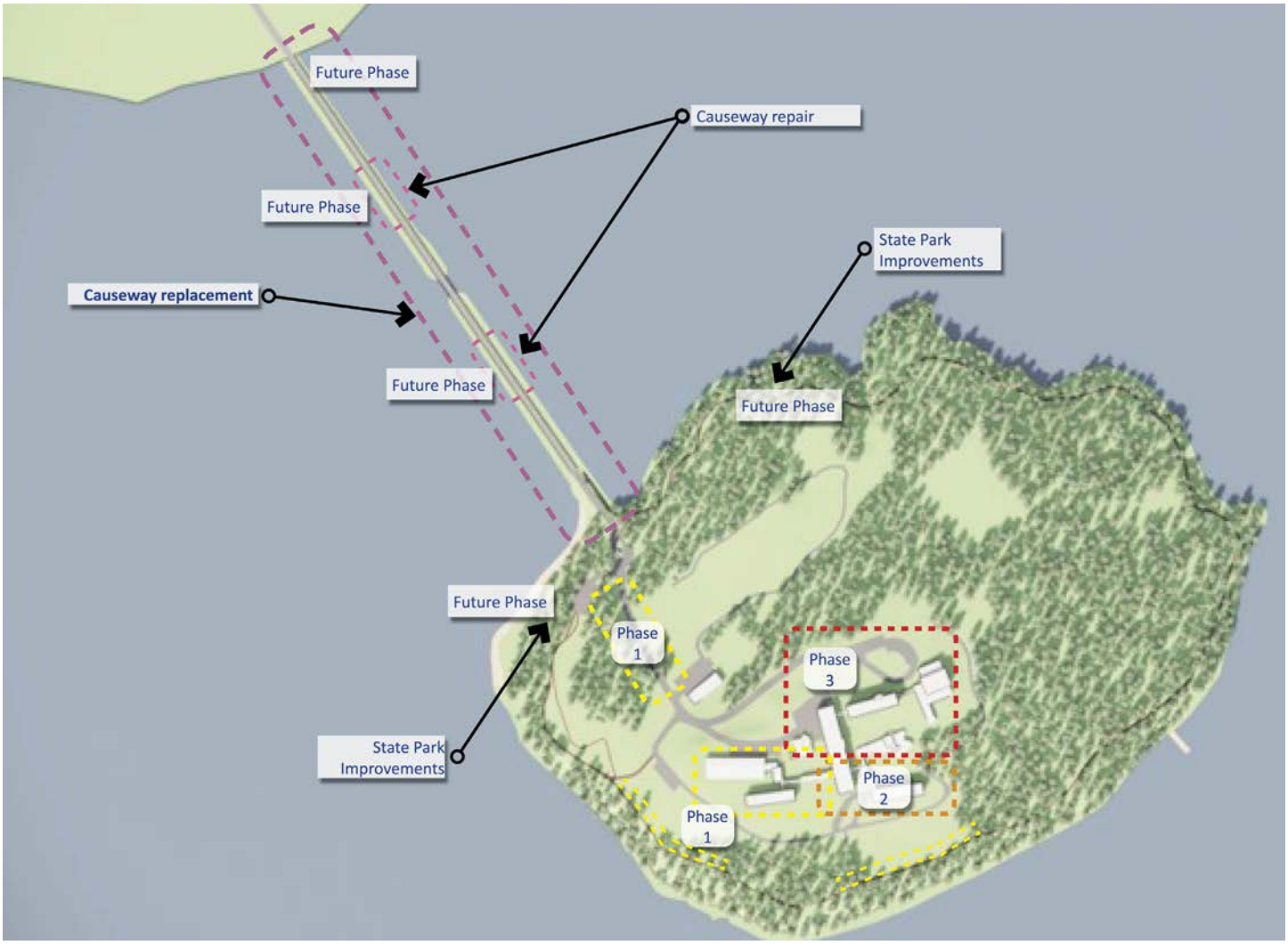
MASTER PLANNING

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 MECDHH/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
CONSTRUCTION TOTAL: BY CATEGORY		43,718	$ 3,080,396	$ 520,000	12% cost escalation included for a April 2024 construction start. Costs assume load limit cost increases for building demolition. Soft costs not included.
ADD 30% FOR TOTAL PROJECT COST			$ 4,004,515	$ 676,000	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)
PROJECT TOTAL: PHASE 1		$		4,680,515	

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 trial 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
CONSTRUCTION TOTAL: BY CATEGORY		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.
ADD 30% FOR TOTAL PROJECT COST			$ 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)
PROJECT TOTAL: PHASE 2		$		3,057,460	

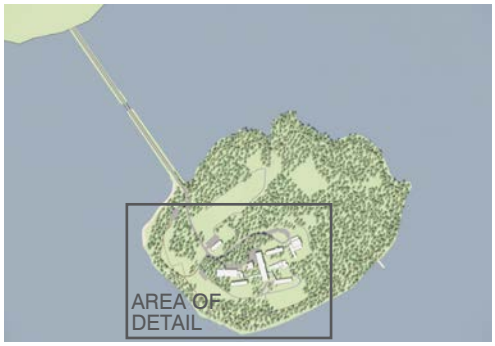
PHASE 2 ENERGY SAVINGS

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.
CONSTRUCTION TOTAL: BY CATEGORY		15,000	$ 13,288,800	$ 2,262,000	40% cost escalation included for a April 2028 construction start. Costs assume load limit cost increases for building demolition. Soft costs not included.
ADD 30% FOR TOTAL PROJECT COST			$ 17,275,440	$ 2,940,600	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)
PROJECT TOTAL: PHASE 3		$		20,216,040	

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							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	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							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	1	1	2	0	1.5	3	n/a	1	1	1	0	0	1	1	1	1	1	22.5	1.25

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
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							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	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							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	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							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	n/a	n/a	3	3	2.5	2.5	3	3	3	3	44.0	2.75

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	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/Gluelams	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							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	n/a	4	4	4	2	2					3	2	1.5	3	n/a	n/a	3	n/a	31.5	2.86

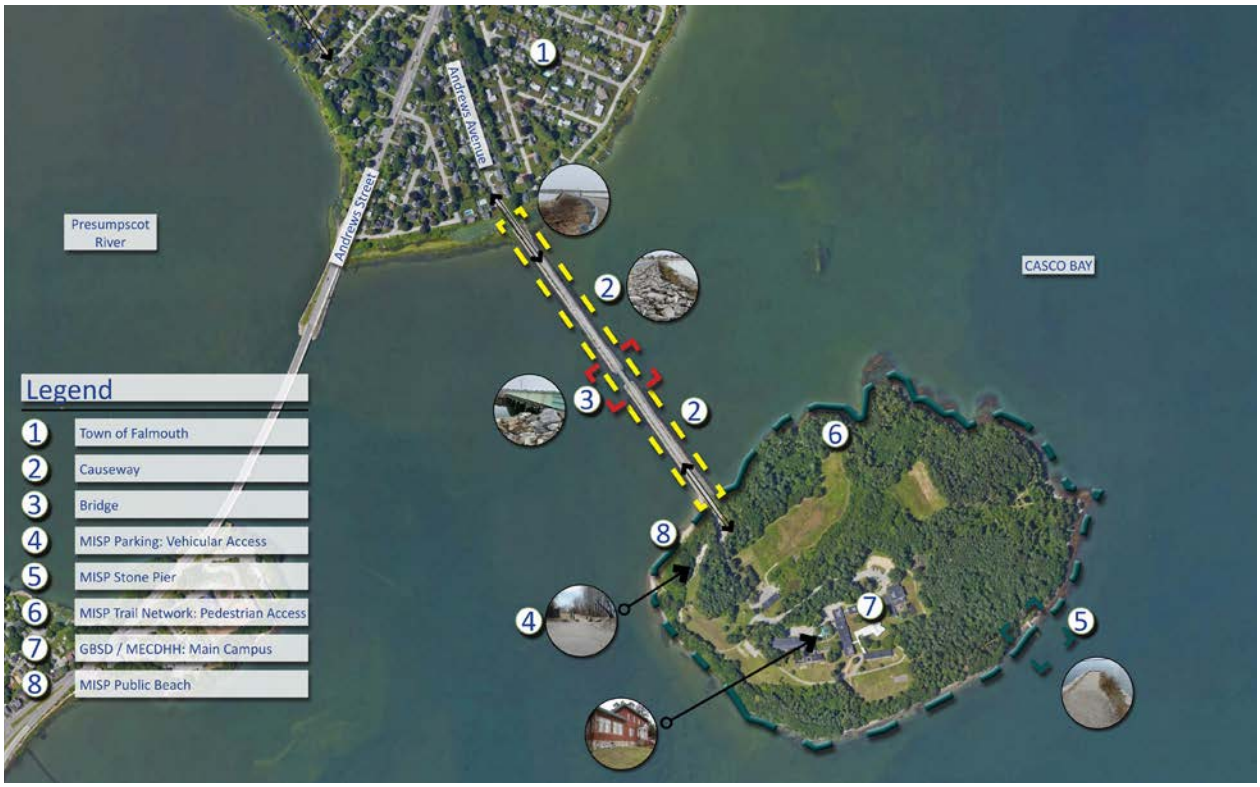
Electrical			Lighting		Mechanical				Plumbing						Structure				38 Total Review Categories	
Service Entrance	Panel / Distribution	Emergency Power	Lighting	Lighting Controls	Boiler	Fuel	HVAC	Specialty Areas	Toilet Rooms	Kitchen	Domestic Water	Sprinkler Riser	Sprinkler Distribution	Showers	Wood Trusses	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:

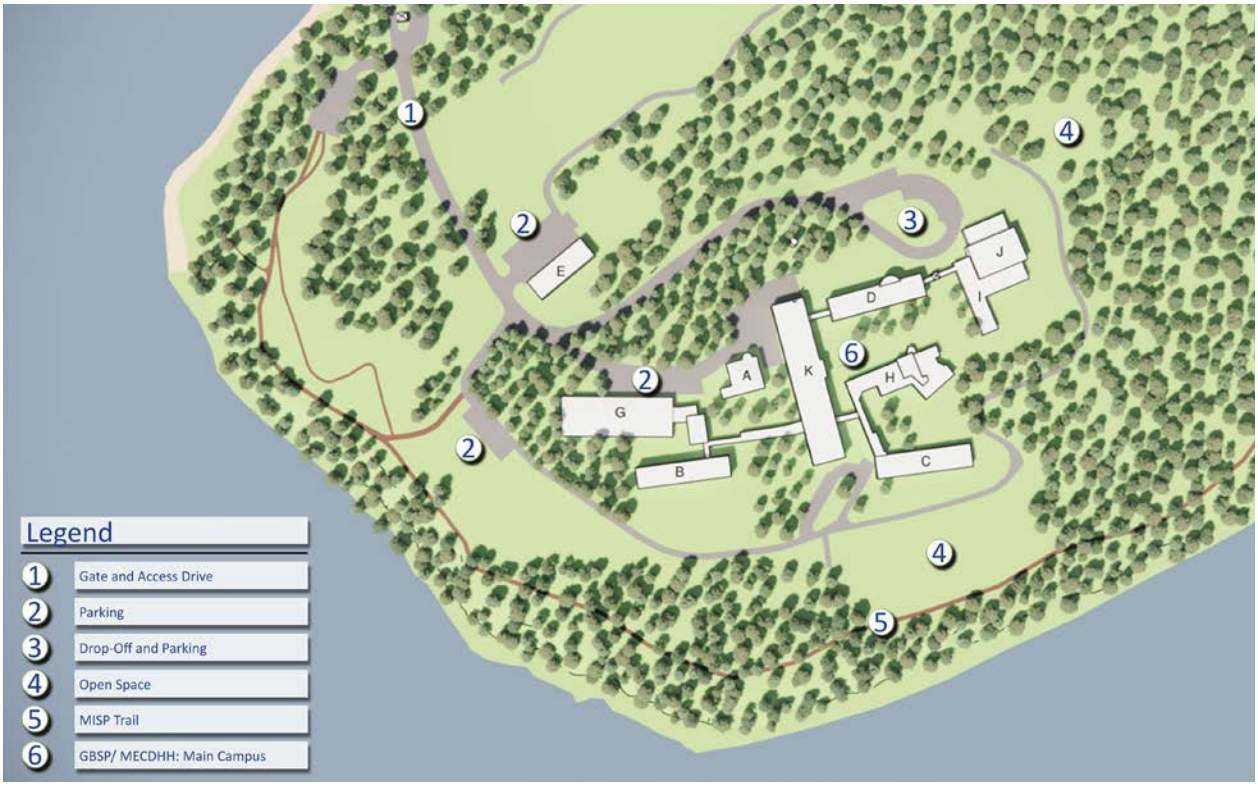
- Natural features including open space, topography, drainage and climate
- Sensitive natural habitats
- Access and Circulation – drives, procession and sense of arrival, paths and trails
- Parking, service areas and signage
- Views – from the island and to GBSD
- Landmarks
- Interface between GBSD and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



EXISTING CONDITION SITE CONTEXT PLAN

SITE CONTEXT

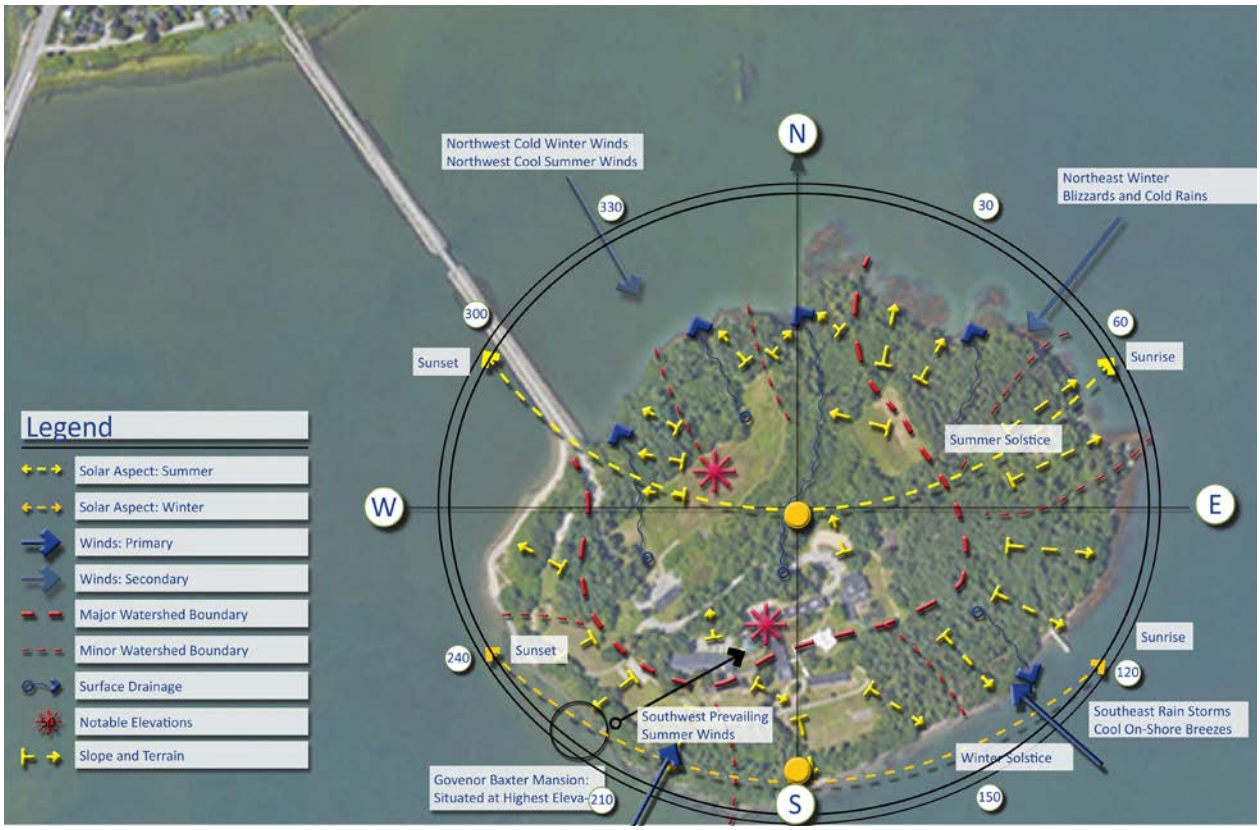
Mackworth Island is located in Casco Bay just north of Portland in Falmouth, Cumberland County, Maine. The 100-acre island is predominantly undeveloped. GBSD/ MECDHH occupies about 15-acres near the center of the island while Mackworth Island State Park (MISP) encompasses the remainder of the island. 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

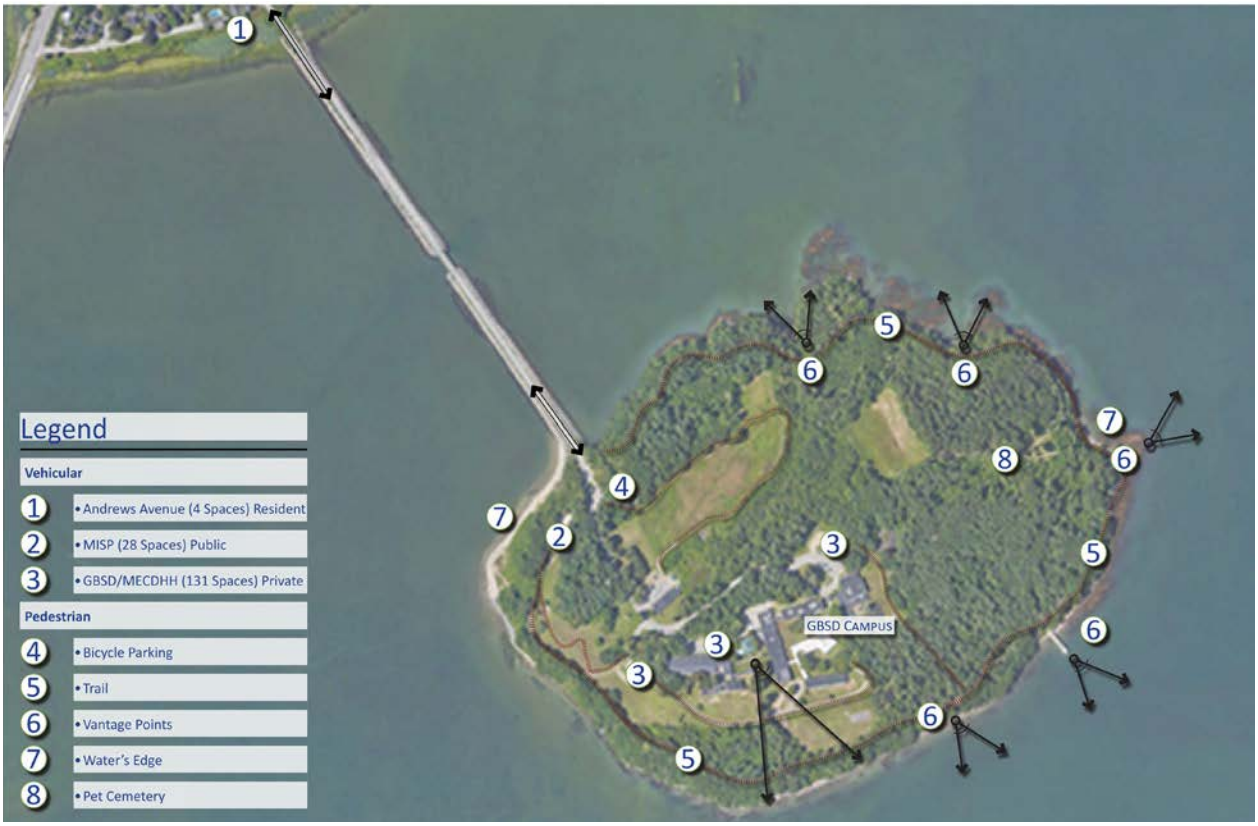
Mackworth Island is surround by the ocean waters of Casco Bay to the south, east and north and the Presumpscot River to the west which temper and affect the micro-climate of the island. The summer temperatures are moderated by cooling, on-shore breezes. The island is exposed to winter “nor’easters” or 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.

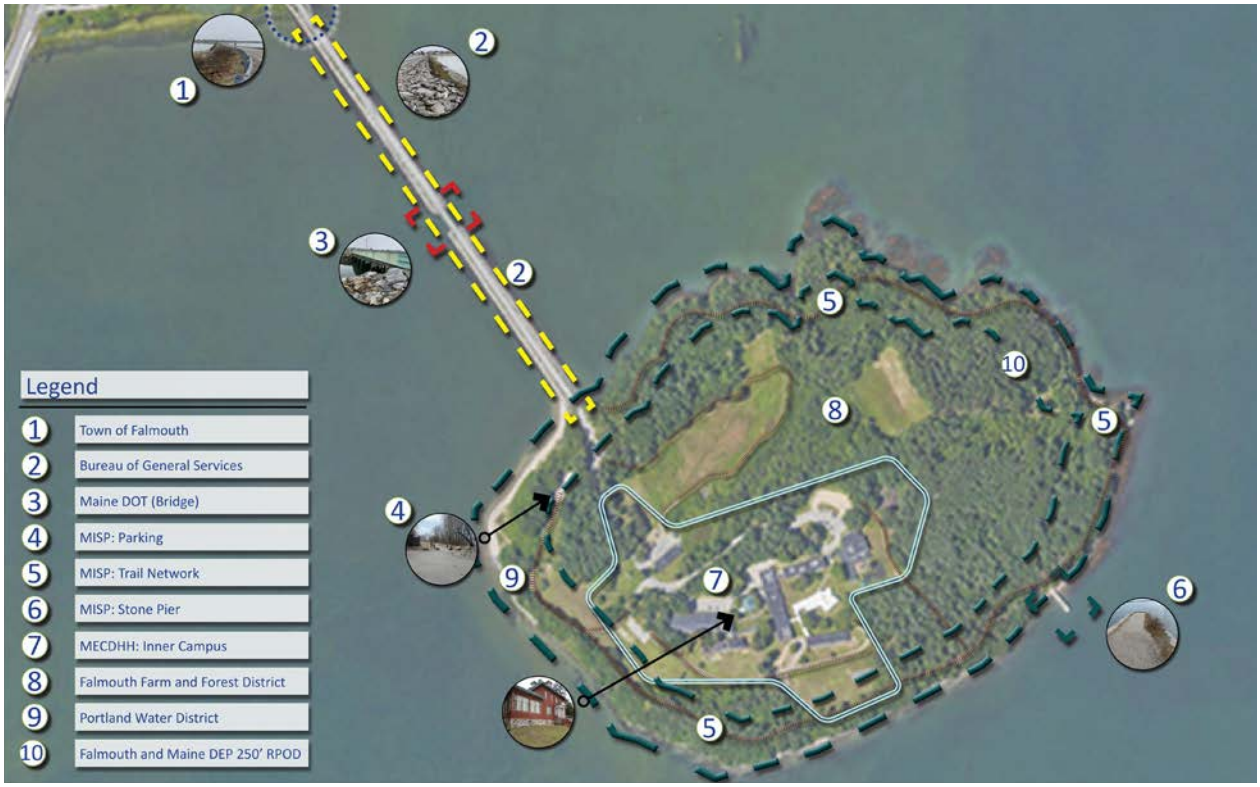
VIEWS

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/ MECDHH 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/ MECDHH.



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/ MECDHH 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.

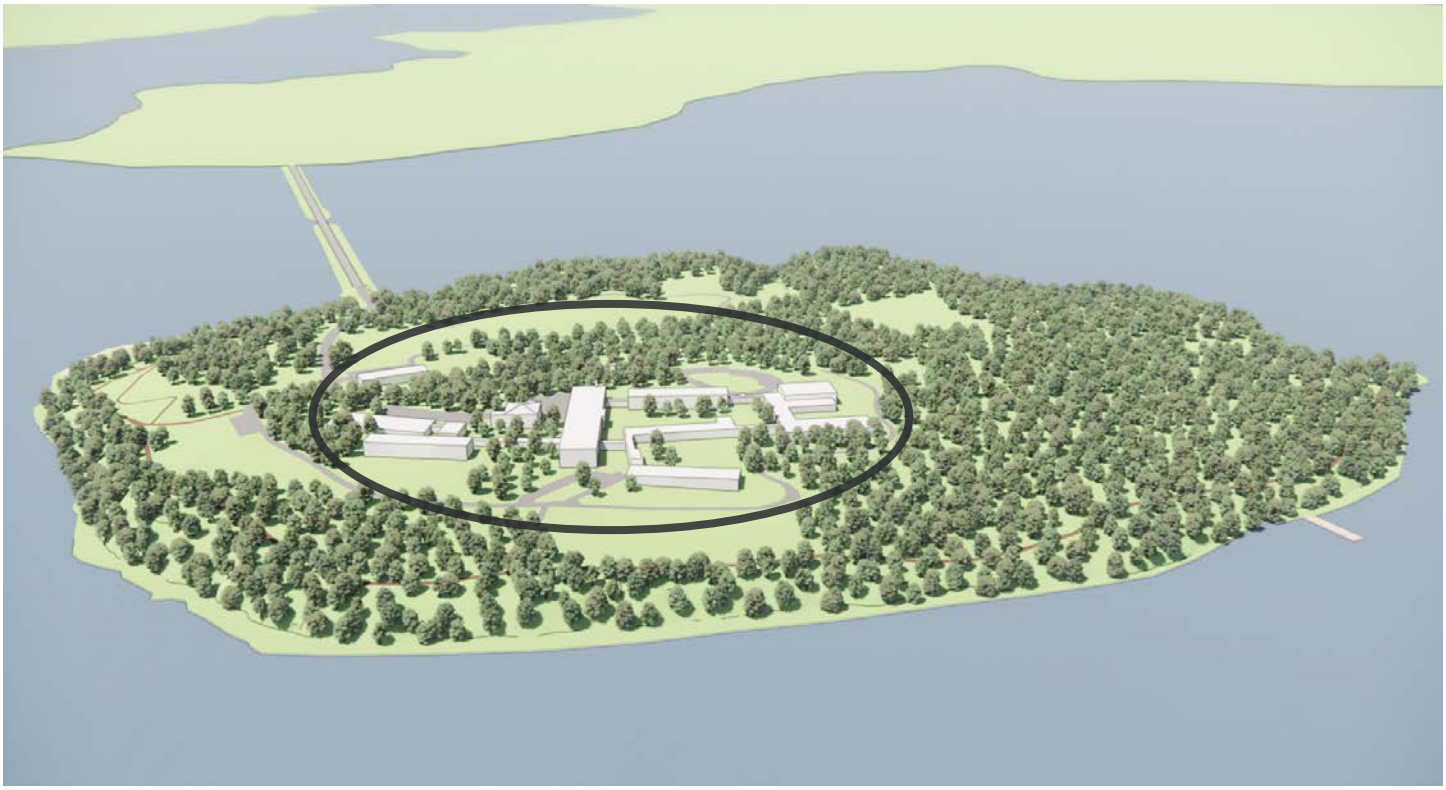
State of Maine: Maine DEP for land and shoreland related uses including environmental permitting; Maine Dept of Inland Fisheries and Wildlife; Maine DOT for the bridge spanning the causeway; The Department of Agriculture, Conservation and Forestry for the operation of the state park and overall island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

HISTORIC CHARACTER ASSESSMENT

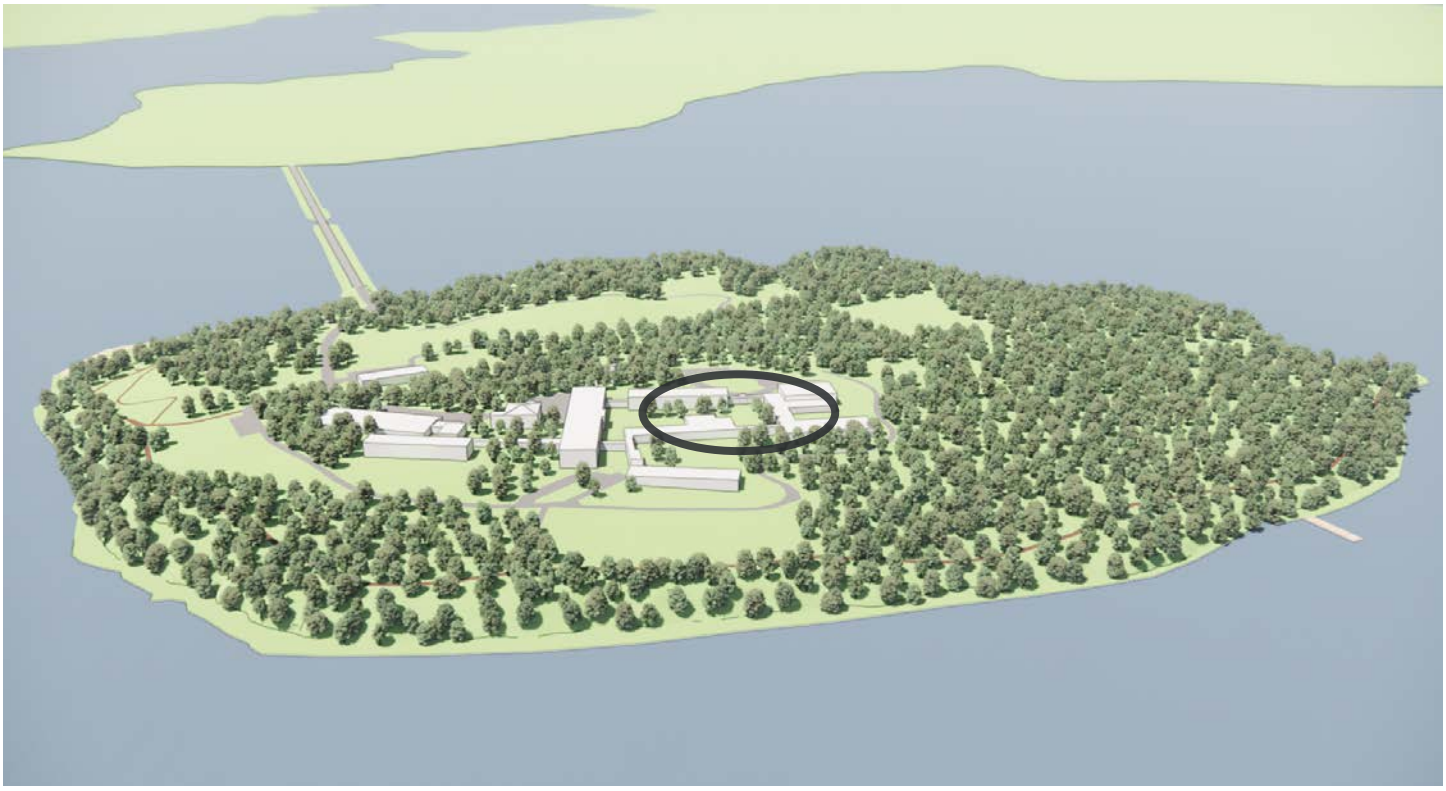
The complete Historic Assessment Report is located in Appendix A2 of this report.

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

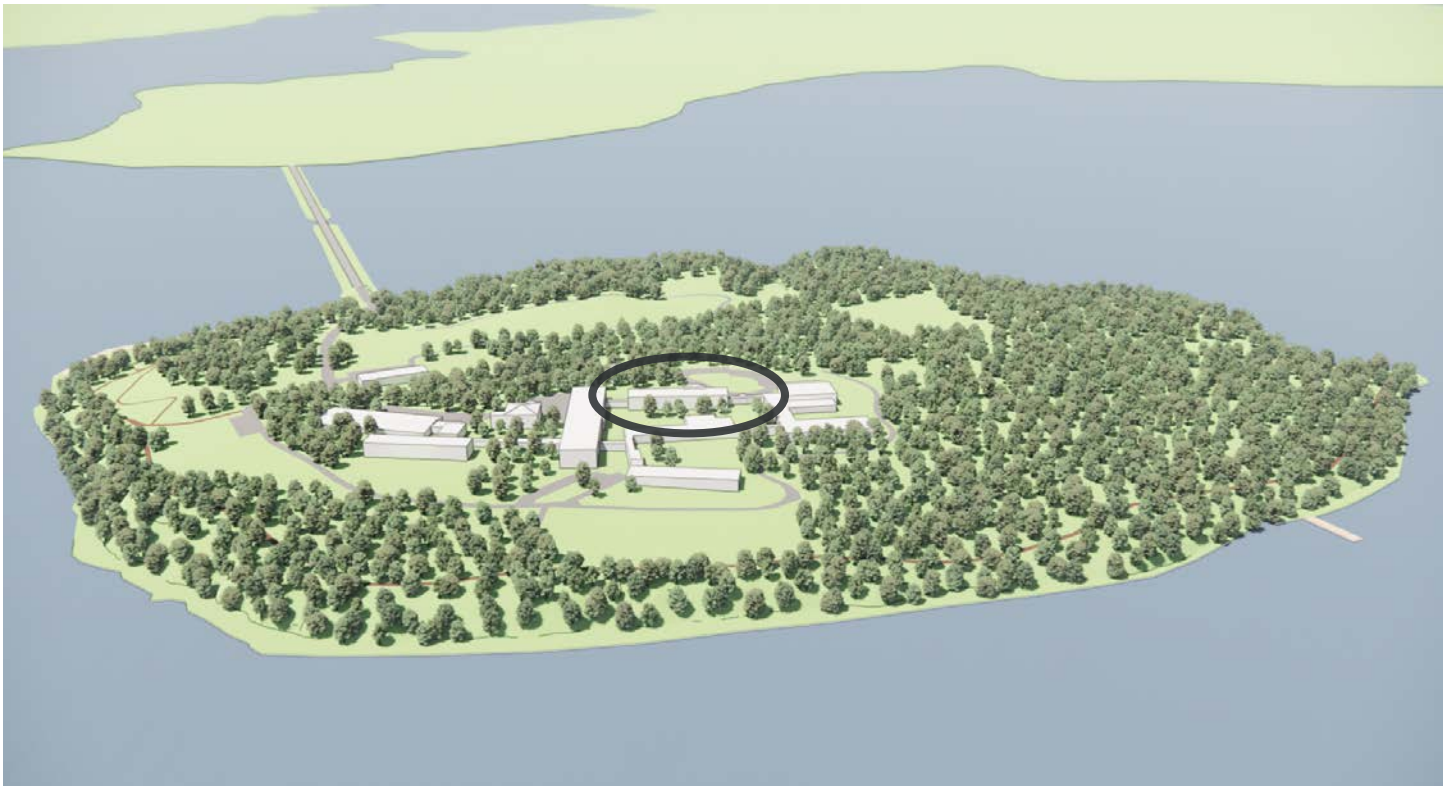


MAIN CAMPUS DEVELOPMENT, 1957-1959

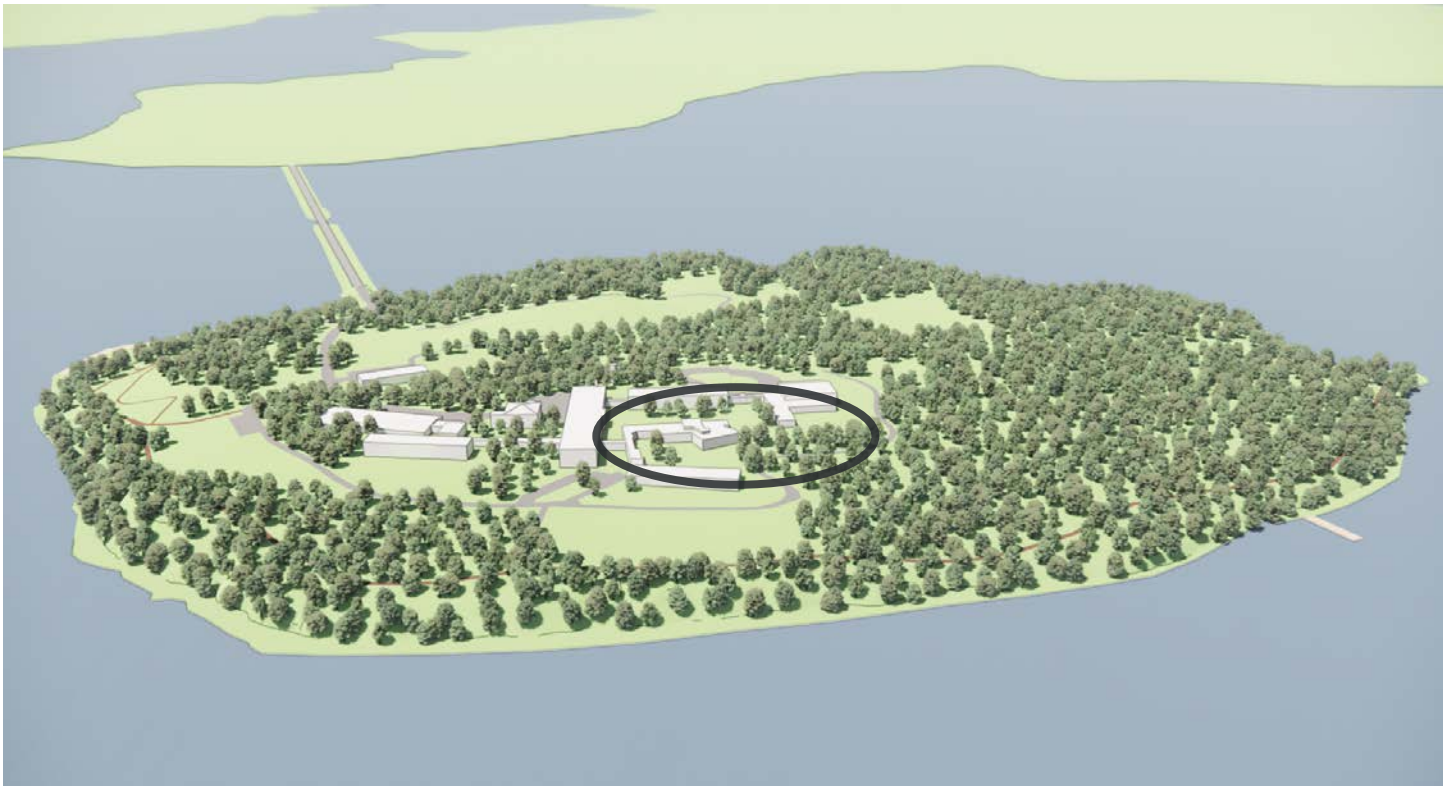


ADDITIONAL CAMPUS DEVELOPMENT, 1973

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

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%

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.

Traffic & Parking Assessment | Observations Summary - June 5

Parking Data

Site Visit and traffic/parking observations 6/5/2022

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

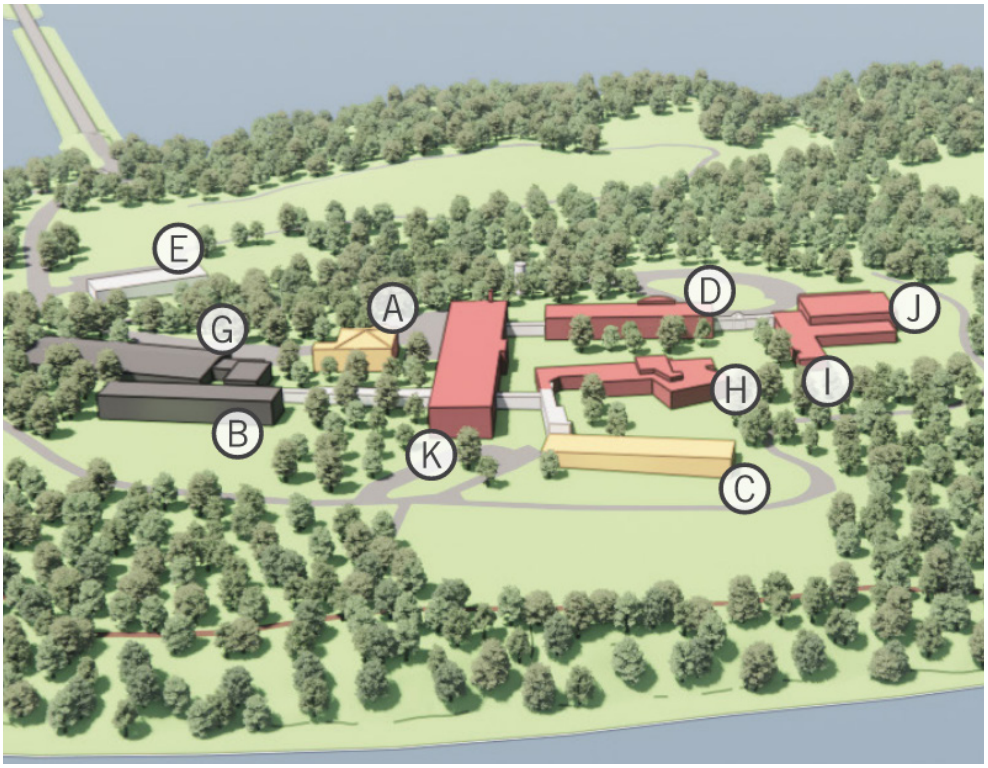
SPACE PROGRAM

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



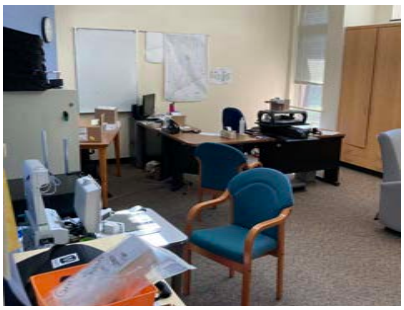
BUILDING KEY

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

LEGEND

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

MECDHH SPACE PROGRAM


CLASSROOM USED AS OFFICE


CONFERENCE ROOM


AUDIOLOGY ROOM


CLASSROOM USED AS OFFICE

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. Resdential 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.

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)
Administration					
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
Sub-Total					**2,500**
Pre-Kindergarten Program					
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
ADD SPACE: Specialist Workspace	4	@	120	=	480
Sub-Total					**7,240**

Subject	# of Rooms	@	Room Area (sf)	=	Area (sf)
Statewide Education and Family Services					
Public Outreach Itinerant Staff	1	@	500	=	500
ADD SPACE: 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
Sub-Total					**5,860**
Other/Additional Multipurpose Spaces					
Gymnasium	1	@	4,000	=	4,000
Stage	1	@	1,000	=	1,000
Dining Room	1	@		=	0
Kitchen	1	@		=	500
Sub-Total					**5,500**

TOTAL PROGRAM AND SUPPORT SPACE AREA	**21,100**
Gross Mark-up @ 1.5	**10,550**
TOTAL GROSS AREA	**31,650**

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

4

MASTER PLAN

PLANNING RECOMMENDATIONS

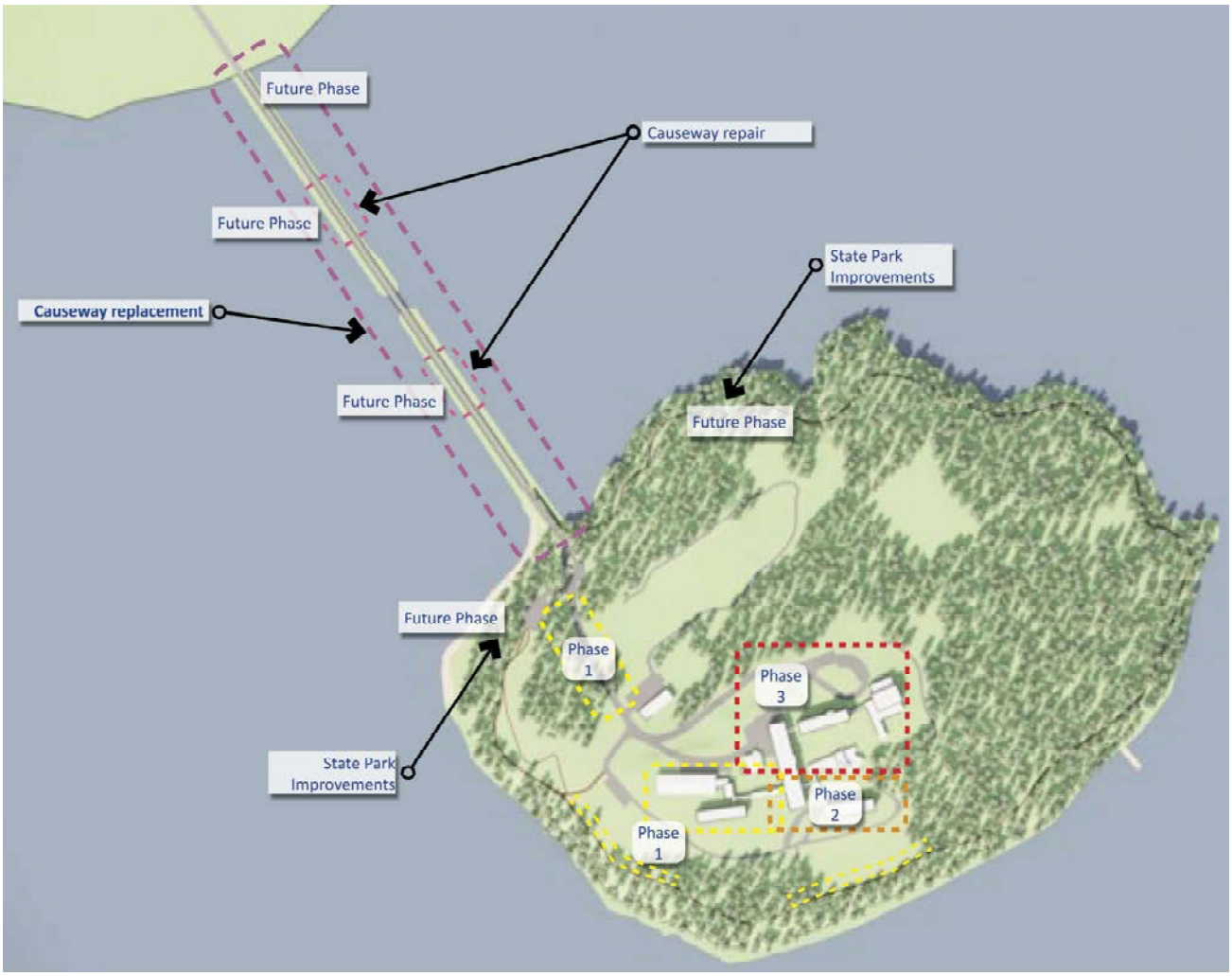
INTRODUCTION

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

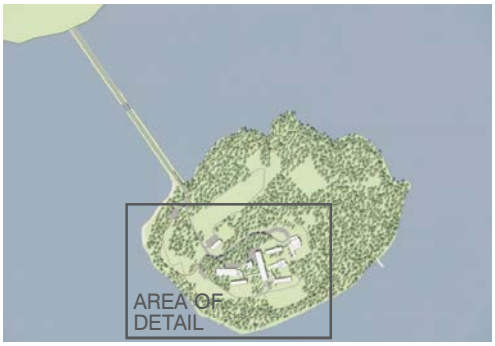


MASTER PLAN PHASES MAP

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

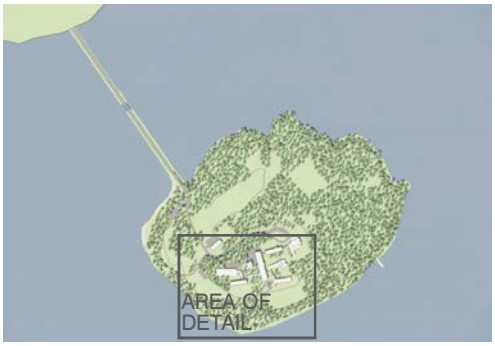
PHASE 1 COST MODELING

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 allowa
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
CONSTRUCTION TOTAL: BY CATEGORY		43,718	$ 3,080,396	$ 520,000	12% cost escalation included for a April 2024 construction start. Costs assume load limit cost increases for building demolition. S costs not included.
ADD 30% FOR TOTAL PROJECT COST			$ 4,004,515	$ 676,000	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)
PROJECT TOTAL: PHASE 1		$		4,680,515	

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 trial edges

PHASE 2: REMOVALS AND DEVELOPMENT PLAN

NOT TO SCALE

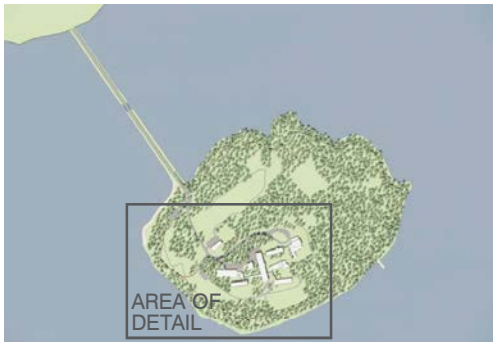
PHASE 2 COST MODELING

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
CONSTRUCTION TOTAL: BY CATEGORY		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.
ADD 30% FOR TOTAL PROJECT COST			$ 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)
PROJECT TOTAL: PHASE 2		$		3,057,460	

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.
CONSTRUCTION TOTAL: BY CATEGORY		15,000	$ 13,288,800	$ 2,262,000	40% cost escalation included for a April 2028 construction start. Costs assume load limit cost increases for building demolition. Soft costs not included.
ADD 30% FOR TOTAL PROJECT COST			$ 17,275,440	$ 2,940,600	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)
PROJECT TOTAL: PHASE 3		$		20,216,040	

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.