

Castle Island Restroom Improvements Feasibility Study

Wednesday, November 9, 2022
6:00 p.m.
Virtual Meeting



Commonwealth of Massachusetts

Governor

Charles D. Baker

Lieutenant Governor

Karyn E. Polito

Energy and Environmental Secretary

Bethany A. Card

Department of Conservation and Recreation Commissioner

Douglas J. Rice



DCR Mission

*To protect, promote and enhance our
commonwealth of natural, cultural and
recreational resources for the well-being of all.*

Meeting Format:

- Our speakers will present the site analysis, asking attendees to remain muted.
- Two ways to ask questions during the Q&A period:
 - Use the chat feature, or
 - Raise your hand using Zoom function, wait for permission.
- This public meeting will be recorded, and posted after the meeting
- You can submit comments and questions through November 23rd at <https://www.mass.gov/forms/dcr-public-comments>

Agenda

- Goals and Current Conditions
- Potential Sites for Restrooms
- Factors in Site Selection
- Selected Sites
- Architectural Character
- Questions and Comments



Project Introduction and Goals

In April 2022, the DCR engaged HKT Architects to conduct a survey, site analysis and propose sites and a strategy to improve restroom facilities on Castle Island.

Goals:

- Improve restroom amenities
- Increase restroom capacity
- Locate where needed by visitors
- Match demand to seasonal fluctuations
- Plan for climate impacts
- Respect historic history and context
- Build net-zero structures

Visitors and Seasonal Use

Castle Island welcomes thousands of visitors a year.

A comprehensive video visitor count in July 2022 recorded 1,000 visitors on the island at one time during peak hours.

Winter season experiences the lowest visitor numbers, with many visiting only Sullivan's Restaurant.

Usage peaks May through Labor Day and is lowest in Winter when Sullivan's is closed. Use varies with day of week and weather.



Current Restroom Facilities

The maximum number of fixtures currently available during the summer at Castle Island is 19.

There is one permanent seasonal restroom - open Spring thru Fall with 13 toilets.

Portable toilets are in use year-round and are the only option in Winter -4 portables are typically available.

Locations are not clear to all visitors and not close to the many of the most frequently visited areas.

The existing restroom building is in poor condition, outdated and undersized.



Selected Sites for Analysis



Seven areas were evaluated:

1. Behind Sullivan's Restaurant
2. Across from the small beach
3. The existing restroom location
4. Across from existing restrooms
5. Across from the larger beach
6. The Signal Corps building
7. Behind the playground

Site Selection Factors

- **Public Need** Locate near popular areas and seasonal use
- **Topography** Impact on accessibility and flood risk
- **Landscape** Protect mature trees where possible
- **Climate change** Consider projections for flood risk
- **Archeological** Avoid sensitive areas on this historic site
- **Historic Context** Concern for views and sight-lines
- **Utilities** Proximity to existing utility service

Popular Attractions:



The popular east side of the Island was selected by DCR for this study

- Fort Independence, with tours conducted summer weekends
- Sullivan's Restaurant and plaza
- The playground
- Small and large beaches
- Several picnic areas
- Harry McDonough Sailing Center, which operates in July & August

Site Circulation



- Although some visitors spend their time in one place, many visit to walk, jog or exercise their dogs.
- There are two main loop paths which attract most visitors, one circles the island, as shown in Blue.
- Smaller, secondary paths surround and lead to the Fort.
- Emergency access is along the service road next to Sullivan's and must be maintained.

Views and Sight Lines



- Castle Island has areas with heavy tree cover, and others offering unobstructed views of Boston, the harbor and Fort Independence.
- The ocean is visible from most locations on Castle Island.
- The site is exposed to higher winds than other parts of the city.
- Grass lawns around and to the east of the fort are particularly exposed.
- The areas near western beaches have dense tree cover.

Topography



- Castle Island has significant changes in elevation.
- The highest area, in our area of analysis, is over 15' above sea level.
- Higher locations are more protected from flooding and storm surges.
- Steep paths are inaccessible for some visitors.
- Potential bathroom sites will need Universally Accessible paths leading to all entrances.

Resiliency with Changing Climate



- It is expected that sea level will rise significantly in the coming years.
- Increased sea levels and higher tides will impact the areas in Blue.
- A 2015 study by Woods Hole Oceanographic Institute projects a 21" increase in sea-level by 2050, and 36" increase by 2070.
- It is possible to build in flood prone areas. Higher design standards must be met to construct buildings less impacted by flooding.

Archaeological & Historic Sensitivity



- Castle Island has occupied an important place in the traditional tribal homeland of the Massachusett people for many generations.
- The first military fortifications were built around 1632 and were modified and expanded through the Second World War.
- DCR's mission requires it to be respectful of the historic context and history, both the visible and invisible under our feet, preserving sites for the future.
- Archaeological investigations may be required for excavations within sensitive areas.

Existing Utilities



- Easy access to existing utilities is advantageous. Water, electricity and sewer are required.
- Most of the utilities follow pedestrian walkways and end at the existing restroom.
- New utilities involve digging large trenches and risk disturbing archeologically sensitive areas and established trees.
- Increase in flood risk means utilities must be protected or elevated as much as possible.

Site Scoring Metrics

The Factors evaluated are as follows:

1. Functionality to the public and DCR staff
2. Resilient to climate change
3. Archeological concerns
4. Appearance, visibility and historical impact
5. Natural Resource impacts
6. Landscape preservation and tree protection
7. Visitor & site disruption during construction

Best site locations: Permanent Structures



Site analysis revealed the best two locations for permanent restrooms:

A. Behind Sullivan's Restaurant

Well positioned for a year-round restroom. Utilities present, accessible to all, less disturbance to archeology, historic context and trees.

B. Existing Restroom

A seasonal restroom here is elevated slightly from floods, central to many attractions, has existing utility service and is less likely to disrupt archaeological areas and trees.

Permanent Restrooms- Matrix

	Site #1	Site #2	Site #3	Site #4	Site #5	Site #6	Site #7
	<i>Behind Sullivan's</i>	<i>Across from small beach</i>	<i>Existing bathrooms</i>	<i>Across from existing site</i>	<i>In front of Signal Corps</i>	<i>Signal Corps Building</i>	<i>Behind Playground</i>
Resiliency		✓	✓				
Wetlands	✓	✓	✓	✓	✓	✓	✓
Archaeology		✓	✓			✓	
Historical	✓						✓
Landscape	✓		✓			✓	
Functionality	✓		✓	✓	✓		
Construction							
Total Score:	✓✓✓✓	✓✓✓	✓✓✓✓✓	✓✓	✓✓	✓✓✓	✓✓

Best site locations: Portable Toilets



Analysis of the site determined that the best locations for portable toilets are:

A. Behind the playground

This location is close to popular picnic areas, the Fort entry and playground. It is hidden from views from the fort by nearby trees.

B. Across from the existing restroom

This site is close to picnic areas, the large beach and playground and McDonough Sail Center.

Portable Restrooms- Matrix

	Site #2	Site #3	Site #4	Site #5	Site #7
	<i>Across from small beach</i>	<i>Site of existing bathrooms</i>	<i>Across from existing site</i>	<i>In front of Signal Corps</i>	<i>Behind Playground</i>
Resiliency	✓				
Wetlands	✓	✓	✓	✓	✓
Archaeology	✓	✓	✓	✓	✓
Historical					✓
Landscape		✓		✓	✓
Functionality		✓	✓		
Construction					
Total Score	✓✓✓	✓✓✓✓	✓✓✓	✓✓✓	✓✓✓✓

Public Park Structures



Portable Toilet Enclosures





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Questions? Comments?

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Next Steps

- **Consultant begins schematic design of restrooms at preferred locations.**
- **Public Meeting- Winter 2023- Present Schematic Designs.**
- **Design Development**
- **Final Design & Construction Phasing**



Thank you

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