

# Chelsea, MA

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## FERRY DOCK RESEARCH AND RECOMMENDATIONS



COMPREHENSIVE BOSTON HARBOR  
WATER TRANSPORTATION STUDY  
MARCH 2019



## Table of Contents

PROJECT SCOPE	2
MARY O'MALLEY STATE PARK	4
CHELSEA MARKET AREA	6
EVALUATION	8

## Project Scope

The Comprehensive Boston Harbor Water Transportation Study was launched in July 2017 with the goal of developing business plans for sustainable new routes for ferry service in Boston Harbor and the surrounding area that could be implemented within the next five years. The initial phase of the planning study considered potential sites as far north as Gloucester and as far south as Provincetown. As a result of a series of water transportation stakeholder workshops, thirty sites were identified as candidates for new routes. Each of these was analyzed by the consultant team with research on the physical conditions of the dock site as well as the potential to attract sufficient ridership. The results of this work were presented at a water transportation open house in November 2017, where additional information about the sites was collected from public officials and residents. Data on potential rider preferences had also been collected from a regional stated preference survey conducted in August and September 2017.

A subset of fifteen docks were selected for additional analysis and ridership modelling. Ultimately six of those docks were selected for two new routes. Business plans were developed for those two routes: an Inner Harbor Connector linking Charlestown, downtown Boston, the Seaport, and East Boston as well as a Quincy route that connects Squantum Point with downtown Boston and Columbia Point in Dorchester.

In Chelsea, the Admiral's Hill ferry landing in Mary O'Malley was one of the thirty sites initially selected for analysis. Presented here are the findings from the research conducted between August and November of 2017. The site profile contains the following information with sources footnoted:

- Site Analysis
- Transportation Access
- Recent and Planned Developments
- Demographics, including Population and Employment Characteristics
- Journey-to-Work
- Time Travel and Cost Comparisons
- Evaluation

For most of the sites, detailed travel time comparisons between a potential ferry service and existing transportation options are included.

By compiling this multi-faceted information for each of the thirty sites, the study evaluated all sites by the same basic criteria, which served to guide the selection of sites for more detailed modeling phases and for the development of new routes. This site was not selected for analysis beyond the initial phase due to the existing dock conditions and its distance from the densest parts of the community. However, the site does have potential for future service and this report is designed to serve as a jumping-off point for planning future ferry services.

Listed below are the thirty sites for which dock profiles were completed. Sites with an asterisk (\*) had regularly scheduled ferry service within Boston Harbor or to Boston in the summer of 2018 or at present. Sites with a caret (^) have a pier that has been used for ferry docking, though some of these are subject to tides.

#### Sites Recommended for Study by Workshop Participants

Municipality	Proposed Dock Locations
Gloucester	
Beverly	
Salem	Salem Ferry Terminal*
Lynn	Blossom Street Pier^
Winthrop	Winthrop Ferry Dock*
<b>Chelsea</b>	<b>Mary O'Malley Park</b>
Everett	Encore Boston Harbor
Boston	
- East Boston	Logan Airport Ferry Terminal* Lewis Mall Liberty Plaza
- Charlestown	Sullivan Square/Schraffts Navy Yard (Yard's End) Navy Yard/Pier 4* Navy Yard Pier 1^
- North Station	Lovejoy Wharf (North Station)*
- Downtown	Long Wharf North + South* Central Wharf* Rowes Wharf*
- Fort Point	Atlantic Wharf (South Station) Federal Courthouse/ Moakley^
- Seaport	Fan Pier (ICA)* World Trade Center West* World Trade Center East^ Dry Dock #4
- Dorchester	EDIC/Marine Industrial Park* Columbia Point at Fallon Pier^ UMass Boston at Fox Point^
Quincy	Marina Bay/Squantum Point*
Hingham	Hewitt's Cove*
Hull	Pemberton Point* Steamboat Wharf
Plymouth	
Provincetown	MacMillan Pier*

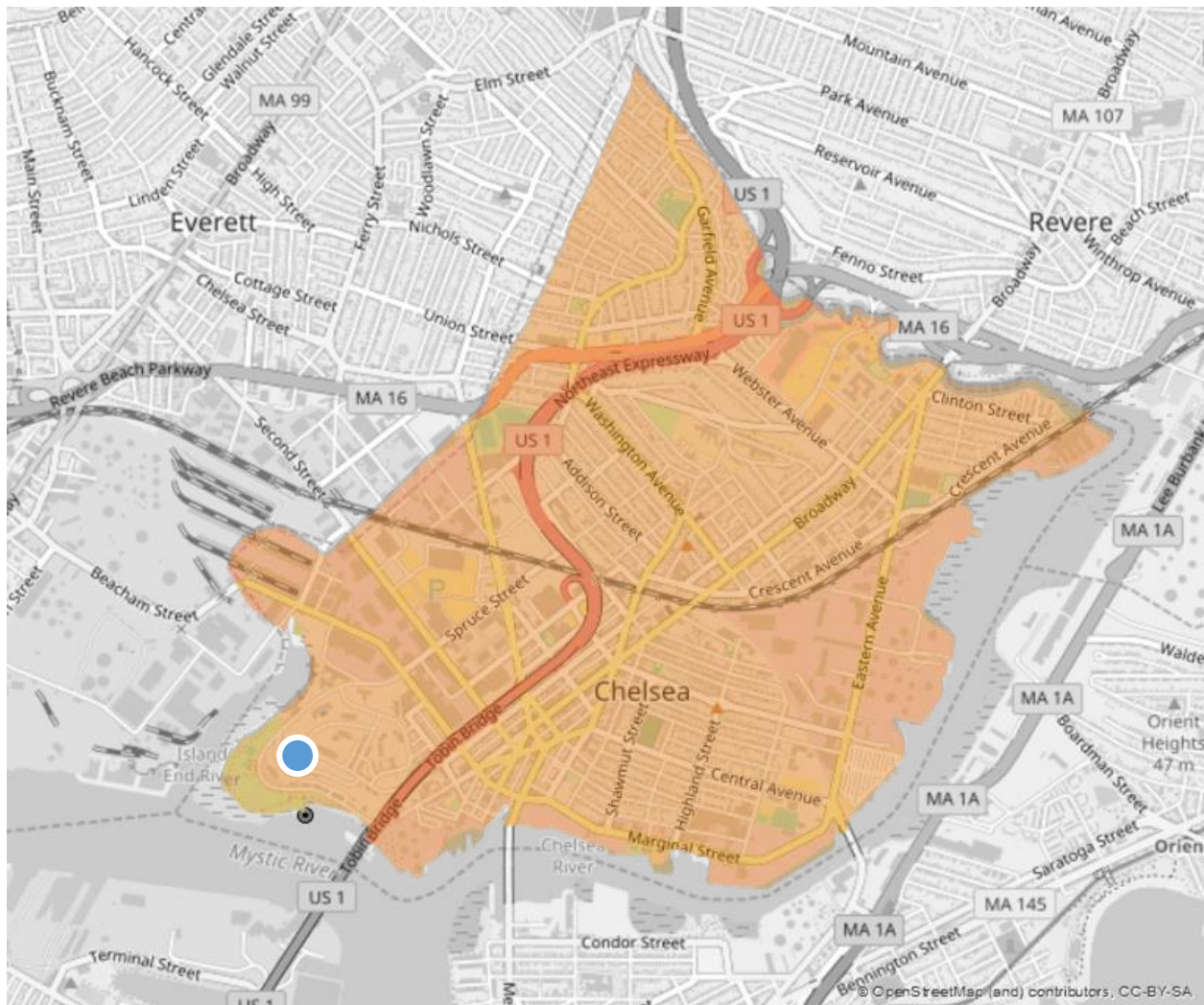
## Mary O'Malley State Park

The Admiral's Hill landing at Mary O'Malley Park was built as an amenity to the residential development. It is now used primarily as a park and has no floats or small vessel landing facilities. The pier is not centrally located option to serve more of the Chelsea population, which is concentrated further to the east.

Alternative landing sites could be identified between the Mystic River/Tobin Bridge and the McCardle Bridge, closer to the population center; however, such a location, while better placed to serve the population, would compete more directly with the Silver Line Gateway Project. The Silver Line extension, which opened in April 2018 and operates through Chelsea in a dedicated bus lane, makes it unlikely that a ferry from a dock along Chelsea Creek would be able to maintain a time savings advantage of transit to downtown Boston or the Seaport.

### Site Analysis

#### Map of Landing Site and Market Area<sup>1</sup>

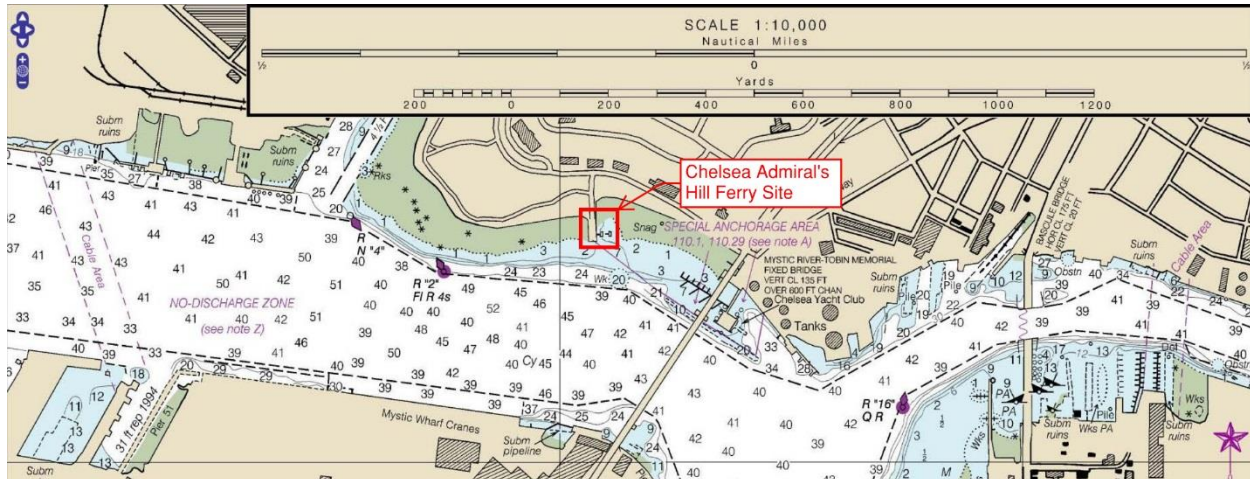


<sup>1</sup> Sources: OpenStreetMaps, Steer

## Site Characteristics

Longitude/Latitude: 42.387187, -71.049154  
Market Area: Chelsea, Everett  
Landing Ownership: City of Chelsea  
Closest Street Address: Commandants Way  
Notes: No current or recent service; depth and access concerns

## Aerial Chart of Landing Site<sup>2</sup>



## Landings and Existing Service

Landing Site:	Admiral's Hill
Existing Landing:	Yes
Channel Access / Turning Basin:	Yes
Dredging Required:	Likely shallow at low tide (further investigation required)
Berthing Capacity:	One berth at 75 feet with side landing
Wave Exposure:	Moderately sheltered
Existing Pier/Bulkhead:	Existing pier and T-head for ferry landing
Existing Float:	Requires investigation
Publicly Owned Property:	Yes, City of Chelsea and Department of Conservation and Recreation (DCR)

## Site Infrastructure

Docking Conditions:	Park of pier is good, end is in disrepair; no floats
ADA Access:	No
Rider Amenities:	Public park has restrooms and shelter maintained by DCR

<sup>2</sup> Source: US Department of Commerce, National Oceanic and Atmospheric Administration

## Sensitive Shoreline Land Uses and Environmental Concerns

The pier is located in tidal flats close to the shore. A channel connection to the Mystic River would require dredging.

## Suitability for Emergency Use

The site is not suitable for evacuation in present condition because of limited water depths at most tides.

## Ferry Level of Service

There is no existing or proposed ferry service from this dock.

## Transportation Access<sup>3</sup>

The closest connections to public transportation are bus routes. The 111 and 112 buses stop within 0.5 miles of the landing site.

There is access for people walking and biking to the site via Commandants Way. There are sidewalks within Admiral's Hill and walking paths in Mary O'Malley State Park.

There is limited on-site parking, which may make it challenging to attract ridership.

## Chelsea Market Area

### Recent and Planned Developments<sup>4</sup>

The One North development of 400+ units of high end market rate apartments, which is expected to welcome Phase II residents in April of 2018; the New England Regional FBI headquarters, which is expected to be occupied by 400-500 federal employees this fall; and a Homewood Suites Hotel construction are among current projects that could influence commuting and traveling. In addition, the Silver Line Gateway Project, extending the Silver Line bus service from South Station and the Seaport District of Boston to East Boston and Chelsea is in its third and final phase.

### Demographics<sup>5</sup>

#### Demographic Data for Chelsea Market Areas

	Market Area	Boston, MA	Avg. Boston Harbor Ferry Site
<b>Population</b>	28,663	667,137	45,814
<b>Labor Force</b>	20,578	393,455	31,091
<b>Employed</b>	18,637	366,164	28,763
<b>Median Household Income</b>	\$49,441	\$60,732	\$72,115

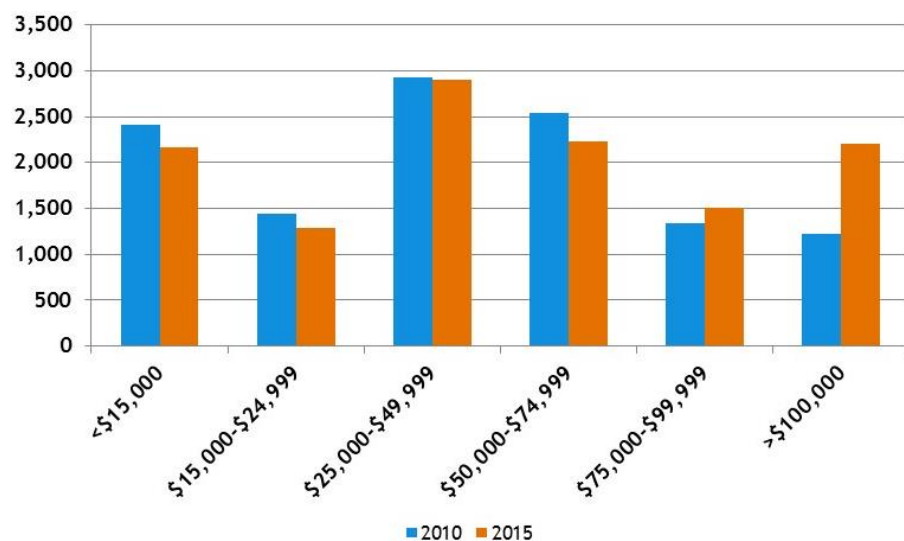
<sup>3</sup> Source: Google Maps

<sup>4</sup> Source: City of Chelsea Department of Planning and Development, September 2017

<sup>5</sup> Sources: U.S. Census Bureau (2010, 2015), American Community Survey

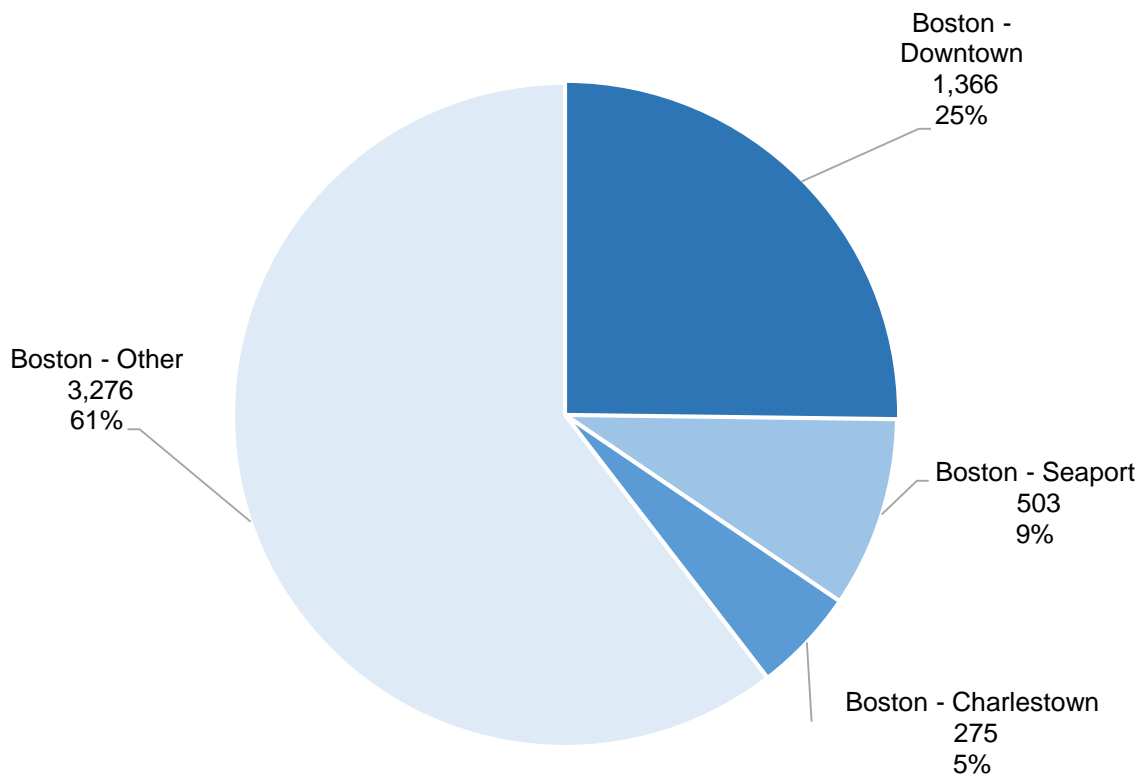


### Distribution of Median Household Incomes for Chelsea Market Area, 2010 and 2015



### Journey-to-Work<sup>6</sup>

#### Journey-to-Work Destinations from Chelsea Market Area



<sup>6</sup> Sources: U.S. Census Bureau (2010), American Community Survey



## Journey-to-Work Destinations from Chelsea Market Area to Boston Central Business Districts

Commuters to Boston (Charlestown)	275
Commuters to Boston (Downtown)	1,366
Commuters to Boston (Seaport)	503
Commuters to Boston (Other)	3,276
<b>Total Commuters to Boston</b>	<b>5,420</b>

## Travel Time and Cost Comparisons<sup>7</sup>

### Travel Times and Cost Comparisons by Different Modes of Transport

Mode	Total Time	Walking (Access/Egress)	Transfer	Riding	Trip Frequency
<b>To: Government Center (Downtown)</b>					
Auto - Low Est.	0:18			0:18	
Auto - High Est.	0:40			0:40	
Public Transit	0:40	0:19		0:21	0:09
Ferry via Long Wharf North	0:26	0:13		0:13	
<b>To: Boston Convention &amp; Exhibition Center (Seaport)</b>					
Auto - Low Est.	0:22			0:22	
Auto - High Est.	0:40			0:40	
Public Transit <sup>8</sup>	1:01	0:25	0:19	0:17	0:09
Ferry via World Trade Center	0:29	0:14		0:15	

## Evaluation

**Pros:** Chelsea has a good-sized commuter market to downtown Boston. While on the lower side of the sites considered, ferry service would hold a significant time advantage over public transit to downtown Boston. A ferry would be able to reach downtown Boston in 26 minutes while the same trip would take 40 minutes driving with traffic or on public transit. The site has the support of the local government.

**Cons:** The site is not centrally located relative to most of the city's residential neighborhoods. The Silver Line Gateway project was projected to remove any time advantage the ferry has over transit in addition to being more centrally located. The dock itself would also require significant capital investment to improve it as well as dredging, both of which also require significant federal and state permitting time.

**Next Steps:** Given the site's proximity to Boston there is potential for this site in the future. It is possible that the site could be served fairly frequently with one boat on the route, suggesting a relatively cost-effective route with the potential for healthy farebox recovery (subject to confirmation with modeling).

Improvements to bus service could remove the transit needs a ferry could address and impact projected demand. Further modeling is necessary to understand the trade-offs and viability of this as Chelsea's ferry site.

<sup>7</sup> Sources: Google Maps, KPFF

<sup>8</sup> Note: This was modelled prior to the completion of the Silver Line Gateway project. Transit travel times were expected to decrease significantly.

## Credits

### Project Coordination

- Boston Harbor Now



### Study Sponsors

- MassDOT
- Massport
- National Park Service
- Seaport Council of the Executive Office of Housing and Economic Affairs
- Massachusetts Convention Center Authority
- The Barr Foundation
- Cabot Family Charitable Trust
- Envoy Hotel
- Clippership Wharf



Barr  
Foundation

*Cabot Family  
Charitable Trust*

### Consultant Team

- Steer (formerly Steer Davies Gleave)
- KPFF
- Moffatt and Nichol
- Elliott Bay Design Group
- Progressions
- Norris and Norris



Progressions

*Sawyer & Associates Consulting*