

Salem, MA

FERRY DOCK RESEARCH AND RECOMMENDATIONS



COMPREHENSIVE BOSTON HARBOR
WATER TRANSPORTATION STUDY
MARCH 2019



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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 Salem, the Salem Ferry Terminal on Blaney Street 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
- Ferry Level of Service
- 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 one of the fifteen included in potential routes to study; however, based on the excellent physical conditions of the dock and the financially sustainable service operating from it, further analysis was not conducted.

This report is designed to serve as a jumping-off point for planning future ferry services like the expansion of the existing service with the addition of a second vessel.

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

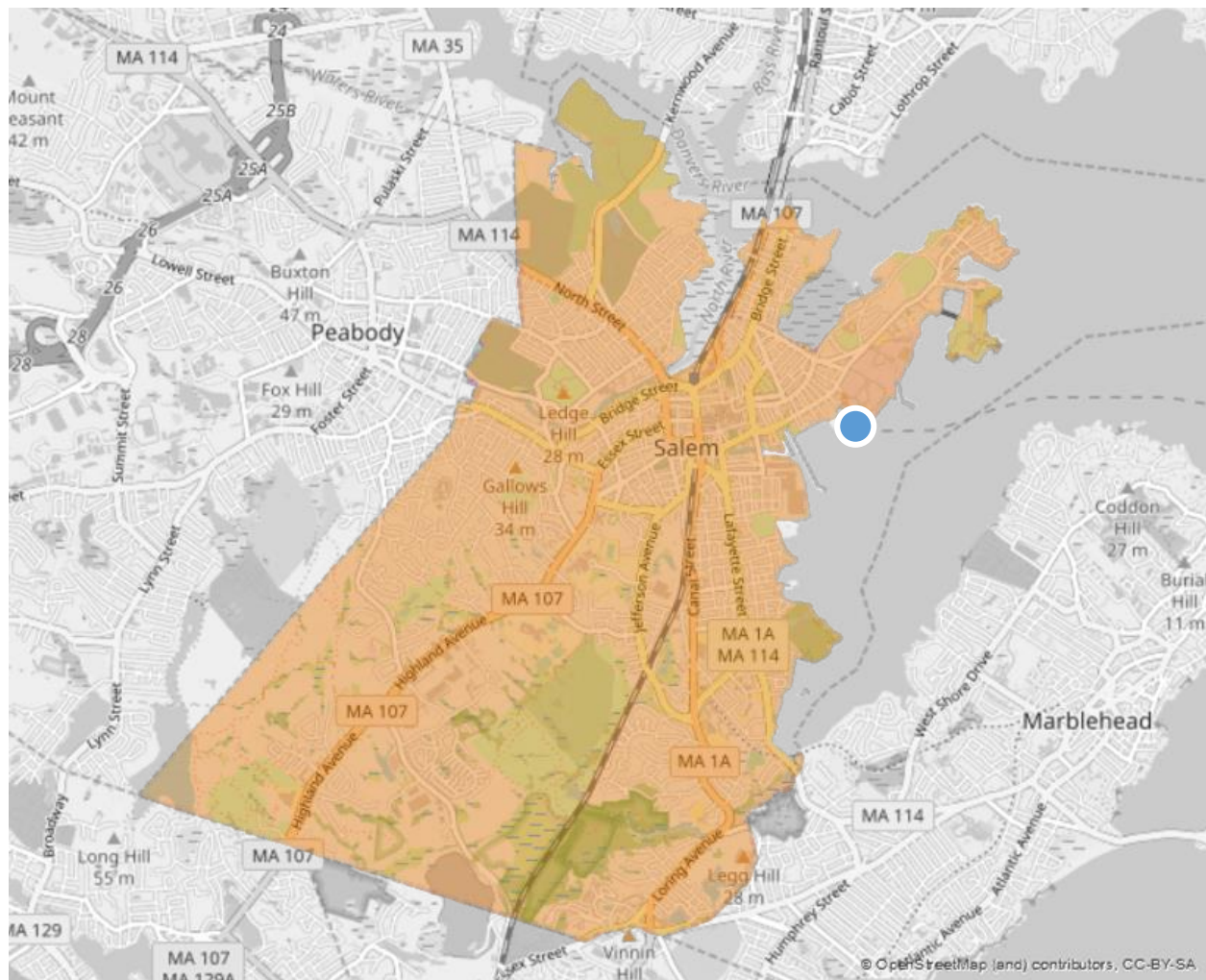
Municipality	Proposed Dock Locations
Gloucester	
Beverly	
Salem	Salem Ferry Terminal*
Lynn	Blossom Street Pier^
Winthrop	Winthrop Ferry Dock*
Chelsea	Mary O'Malley Park
Everett	Encore Boston Harbor
Boston	
- East Boston	Logan Airport Ferry Terminal*
	Lewis Mall
	Liberty Plaza
- Charlestown	Sullivan Square/Schraffts
	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
	EDIC/Marine Industrial Park*
- Dorchester	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*

Salem Ferry Terminal

The existing Salem ferry primarily serves visitors to Salem from Boston and Salem residents commuting to Boston with five round trip commuter runs each day in season. Salem Wharf has been completed in phases over the past 15 years. The newer of two docks accommodates the city-owned vessel, the *Nathaniel Bowditch*, which operates daily from mid-May through the end of October. The enclosed ticket-and-waiting building includes amenities for ferry users and for passengers of small cruise vessels that berth on the second pier.

Site Analysis

Map of Landing Site and Market Area¹

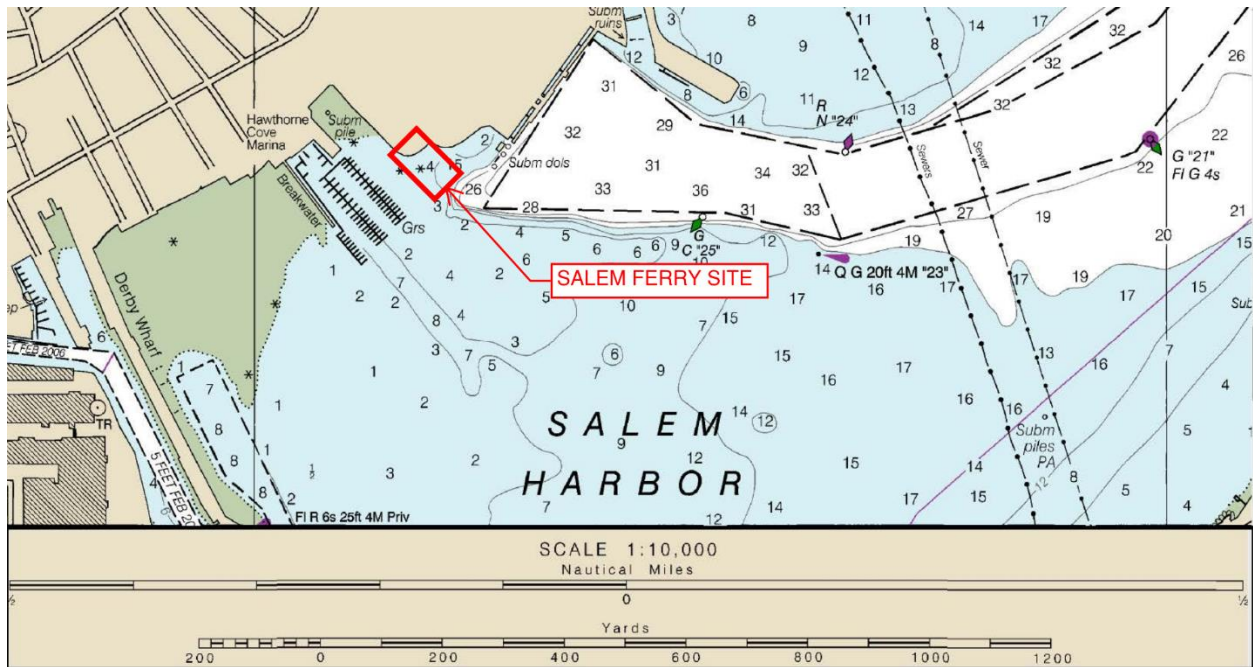


Site Characteristics

Longitude/Latitude:	42.521364, -70.880342
Market Area:	Central Cape Ann including Salem Peabody Beverly
Landing Ownership:	City of Salem
Closest Street Address:	10 Blaney Street

¹ Sources: OpenStreetMaps, Steer

Aerial Chart and Photo of Landing Site²



² Source: US Department of Commerce, National Oceanic and Atmospheric Administration, Google Earth

Landings and Existing Service

Landing Site:	2 separate berths
Existing Landing:	Yes
Channel Access / Turning Basin:	Yes
Dredging Required:	No
Berthing Capacity:	One berth at 80 ft. and one berth at 120 ft.
Wave Exposure:	Moderate; dock is in Salem's outer harbor
Existing Pier/Bulkhead:	Yes
Existing Float:	Yes
Publicly Owned Property:	Yes (City of Salem)

Site Infrastructure

Docking Conditions:	New landing, ramps, parking and terminal in past 5 years
ADA Access:	Yes
Rider Amenities:	Restrooms and drinking fountains in ticket building, "Salem Landing" bar open in the evening, bike share station

Sensitive Shoreline Land Uses and Environmental Concerns

Much of the surrounding residential area is on low-lying filled land that is susceptible to flooding in extreme weather conditions. The recently built wharf and restored bulkhead elevations are somewhat higher than the surrounding area. The adjacent property to the north of the site is a former coal power plant that is being converted into a gas power plant and being remediated for a mixture of industrial and marine uses, which may include expanded ferry parking.

Suitability for Emergency Use

The ferry site is suitable for evacuation in case of flooding in the surrounding residential area.

Ferry Level of Service

The existing ferry service is outlined below.

Route	Salem to Long Wharf
Berth	#1
Existing / Proposed	Existing
Year Round or Seasonal	Seasonal May thru October
Commuter / Recreational	Commuter and Recreational
Fare (One Way)	Commuter: Adult-\$8 / Senior-\$4 / Child-\$4 Recreational: Adult-\$25 / Senior-\$23 / Child-\$20 Salem Resident: Adult-\$12 / Senior-\$10 / Child-\$8 North Shore Resident: Adult-\$18 / Senior-\$15 / Child-\$12
Schedule / Frequency	Seasonal from May 18 to October 31; 4 to 5 daily roundtrips between Salem and Boston 7 days a week
Public / Private Management	City of Salem owns the ferry; Boston Harbor Cruises is contracted for operations

Transportation Access³

The closest connections to public transportation are bus routes. The 451, 455, and 459 buses all stop within 0.7 miles of the landing site. The Salem Commuter Rail station is 1.0 mile from the landing site with access to the Newburyport/Rockport Line of the MBTA Commuter Rail. A tourist trolley service regularly meets the ferry and provides free rides for Salem residents.

There is access for people walking and biking to the site via Derby Street. Most of the surrounding streets have sidewalks and the neighborhood streets are largely bike friendly. There are bike lanes of some major corridors in the city that would be used to access the site. A bike share station and bike parking are available at the site.

There is regional and local road access from the Salem Ferry Terminal site via Derby Street to neighborhood and arterial routes 1A and 107. There are approximately 140 surface parking spaces at the landing.

Salem Market Area

Recent and Planned Developments⁴

Among current planned developments in the City of Salem are a development and expansion project in the North River Canal Corridor Neighborhood Mixed Use District that is projected to add 29 residential units, a renovation of office space at 120 Washington Street into 14 residential units, and an expansion of 27,000 square feet to a manufacturing facility at 1 Technology Way.

Adjacent to the Ferry Terminal, a coal-powered electric plant has been replaced by the gas-powered Footprint Power Salem Harbor Station. The new facility has a much smaller area than the old plant and plans are in the works for redeveloping the available acreage.

Demographics⁵

Demographic Data for Salem Market Area

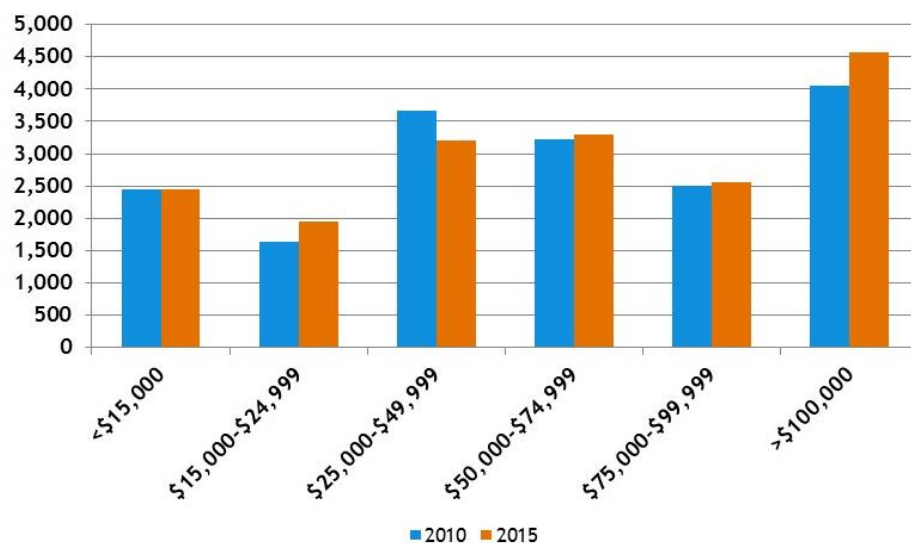
	Market Area	Boston, MA	Avg. Boston Harbor Ferry Site
Population	35,707	667,137	45,814
Labor Force	24,460	393,455	31,091
Employed	22,558	366,164	28,763
Median Household Income	\$59,908	\$60,732	\$72,115

³ Source: Google Maps

⁴ Source: City of Salem Planning Board, September 2017

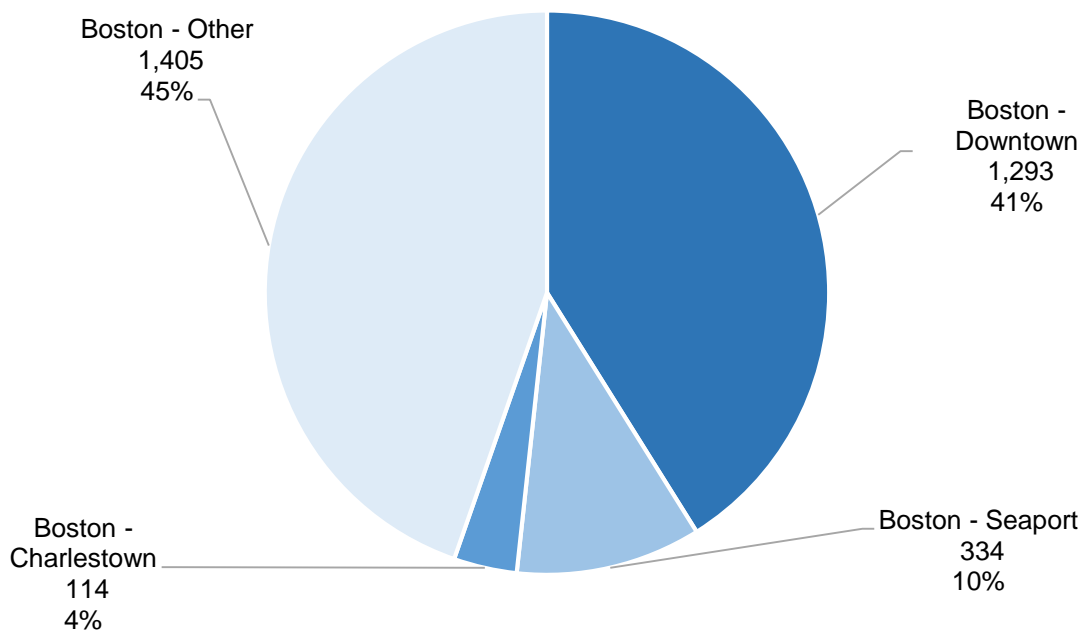
⁵ Sources: U.S. Census Bureau (2010, 2015), American Community Survey

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



Journey-to-Work⁶

Journey-to-Work Destinations from Salem Market Area



⁶ Sources: U.S. Census Bureau (2010), American Community Survey

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

Commuters to Boston (Charlestown)	114
Commuters to Boston (Downtown)	1,293
Commuters to Boston (Seaport)	334
Commuters to Boston (Other)	1,405
Total Commuters to Boston	3,143

Travel Time and Cost Comparisons⁷

Travel Times and Cost Comparisons by Different Modes of Transport

Mode	Total Time	Walking (Access/Egress)	Transfer	Riding	Trip Frequency
To: Government Center (Downtown)					
Auto - Low Est.	1:00			1:00	
Auto - High Est.	1:50			1:50	
Public Transit	1:37	0:26		1:11	0:30
Commuter Rail	1:07	0:25	0:04	0:38	0:16
Ferry via Long Wharf North	1:06	0:13		0:53	
To: Boston Convention & Exhibition Center (Seaport)					
Auto - Low Est.	0:55			0:55	
Auto - High Est.	1:50			1:50	
Public Transit	1:47	0:30		1:17	1:10
Commuter Rail	1:35	0:35	0:22	0:38	0:18
Ferry via World Trade Center	1:04	0:14		0:50	

Evaluation

Pros: Salem has existing seasonal ferry service. The schedule allows for one daily round trip for commuters heading inbound at 7:00 AM and outbound at 5:30 PM for \$8. The other sailings are designed for recreational service and cost \$25 one way to subsidize the commuter fares.

Cons: The existing service is seasonal as the trip to Salem is on the open water, and providing a comfortable and reliable trip through the winter would require a different and larger vessel. There is a very small market of commuters that go to the Seaport, and not yet large enough to consider additional service focused on the Seaport.

Next Steps: Existing demand is being served. If year round service is desired, the service must have a boat capable of operating reliably all year and the City of Salem needs to have enough winter tourists to effectively subsidize commuter sailings.

In May 2018, Salem secured a \$3.4 million grant from the Federal Transit Administration to purchase a second vessel.

⁷ Sources: Google Maps, KPFF

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