Gloucester, MA

FERRY DOCK RESEARCH AND RECOMMENDATIONS

COMPREHENSIVE BOSTON HARBOR
WATER TRANSPORTATION STUDY
MARCH 2019

BOSTON HARBOR NOW

Table of Contents

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 Gloucester, the Cruiseport and the I4C2 were included among 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

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. The Gloucester sites were not selected for analysis beyond the initial phase because the commuter market to Boston from Gloucester and the surrounding area is too small to overcome the combination of the high operating costs and infrequent service. A market rate seasonal recreation ferry service similar to the two that connect Boston and Provincetown may be possible for the area. A subsidized commuter service would not be cost effective.

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	**Cruiseport / I4C2**
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/Schrafts
	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*

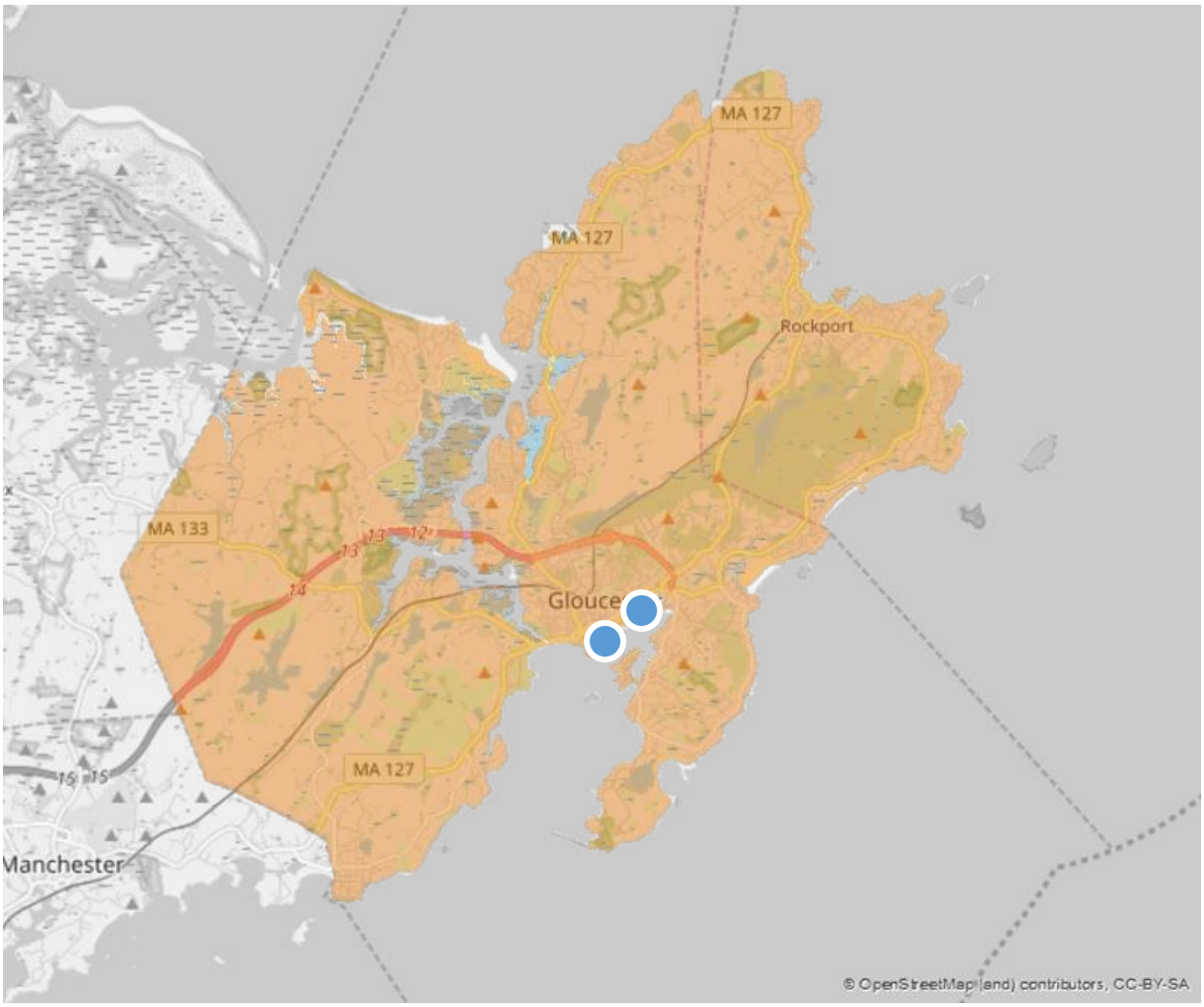
Gloucester Waterfront

Two sites were included in the analysis for Gloucester ferry service. The privately operated Cruiseport would provide vessel berthing and existing ferry rider amenities in addition to some parking, but it is more remote from visitor attractions and downtown. The publicly-owned I4C2 at Harbor Cove is a cleared site seeking mixed-use maritime development, is central to the downtown and tourism venues, and is closer to the commuter rail. The existing berths are committed to fishing vessels and would require reconfiguration and expansion in order to accommodate ferries.

The site analysis looks at each site in a side-by-side comparison. The remaining analysis considers the potential for ferry service from this North Shore community.

Site Analysis

Map of Landing Sites and Market Area[1]

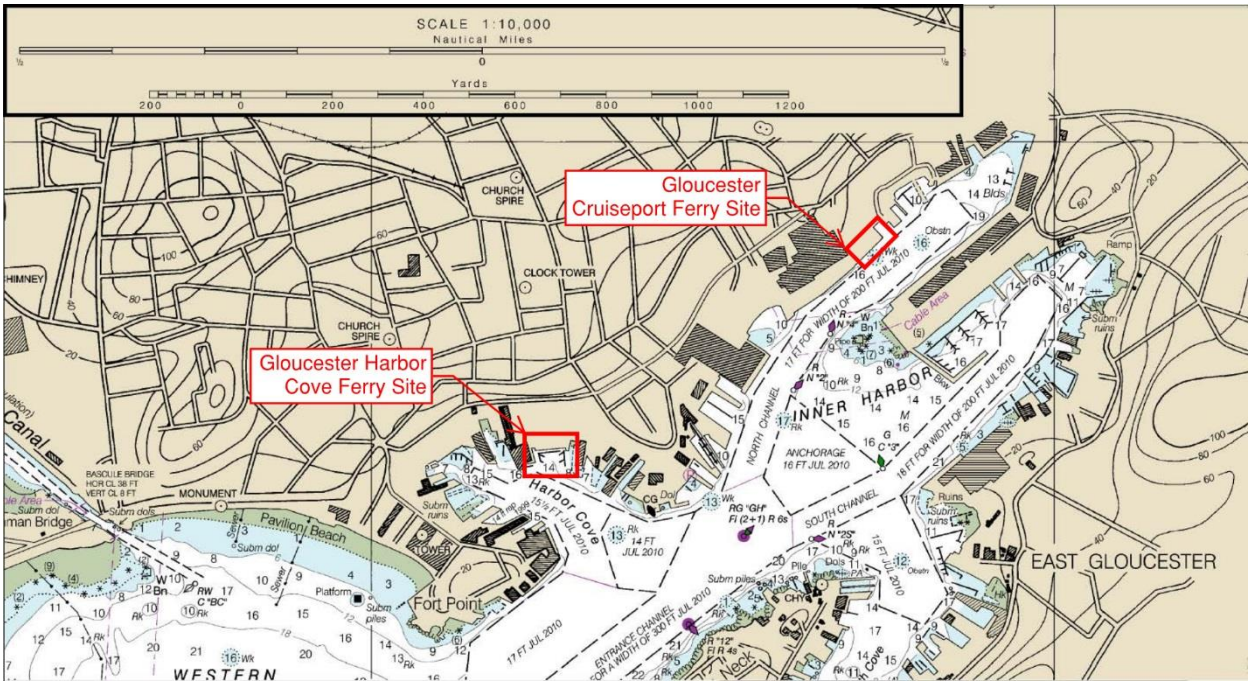


[1] Sources: OpenStreetMaps, Steer

Site Characteristics

	Cruiseport	Harbor Cove/I4C2
Longitude/Latitude:	42.6153334,-70.6570078	42.6113086,-70.6633876
Market Area:	Outer Cape Anne	Outer Cape Anne
Landing Ownership:	Cruiseport	City of Gloucester
Closest Street Address:	6 Rowe Square	Rogers Street
Notes:	Private	Public

Aerial Chart of Landing Site[2]



Landings and Existing Service

	Cruiseport	Harbor Cove/I4C2
Existing Landing:	Yes	No
Channel Access / Turning Basin:	Yes	Yes
Dredging Required:	No	Further investigation needed
Berthing Capacity:	Single, no float	No
Wave Exposure:	Well protected	Well protected
Existing Pier/Bulkhead:	Yes	Yes
Existing Float:	No	No
Publicly Owned Property:	No	Yes

[2] Source: US Department of Commerce, National Oceanic and Atmospheric Administration

Site Infrastructure

	Cruiseport	Harbor Cove/I4C2
Docking Conditions:	Sites requires new floats and ramps	Sites requires new floats and ramps
ADA Access:	No	No
Rider Amenities:	Yes	No

Sensitive Shoreline Land Uses and Environmental Concerns

Cruiseport has no sensitive shoreline land uses or environmental concerns. At I4C21, an active fishing fleet dominates Harbor Cove berths.

Suitability for Emergency Use

Both ferry sites are protected and would be suitable for evacuation to or from low lying areas around the harbor.

Ferry Level of Service

There are no existing or proposed ferry services from either of these sites.

Transportation Access[3]

The closest connections to public transportation from the Gloucester site are bus routes. Local buses stop within walking distance of the landing site. There is also commuter rail access to the Newburyport/Rockport Line of the MBTA Commuter Rail less than a mile away.

There is access for people walking and biking from the Gloucester sites via Rogers Street and Main Street to city center and neighborhoods.

There is regional and local road access from the Gloucester sites to Route 128 via Rogers Street from I4C2 or via Main Street from Cruiseport.

Gloucester Market Area

Recent and Planned Developments[4]

Cruiseport was completed in past 10 years. The I4C2 site is planned for mixed maritime use by the City.

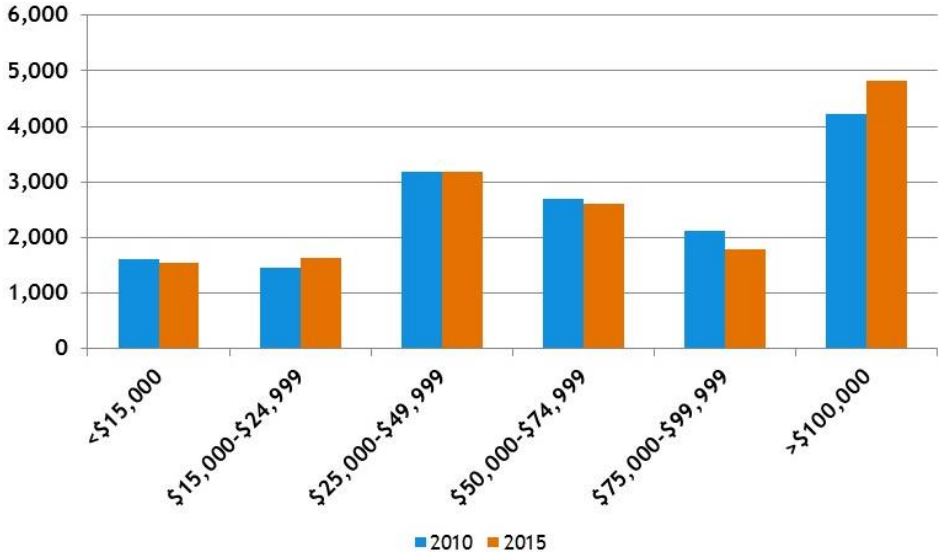
Demographics[5]

Demographic Data for Gloucester Market Area

	Market Area	Boston, MA	Avg. Boston Harbor Ferry Site
Population	30,980	667,137	45,814
Labor Force	20,111	393,455	31,091
Employed	18,348	366,164	28,763
Median Household Income	$66,374	$60,732	$72,115

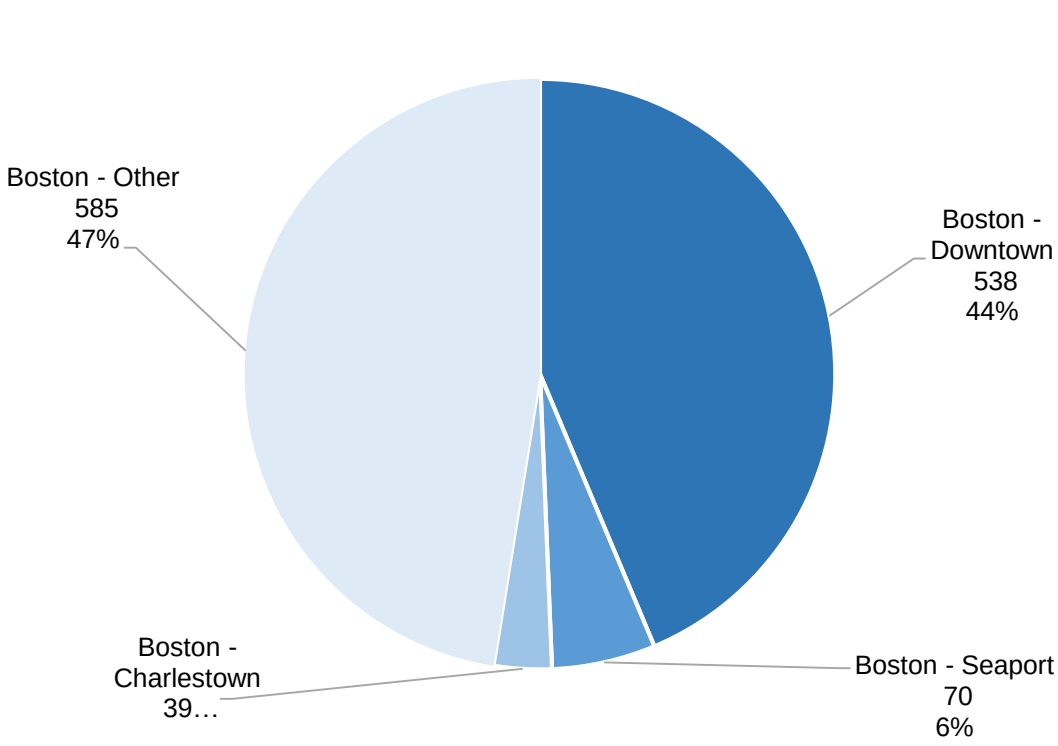
[3] Source: Google Maps
[4] Source: Steer, September 2017
[5] Sources: U.S. Census Bureau (2010, 2015), American Community Survey

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



Journey-to-Work[6]

Journey-to-Work Destinations from Gloucester Market Area



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

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

Commuters to Boston (Charlestown)	39
Commuters to Boston (Downtown)	538
Commuters to Boston (Seaport)	70
Commuters to Boston (Other)	585
Total Commuters to Boston	**1,232**

Travel Time and Cost Comparisons[7]

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.	1:05			1:05	
Auto - High Est.	1:50			1:50	
Commuter Rail	1:38	0:18	0:11	1:09	0:16
Ferry via Long Wharf North	1:19	0:13		1:06	
To: Boston Convention & Exhibition Center (Seaport)					
Auto - Low Est.	1:05			1:05	
Auto - High Est.	2:00			2:00	
Commuter Rail	2:11	0:18	0:21	1:32	0:18
Ferry via World Trade Center	1:16	0:14		1:02	

Evaluation

Pros: Ferry times from Gloucester are projected to be faster than most auto or commuter rail travel times. A ferry could complete the trip in 80 minutes, 30 minutes faster than a car with traffic and 20 minutes faster than the commuter rail.

Cons: Gloucester has one of the smallest commuter markets to both downtown Boston and to the Seaport of the sites studied. Only 538 people from the entire market area would benefit from a direct trip to Long Wharf on a daily basis. Statistically, only a small percentage of them are likely to choose a ferry over driving based on the frequency of service, and this demand is insufficient to support a commuter service. The long travel time means that any service to Gloucester would have relatively high operating costs and could provide only one trip during commuting hours per vessel on the route.

Next Steps: The combination of high operating costs, small commuter market, and infrequency of service would be difficult to overcome, which makes subsidized commuter service financially unsustainable. As noted above, there is potential to initiate a market rate seasonal service for recreational access to the area if one of the two sites are selected and investments are made to make the dock ferry-ready for a service similar to the Provincetown-Boston ferries.

[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

Consultant Team

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