

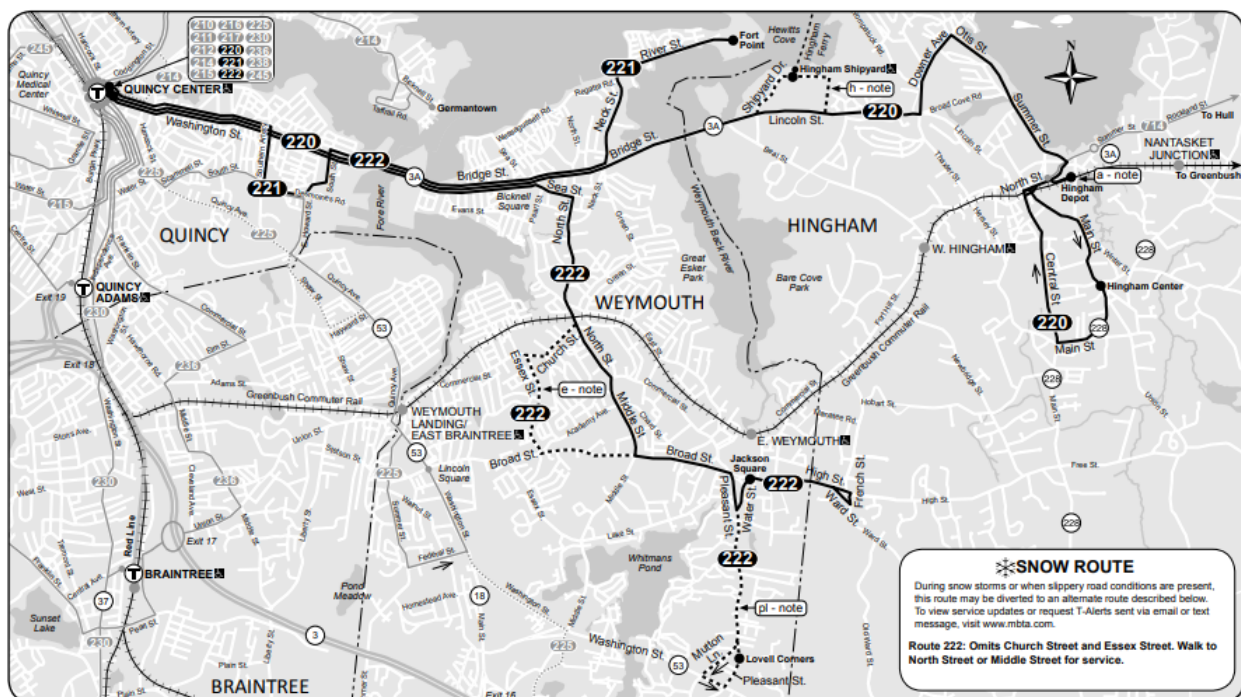
Route 222

East Weymouth – Quincy Center Station

Route Overview

Route 222 East Weymouth – Quincy Center Station is a Local bus route that provides service between East Weymouth and Quincy Center (see Figure 1). It operates seven days per week.

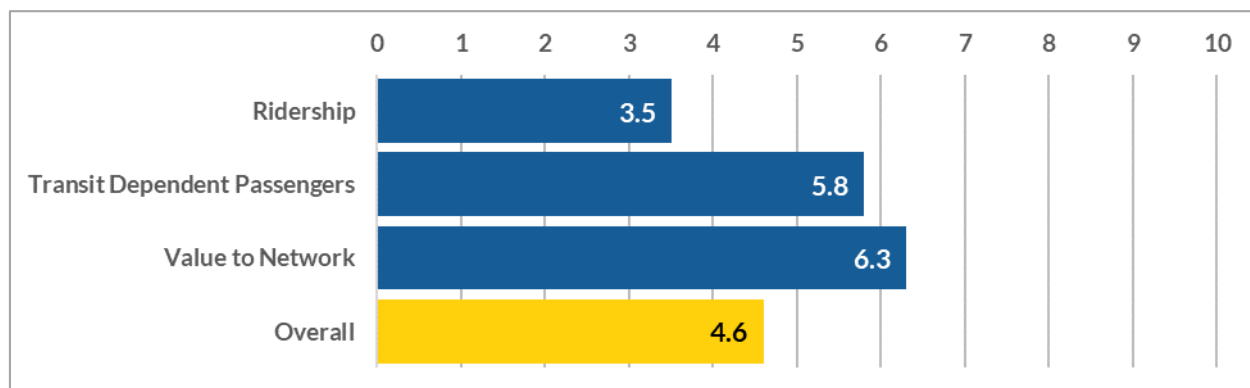
Figure 1 | Service Map



Network Importance

Route 222 is a moderately important route within the MBTA bus network (see Figure 2). On a scale of 0 to 10, Route 222 rates 3.5 in terms of ridership, 5.8 in terms of transit dependent ridership, and 6.3 in terms of its value to the network (which reflects the number of people who are uniquely served, the number of jobs and other important destinations, and the number of transferring passengers). Its overall score, which gives a 70% weighting to overall ridership and a 15% weight to both other measures, is 4.6.

Figure 2 | Relative Importance within MBTA Bus Network (on a scale of 0 to 10)



Service Patterns

Schedule

Route 222 operates seven days per week (see Table 1). On weekdays, Route 222 operates from 5:15 AM to 12:51 AM, at the following frequencies:

- About every 30 minute from the start of service until 6:15 AM.
- Every 10-17 minutes from 6:15 AM to 8:30 AM.
- About every 30 minutes from 8:30 AM until 11:30 AM.
- About every 40 minutes from 11:30 AM to 2:30 PM, and then about every 30 minutes from 2:30 PM until 4:00 PM.
- Every 11-22 minutes from 4:00 PM until 7:30 PM.
- About every hour from 7:30 PM until the end of service.

Route 222 operates from 6:15 AM until 12:12 AM on Saturdays, with trips every hour from the start of service until 2:00 PM, every 30 minutes from 2:00 PM until 7:00 PM, and then every hour until the end of service. On Sundays, Route 222 runs hourly from 7:30 AM until 12:15 AM.

Route 222 meets the MBTA span of service standards for both weekdays and weekends. Route 222 also meets the frequency standard for Sundays, but fails the weekday off-peak and Saturday frequency standard due to occasional trips that are spaced more than 60 minutes apart.

Table 1 | Schedule Statistics

SERVICE DAY	SPAN OF SERVICE	FREQUENCY (RANGE)	FREQUENCY (AVERAGE)	DAILY TRIPS (INBOUND/OUTBOUND)
Monday-Friday	5:15 AM to 12:51 AM			41/41
Sunrise	5:15 AM to 5:59 AM	30 - 35	33	1/2
Early AM	6:00 AM to 6:59 AM	10 - 35	14	3/4
AM Peak	7:00 AM to 8:59 AM	10 - 33	18	7/6
Midday Base	9:00 AM to 1:29 PM	30 - 44	35	8/8
Midday School	1:30 PM to 3:59 PM	15 - 43	31	5/5
PM Peak	4:00 PM to 6:29 PM	11 - 33	16	8/9
Evening	6:30 PM to 9:59 PM	15 - 64	45	6/4
Late Evening	10:00 PM to 11:59 PM	59 - 65	61	2/2
Night	12:00 AM to 12:51 AM	1 Trip	1 Trip	1/1
Saturday	6:15 AM to 12:12 AM	25 - 62	43	24/24
Sunday	7:30 AM to 12:15 AM	60	60	17/17

Note: Span of service reflects the time the first bus begins service until the time the last bus finishes service.

Service Patterns

Route 222 has three service patterns (see Table 2). Two of these patterns operate seven days per week, generally alternating trips except during weekday mid-day service:

- Pattern 222.9 is the most frequent service pattern, operating outbound from Quincy Center, primarily via Washington Street (which is also served by Route 220 Quincy Center Station – Hingham and Route 221 Quincy Center Station – Fort Point), North Street, Middle Street, and Broad Street. Just before Jackson Square in East Weymouth, this pattern continues south on Pleasant Street and terminates at Lovell Corners (Pleasant Street at Colonels Drive)
- Pattern 222.0 is the other major service pattern, and follows the same alignment as Pattern 222.9 until just before Jackson Square in East Weymouth. The pattern then continues east on High Street and terminates just across the Hingham line.

Pattern 222.1 operates only during weekday mid-day service, replacing trips that would otherwise be served by Pattern 222.0. This pattern follows the same alignment as the other two patterns from Quincy Center until North Street at Green Street. The pattern then runs on a unique alignment primarily via Essex Street, before rejoining the other patterns at Middle Street at Broad Street. The pattern then continues to Hingham, following the same route as Pattern 222.0.

Table 2 | Service Patterns

PATTERN	ORIGIN	DESTINATION	UNIQUE FEATURE	TRIPS per WKD	TRIPS per SAT	TRIPS per SUN
INBOUND				41	24	17
222.0	Water Street at Commercial Street	Quincy Center Station	To Hingham	16	12	9
222.1	Water Street at Commercial Street	Quincy Center Station	To Hingham via Essex Street	5	-	-
222.9	Lovell Corners (Pleasant Street at Colonels Drive)	Quincy Center Station	To Lovell Corners	20	12	8
OUTBOUND				41	24	17
222.0	Quincy Center Station	Water Street at Commercial Street	To Hingham	16	12	9
222.1	Quincy Center Station	Water Street at Commercial Street	To Hingham via Essex Street	5	-	-
222.9	Quincy Center Station	Lovell Corners (Pleasant Street at Colonels Drive)	To Lovell Corners	20	12	8

Ridership

Route 222 has moderate ridership, with about 1,600 passengers on weekdays, 670 passengers on Saturdays, and 500 passengers on Sundays.

Ridership by Stop

Route 222 ridership is relatively low at most stops, apart from some stops on Washington Street in Quincy. Ridership between Jackson Square and Lovell Corners (Pattern 222.9) is significantly higher than ridership between Jackson Square and Hingham (Patterns 222.0 and 222.1), even those these segments receive a similar amount of service. Ridership on Essex Street is also very low (Pattern 222.1). In more detail, on weekday inbound trips:

- 79 passengers board and less than one passenger alights at the six stops uniquely served by Lovell Corners (Pattern 222.9) trips. Most of these boards occur at Lovell Corners (Pleasant Street at Colonels Drive).
- 37 passengers board and one passenger alights at the six stops uniquely served by Hingham trips (Patterns 222.0 and 222.1).
- 141 passengers board and 11 passengers alight at the nine stops from Pleasant Street opposite Shawmut Street to Broad Street at Middle Street, which are served by all three service patterns.
- One passenger boards and one passenger alights at the ten stops on Broad Street, Essex Street, and Church Street that are uniquely served by Pattern 222.1.

- 47 passengers board and three passengers alight at the seven stops on Middle Street and North Street that are served by the two more frequent service patterns (Patterns 222.0 and 222.9).
- 55 passengers board and six passengers alight at the nine stops on North Street and Sea Street between the Greenbush Line and Bridge Street, where Route 222 joins Routes 220 and 221 to continue towards Quincy Center.
- 62 passengers board and nine passengers alight at the nine stops on Bridge Street before Route 222 crosses the Fore River Bridge.
- 258 passengers board and 36 passengers alight at the 10 stops on Washington Street from the Fore River Bridge until Union Street.
- 23 passengers board and 157 passengers alight on Washington Street and Hancock Street between Union Street and Quincy Center Station.
- 600 passengers alight at Quincy Center Station.

Ridership patterns are similar on weekday outbound trips – as well as on weekends, but with lower volumes.

Ridership by Trip

On inbound weekday trips, ridership is highest during the first trips of the day, at 5:40 AM and 6:15 AM. The first two trips of the day have the highest ridership of any inbound trip, indicating that there may be unmet early AM demand for earlier service. Passenger loads on the 6:15 AM trips exceed the MBTA's passenger comfort standards, with a maximum passenger load of 52 passengers. All other trips stay below the MBTA's passenger comfort standards. Inbound trip ridership is lowest at PM peak hour, when buses average about 10 passengers per trip.

Outbound weekday ridership is highest during the PM peak period, but passenger loads remain below the maximum capacity of MBTA buses.

On Saturdays, inbound ridership on the first two trips, at 6:45 AM and 7:45 AM are about double that of trips during any other period of the day, indicating that on Saturdays there may also be unmet early AM demand for earlier service. Between 1:00 PM and 6:00 PM, when frequency in both directions increases from 60 minutes to 30 minutes, ridership on all trips is very low, with 10-15 passengers per trip.

On Sundays, there is a similar pattern on the first two inbound trips, which have about double the ridership of trips during any other period of the day

Figure 3 | Weekday Inbound Ridership by Stop Map

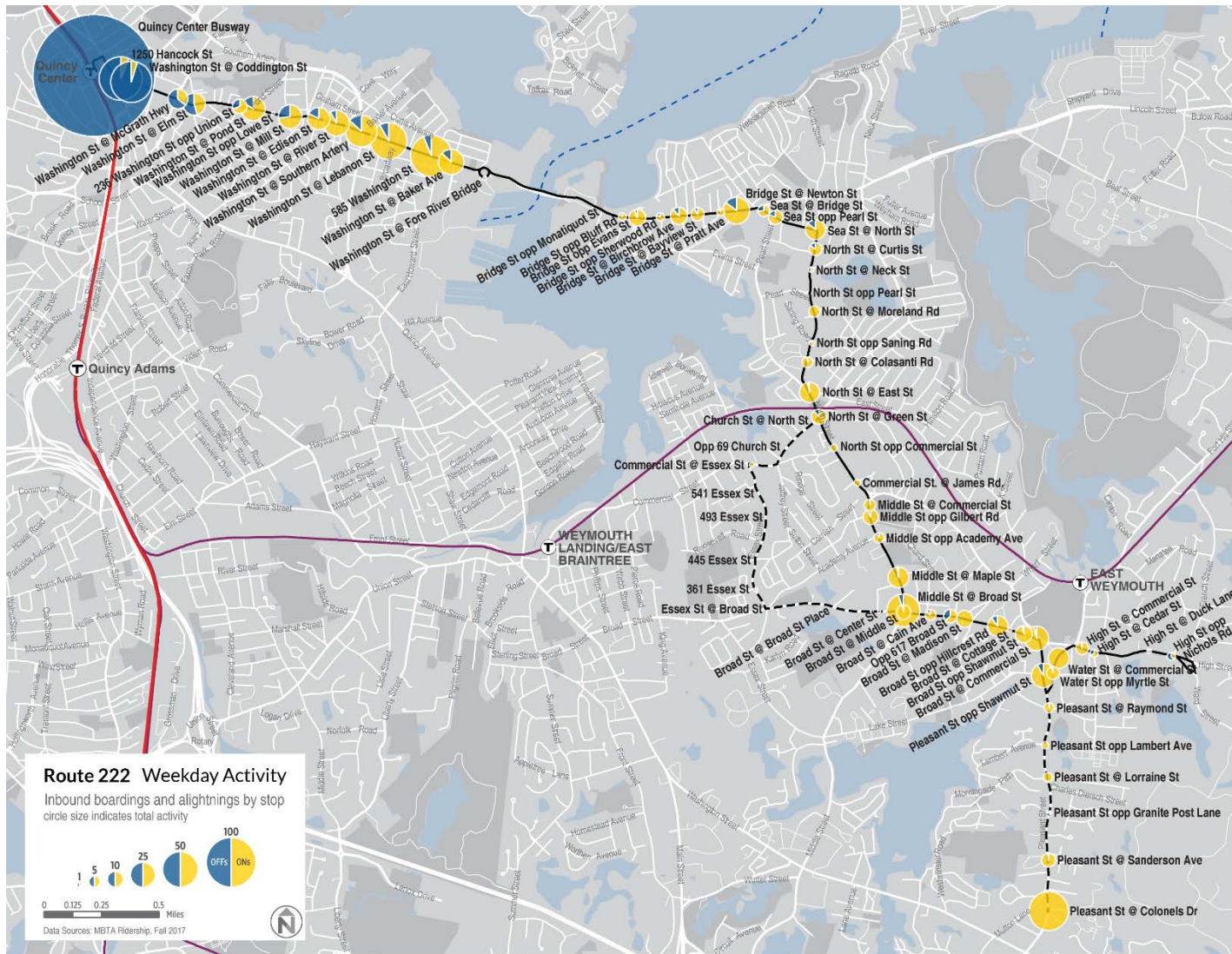


Figure 4 | Weekday Ridership by Trip: Inbound

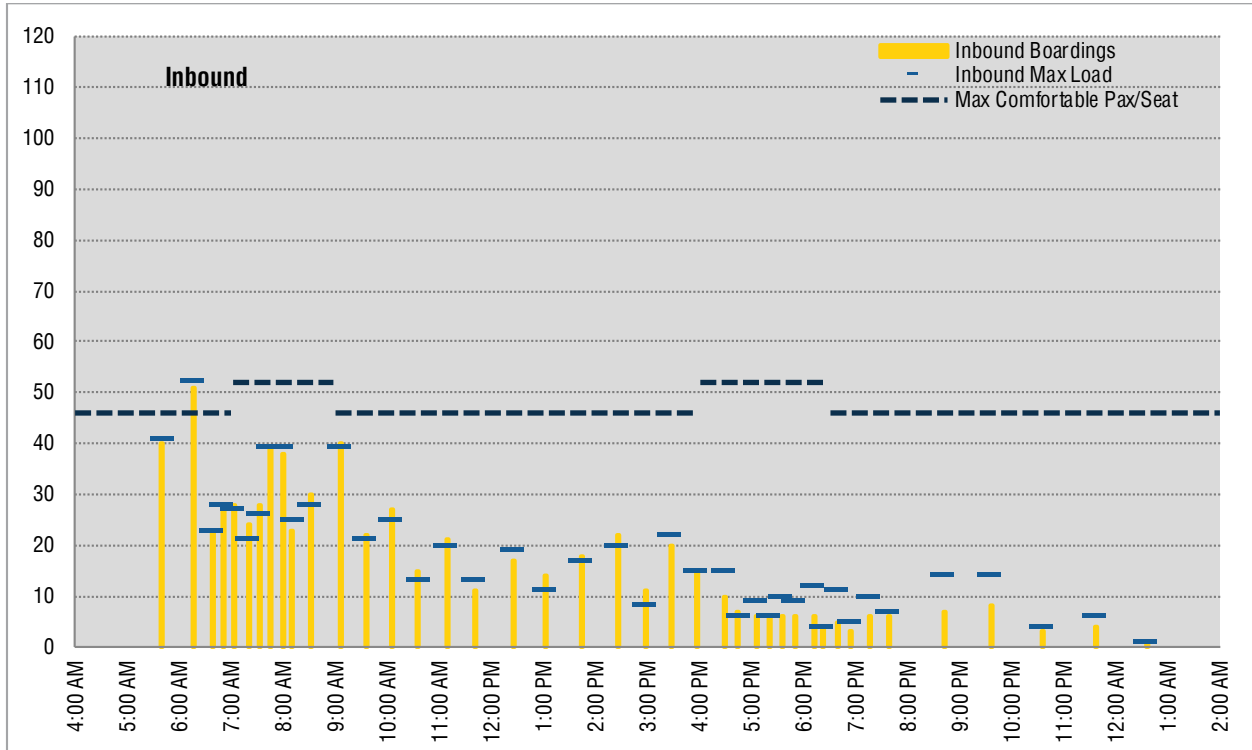


Figure 5 | Weekday Ridership by Trip: Outbound

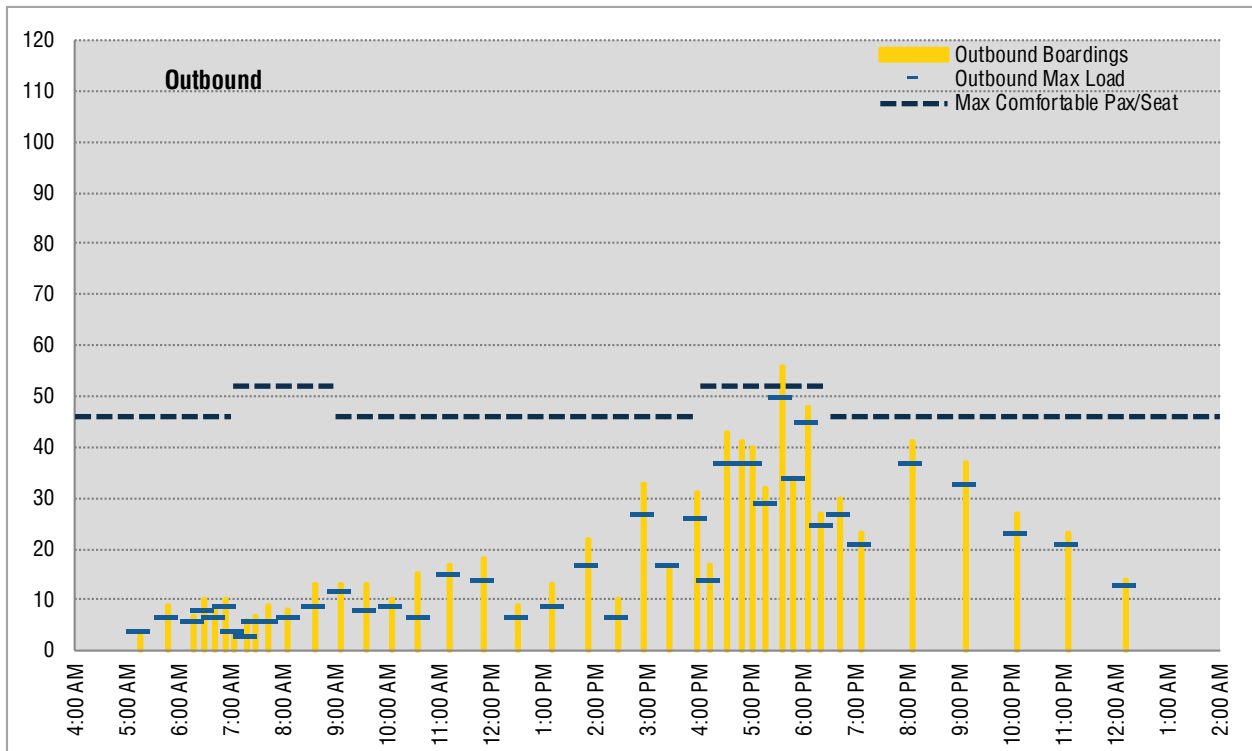


Figure 6 | Saturday Ridership by Trip: Inbound

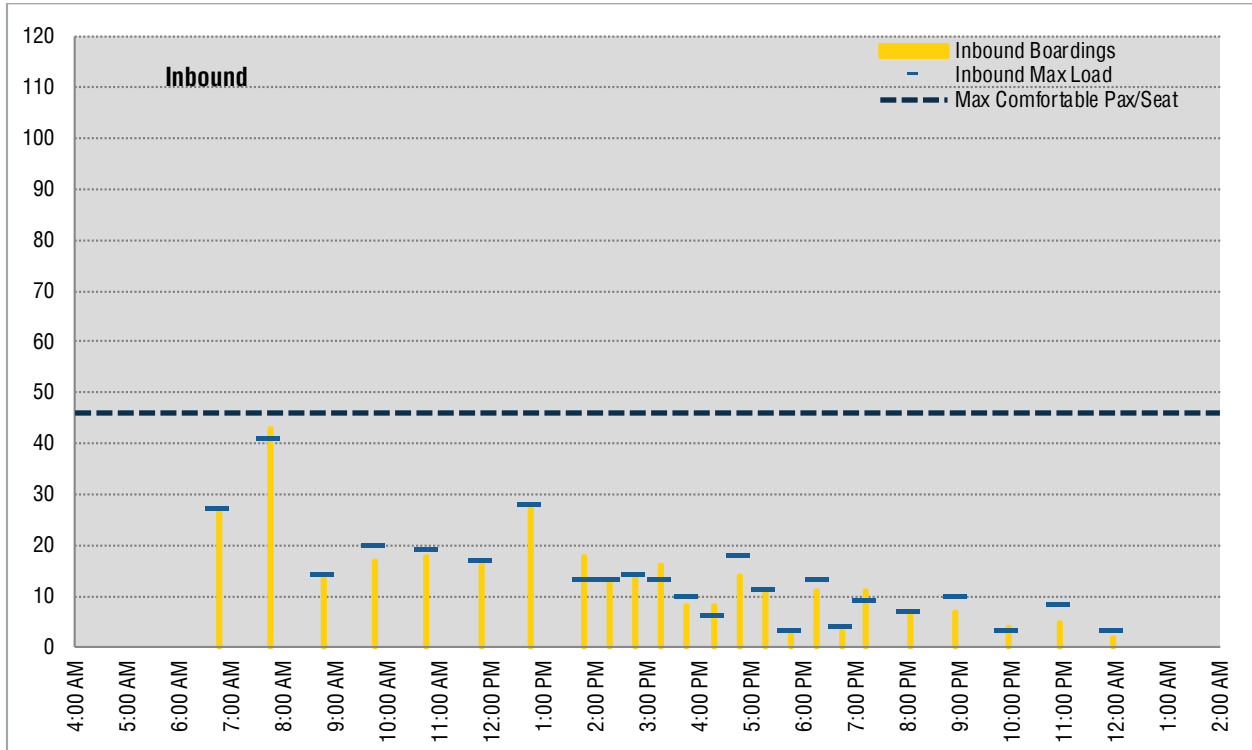


Figure 7 | Saturday Ridership by Trip: Outbound

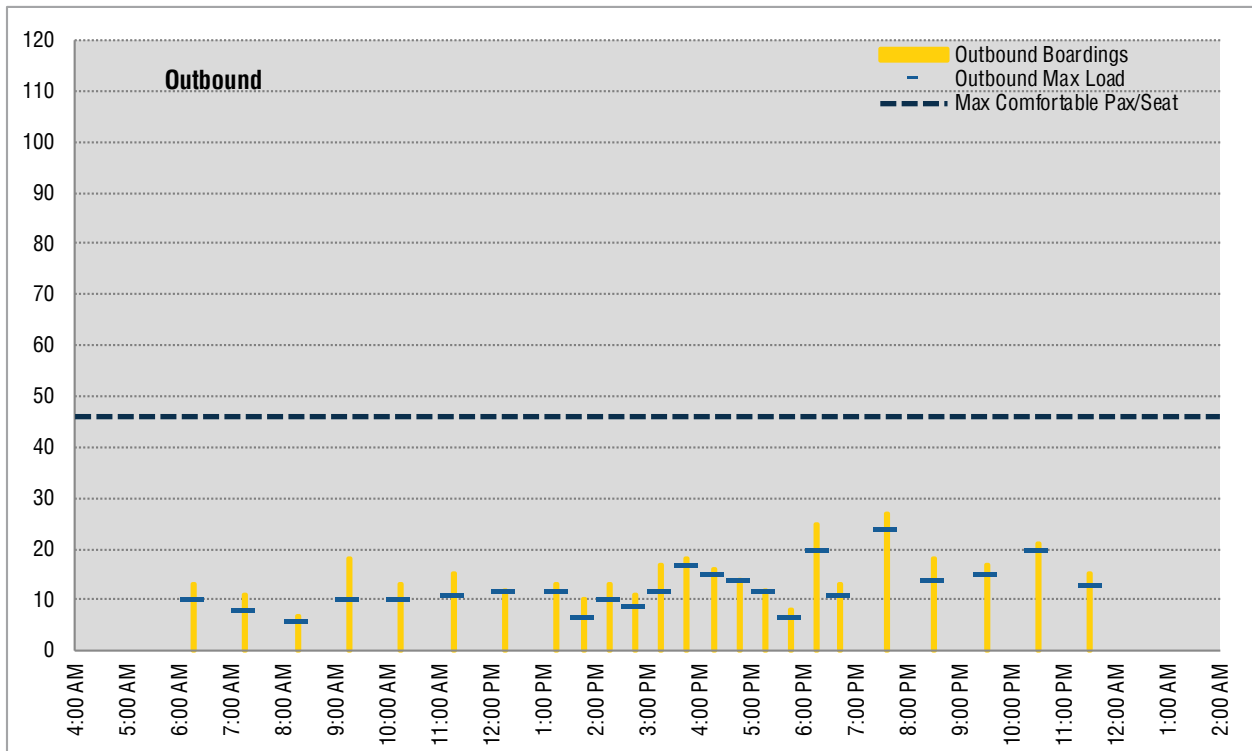


Figure 8 | Sunday Ridership by Trip: Inbound

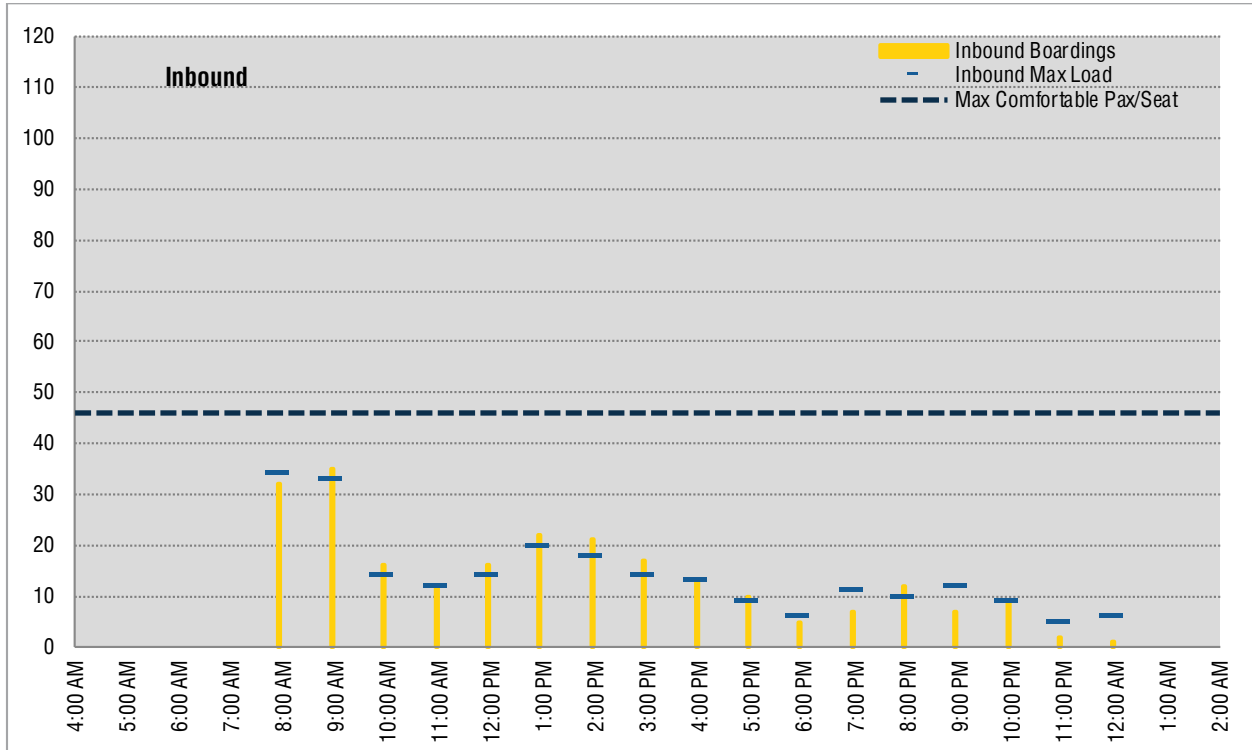
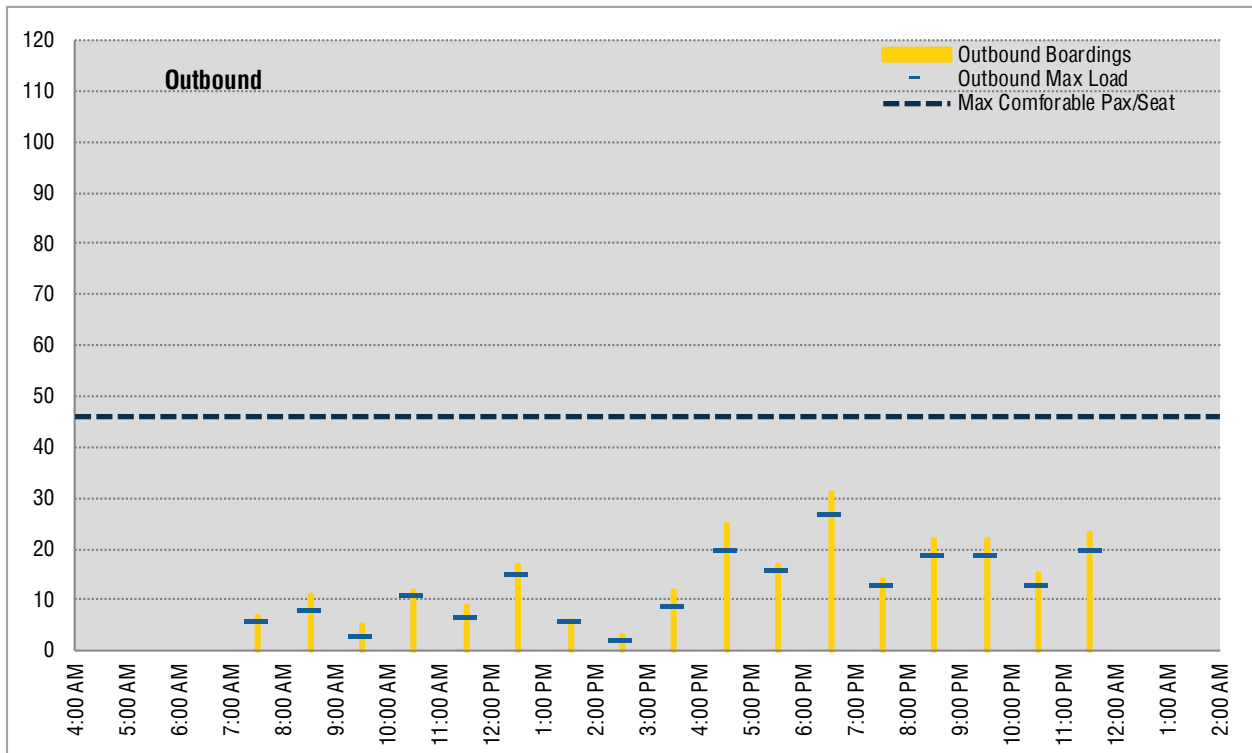


Figure 9 | Sunday Ridership by Trip: Outbound



Passenger Comfort

The MBTA desires that passengers travel in relatively comfortable conditions. At the same time, the MBTA's definition of comfort reflects the very high volume environment in which the MBTA operates, and that some passengers may have to stand for a portion of their trip. More specifically, at least 92% of passengers' travel times should be in comfortable conditions, and ideally, at least 96% of travel times should be in comfortable conditions. Comfortable conditions are considered to be 140% or less of seated capacity during high volume periods and 125% or less during other periods.

On Route 222, 98% of passenger minutes are in comfortable conditions, which is above the minimum and target standard (see Table 3).

Table 3 | Passenger Time Spent Traveling in Comfortable Conditions

	WEEKDAYS	SATURDAYS	SUNDAYS
Minimum Standard	92%	92%	92%
Target	96%	96%	96%
Actual	97.8%	100%	100%

Reliability and Speed

Reliability

Route 222 has poor overall reliability, with 63% reliability on weekdays and Sundays and 69% reliability on Saturdays. Dropped trips are a minor issue on Route 222, with 0.3% of trips not operating in Fall 2017.

Table 4 | Reliability

SERVICE DAY	ORIGIN/MID-ROUTE ON-TIME PERFORMANCE	DESTINATION ON-TIME PERFORMANCE	OVERALL RELIABILITY	DROPPED TRIPS
Monday-Friday	64%	60%	63%	0.3%
Saturday	67%	78%	69%	-
Sunday	61%	76%	63%	-

Running Times

Route 222 arrives about 8 minutes late on AM peak inbound trips. Route 222 continues to run about 5 minutes late through midday. PM peak trips and later are a few minutes late, but remain within the MBTA's definition of an on-time trip.

Figure 10 | Scheduled & Median Travel Time by Trip: Route 222.0 Inbound

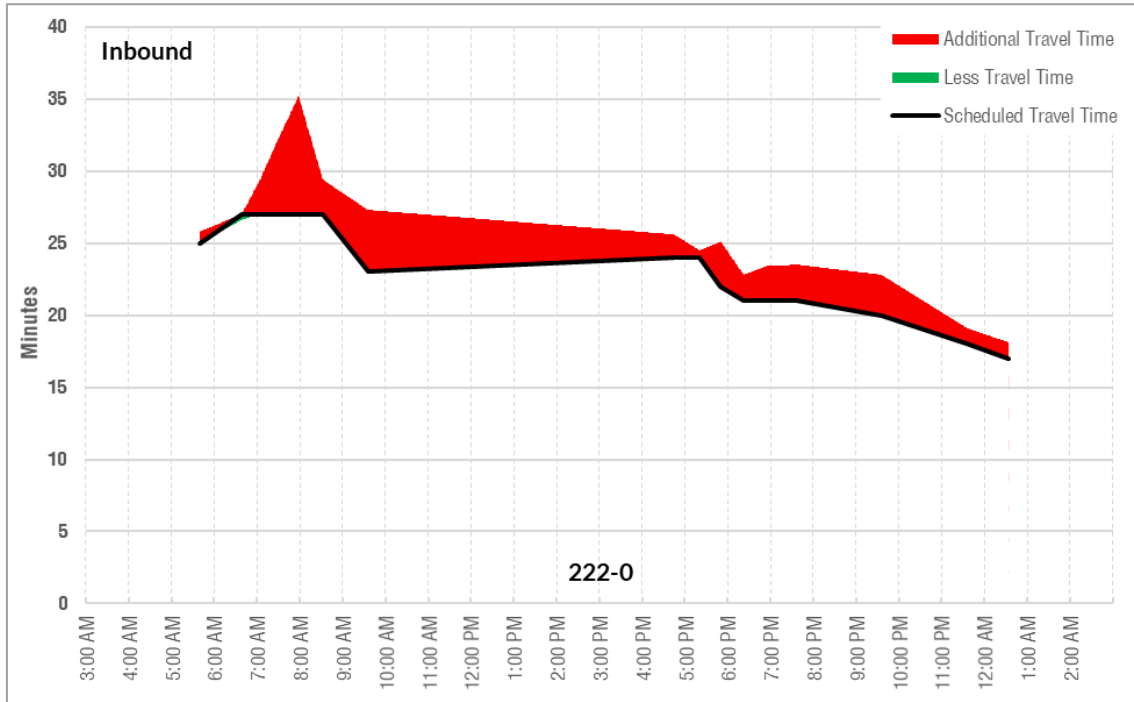
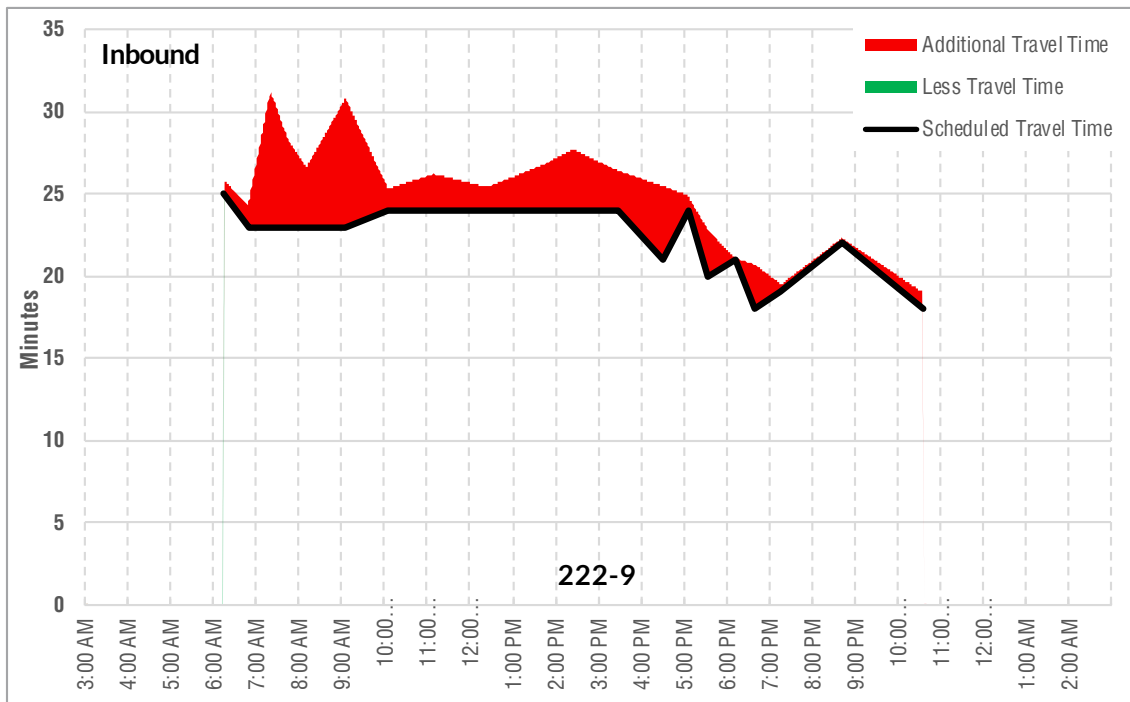


Figure 11 | Scheduled & Median Travel Time by Trip: Route 222.9 Inbound



Stop Spacing

Route 222's stops are too closely spaced along the entirety of the route.

- There are 26 stops along the 2.9 mile corridor served by service patterns 222.0 and 222.9. This stop spacing of about 580 feet results in inconsistent ridership activity at each stop and a slowing down of service.
- There are 15 stops along the 1.6 mile corridor of Washington Street between Quincy Center and Quincy Point, an area with good pedestrian connections. This corridor has an average stop spacing of 560 feet.

Summary

Route 222 provides service to East Weymouth, and, along with Route 220 Quincy Center Station – Hingham and Route 221 Quincy Center Station – Fort Point, provides moderately frequent service on Washington Street in Quincy. Route 222 has moderate ridership in the more densely populated neighborhoods of East Weymouth, and very low ridership in less dense residential neighborhoods. Route 222 operates with three service patterns, more frequently alternating between trips to Lovell Corners and the Hingham Line – and also serving Essex Street on weekday mid-day trips. Lovell Corners trips serve significantly more riders than Hingham trips, and trips on Essex Street only serve about one passenger per day. Route 222 is also relatively unreliable, often running behind schedule.