

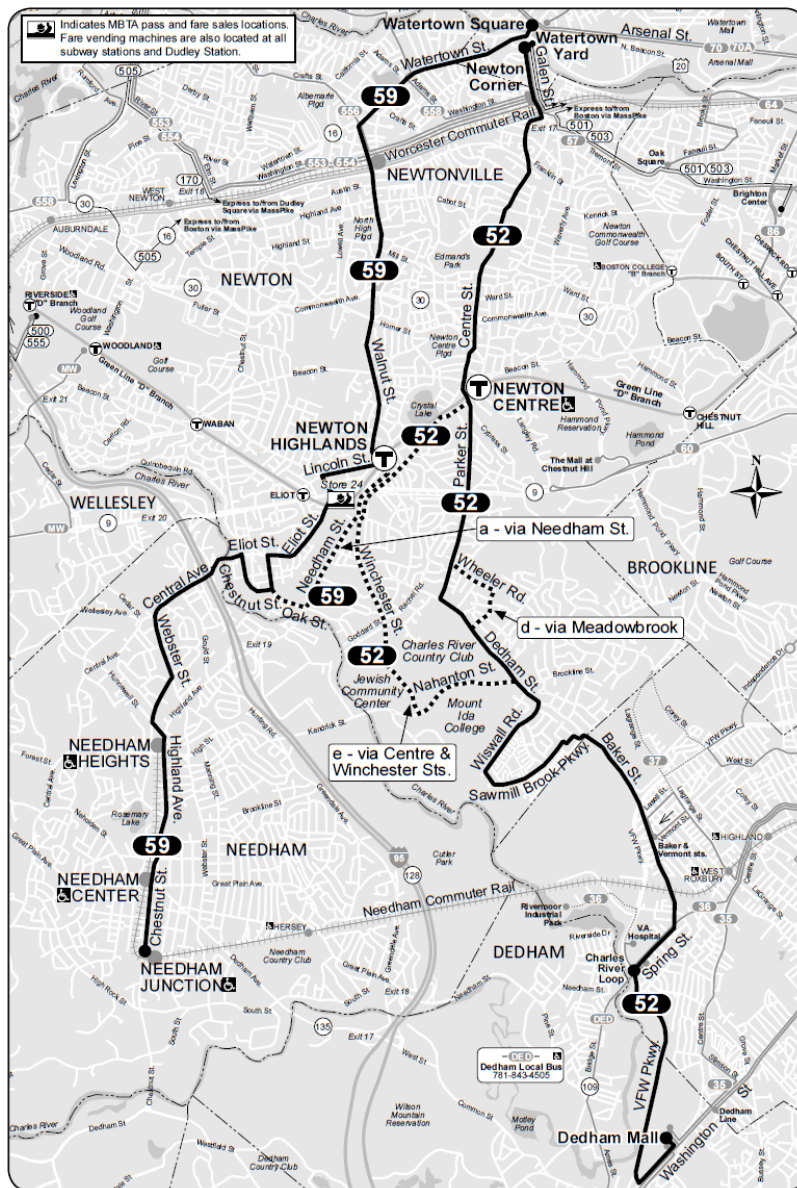
Route 52

Dedham Mall or Charles River Loop – Watertown Yard

Route Overview

Route 52 Dedham Mall or Charles River Loop – Watertown Yard is a Local route that operates between Watertown Yard and the Dedham Mall or the Charles River Loop via Newton (see Figure 1). The route operates on weekdays only.

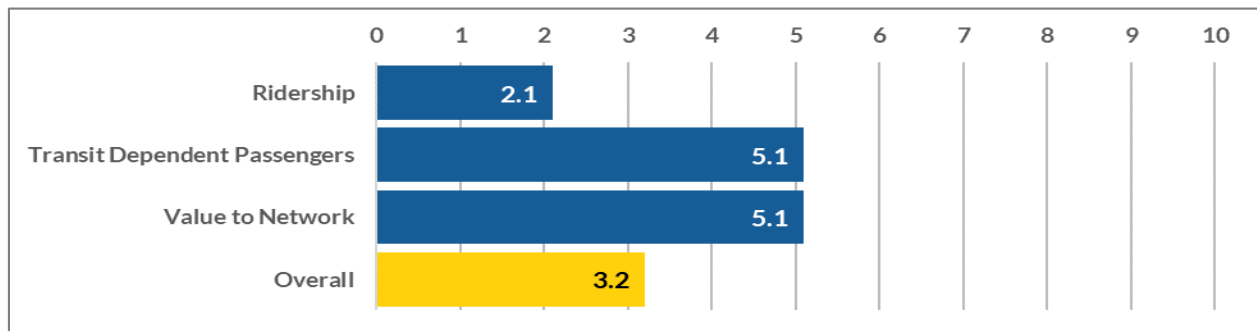
Figure 1 | Service Map



Network Importance

Route 52 is of moderate importance within the overall MBTA network (see Figure 2). On a relative scale of 0 to 10, the route rates 2.1 in terms of ridership, 5.1 in terms of transit dependent ridership, and 5.1 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% weight to overall ridership and a 15% weight to both other measures, is 3.2.

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



Service Overview

Schedule

Route 52 operates only on weekdays from 6:15 AM until 7:30 PM and provides infrequent service throughout the day (see Table 1):

- Every 30 minutes during the Sunrise period.
- Every 30 to 45 minutes during the AM Peak period.
- Every 35 to 90 minutes during the Midday Base and School periods.
- Every 20 to 45 minutes during the PM Peak period.

Route 52 meet the weekday span of service standard. However, it fails to meet two service frequency standards:

- Peak period service where some trips operate as long as 45 minutes apart versus the peak period standard of at least every 30 minutes.
- Midday service where some trips operate as long as 90 minutes apart versus the off-peak frequency standard of at least every 60 minutes.

Table 1 | Schedule Statistics

SERVICE DAY	SPAN OF SERVICE	FREQUENCY (RANGE)	FREQUENCY (AVERAGE)	DAILY TRIPS (INBOUND/OUTBOUND)
Monday-Friday	6:15 AM to 7:30 PM			17/18
Sunrise	3:00 AM to 5:59 AM	-	-	-
Early AM	6:15 AM to 6:59 AM	30	30	2/-
AM Peak	7:00 AM to 8:59 AM	30-45	35	3/4
Midday Base	9:00 AM to 1:29 PM	45-90	90	3/4
Midday School	1:30 PM to 3:59 PM	35-90	44	4/4
PM Peak	4:00 PM to 6:29 PM	20-45	35	4/4
Evening	6:30 PM to 7:30 PM	35	35	1/2
Late Evening	10:00 PM to 11:59 PM	-	-	-
Night	12:00 AM to 2:59 AM	-	-	-
Saturday	-	-	-	-
Sunday	-	-	-	-

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

Service Patterns

Route 52 has five inbound patterns and six outbound patterns. There is no predominant operating pattern and there are no regular patterns in how service operates (see Table 2):

Inbound

- Trips before 9:00 AM operate between the Charles River Loop and Watertown Yard:
 - The first three trips at 6:15 AM, 6:45 AM, and 7:15 AM operate along the “regular” route, which is shown with the solid line in Figure 1 (Pattern 52.0).
 - The next two trips at 7:45 AM and 8:15 AM operate via Meadowbrook and Wheeler Streets to serve the Oak Hill Middle School and Charles Brown Middle School (Pattern 52.4).
- Service between 9:00 AM and the end of service at 6:45 PM operates between the Dedham Mall and Watertown Yard:
 - Four trips operate along the regular route: at 9:00 AM, 12:00 PM, 4:25 PM, and 5:30 PM (Pattern 52.1).
 - Five trips operate via Centre and Winchester Streets to serve the Jewish Community Center (Pattern 52.7). These trips operate at 10:30 AM, 3:50 PM, 4:45 PM, 6:10 PM, and 6:45 PM.

Outbound

- The first two trips at 7:00 AM and 7:25 AM operate between Watertown Yard and the Charles River Loop via Meadowbrook and Wheeler Roads (Pattern 52.4).

Table 2 | Service Patterns

PATTERN	ORIGIN	DESTINATION	UNIQUE FEATURE	TRIPS PER WKD	TRIPS PER SAT	TRIPS PER SUN
INBOUND				17	-	-
52.0	Charles River Loop	Watertown Yard	No deviations	3	-	-
52.1	Dedham Mall	Watertown Yard	No deviations	4	-	-
52.4	Charles River Loop	Watertown Yard	Deviation via Meadowbrook Road and Wheeler Road	2	-	-
52.5	Dedham Mall	Watertown Yard	Deviation via Meadowbrook Road and Wheeler Road	3	-	-
52.7	Dedham Mall	Watertown Yard	Deviation via Centre Street and Winchester Street	5	-	-
OUTBOUND				18	-	-
52.0	Watertown Yard	Charles River Loop	No deviations	2	-	-
52.1	Watertown Yard	Dedham Mall	No deviations	6	-	-
52.4	Watertown Yard	Charles River Loop	Deviation via Meadowbrook Road and Wheeler Road	3	-	-
52.5	Watertown Yard	Dedham Mall	Deviation via Meadowbrook Road and Wheeler Road	1	-	-
52.6	Watertown Yard	Charles River Loop	Deviation via Centre Street and Winchester Street	1	-	-
52.7	Watertown Yard	Dedham Mall	Deviation via Centre Street and Winchester Street	5	-	-

- The third trip at 8:05 AM operates between Watertown Yard and the Dedham Mall via Meadowbrook and Wheeler Roads (Pattern 52.5).
- The fourth trip at 8:30 AM operates between Watertown Yard and the Charles River Loop via Centre and Winchester Streets (Pattern 52.6).
- Service between 9:00 AM and 2:15 PM operates between Watertown Yard and the Dedham Mall:
 - Three trips operate along the regular route. These trips operate at 9:00 AM, 9:45 AM, and 12:45 PM (Pattern 52.1).
 - Two trips operate via Centre and Winchester Streets. These trips operate at 11:15 AM and 2:15 PM (Pattern 52.7).
- At 2:47 PM there is a school trip that operates between Watertown Yard and the Charles River Loop via Meadowbrook and Wheeler Roads (Pattern 52.4).

- Between 3:10 PM and 6:20 PM service operates between Watertown Yard and the Dedham Mall and alternates between Pattern 52.7 serving Centre and Winchester Streets (three trips) and Pattern 52.1 serving the regular route (two trips).
- The last two trips at 6:55 PM and 7:30 PM operate between Watertown Yard and the Charles River Loop along the regular route (Pattern 52.0).

Ridership

Route 52 carries 560 passengers per weekday.

Ridership by Stop

Ridership is low to moderate along the entire route. On weekdays inbound (see Figure 3):

- 25 passengers board at the two Dedham Mall stops.
- Five passengers board at the Charles River Loop.
- 100 passengers board and fewer than 10 alight at the 14 stops along Spring Street, Baker Street, Spiers Road, and Fredette Road before Sawmill Brook Parkway. Nearly 70 of the boardings are at the two West Roxbury stops on Baker Street adjacent to Catholic Memorial School (Wycliff Avenue and Dunwell Avenue).
- 30 passengers board and five alight at the 11 stops on the jog along Sawmill Brook Parkway and Wiswall Road.
- 80 passengers board and 80 alight between Wiswall Road and Centre Street:
 - 40 passengers board and 75 alight at the 17 stops along the regular alignment along Dedham Street and Parker Street.
 - 30 passengers board at the single stop at Wheeler Road at Meadowbrook Road on the Meadowbrook Road/Wheeler Road service pattern that serves the two middle schools.
 - 10 passengers board and five alight at the nine stops on the Winchester Street/Centre Street service pattern.
- 50 passengers board and 120 alight at the 17 stops along Centre Street and Galen Street before Watertown Yard.
- 70 passengers alight at Watertown Yard.

Ridership by Trip

Ridership per trip is low on nearly all trips. Inbound, only four trips carry over 20 passengers, and only one (6:45 AM) carries over 40 (see Figure 4). Outbound, only two trips carry over 20 passengers, and only one has over 30 (7:00 AM). Most trips carry around 10 passengers (see Figure 5). The 2:47 PM outbound school trip carries 27 passengers.

Figure 3 | Weekday Inbound Ridership by Stop Map

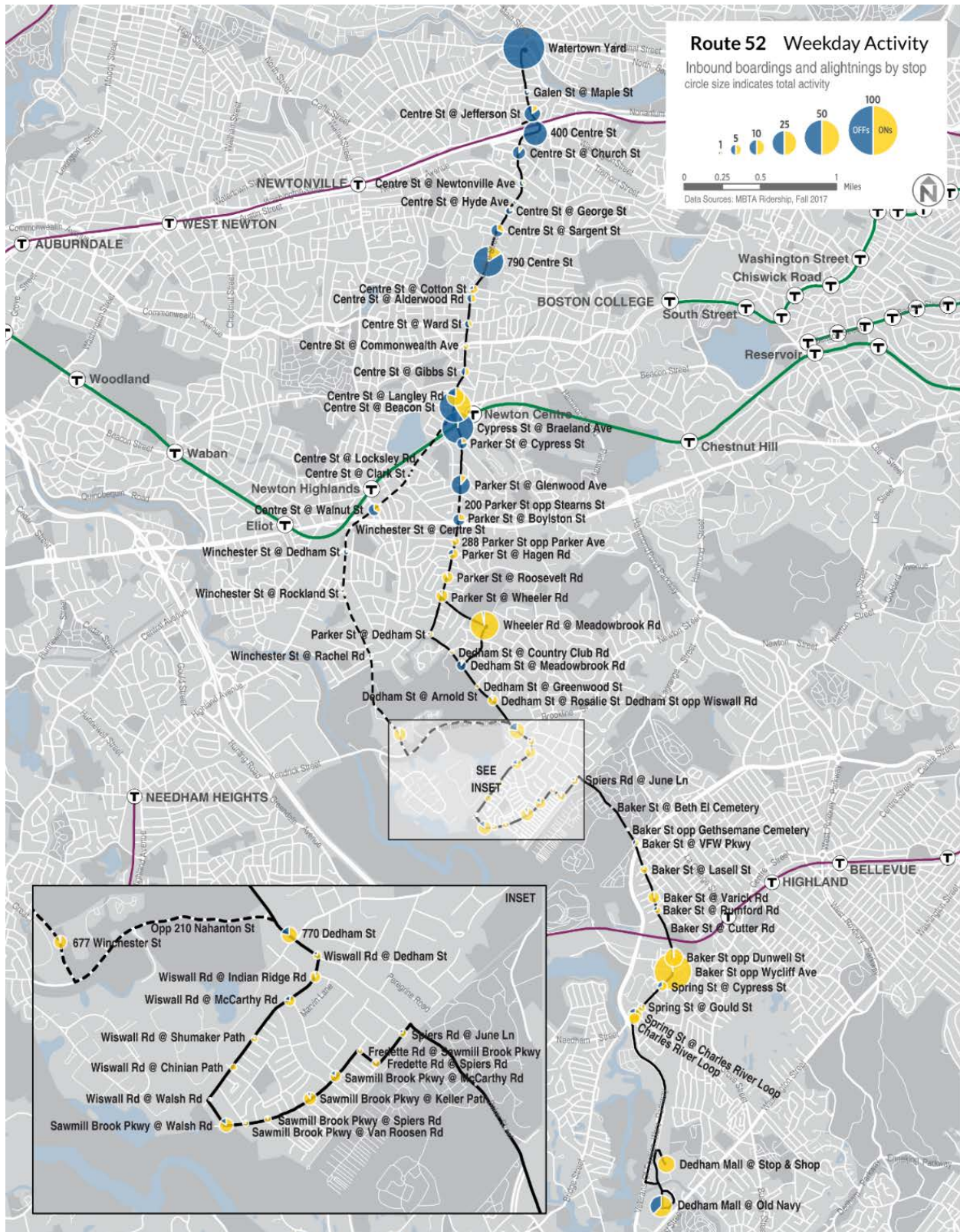


Figure 4 | Weekday Ridership by Trip: Inbound

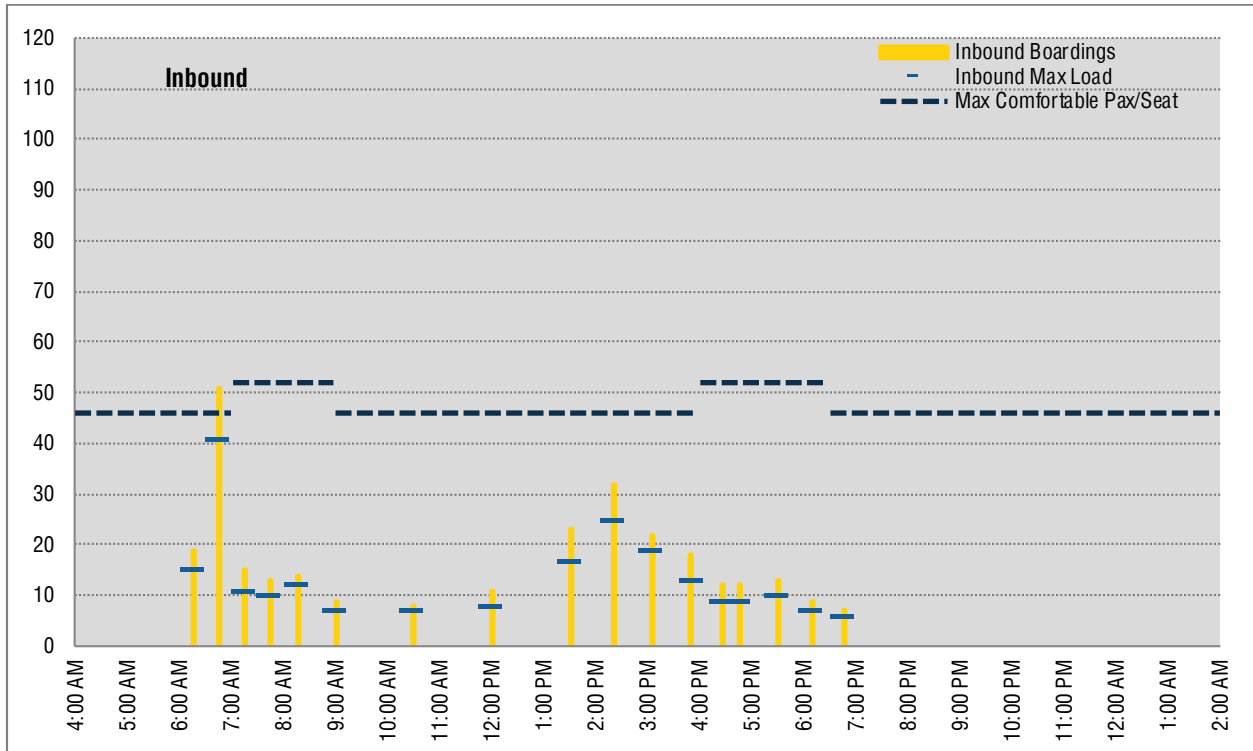
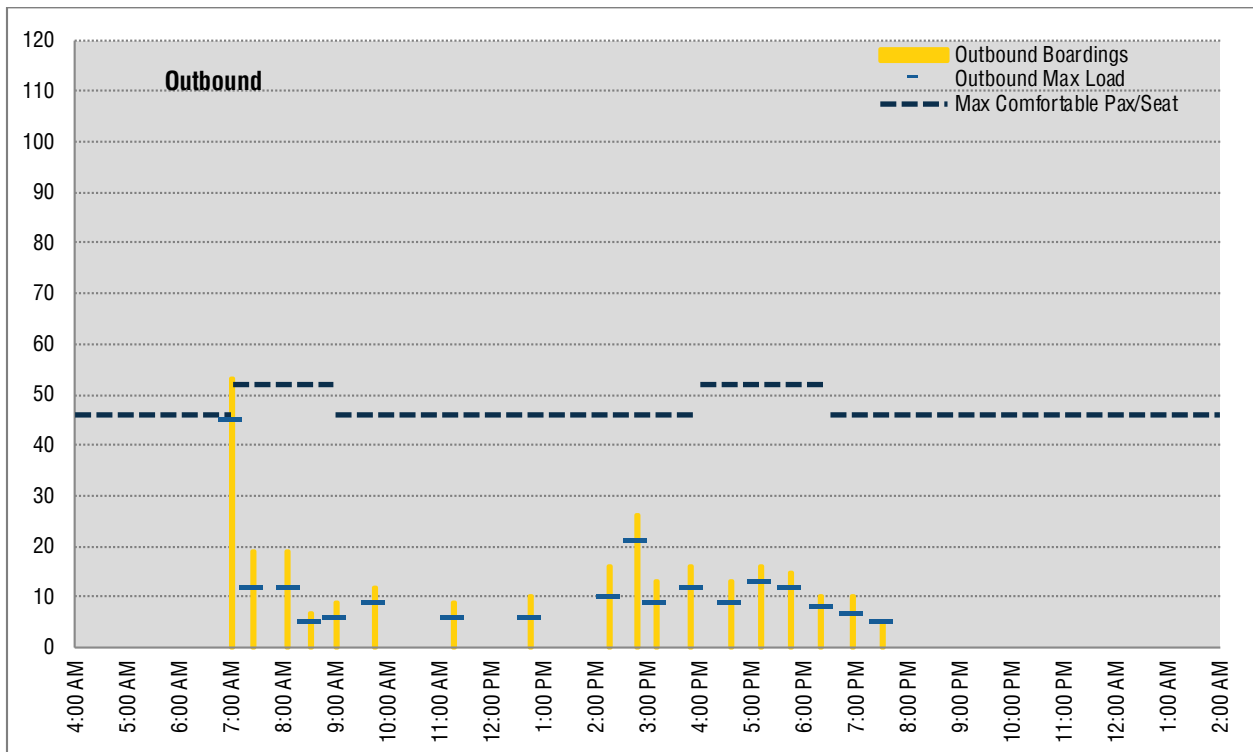


Figure 5 | Weekday Ridership by Trip: Outbound



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 52, 96.7% of passenger minutes are in comfortable conditions, which is above the target of 96% (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	96.7%	-	-

Reliability and Speed

Reliability

Route 52's overall reliability is very poor, at only 47%, which is well below the minimum standard of 70% (see Table 4). As described in the next section, this is largely due to actual running times that are significantly longer than scheduled times.

Table 4 | Reliability

SERVICEDAY	ORIGIN/MID-ROUTE ON-TIME PERFORMANCE	DESTINATION ON-TIME PERFORMANCE	OVERALL RELIABILITY	DROPPED TRIPS
Monday-Friday	48%	39%	47%	0.1%
Saturday	-	-	-	-
Sunday	-	-	-	-

Running Times

Route 52's actual running times vary significantly from scheduled times. Inbound, actual running times are shorter by up to eight minutes (see Figure 6). Outbound, actual times are much longer than scheduled, by up to 20 minutes (see Figure 7). Taken together, round trip running times are longer than scheduled times.

Figure 6 | Scheduled & Median Travel Time by Trip: Route 52 Inbound

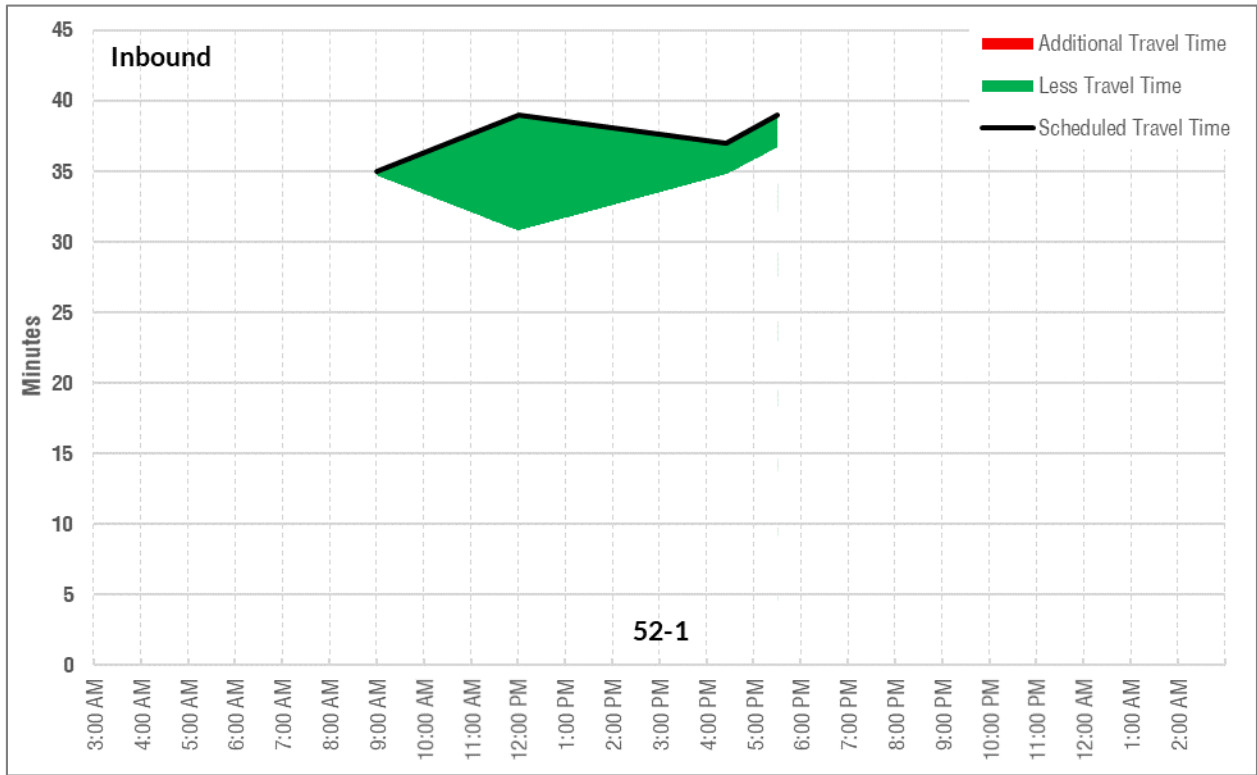
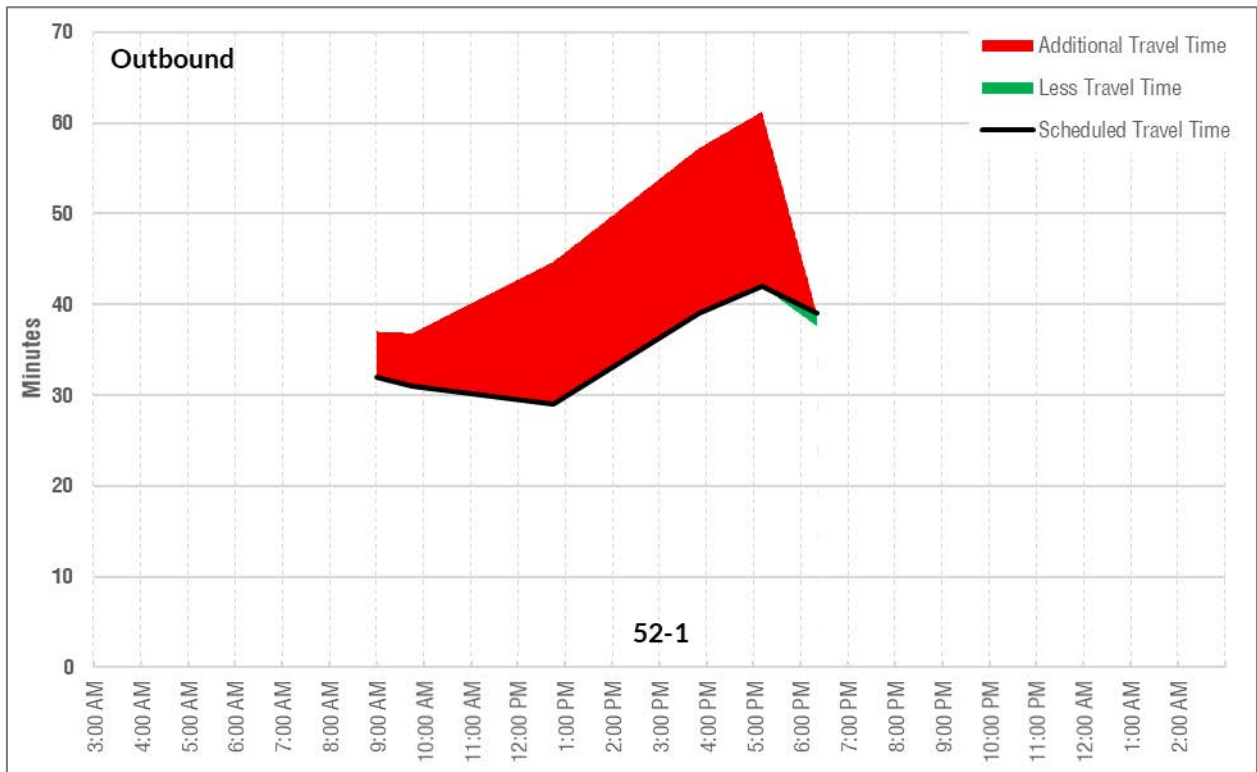


Figure 7 | Scheduled & Median Travel Time by Trip: Route 52 Outbound



Stop Spacing

Stops are spaced too closely together along much of Route 52's alignment:

- Along a 3.9-mile stretch along Dedham and Parker Streets, there is an average of 10.2 stops per mile, which is over twice as many as the MBTA's guideline of four to five stops per mile in suburban areas.
- Between Newton Centre and Watertown Yard, there is an average of seven stops per mile.

Summary

Route 52 provides service that is infrequent, unreliable, and complicated. While the underlying demand for transit in its service area is low, it is also likely that ridership is lower than it could be due to these problems.

The route's Centre Street/Winchester Street variant is particularly problematic. The regular route along Dedham and Parker Streets serves 70 boardings and 100 alightings while the Winchester Street/Centre Street variant serves fewer than 20 boardings and 20 alightings. However, the variant service means that there are gaps as long as three hours between trips on the regular route. The Meadowbrook Road variant, on the other hand, serves 25 boardings and 30 alightings and does not leave any other passengers unserved.