

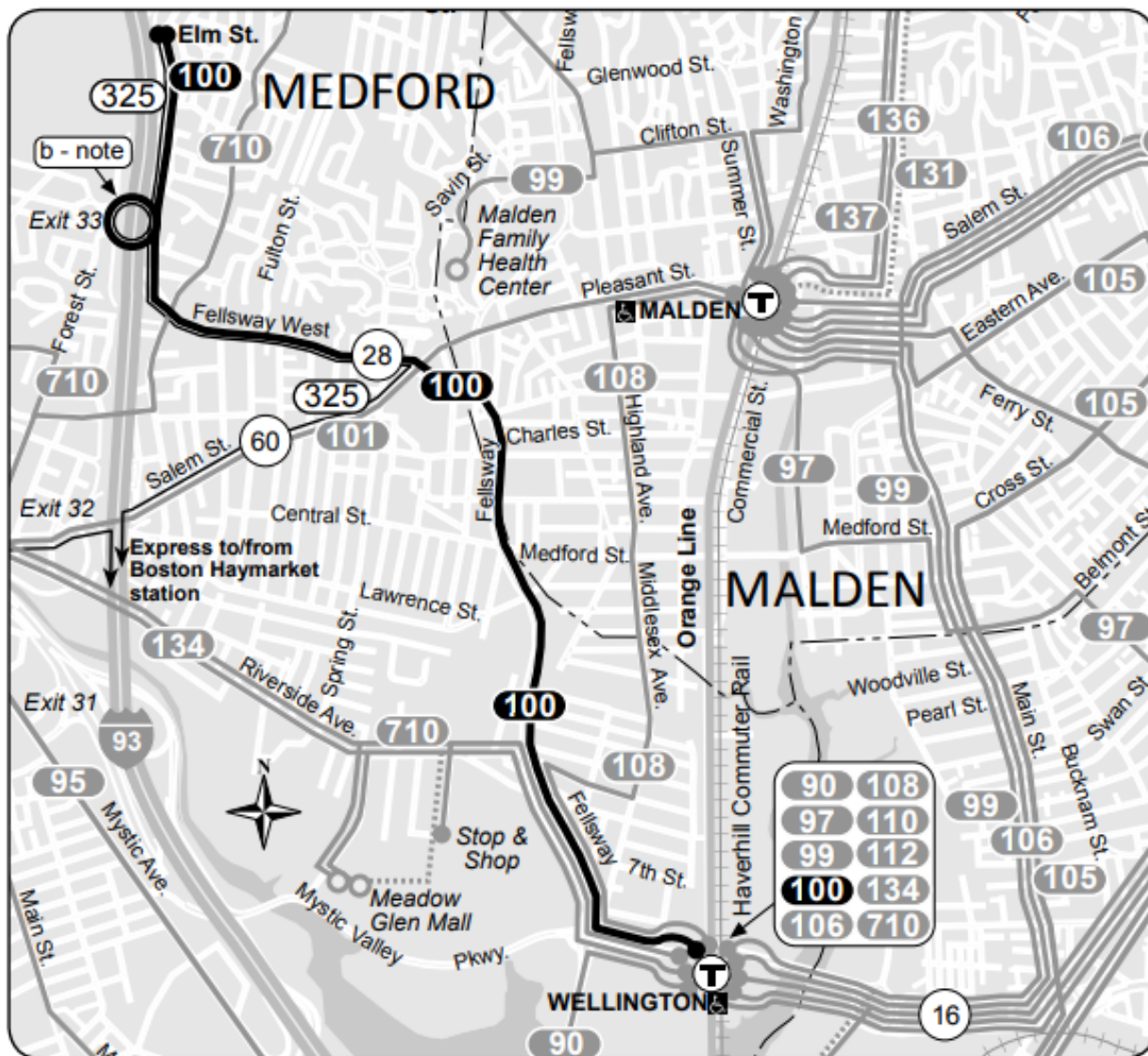
Route 100

Elm Street - Wellington Station

Route Overview

Route 100 Elm Street - Wellington Station is a Local route operates between Fellsway West just north of I-93's Exit 33 (Roosevelt Circle) and Wellington Station. The route primarily serves residential neighborhoods in Medford and Malden, as well as several shopping centers located just west of Wellington Station.

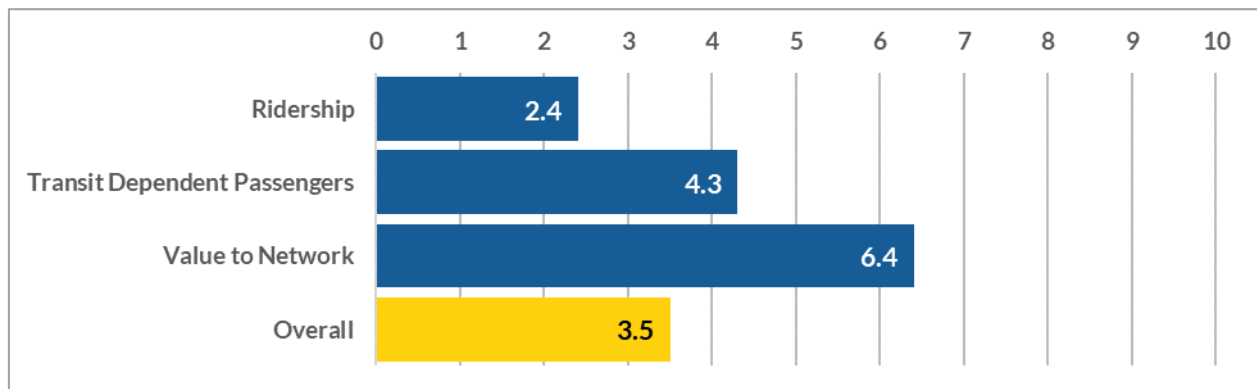
Figure 1 | Service Map



Network Importance

Route 100 is of moderate importance within the overall network (see Figure 2). On a scale of 0 to 10, the route rates 2.4 in terms of ridership, 4.3 in terms of transit dependent ridership, and 6.4 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 3.5.

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



Service Patterns

Schedule

Route 100 runs from early morning until after midnight seven days a week, somewhat frequently during the weekday peak periods and less frequently at other times and on weekends (see Table 1). On weekdays, the route runs from 5:02 AM to 12:41 AM:

- Service operates about every 20 minutes during the AM and PM peak.
- Off-peak trips operate every 30 minutes until 7:30 PM.
- From 7:30 PM until the end of service, the route operates every hour.

On weekends, Route 100 operates with a slightly reduced span of service, with trips about every 30 minutes on Saturdays from 5:15 AM to 12:39 PM and every 60 minutes on Sundays from 5:50 AM to 12:41 PM.

Route 100 meets the MBTA span of service and frequency standards for Local bus routes on all days.

Table 1 | Schedule Statistics

SERVICE DAY	SPAN OF SERVICE	FREQUENCY (RANGE)	FREQUENCY (AVERAGE)	DAILY TRIPS (INBOUND/OUTBOUND)
Monday-Friday	5:02 AM to 12:41 AM			37/36
Sunrise	5:02 AM to 5:59 AM	28 – 30	29	2/2
Early AM	6:00 AM to 6:59 AM	20 – 40	30	2/1
AM Peak	7:00 AM to 8:59 AM	20 – 35	25	6/6
Midday Base	9:00 AM to 1:29 PM	35 – 35	35	7/8
Midday School	1:30 PM to 3:59 PM	35 – 45	37	5/4
PM Peak	4:00 PM to 6:29 PM	20 – 45	20	6/7
Evening	6:30 PM to 9:59 PM	14 – 60	40	6/5
Late Evening	10:00 PM to 11:59 PM	60 – 60	60	2/2
Night	12:00 AM to 12:30 AM	60 – 60	-	1/1
Saturday	5:15 AM to 12:39 AM	26 – 60	33	35/34
Sunday	5:50 AM to 12:41 AM	29 – 60	55	20/19

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

Service Patterns

Most Route 100 service runs the full length of the route from Fellsway West opposite Elm Street to Wellington Station (Pattern 100.3). On weekdays one trip ends at the Fellsway Garage near Fellsway and Salem Street as buses pull out of service (Pattern 100.0). On weekends, late evening service operates only as far as Roosevelt Circle (Pattern 100.1)

Table 2 | Service Patterns

PATTERN	ORIGIN	DESTINATION	UNIQUE FEATURE	TRIPS PER WKD	TRIPS PER SAT	TRIPS PER SUN
INBOUND				37	35	20
100.0	Fellsway West opposite Elm Street	Salem Street at Fellsway	Route Terminates at Fellsway Garage	1	-	-
100.1	Roosevelt Circle	Wellington Station	Weekend evening cut-back		4	4
100.3	Fellsway West opposite Elm Street	Wellington Station Busway	Primary Service Pattern	36	31	16
OUTBOUND				36	34	19
100.1	Roosevelt Circle	Wellington Station	Weekend evening cut-back	-	4	4
100.3	Wellington Station Busway	Fellsway West opposite Elm Street	Primary Service Pattern	36	30	15

Ridership

Route 100 carries about 730 passengers on weekdays, 445 passengers on Saturdays, and 230 passengers on Sundays. Route 100 is one of the MBTA's lowest ridership Local routes. It also has very low ridership compared to other routes operating at comparable frequencies.

Ridership by Stop

The vast majority of Route 100 customers – approximately 90% – use the route to travel to and from the Orange Line (see Figure 3). On weekday inbound trips:

- 36 passengers board on Fellsway opposite of Elm Street.
- 13 passengers board and three alight at Roosevelt Circle.
- 42 passengers board and one alights at Fellsway at Fulton Street, near St. Francis School.
- The next four stops along Fellsway between Fulton Street and Salem Street generate a total of 48 boardings and zero alightings.
- 46 passengers board and five alight at Fellsway at Salem Street, near the Stop & Shop.
- The next three stops before Central Avenue have a total of 35 boardings and zero alightings.
- Fellsway at Central Avenue generates 50 boardings and two alightings.
- Fellsway at Myrtle Street generates 44 boardings and one alighting.
- The three stops between Fellsway at Myrtle Street and Wellington Station generate 59 boardings and 29 alightings.
- 342 passengers alight at Wellington Station.

Ridership patterns are similar on weekends, albeit with lower passenger volumes.

Ridership by Trip

On weekdays, Route 100 operates approximately every 20 minutes during peak periods and every 30 to 60 minutes during off-peak periods (see Figure 4 and Figure 5). Ridership on all trips is low. Peak period peak direction trips serve 20 to 25 passengers and midday trips generally serve 10 or fewer passengers. Outbound trips carry close to 20 passengers until 6:00 PM, and ridership declines to four riders on the last outbound trip at 12:30 AM.

On Saturdays and Sundays, ridership exceeds 10 passengers on only a few trips (see Figure 6 through Figure 9).

Figure 3 | Weekday Inbound Ridership by Stop Map

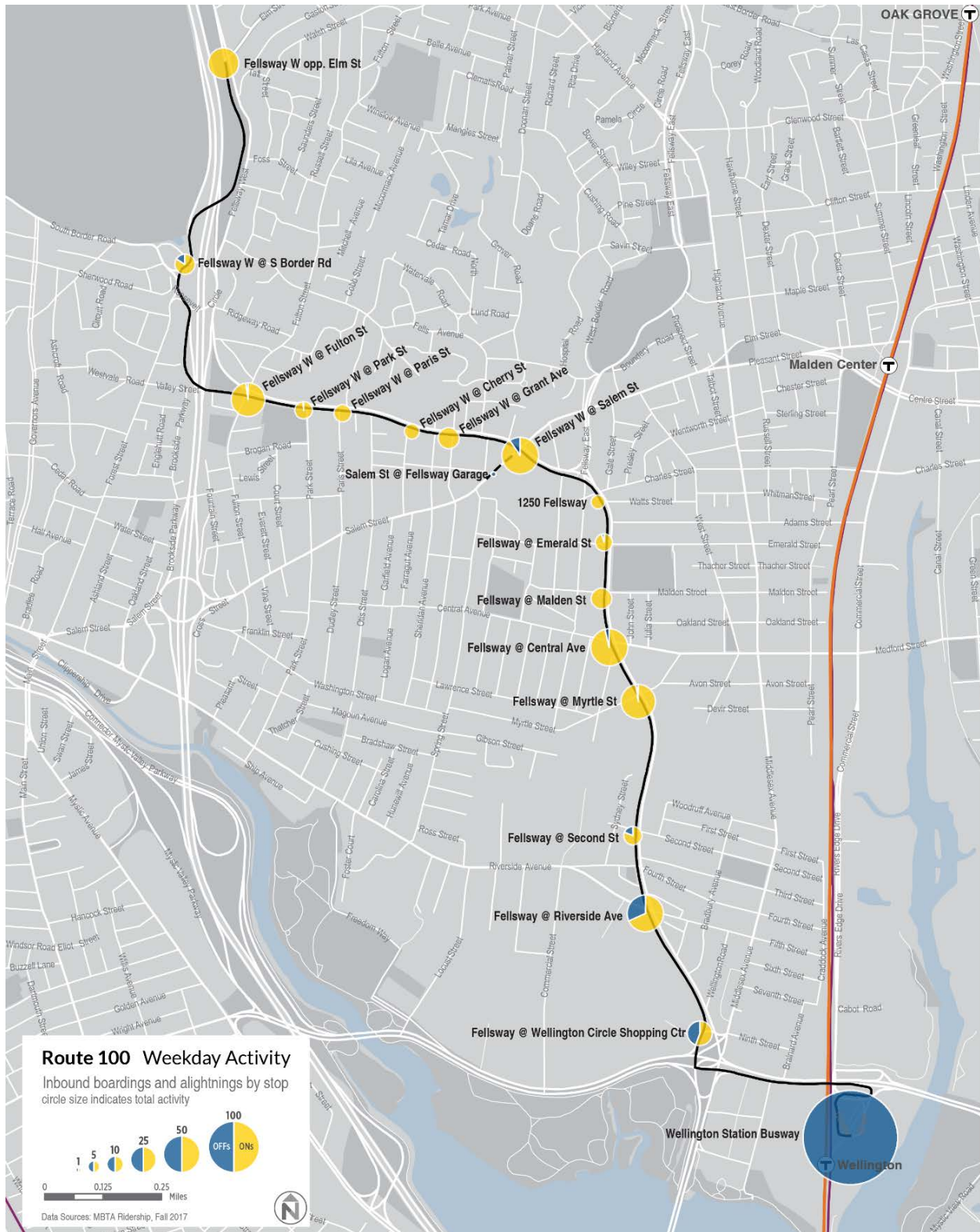


Figure 4 | Weekday Ridership by Trip: Inbound

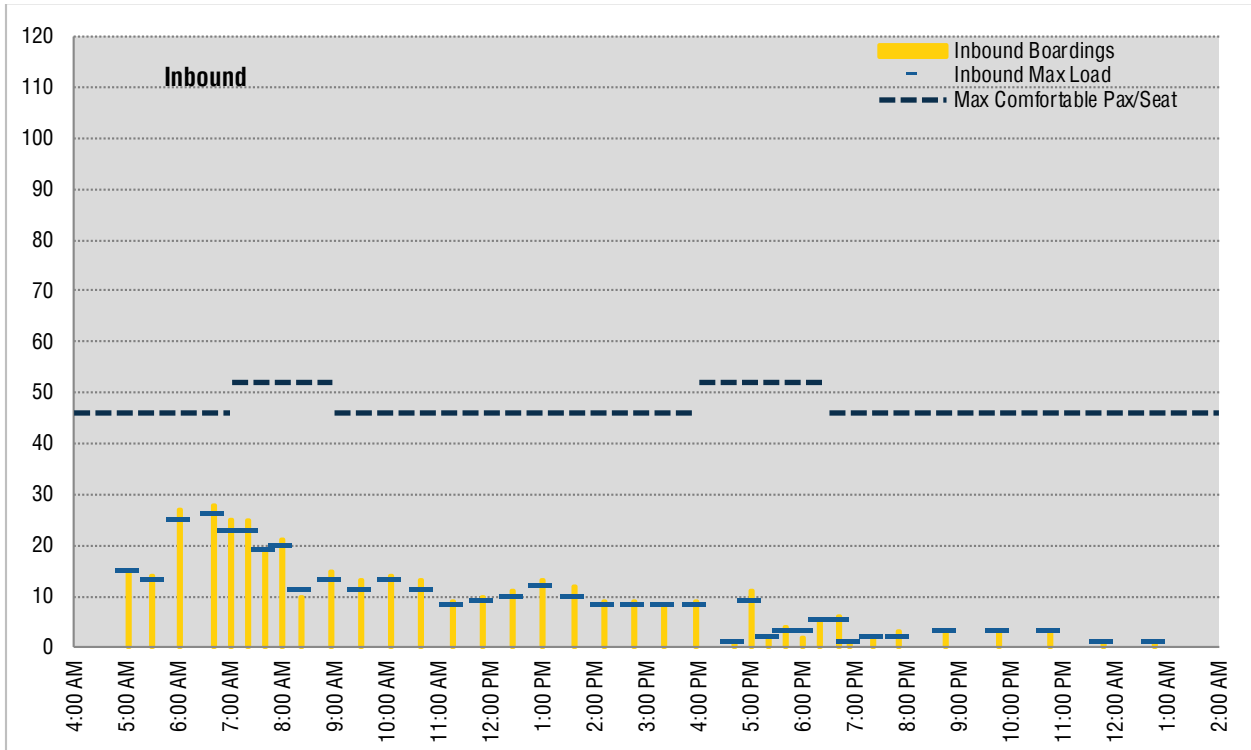


Figure 5 | Weekday Ridership by Trip: Outbound

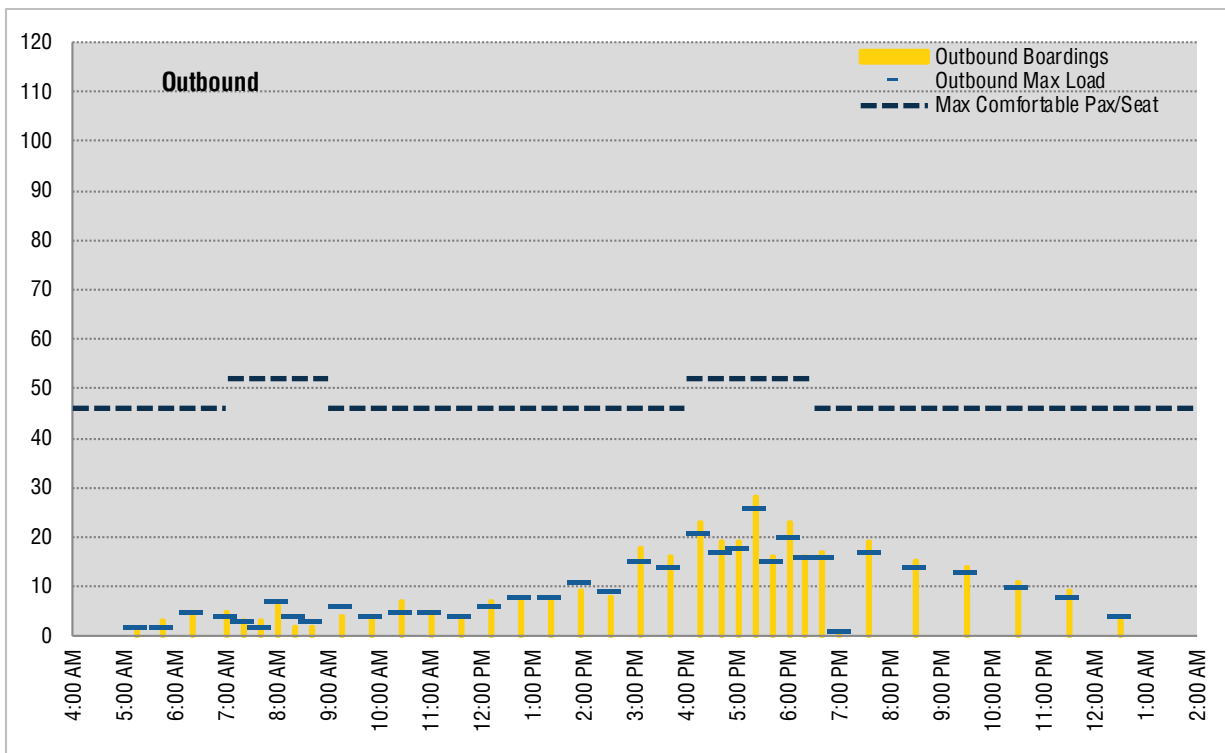


Figure 6 | Saturday Ridership by Trip: Inbound

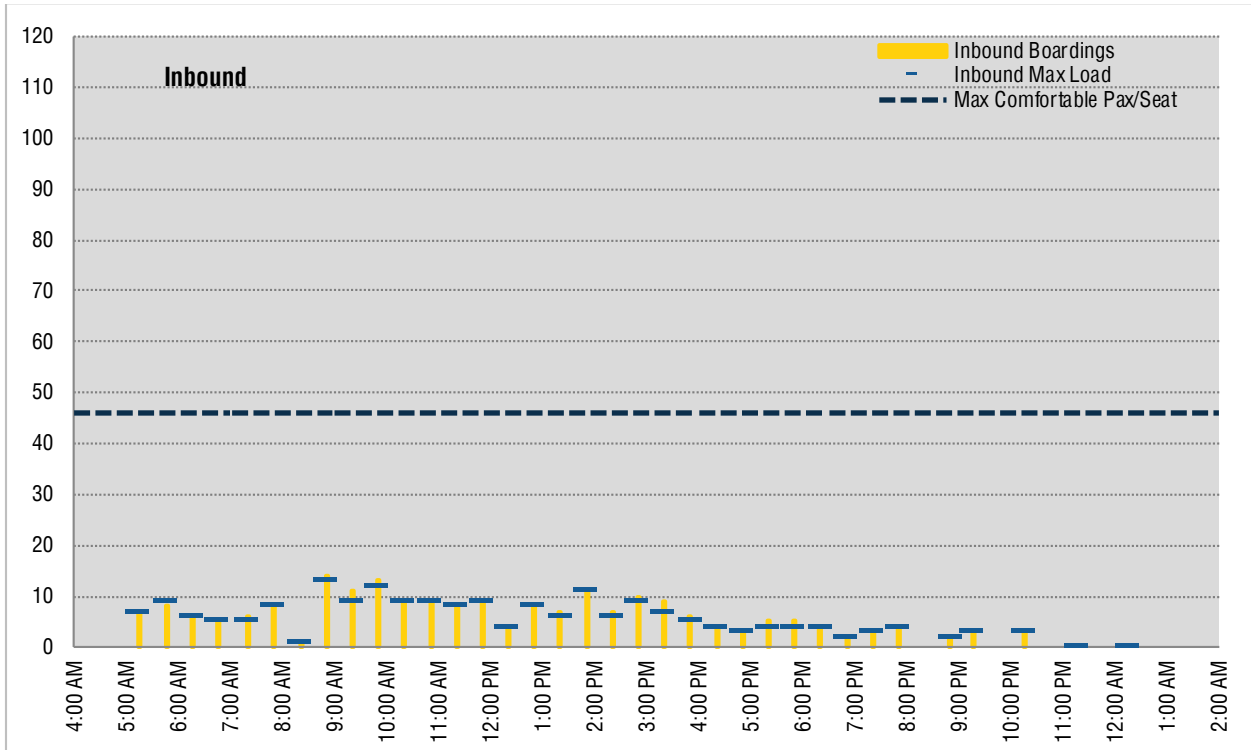


Figure 7 | Saturday Ridership by Trip: Outbound

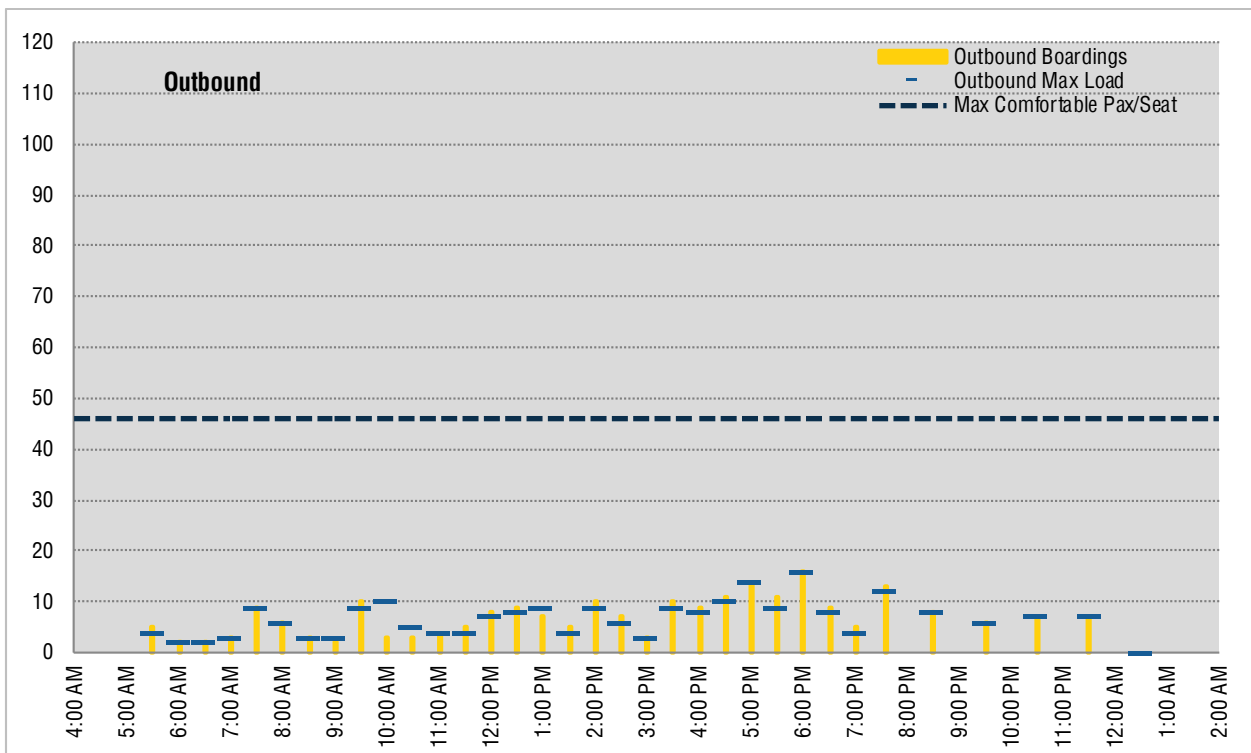


Figure 8 | Sunday Ridership by Trip: Inbound

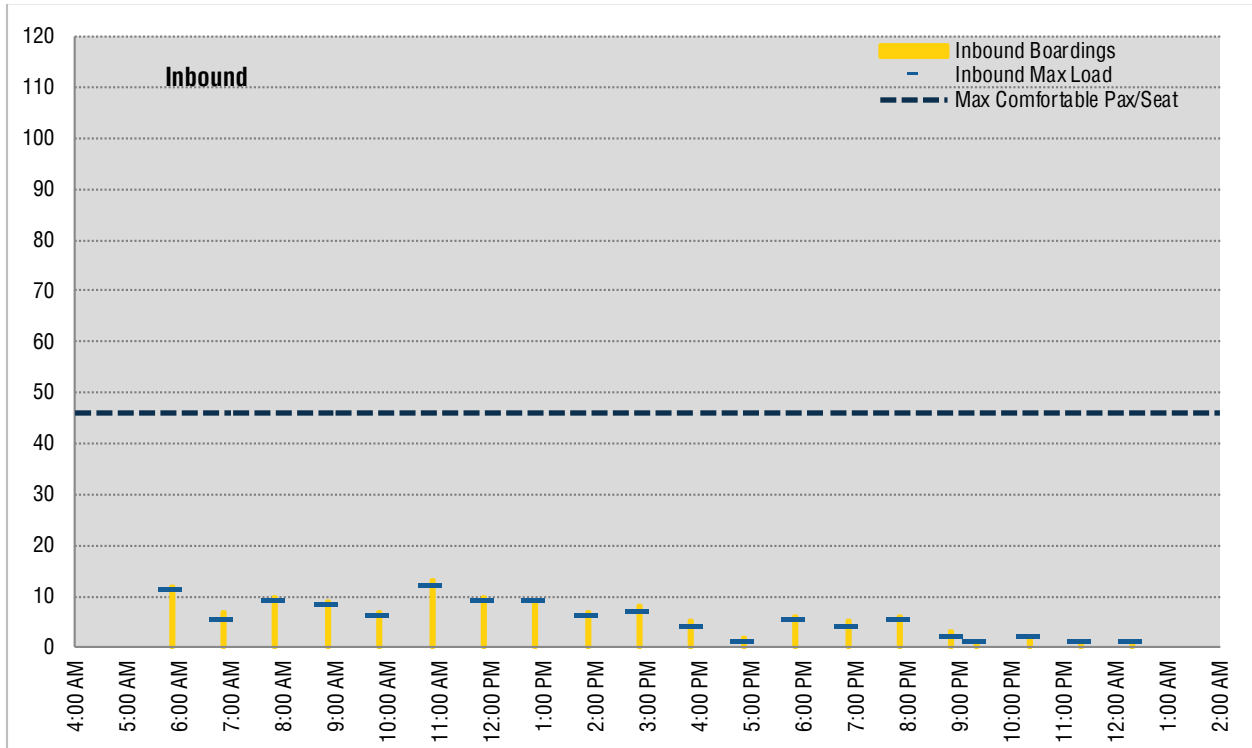
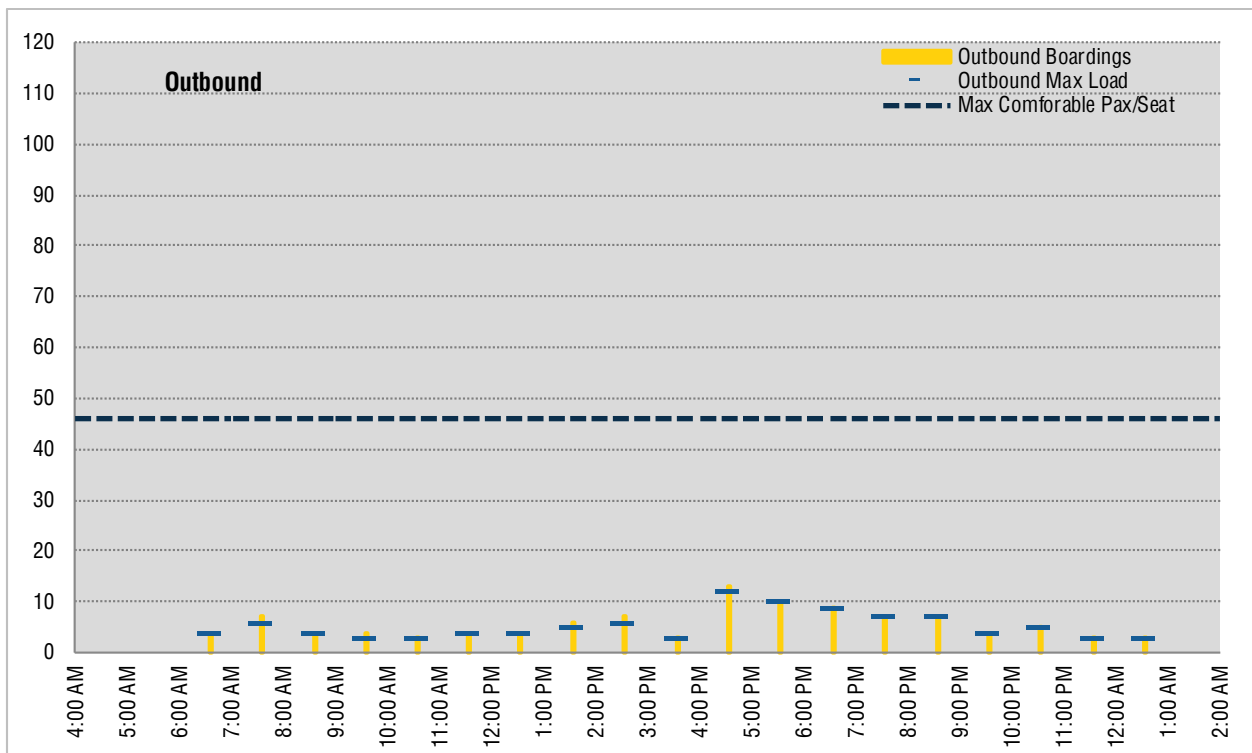


Figure 9 | Sunday Ridership by Trip: Outbound



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 100, nearly 100% of passenger minutes are in comfortable conditions, reflecting the route's low overall ridership (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	99.7%	100.0%	100.0%

Reliability and Speed

Reliability

Route 100 operates just below the minimum service reliability standard, with 69% reliability on weekdays (see Table 4). On-time performance is significantly affected by traffic conditions during peak service, especially near Wellington Circle.

Table 4 | Reliability

SERVICE DAY	ORIGIN/MID-ROUTE ON-TIME PERFORMANCE	DESTINATION ON-TIME PERFORMANCE	OVERALL RELIABILITY	DROPPED TRIPS
Monday-Friday	68%	73%	69%	0.1%
Saturday	75%	78%	76%	-
Sunday	68%	72%	69%	-

Running Times

Weekday inbound trips run as much as 10 minutes behind schedule on average, meaning the typical running time is 40 to 50% longer than the schedule. Midday trips mostly run to the schedule.

Figure 10 | Scheduled & Median Travel Time by Trip: Route 100 Inbound

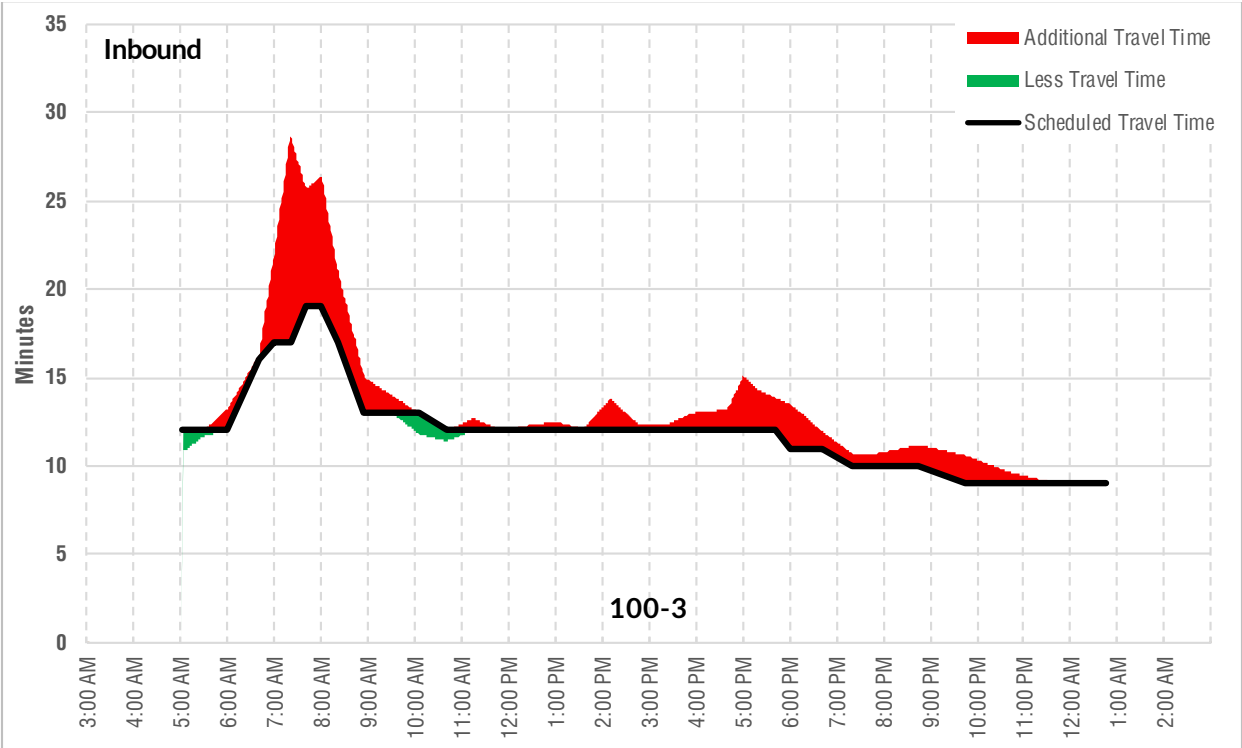
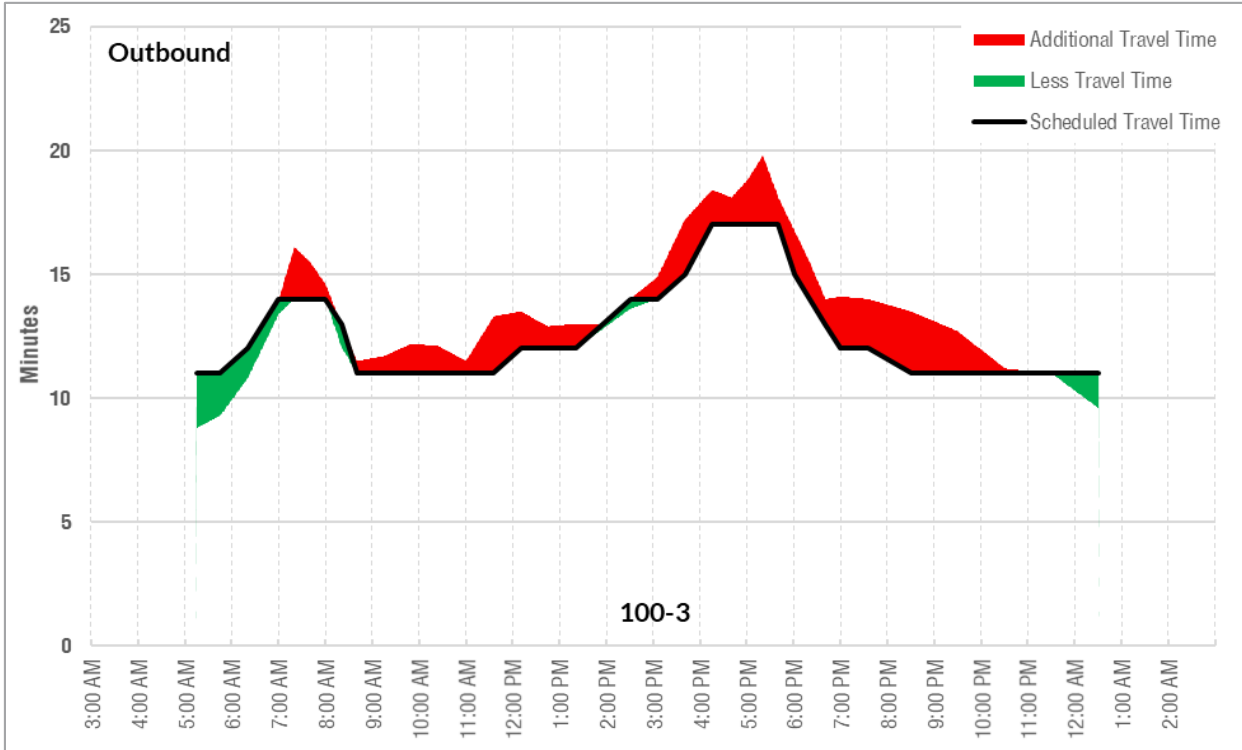


Figure 11 | Scheduled & Median Travel Time by Trip: Route 100 Outbound



Stop Spacing

Route 100 has approximately six stops per mile on average, at the high end of the four to seven stops per mile recommended for urban areas under MBTA guidelines. The route has closer stop spacing when running through primarily residential neighborhoods, with about nine stops per mile between Fulton Street and Myrtle Street. Given the poor walking conditions along Fellsway, however, this spacing is likely needed to facilitate local access to transit.

Summary

Route 100 is designed to connect residential areas along Fellsway West with Wellington Station. The market that the route serves is small and the amount of service that the route provides is very high relative to ridership. The route is challenged by low on-time performance and suffers from reliability issues.