

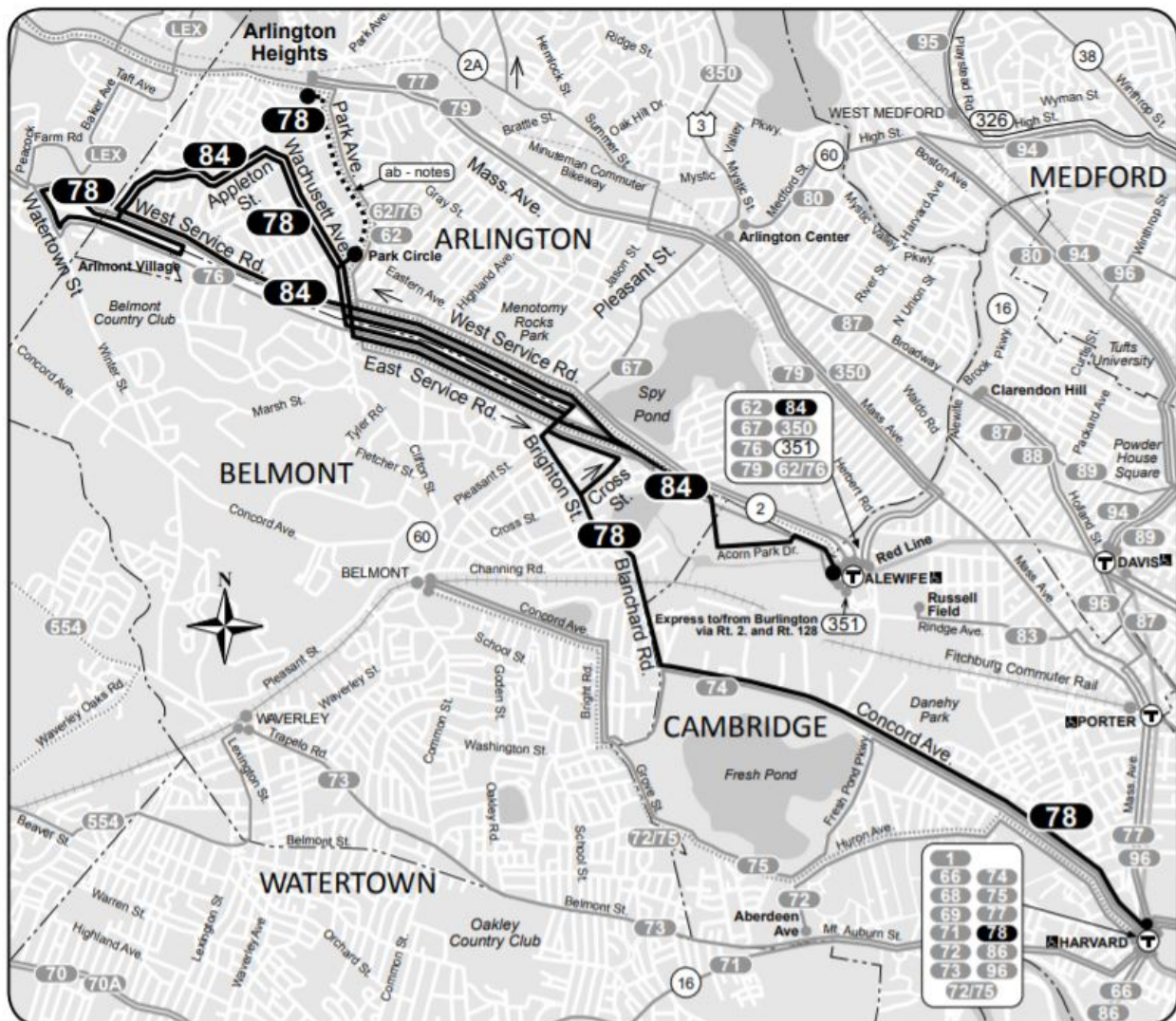
Route 84

Arlmont Village – Alewife Station

Route Overview

Route 84 Arlmont Village - Alewife Station is a Commuter route that operates between Arlmont Village in Arlington and Alewife Station via Route 2's service roads and Route 2 (see Figure 1). It is closely related to Route 78 Arlmont Village-Harvard Station: Route 84 provides peak period service between Arlmont Village and Alewife Station and Route 78 provides off-peak service between Arlmont Village and Harvard Station.

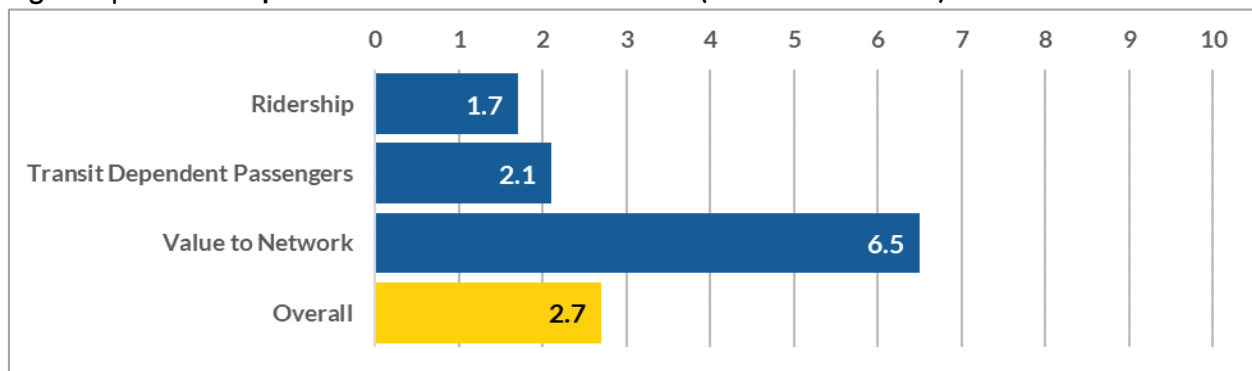
Figure 1 | Route 84 Service Map



Network Importance

Route 84 is of low importance within the overall network (see Figure 2). On a relative scale of 0 to 10, the route rates 1.7 in terms of ridership, 2.1 in terms of transit dependent ridership, and 6.5 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 2.7.

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



Service Overview

Schedule

Route 84 runs Monday through Friday between 6:42 AM and 9:03 AM and again between 3:58 PM and 6:59 PM with the following frequencies (see Table 1):

- Every 32 minutes between 6:42 AM and 9:03 AM.
- Every 20 to 32 minutes during the PM peak period, but mostly every 28 minutes.
- Every 30 to 49 minutes after 6:30 PM, but mostly every 40 minutes.

Route 84 meets both the span of service and frequency standards for Commuter routes.

Table 1 | Schedule Statistics

SERVICE DAY	SPAN OF SERVICE	FREQUENCY (RANGE)	FREQUENCY (AVERAGE)	DAILY TRIPS (INBOUND/OUTBOUND)
Monday-Friday	6:42 AM to 6:59 PM			9/9
Sunrise	-	-	-	-
Early AM	6:42 AM to 6:59 AM	32	32	1/-
AM Peak	7:00 AM to 8:59 AM	31 - 32	31	4/4
Midday Base	9:00 AM to 1:29 PM	-	-	-/-
Midday School	1:30 PM to 3:59 PM	-	-	-/-
PM Peak	3:58 PM to 6:29 PM	20 - 32	28	5/6
Evening	6:30 PM to 6:59 PM	30 - 49	40	1/1
Late Evening	-	-	-	-
Night	-	-	-	-
Saturday	-	-	-	-
Sunday	-	-	-	-

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

Service Patterns

All service operates consistently as shown in Figure 1 and summarized in Table 2. As described above, Route 78 Arlmont Village-Harvard Station provides off-peak service to Arlmont Village and that service operates to and from Harvard Station instead of Alewife Station.

Table 2 | Service Patterns

PATTERN	ORIGIN	DESTINATION	UNIQUE FEATURE	TRIPS PER WKD	TRIPS PER SAT	TRIPS PER SUN
INBOUND				9	-	-
84.1	Wadsworth Road at Dow Avenue	Alewife Station	Outer loop considered as part of inbound service	9	-	-
OUTBOUND				9	-	-
84.2	Alewife Station	Wadsworth Road at Dow Avenue		9	-	-

Ridership

Route 84 carries 400 riders on weekdays.

Ridership by Stop

The large majority of Route 84 passengers use the route to travel to and from Alewife Station. On weekday inbound trips (see Figure 3):

- 150 passengers board and 50 alight along the outer loop through Arlmont along Wadsworth Road, Appleton Street, and Wachusett Avenue. The alightings are outbound alightings by riders continuing through from outbound trips. During off-peak periods, this loop is served by Route 78 Arlmont Village-Harvard Station.
- 50 passengers board and fewer than five alight at the eight stops along Park Avenue and the Route 2 East Service Road. These stops are also served by Route 78.
- 20 passengers board and fewer than five alight at the five stops along Lake Street and Acorn Park Drive. These stops are also served by a number of other routes.
- 170 passengers, or 77% of all inbound passengers, alight at Alewife Station.

Outbound patterns are similar but in reverse.

Ridership by Trip

Weekday ridership per trip ranges from low to moderately high. On inbound trips (see Figure 4):

- The first trip 6:42 AM carries 22 riders.
- The next three trips, between 7:00 AM and 9:00 AM, carry between 38 and 44 riders, with the highest ridership on the 7:50 AM trip.
- Afternoon ridership is much lower, ranging between six and 18 riders per trip. The highest ridership is at 5:58 PM, with 18 passengers.

On outbound trips (see Figure 5):

- Morning ridership is extremely low, ranging from one to three riders per trip between 7:00 AM and 9:00 AM. These are effectively deadhead trips.
- Afternoon ridership ranges from 12 riders to 22 riders per trip. The highest ridership is between 5:45 PM and 7:00 PM, when trips carry 28 to 38 riders. The highest ridership is on the 5:50 PM trip.

Figure 3 | Weekday Inbound Ridership by Stop Map

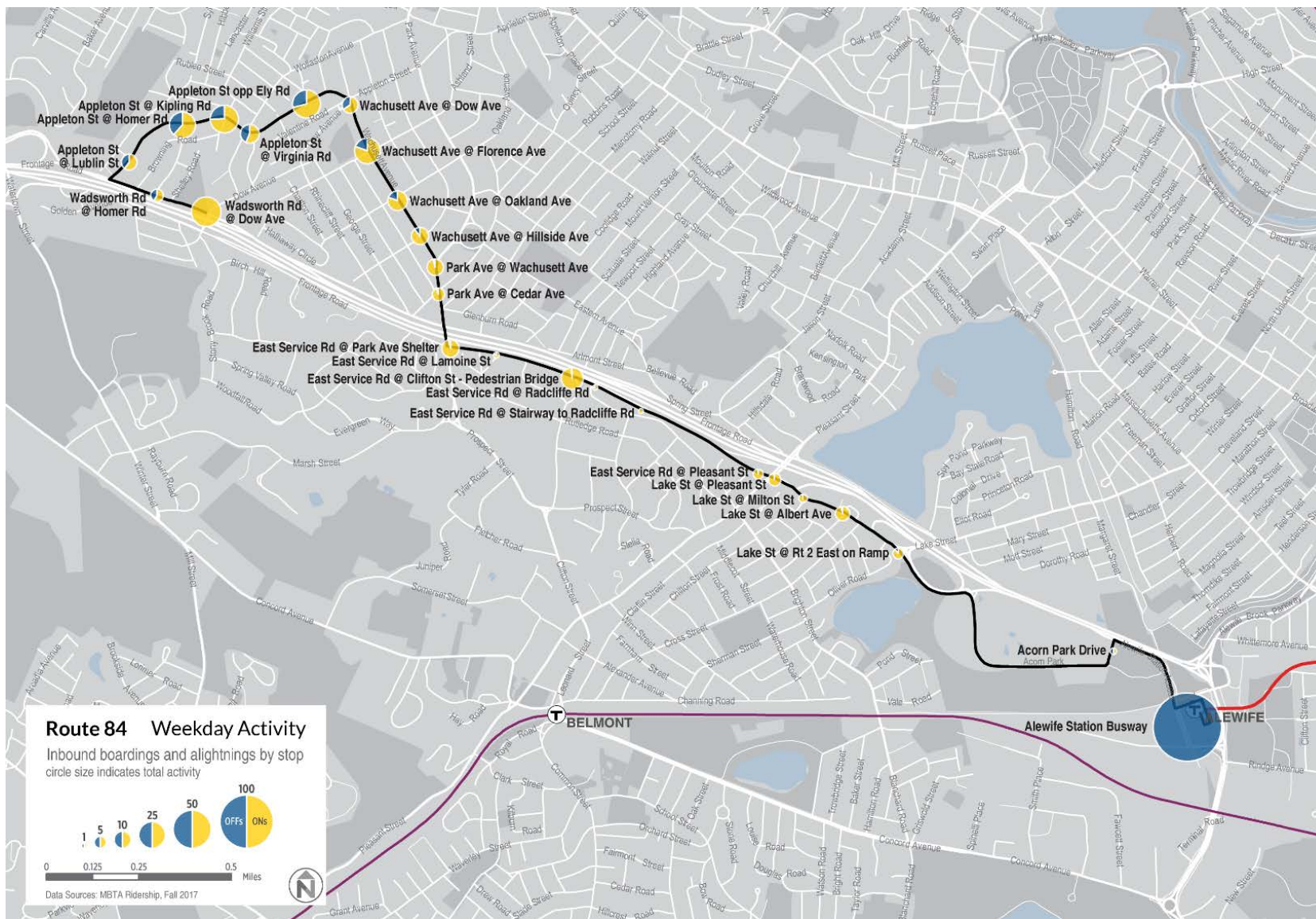


Figure 4 | Weekday Ridership by Trip: Inbound

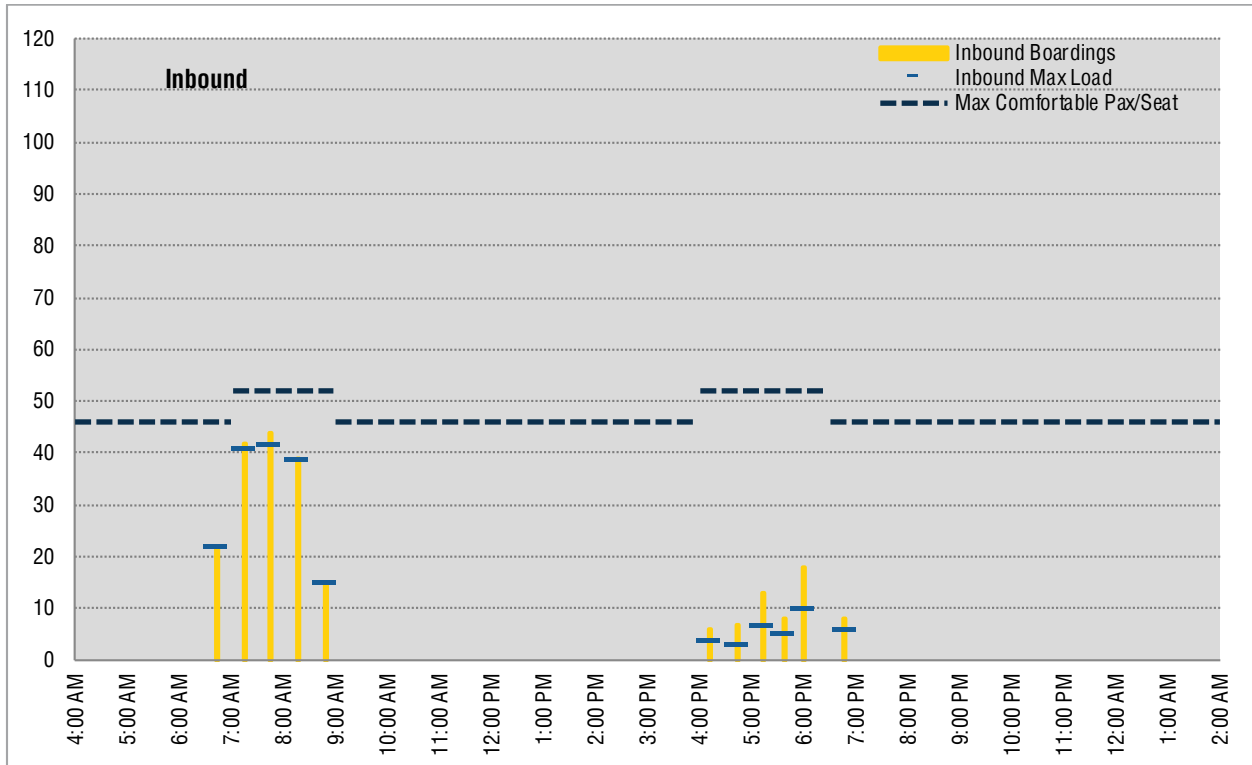
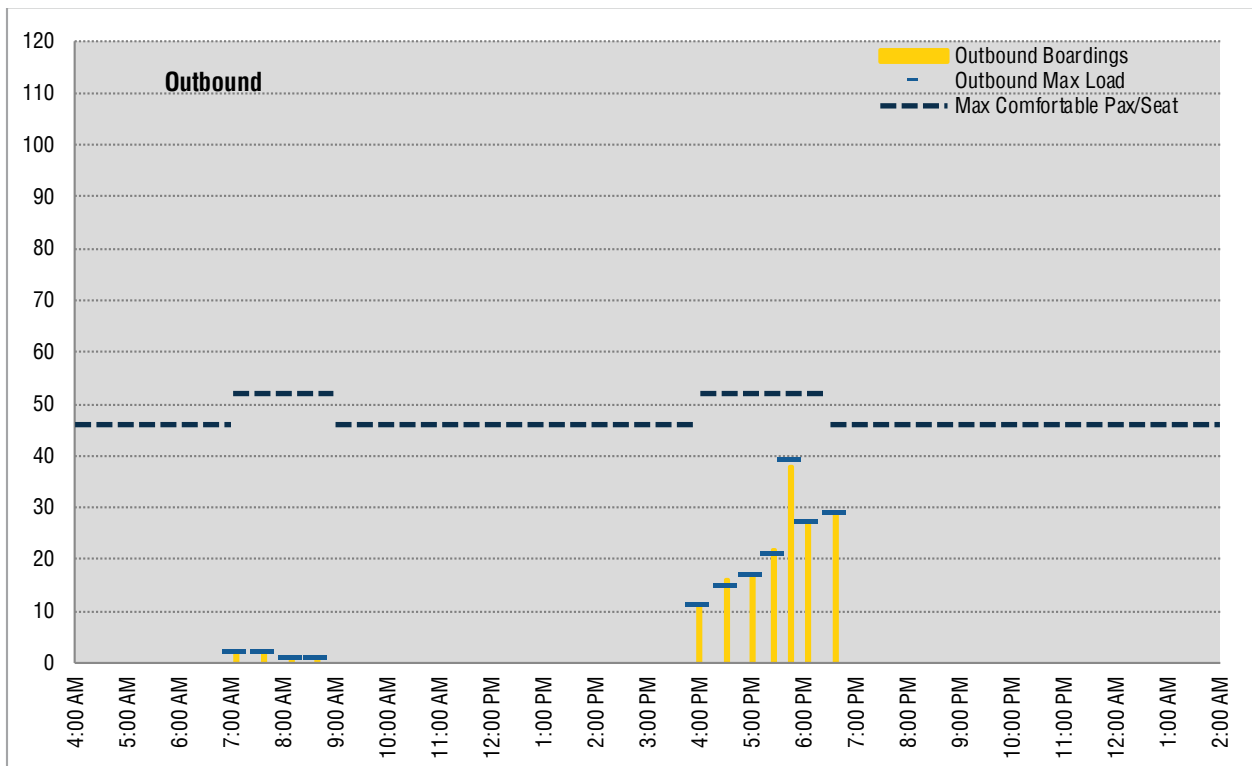


Figure 5 | Weekday Ridership by Trip: Outbound



Passenger Comfort

Overall, 94% of weekday passenger minutes are in comfortable conditions, which is above the minimum standard of 92%, but below the target of 96% (see Table 3). Overcrowding only occurs when service operates off schedule.

Table 3 | Passenger Time Spent Traveling in Comfortable Conditions

	WEEKDAYS	SATURDAYS	SUNDAYS
Minimum Standard	92%	92%	92%
Target	96%	96%	96%
Actual	94%	-	-

Reliability and Speed

Reliability

Route 84’s overall reliability is 68%, which is slightly below the minimum standard of 70% (see Table 4).

Table 4 | Reliability

SERVICE DAY	ORIGIN/MID-ROUTE ON-TIME PERFORMANCE	DESTINATION ON-TIME PERFORMANCE	OVERALL RELIABILITY	DROPPED TRIPS
Monday-Friday	67%	73%	68%	0.4%
Saturday	-	-	-	-
Sunday	-	-	-	-

Running Times

Inbound trips run longer than scheduled and most outbound trips run faster than scheduled (see Figure 6 through Figure 9). Actual inbound travel times are up to five minutes longer in the AM and up to two minutes longer in the PM. Outbound differences are small and range from two minutes faster to two minutes longer.

Stop Spacing

With few exceptions, stop spacing on Route 84 is generally appropriate and consistent with the MBTA’s recommended four to seven stops per mile for urban areas.

Figure 6 | Scheduled & Median Travel Time by Trip: Route 84.2 Inbound

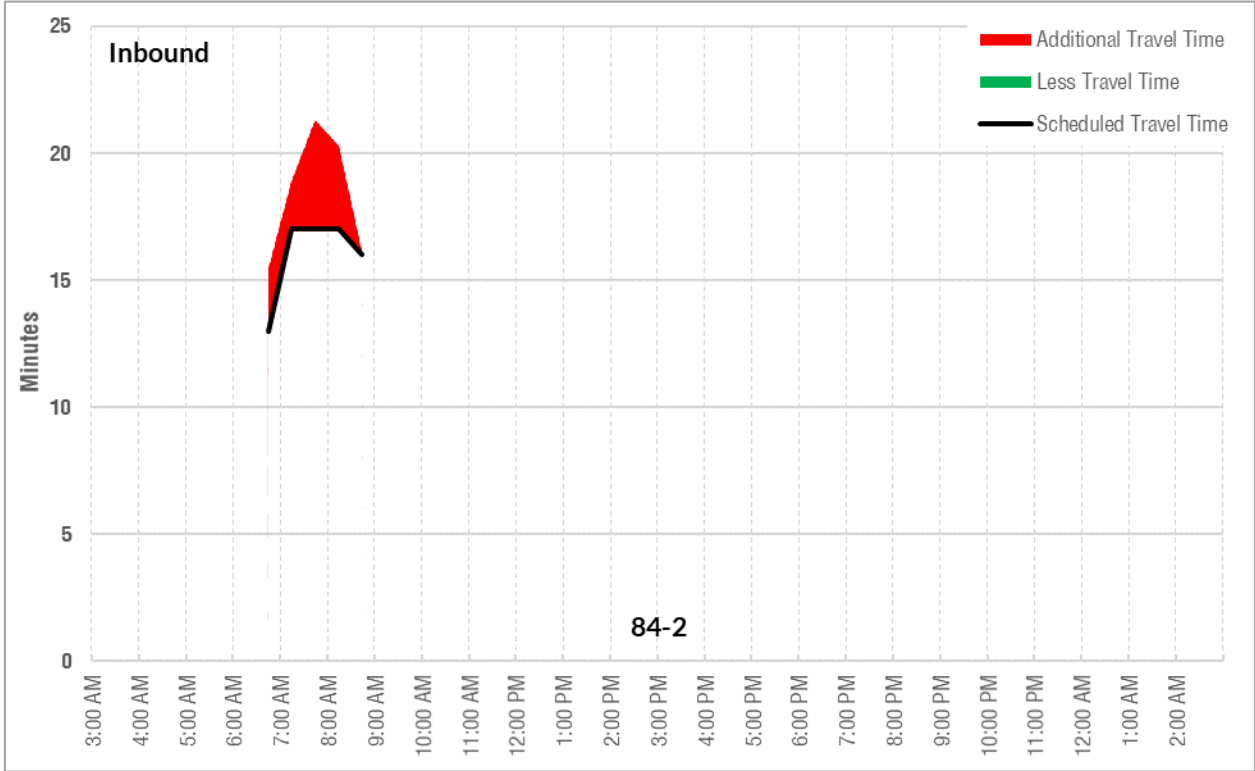


Figure 7 | Scheduled & Median Travel Time by Trip: Route 84.1 Inbound

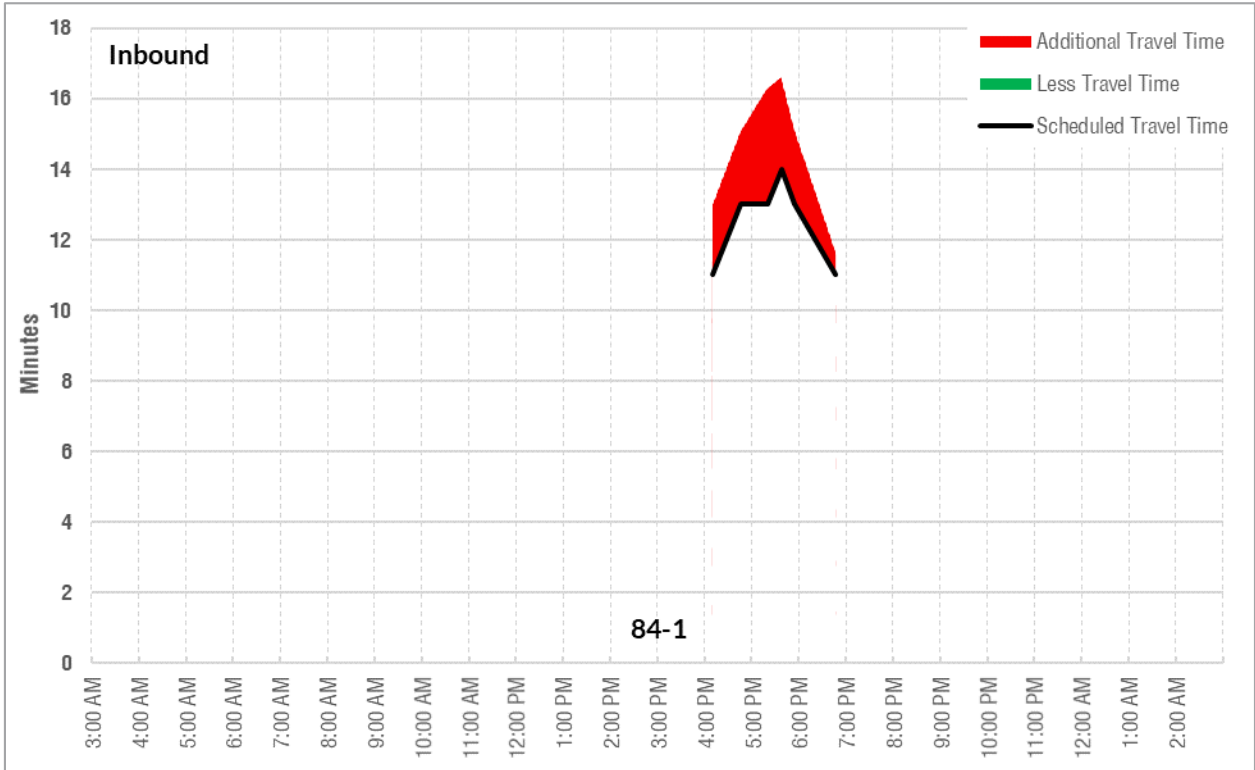


Figure 8 | Scheduled & Median Travel Time by Trip: Route 84.2 Outbound

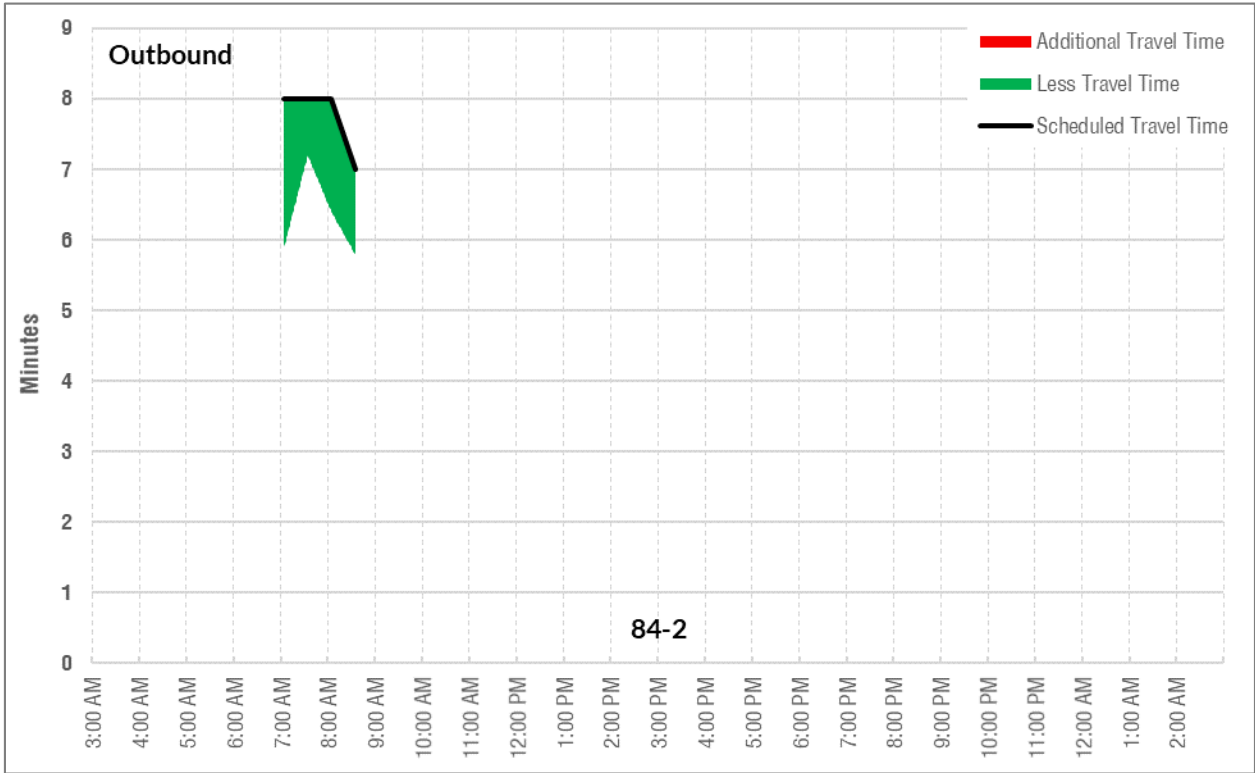
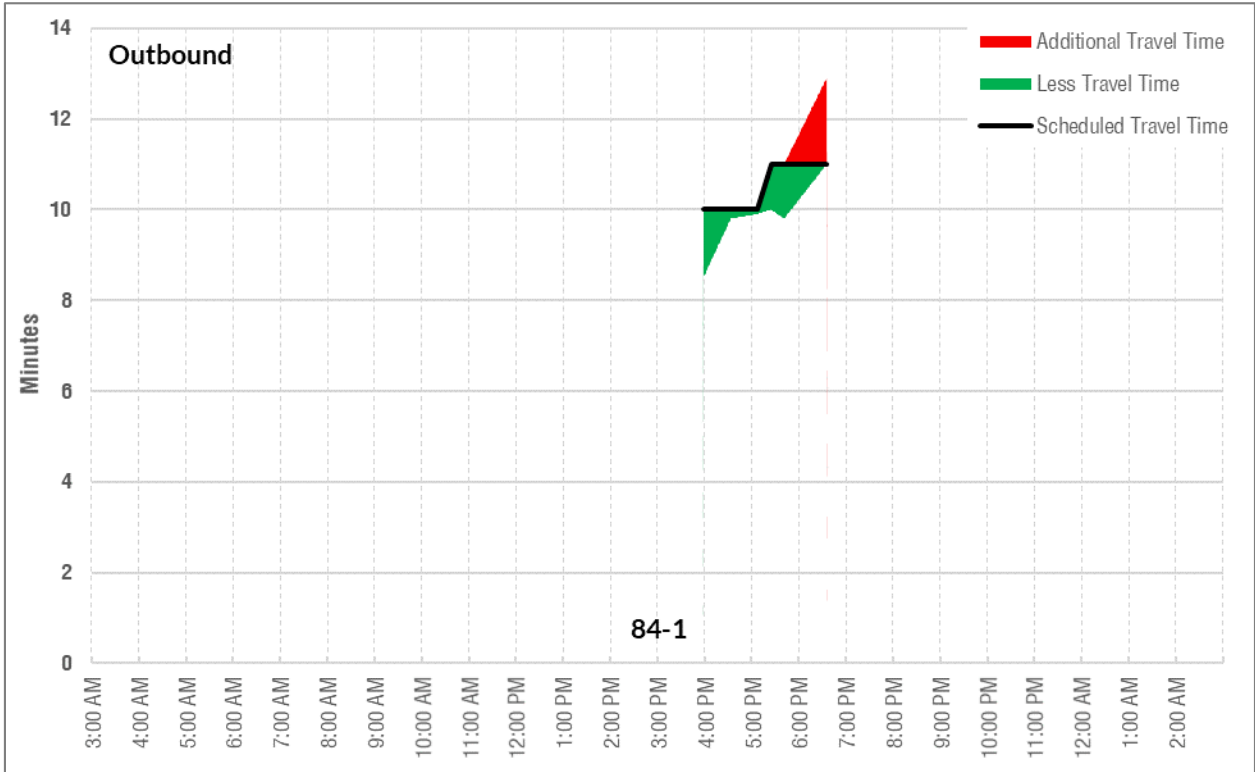


Figure 9 | Scheduled & Median Travel Time by Trip: Route 84.1 Outbound



Summary

Routes 84 and 78 Arlmont Village-Harvard Station both provide service to Arlmont Village, with Route 84 providing peak period service to Alewife Station and Route 78 providing off-peak service to Harvard Station.