

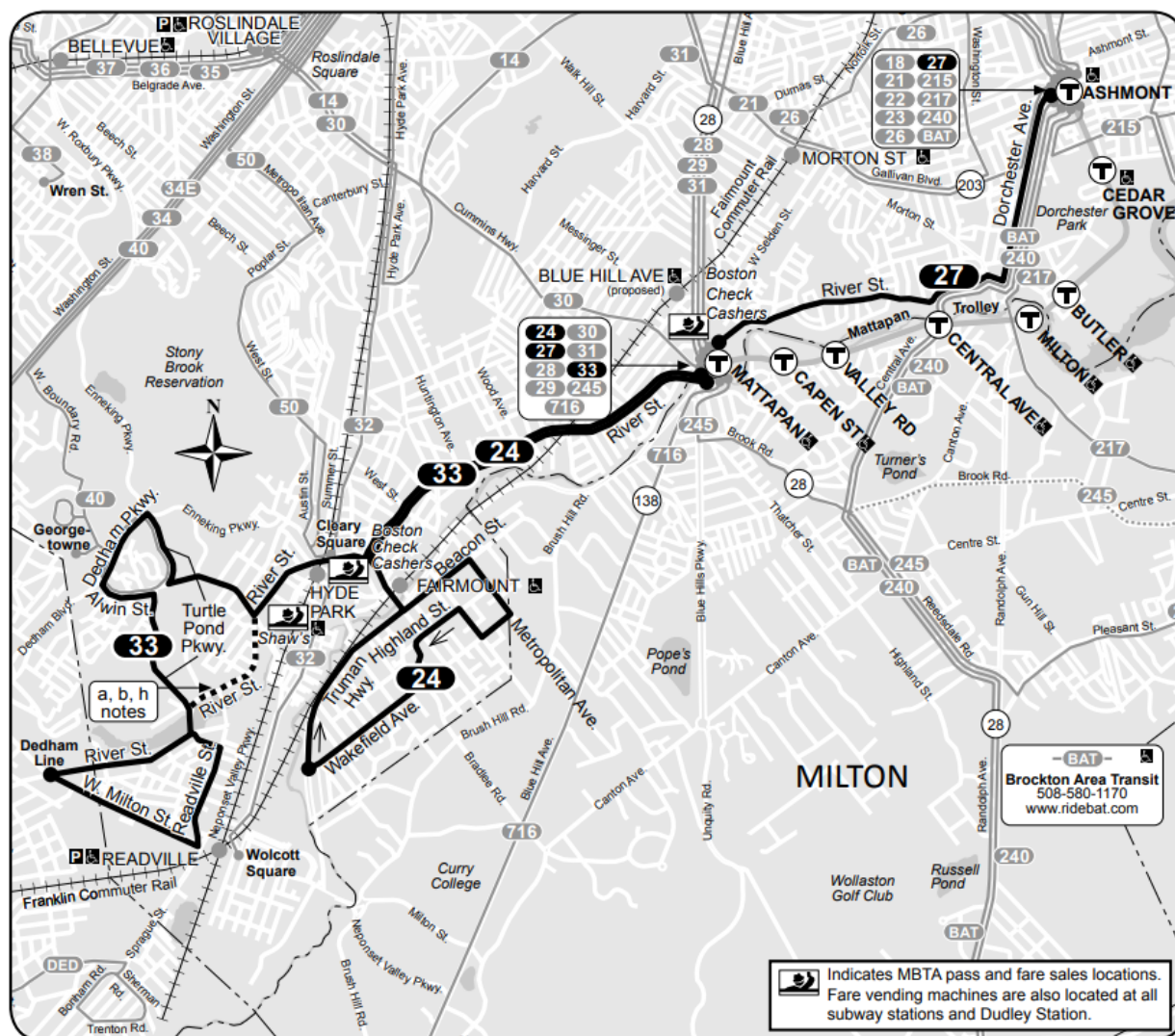
# Route 33

## Dedham Line – Mattapan Station

### Route Overview

Route 33 Dedham Line – Mattapan Station is a Local route that operates between the Dedham Line and Mattapan Station. The route operates very circuitously between the Dedham Line and Cleary Square, and then operates directly to Mattapan Station via River Street, sharing the same alignment as Route 24 Wakefield Avenue & Truman Highway–Mattapan Station (see Figure 1).

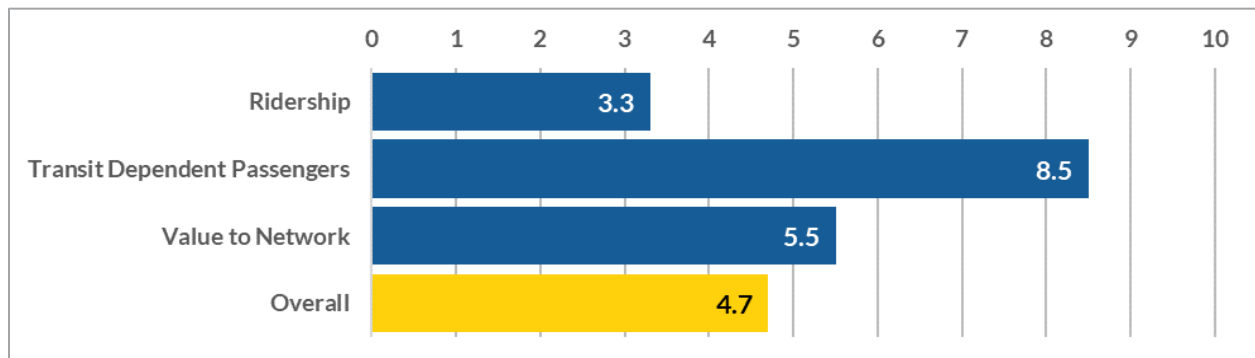
Figure 1 | Service Map



## Network Importance

Route 33 is of moderate importance within the overall bus network (see Figure 2). On a relative scale of 0 to 10, the route rates 3.3 in terms of ridership, 8.5 in terms of transit dependent ridership, and 5.5 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 4.7.

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



## Service Overview

### Schedule

Route 33 provides infrequent service on weekdays and Saturdays (see Table 1). It does not operate on Sundays.

On weekdays, service operates from 5:45 AM to 7:10 PM:

- Every 30 minutes from the beginning of service until 9:00 AM.
- Every eight to 65 minutes during the midday, but generally every 60 minutes from 9:00 AM to 2:30 PM and every 25-35 minutes from 2:30 PM to 4:00 PM.
- Every 35 to 45 minutes during the PM peak and evening, but predominantly every 35 minutes.

On Saturdays, Route 33 operates between 7:45 AM and 7:15 PM, with average frequencies of 55 minutes, but predominantly every 60 minutes.

Route 33 meets the MBTA span of service standard for Local routes on weekdays and Saturdays. However, as a Local route serving an urban area, it should also operate on Sundays. However, most riders are served by Route 24 and combined Route 40/50, which do operate on Sundays.

Table 1 | Schedule Statistics

SERVICE DAY	SPAN OF SERVICE	FREQUENCY (RANGE)	FREQUENCY (AVERAGE)	DAILY TRIPS (INBOUND/OUTBOUND)
<b>Monday-Friday</b>	<b>5:45 AM to 7:10 PM</b>			<b>23/22</b>
Sunrise	5:45 AM to 5:59 AM	30	30	1/2
Early AM	6:00 AM to 6:59 AM	30	30	2/2
AM Peak	7:00 AM to 8:59 AM	30	30	4/4
Midday Base	9:00 AM to 1:29 PM	30 – 65	62	5/4
Midday School	1:30 PM to 3:59 PM	8 – 65	28	4/4
PM Peak	4:00 PM to 6:29 PM	35 – 45	35	4/4
Evening	6:30 PM to 7:10 PM	20 – 40	30	3/2
Late Evening	-	-	-	-
Night	-	-	-	-
<b>Saturday</b>	<b>7:45 AM to 7:15 PM</b>	<b>50 - 60</b>	<b>55</b>	<b>13/13</b>
<b>Sunday</b>	-	-	-	-

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

On weekdays, Route 33 does not meet the minimum frequency standard of 30 minutes for peak period service, as some PM peak trips operate 35 minutes apart, and the off-peak standard of 60 minutes, as some midday trips operate 65 minutes apart.

### Service Patterns

Route 33 has a complicated weekday schedule (see Table 2):

#### Inbound

- Service before 2:00 PM operates the route’s full alignment and travels clockwise around the outer loop consisting of Readville Street, West Milton Street, and River Street (Pattern 33.5).
- Service after 2:00 PM operates the full length of the route and counter-clockwise around the loop (Pattern 33.6).
- A 2:57 PM trip operates via River Street to Cleary Square, omitting the deviation to Georgetowne (Pattern 33.7).
- The 3:05 PM school trip operates the full length of the route and deviates through the Westinghouse Industrial Park in Readville to serve Academy of the Pacific Rim Charter School (Pattern 33.1).
- The last two trips (at 7:15 PM and 7:35 PM) also operate via River Street and omit the deviation to Georgetowne (Pattern 33.7).

## Outbound

- The first two trips on the schedule (at 5:20 AM and 5:55 AM) operate from Forest Hills Station to Cleary Square and then via Route 33's southern alignment from there (Pattern 33.4).
- Other service before 1:00 PM operates the full length of the route and travels clockwise around the outer loop consisting of Readville Street, West Milton Street, and River Street (Pattern 33.5).
- The 7:20 AM school trip operates the full length of the route and deviates to the Westinghouse Industrial Park to serve Academy of the Pacific Rim Charter School (Pattern 33.1).
- Service after 1:00 PM operates the full length of the route and counter-clockwise around the loop (Pattern 33.6).

Table 2 | Service Patterns

PATTERN	ORIGIN	DESTINATION	UNIQUE FEATURE	TRIPS per WKD	TRIPS per SAT	TRIPS per SUN
<b>INBOUND</b>				<b>23</b>	<b>13</b>	<b>-</b>
33.1	Dedham Line	Mattapan Station	Via Westinghouse Industrial Park; School trip for Academy of the Pacific Rim Charter School	1	-	-
33.4	Dedham Line	Forest Hills Station	Via Route 32 alignment to Forest Hills	-	1	-
33.5	Dedham Line	Mattapan Station	AM service; clockwise around outer loop	12	12	-
33.6	Dedham Line	Mattapan Station	PM service; counter-clockwise around outer loop	7	-	-
33.7	Dedham Line	Forest Hills Station	Via River Street; omits service to Georgetowne	3	-	-
<b>OUTBOUND</b>				<b>22</b>	<b>13</b>	<b>-</b>
33.1	Mattapan Station	Dedham Line	Via Westinghouse Industrial Park; School trip for Academy of the Pacific Rim Charter School	1	-	-
33.4	Forest Hills Station	Dedham Line	Via Route 32 alignment	2	-	-
33.5	Mattapan Station	Dedham Line	AM service; clockwise around outer loop	9	13	-
33.6	Mattapan Station	Dedham Line	PM service; counter-clockwise around outer loop	10	-	-

Saturday service is simpler:

Inbound

- The first inbound trip at 6:41 AM is a variation of Route 32 Wolcott Square – Forest Hills Station that operates via River Street and West Milton Street to Wolcott Square and then to Forest Hills Station. This trip is on the Route 33 schedule, but is considered part of Route 32 for internal purposes.
- All other service except the last trip operates the full length of the route and clockwise around the outer loop.
- The last trip at 7:45 PM operates via River Street and omits service to Georgetowne.

Outbound

- The first trip on the schedule (at 6:20 AM) operates from Forest Hills Station to Cleary Square and then via Route 33's southern alignment from there. This trip is on the Route 33 schedule, but is considered part of Route 32 for internal purposes.
- All other service operates the full length of the route and clockwise around the outer loop (Pattern 33.5).

## Ridership

Route 33 carries 1,360 riders on weekdays and 420 riders on Saturdays.

### Ridership by Stop

Most of Route 33's ridership is between Cleary Square and Mattapan Station. On inbound trips, this corridor (River Street) accounts for 73% of all boardings and alightings. On weekday inbound trips (see Figure 3):

- 50 passengers board at the 17 stops on the outer loop (including those who board outbound trips to continue inbound). This is an average of three riders per stop.
- Six passengers board at the Westinghouse Industrial Park on the one PM trip that deviates into the park.
- 190 passengers board and 20 alight at the 12 stops out and back from River Street to Georgetowne.
- 110 passengers board and 90 alight in Cleary Square.
- 230 passengers board and 220 alight at the 13 stops on River Street between Cleary Square and Mattapan Station.
- 390 passengers, or 50% of all inbound riders, alight at Mattapan Station.

Outbound ridership is generally the reverse of inbound ridership on weekdays. Weekend ridership patterns are similar, but with lower volumes.



Figure 3 | Weekday Inbound Ridership by Stop Map



## Ridership by Trip

Unlike many other MBTA bus routes, Route 33's weekday ridership is not dominated by typical peak hour commuting patterns. Weekday inbound boarding activity is bimodal, with one peak during the AM peak and another peak during the midday, roughly between 2:00 PM and 4:00 PM On weekday inbound trips (see Figure 4):

- The first trip at 5:45 AM carries 30 passengers.
- Ridership peaks early, at 6:45 AM with 44 passengers per trip, before falling to 26 passengers per trip by the end of the AM peak.
- Between 9:00 AM and 1:30 PM, ridership generally ranges from 15 to 20 passengers per trip.
- Ridership then increases to a second peak of 46 passengers per trip by 2:25 PM, an indication of strong student travel demand.
- During the PM peak, ridership per trip averages 15 to 33 passengers.
- Ridership drops to just eight passengers per trip on the final two inbound trips, at 7:15 PM and 7:35 PM.

On weekday outbound trips (see Figure 5):

- Ridership starts low, with three passengers per trip on the 5:20 AM outbound trip and 15 passengers on the following two trips at 5:55 AM and 6:20 AM.
- Ridership then increases to 36 to 39 riders per trip on the earliest trips of the AM peak, at 6:50 AM and 7:20 AM.
- Between 8:00 AM and 2:30 PM, ridership generally ranges between 10 and 20 passengers per trip.
- Between 2:30 PM and 5:30 PM, most trips carry 25 to 35 passengers.
- Ridership declines to about 15 to 20 riders per trip on the final three trips between 5:30 PM and the last inbound trip at 7:10 PM.

On Saturdays, ridership is low throughout the day, with most trips ranging from 10 to 20 passengers (see Figure 6 and Figure 7).

Figure 4 | Weekday Ridership by Trip: Inbound

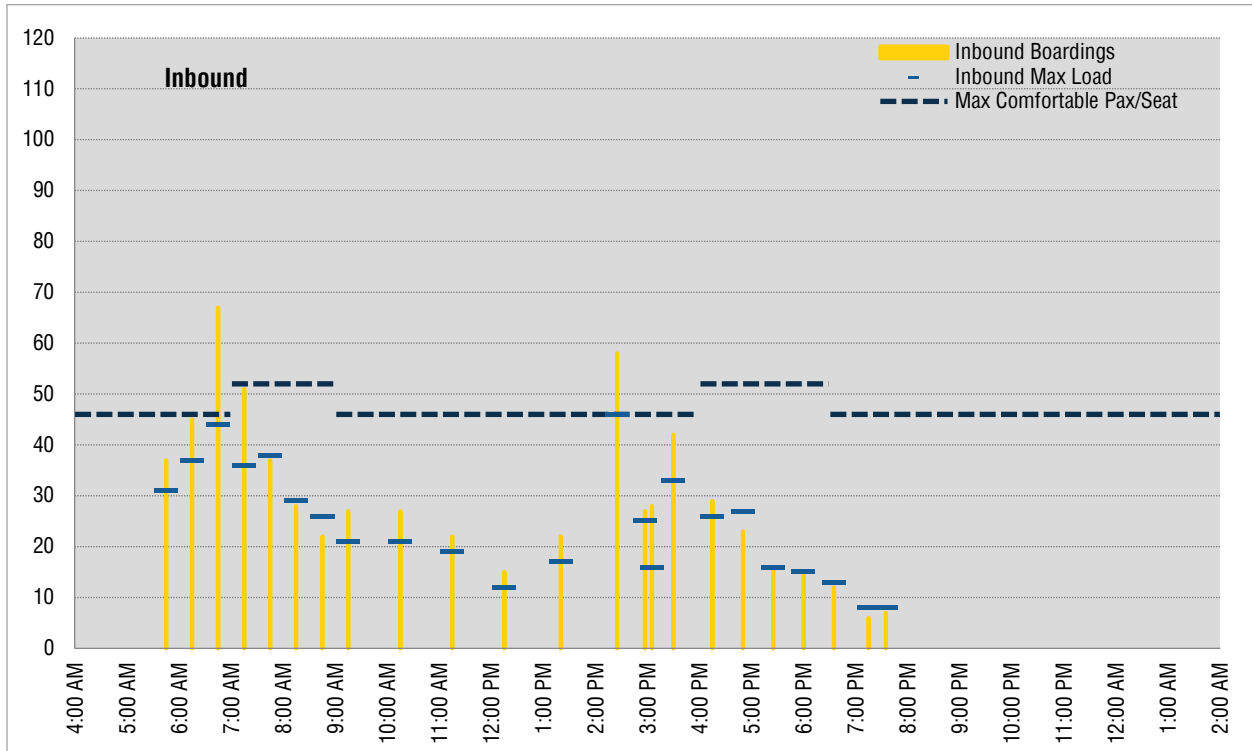


Figure 5 | Weekday Ridership by Trip: Outbound

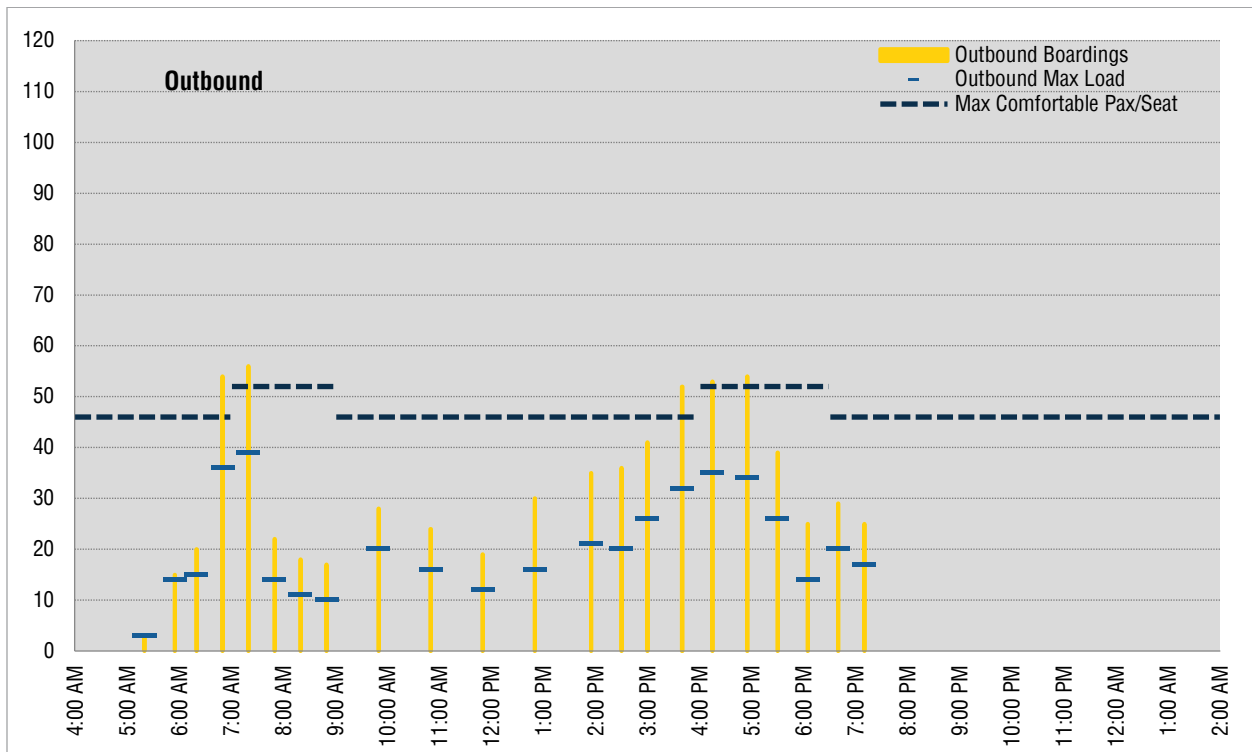




Figure 6 | Saturday Ridership by Trip: Inbound

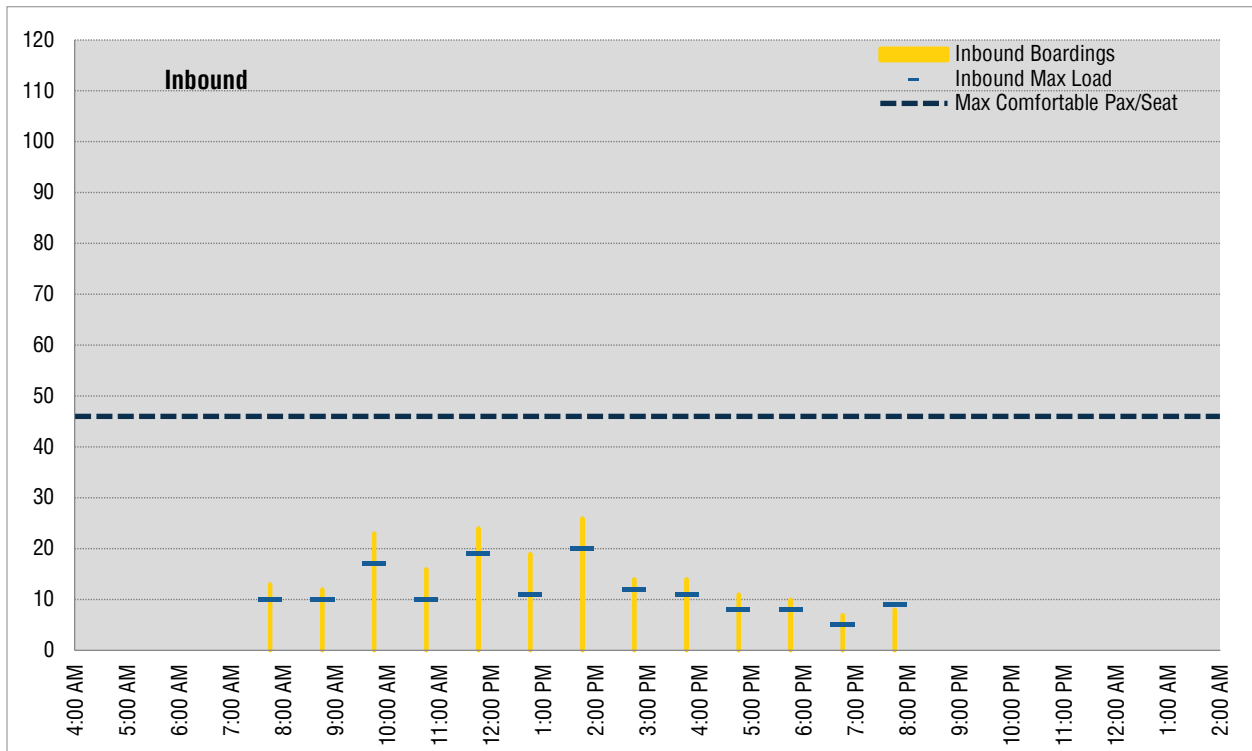
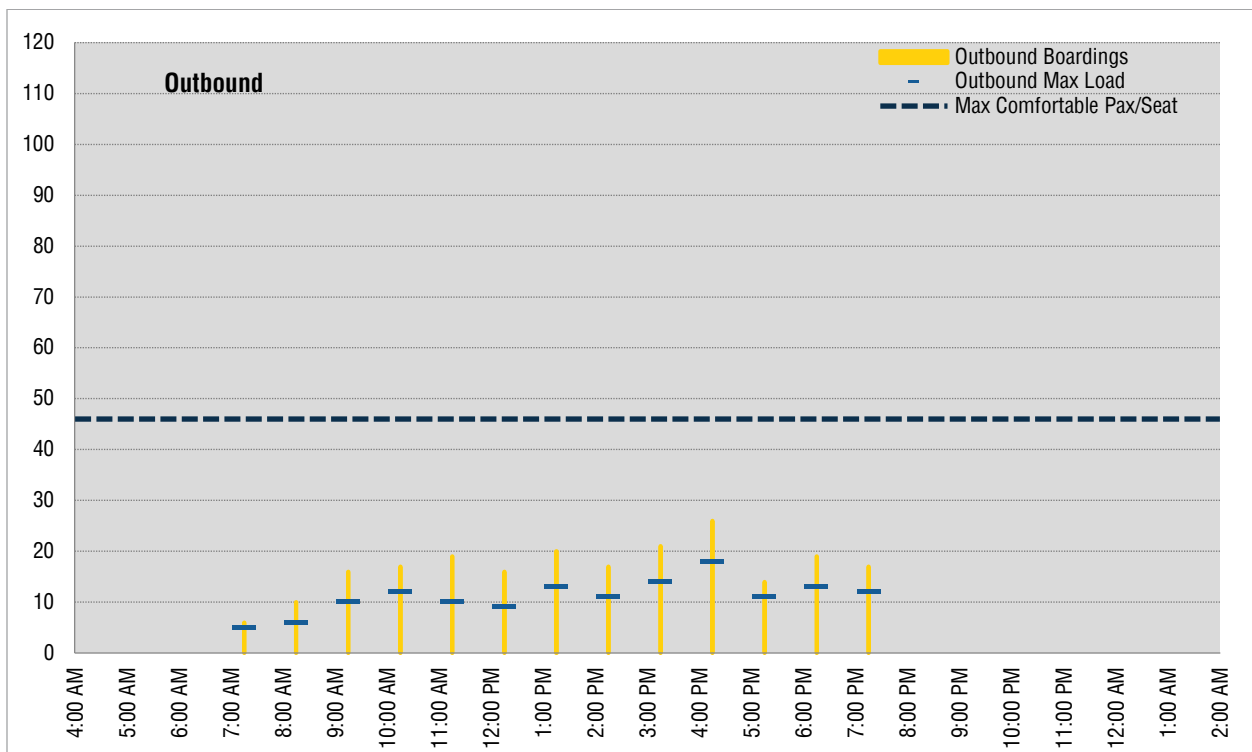


Figure 7 | Saturday Ridership by Trip: Outbound



## 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 33, 99% of weekday passenger minutes and 100% of Saturday passenger minutes are in comfortable conditions, which is well above the target of 96% (see Table 3).

Table 3 | Passenger Time Spent Traveling in Comfortable Conditions

	WEEKDAYS	SATURDAYS	SUNDAYS
<b>Minimum Standard</b>	92%	92%	92%
<b>Target</b>	96%	96%	96%
<b>Actual</b>	99%	100%	-

## Reliability and Speed

### Reliability

Route 33's weekday reliability is poor at 62%, and well below the minimum standard of 70% for Local routes (see Table 4). Saturday overall reliability of 77% is above the MBTA's target of 75%.

Table 4 | Reliability

SERVICE DAY	ORIGIN/MID-ROUTE ON-TIME PERFORMANCE	DESTINATION ON-TIME PERFORMANCE	OVERALL RELIABILITY	DROPPED TRIPS
<b>Monday-Friday</b>	60%	66%	62%	0.1%
<b>Saturday</b>	77%	78%	77%	-
<b>Sunday</b>	-	-	-	-

### Running Times

On weekdays, inbound trips run six to 10 minutes ahead of schedule from the early morning through 1:00 PM, and two to five minutes ahead of schedule in the PM peak (see Figure 8 and Figure 9). Outbound trips run three and five minutes behind schedule (see Figure 10 and Figure 11). These differences are a major cause of Route 33's poor on-time performance.

Figure 8 | Scheduled & Median Travel Time by Trip: AM Weekday Inbound

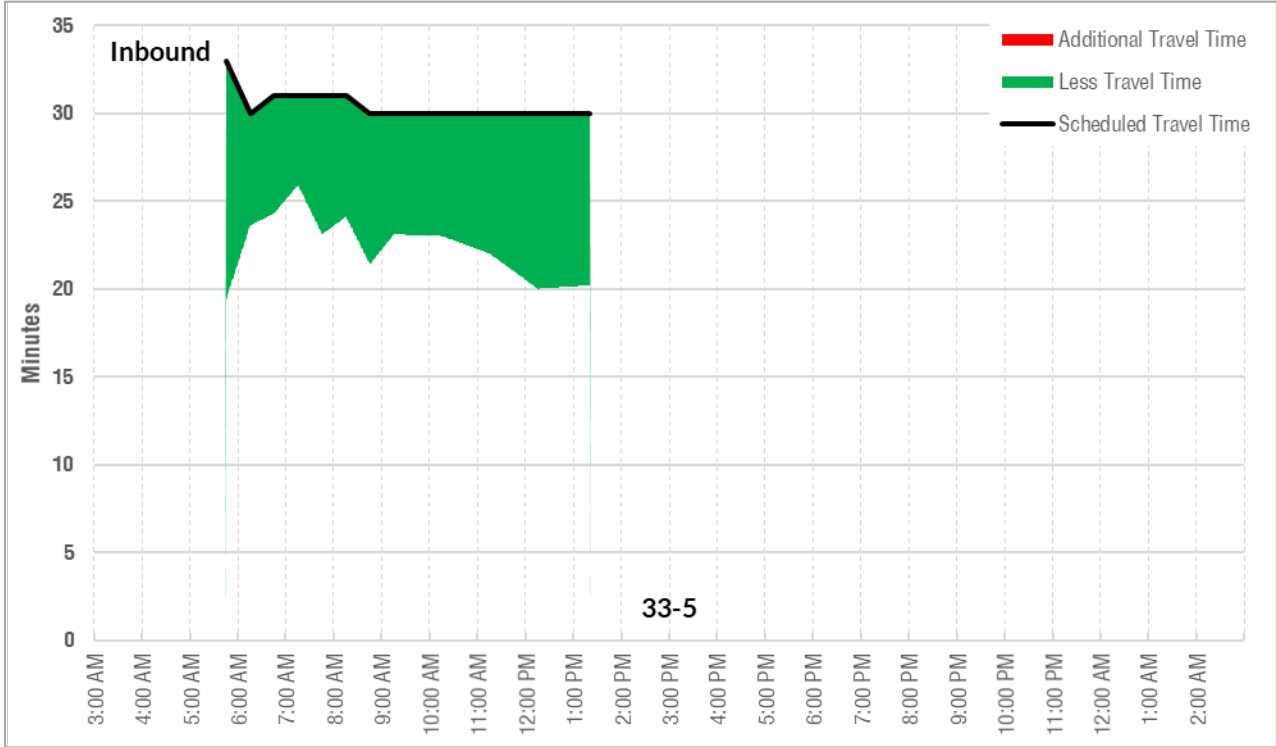


Figure 9 | Scheduled & Median Travel Time by Trip: PM Weekday Inbound

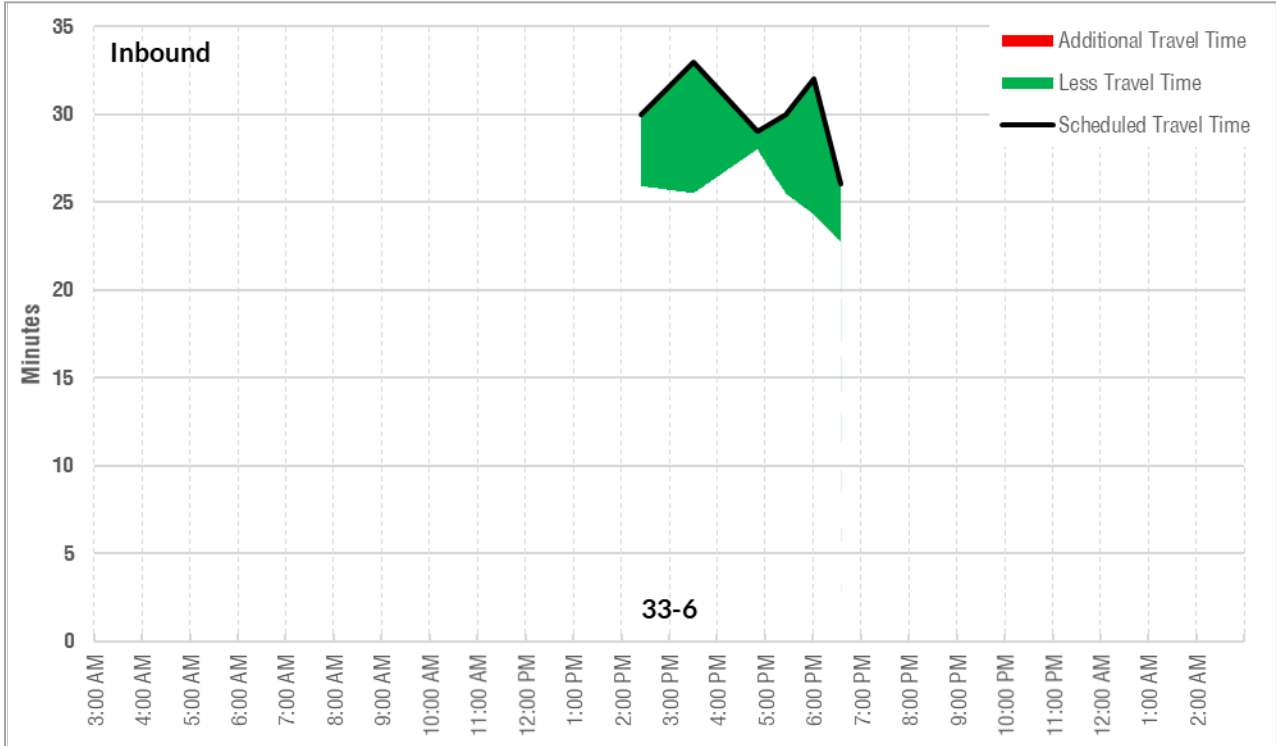


Figure 10 | Scheduled & Median Travel Time by Trip: AM Weekday Outbound

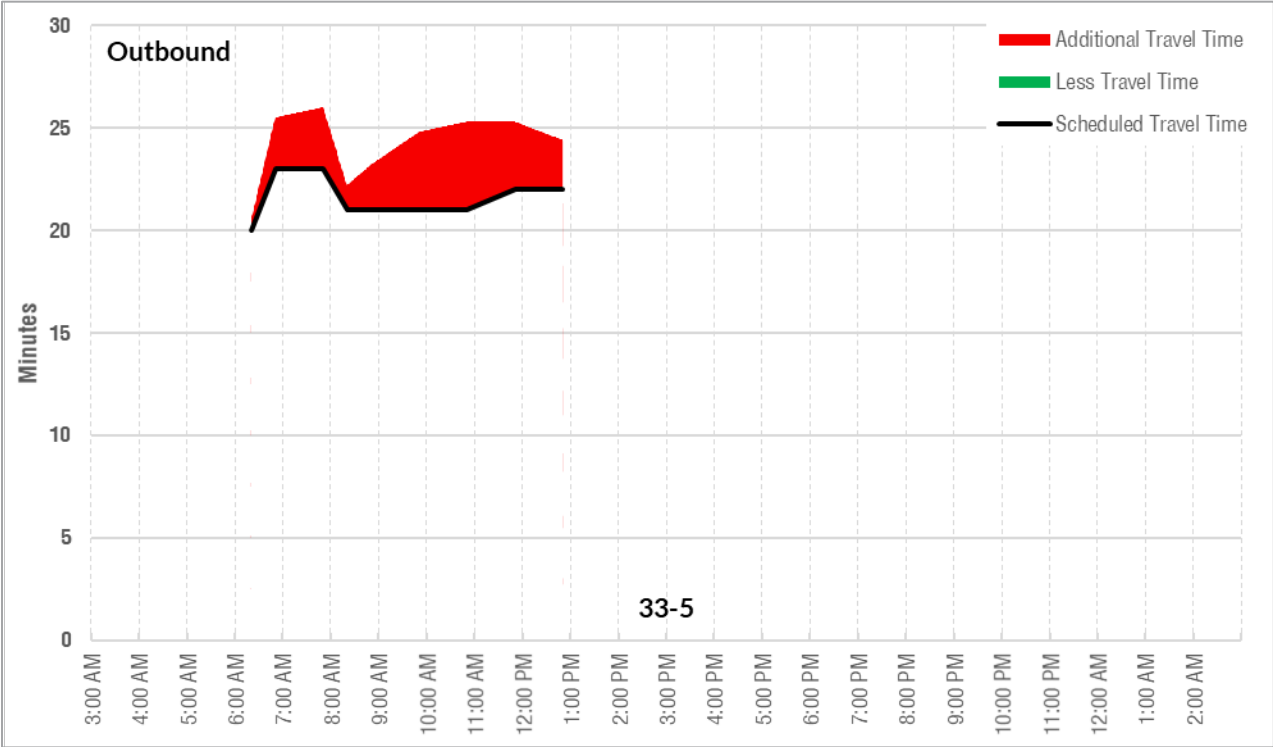
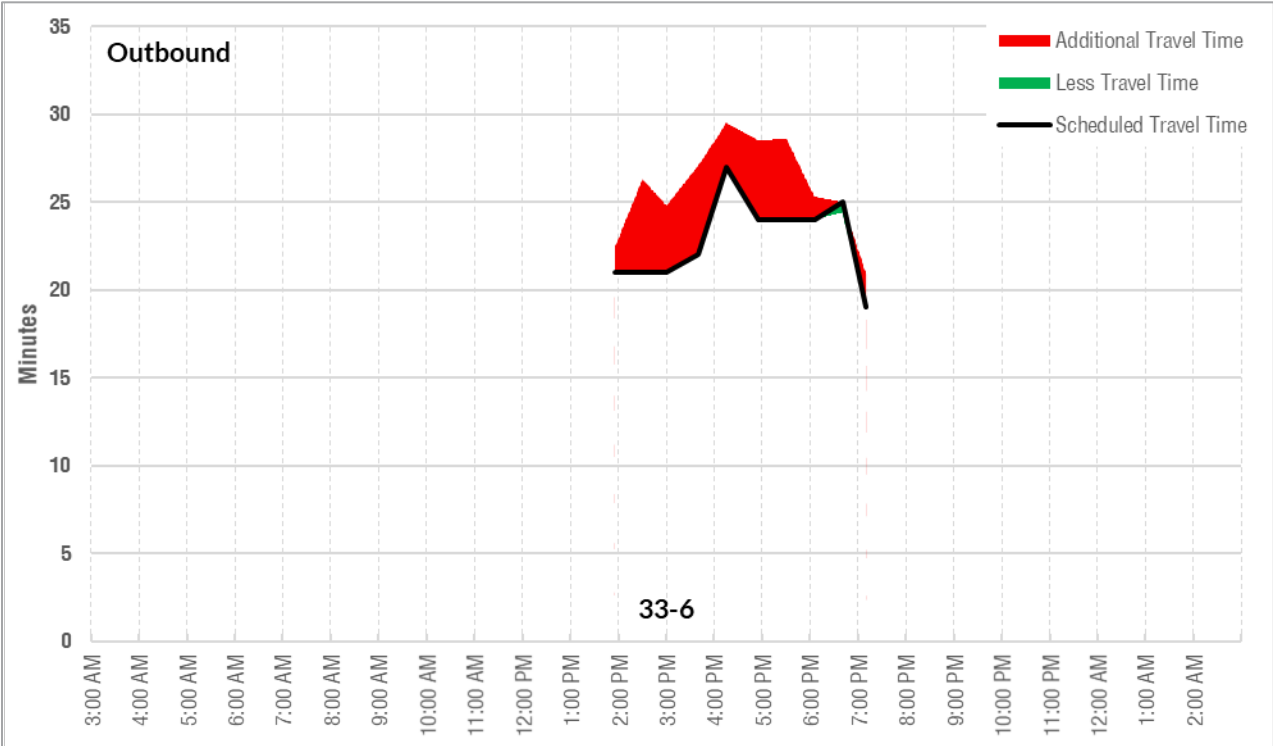


Figure 11 | Scheduled & Median Travel Time by Trip: PM Weekday Outbound



## Stop Spacing

Between the outer end of the route and Cleary Square, Route 33 has about six stops per mile, within the MBTA's guidelines of four to seven stops per mile. However, between Cleary Square and Mattapan Station, Route 33 has 8.1 stops per mile, which is in excess of the guidelines. Stop consolidation could make service faster and improve reliability.

## Summary

Route 33's primary function is to provide service to the River Street corridor between Cleary Square and Mattapan Station. Its southern end also provides connections between areas of Hyde Park and West Roxbury's Georgetowne neighborhood and the rest of the MBTA system. Overall, the route performs fairly well. However, weaknesses include poor on-time performance, low ridership at its southern end, and uncoordinated service with Route 24 Wakefield Avenue & Truman Highway-Mattapan Station.