## Route 38

## Wren Street - Forest Hills Station

## Route Overview

Route 38 Wren Street - Forest Hills Station is a Local route that runs from Wren Street in West Roxbury to Forest Hills Station via Faulkner Hospital and the Monument in Jamaica Plain (see Figure 1). It runs Monday through Saturday.

Figure 1 |Service Map


## Network Importance

Route 38 has moderate importance within the overall bus network (see Figure 2). On a scale of 0 to 10, the route rates 2.5 in terms of ridership, 3.8 in terms of transit dependent ridership, and 8.1 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 3.8.
Figure 2 | Relative Importance within MBTA Bus Network (on a scale of 0 to 10)


## Service Patterns

## Schedule

Route 38 has somewhat frequent weekday peak service, and operates infrequently during weekday off-peak and Saturday service (see Table 1). On weekdays, the route operates from 5:32 AM to 11:33 PM, with the following frequencies:

- Every 20-25 minutes from the start of service through the AM Peak, but mostly every 22 minutes. There are also two inbound morning school trips at 6:35 AM and 6:45 AM.
- Every hour from about 9:00 AM to 2:00 PM, then every 22-38 minutes from 2:00 PM to 4:00 PM. There are also two outbound afternoon school trips at 1:35 PM and 2:56 PM.
- Every 25 minutes from about 4:00 PM to 7:00 PM.
- Limited evening service, with inbound trips at 7:45 PM, 9:05 PM, and 11:20 PM and outbound trips at 7:25 PM, 8:40 PM, and 10:50 PM. These trips are designed to serve Faulkner Hospital employees.

On Saturdays, Route 38 runs from 5:30 AM to 11:29 PM, with trips about every hour from the start of service until 9:00 AM and then every 40 minutes until about 8:00 PM. There is then one outbound trip at 10:40 PM and one inbound trip at 11:13 PM.

Route 38 meets the MBTA span of service standard for Local routes on weekdays and Saturdays. The route fails the frequency standard on both weekdays and Saturdays:

- On weekdays, the route operates less frequently than every hour from 7:00 PM through the end of service.
- On Saturdays, the route operates less frequently than every hour from about 8:00 PM through the end of service. There is also a 70-minute gap between the 7:30 AM and 8:40 AM outbound trips.

Route 38 also fails the span of service and frequency standards for Sunday, as it operates in an urban area but does not provide Sunday service.

Table 1 | Schedule Statistics

| SERVICE DAY | SPAN OF SERVICE | FREQUENCY <br> (RANGE) | FREQUENCY <br> (AVERAGE) | DAILY TRIPS <br> (INBOUND/OUTBOUND) |
| :--- | :--- | :---: | :---: | :---: |
| Monday-Friday | 5:32 AM to 11:33 PM |  |  | $31 / 30$ |
| Sunrise | 5:32 AM to 5:59 AM | $13-22$ | 20 | $1 / 2$ |
| Early AM | 6:00 AM to 6:59 AM | $4-27$ | 22 | $5 / 3$ |
| AM Peak | 7:00 AM to 8:59 AM | $20-60$ | 22 | $5 / 5$ |
| Midday Base | 9:00 AM to 1:29 PM | $25-60$ | 60 | $5 / 4$ |
| Midday School | 1:30 PM to 3:59 PM | $9-60$ | 28 | $4 / 6$ |
| PM Peak | 4:00 PM to 6:29 PM | $24-25$ | 25 | $6 / 6$ |
| Evening | 6:30 PM to 9:59 PM | $25-135$ | 75 | $4 / 3$ |
| Late Evening | 10:00 PM to 11:33 PM | 1 trip | 1 trip | $1 / 1$ |
| Night | - | - | - | - |
| Saturday | 5:30 AM to 11:29 PM | $\mathbf{4 0 - 2 1 3}$ | 45 | $\mathbf{2 1 / 2 1}$ |
| Sunday | - | - | - | - |

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

## Service Patterns

Most Route 38 trips operate the route's full alignment between Wren Street and Forest Hills Station, primarily running on Centre Street (Pattern 38.0) (see Table 2). On weekdays, there are three school trip service patterns:

- The 6:35 AM inbound school trip (Pattern 38.3) begins at Wren Street and then follows the primary service pattern until Monument (Centre Street at Eliot Street). The trip then follows the inbound alignment of Route 39 Back Bay Station - Forest Hills Station on Centre Street, South Huntington Avenue, and Huntington Avenue, serves St. Alphonsus Street, and then terminates at Boston Latin School in the Longwood Medical Area.
- The 6:45 AM inbound school trip (Pattern 38.2) follows the same route as the 6:35 AM trip, but begins at Centre Street at Colbert Street, rather than Wren Street.
- The 1:35 PM outbound school trip (Pattern 38.1) begins at Boston Latin Academy in Roxbury, runs via Humboldt Avenue, Seaver Street, Columbia Road, and Arborway to Forest Hills Station, and then runs via the primary Route 38 alignment to Wren Street.
- The 2:56 PM outbound school trip (Pattern 39.9) begins at Boston Latin School at 2:15 PM and follows the reverse of the 6:35 AM school trip (Pattern 38.3) to Wren Street. The MBTA using the Route 39 headway sign until the route reach Forests Hills, when the headway sign is changed to Route 38.

The first three trips on Saturdays are combined with Route 37 Baker and Vermont Streets - Forest Hills Station (Pattern 38.7). These trips run outbound from Forest Hills Station along Route 38, serving Monument and Faulkner Hospital, but then turn on Centre Street and continue along Route 37 to Baker Street and Vermont Street. These trips do not serve Anawan Avenue, Park Street, or Wren Street. All other Saturday trips run on the primary service pattern (Pattern 38.0).

Table 2 | Service Patterns

| PATTERN | ORIGIN | DESTINATION | UNIQUE FEATURE | $\begin{aligned} & \text { TRIPS } \\ & \text { PER } \\ & \text { WKD } \end{aligned}$ | $\begin{aligned} & \text { TRIPS } \\ & \text { PRE } \\ & \text { SAT } \end{aligned}$ | $\begin{gathered} \text { TRIPS } \\ \text { PER } \\ \text { SUN } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| INBOUND |  |  |  | 31 | 21 | - |
| 38.0 | Woodard Road at Wren Street | Forest Hills Station | Primary service pattern | 29 | 18 | - |
| 38.2 | Centre Street at Colbert Street | Boston Latin School | Boston Latin School trip | 1 | - | - |
| 38.3 | Woodard Road at Wren Street | Avenue Louis Pasteur at Longwood | Boston Latin School trip | 1 | - | - |
| 38.7 | Vermont Street at Baker Street | Forest Hills Station | Combined with Route 37 |  | 3 | - |
| OUTBOUND |  |  |  | 30 | 21 | - |
| 38.0 | Forest Hills Station | Woodard Road at Wren Street | Primary service pattern | 29 | 18 | - |
| 38.1 | Boston Latin Academy | Woodard Road at Wren Street | Boston Latin Academy trip | 1 | - | - |
| 38.7 | Forest Hills Station | Vermont Street at Baker Street | Combined with Route 37 | - | 3 | - |
| 39.9 | Boston Latin School | Woodard Road at Wren Street | Boston Latin School trip | 1 | - | - |

## Ridership

Route 38 has low ridership, serving 815 riders per weekday and about 260 riders on Saturdays.

## Ridership by Stop

Route 38 has relatively low overall ridership, and most stops serve few boardings each day. On weekday inbound trips, except for school trips (see Figure 3):

- 33 passengers board at Woodard Road at Wren Street.
- 31 passengers board and one passenger alights at the six stops on Park Street, Anawan Avenue, and Belgrade Avenue.
- 155 passengers board and six passengers alight at the 12 stops on Centre Street between Belgrade Avenue and Faulkner Hospital. Two thirds of these boardings are at Belgrade Avenue, Ardale Street, and Walter Street.
- 41 passengers board and eight passengers alight at Faulkner Hospital
- 25 passengers board and seven passengers alight at the seven stops on Centre Street between Faulkner Hospital and the Monument.
- 16 passengers board and 30 passengers alight at the Monument (Centre Street at Eliot Street).
- 19 passengers board and three passengers alight on South Street between the Monument and Forest Hills Station.
- 263 passengers alight at Forest Hills Station, about 82\% of all inbound Route 38 passengers.

Ridership patterns on weekday outbound trips are similar to patterns on inbound trips. Saturday trips are also similar, though have a somewhat greater proportion of trips that begin or end at Faulkner Hospital.

Figure 3 | Weekday Inbound Ridership by Stop Map


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## Ridership by Trip

Route 38 has very low ridership per trip, except for school trips. On weekday inbound trips (see Figure 4):

- Ridership is strongest from the start of service through about 8:30 AM, when trip serve between 12 and 23 passengers. The two morning school trips have much higher ridership, with an average of 37 and 50 riders respectively.
- Midday trips average about 11 passengers.
- Ridership begins to decline during the PM peak, with several trips serving fewer than five passengers.
- The last three trips of the day have slightly higher ridership, serving between five and 10 passengers per trip.

Weekday outbound ridership is relatively consistent throughout service, with most trips serving between eight and 11 passengers (see Figure 5). Some afternoon and PM peak trips serve up to 16 passengers. The two afternoon school trips have much higher ridership, with an average of 62 and 41 riders respectively.

Saturday ridership per trip is very low, with nearly all trips in both directions serving fewer than 10 boardings (see Figure 6 and Figure 7). The exceptions are the 6:30 AM outbound trip, which averages 15 riders, and the 11:13 PM inbound trip, which average 13 riders.

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 38, $91.9 \%$ of passenger minutes are in comfortable conditions, which is below the minimum standard (see Table 3). All trips operating below the standard are school trips.

Table 3 | Passenger Time Spent Traveling in Comfortable Conditions

|  | WEEKDAYS | SATURDAYS | SUNDAYS |
| :--- | :---: | :---: | :---: |
| Minimum Standard | $92 \%$ | $92 \%$ | $92 \%$ |
| Target | $96 \%$ | $96 \%$ | $96 \%$ |
| Actual | $91.9 \%$ | $100 \%$ | - |

## Reliability and Speed

## Reliability

Route 38 has an overall reliability of $68 \%$ on weekdays, which falls short of the minimum standard of 70\% for Local routes (see Table 4). Dropped trips are not a notable issue on this route, with $0.3 \%$ of trips not operated, which meets MBTA service standards.
Saturday trips perform much better than weekday trips, with $80 \%$ of trips completed on time and an overall reliability of $81 \%$.

Table 4 | Reliability

| SERVICE DAY | ORIGIN/MIDROUTE ON-TIME PERFORMANCE | DESTINATION ON-TIME PERFORMANCE | OVERALL RELIABILITY | DROPPED TRIPS |
| :---: | :---: | :---: | :---: | :---: |
| Monday-Friday | 68\% | 68\% | 68\% | 0.3\% |
| Saturday | 81\% | 80\% | 81\% | - |
| Sunday | - | - | - | - |

Inbound running times are about two minutes shorter than scheduled during the midday and about one to three minutes longer in the PM peak and evening (see Figure 8). Outbound running times are one to three minutes longer than scheduled through most of the day, and about three minutes shorter than scheduled through the evening (see Figure 9).

Figure 8 | Scheduled \& Median Travel Time by Trip: Route 38 Inbound


Figure 9 | Scheduled \& Median Travel Time by Trip: Route 38 Outbound


## Stop Spacing

The average stop spacing along the primary route is about 690 feet, which is too close together according to MBTA's standard of about 800-1300 feet between stops. This indicates that some stops could be consolidated, particularly those with low ridership. The average distance between stops exclusive to the variant routes is about 950 feet, which is acceptable under MBTA's standard, but leaves ample room for consolidation before reaching the maximum distance of 1300 feet.

## Summary

Route 38 provides public transit access to Faulkner Hospital, and connects residential neighborhoods in West Roxbury, Roslindale, and Jamaica Plain to the Orange Line and other bus services at Forest Hills Station. Most parts of the route are within walking distance of very frequent bus services on Centre Street and South Street, which all also provide access to Forest Hills Station. Route 38 thus has a limited customer base, and, apart from special trips that serve schools far from the primary route, has very low ridership.

