

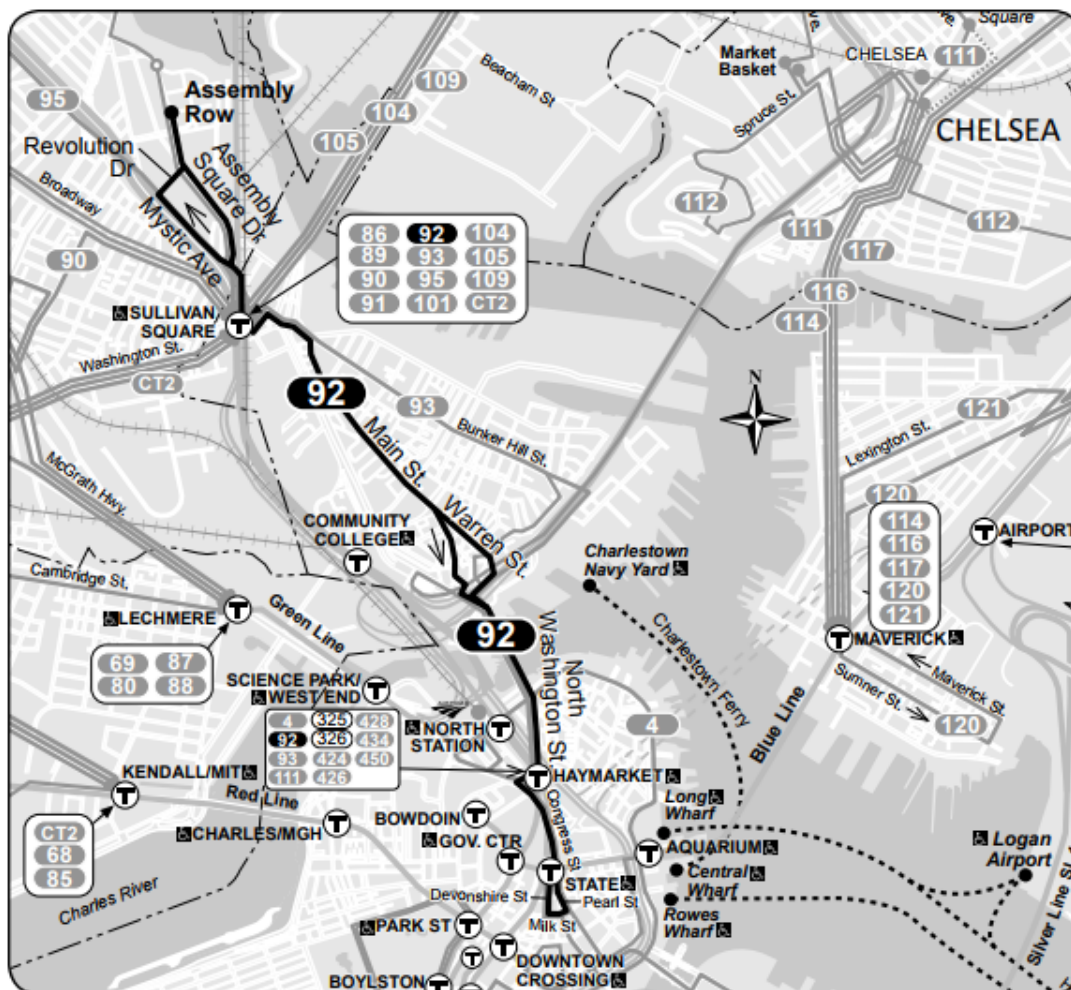
Route 92

Assembly Square Mall – Downtown Boston

Route Overview

Route 92 Assembly Square Mall - Downtown Boston operates between either Assembly Square or Sullivan Square Station and downtown Boston via Main Street in Charlestown (see Figure 1). During peak periods, it operates between Sullivan Square Station and the Financial District. During off-peak periods, it operates between Assembly Square Mall and Haymarket via Sullivan Square Station.

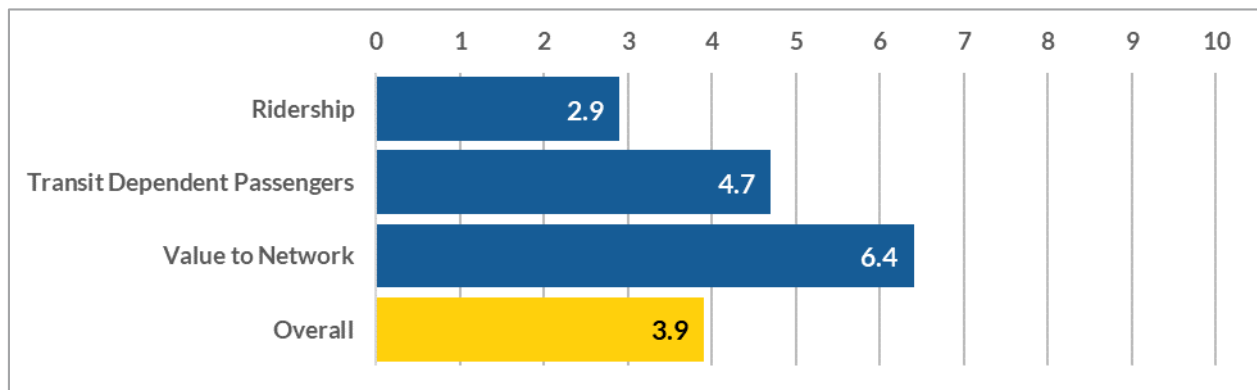
Figure 1 | Service Map



Network Importance

Route 92 has moderate importance within the overall system (see Figure 2). On a scale of 0 to 10, the route rates 2.9 in terms of ridership, 4.7 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 3.9.

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



Service Patterns

Schedule

Route 92 operates on weekday and Saturdays (see Table 1). On weekdays, it operates from 5:00 AM until 10:10 PM, running every 16 to 18 minutes during peak periods and every 30 to 35 minutes during off-peak periods. On Saturdays, it operates from 5:35 AM until 9:25 PM, every 35 minutes throughout the day. Service does not operate on Sundays.

Route 92 exceeds the span of service and service frequency standards for Local routes on weekdays and Saturdays, but fails to meet the days of service standard for routes in urban areas due to not providing service on Sundays.

Table 1 | Schedule Statistics

SERVICEDAY	SPAN OF SERVICE	FREQUENCY (RANGE)	FREQUENCY (AVERAGE)	DAILY TRIPS (INBOUND/OUTBOUND)
Monday-Friday	5:00 AM to 10:10 PM			41/40
Sunrise	5:00 AM to 5:59 AM	35-40	35	2/2
Early AM	6:00 AM to 6:59 AM	10-37	20	3/1
AM Peak	7:00 AM to 8:59 AM	15-35	18	6/7
Midday Base	9:00 AM to 1:29 PM	21-40	34	8/8
Midday School	1:30 PM to 3:59 PM	32-35	35	4/4
PM Peak	4:00 PM to 6:29 PM	12-36	16	10/9
Evening	6:30 PM to 9:59 PM	12-60	30	7/9
Late Evening	10:00 PM to 10:10 PM	60	60	1/0
Night	-	-	-	-
Saturday	5:35 AM to 9:25 PM	20-35	35	27/27
Sunday	-	-	-	-

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

Service Patterns

Route 92 operates with a combination of long trips and short trips. Long trips operate the full length of the route from the Assembly Square Mall to the Financial District (see Table 2). Short trips operate from Sullivan Square Station to either Haymarket Station or the Financial District (Devonshire and Milk Streets). Trips are scheduled so that the core section of the route between Sullivan Station and Haymarket Station receives relatively consistent service.

Weekdays

- Early morning and peak period trips operate between Sullivan Square Station and the Financial District (Pattern 92.3).
- Midday trips operate between Assembly Square and the Financial District (Pattern 92.1).
- Beginning at 8:00 PM, service operates between Sullivan Square Station and Haymarket Station (Pattern 92.7).

Saturdays

- Trips before 8:45 AM operate between Sullivan Square Station and Haymarket Station (Pattern 92.3).
- Midday trips operate between Assembly Square Mall and the Financial District (Pattern 92.1).
- Evening trips operate between Sullivan Square Station and Haymarket Station (Pattern 92.7).

Table 2 | Service Patterns

PATTERN	ORIGIN	DESTINATION	UNIQUE FEATURE	TRIPS PER WKD	TRIPS PER SAT	TRIPS PER SUN
INBOUND				41	27	-
92.1	Assembly Square Mall	Devonshire Street at Milk Street	Extended trips to Assembly Square	12	16	-
92.3	Sullivan Station Lower Busway	Devonshire Street at Milk Street	Primary service pattern; departs from Lower Busway	26	3	-
92.7	Sullivan Station Upper Busway	Haymarket Station	Short turn at Haymarket; departs from Upper Busway	3	8	-
OUTBOUND				40	27	-
92.1	Devonshire Street at Milk Street	Assembly Square Mall	Extended trips to Assembly Square	12	16	-
92.3	Devonshire Street at Milk Street	Sullivan Station Lower Busway	Primary service pattern; arrives at Lower Busway	26	3	-
92.7	Haymarket Station	Sullivan Station Upper Busway	Short turn from Haymarket; departs from Upper Busway	2	8	-

All Route 92 service patterns use the Charlestown Bridge to enter downtown Boston. This bridge is very congested during peak hours, with delays averaging 12 minutes (buses are scheduled to take 18 minutes to travel from Sullivan Square Station to Haymarket Station during peak hours, but only six minutes during the early morning and evening). Planned bridge and roadway improvements will include transit priority that should reduce travel times and make service more reliable.

Since this document was developed, the busway at Sullivan has been reconfigured and all service now leaves from the same level at all times.

Ridership

Route 92 serves 1,000 passengers per weekday and 300 passengers on Saturdays. The difference between weekday and Saturday ridership is one of the highest in the MBTA system and indicates that the majority of ridership consists of riders commuting to and from downtown Boston for work.

Ridership by Stop

A very large majority of riders uses Route 92 to travel to and from downtown Boston (see Figure 3). On weekdays, inbound from Assembly Square Mall:

- Only 20 riders board Route 92 in Assembly Square.
- Stops between Assembly Square Mall and Sullivan Square Station serve only two passengers, or less than 1% of all riders. Ridership is likely low because travel to Assembly Square is more convenient via the Orange Line.
- Sullivan Square Station is the highest ridership stop outside of downtown Boston, with over 100 daily boardings.
- Ridership is moderate and relatively evenly distributed along the stops on Main Street in Charlestown, ranging from 30 to 70 daily boardings. The highest activity stop is Main Street at West School Street with 62 boardings and 45 alightings.
- Most riders alight in Downtown Boston:
 - About 90 passengers alight near North Station on North Washington Street at Medford Street.
 - 161 passengers alight at Haymarket Station, where they can transfer to the Orange and Green Lines.
 - 91 passengers alight in the Financial District at Devonshire Street at Milk Street.

Saturday ridership patterns on Route 92 are similar to weekday patterns, with significantly fewer but similarly distributed boardings and alightings. The one exception is the Assembly Square Mall stop, which has proportionally higher ridership.

Figure 3 | Weekday Inbound Ridership by Stop Map



Ridership by Trip

Route 92 provides one-seat service between Charlestown and downtown Boston. The majority of Route 92 passengers board or alight at Haymarket Station in downtown Boston. These characteristics have a significant impact on Route 92 ridership by trip. On weekdays:

- Inbound ridership is high during the AM peak, when most trips carry over 30 passengers and some carry over 40 (see Figure 5). However, inbound ridership at other times of the day is low, with most trips carrying fewer than 20 passengers. The only exceptions are a few late afternoon trips that carry 20 to 25 passengers.
- Outbound patterns differ from inbound patterns, with high ridership in both the AM and PM peaks, with AM peak ridership mostly between 20 and 30 passengers per trip and PM peak ridership between 20 and 40 passengers per trip (see Figure 6). The high AM peak outbound ridership indicates that a significant number of passengers use Route 92 to connect with the Orange Line at Sullivan Square Station for their inbound trips, but then use Route 92 outbound from downtown Boston for their PM trips. As a result of the different inbound and outbound ridership patterns, total outbound ridership is 596, versus 487 for inbound ridership.
- Maximum loads never exceed 35 passengers on weekdays, meaning that no trips have standing riders, even during peak periods.
- Route 92 trips have limited turnover, as most trips begin or end at the end of the line. The maximum number of passengers on the bus during each trip is only slightly below the total number of passengers that board during that trip.

On Saturdays, ridership is much lower than on weekdays (see Figure 7 and Figure 8). Trips before 9:00 AM and after 6:30 PM carry fewer than five passengers per trip. Even during the middle of the day, all trips carry fewer than 15 passengers per trip.

Figure 4 | Weekday Ridership by Trip: Inbound

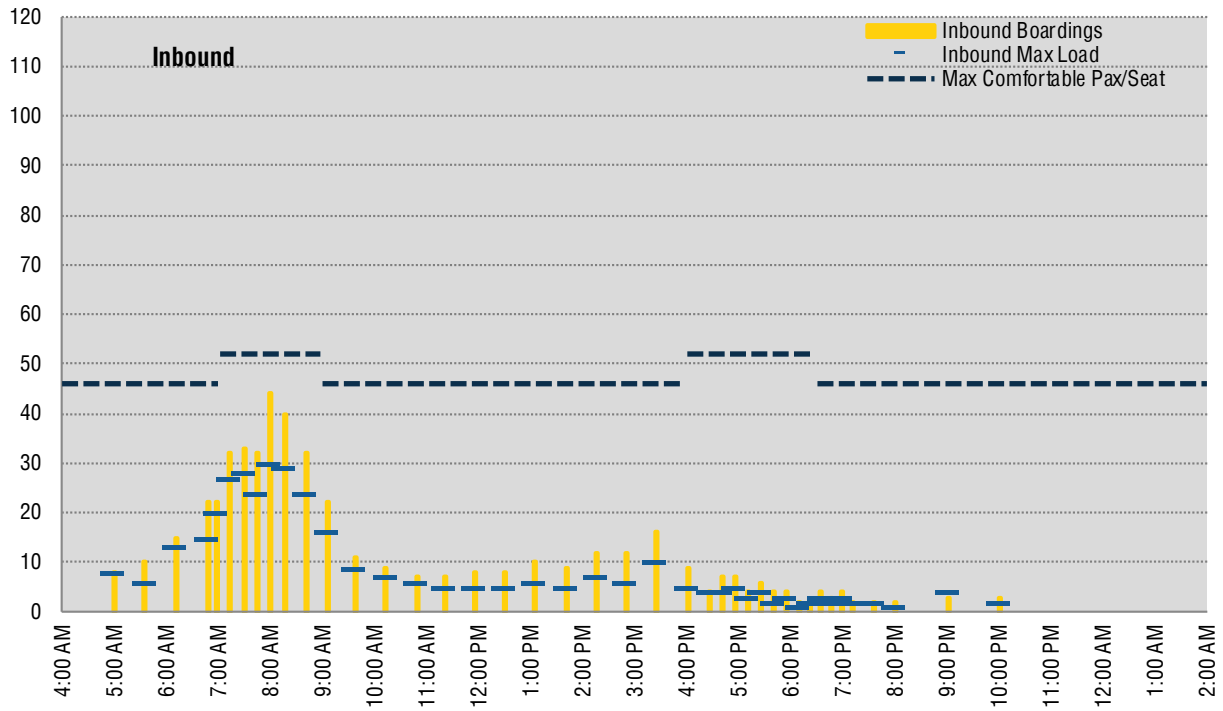


Figure 5 | Weekday Ridership by Trip: Outbound

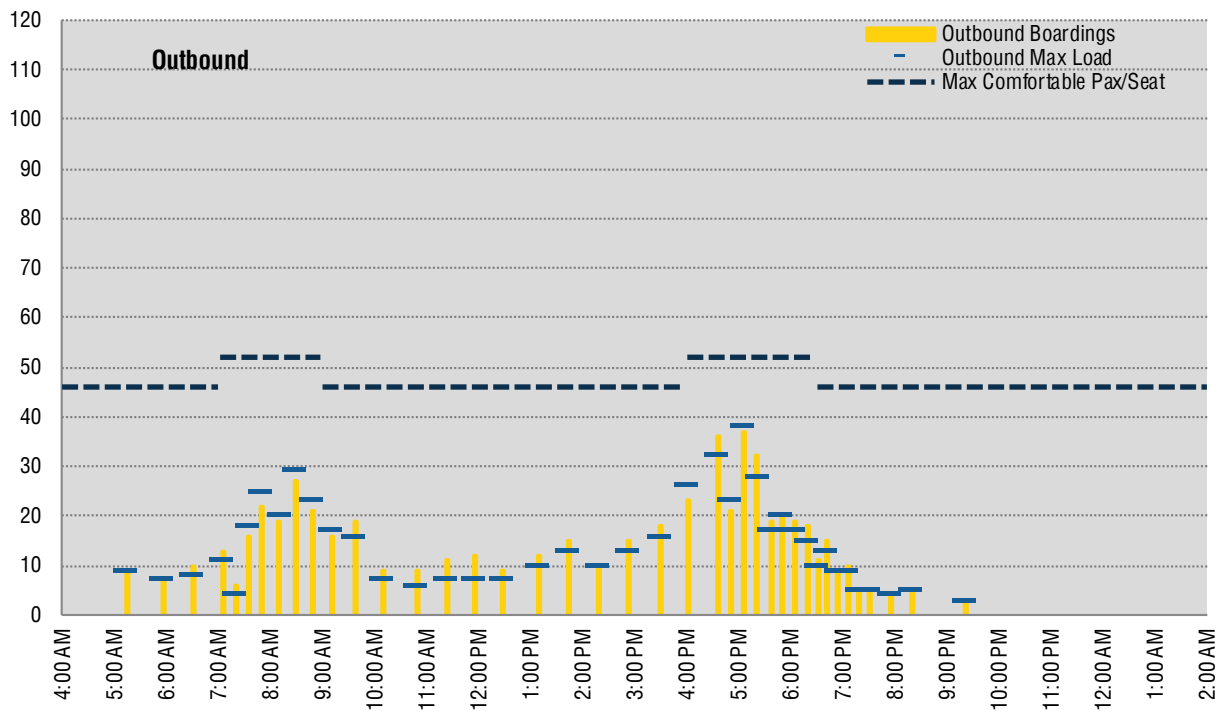


Figure 6 | Saturday Ridership by Trip: Inbound

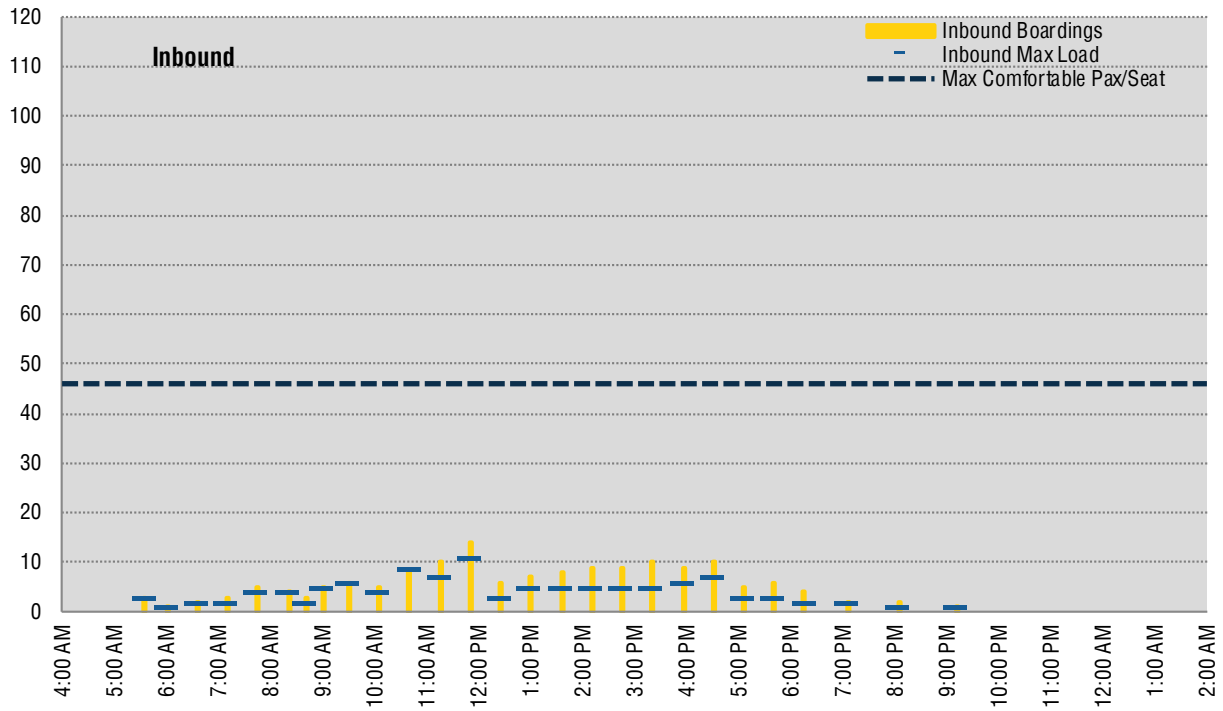
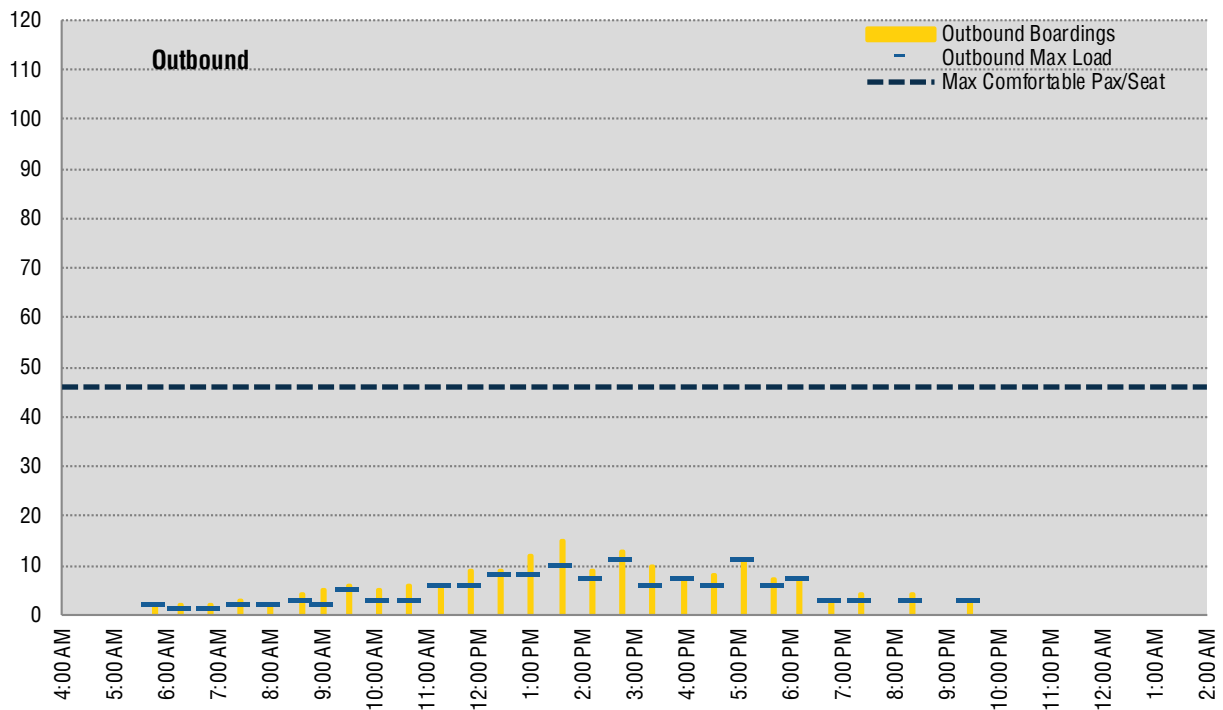


Figure 7 | Saturday Ridership by Trip: Outbound



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 92, 95% of passenger minutes are in comfortable conditions on weekdays, which is above the minimum standard but below the target (see Table 3). On Saturdays, 100% of passenger minutes are in comfortable conditions.

Table 3 | Passenger Time Spent Traveling in Comfortable Conditions

	WEEKDAYS	SATURDAYS	SUNDAYS
Minimum Standard	92%	92%	92%
Target	96%	96%	96%
Actual	95%	100%	-

Reliability and Speed

Reliability

Route 92 provides unreliable service on both weekdays and Saturdays (see Table 4). Just over 50% of all trips are completed on time, with service often running behind schedule and at uneven frequencies. Dropped trips are also an issue on Route 92, with more than 1% of trips not operated in Fall 2017.

Table 4 | Reliability

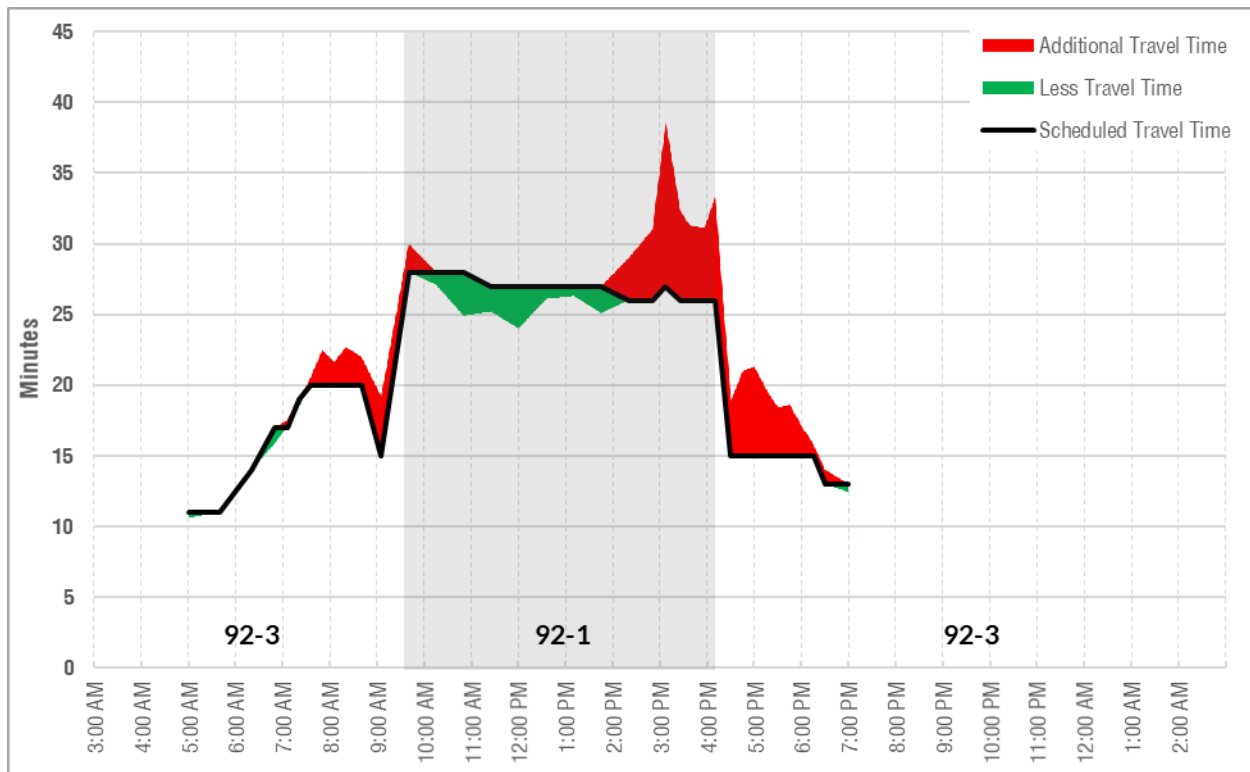
SERVICE DAY	ORIGIN/MID-ROUTE ON-TIME PERFORMANCE	DESTINATION ON-TIME PERFORMANCE	OVERALL RELIABILITY	DROPPED TRIPS
Monday-Friday	63%	53%	61%	1.1%
Saturday	61%	53%	59%	-
Sunday	-	-	-	-

Running Times

There are significant differences in Route 92's running times throughout the day that reflect the length of the service being provided and traffic conditions. Between approximately 7:30 AM and 10:00 AM, actual running times are generally one to three

minutes longer than schedule times. Running times are slightly shorter than scheduled from 10:00 AM to 2:00 PM, but then significantly longer from then until the end of service.

Figure 8 | Scheduled & Median Travel Time by Trip: Route 92 Inbound



Stop Spacing

Route 92 has an average of 5.5 stops per mile. This equates to a stop every 960 feet, or only a four-minute walk between stops. Stops on Main Street in Charleston are spaced very close together, with nine stops along a one-mile stretch. Several stops along Main Street are closer than 500 feet apart, and some are as close as 200 feet apart; customers can walk between stops with this spacing in two to three minutes. As people will typically walk at least five minutes to access a local bus route, this spacing is unnecessarily close, while making service slower and less reliable.

Summary

Route 92 is one of two routes that serve the core of Charlestown. Reliability is poor, actual running times differ from scheduled running times, and stops are spaced too closely together.