

# ROUTE 7

Pier 70 to 33<sup>rd</sup>-Dauphin

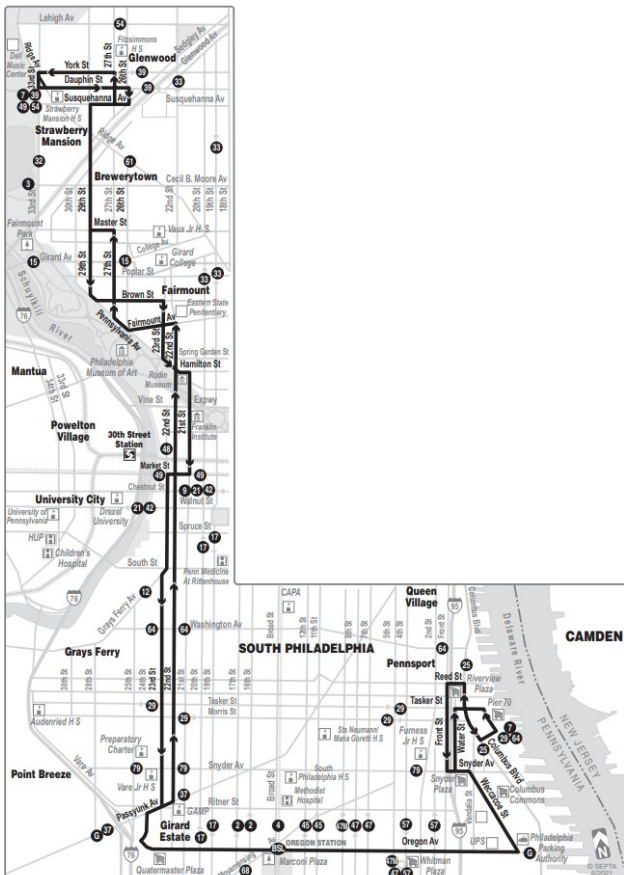
## KEY SERVICE CHARACTERISTICS, ISSUES, AND OPPORTUNITIES

- *Route 7 connects many neighborhoods and shopping centers in North and South Philadelphia along with providing connections to the rapid transit network. The route carried over 5,000 riders per weekday in Fall 2019.*
- *The service is duplicative with Route 48 in its northern half and Route G in South Philadelphia. There may be opportunities to reduce duplication.*
- *As with many SEPTA urban routes, Route 7's on-time performance is below standard and service is slow, in part because stops are spaced too closely.*

## ROUTE OVERVIEW

Route 7 is L-shaped with east-west service along Oregon Avenue in South Philadelphia and north-south service connecting Point Breeze, the western part of Center City, Fairmount, Brewerytown and Strawberry Mansion. The central part of the alignment is direct while the segments at each end are more circuitous.

Figure 1 | Route Map



## SERVICE OVERVIEW

### Schedule

Route 7 operates from 5:14 AM to 2:30 AM on weekdays, and from approximately 5:50 AM to 1:40 AM on weekends. Frequencies vary by time of day (see Table 1):

- On weekdays, peak period frequencies are roughly every 15 minutes and midday frequencies are approximately every 22 minutes on average.
- On weekend days, service frequencies average 22 minutes during the day and 44 minutes at night.

**Table 1 | Schedule Statistics**

Service Day	Span Of Service	Frequency (Range)	Frequency (Average)
<b>Weekdays</b>	5:14 AM to 2:30 AM		
Early AM	5:14 AM to 5:59 AM	26	26
AM Peak	6:00 AM to 8:59 AM	11-30	16
Midday	9:00 AM to 2:59 PM	15-26	22
PM Peak	3:00 PM to 5:59 PM	12-16	15
Evening	6:00 PM to 9:59 PM	15-54	32
Late Night	10:00 PM to 11:59 PM	48-63	57
Owl	Midnight to 2:30 AM	46-78	60
<b>Saturdays</b>	5:50 AM to 1:42 AM		
Day	8:00 AM to 5:59 PM	19-35	22
Night	Before 8:00 AM & After 5:59 PM	27-74	44
<b>Sundays</b>	5:48 AM to 1:41 AM		
Day	8:00 AM to 5:59 PM	20-30	22
Night	Before 8:00 AM & After 5:59 PM	28-72	43

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

### Service Patterns

Route 7 has eight weekday service patterns, although the majority of trips use the primary pattern in each direction. A few trips are short-turns that begin or end at Whitman Plaza and a few are in-service pullouts or pullbacks from the Southern Depot (see Table 2).

**Table 2 | Service Patterns**

Pattern	Origin	Destination	Unique Feature	Unique Stops	Trips Per Day		
					Wkd	Sat	Sun
<b>Southbound</b>							
229831	33rd St & Dauphin St Loop	Pier 70 Walmart & Home Depot	Primary Pattern	0	48	35	35
229835	33rd St & Dauphin St Loop	Whitman Plaza - 1	Short-turn at Plaza during Late Night service	1	2	3	3
229833	33rd St & Dauphin St Loop	Oregon Av & 20th St - FS	Short-turn during mornings	0	1	3	3

229832	33rd St & Dauphin St Loop	Oregon Av & Broad St - FS	Last stop during Owl service (last trip)	0	1	1	1
229834	Oregon Av & 20th St - FS	Pier 70 Walmart & Home Depot	Short trip (first trip during AM service)	0	1	0	0
<b>Northbound</b>							
229839	Pier 70 Walmart & Home Depot	33rd St & Dauphin St Loop	Primary Pattern	0	48	35	35
229838	Whitman Plaza - 2	33rd St & Dauphin St Loop	Short-Turn	1	3	4	4
229837	Oregon Av & 23rd St - FS	33rd St & Dauphin St Loop	Starting point -first few trips during AM service	0	1	3	3

Note: Unique stops are those not served by the primary pattern

## RIDERSHIP

In Fall 2019, Route 7 carried 5,308 passengers on weekdays, 3,348 on Saturdays, and 2,741 on Sundays (see Table 3). Based on weekday ridership, it was SEPTA's 38th highest ridership route.

**Table 3 | Fall 2019 Ridership and Productivity**

	Weekdays	Saturdays	Sundays
<b>Daily Ridership</b>	<b>5,308</b>	<b>3,348</b>	<b>2,741</b>
Rank	38	27	27
<b>Passengers per Revenue Vehicle Hour</b>	<b>47.1</b>	<b>38.3</b>	<b>32.7</b>
Rank	43	40	50

## Transfer Patterns

The single largest transfer point is with the Broad Street Line at Oregon Avenue. The largest transfer volumes are to and from:

- Broad Street Line (9.4 percent of all trips)
- Route G (Overbrook Avenue and Lankenau Avenue to Columbus Commons) (5.5 percent)
- Market-Frankford Line (3.2 percent)
- Route 34 Trolley (13<sup>th</sup> Street and Market Street to 61<sup>st</sup> Street and Baltimore Avenue) (2.7 percent)
- Route 48 (Front Street and Market Street to 27<sup>th</sup> Street and Allegheny Avenue) (2.7 percent)

Weekend transfer percentages are similar to weekdays.

## Ridership by Stop

Route 7 has a lengthy alignment and many passengers ride for only one segment. The nodes of greatest activity for boardings and alightings on northbound trips include:

- Pier 70 shopping center (227 daily boardings)
- Broad Street and Oregon Avenue (transfer with the Broad Street Line, 140 boardings and 235 alightings)
- 22<sup>nd</sup> Street and Market Street (transfer with trolleys, 131 boardings and 234 alightings)
- 24<sup>th</sup> Street and Oregon Avenue (Quartermaster Plaza, 81 boardings and 36 alightings)
- 4<sup>th</sup> Street and 5<sup>th</sup> Street and Oregon Avenue (Whitman Plaza, 147 boardings and 41 alightings at both stops combined)
- 33<sup>rd</sup> Street & Dauphin Street (88 alightings)

Most of the stops in Center City along 22<sup>nd</sup> Street also have higher ridership.

**Figure 2 | Weekday Northbound Ridership by Stop**



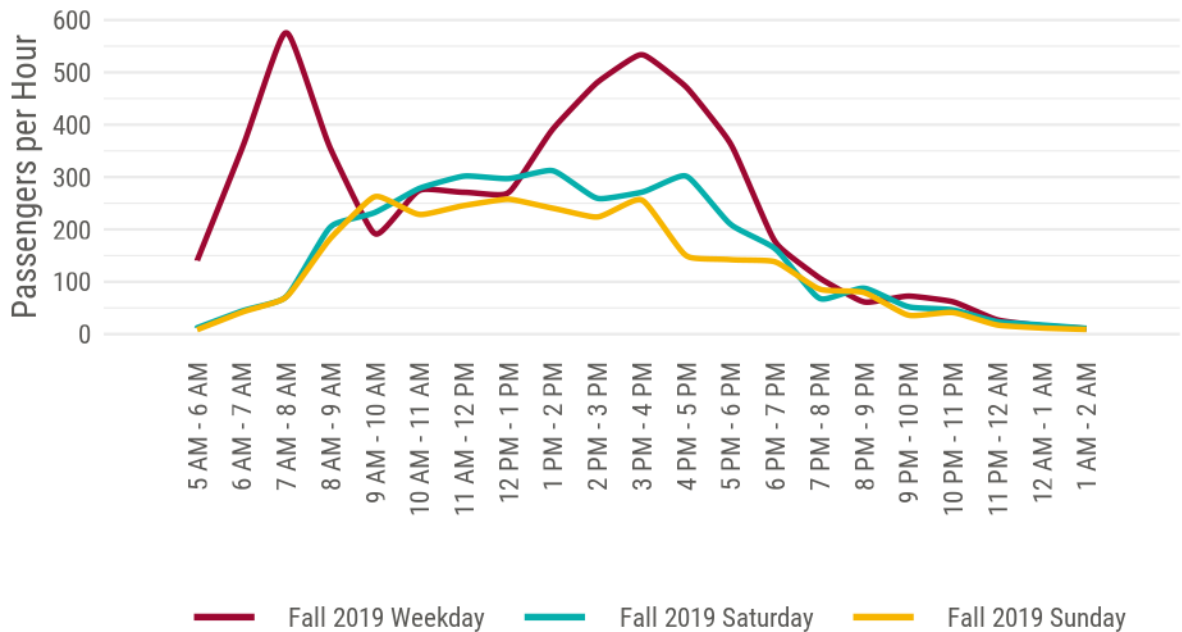
## Ridership by Time of Day

### Ridership by Hour

In Fall 2019, weekday ridership was peaked, with over 500 passengers per hour during the AM and PM peaks (see Figure 3).

Midday ridership, on a per hour basis, was about half of the peak period. Evening ridership was much lower and fell quickly after 6:00 PM. Weekend ridership was relatively strong and equal to weekday midday, probably because of the many shopping centers served.

**Figure 3 | Ridership by Hour: Fall 2019**



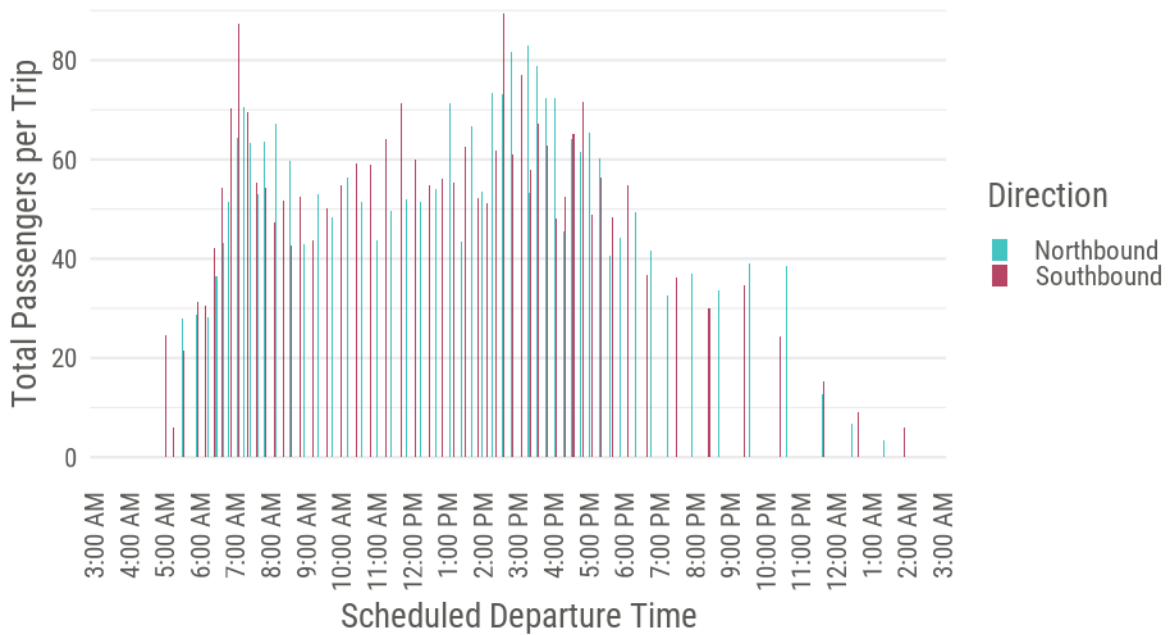
## Ridership and Maximum Loads by Trip

In Fall 2019, weekday ridership per trip is high on most trips (see Figure 4):

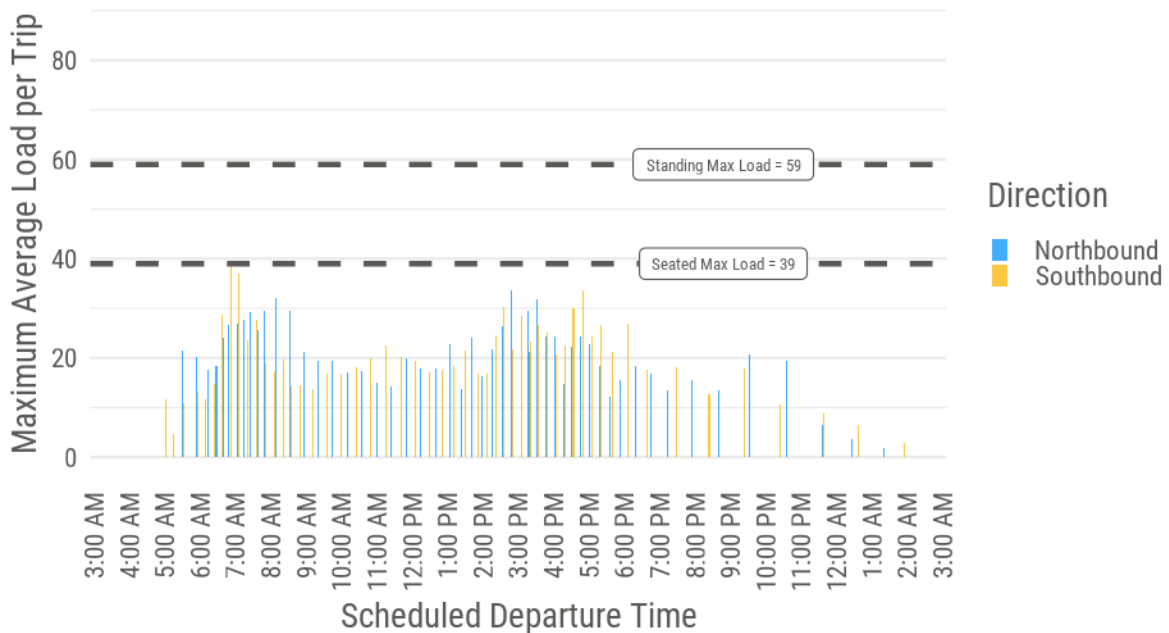
- AM and PM peak trips carried 60 to 90 passengers
- Midday trips carried 50 to 70 passengers
- After 6:00 PM, ridership decreased to 40 passengers or less per trip.
- After 10 PM ridership continued to drop to fewer than 20 on the last trips.

Although turnover along the route is high, there are a handful of peak period trips where maximum loads approach the seating capacity (see Figure 5). Outside of the peak period, average loads remain below the seated capacity.

**Figure 4 | Fall 2019 Weekday Ridership by Trip**



**Figure 5 | Fall 2019 Weekday Maximum Loads by Trip**



Saturday trips carry 50-80 people between about 10:00 AM and 6:00 PM with lower ridership during the mornings and evenings. Maximum loads are still within the seating capacity.

Sunday ridership patterns are very similar to those on Saturday but with lower ridership overall. Late night trips carry fewer than 10 riders per trip.



## ON-TIME PERFORMANCE AND RUNNING TIMES

### On-Time Performance

In Fall 2019, Route 7’s on-time performance was 70.6 percent on weekdays, 75.0 percent on Saturdays, and 70.7 percent on Sundays (see Table 4). On all days trips are more likely to be late than early. Missed trip rates are relatively high on weekdays, with nearly 4% of trips not run.

**Table 4 | Fall 2019 On-Time Performance**

	Early (>2 Mins Early)	On Time (<2 Mins Early to 6 Mins Late)	Late (>6 Mins Late)	Missed Trips
<b>Goal</b>		<b>80%</b>		
<b>Fall 2019 Actual</b>				
Weekday	8.0%	70.6%	21.4%	3.9%
Saturday	10.6%	75.0%	14.4%	2.8%
Sunday	12.6%	70.7%	16.7%	4.0%

*Note: On-time percentages are for trips that are run (do not include dropped trips)*

## AVERAGE SPEEDS AND STOP SPACING

On weekdays, Route 7 travels between 8 and 10 mph outside of Center City and less than 8 mph when it travels through Center City (see Figure 6). Slow speeds are attributable to traffic congestion in Center City as well as stop spacing along the route. Route 7 has an average of 11 stops per mile over its entire length; but some segments have more than 13 and as high as 15 stops per mile (see Figure 7).

Figure 6 | Fall 2019 PM Peak Northbound Speeds

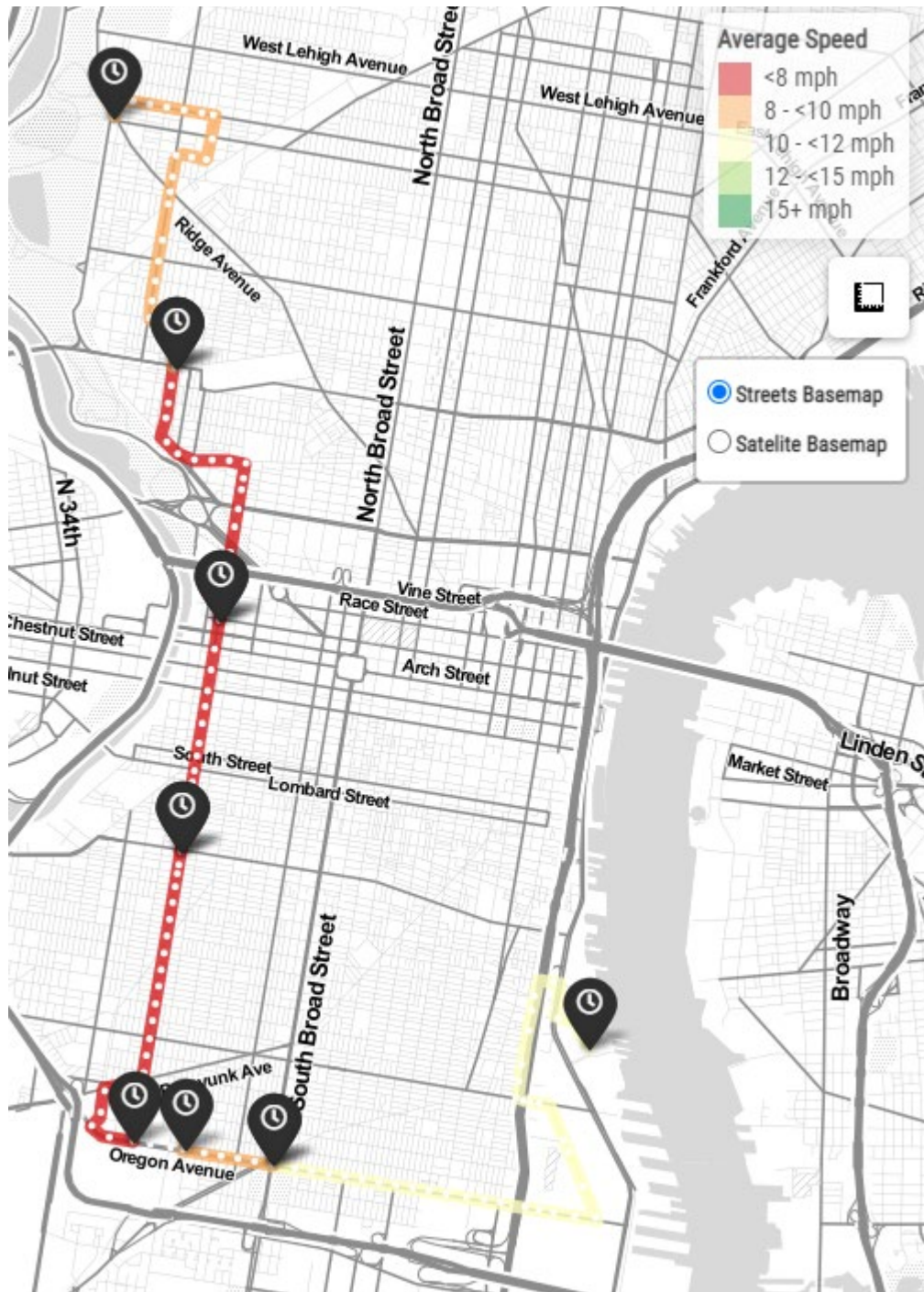
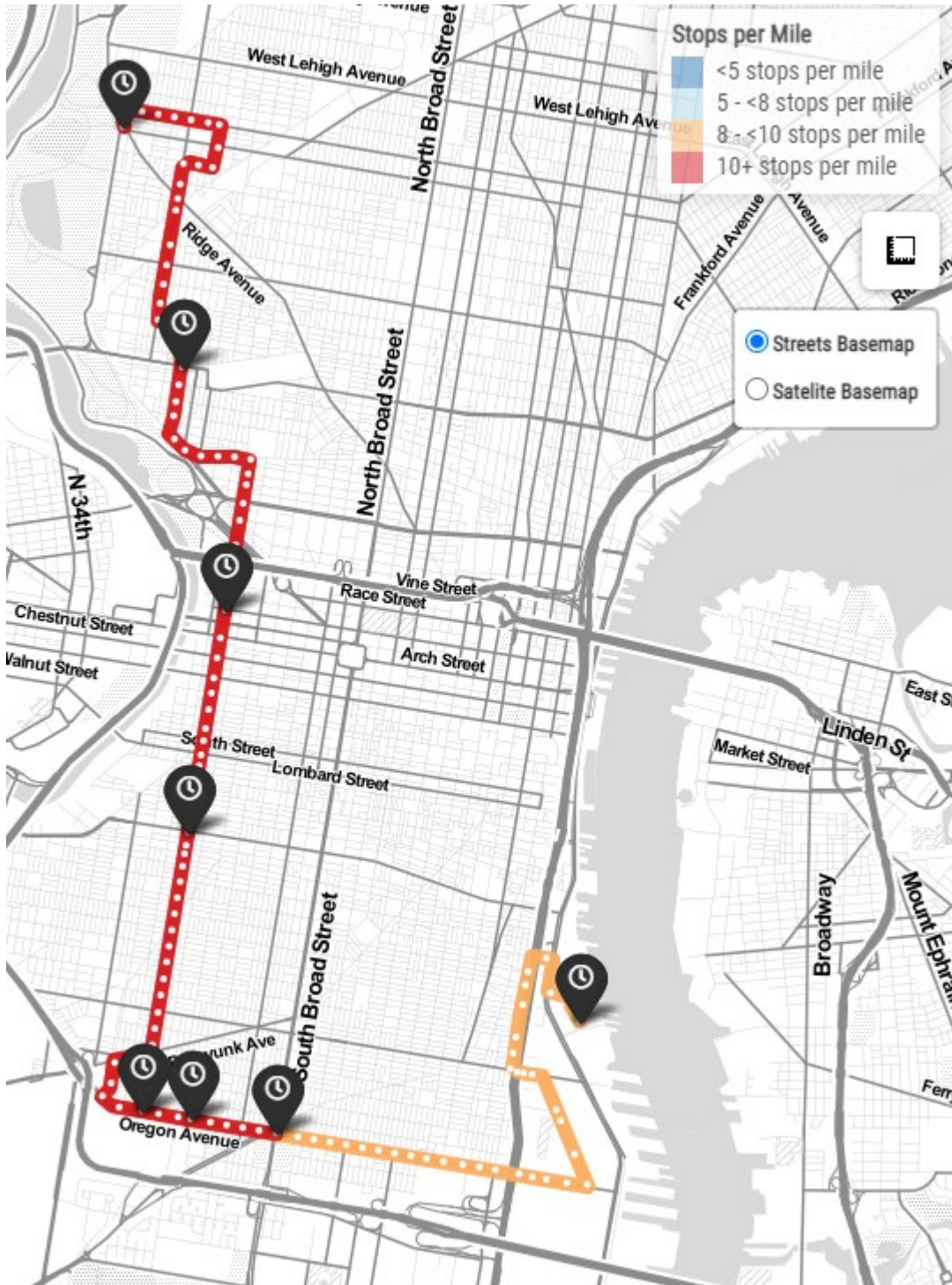




Figure 7 | Stop Spacing by Route Segment



## RIDER CHARACTERISTICS

Route 7's rider demographics are typical of SEPTA's service area as a whole (see Table 5). The route carries a somewhat higher percentage of seniors and riders who don't have access to a vehicle.

**Table 5 | Rider Characteristics**

	Route 7 Riders	Systemwide Average
Median Household Income	\$33,516	\$32,713
Share in Poverty	31%	30%
Ethnicity		
White	43%	38%
Black	43%	46%
Hispanic	8%	10%
Other	6%	7%
Without a Vehicle	45%	37%
Seniors	23%	15%
With a Disability	3%	2%

## SERVICE IMPROVEMENT OPPORTUNITIES

Opportunities to strengthen Route 7 are listed below. Some suggestions may be contradictory, as there is usually more than one approach to improving a route.

- Move Southern Terminus to Quartermaster Plaza:** Route 7 and Route G currently provide duplicative service on Oregon Avenue. The southern terminus of Route 7 could be truncated to Quartermaster Plaza to reduce duplication, if a suitable end-of-line location could be established in (preferably) a public space within the area.
- Make Service in Fairmount More Direct:** Having many turns makes the route less intuitive for passengers and typically reduces on-time performance. However, the road network in the area limits options for buses. Some streamlining of service may be possible.
- Combine with Route 48:** The two routes provide duplicative service in Fairmount, Brewerytown and Strawberry Mansion. There may be an opportunity in the new network to combine the services.