

ROUTE 48

Front-Market to 27th-Allegheny

KEY SERVICE CHARACTERISTICS, ISSUES, AND OPPORTUNITIES

- *Route 48 has an L-shaped alignment providing north-south service in Strawberry Mansion, Brewerytown, and Fairmount; and east-west service through Center City. The route carried just over 7,500 weekday riders in Fall 2019.*
- *Much of the Route 48 alignment outside of Center City overlaps with or is very close to other bus routes which may create opportunities to provide better service on fewer corridors.*
- *In Center City, the route is the only service on Arch Street, but it may make sense to shift service to Market Street/JFK Boulevard where priority treatments are planned that will benefit multiple routes.*

ROUTE OVERVIEW

Route 48 provides north-south service on 29th Street between Strawberry Mansion, Brewerytown and Fairmount, and also provides east-west service through Center City on Market and Arch Streets (see Figure 1). The alignment is fairly simple and direct given the one-way streets on the alignment, and the route carried just over 7,500 passengers on weekdays in Fall 2019. Much of the route overlaps with or is close to other bus service which may create opportunities to consolidate routes.

SERVICE OVERVIEW

Schedule

Route 48 operates until 1:18 AM on all days, with service beginning at 4:54 AM on weekdays, 6:14 AM on Saturdays and 6:44 AM on Sundays. Frequencies vary by time of day (see Table 1):

- On weekdays, peak period frequencies are roughly every 8-10 minutes. Midday frequencies are approximately every 10 minutes on average.
- On weekend days, service frequencies average 11 minutes during the day on Saturday and every 19-23 minutes at other times.

Figure 1 | Route Map



Table 1 | Schedule Statistics

Service Day	Span Of Service	Frequency (Range)	Frequency (Average)
Weekdays	4:54 AM to 1:18 AM		
Early AM	4:54 AM - 5:59 AM	30-35	33
AM Peak	6:00 AM - 8:59 AM	7-31	10
Midday	9:00 AM - 2:59 PM	6-13	10
PM Peak	3:00 PM - 5:59 PM	5-11	8
Evening	6:00 PM - 9:59 PM	8-25	14
Late Night	10:00 PM to 11:59 PM	20-30	26
Owl	Midnight to 1:18 AM	30	30
Saturdays	6:14 AM to 1:18 AM		
Day	8:00 AM to 5:59 PM	9-21	11
Night	Before 8:00 AM & After 5:59 PM	12-46	22
Sundays	6:44 AM to 1:18 AM		
Day	8:00 AM to 5:59 PM	15-32	19
Night	Before 8:00 AM & After 5:59 PM	14-46	23

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

Service Patterns

Route 48 officially has four service patterns, two in each direction. The evening and weekend trips use a slight variation from the primary pattern, but the differences do not affect passenger boarding or alighting locations (see Table 2).

Table 2 | Service Patterns

Pattern	Origin	Destination	Unique Feature	Unique Stops	Trips Per Day		
					Wkd	Sat	Sun
Southbound							
229597	27 th St and Allegheny Av	Front-Market	Primary Pattern	0	73	0	0
229599	27 th St and Allegheny Av	Front-Market	Slight variation from Primary	0	28	81	55
Northbound							
229600	Front St & Market St Loop	27 th St and Allegheny Av	Primary Pattern	0	69	0	0
229601	Front St & Market St Loop	27 th St and Allegheny Av	Slight variation from Primary	0	32	81	55

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

RIDERSHIP

In Fall 2019, Route 48 carried 7,522 passengers on weekdays, 4,483 on Saturdays, and 2,819 on Sundays (see Table 3). On weekdays, this route had SEPTA's 23rd highest ridership.

Table 3 | Fall 2019 Ridership and Productivity

	Weekdays	Saturdays	Sundays
Daily Ridership	7,522	4,483	2,819
Rank	23	15	23
Passengers per Revenue Vehicle Hour	49.4	40.1	40.1
Rank	38	35	34

Transfer Patterns

The largest transfer rate on Route 48 trips is with the Market-Frankford Line. The largest transfer volumes are to and from:

- Market-Frankford Line (7.3% of all trips)
- Trolley Route 15 (63rd-Girard to Richmond-Westmoreland) (2.7%)
- Route 57 (Whitman Plaza to Rising Sun-Olney and Frankford Transportation Center) (2.2%)
- Broad Street Line (2.0%)
- Route 47 (Whitman Plaza to 5th-Godfrey) (2.0%)

Weekend transfer percentages are very similar to weekdays.

Ridership by Stop

Center City stops on Route 48 generally had greater activity than elsewhere, but demand is consistent all along the route. For northbound weekday trips, some highlights include:

- 72% of the boardings (and 19% of alightings) occur in Center City south of Spring Garden Street
- 146 passengers board and 116 alight at 29th-Girard
- 67 passengers board and 110 alight at 29th-Cecil B Moore
- 67 passengers board and 116 alight at 29th-York
- There are 33 boardings and 152 alightings at 29th-Lehigh
- A total of 841 passengers alight at the final eight stops on Clearfield Street and Allegheny Avenue; there are also some boardings because the route makes a small one-way loop in this area

Figure 2 | Weekday Northbound Ridership by Stop



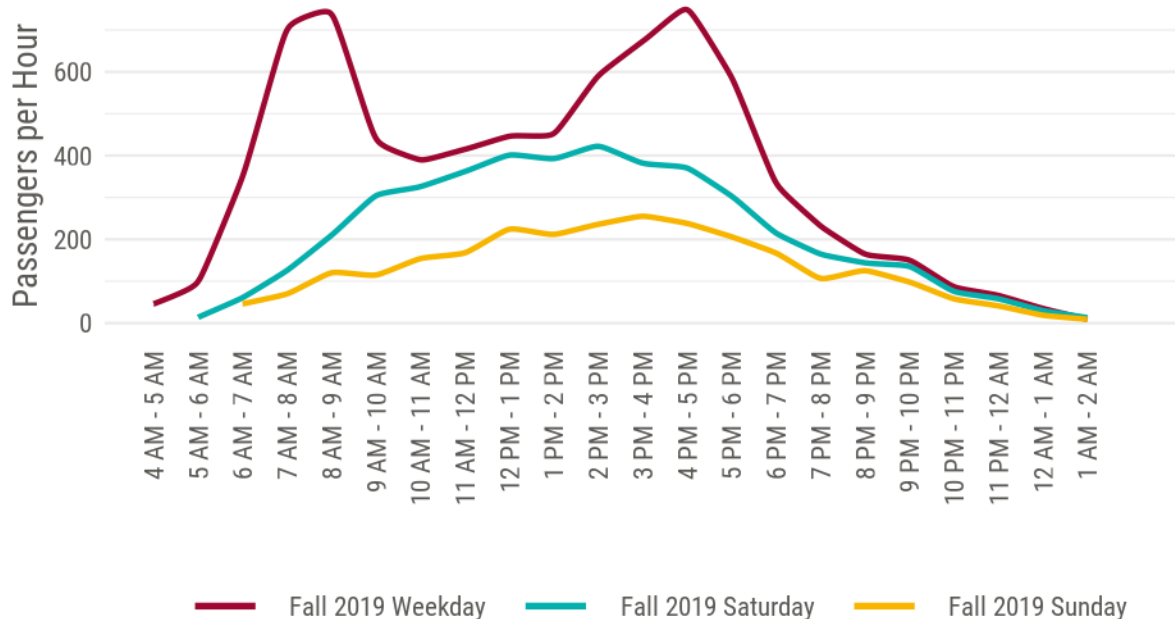
Ridership by Time of Day

Ridership by Hour

In Fall 2019, weekday ridership was somewhat peaked with similar ridership per hour during both the AM and PM peaks (see Figure 3).

Midday ridership, on a per hour basis, was slightly more than half of the peak periods. Evening ridership was much lower especially after 6:00 PM. Weekend ridership was steadier throughout the day and significantly higher on Saturday as compared to Sunday.

Figure 3 | Ridership by Hour: Fall 2019



Ridership and Maximum Loads by Trip

In Fall 2019, weekday ridership per trip was high on peak trips and moderate at other times (see Figure 4):

- Most peak period trips carried 55 to 70 passengers
- Midday trips carried 40 to 50 passengers
- After 6:00 PM, ridership per trip decreased from 40 passengers to around 25
- After 11:00 PM ridership continued to drop to less than 20 per trip

This route uses 60-foot articulated buses and so all trips had maximum passenger loads within the seating capacity (see Figure 5).

Weekend trips carry 40-50 passengers through much of the day and less during early mornings and late evenings. All weekend trips have loads within the seating capacity.

Figure 4 | Fall 2019 Weekday Ridership by Trip

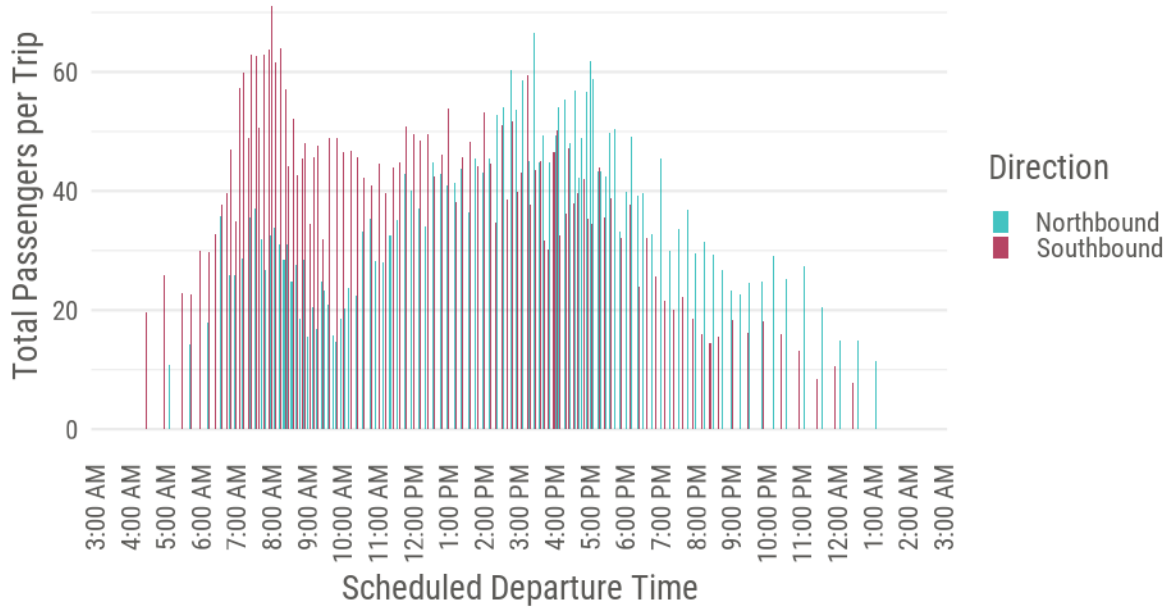
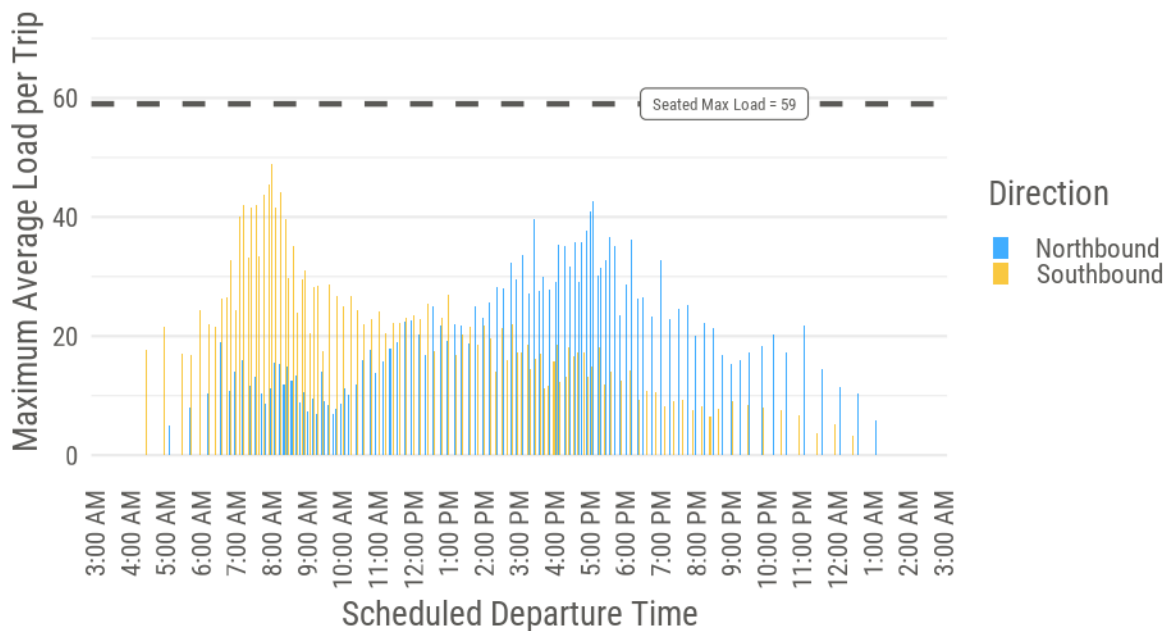


Figure 5 | Fall 2019 Weekday Maximum Loads by Trip



ON-TIME PERFORMANCE AND RUNNING TIMES

On-Time Performance

In Fall 2019, Route 48's on-time performance was 69.4% on weekdays, 73.5% on Saturdays, and 76.8% on Sundays (see Table 4). On weekdays, trips were almost as likely to be early as late, but much more likely to be late than early on weekends.

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
Goal		80%		
Fall 2019 Actual				
Weekday	14.3%	69.4%	16.3%	5.5%
Saturday	9.0%	73.5%	17.6%	2.8%
Sunday	8.2%	76.8%	14.9%	7.9%

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

AVERAGE SPEEDS AND STOP SPACING

On weekdays during the PM Peak, Route 48 travels at less than 8 mph along most of the route and 8-10 mph north of Dauphin Street (see Figure 6). Slow speeds are likely attributable to congestion on narrow roads as well as stop spacing along the route. Route 48 has an average of 10 stops per mile over its entire length; but some segments have more than 12 stops per mile (see Figure 7).

RIDER CHARACTERISTICS

Route 48's rider demographics are typical of SEPTA's entire service area (see Table 5). The route's riders are somewhat more likely to be Black, to be without access to a vehicle and to be seniors.

Table 5 | Rider Characteristics

	Route 48 Riders	Systemwide Average
Median Household Income	\$36,030	\$32,713
Share in Poverty	32%	30%
Ethnicity		
White	36%	38%
Black	53%	46%
Hispanic	7%	10%
Other	4%	7%
Without a Vehicle	47%	37%
Seniors	22%	15%
With a Disability	2%	2%

Figure 6 | Fall 2019 PM Peak Northbound Speeds

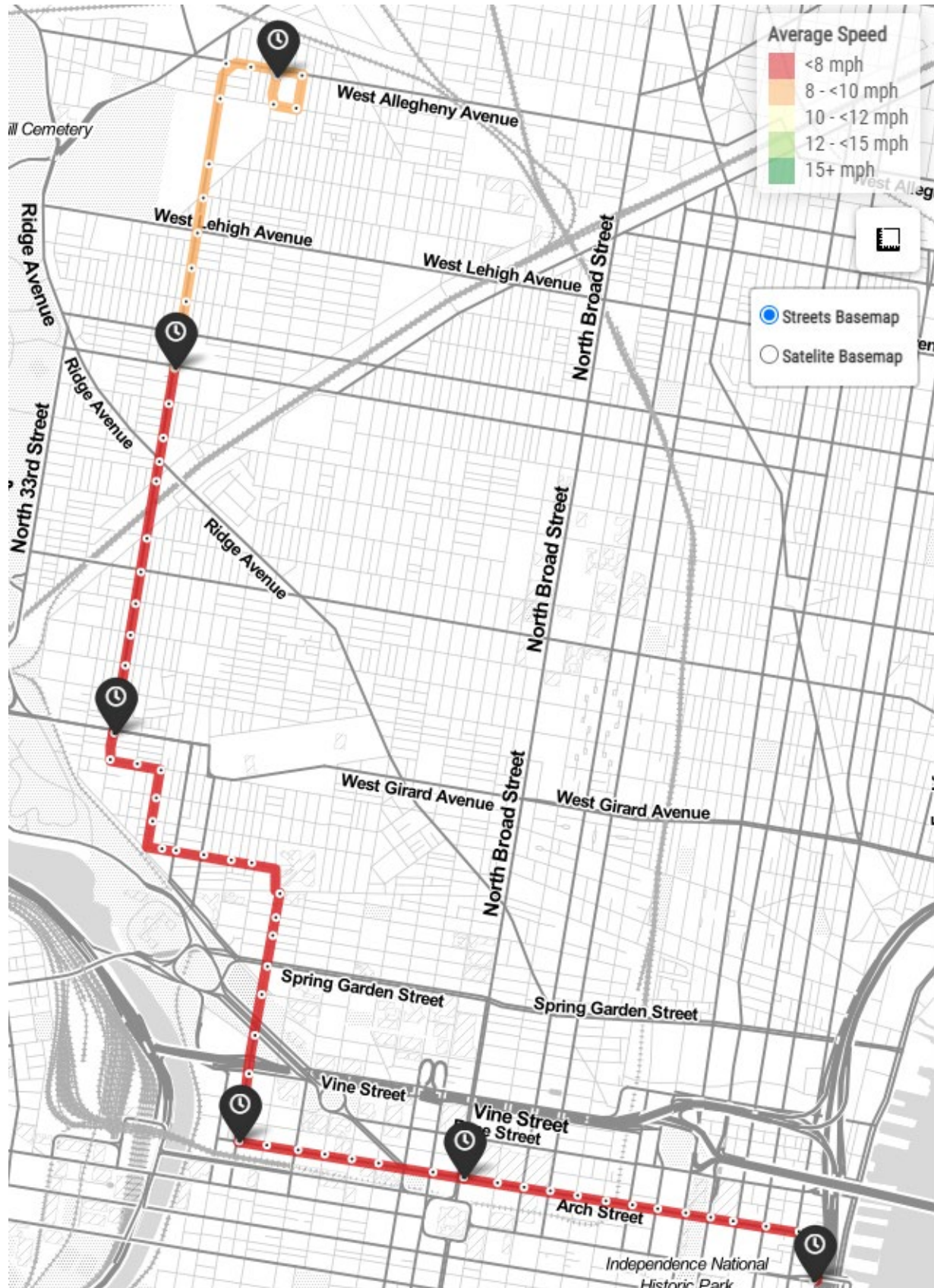
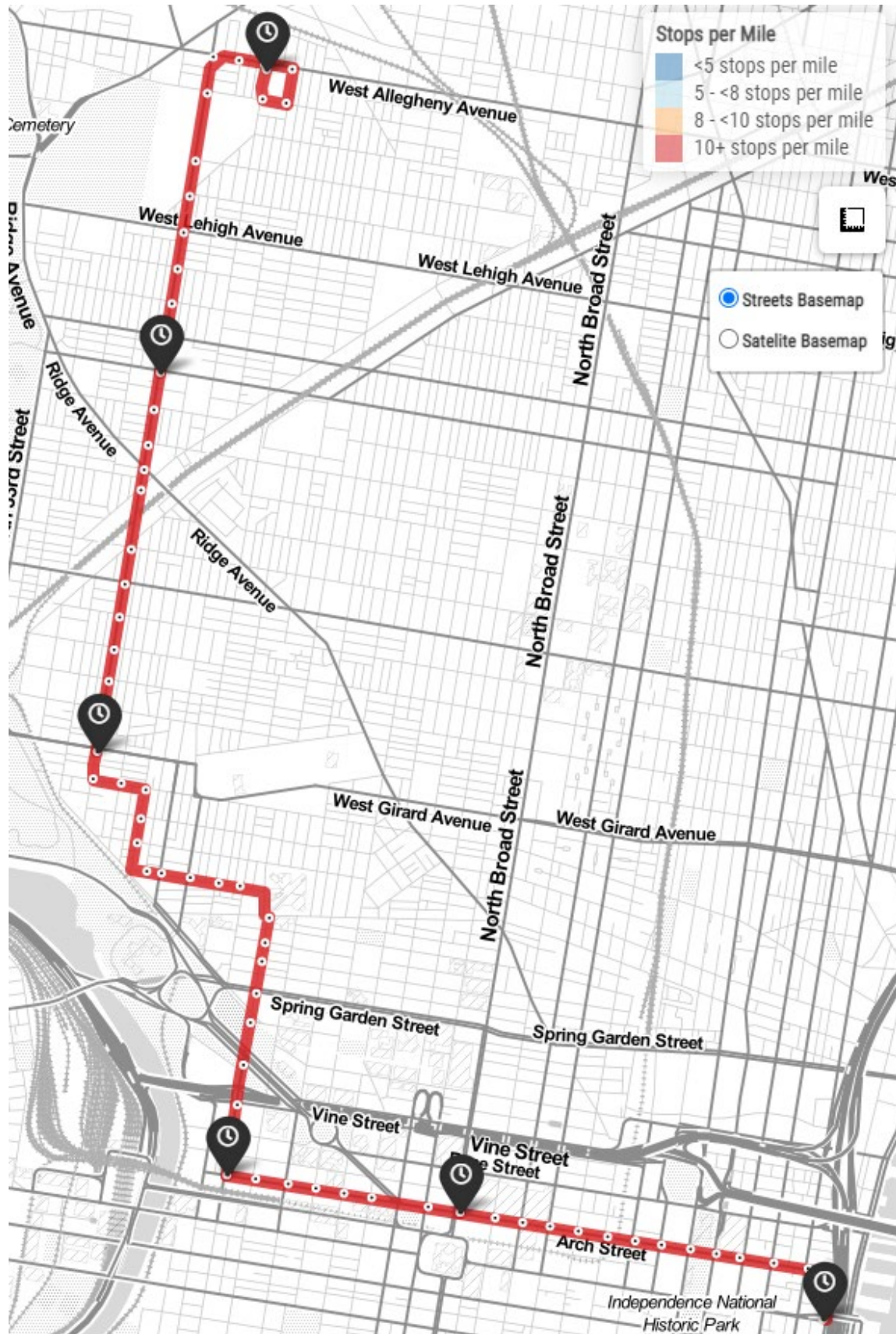


Figure 7 | Stop Spacing by Route Segment



SERVICE IMPROVEMENT OPPORTUNITIES

Opportunities to strengthen Route 48 are listed below. Some suggestions may be contradictory, as there is usually more than one approach to improving a route.

- **Consolidate Service into Fewer Routes:** Outside of Center City, Route 48 service is somewhat duplicative of segments of Routes 7, 32, and 49. Consolidating service can enable better frequency on the remaining routes and facilitates priority treatments, where appropriate, on fewer corridors.
- **Move Westbound Center City Service to Market/JFK:** Currently, westbound Route 48 service is the only route on Arch Street. Since there are pilot programs and plans to give buses priority on nearby Market Street and JFK Boulevard, shifting Route 48 to share the Center City alignment with other routes can maximize the benefit of these investments.
- **Reduce Midday Frequency:** Before COVID, Route 48 had relatively high midday frequency while ridership was more concentrated during peak periods. Resources could be reallocated to other nearby service.
- **Switch to 40-Foot Buses:** During peak periods before COVID, some trips needed the articulated buses to avoid standing loads. However, most trips did not need the extra capacity and post-COVID patterns may flatten peak ridership so that articulated buses could be shifted to another route with stronger all-day ridership.
- **Shift Southern Terminal West of Penn's Landing:** Shortening the route would enable greater frequency and still allow for key connections to the Market-Frankford Line and other services along Market Street. A suitable end-of-line location for buses would need to be found.