

# ROUTE 54

## Richmond-Cambria to 33<sup>rd</sup>-Dauphin

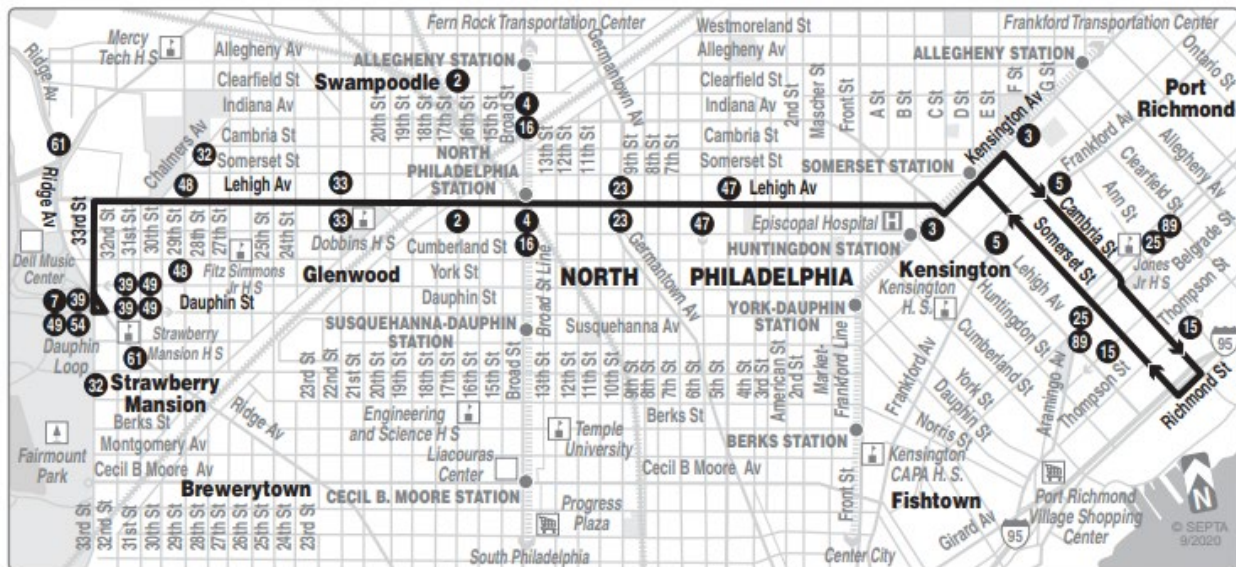
### KEY SERVICE CHARACTERISTICS, ISSUES, AND OPPORTUNITIES

- Route 54 travels east-west in North Philadelphia mostly along Lehigh Avenue providing riders with connections to the Market-Frankford Line, Broad Street Line, and other SEPTA routes.
- It is a simple, direct route that carried nearly 7,000 passengers per day in Fall 2019. Many passengers use Route 54 to connect to rapid transit service. Ridership is relatively strong at both peak and off-peak times.
- Stops on this route are more closely spaced than almost any other route in the network. Optimizing stop spacing and possibly shifting the eastern end of the route to also use Lehigh Avenue are potential ways to strengthen this service.

### ROUTE OVERVIEW

Route 54 travels east-west in North Philadelphia along Lehigh Avenue (see Figure 1). It provides service between North 33<sup>rd</sup> Street in Strawberry Mansion and Richmond Street in Port Richmond. Many riders transfer to either the Broad Street or Market-Frankford Lines. Midday and weekend ridership is relatively strong. Bus stops on the route are very closely spaced.

Figure 1 | Route Map



### SERVICE OVERVIEW

#### Schedule

Route 54 operates 22 hours a day on weekdays and Saturdays, and 21 hours a day on Sundays. Service ends at 2:18 AM on all days, and begins at 4:24 AM on weekdays and Saturdays, and at 5:00 AM on Sundays. Frequencies vary by time of day (see Table 1):

- On weekdays, service operates every 12-15 minutes on average during the peak periods and middays.
- On weekends, Saturday service frequencies average 20 minutes during the day and 30 minutes at night. Sunday service frequencies average 30 minutes during the day and 36 minutes at night.

**Table 1 | Schedule Statistics**

Service Day	Span Of Service	Frequency (Range)	Frequency (Average)
<b>Weekdays</b>	4:24 AM to 2:18 AM		
Early AM	4:24 AM to 5:59 AM	25 – 28	27
AM Peak	6:00 AM to 8:59 AM	12 – 24	14
Midday	9:00 AM to 2:59 PM	11 – 18	15
PM Peak	3:00 PM to 5:59 PM	10 – 15	12
Evening	6:00 PM to 9:59 PM	12 – 35	21
Late Night	10:00 PM to 11:59 PM	43 – 45	44
Owl	Midnight to 2:18 AM	40 – 46	44
<b>Saturdays</b>	4:24 AM to 2:18 AM		
Day	8:00 AM to 5:59 PM	18 – 22	20
Night	Before 8:00 AM & After 5:59 PM	19 – 46	30
<b>Sundays</b>	5:00 AM to 2:18 AM		
Day	8:00 AM to 5:59 PM	29 – 31	30
Night	Before 8:00 AM & After 5:59 PM	29 – 47	36

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

## Service Patterns

Route 54 has three service patterns: two for eastbound and one for westbound trips (see Table 2). Virtually all trips use the primary pattern except the first eastbound trip on weekdays and Saturdays. This makes Route 54 service very easy to understand.

**Table 2 | Service Patterns**

Pattern	Origin	Destination	Unique Feature	Unique Stops	Trips Per Day		
					Wkd	Sat	Sun
<b>Eastbound</b>							
229639	33 <sup>rd</sup> St & Dauphin St Loop	Cambria St & Richmond St		0	72	53	39
229635	Lehigh Av & Broad St	Cambria St & Richmond St	First trip pullout	0	1	1	0
<b>Westbound</b>							
229643	Cambria St & Richmond St	33 <sup>rd</sup> St & Dauphin St Loop		0	74	54	39

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

## RIDERSHIP

In Fall 2019, Route 54 carried 6,691 passengers on weekdays, 3,318 on Saturdays, and 2,788 on Sundays (see Table 3). Route 54 ranks fairly for productivity as measured by passengers per revenue vehicle hour.

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

	Weekdays	Saturdays	Sundays
<b>Daily Ridership</b>	<b>6,691</b>	<b>3,318</b>	<b>2,788</b>
Rank	27	28	24
<b>Passengers per Revenue Vehicle Hour</b>	<b>69.8</b>	<b>51.2</b>	<b>60.4</b>
Rank	12	20	8

### Transfer Patterns

Nearly a quarter of Route 54 trips involve a transfer to the Broad Street or Market Frankford Lines. The largest transfer volumes are to and from:

- Broad Street Line (24.0% of all trips)
- Market-Frankford Line (15.1%)
- Route 23 11<sup>th</sup> Street – Market Street to Chestnut Hill (4.8%)
- Route 33 Penn’s Landing to 23<sup>rd</sup> Street – Venango Street (4.7%)
- Route 47 Whitman Plaza to 5<sup>th</sup> Street - Godfrey Avenue (4.2%)

Weekend transfer patterns are similar but at a slightly lower rate.

### Ridership by Stop

Many riders use Route 54 to connect to the Broad Street and Market-Frankford Lines. Ridership at stops west of Broad Street is more consistently strong than east of Broad Street (see Figure 2). For westbound weekday trips, some highlights include:

- 58 passengers board at the first stop at Cambria Street and Richmond Street
- There are 388 boardings and 79 alightings at Somerset Street and Kensington Avenue
- 214 passengers board and 21 alight at Lehigh Avenue and B Street
- 199 passengers board and 150 alight at Lehigh Avenue and Germantown Avenue
- 758 passengers board and 383 alight at Lehigh Avenue and Broad Street
- There are 127 boardings and 348 alightings at Lehigh Avenue and 22<sup>nd</sup> Street
- 313 passengers alight at the last stop at the 33<sup>rd</sup>-Dauphin Loop

Figure 2 | Weekday Westbound Ridership by Stop

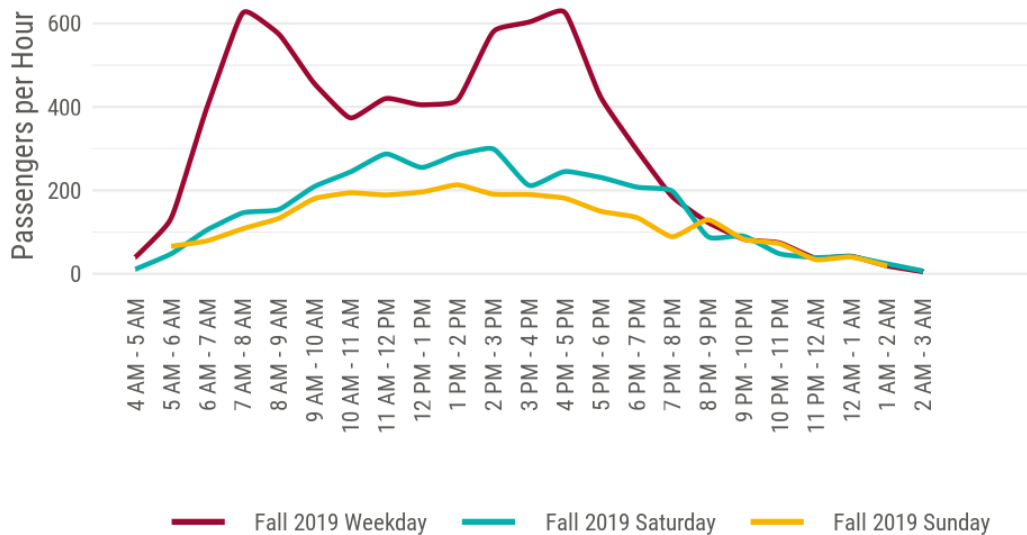


### Ridership by Time of Day

#### Ridership by Hour

In Fall 2019, weekday ridership during both peaks exceeded 600 riders per hour (see Figure 3). Midday ridership was about 2/3 of typical peak ridership in terms of riders per hour. Ridership dropped significantly after 6:00 PM, with less than 40 riders per hour by 9:00 PM.

Weekend ridership is less peaked than weekdays, with the greatest demand between 8:00 AM and 7:00 PM.



### Ridership and Maximum Loads by Trip

In Fall 2019, Route 54 showed a weekday average of 46 riders per trip, with ridership greatest during the peak periods (see Figure 4):

- AM Peak trips carried 40 to 70 riders per trip
- Midday trips carried 40 to 60 riders per trip
- PM Peak trips carried 50 to 80 riders per trip
- After 6:00 PM riders per trip decreased from about 40 to 25

Turnover along the route combined with the use of articulated buses mean that maximum loads are below seating capacity on all trips (see Figure 5).

Ridership on weekend days was steady between 7:00 AM and 9:00 PM with most trips carrying between 20 and 60 riders, and with Sunday ridership slightly lower than Saturdays. On both days, late night trips carried 20 or fewer riders.

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

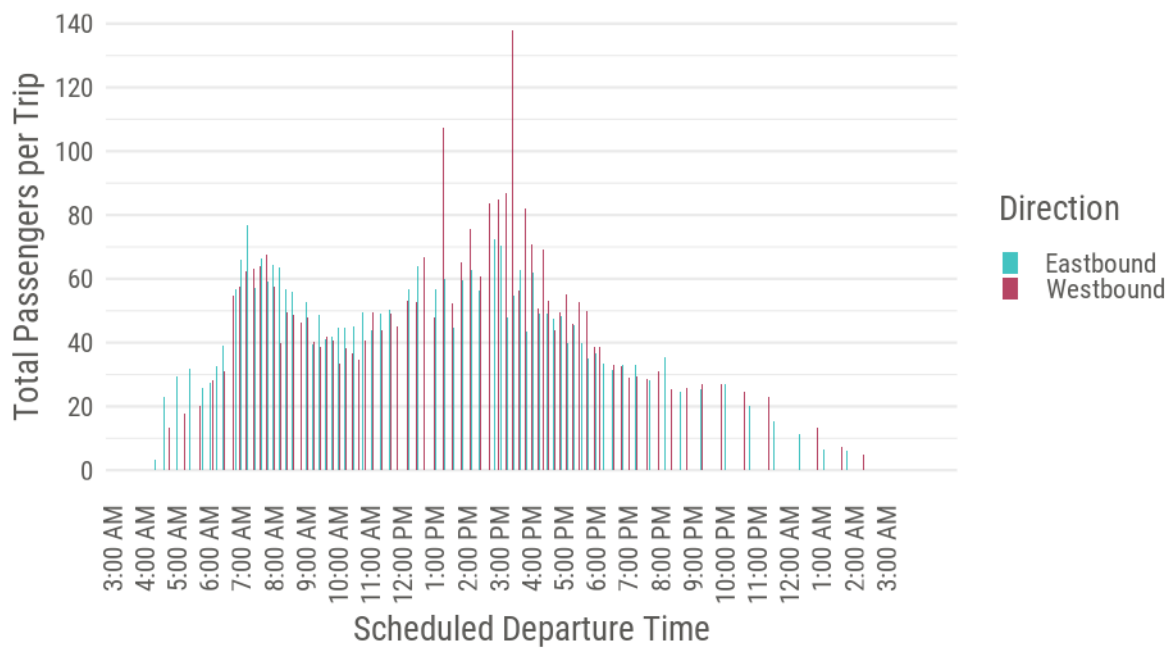
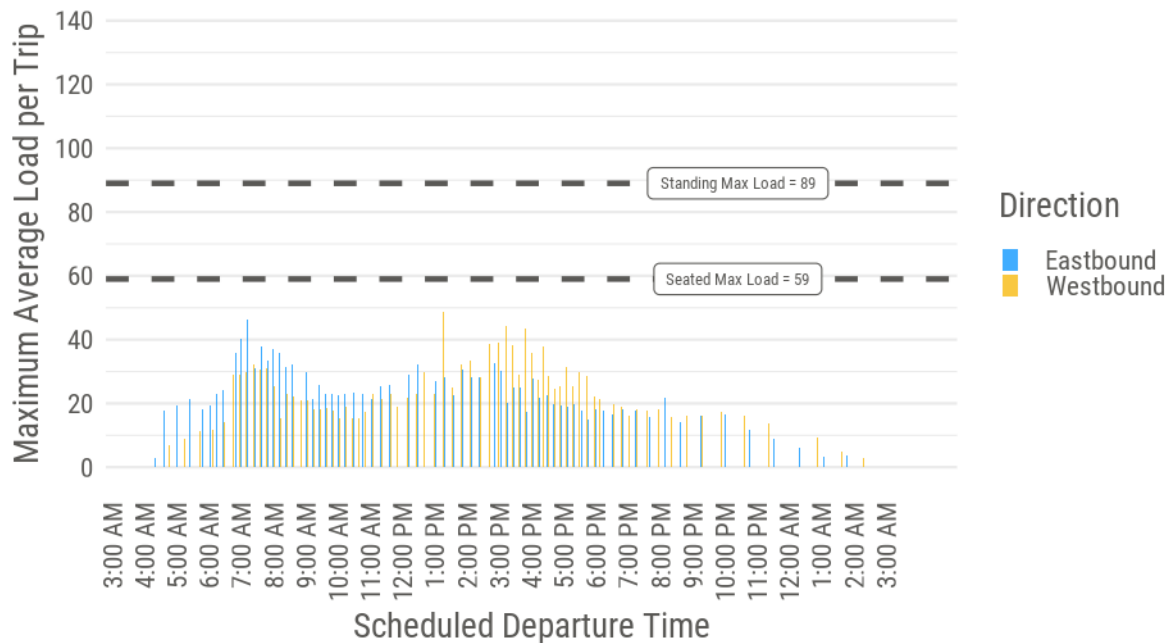


Figure 5 | Fall 2019 Weekday Maximum Loads by Trip



## ON-TIME PERFORMANCE AND RUNNING TIMES

### On-Time Performance

In Fall 2019, 77 percent of weekday trips met SEPTA’s on-time performance standard. Weekends displayed similar performance, with 76 percent of Saturday trips and 73 percent of Sunday trips meeting SEPTA’s standard (see Table 4). On all days trips were more likely to be early than late.

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	17.0%	76.8%	6.2%	5.2%
Saturday	19.9%	75.8%	4.2%	2.3%
Sunday	24.1%	73.3%	2.6%	4.4%

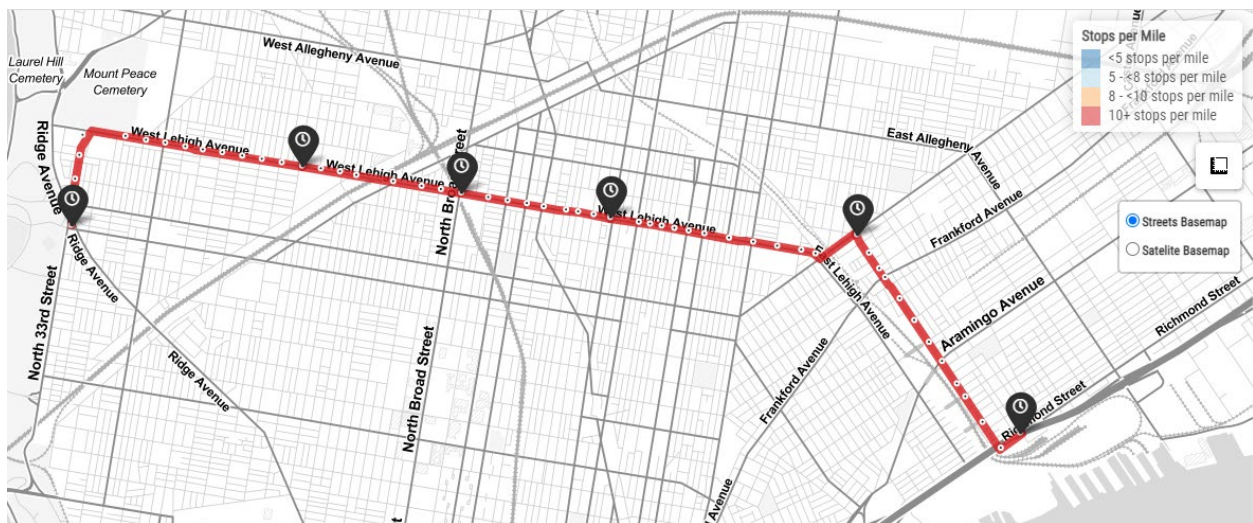
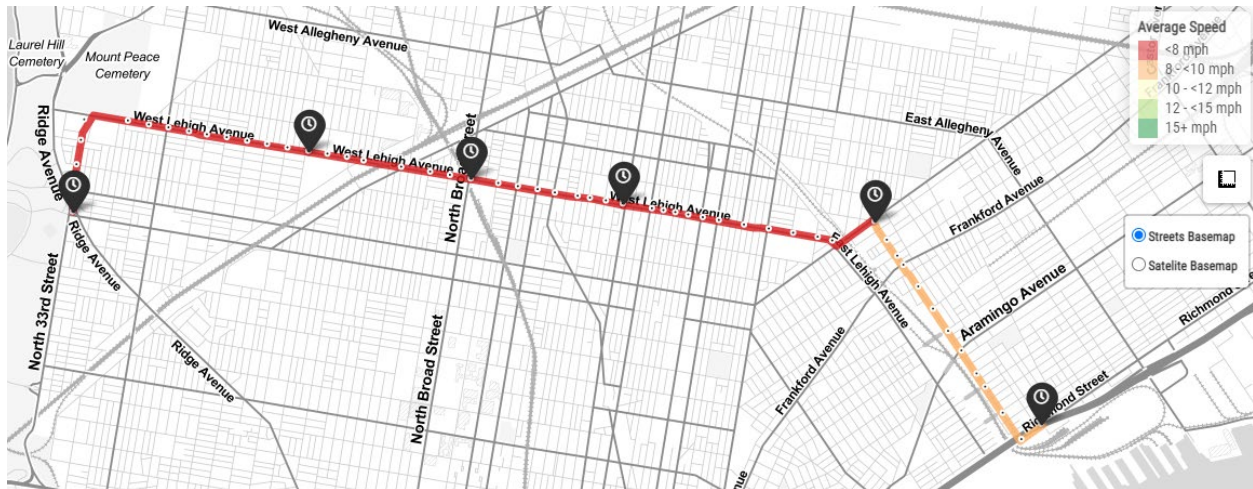
Note: On-time percentages are for trips that run (do not include dropped trips)

## AVERAGE SPEEDS AND STOP SPACING

Route 54 is one of the slowest in the SEPTA system, with buses operating most of the route at less than 8 mph during the PM Peak (see Figure 6).

Slow speeds result in part from close stop spacing along the entirety of the route. Stops on Route 54 are more closely spaced than almost any other route in SEPTA’s network. For the entire corridor there are almost 11 stops per mile and some segments have more than 12 stops per mile (see Figure 7).

Figure 6 | Fall 2019 PM Peak Westbound Speeds



## RIDER CHARACTERISTICS

As compared with SEPTA’s entire service area, Route 54 riders are more likely to have low incomes, to be Black or Hispanic, and lack access to a vehicle (see Table 5). Route 54 riders are also more likely to have a disability.

**Table 5 | Rider Characteristics**

	Route 54 Riders	Systemwide Average
Median Household Income	\$25,236	\$32,713
Share in Poverty	45%	30%
Ethnicity		
White	18%	38%
Black	64%	46%
Hispanic	17%	10%
Other	1%	7%
Without a Vehicle	50%	37%
Seniors	18%	15%
With a Disability	4%	2%

## SERVICE IMPROVEMENT OPPORTUNITIES

Route 54 is a simple, direct route that carries strong ridership at most times of the week. Opportunities to strengthen it are listed below. Some suggestions may be contradictory, as there is usually more than one approach to improving a route.

- Consolidate Bus Stops:** Stop spacing along Route 54 is closer than almost any other SEPTA route, contributing to one of the slowest operating speeds of any route. There are opportunities to consolidate stops without significantly decreasing walk access along the route.
- Shift Service East of Kensington Avenue to Lehigh Avenue:** Operating on Lehigh Avenue east of Kensington Avenue would create a more direct alignment for Route 54 and still allow connections to the Market-Frankford Line with a short walk. Having the route use a single street would also be more intuitive for riders, similar to Route 60 on Allegheny Avenue to the north.
- Invest in Bus Priority Treatments:** The City is already planning a project on portions of Lehigh Avenue to improve bus service. Future initiatives can extend these bus priority treatments to the entire corridor.
- Extend Service to West Philadelphia:** Route 54’s western end could be extended to West Philadelphia (near City Avenue) to provide a new one-seat ride connection between North Philadelphia and West Philadelphia.