

ROUTE 92

Exton to King of Prussia

KEY SERVICE CHARACTERISTICS, ISSUES, AND OPPORTUNITIES

- *Route 92 has a new alignment as of August 1, 2021, which shortened the route to operate between the King of Prussia Mall and West Chester Station.*
- *Data included in this route evaluation reflects the original dataset, but where possible text has been adjusted to reflect the alignment change.*

ROUTE OVERVIEW

In Fall 2019, Route 92 operated between West Chester and King of Prussia Mall with an extension to Paoli Station, serving West Chester University, West Chester Transportation Center, Chester County Hospital, Immaculata University, Paoli Station, and the King of Prussia Mall. As of August 2021, Route 92 has a shortened alignment that operates between the King of Prussia Mall and West Chester Transportation Center (see Figure 1).

SERVICE OVERVIEW

Schedule

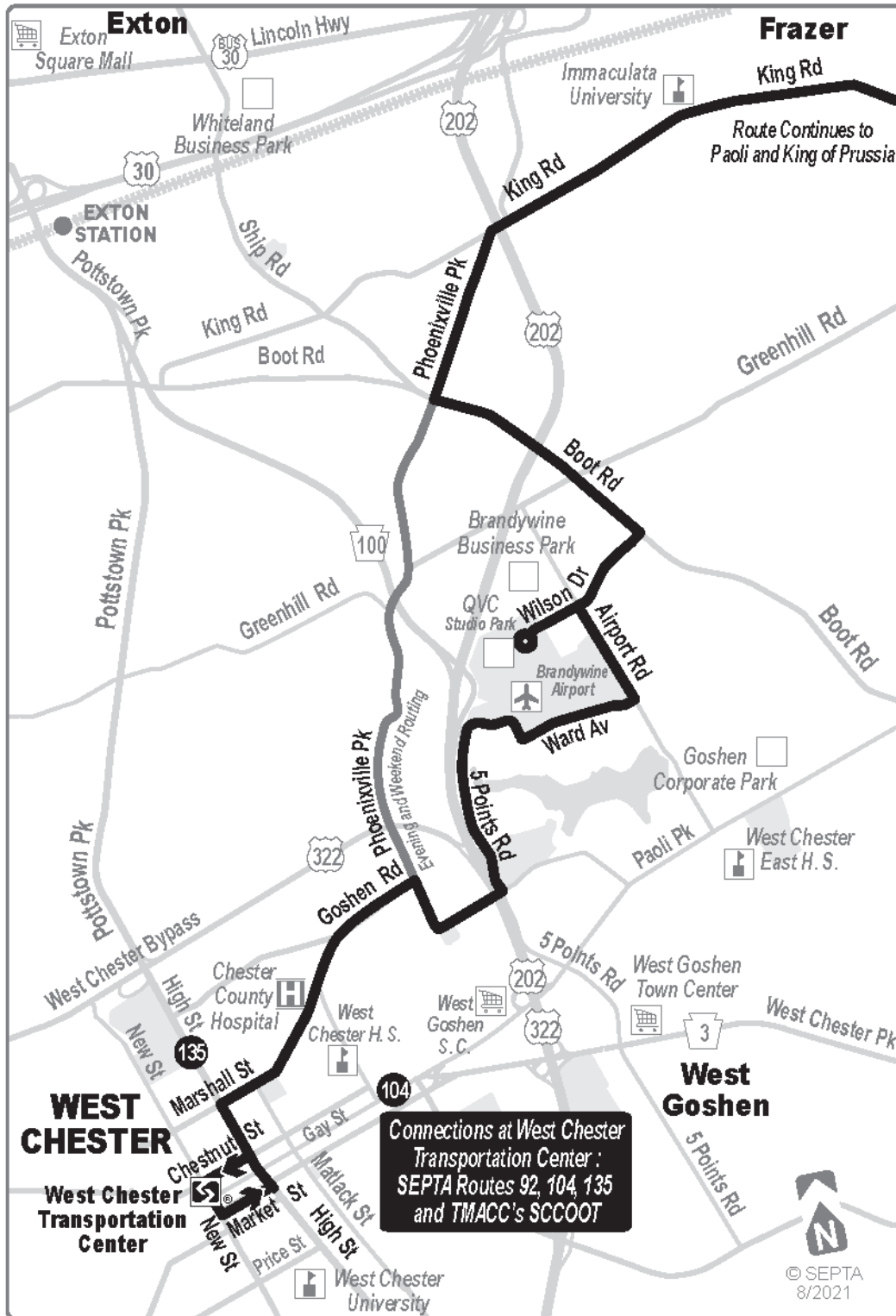
In Fall 2019, on weekdays and on Saturdays, Route 92 operated from approximately 6:00 AM until approximately 10:00 PM. Average service frequencies were between 40 and 60 minutes during the day and 90 minutes in the evening. On Saturdays, average frequencies on Route 92 were 47 minutes during the day and 44 in the evening (see Table 1).

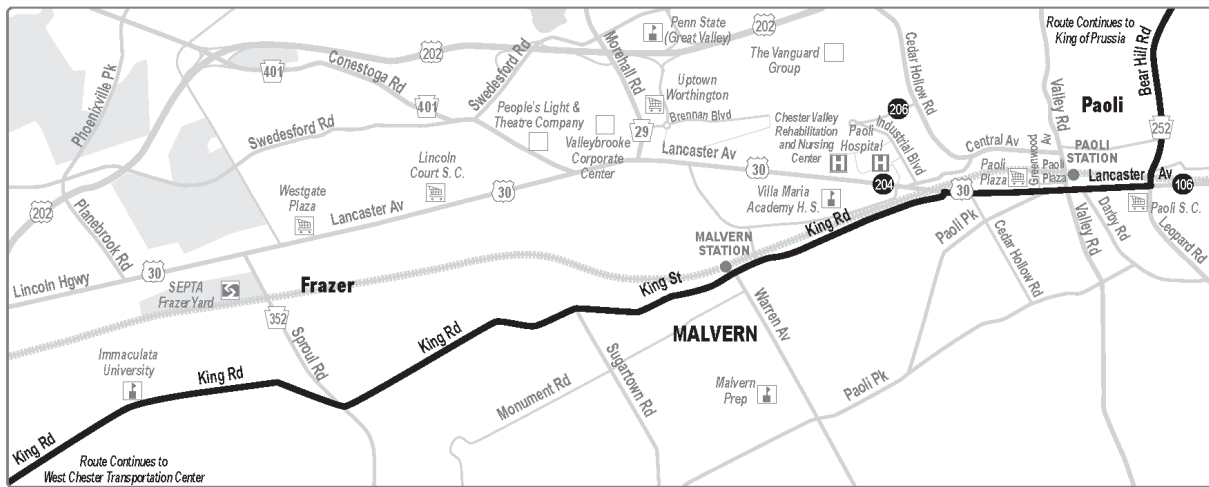
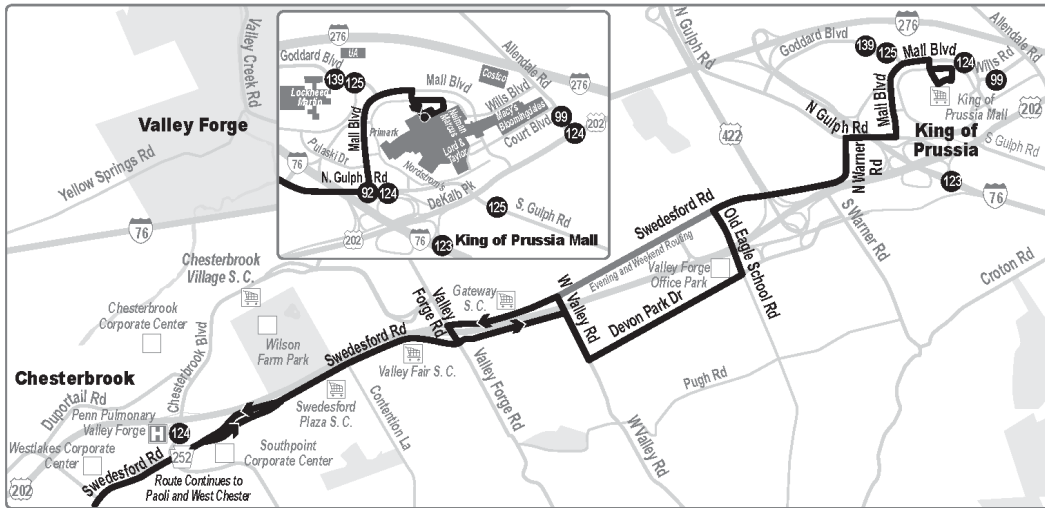
Actual frequencies vary from the averages, sometimes significantly.

Table 1 | Schedule Statistics

Service Day	Span Of Service	Frequency (Range)	Frequency (Average)
Weekdays	4:00 AM to 12:18 AM		
AM Peak	6:00 AM to 8:59 AM	4-80	41
Midday	9:00 AM to 2:59 PM	4-90	58
PM Peak	3:00 PM to 5:59 PM	5-81	53
Evening	6:00 PM to 9:59 PM	1-98	41
Saturdays	8:00 AM to 7:59 AM		
Day	8:00 AM to 5:59 PM	1-93	47
Night	5:59 PM to 7:59 AM	1-112	44

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

Figure 1 | Route Map




Service Patterns

The following section on Route 92’s service patterns reflect the original Route 92 alignment (includes service to Exton Square Mall). In fall 2019, Route 92 had eight service patterns: five eastbound patterns and three westbound patterns (see Table 2). The primary alignment operates the full alignment between Exton Square Mall and King of Prussia Mall (Plaza at King of Prussia); it accounts for most weekday trips. Other service patterns operate as a combination of short-turn and/or more direct alignments.

Table 2 | Service Patterns

Pattern	Origin	Destination	Unique Feature	Unique Stops	Trips Per Day		
					Wkd	Sat	Sun
Eastbound							
230829	Exton Square Mall & County Library	Plaza at King of Prussia	Primary Pattern	0	9	0	0
230835	Exton Square Mall & County Library	Plaza at King of Prussia	More Direct Alignment	6	2	9	0

230833	High St & Spruce Av	Plaza at King of Prussia	Short Turn	0	1	0	0
230836	Exton Square Mall & County Library	West Chester Transportation Center	Short Turn	0	1	0	0
230830	West Chester Transportation Center	Plaza at King of Prussia	Short Turn Along More Direct Alignment	6	0	1	0
Westbound							
230844	Plaza at King of Prussia	Exton Square Mall & County Library	Primary Pattern	0	9	0	0
230842	Plaza at King of Prussia	Exton Square Mall & County Library	More Direct Alignment	7	2	9	0
230839	Plaza at King of Prussia	West Chester Transportation Center	Short Turn Along More Direct Alignment	7	1	1	0

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

RIDERSHIP

In the fall of 2019, Route 92 carried 549 passengers on weekdays and 211 on Saturdays. Route 92 is one of the lowest ridership routes in SEPTA's system. It ranked 106th in terms of total weekday boardings, and 111th in boardings per revenue hour.

Table 3 | Fall 2019 Ridership and Productivity

	Weekdays	Saturdays	Sundays
Daily Ridership	549	211	N/A
Rank	106	110	
Passengers per Revenue Vehicle Hour	17.0	9.6	N/A
Rank	111	111	

Transfer Patterns

Three of the top five routes that many passengers transfer to and from connect to Route 92 at King of Prussia Mall. The largest transfer volumes on Route 92 are to and from:

- Route 99 Phoenixville to Norristown Transportation Center (7.9% of all trips)
- Route 125 Valley Forge and King of Prussia to 13th – Market (4.3%)
- Route 104 West Chester University to 69th Street Transportation Center (4.2%)
- Route 204 Eagleville to Paoli Station (4.1%)
- Route 124 Chesterbrook and King of Prussia to 13th – Market (3.9%)

Saturday transfer volumes are similar.

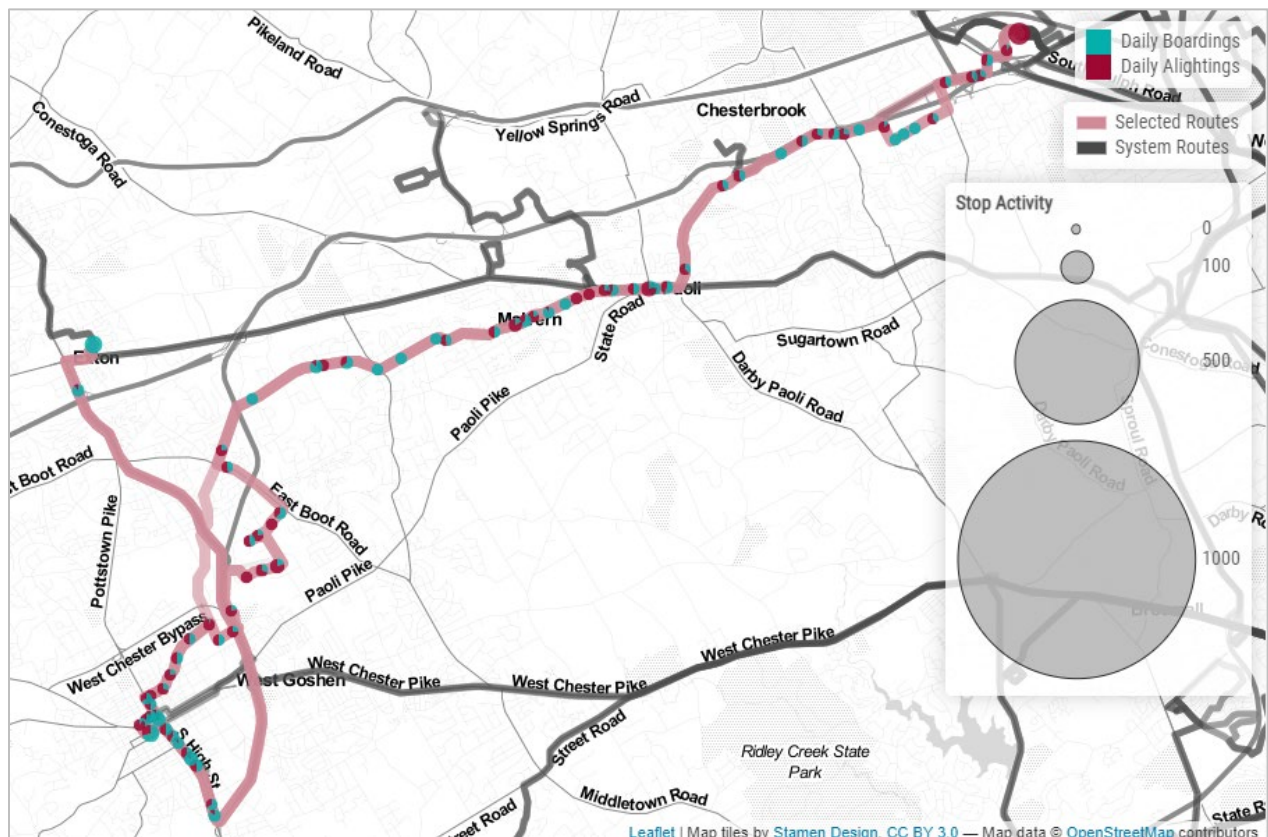
Ridership by Stop

In fall, 2019 Route 92 had low ridership at most stops along the route. Stops with the greatest activity occurred at the King of Prussia Mall and the West Chester Transportation Center. There was also slightly stronger activity at the ends of the route, around employment centers, Immaculata University, and Paoli (near Paoli Station) (see Figure 2).

Westbound patterns generally mirror eastbound patterns. There is less activity at the Exton Square Mall and the County Library but more activity at the Plaza at King of Prussia.

Weekend patterns are also similar but with lower volumes.

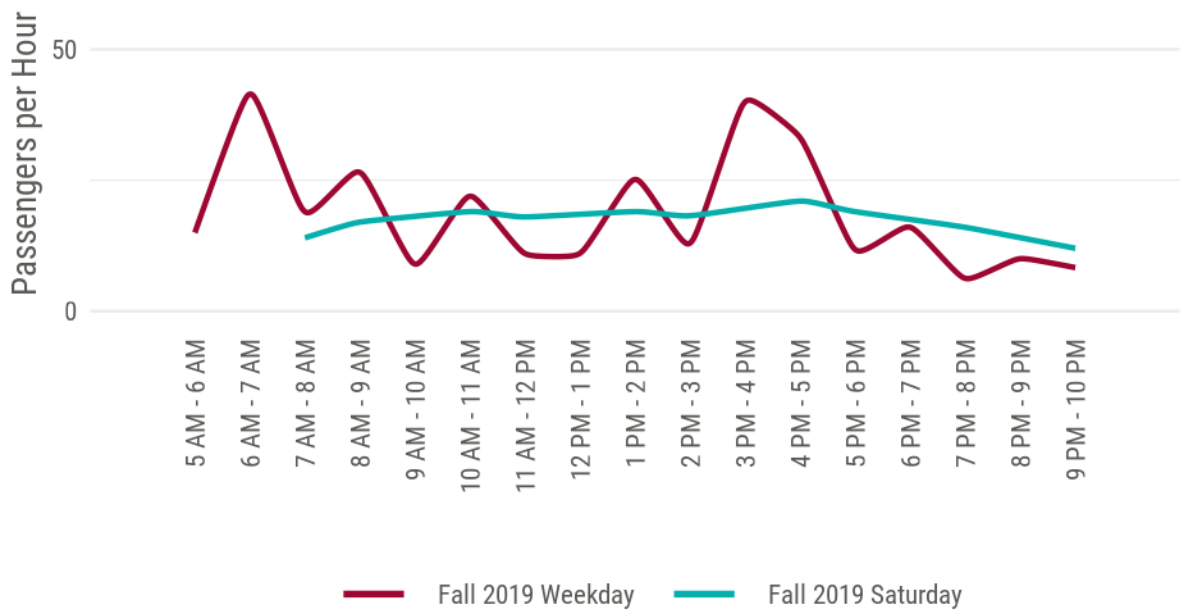
Figure 2 | Weekday Eastbound Ridership by Stop



Ridership by Time of Day

Ridership by Hour

During fall 2019, ridership was variable, but had clear peaks during the early morning (6:00 AM to 7:00 AM and in the afternoon (3:00 PM to 5:00 PM) (see Figure 3). During these times ridership per hour was between 20 and 25 riders per hour. Outside of these times, ridership is less than 25 riders per hour. Saturday ridership is less peaked with ridership hovering at around 20 passengers per hour for most of the day.

Figure 3 | Ridership by Hour: Pre-Pandemic; Fall 2019


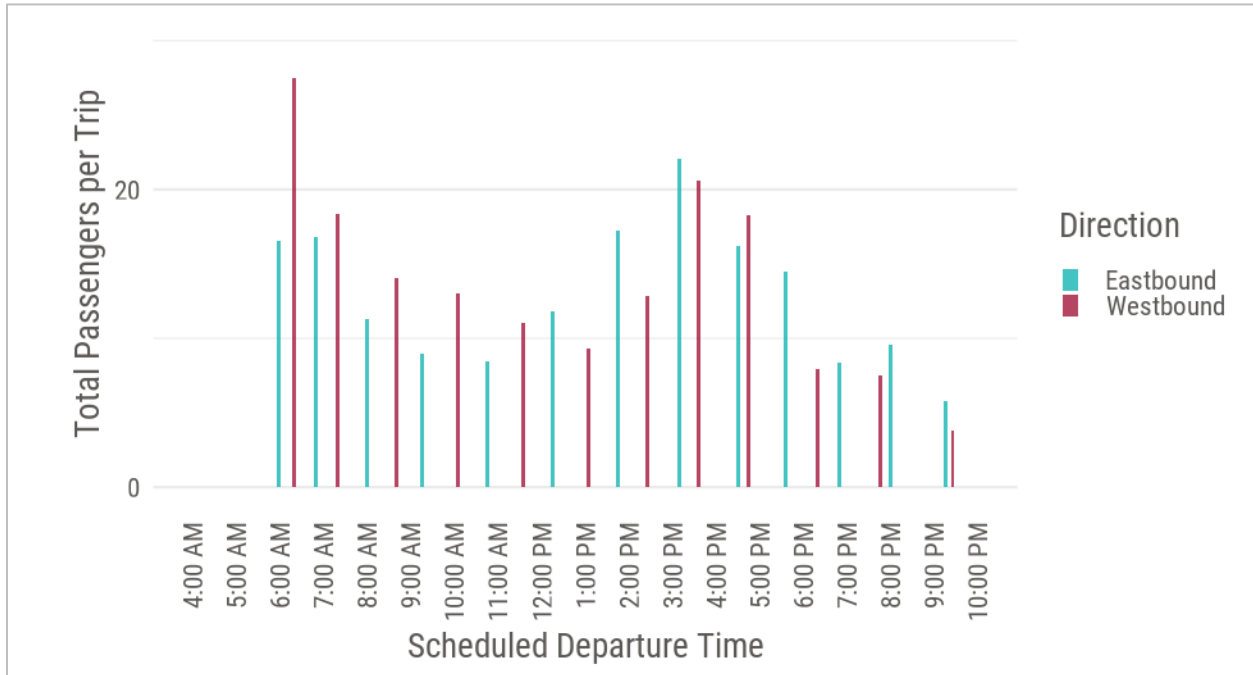
Ridership and Maximum Loads by Trip

The average boardings per trip on Route 92 was low at all times. In fall 2019, only three trips carried more than 20 riders and several trips carried fewer than 10 riders per trip. No trips met the seated maximum load (see Figure 4). Observations include:

- Ridership is strongest during the first early morning trips between 6:00 AM and just after 7:00 AM. These four trips carrying at least 18 riders per trip.
- During the midday, trips carry 8 to 17 passengers.
- PM peak trips generally have 15 to 22 passengers.
- Ridership falls to 10 or fewer passengers per trip in the evening.

Ridership is low on Saturdays with approximately 10 or fewer passengers per trip. Ridership peaks with around 12 passengers two afternoon trips (1:00 pm and the 4:00 PM).

Figure 4 | Weekday Ridership by Trip



ON-TIME PERFORMANCE AND RUNNING TIMES

On-Time Performance

In the fall of 2019, Route 92’s on-time performance was 78% on weekdays and 73% on Saturdays (see Table 4), below SEPTA’s standard of 80%. Weekdays, off-schedule performance is split with late service slightly more common than early service. Saturdays, late service is largely the cause of off-schedule performance.

Dropped trips were a significant issue on weekdays, with 1.3% of trips missed.

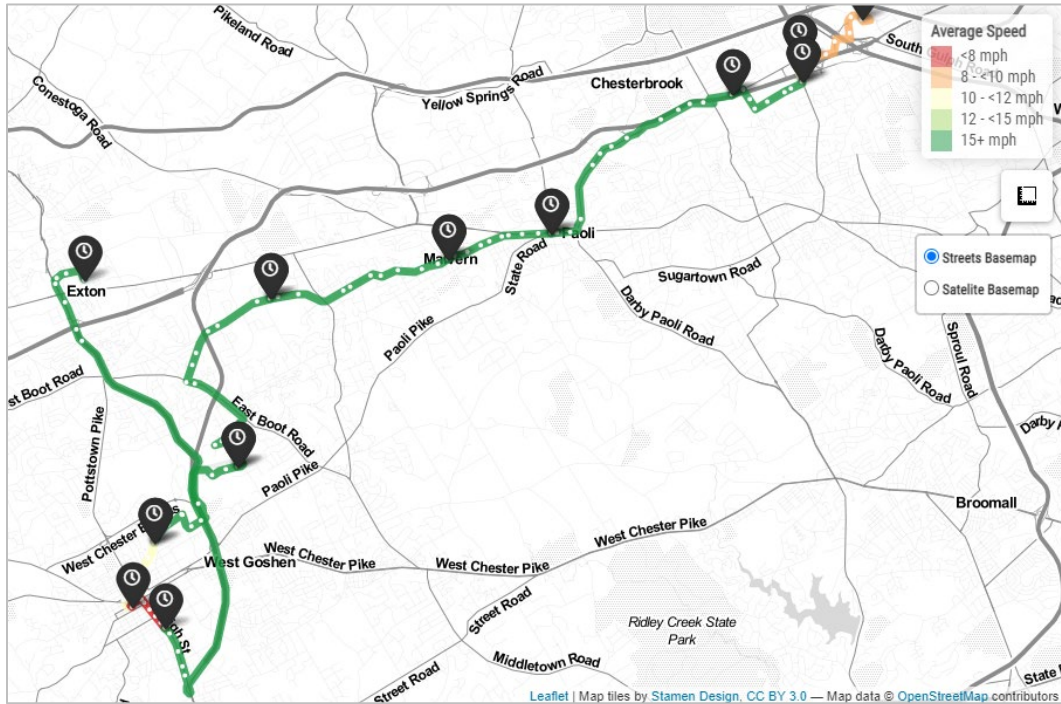
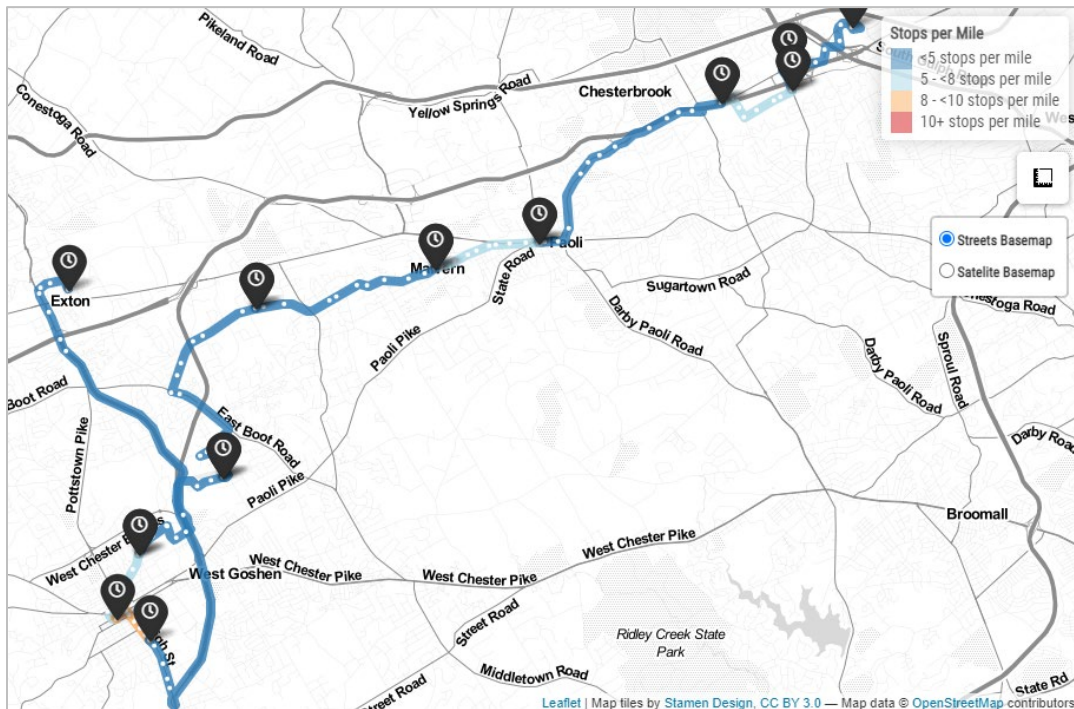
Table 4 | Fall 2019 On-Time Performance

	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	9.2%	77.7%	13.2%	1.3%
Saturday	6.3%	72.9%	20.8%	0.0%

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

AVERAGE SPEEDS AND STOP SPACING

Travel speeds are generally good on Route 92. Speeds are slower in West Chester and leaving King of Prussia Mall (see Figure 5). Route 92 typically has an average of fewer than 5 stops per mile for most of its alignment. Stops are closely spaced along part of High Street in West Chester (see Figure 6).

Figure 5 | Average Speeds: PM Peak Westbound

Figure 6 | Stop Spacing by Route Segment


RIDER CHARACTERISTICS

Route 92 has a higher share of white passengers, greater median household income, and higher share of passengers with access to a vehicle than SEPTA's service area (see Table 5). There is also a smaller share of Black passengers.

Table 5 | Rider Characteristics

	Route 92 Riders	Systemwide Average
Median Household Income	\$40,430	\$32,713
Share in Poverty	22%	30%
Ethnicity		
White	53%	38%
Black	24%	46%
Hispanic	8%	10%
Other	15%	7%
Without a Vehicle	23%	37%
Seniors	7%	15%
With a Disability	2%	2%

SERVICE IMPROVEMENT OPPORTUNITIES

As noted, Route 92 has a new alignment as of August 1, 2021, which shortened the route to operate between the King of Prussia Mall and West Chester Transportation Center. The following opportunities to strengthen Route 92, reflect data from Fall 2019.

- **Shorten Route 92:** SEPTA shortened Route 92 in August 2021 by eliminating the segment from Exton to West Chester. Even with this shortened alignment, the route is circuitous and indirect. As a result, there are additional opportunities to shorten Route 92 and better match the service with demand:
 - Split Route 92 at the QVC Studio Park. Route 92 could be cut into two routes: KOP to QVC Studio Park and QVC Studio Park to West Chester Transportation Center. Splitting the route at this location would give riders departing from West Chester Transportation Center access to employment outside of West Chester and maintain the connection to King of Prussia. Implementing this potential opportunity would require investigation into the area to make sure there is a turnaround point; this could also include conversations with QVC Studio Park.
 - **Split Route 92 at Paoli Station.** Route 92 could be cut into two routes: KOP Mall to Paoli Station and Paoli Station to the West Chester Transportation Center. Splitting the route would retain access to important destinations but allow SEPTA to balance service with demand. Implementing this potential opportunity would require further evaluation of the bus area at Paoli Station for capacity.
 - **Combine Route 92 with the western portion of Route 124.** Route 92 and 124 could be combined into a single alignment that connects Paoli Station with the KOP Mall. The new route could continue to serve Chesterbrook Corporate Center and stay on Swedesford Road into the KOP Mall. Ridership for the portion of Route 92 that operates on Devon Park Drive is very low.
- **Reduce the Number of Variants:** There are eight variants for Route 92, over complicating the route and making it challenging for riders to understand.
- **Consider Microtransit or On-Demand Style Service:** West Chester is an important employment location but most of the job sites are spread out in low density land uses

making the area difficult to serve with traditional fixed route transit service. One potential option would be providing access to employment in West Chester **via** a flexible on-demand shuttle or microtransit service that meets riders at the West Chester Bus Loop and brings them directly to their place of work. Microtransit offers some advantages, such as a higher quality of service that responds to rider needs, but also means some areas lose access. This opportunity requires additional study to ensure effective implementation.