Chester County Public Transportation Plan

CHESTER COUNTY Planning COMMISSION

THE COUNTY OF CHESTER
COMMONWEALTH OF PENNSYLVANIA
RESOLUTION No. BOC-56-24

RESOLUTION OF THE CHESTER COUNTY COMMISSIONERS ACCEPTING THE CHESTER COUNTY PUBLIC TRANSPORTATION PLAN AND CLOSING OUT THE DELAWARE VALLEY REGIONAL PLANNING COMMISSION'S (DVRPC) TRANSPORTATION AND COMMUNITY DEVELOPMENT INITIATIVE (TCDI) GRANT PROJECT

WHEREAS, the County of Chester, Commonwealth of Pennsylvania, (the "County") is a Third-Class County and a political subdivision organized and existing under the laws of the Commonwealth of Pennsylvania; and

WHEREAS, the County's comprehensive plan, *Landscapes3*, has an objective to meet travel needs and reduce congestion through transportation demand management, roadway improvements, and expanded public transportation; and *Landscapes3* has recommendations to promote bus service in growth areas and expand regional rail service; and

WHEREAS, the County recognizes that the Delaware Valley Regional Planning Commission ("DVRPC") provides sound and integrated land use and transportation planning and coordination of planning at all levels of government; and

WHEREAS, the DVRPC seeks to provide support for local planning projects that will lead to more residential, employment, or commercial opportunities in areas designated for growth or redevelopment; enhance and utilize the existing transportation infrastructure capacity to reduce demands on the region's transportation network; reduce congestion and improve the transportation system's efficiency by promoting the use of transit, bike, and pedestrian transportation modes; and

WHEREAS, the Chester County *Public Transportation Plan* endorsement is a review process developed by the DVRPC to assure compliance with municipal, county, and regional agencies and policies that meet the goals of DVRPC's long range plan, *Connections 2050*; and

WHEREAS, the Chester County Board of Commissioners (the "Board") have obligated the funds provided to them through TCDI to plan for the sustainable growth of the County;

WHEREAS, the objectives of the *Chester County Public Transportation Plan*, as approved by the DVRPC's TCDI grant project, have been realized; and

WHEREAS, the County has no further need for involvement with the TCDI grant project aspect of the plan; and

NOW, THEREFORE, BE IT RESOLVED, that the Chester County Board of Commissioners, having accepted and implemented the recommendation of the public transportation plan, as advised by the Delaware Valley Regional Planning Commission, hereby conclude the initiative funded by the TCDI grant project.

THIS RESOLUTION, adopted this 20th day of November, 2024, by the Board of Chester County Commissioners.

COMMISSIONERS:

Josh Maxwell, Chair

Marian D. Moskowitz, Commissioner

Eric M. Roe, Commissioner

ATTEST:

Erik T. Walschburger, Chief Clerk

Chester County
Public Transportation Plan

November 2024

Acknowledgments

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TCDI
Transportation & Community Development Initiative
dvrpc

The preparation of TCDI deliverables (reports, maps, documents, etc.) were financed in part through funds made available by the Delaware Valley Regional Planning Commission from a grant by the funding agency (PennDOT and/or NJDOT). The contents do not necessarily reflect the views or a policy of the Delaware Valley Regional Planning Commission, the funding agency or the Federal Government and neither assumes liability for its contents or use.

Chester County Board of Commissioners

Josh Maxwell
Marian Moskowitz
Eric Roe

Contents

Planning Process and Context

Explains the need for a plan update and the trends impacting the long-term outlook of public transportation.

The Vision, Goals, Objectives, and Recommendations

Presents the county's vision for public transportation through 2050. Goal chapters 4-6 follow with objectives and recommendations that include maps and illustrations to help direct implementation.

Implementation

Consolidates recommendations and identifies priority, activities, and implementing parties.


Center City
Temple University
SEPTA
WATCH THE GAP

Chapter 1
Introduction

Time for an updated plan

The Chester County Planning Commission published the **Chester County Public Transportation Plan** in 2014 "*to develop a bold and ambitious plan for public transportation that will redefine the commuter preferences, facilities, and experiences for Chester County residents and workers over the next 25 years.*"

The Public Transportation Plan was published as an element to Landscapes2, the previous Chester County comprehensive plan. This plan update will address many of the same issues identified in the previous plan, issues that have surfaced since – primarily caused by the pandemic – and the goals and objectives of Chester County's current comprehensive plan, *Landscapes3*.

The 2014 plan is approaching ten years of age and needs an update to better align with the goals and objectives laid out by *Landscapes3*, particularly the **CONNECT** goals. Additionally, the COVID-19 pandemic has significantly altered the transit landscape, both in the present and future. Service providers within the region are also using the changing transit landscape brought forth by the pandemic to rethink their service models. New transit models, like microtransit, are also coming to the forefront.

County policy supports public transportation

Landscapes The county's comprehensive plans have always recognized the critical importance of public transportation. *Landscapes3*, the county's 2018 comprehensive plan, builds on this tradition by including the "Public Transit Enhancements" policy map, which is an overlay to the Landscapes Map (opposite page).

There are six chapters in *Landscapes3*:

How We PRESERVE | How We PROTECT | How We PROSPER
How We APPRECIATE | How We LIVE | How We CONNECT

Public transportation falls under the **CONNECT** chapter with the following goal:

> Advance efficient, reliable, and innovative transportation, utility, and communications infrastructure systems that responsibly serve thriving and growing communities.

CONNECT Objective C addresses public transportation:

> Provide universally accessible sidewalks, trails, and public transit connections to create a continuous active transportation network within designated growth areas, and develop multi-use trails to interconnect all communities.

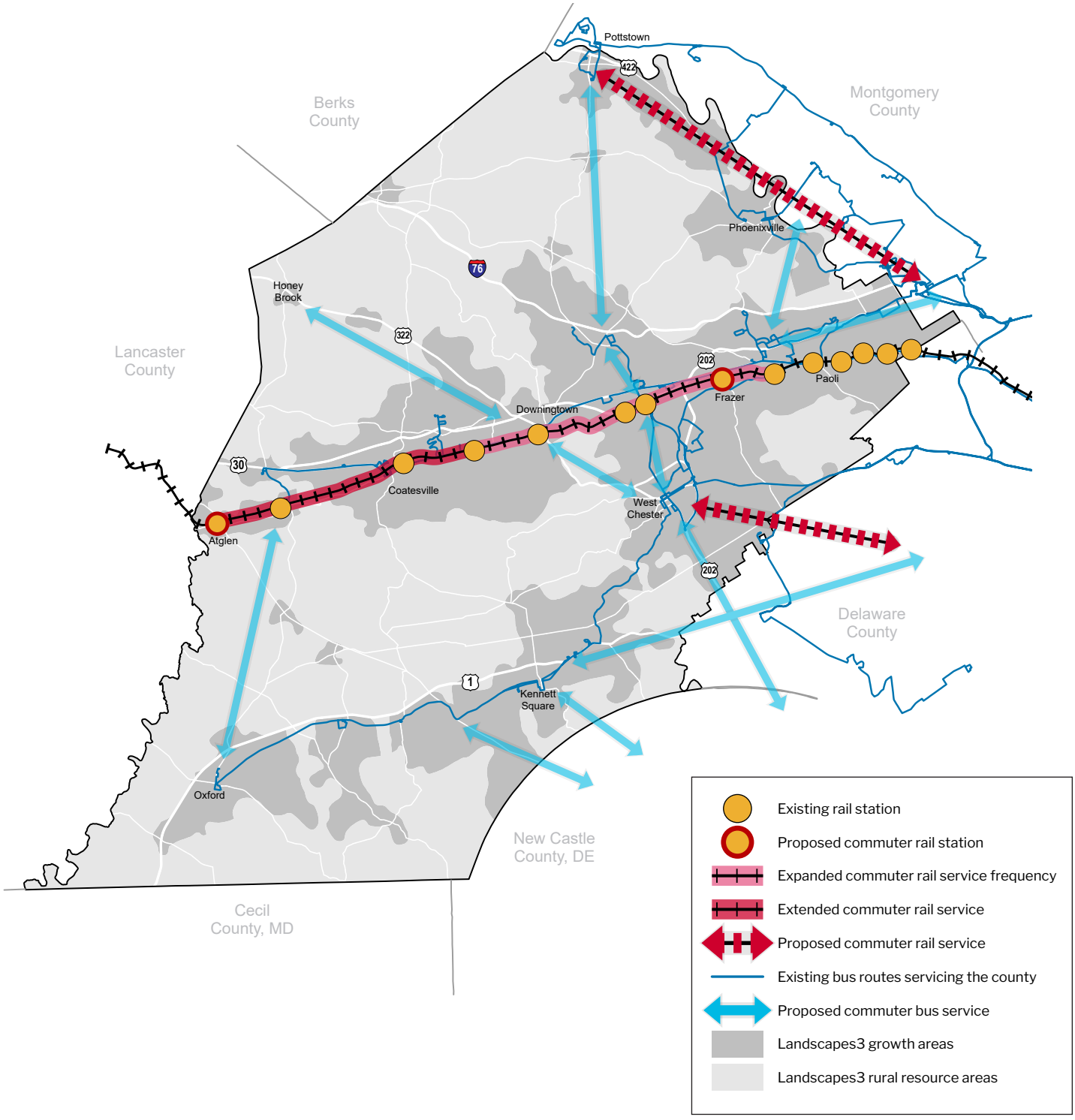
Of the ten recommendations featured in the **CONNECT** chapter, Recommendations 5 and 6 are tailored to public transportation:

5 **Promote bus service within growth areas**
Promote universally accessible bus service to employment centers and growth areas.

6 **Expand regional rail service**
Support the expansion of local regional rail service to our urban and suburban centers and adequate parking at all regional rail stations.

Public Transit Enhancements

This *Landscapes3* policy map illustrates recommended expanded public transit services in addition to existing facilities and services. For this plan, many of the recommendations remain, new connections have been added, and some removed due to other factors that have taken place since the adoption of *Landscapes3* in 2018.

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Chapter 2
Sources of Influence

COVID-19 pandemic impacts

The COVID-19 pandemic severely impacted how we live, work, and play. The public transportation model of confining people in close proximity was incompatible with social distancing guidelines. Likewise, the evolution toward remote work depressed ridership further.

However, the pandemic served as a vehicle for rethinking the purpose and use of legacy transit systems. Most transit systems in the US are designed to move people within cities and move people from the suburbs to the city center and back out during the weekday peak. In suburban areas like Chester County, this is especially stark. There are few transit options for commuting/travel between suburbs, without going into the city center.

Nationwide, many transit agencies are beginning to look for ways to increase revenue, especially outside of peak usage. Network redesigns can help shift the focus of the network from white-collar commuters to “lifestyle” networks. These lifestyle networks aim to serve all types of trips, including commuting, shopping, medical appointments, and recreational activities. In areas with high population density and plentiful transit, many systems already function in this manner. Most rapid transit lines have frequent headways and all-day service, with additional vehicles during peak hours.

Increase in remote work/telework

While not an issue unique to transportation planning, the rise of remote work/telework significantly impacts public transportation use. Many people work exclusively in a remote capacity, while others might travel to/from work 2 or 3 times a week. Tuesdays, Wednesdays, and Thursdays seem to be the most popular days for going into the office. The opportunity for remote work/telework also impacts where people choose to live. For example, a formerly downtown office worker may now move to a larger residence in a suburban or rural area, one not served by transit . A fully remote worker can choose to leave for a location with a substantially cheaper cost of living. Even a hybrid worker might be compelled to move further from the city center when given the opportunity, given that there is no longer a need to commute 5 days a week.

Remote work/telework patterns also affect land use patterns. Both large downtown office buildings and suburban office parks saw soaring vacancy in the immediate months following the pandemic. Chester County had 32.6 million square feet of office space in 2024, with an occupancy rate of 88.1%. This number was comparable to the DVRPC region rate of 88.9%. Notably, the occupancy rate for both Chester County and the DVRPC region was declining before the COVID-19 pandemic. Source: Co-Star, 2024.

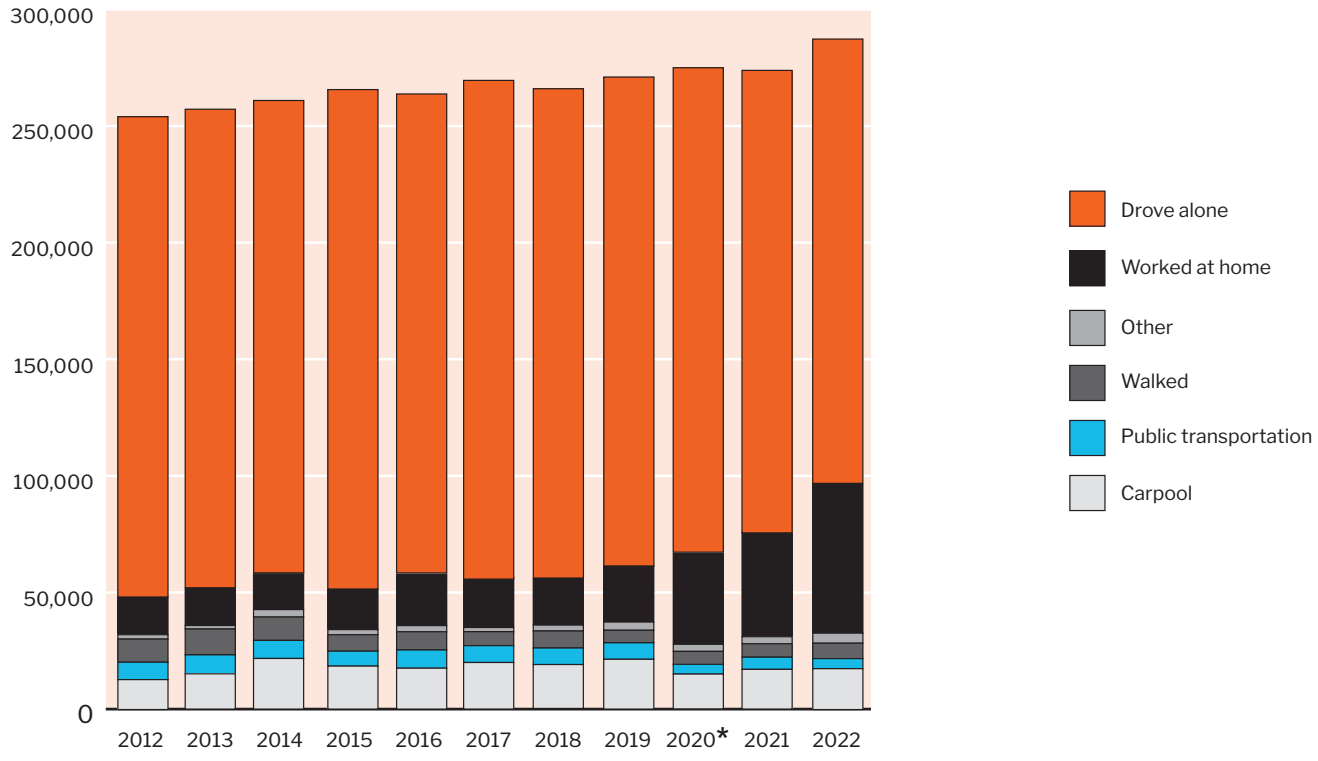
Most suburban office parks cater to automobile users, in that they often are located far away from urban cores, provide ample parking and good highway access, lack transit access, and can be more conveniently located for white-collar workers in suburban areas.

Commuting challenges

The diverse workforce, complex land use patterns, and growing population centers within Chester County and the larger Delaware Valley region present a unique challenge for the movement of workers.

In 2019, prior to the COVID-19 pandemic, 2.6% of Chester County workers ages 16 and over commuted using public transportation. In 2021, this percentage dropped to 1.9%, and the most recent data for 2022 was 1.5%. This change is likely due to the post-COVID rise in remote working. In 2019, 8.9% of Chester County workers ages 16 and over worked from home. By 2021 that figure had risen to 16.4% and in 2022 it was 22.2%, which is roughly one in five workers. (Sources: US Census, ACS 1 Year Est., Table S0802, 2019, 2021 and 2022).

Means to Work—Chester County Residents (2012-2022)



Sources: US Census, American Community Survey, S0802 Commuting Charateristics by Sex, 1 Year Estimates, 2019, 2021 and 2022, accessed May 2024.

* 2020 totals are estimated

Mode Share

There are many different modes of transportation available within Chester County. Of the 287,342 daily commuters (2022 data) that either live or work in Chester County, about 4,310 (1.5%) use public transit. This is lower than 2019, which was 2.6%. The percentage of people who walk to work has increased to 2.3%, up from 2% in 2019. Obviously, the pandemic brought widespread work from home capabilities. 22.2% of people worked from home in 2022, up from 8.9% in 2019. Only 6.1% of people carpooled in 2022, lower than the 7.1% of those who did in 2019.

Commuting Characteristics for Chester County, 2019-2022

Year	2019	2019	2020 est.	2020 est.	2021	2021	2022	2022	2019-2022 Change
Feature	**Number**	**Percent**	**Number**	**Percent**	**Number**	**Percent**	**Number**	**Percent**	**Percent**
Workers 16 years and over	271,015	100	272,831	100	274,646	100	287,342	100	6.0%
Mode of Transportation									
Car, truck, or van	230,905	85.2	223,175	81.8	215,322	78.4	208,036	72.4	-9.9%
Public transportation (excluding taxicab)	7,046	2.6	6,139	2.25	5,218	1.9	4,310	1.5	-38.8%
Walked	5,420	2.0	5,593	2.05	5,768	2.1	6,609	2.3	21.9%
Bicycle	271	0.1	273	0.1	275	0.1	287	0.1	5.9%
Taxicab, motorcycle, or other means	3,252	1.2	3,138	1.15	3,021	1.1	4,310	1.5	32.5%
Worked from home	24,120	8.9	34,513	12.65	45,042	16.4	63,790	22.2	164.5%
Motor Vehicle Riders									
Car, truck, or van	230,905	85.2	223,175	81.8	215,322	78.4	208,036	72.4	-9.9%
Drove alone	209,495	77.3	203,941	74.75	198,294	72.2	190,508	66.3	-9.1%
Carpooled	21,410	7.9	19,235	7.05	17,028	6.2	17,528	6.1	-18.1%
In 2-person carpool	14,635	5.4	13,778	5.05	12,908	4.7	14,080	4.9	-3.8%
In 3-person carpool	4,607	1.7	3,410	1.25	2,197	0.8	1,724	0.6	-62.6%
In 4-or-more person carpool	2,168	0.8	2,046	0.75	1,923	0.7	1,724	0.6	-20.5%

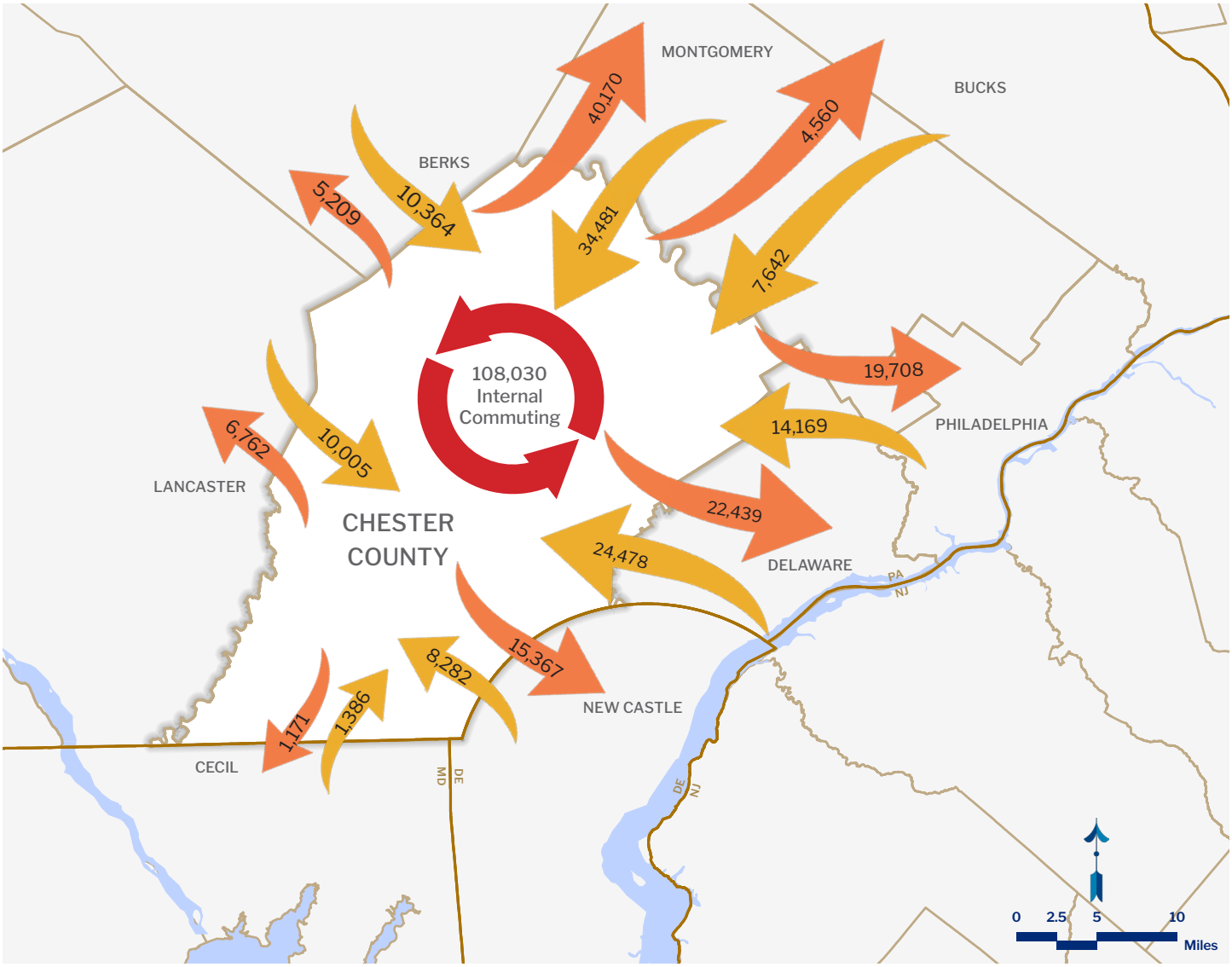
Sources: US Census, American Community Survey, S0801 Commuting Charateristics by Sex, 1 Year Estimates, 2019, 2021 and 2022, accessed May 2024.

Note: 2020 values are estimates based on the average of the 2019 and 2021 data.

Commute Flows, 2021

The commute flows between Chester County and neighboring counties are shown on the map below. While commuting is not the only reason for transit usage, it does factor in heavily. 108,030 people commute internally within Chester County. Montgomery County sees both the highest commute flow into and out of Chester County. Delaware County also sees significant two-way commute flow. Philadelphia County is third in both directions, which shows that, despite being the main economic center of the region, it is not the largest employment center relative to Chester County. Most commute flows feature significantly higher numbers compared to the 2014 plan (using data from 2006-2008), except for Cecil County, MD and New Castle County, DE, which have remained stagnant.

The commute flow numbers underscore the need for better transit service both within the county and to neighboring counties. The transit system in Chester County needs better connections to existing services to help leverage greater ridership to these major employment centers.



Sources: US Census, Destination Analysis; Work and Home, On the Map (https://onthemap.ces.census.gov/), accessed May 2024

Job Counts Where Workers are Employed, All Jobs 2021

County	Count	Percent of Total
Chester County, PA	108,030	43.10%
Montgomery County, PA	40,170	16.00%
Delaware County, PA	22,439	8.90%
Philadelphia County, PA	19,708	7.90%
New Castle County, DE	15,367	6.10%
Lancaster County, PA	6,762	2.70%
Berks County, PA	5,209	2.10%
Bucks County, PA	4,560	1.80%
Lehigh County, PA	2,131	0.80%
Allegheny County, PA	2,025	0.80%
All Other Locations	24,334	9.70%
Total	250,735	100.00%
Cecil County, MD	1,171	0.50%

Job Counts by Counties Where Workers Live, All Jobs 2021

County	Count	Percent of Total
Chester County, PA	108,030	43.20%
Montgomery County, PA	34,481	13.80%
Delaware County, PA	24,478	9.80%
Philadelphia County, PA	14,169	5.70%
Berks County, PA	10,364	4.10%
Lancaster County, PA	10,005	4.00%
New Castle County, DE	8,282	3.30%
Bucks County, PA	7,642	3.10%
Lehigh County, PA	2,656	1.10%
Northampton County, PA	1,925	0.80%
All Other Locations	28,076	11.20%
Total	250,108	100.00%
Cecil County, MD	1,171	0.50%

Source: US Census, Destination Analysis; Work and Home, On the Map (https://onthemap.ces.census.gov/), accessed July 2024.

Nationwide ridership

Most ridership around the country followed similar trends, with a drastic decline during the onset of the pandemic, then a slow recovery with a sharper jump upon the widespread availability of vaccines by mid-2021 and return of in-person schooling. Ridership has continued to gradually improve. Some agencies are even experiencing better ridership than pre-pandemic, though this is not the case in the Philadelphia region. In general, bus ridership has recovered quicker than rail ridership. This is likely a combination of the types of riders who use buses compared to trains, as well as the types of trips that buses serve.

Many places are seeing a much greater portion of transit trips conducted for non-work purposes, and in relation, less "peaked" ridership. This has the potential to be a positive outcome from the pandemic, as far as transit agencies are concerned, as the operating costs necessary to provide enhanced peak service results in an extremely inefficient use of resources. This is also crucial market to capture, as some employment trips will never return due to full-time remote work. Systems must evolve to offer better service for these types of trips.

American Public Transportation Association's April 2024 Policy Brief showed nationwide public transit ridership recovery at 79 percent of pre-pandemic levels. The ridership levels have increased, even with stagnating office occupancy rates. By catering to all types of trips, ridership can continue to climb.

In general, agencies that have returned service to pre-pandemic levels have seen better ridership recovery. Some agencies have also adjusted fares, or even trialed fare-free transit. Demographics also play a role in ridership recovery. Places with more low-income riders have seen better recovery, as have communities with more people of color.

Equity

The planning field has seen an increased emphasis on equity in recent years. This is especially notable coming out of the COVID-19 pandemic. Public transportation is an important component of equity. This plan will address equity concerns by identifying underserved or unserved communities that have a higher need for transit. Themes include easy, safe, and convenient access to public transportation for all, as well as mobility for disabled users, or those who cannot drive.

One of the themes when looking at transit ridership is the breakdown of what types of trips people make using transit. For some, transit is the primary method of access to everything, including school, employment, shopping, and others. Other people may routinely use transit, but only for travel to and from work. Still others may use transit only occasionally, for nonstandard trips (airport, sporting events, visiting friends).

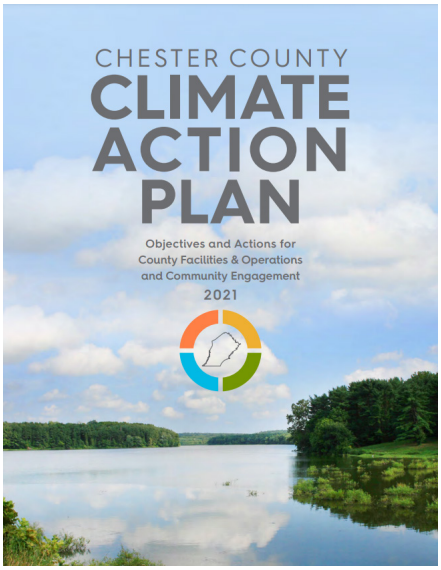
These groups also have different levels of reliance on the transit system. In suburban areas, where more people have access to automobiles and transit density and frequencies tend to be lower, it can be extremely difficult to fulfill all travel needs by transit. Thus, more people end up in the latter two categories, using it exclusively for work trips, or the occasional errand or entertainment trip.

The goal is to provide transit service to meet everyone's needs. It is imperative that transit service is offered to allow as many people as possible to use it for all types of trips.

Sustainability

As climate change and sustainability become increasingly more common topics of discussion, public transportation has an ability to rise to meet these new challenges.

Providing both better and new transit options in Chester County can help curb emissions and reduce single occupancy vehicle use. It will also be easier to access different areas reliably and efficiently. A greater transit network can help reach sustainability goals by improving transit usage, particularly in drawing new riders.



Chester County Climate Action Plan

The *Chester County Climate Action Plan* offers specific objectives pertaining to public transportation, outlined below:

- E: Promote efficient commuting and transit options
  - E1: Work with DVRPC on the Transportation Improvement Plan
  - E6: Establish policies to reduce greenhouse gas emissions created by employee commuting.
- F: Encourage no/low emissions travel and transportation actions
  - F2: Encourage municipalities to complete the pedestrian/sidewalk system in designated growth areas.

This plan will address these objectives from the Climate Action Plan. The plan seeks to enhance and expand transit options in the County, as well as foster connections to the wider region. Ultimately, greater transit usage by Chester County residents and visitors provides a proven method of reducing single-occupancy vehicles (SOVs). Additionally, any improvements made adjacent to transit, like better bicycle/pedestrian connections and growth of the sidewalk system, will align closely with Climate Action Plan objectives.

Pre-Pandemic performance

The initial phase of this plan update was performed by the Delaware Valley Regional Planning Commission (DVRPC) as part of their Unified Planning Work Program. DVRPC collected data that reflect the conditions prior to the onset of the pandemic in 2019. This data was then compared to the performance benchmarks established in the original 2014 Public Transportation Plan.

Exton Station parking lot

Station Parking Availability

Rail station parking was a critical issue prior to the COVID-19 pandemic. The drop in ridership from the pandemic has lessened the burden on the rail stations to provide parking, though this may change as riders return and additional service is provided.

Category	2014	2019
Rail stations	12	12
Rail stations with more than 90% utilization	7	9
Total spaces-all stations	3,305	3,491
Parking utilization to rail boarding ratio	55%	49%
Total bicycle parking spaces at rail stations	48	75

Bus stop at King of Prussia Transportation Center, a major transfer hub

Bus Routes and Stops

One of the goals of the previous plan was to provide the necessary amenities, like shelters or bike/ped connections, to the more heavily used bus stops that lack these amenities. While the percentage of these stops did increase from 2014 to 2019, this plan will identify a better means to accomplish this goal.

Category	2014	2019
Bus stops	847	867
Bus routes	16	15
Percent of bus stops with more than 5 boardings, with shelters	23%	25%
Percent of bus stops with shelters	6%	9%
Percent of bus stops with pedestrian connections	46%	46%

Land Use

Transit-related ordinances are a great way to promote better transit access, particularly in the growth municipalities in Chester County. Greater density generally makes transit more feasible compared to less density, particularly in suburban locations.

Category	2014	2019
Percent of growth area municipalities (54) served by transit	76%	76%
Percent of growth area municipalities (54) served by transit, with transit related ordinances	56%	78%

SEPTA train at Daylesford Station

Transit Amenities and Reliabilty

The service providers in Chester County are Southeastern Pennsylvania Transportation Authority (SEPTA), Amtrak, Transportation Management Association of Chester County (TMACC), and Pottstown Area Rapid Transit (PART). Krapf's no longer operates the Route A bus, which was taken over by SEPTA in 2021.

Category	2014	2019
Service providers	5	4
Service providers with real time info	2	2
Service providers with cashless payment	2	3
Average on-time performance	78%	83%

TMACC SCCOOT bus

Ridership

Overall ridership went down between 2014 and 2019. Since the pandemic, ridership is recovering, though still far below 2019 levels. Bus ridership has generally recovered at greater rates than rail.

Category	2014	2019
Annual ridership-bus	1,440,950	1,260,427
Annual ridership-rail	3,310,965	3,024,150


TRAIN STATION
AMTRAK

Chapter 3
Vision 2050

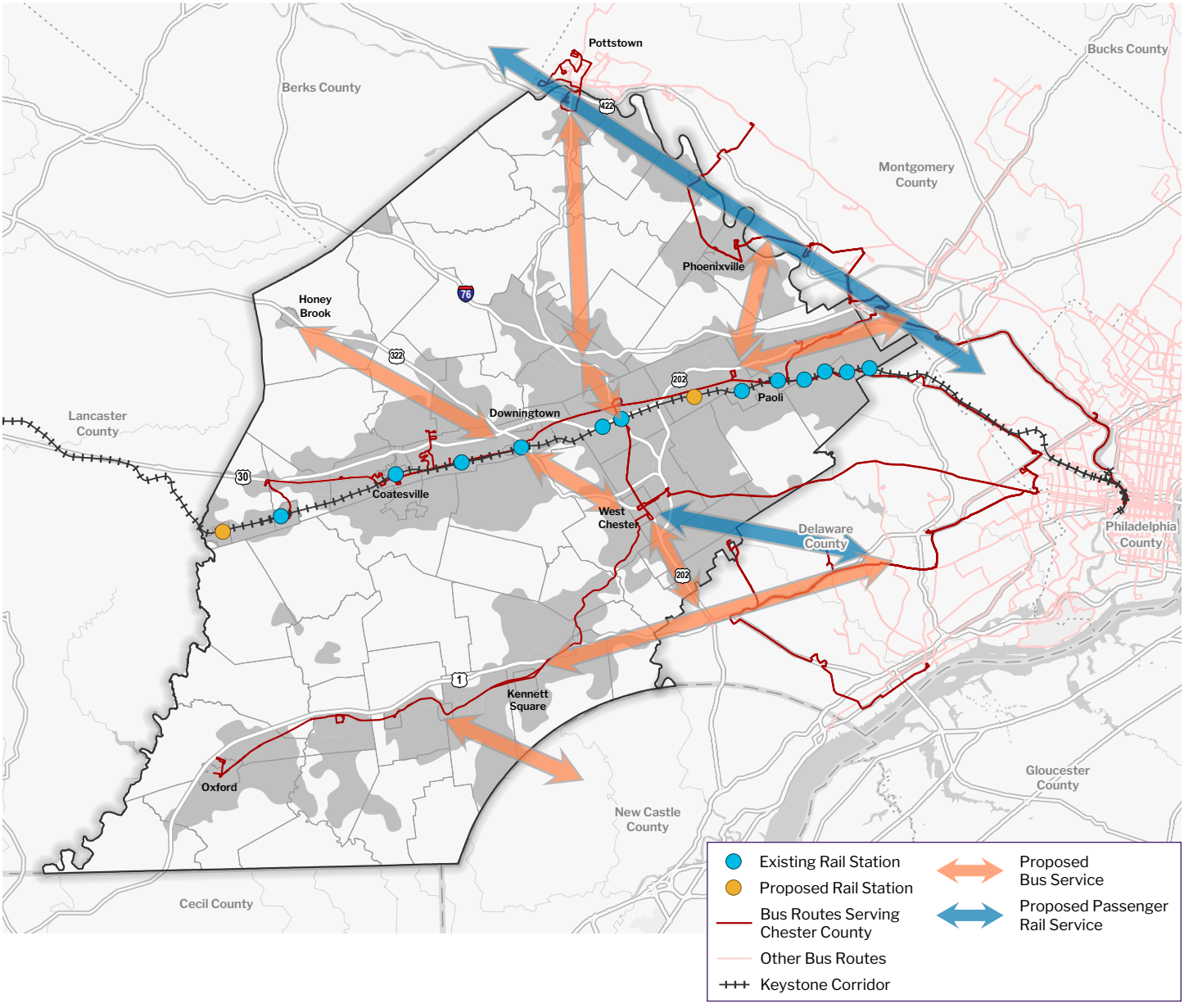
The Vision

The Vision Plan shows the 25-year plan for transit services in Chester County. The Vision Map shows existing services, services in the planning process, and other potential services to fill notable gaps in the transit system.

Further technical assessment will be required before the implementation of some of these potential new services. The Vision Map shows the return of rail service to Phoenixville, Pottstown, and Reading along the US 422 Corridor, as well as the return of Regional Rail service to West Chester. Also shown are new bus routes linking key destinations.

The map is also overlaid with growth areas laid out by *Landscapes3*, Chester County's latest comprehensive plan. Many growth areas are already served by transit, and indeed, there is a high correlation between growth areas and existing transit.

Vision Map



Plan framework

In order to structure the critical issues identified below into a strategic planning framework, they were categorized into one of the following three main subject areas:

SYSTEM

Includes everything that is operating or "rolling" such as bus routes, passenger rail services, etc.

SYSTEM critical issues:

- Bus/rail connectivity
- First mile/last mile connections
- Service reliability
- Service gaps/new service requests
- System expansion

ENVIRONMENT

Includes all of the points of access to the system, including rail stations, transportation centers, bus stops, etc.

ENVIRONMENT critical issues:

- Bus shelters
- Active transportation (bike/ped) connections
- Municipal land use
- Parking availability at rail stations
- Park and ride facilities

EXPERIENCE

Includes everyone that utilizes the public transportation system.

EXPERIENCE critical issues:

- Service quality/user amenities
- Safety
- Fare consistency/coordination between providers
- Public outreach/marketing of existing services

While some issues may apply to more than one or can be relative to all three, the issues were placed into their most applicable category.


SEPTA

Chapter 4
SYSTEM

The SYSTEM chapter addresses everything that is operating or "rolling" such as bus routes and passenger rail services.

Goal

The SYSTEM goal is to develop a reliable, consistent, flexible, and efficient system to maximize transit service coverage and provide practical transit options for Chester County residents, workers, and visitors.

Objectives

- Fund and provide transit in all areas for those who most need it.
- Expand the areas served by transit.
- Implement new service models, like flexible routes and microtransit.
- Increase the number of coordinated bus/rail connections at key rail stations to expand transit system coverage.
- Foster relationships with the business community to provide for the last mile connections between rail stations, commercial/employment centers, and park & ride lots.
- Provide efficient routing to maximize ridership, minimize travel times, and increase reliability.
- Utilize alternative energy vehicles where feasible to maximize fleet efficiency and minimize local greenhouse gas emissions.

Critical issues and recommendations

CRITICAL ISSUE

Bus/rail connectivity

1. Adjust bus routes to create a coordinated transfer system between bus and Regional Rail, prioritizing onward connections.
2. Coordinate new commuter services with services at rail stations and transportation centers for better connectivity.

CRITICAL ISSUE

First mile/last mile connections

3. Increase micromobility options around rail stations and transportation centers.
4. Promote use of rideshares and private shuttle services.
5. Provide car shares/bike shares at rail stations and transportation centers.

CRITICAL ISSUE

Service reliability

6. Increase trip speed to reduce travel times and enhance competitiveness to attract more riders.
7. Plan for shorter routes with fewer stops to achieve better on-time performance.
8. Implement traffic signal prioritization in major transit corridors where feasible.

CRITICAL ISSUE

Service gaps/new service requests

9. Create a system of community circulator/loop services where feasible.
10. Explore opportunities to use Chesco Connect fleet.
11. Encourage more transportation centers where multiple bus routes meet/connect with microtransit.

CRITICAL ISSUE

System expansion

12. Expand passenger rail service.
13. Return Regional Rail service to Coatesville.
14. Increase SEPTA rail service on the Keystone Corridor.
15. Expand bus service.

System overview

Bus Services

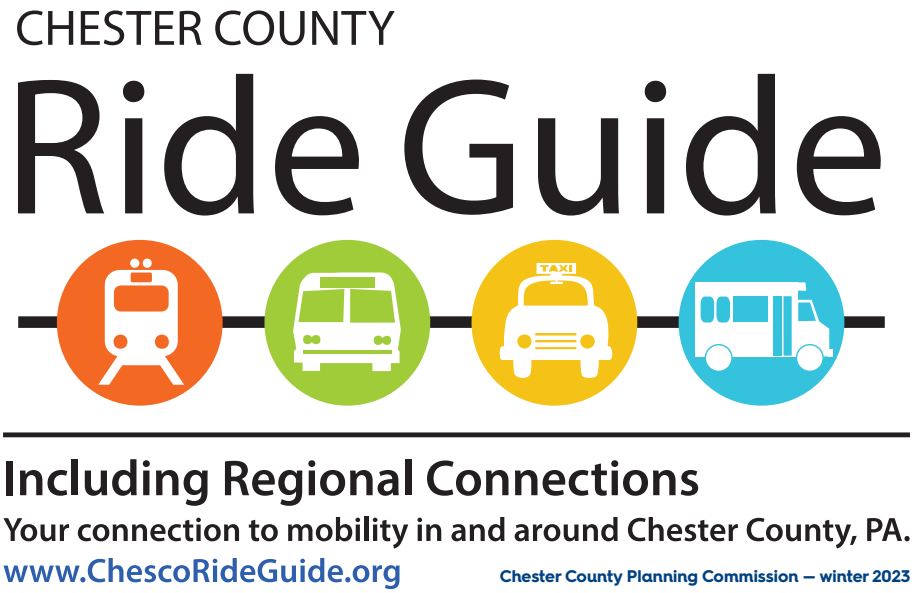
Bus transportation is provided by three separate service providers in Chester County, including Southeastern Pennsylvania Transportation Authority (SEPTA), Transportation Management Association of Chester County (TMACC), and Pottstown Area Rapid Transit (PART).

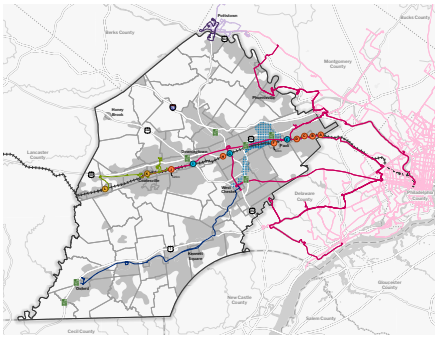
At the time of publication, there are 14 bus routes that operate in Chester County. Many of these fixed-route services are long and occasionally circuitous. They do not offer express services and have few associated user amenities. There is limited coordination with existing rail services. Additionally, average headways on many routes, sometimes longer than 60 minutes, provide gaps during the service day.

SEPTA recently adopted a systematic redesign of its bus network, called SEPTA Bus Revolution. The intent of this redesign was to recapture lost ridership, which was trending downward even before the onset of the COVID-19 pandemic. Along with improving frequencies, it also brings about the implementation of microtransit zones.

Upon implementation of new bus networks, there will be 11 bus routes in Chester County. All SEPTA routes will operate with at least 60 MAX service, except for the limited trips of Route 110 to Cheyney University. Certain routes have been shortened or realigned to more direct paths. Other deviations from the main line, like to access shopping centers, have largely been eliminated.

The mapping of transit routes in this document is using the new Bus Revolution network that has been adopted, but not yet implemented, at the time of publication. The most up-to-date maps and information can be found using the RideGuide (https://www.chescorideguide.org).





See the System Map on page 33

SEPTA Routes (New Bus Network)

- **99**: King of Prussia to Phoenixville (30 MAX), King of Prussia to Limerick (60 MAX), serving Oaks
  (2 service patterns, every other bus will continue beyond Phoenixville to Limerick)
- **104**: West Chester University to 69th Street Transportation Center serving Newtown Square (30 MAX)
- **105**: Paoli Hospital to 69th Street Transportation Center serving Rosemont and Ardmore (60 MAX)
  (3 service patterns, includes both 15 MAX and 30 MAX service patterns closer to 69th Street)
- **110**: Wawa Station or Penn State Brandywine to 69th Street Transportation Center, serving Media, limited trips beyond Wawa to Cheyney University
  (3 service patterns, 30 MAX along shared section, 60 MAX to Penn State Brandywine, 60 MAX to Wawa Station, >60 MAX to Cheyney University)
- **119**: Cheyney University to Chester Transportation Center serving Concordville and Marcus Hook (60 MAX)
- **124**: Chesterbrook to 30th-Market (Philadelphia 30th Street Station) serving King of Prussia (60 MAX)
- **135**: Coatesville to West Chester Transportation Center serving Downingtown and Exton (60 MAX)
- **142**: Exton Square Mall to King of Prussia serving Paoli (60 MAX)

TMACC Routes

- **Coatesville Link**: Brandywine Hospital to Parkesburg serving Coatesville
- **SCCOOT**: Oxford to West Chester Transportation Center serving Kennett Square

Pottstown Area Rapid Transit (PART) Routes

- **Green Line**: Pottstown loop serving North Coventry Township/Coventry Mall

SEPTA FORWARD >>>
Bus Revolution

Rail Services

There are two operators providing rail service in Chester County through the Keystone Corridor – SEPTA and Amtrak.

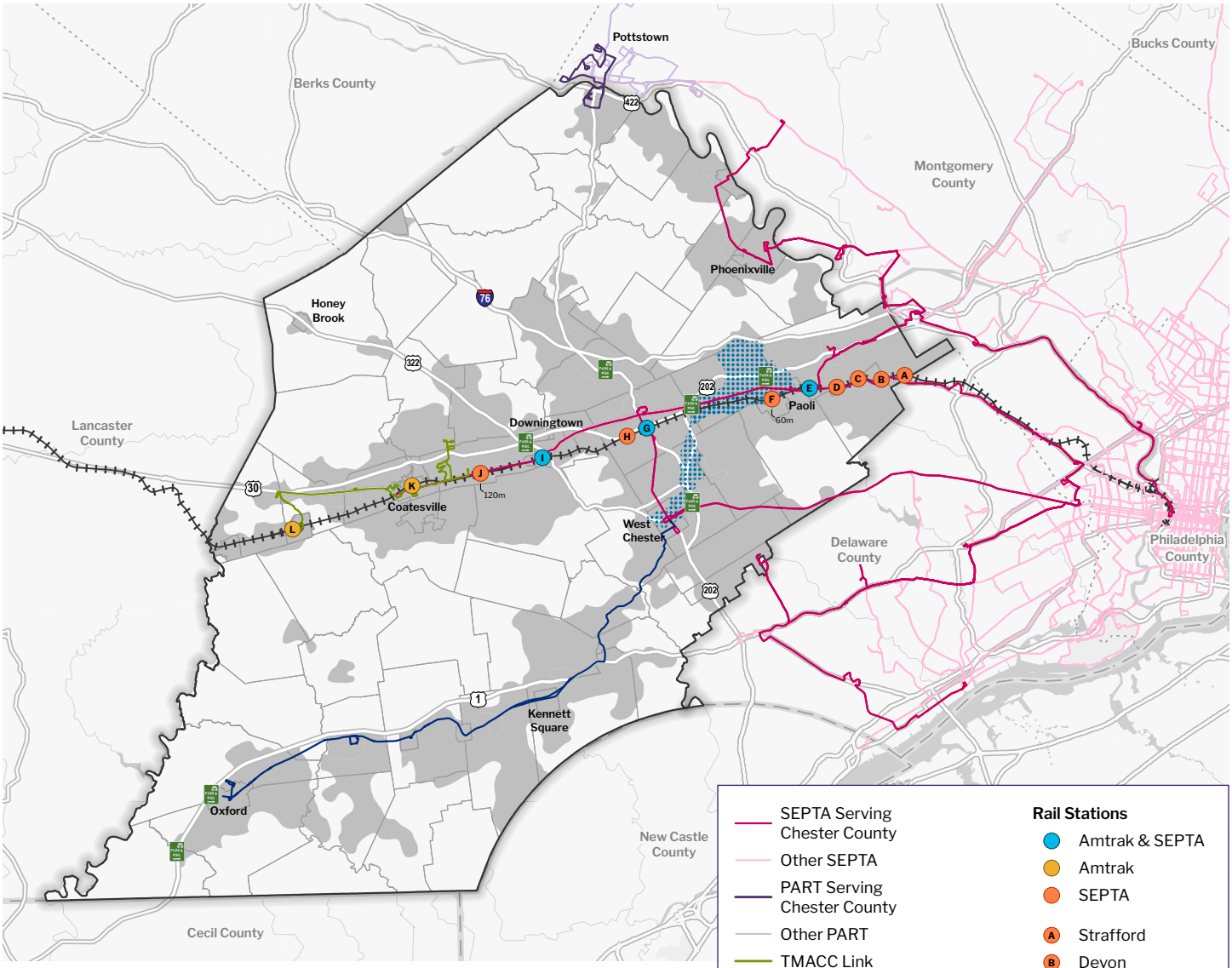
SEPTA operates the Paoli/Thorndale Line, providing a weekday schedule with hourly service to Malvern, and bihourly service to Thorndale (with additional peak trips). There is hourly service to Malvern on Saturdays, with bihourly service to Thorndale. Trains terminate at Malvern on Sundays, with hourly service.

Amtrak operates its Keystone Service between New York, NY and Harrisburg, PA with stops at five locations in Chester County. The daily Pennsylvanian (New York, NY-Pittsburgh, PA) also traverses the Keystone Corridor, stopping at Paoli and Exton (eastbound only).

SEPTA is currently undertaking a complete redesign of the Regional Rail network, dubbed “Reimagining Regional Rail.” This project aims to transform all facets of the system. Chester County could see increased service and new service patterns on the Paoli/Thorndale Line. This would include a metro style service on the inner portion of the line.

SEPTA FORWARD >>>
Reimagining Regional Rail
Creating a new plan for Regional Rail, together

System Map


Pottstown
Berks County
Bucks County
Montgomery County
Phoenixville
Honey Brook
Lancaster County
Downingtown
Paoli
60m
Coatesville
120m
West Chester
Delaware County
Philadelphia County
Kennett Square
Oxford
New Castle County
Cecil County
SEPTA Serving Chester County
Other SEPTA
PART Serving Chester County
Other PART
TMACC Link
TMACC SCCOOT
Keystone Corridor
Growth Areas
SEPTA Microtransit Zones
Park and Rides
SEPTA Rail Service Frequency (Weekday)
60 minutes - Malvern
120 minutes - Thorndale
Rail Stations
Amtrak & SEPTA
Amtrak
SEPTA
A Strafford
B Devon
C Berwyn
D Daylesford
E Paoli
F Malvern
G Exton
H Whitford
I Downingtown
J Thorndale
K Coatesville
L Parkesburg

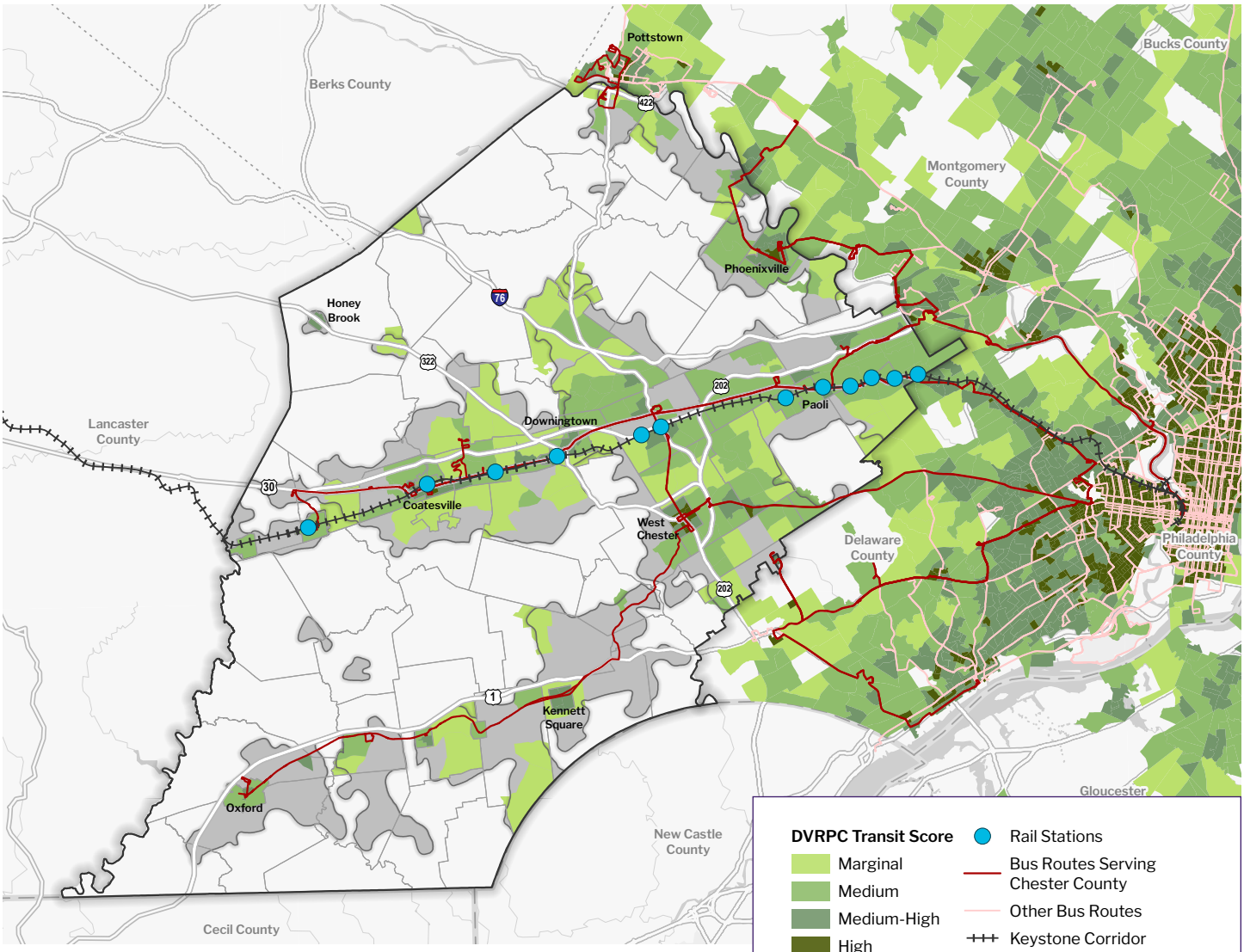
Land Use and Transit Relationship

There is a direct relationship between land use and transit service. Land use patterns influence the effectiveness of public transportation systems. Generally, higher density and mixed-use building help increase transit usage. Less dense suburban development can make it difficult for transit to serve the area effectively.

Chester County contains many suburban office parks, which almost always feature automobile-centric land use, like ample parking and convenient highway access, at the expense of sidewalks and other pedestrian connections, or mixed land use.

The Transit Score Map uses DVRPC data to identify areas where public transportation is most suitable, based on many factors, like employment densities and relevant socioeconomic factors. There is understandably significant overlap between *Landscapes3* growth areas and high-scoring locations. The areas with Medium-High and High scores are the most ideal candidates for greater public transportation. Long corridors shown in green on the map below represent possible fixed-route service opportunities.

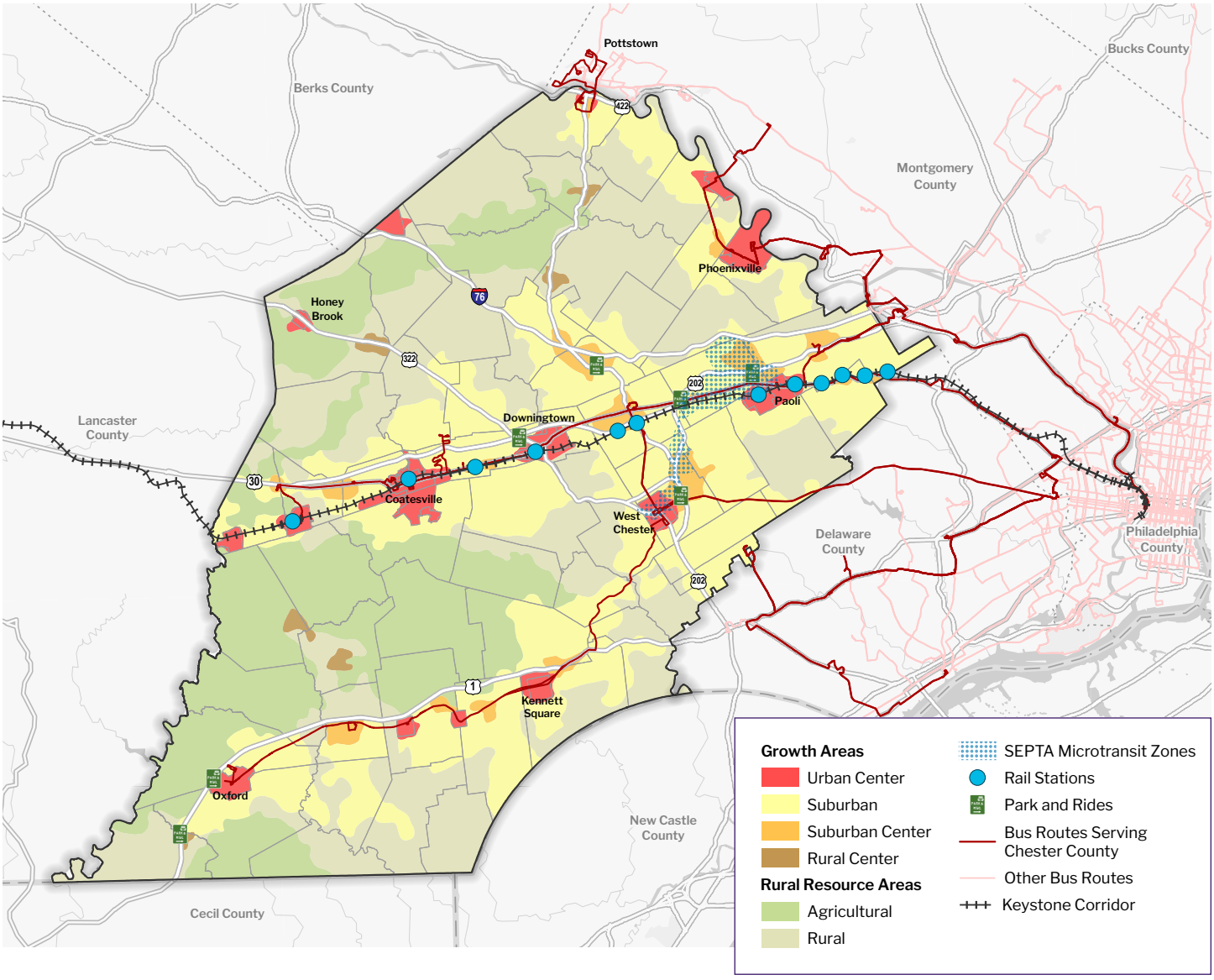
DVRPC Transit Score



Source: DVRPC

The image below shows Chester County's existing public transit services as an overlay to the *Landscapes3* map showing both growth and rural resource areas.

Landscapes3 Land Use



Population and Employment Forecasts

Population and jobs directly impact on the demand for transit services. These population and employment forecasts were prepared by the Delaware Valley Regional Planning Commission (DVRPC) as part of *Connections 2050*, the long-range plan for the southeastern PA region.

Chester County is projected to have the highest population increase in both total change (increase of 130,630 people) and percent change (25.4% increase) in the DVRPC region, in the 2015-2050 period. This is higher than the regional average of 8.8% for the entire region, and the five Pennsylvania DVRPC counties, which is 7.0%.

Chester County is projected to have the third largest total employment increase (71,008) in the DVRPC region, behind only Philadelphia County and Montgomery County. The percent change in employment forecast for Chester County is 23.5%, second only to Gloucester County in the DVRPC region, and higher than the Five PA county change of 15.6%.

Population Table

County	Absolute Change 2015-2050	Percent Change 2015-2050
Chester	130,630	25.4%
Five PA Counties	392,853	9.6%
DVRPC Region	500,437	8.8%

Employment Table

County	Absolute Change 2015-2050	Percent Change 2015-2050
Chester	71,008	23.5%
Five PA Counties	345,437	15.6%
DVRPC Region	466,795	15.4%

Service gaps

A key aspect of the original plan was to consider the degree to which available service options serve the trips that are most in demand.

Service gaps are present in any network, but are particularly prominent in suburban areas, as these areas tend to be more difficult to serve effectively with transit. The hub/spoke network model (with Philadelphia as the central hub) also leads to many markets being unserved by direct (point-to-point) service.

Existing gaps

There are many existing service gaps (prior to Bus Revolution) within Chester County. Some of these trips have seen bus service in the past, or even had historical passenger rail service along current or former freight lines. There may be opportunities to reimplement transit in some of these corridors that may now have higher density, particularly with better transit practices or new service models.

Route 204 bus stop along Route 29 in Malvern

Other areas have experienced tremendous population growth and development, underscoring the need for more transit. These growth areas will continue to require new solutions to solve the growing traffic issues associated with suburban development.

New (potential) gaps

New service gaps will arise from SEPTA's bus network redesign, the Bus Revolution. Some fixed-route services will be replaced with microtransit zones, while others will not have a microtransit replacement.

One major new service gap will be between Exton, Lionville, and Eagleview. The current SEPTA Route 204 will be truncated and renamed, so there will be no more northward service from West Whiteland into Uwchlan Township.

King of Prussia Transportation Center

Underserved gaps

While filling in existing (or new) service gaps is an important aspect of this plan, it can be beneficial, and perhaps easier to improve, on the underserved gaps. Underserved gaps can include:

- High demand trip pairs with poor schedules
- Long, circuitous routes in lieu of a more direct routing
- Needing to go out of the way to make a transfer

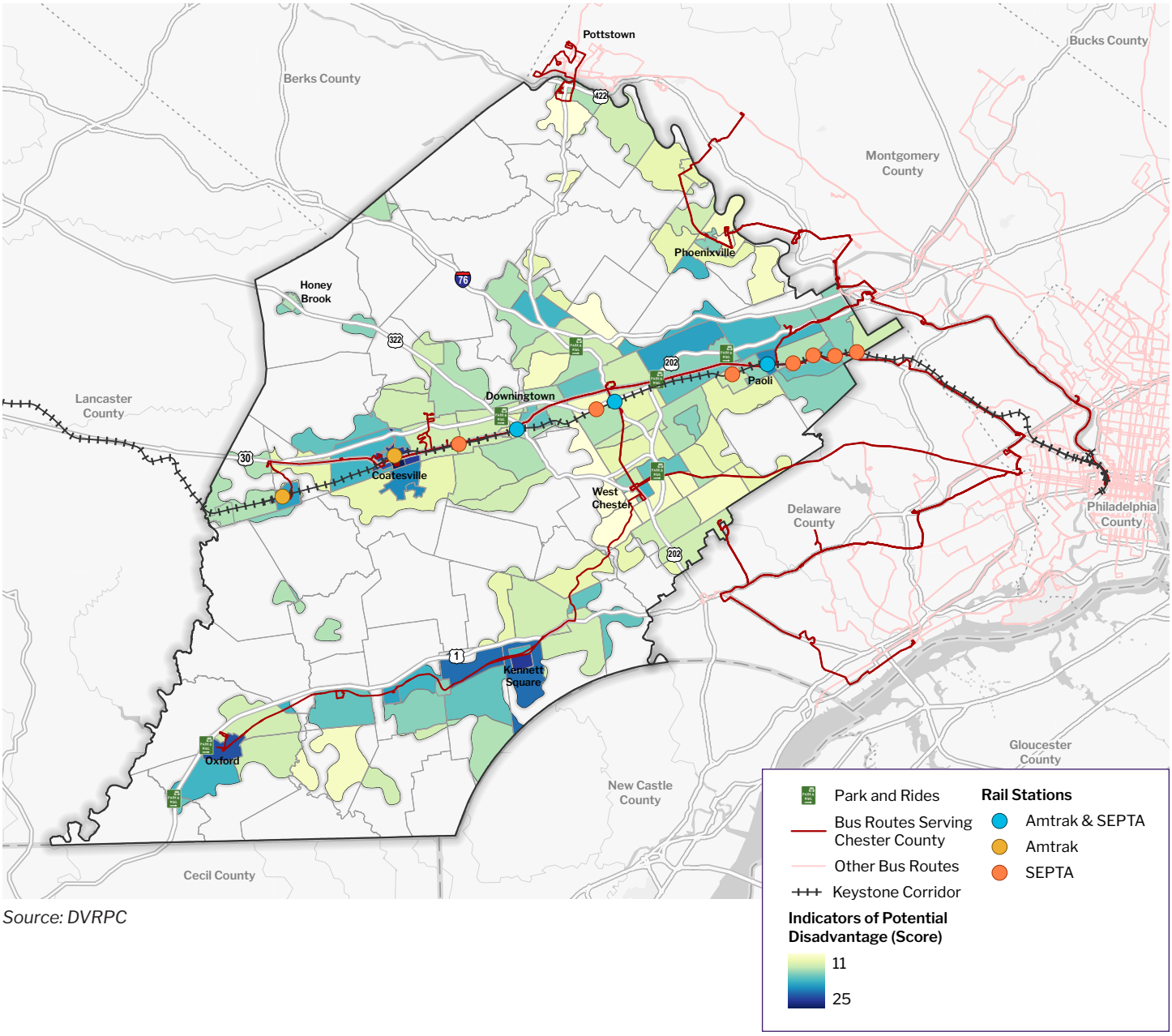
For example, West Chester and Phoenixville are both served by transit. However, someone starting in West Chester must first take a bus to King of Prussia, wait to transfer there, and then take another bus to Phoenixville. When inadequate headways and poor trip speeds are factored in, there is very little upside in taking the bus, despite these being two large destinations within the county.

SEPTA bus at King of Prussia Transportation Center

IPD, or Indicators of Potential Disadvantage, are helpful in assessing equity concerns. The higher the IPD score, the more potential disadvantage exists due to these factors. DVRPC maintains a webmap of IPD data, which can be found here: https://www.dvrpc.org/webmaps/ipd.

There are nine different indicators, each one a distinct population group. They are Youth, Older Adults, Female, Racial Minority, Ethnic Minority, Foreign-Born, Limited English Proficiency, Disabled, and Low-Income.

Indicators of Potential Disadvantage



Source: DVRPC

Microtransit

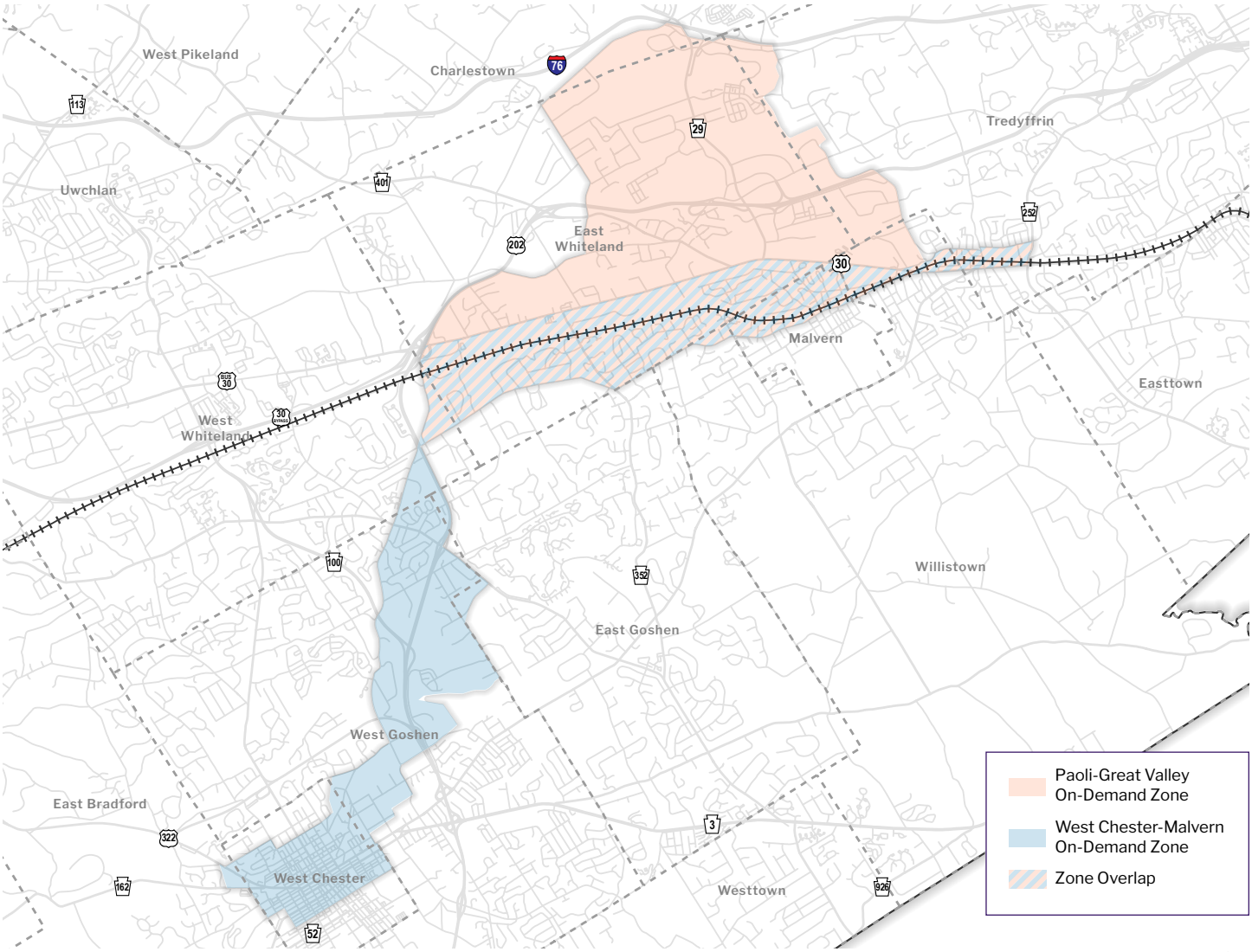
Microtransit is becoming more prevalent in many areas. Essentially, microtransit uses small transit areas to serve point-to-point trips within a defined zone, with a flat fare, typically similar to transit fare. A user then hails the vehicle by either using an app, calling, or booking on a website.

Microtransit can be used to retain service in areas where fixed-route service is currently underperforming. As part of the Bus Revolution, SEPTA studied underperforming routes in suburban areas to identify which routes might be a candidate for replacement with microtransit.

Microtransit also has other uses besides replacing fixed-route service. It can be an alternative way to provide community circulator type services in suburban downtown areas or clustered suburban office park areas. When a major transit stop (particularly rail station or transportation center) is included in the microtransit zone, microtransit services can fulfill the first mile/last mile connection gaps.

SEPTA plans to brand the new microtransit service SEPTA GO. Chester County will feature two microtransit zones. These microtransit zones will greatly improve access to multiple Regional Rail stations and better coordinate with Regional Rail schedules.

Microtransit



Critical issues and recommendations

CRITICAL ISSUE

Bus/rail connectivity

One approach to increasing transit usage is improving bus and rail connectivity. Bus/rail connectivity involves the coordinated scheduling of arrival between trains and buses at rail stations that would allow transit users to utilize a combination of both services as part of their daily trips.

Prior to the Bus Revolution, only SEPTA's 200 series routes (204 and 206 in Chester County) are coordinated with rail services. One advantage to coordinating bus and rail services is eliminating the need to drive an automobile to a rail station where parking availability is often scarce, thus reducing congestion and increasing ridership. Another, and perhaps more obvious advantage is providing access to the Keystone Corridor, which provides access and connectivity to the world at large. Decreasing SEPTA rail headways will improve coordination opportunities by reducing dwell times between connections.

Paoli Station parking lot, which features bus transfers to Regional Rail

Coordinating existing fixed-route bus services with the rail schedules is difficult due to the many stops and factors associated with each of these longstanding services. It is easier to coordinate services where the starting point for the bus is the arrival of passengers from the rail side, but it is much more difficult to coordinate the delivery of bus passengers to a rail station ahead of a train. Buses are subject to traffic congestion, the occasional and unpredictable weather and accident-related closings, and many other elements.

Bus/rail connectivity is also an example of how to solve another critical issue, the first mile/last mile connection.

Signage at Malvern Station indicating transfers to Route 92 from Regional Rail

RECOMMENDATION

1: Adjust bus routes to create a coordinated transfer system between bus and Regional Rail, prioritizing onward connections.

Many rail stations have bus service, but very few are coordinated with the rail schedule. Rail stations that have bus transfer options that provide onward connections are key to expanding usage.

For example, riders can take Regional Rail to Exton, then transfer to Route 135 for service to West Chester. Riders from Coatesville can use the 135 to get to Thorndale, then transfer to the train.

RECOMMENDATION

2: Coordinate new commuter services with services at rail stations and transportation centers for better connectivity.

This provision will be an element that not only attracts riders to future express bus services, but will also create a more unified transportation system between bus and rail services. Future opportunities include Downingtown, Exton, and Paoli, with the improvements slated for those stations.

CRITICAL ISSUE

First mile/last mile connections

Getting to transit from home and to work from transit pose a significant barrier to the use of public transportation. More first mile connections (home to transit) would require better bicycle and pedestrian connectivity to the transit system and/or additional parking at or near transit stops and stations. Assuming most people do not work within walking distance of their place of employment (or the facilities do not exist to do so), providing last mile connections between train stations and employment centers would likely encourage greater public transportation use.

More last mile connections would involve additional shuttle services or vanpooling, ride sharing, or perhaps bike sharing opportunities at rail stations and transportation centers. Bicycle and pedestrian facilities connecting bus stops with residential and employment centers are the most basic form of the first mile/last mile connections and are discussed in the ENVIRONMENT chapter. Taxi services are good for occasional use, but are cost-prohibitive when used as part of a daily commute.

Private shuttles allow for first mile/last miles connections at Paoli station

RECOMMENDATION

3: Increase micromobility options around rail stations and transportation centers.

Micromobility devices encompass a range of vehicles, from scooters to bikes, as well as skateboards and segways. Some of these devices are portable, so they can be brought along with the rider, while others will require a rental/sharing program.

The advantage of micromobility devices is that they often do not require many changes to the built environment. Most of these devices are smaller in nature. SEPTA's *Micromobility Playbook* offers many recommendations for help with implementation.

RECOMMENDATION

4: Promote use of rideshares and private shuttle services.

Promoting these services at major employment centers may be the most impactful and cost-effective means of providing these connections. Reserved parking at rail stations and transportation centers for carpool/vanpool users could be a way to incentivize usage.

Bike racks at Exton station

RECOMMENDATION

5: Provide car shares/bike shares at rail stations and transportation centers.

Bike share facilities would need to establish a presence at or very near station sites/transportation centers. Major employment centers would also require these facilities, so users can return them during the day. Feasibility studies will be required to further investigate car share/bike share opportunities in Chester County.

CRITICAL ISSUE

Service reliability

Service reliability is an operational issue that directly affects ridership. If any service is consistently late or randomly and indeterminably does not show up, chances are that potential riders will look elsewhere for their transportation options.

In addition to cost, time is a significant factor in the decision-making process for most riders, particularly commuters. It is commonly accepted that taking a bus versus driving an automobile to any location will take additional time due to multiple stops and less direct routing. If that time could be used productively, potential riders may find transit more appealing, due to the increase in productivity (assuming internet access) and decrease in overall commuting cost versus operating an automobile (parking fees, gasoline, vehicle wear and tear, etc.). All other factors aside, when that time differential is perceived to be excessive, these same commuters are much more likely to choose the automobile regardless of the cost savings associated with the public transit option.

Display at Exton Station

Amtrak trains do not stop at Daylesford, which is very close to Paoli

SEPTA express train at Paoli

RECOMMENDATION

6: Increase trip speed to reduce travel times and enhance competitiveness to attract more riders.

For bus routes, trip speed can be improved with shorter, more direct routes (see recommendation on next page). Additionally, travel times along major corridors can be improved with traffic signal prioritization (see recommendation on next page). Inadequate stop spacing can also be to the detriment of trip speed, though this is less problematic in suburban areas compared to urban ones.

The Paoli/Thorndale Line features very small gaps between stations, particularly on the inner portion of the line. While this enables greater access to stations and better walkability, it means that trains spend more time stopped at stations (the dwell time) and cannot reach top speeds. The lack of high-level platforms exacerbates the time spent at station stops. Additionally, junctions and other bottlenecks, particularly around Center City Philadelphia, can increase the overall travel time.

Amtrak's Keystone Service provides significantly faster service compared to SEPTA local service along the same line. While Amtrak is faster, it is also more expensive. Additionally, transfers are needed at 30th Street Station in Philadelphia to reach other destinations. SEPTA runs some express services during peak hours that shorten travel times by skipping select stations.

More SEPTA express service could complement existing Amtrak trains to provide better alternatives and faster trip times, particularly during midday and reverse peak hours. A midday SEPTA local is less competitive with the equivalent drive time due to the combination of lower trip speed, less roadway traffic outside of peak hours, and lower frequencies (since waiting for the train needs to be factored into overall trip time). SEPTA's Reimagining Regional Rail project aims to address many of these issues.

Bus stop in Chesterbrook, where buses deviate from the main road to serve corporate parks

RECOMMENDATION

7: Plan for shorter routes with fewer stops to achieve better on-time performance.

Longer routes and more stops (particularly closely spaced stops) multiply the likelihood that unforeseen circumstances will cause delays. Limiting these factors makes for a more reliable service.

This is one of the key tenets of SEPTA's Bus Revolution. By making routes more efficient, the trip speed will increase, and it is easier to recover from unexpected delays.

Operators need to balance serving as many people as possible with a route with the route's efficiency. At some point, routing a bus line to go off the main road to serve every shopping center or employment center is counterproductive, as the run time will now greatly exceed the equivalent end-to-end trip time by private vehicle. The land development process and proper bike/ped connections also play an important role. Bus routes will need less deviations if the surrounding land use is more compatible with good transit access.

RECOMMENDATION

8: Implement traffic signal prioritization in major transit corridors where feasible.

This technology can be used to assist buses by allowing quicker schedules, and allowing them to make up lost time. This requires coordination between municipalities along a corridor.

CRITICAL ISSUE

Service gaps/new service requests

Service gaps (and the new service requests to serve them) can be addressed by adjusting existing services or adding new service. At the smallest level, a service adjustment might include rerouting a bus onto a nearby road to access a different destination, while a major adjustment could include a significant reroute. New service can help fill important existing gaps.

As the primary service provider for the region, SEPTA plays a key role in filling these gaps. Routes can be adjusted via SEPTA's Annual Service Plan. The county will continue to make recommendations to SEPTA and other providers.

GVF operates the Rambler service in the King of Prussia area to provide connections

RECOMMENDATION
9: Create a system of community circulator/loop services where feasible.

These bus routes offer a way to enhance connectivity in denser settings (downtowns or boroughs). Circulators are also another way to solve the difficult first mile/last mile connectivity problem. SEPTA's microtransit service (SEPTA GO) could be implemented in more boroughs and town centers to boost connectivity.

RECOMMENDATION
10: Explore opportunities to use the Chesco Connect fleet.

Chesco Connect is the new paratransit service provider for Chester County. As more vehicles are acquired, there may be other opportunities to use them, particularly when demand is lower.

RECOMMENDATION
11: Encourage more transportation centers where multiple bus routes meet/connect with microtransit.

Transportation centers work well for transferring passengers, with more amenities and information than a standard bus stop. Many can also offer parking, to help draw riders taking the bus longer distances.

Microtransit zones offer another opportunity for transfer passengers, specifically those transferring from fixed-route services to a microtransit vehicle. Transportation centers can also be used as micromobility hubs. For example, a bikeshare program can be set up with docks at the transportation center.

Chesco Connect buses parked at the Government Services Center in West Goshen Township

CRITICAL ISSUE

System expansion

Even though Chester County is largely suburban, it features growing population and employment, and has many historic town centers that can be effectively served by transit. While some areas will not have the density to make transit work, there are many opportunities for new bus routes to provide greater coverage, as well as the reactivation of passenger rail along certain corridors.

Bus expansion is largely about allocation of resources. New services require more operators and vehicles. Rail expansion is much more heavily involved, and thus requires greater planning efforts. In Chester County, implementing new services to an area will see immediate benefit simply by offering a transit alternative when there was none before. Most service expansion would look to gain new riders but could also provide better service to existing riders.

Schuylkill River PASSENGER RAIL AUTHORITY

RECOMMENDATION
12: Expand passenger rail service.

Planning efforts have included the restoration of former passenger rail services, including service along the Schuylkill River to Phoenixville, Pottstown, and Reading, as well as the former West Chester Branch, which currently terminates at the new Wawa Station, opened in 2022.

The Schuylkill River Passenger Rail Authority is a joint effort by Berks, Chester, and Montgomery Counties to restore passenger rail service to Reading. While initially envisioned as Amtrak Intercity service, Regional Rail service should be implemented to provide better connectivity for parts of Chester County that are currently far from existing rail services.

West Chester is currently the only county seat in the region without Regional Rail service. The line would also better serve traffic between Chester and parts of Delaware County than many existing bus routes . There is significant commute traffic between both counties. Existing service is impractical for trips to central and southern Delaware County. The Route 1 corridor also has no direct transit connection between Chester and Delaware Counties.

RECOMMENDATION
13: Return Regional Rail service to Coatesville.

Construction of the new Coatesville station will be completed in 2025. Amtrak can increase service levels (not all Keystone Service trains currently stop at Coatesville) to boost ridership at the new station, but it cannot reach its full potential without the reestablishment of SEPTA Regional Rail service. SEPTA can also provide bus connections at Coatesville to the Route 135 bus, as well as the TMACC Link.

SEPTA and Amtrak have determined that the Atglen Turnback Track project is required to restart Coatesville service. SEPTA has programmed some of the necessary funds in its capital budget for this project, with construction expected to begin in 2028, if the full project funding is available.

RECOMMENDATION
14: Increase SEPTA rail service on the Keystone Corridor.

In addition to Coatesville, SEPTA should restore service to Parkesburg, as a complementary service to Amtrak Keystone trains, as well as potentially develop a new station in Atglen. This would ensure that SEPTA would have Regional Rail coverage on the entirety of the east-west Keystone Corrider in Chester County. The station sites (both in boroughs) can help stimulate new ridership. Additionally, Atglen may draw passengers from neighboring Lancaster County to the west.

The gap between Malvern and Exton stations is nearly 6 miles, so DVRPC and CCPC have studied the potential for a new infill station in Frazer. It would also provide better connections to Immaculata University. The study, completed by DVRPC in 2019, identified two possible sites for this infill station . The preferred site would be located just west of Sproul Road (PA 352) and SEPTA's Frazer Yard.

Before the COVID-19 pandemic, weekday SEPTA service had 30-minute headways to Malvern and 60-minute headways to Thorndale. These schedules should be reinstated as quickly as possible, which would significantly boost ridership.

More SEPTA express service can cut down on travel times and increase trip speed. East of Malvern, stations stops are close together (sometimes <1 mile apart), which can be bypassed with express trains.

SEPTA's Reimagining Regional Rail project provides a positive long-term outlook for the Paoli/Thorndale Line, but full implementation is decades away. The implementation plan includes phasing for incremental improvements across the SEPTA Regional Rail system, including the Paoli/Thorndale Line. SEPTA rail frequencies should be improved where possible in the interim.

SEPTA train at Paoli Station

RECOMMENDATION
15: Expand bus service.

Bus service in Chester County is mostly concentrated along busy arterial roadways, like Lincoln Highway and West Chester Pike. These are the easiest places to serve.

An expanded bus network could focus on providing more point-to-point connections between major boroughs and town centers, without necessitating long, circuitous routings with many transfers. Places like Paoli, West Chester, and Coatesville could become bus hubs, with multiple routes radiating to other locations.

An expanded bus network could also better enhance the rail network by expanding its reach. Assuming a more unified network (easy transfers with regards to fares, schedule coordination), the bus network can act as a feeder network for the rail network, in addition to providing local or other regional trips. This has the ultimate goal of boosting ridership and accessibility for both systems.

Some of the bus routes currently duplicate existing rail service. Currently, the headways and fare structure differences of rail and bus mean that there is likely a separate rider base for each service. More frequent service and an updated fare structure, as outlined in both this plan as well as SEPTA's planning efforts, could affect bus ridership, and should be studied closely.

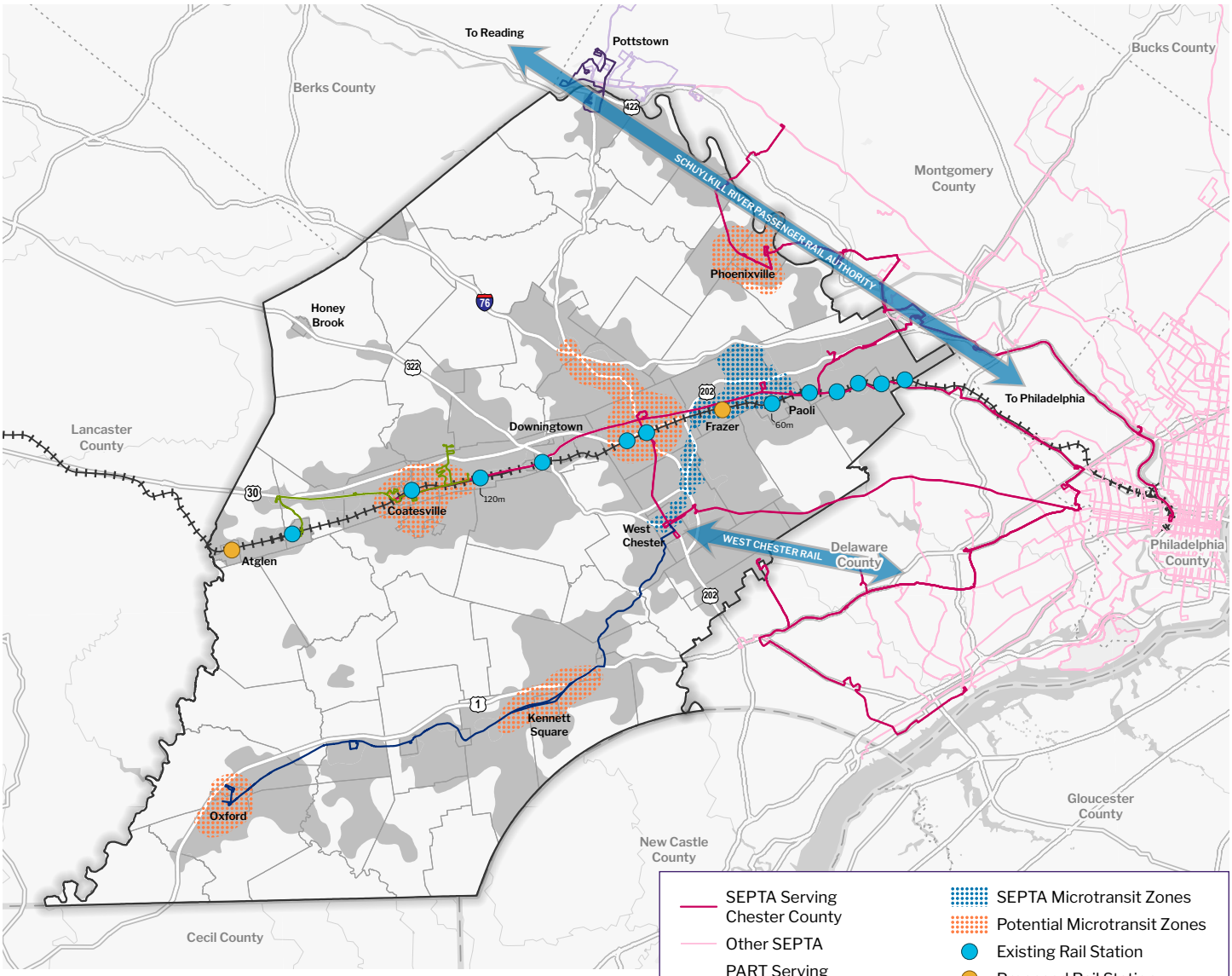
SEPTA bus in Downingtown

If microtransit proves to be successful, then more zones in Chester County could prove extremely beneficial. Zones should work well in other walkable, denser boroughs, as well as some suburban centers. Microtransit's ability to help solve the first mile/last mile connection question will make it extremely enticing in areas with many jobs or job growth.

All bus routes in Chester County operate as local bus service, stopping frequently and at lower speeds. For services that operate for long stretches on major corridors, like the 104 on West Chester Pike, complementary Enhanced Bus Service (EBS) could offer a substantial improvement to transit efficiency. DVRPC studied this on West Chester Pike, and it is likely the best candidate for EBS. A longer-term goal could plan for full bus rapid transit (BRT) standards along the West Chester Pike corridor.

Opportunities for expanded bus service to connect major internal Chester County destinations such as Downingtown and Honey Brook along the US 322 corridor and Exton and Pottstown along the PA 100 corridor should be monitored. These opportunities could potentially be addressed by using an expanded or repurposed Chesco Connect fleet, or by other providers willing to take on additional capacity in the event that the demand for these connections increases to the point of viability.

System Expansion



Chapter 5
ENVIRONMENT

The ENVIRONMENT chapter addresses all facilities that serve as points of access to the system, including rail stations, transportation centers, bus stops, sidewalks, and all related facilities associated with the built environment.

Goal

The ENVIRONMENT goal is to provide a first class, barrier free and multimodal means of transport from trip origin to trip destination.

Objectives

- Provide safe and ADA compliant pedestrian and bicycle connections to and from all bus stops, rail stations, transportation centers, employment centers, and commercial centers.
- Prioritize the implementation of bus stop amenities.
- Maximize available on-site parking for transit users at all existing and proposed rail stations and transportation centers.
- Identify shared use opportunities with existing commercial center or other large parking facilities to provide additional parking for transit and/or park & ride users.
- Encourage all growth area municipalities to create and adopt ordinances to provide for the integral development of transit related facilities and/or land uses.

Critical issues and recommendations

CRITICAL ISSUE

Bus shelters

1. Provide bus shelters and other amenities at heavily used bus stops and ensure proper bike/ped connections at all bus stops.

CRITICAL ISSUE

Active transportation (bike/ped) connections

2. Allow for round trip transit journeys, by connecting both related inbound and outbound stops with safe active transportation connections.
3. Provide secure bicycle parking at rail stations/transportation centers.

CRITICAL ISSUE

Municipal land use

4. Encourage municipal adoption of complete streets policies.
5. Work with local municipalities to ensure future development is transit oriented and transit connections are required to be addressed in municipal ordinances where applicable.

CRITICAL ISSUE

Parking availability at rail stations

6. Expand surface parking at all stations where appropriate.
7. Maximize shared use parking opportunities adjacent to rail stations.
8. Determine if structured parking is necessary and create plan to implement.

CRITICAL ISSUE

Park and ride facilities

9. Increase utilization of existing park and ride facilities.
10. Include charging stations in parking lots.

Background

West Chester Transportation Center

Exton Transportation Center

The current setup at Paoli is not ideal

Transportation Centers

There are **two existing transportation centers** associated with bus services located in Chester County, as follows:

West Chester Transportation Center (220 W. Market St.)

This facility is located on the ground floor of the parking structure across from the Chester County Justice Center and provides connecting bus service for the SEPTA 104, SEPTA 135, and TMACC SCCOOT, as well as SEPTA GO. Public parking is available in the garage, although space is limited.

Exton Transportation Center (Exton Square Mall)

This facility is located on the eastern side of the Exton Square Mall and provides connecting services for the SEPTA 135 and SEPTA 142. Ample parking is available in the adjacent parking structure.

FUTURE Paoli Intermodal Transportation Center

Phase 1 of the project was completed in 2019. Phase 2 will include additional platform construction, new bus facilities, and new passenger amenities, thus truly creating a transportation center. Phase 3 will assess parking needs, including the possibility of a new garage. Phase 2 cannot be implemented until the PennDOT North Valley Road Bridge Replacement Project is completed.

New center island platform and elevators at Paoli

Strafford Station

Devon Station

Malvern Station

Passenger Rail Stations

There is a total of twelve existing passenger rail stations in Chester County. Listed from east to west, their locations and services provided are as follows:

- Strafford: Old Eagle School & Crestline Roads – SEPTA
- Devon: Lancaster Ave. & Devon State Rd. – SEPTA
- Berwyn: Lancaster Ave. & Main Ave. – SEPTA
- Daylesford: Lincoln Highway & Glenn Ave. – SEPTA
- Paoli: North Valley Rd. & Lincoln Highway – SEPTA and Amtrak
- Malvern: Warren Ave. near King St. – SEPTA
- Exton: Walkertown Rd. at PA 100 – SEPTA and Amtrak
- Whitford: Whitford & Spackman Roads – SEPTA
- Downingtown: Lancaster & Stuart Avenues – SEPTA and Amtrak - Will be relocated along Brandywine Avenue (US 322) between Boot Road and Chester Alley
- Thorndale: Lincoln Highway & South Bailey Rd. – SEPTA
- Coatesville: North 4th Avenue and Fleetwood Street
- Parkesburg: West 1st & South Culvert Streets – Amtrak

Station improvements

Different stations need varying levels of improvements to bring them up to modern standards. Recently renovated stations may already have most or all amenities and connections, while many historic stations do not.

Some examples of possible improvements include parking upgrades, bike racks, ADA accessibility, and bus connectivity and infrastructure.

Full ADA accessibility is a major undertaking for the remaining stations. This will include level boarding, ramps, and elevators. While stations are refurbished, many smaller tasks will also be enhanced or replaced. These include signage and other wayfinding materials, lighting and security upgrades, and stormwater and drainage upgrades. Additionally, the area surrounding the station can be improved, whether with new parking, better bus connectivity, bike/ped connectivity, and more.

Some stations are unsuitable for modern ADA requirements, so the station may need to be relocated. This relocation can provide an opportunity for a "new start" to better fit the surrounding area and should be studied to maximize benefits.

The new center island platform at Paoli, left, and the original side platform at station building, right

Accessible ramp at Malvern

Coatesville

The new Coatesville station will be slightly east of the existing station and will be fully ADA accessible. It will feature new high-level platforms, bike racks, new surface parking, security and lighting upgrades, and more. There will also be an opportunity for additional development adjacent to the new station. This is a $65 million PennDOT project and is expected to be opened in 2025. SEPTA has committed to returning service to Coatesville and has committed some of the funding necessary for the turnback track in Atglen to facilitate service restoration.

Coatesville Train Station rendering. Graphic provided by Bernardon.

Coatesville Station during construction
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Paoli:
The Paoli Transportation Center will construct a new multimodal hub for the region around the existing site of Paoli Station. Phase 1 was completed in 2019 and included high-level platforms and full ADA accessibility. Phase 2 will include the construction of an additional platform, passenger amenities, better bus facilities, and other improvements. This project will also include the rerouting of the North Valley Road bridge. Phase 3 will provide for the construction of a parking garage, if necessary.

Paoli Transportation Center

Downingtown:
The new Downingtown Station will be constructed on Brandywine Avenue, east of the current site. The new station will include high-level platforms and full ADA compliance, as well as 500 parking spaces. There will also be new opportunities for transit-oriented development (TOD) near the station site.

Downingtown Train Station rendering.
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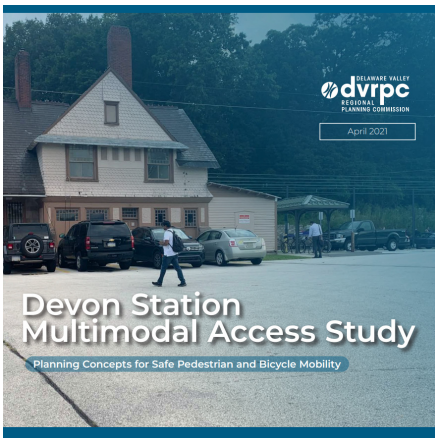
Existing low-level platforms at Malvern

Exton:
Phase 1 of Exton station was completed in 2020 and included the installation of high-level platforms, passenger amenities, and a new station building, as well as other physical improvements. Phase 2 will include the addition of a bus loop and bus shelter, to better facilitate multimodal connections. Phase 2 construction is expected to start in 2026.

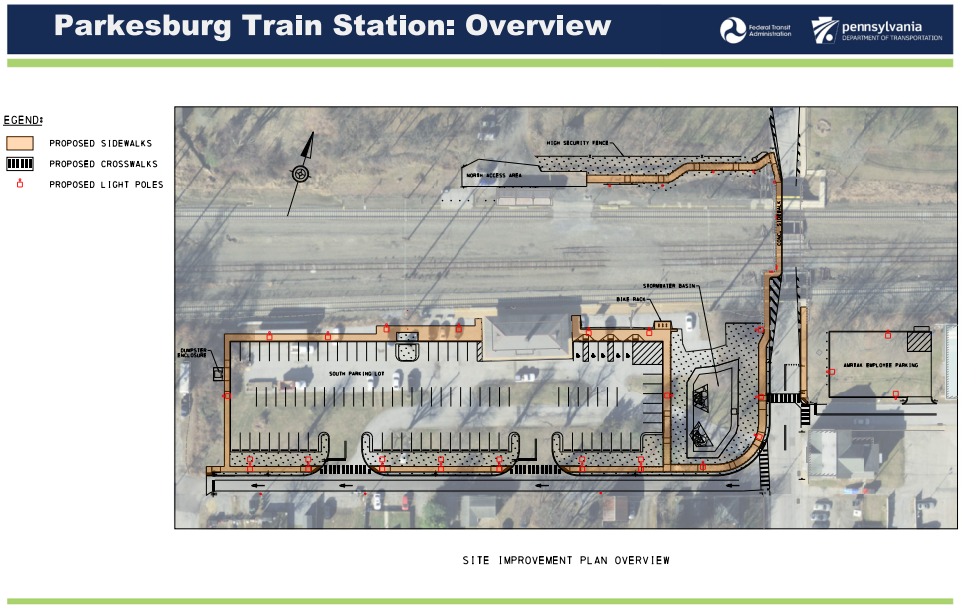
Malvern:
SEPTA is currently advancing design to install new high-level platforms, with a construction start in late 2027. The project is estimated to cost $35 million.

Parkesburg:
PennDOT and Amtrak are preparing for reconstruction of the station around 2030, with an estimated cost of $55 million. The station project will include ADA improvements, as well as new parking and sidewalk connections.



Devon:
SEPTA has programmed reconstruction for Devon Station in the early 2030s in its most recent capital budget. DVRPC completed the *Devon Station Multimodal Access Study* in April 2021, which has improvements that can be coordinated with station reconstruction.

Parkesburg station



Parkesburg station.
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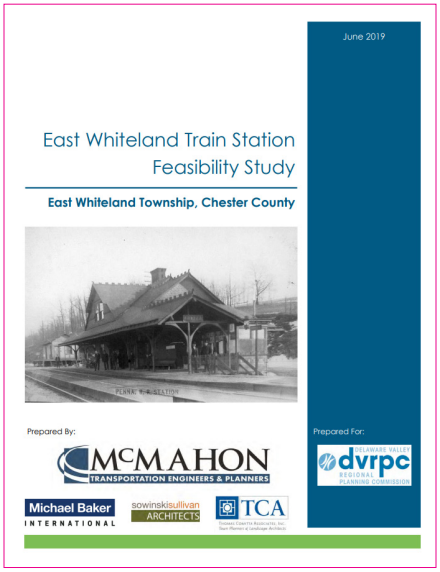


Future Stations

Additional rail stations may be developed as part of new passenger rail services located in the Schuylkill River Valley and along the extension of the Media/Wawa Line to West Chester. An extension of the Manayunk/Norristown Line from Norristown to Pottstown and Reading could restore service to Valley Forge, Phoenixville, and Royersford. West Chester service restoration could see service returned to Cheyney and Westtown.

There is also the potential for extension of SEPTA service on the Keystone Corridor to Parkesburg and a possible new station in Atglen.

Atglen:

Passenger service to Atglen ended in 1952, and the station was demolished in 1965. The 2012 *Atglen Station Concept Plan* shows a new station in Atglen Borough, in the far western part of Chester County.

Frazer:

A potential infill station between Malvern and Exton, located in East Whiteland Township, was studied in 2019. Two potential station sites were studied for further evaluation, one at Immaculata University and the other on Three Tun Road slightly to the east. The Immaculata University site was selected as the preferred site.

Atglen Station rendering

Basic Stop:
daily boards of 5 or less

- Bus stop sign printed on both sides to be visible from the roadway;
- ADA accessible loading pad; and,
- Paved pedestrian sidewalk/ walkway connections (ADA accessible) leading to the nearest building entrance or connecting to an existing walkway system.

Collector Stop:
daily boards from 6-20

Includes all Basic Stop amenities plus:

- Bus Shelter;
- System map indicating all transit routes serving the location;
- Bench and Trash Receptacle; and,
- Lighting.

Hub Stop:
daily boards from 21-50

Includes all Collector Stop amenities plus:

- Bus Shelters (minimum of 1, or a larger sized shelter);
- Benches and Trash Receptacles (minimum of 2 each);
- Bicycle Racks; and,
- Real time status info/kiosk.

Daily boards greater than 50:

- See Transportation Centers.

Bus Stops

While most rail stations in Chester County are large, well-built, and highly functional, the same cannot be said for most bus stops. Most bus stops in Chester County feature little more than a small sign on a pole, or even on a nearby utility pole. Few stops have shelters, and even fewer have shelters with other amenities, like benches, lighting, and waste receptacles.

One of the most significant limiting factors to transit use and ridership in Chester County is the inability of transit users to safely and easily access transit stops and stations by bicycle or on foot. Increasing bike/ped connectivity (and related safety measures along with it) is one of the best ways to increase ridership, as well as the rider experience. Along with access, bus stop amenities also play a large role. Bus stops should have shelters, benches, waste receptacles, posted schedules, and proper lighting.

Implementation of bike/ped connections and bus shelters will rely heavily upon the local land development process. Targeted capital improvement projects at key locations may also be helpful.

Riders need to make round trip journeys. Stops must be suitable for travel on both sides of the road. Indeed, some roads in Chester County feature a bus stop in only one direction, making a return trip impossible without significant walking, usually along busy roads lacking pedestrian facilities.

SEPTA publishes a document, *SEPTA Bus Stop Design Guidelines*, which includes recommendations for all types of bus stop configurations, including preferred dimensions and amenities. These configurations can be applicable to Chester County's bus stops.

Better bike/ped connections can also improve the overall efficiency of a bus route. For example, a shopping center with proper connections to a centralized transit stop is preferable to routing the bus to loop all the way through the shopping center, stopping multiple times. The elimination of these extra stops helps increase trip speed. It also creates a safe pedestrian environment for everyone in the commercial center.

One of the major barriers to more bus shelters and bus stop development is the reluctance of the various agencies to assume the maintenance responsibilities of bus shelters. Many shelters are provided and maintained by advertising agencies.

Bus Stop Amenities

	Amenities								
Stop Type	Bus Stop Sign	ADA Loading Pad	Paved Walkway Connections	Bus Shelter	System Map	Bench/ Trash Can	Lighting	Bike Racks	Real Time Info
Basic Stop (daily boards of 5 or less)	X	X	X				see note		
Collector Stop (daily boards from 6-20)	X	X	X	X	X	X	X		
Hub Stop (daily boards from 21-50)	X	X	X	X*	X	X**	X	X	X

* = Minimum of 1, or a larger sized shelter. ** = Minimum of 2 each. Note: As part of this plan, lighting will be included at basic stops.

Critical issues and recommendations

CRITICAL ISSUE

Bus shelters

Bus shelters are an important component of bus stops. Every bus stop needs to be accessible by both pedestrians and cyclists. This includes sidewalks to/from the stop site, as well as proper signalization to access the site.

While it is unrealistic to have bus shelters at every stop, all heavily used stops should have shelters, signage, and other amenities. CCPC will work with other stakeholders to bring these bus stops to a proper standard.

Bus stop with no amenities in West Goshen Township

RECOMMENDATION

1: Provide bus shelters and other amenities at heavily used bus stops and ensure proper bike/ped connections at all bus stops.

Transit users must be able to access the system from all designated points of access. While this seems rather intuitive and is found at rail stations, this is not the case for many bus stops. Bike/ped connections are vital to the success of bus stops. This includes the surrounding sidewalk network, bicycle storage, pedestrian signalization, and more.

CCPC created the *Chester County Multimodal Handbook* in 2016. In the section "Bus stops recommended for shelters in Chester County," three different stop classifications were created (see chart on previous page), based on daily boards. It is generally assumed that those getting off the bus will not linger at the stop, so shelters are more important where there are higher boarding counts.

Bus stop in Chesterbrook

Bus stop along Pottstown Pike

Bus stop connecting to Berwyn station

CRITICAL ISSUE

Active transportation (bike/ped) connections

Automobiles and buses are not the only means of accessing transit stops. Many riders walk to stops, while others use micromobility devices, most commonly bicycles. While bike/ped connections are generally present at rail stations and transportation centers, this is not the case with many bus stops. Even some bus stops with shelters and other amenities still lack proper active transportation connections. SEPTA's *Micromobility Playbook* provides many pertinent recommendations for active transportation improvements.

Paired bus stop lacking proper connection

RECOMMENDATION

2: Allow for round trip transit journeys, by connecting both related inbound and outbound stops with safe active transportation connections. .

Users need to be able to access and navigate between the inbound and outbound sides of transit stops safely and efficiently. There are many examples of bus stops in which the outbound bus stop is inaccessible, dangerous, or illegal to travel to from the inbound stop. Improved intersection safety design will also be necessary. Particularly difficult examples may result in the need for midblock crossings.

It is vital that subdivision and land development, zoning, comprehensive plans, and traffic impact guidelines support the inclusion of pedestrian amenities.

Bicycle parking at Downingtown station

RECOMMENDATION

3: Provide secure bicycle parking at rail stations/transportation centers.

Many aspects of this plan encourage riders to use alternatives other than personal vehicles to access rail stations/transportation centers. Bicycles are a great alternative, but they require certain infrastructure to be present to incentivize greater usage.

A rider needs to know that the bike will still be there on the return journey. Thus, every rail station and transportation center must have ample, secure bicycle parking. This could in turn lead to better ridership, and it could encourage more riders to bike to the station. It may also have a positive impact on station parking by lessening parking needs, as less parking spaces will be used by riders who are switching from personal vehicle to bicycle.

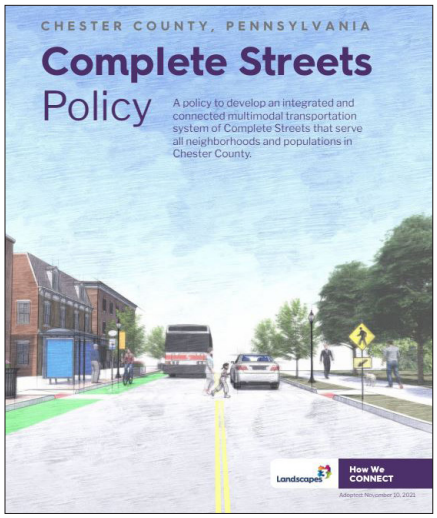
Inadequate pedestrian connections, Thorndale station and adjacent bus stop

Active transportation connection from Exton station to Main Street at Exton and Chester Valley Trail

CRITICAL ISSUE

Municipal land use

Land use and transportation are heavily linked to one another. Land use patterns greatly influence available transportation options, including the viability of public transportation. Likewise, the desire for greater public transit can influence land use, such as the push for more transit-oriented development (TOD).



CCPC adopted the new Complete Streets Policy in 2021. From the policy:

> *The Complete Streets Policy is an important step forward to address the need for efficient transportation choices which increase safety and efficiency while enhancing the social equity needs of our transportation system. Multimodal transportation networks provide options for all travel modes—vehicular, bicycle, pedestrian, public transit, and freight—and are essential to maintaining communities that support public health, provide accessible transportation options for all, and help to mitigate climate change.*

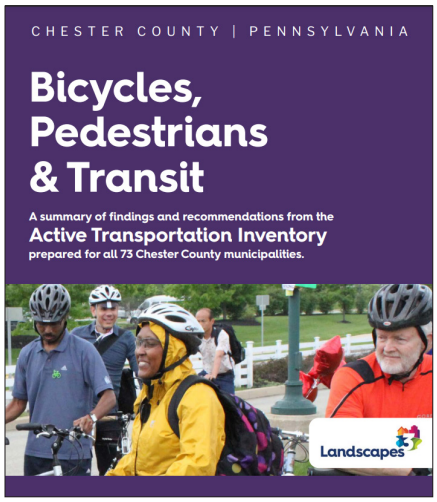
Chester County's Complete Streets Policy requires streets to be planned, designed, retrofitted, and maintained to facilitate travel in a safe, convenient, and comfortable manner for all users regardless of their transportation mode. A complete street is more than adding facilities to accommodate pedestrians. Complete streets in Chester County represent an updated method of thinking about how our roadway corridors are utilized.

Complete streets ideas go well beyond just public transportation. In fact, one of the core elements of complete streets is to meet the needs of everyone with all modes of transportation.

RECOMMENDATION

4: Encourage municipal adoption of complete streets policies.

While complete streets ideas transcend public transportation, its cohesive look at the total transportation network and the built environment makes it vital for any transportation planning, as it incorporates all modes of transport, by all types of users. SEPTA launched a Transit Supportive Community Development Program to encourage this model.



RECOMMENDATION

5: Work with local municipalities to ensure future development is transit oriented and transit connections are required to be addressed in municipal ordinances where applicable.

Developers can have a great impact on making transit accessible for those in the surrounding area. They can also ensure that projects are moved forward at the appropriate time, so retrofits are not necessary. By having requirements for active transportation connections in municipal ordinances, it allows for many of these facilities to be developed by private developers rather than the municipal taxpayer.

CRITICAL ISSUE

Parking availability at rail stations

Limited parking at rail stations, as well as transportation centers, limits the ability for people to access the public transit system and can act as a barrier to increased ridership. This limitation essentially places a cap on ridership, particularly in places where multimodal connections are limited.

Parking lots/garages should also ideally be easily accessible to and from the station. A rider should be able to drive to the transit station and know that there will be open spaces to park in. Lots should also be clearly marked, with clear instructions for payment. Lighting and security features are also necessary.

Parking information and pay station at Exton

Difficult parking situations can lead to riders seeking alternative modes of transportation. Most people that use rail stations drive in personal vehicles. If no parking spaces are found, then potential riders will either need to drive to another station or opt to complete the entire trip by automobile.

Prior to the pandemic, many of the rail stations in Chester County saw completely full parking lots towards the end of the AM peak hours. Some lots, particularly where higher service levels have resumed, are already seeing some of that same crowding, especially Tuesday-Thursday.

Empty parking spaces at Whitford, a common sight post-pandemic

RECOMMENDATION
6: Expand surface parking at all stations where appropriate.

Surface parking should be developed to maximum capacity feasible at all station sites.

Note: There should be an effort to balance the demand for more parking with the efforts to remove SOVs and solve first/last mile connections. With the understanding that Chester County is suburban by nature and many users will wish to use personal vehicles to go to rail stations, there still needs to be a concerted effort to provide multimodal alternatives.

RECOMMENDATION
7: Maximize shared used parking opportunities adjacent to rail stations.

Arrangements with adjacent properties that have existing lots or the space available to create additional parking should be explored to maximize parking if no expansion is possible at existing stations.

Shared parking should also consider uses of existing station lots when parking demand is low. Many station lots have ample space available on weekends that can be put to other uses, like for farmers markets.

RECOMMENDATION
8: Determine if structured parking is necessary and create plan to implement.

Structured parking is vital for transportation centers. It can also be a solution for surface lots at rail stations that are routinely full, particularly if there is no additional room to expand. However, it is extremely expensive. The need for structured parking will vary from station to station.

CRITICAL ISSUE

Park and ride facilities

There are seven park and ride facilities located near major interchanges throughout the county.

RECOMMENDATION
9: Increase utilization of existing park and ride facilities.

The County will work with partners to explore ways to increase utilization of the existing park and ride lots. Because the park and ride lots are strategically located around major interchanges, there are many possibilities for additional use, including serving as a central location for private/employer shuttle services, as well as electric vehicle (EV) charging.

PennDOT Park and Ride, US 202 and Paoli Pike

RECOMMENDATION
10: Include charging stations in parking lots.

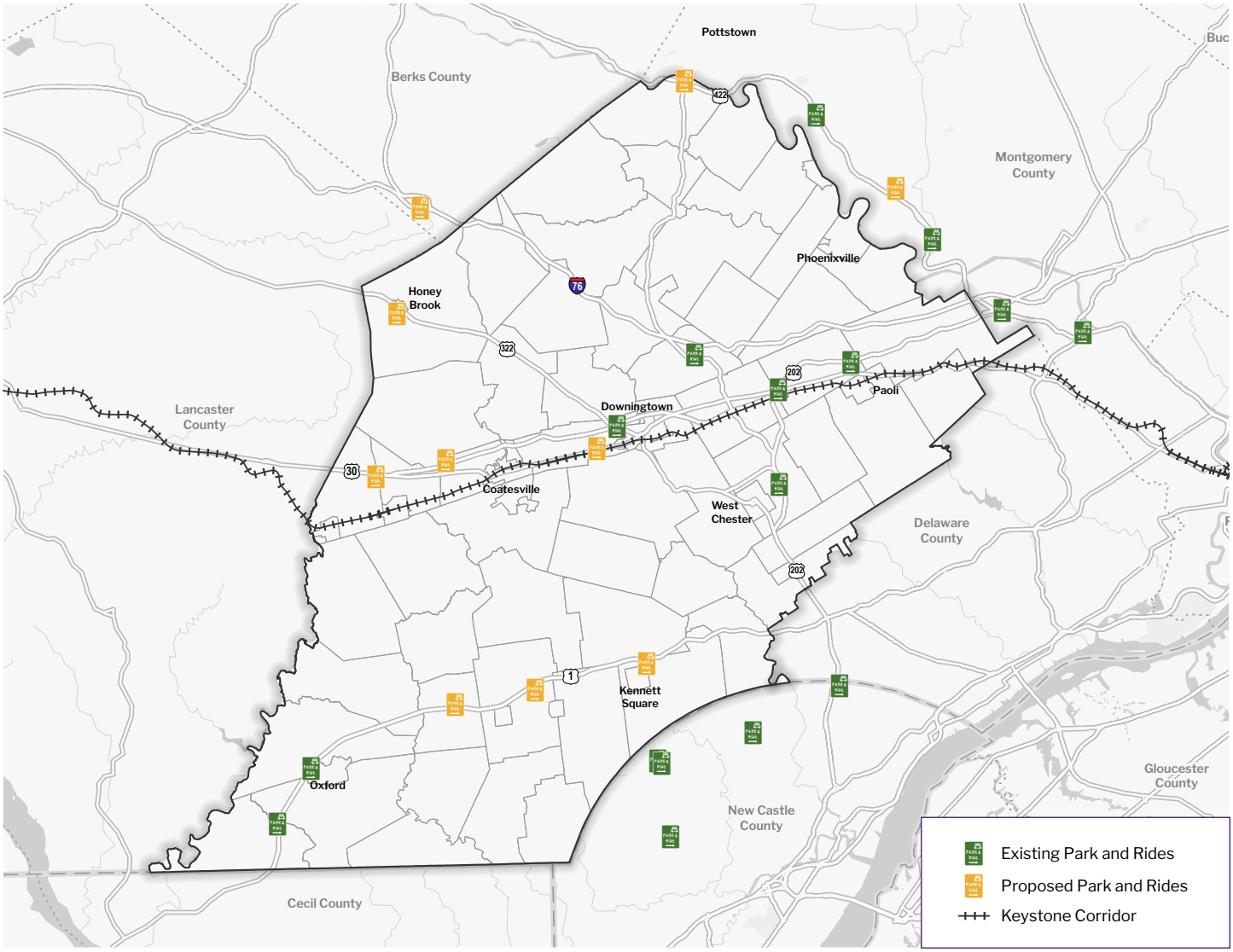
EV charging stations are in demand, and their inclusion at park and ride lots could serve two distinct groups, both those who are carpooling or taking shuttle services, as well as people who need to charge. This could be a great way to increase utilization.

Using technology, like the Share-A-Ride platform by Agile Mile, can help set up carpools/vanpools that use these park and ride lots.

PennDOT Park and Ride, US 322 and Lloyd Avenue

Park and ride facilities located near major interchanges throughout the county:	Proposed park and ride facilities throughout the county:
US 202 & PA 29	US 422/PA 100
US 202 & US 30	Turnpike/PA 10
US 202 & Paoli Pike	US 422/PA 29
US 1 & PA 472	Honey Brook
US 1 & PA 272	US 30/PA 10
PA 100 & PA 113	Kennett Square
US 322 & Lloyd Avenue	US 30/PA 340
	US 1/PA 796
	US 1/PA 41

Park and Rides Map



Chapter 6
EXPERIENCE

The EXPERIENCE chapter addresses the encounters shared by everyone that uses the public transportation system. While the overall transit user experience will be positively affected by many of the SYSTEM and ENVIRONMENT recommendations and subsequent improvements outlined by this plan, there are many other user amenities that can contribute to the enhancement of the user experience.

Goal

The EXPERIENCE goal is to improve the convenience, reliability, and safety for all transit users.

Objectives

- Create a system that makes all users feel safe when using transit.
- Make the system as user friendly as possible.
- Provide user amenities such as restrooms and heated waiting areas at rail stations and transportation centers.
- Provide user amenities such as internet access, comfortable seating, and restrooms for long distance fixed bus routes and rail service.
- Utilize new technologies to provide transit users with best possible status information regarding current fixed bus routes, rail services, and/or facilities.
- Adopt a singular system for fare collection between service providers.
- Create a public outreach campaign that enhances public awareness for and improves the perception of public transit services.
- Develop new travel training models to get transit information closer to individual users.

Critical issues and recommendations

CRITICAL ISSUE

Service quality/user amenities

1. Provide real-time status information.
2. Encourage operators to provide Wi-Fi on all vehicles and at rail stations and transportation centers.
3. Level boarding and full ADA compliance at all rail stations.
4. Provide heated shelters/waiting areas at rail stations.

CRITICAL ISSUE

Safety

5. Include cameras and emergency call boxes at every rail station and transportation center.
6. Upgrade lighting at bus stops, rail stations, and transportation centers.

CRITICAL ISSUE

Fare consistency/coordination between providers

7. Institute contactless payment on all transit vehicles in the county.
8. Implement a transfer system between providers.
9. Encourage providers to implement fare capping within service region.
10. Create an integrated fare payment system for all providers in the county.

CRITICAL ISSUE

Public outreach/marketing of existing services

11. Develop a public outreach program.
12. Create a citizens advisory panel to monitor and report on transit experience related issues.

Critical issues and recommendations

CRITICAL ISSUE **Service quality/user amenities**

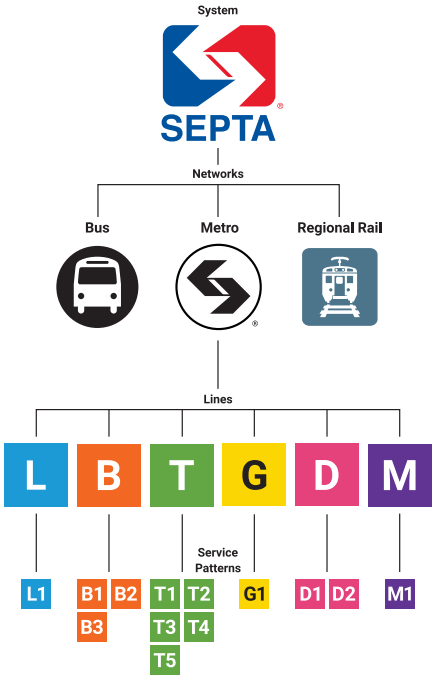
Service providers need to address the evolving demands of transit users. In order to regain lost ridership from the COVID-19 pandemic, providers must make their services as attractive as possible. This includes bringing service back to acceptable levels, even if there is not yet a ridership case. The higher the quality of the service, the more people providers can convince to forgo using their personal vehicles for trips that are offered by transit.

User friendliness

Wayfinding is extremely important. Users need to be able to successfully navigate the system. A system that is difficult to understand or use is a barrier to increased ridership, whereas a clear and intuitive navigation system may increase ridership. In Chester County, many system users are traveling to other locations in the region, like Center City Philadelphia. The wayfinding must be adequate in these large transit hubs as well.

SEPTA is currently undertaking a wayfinding project to simplify and reorganize the transit system. This project, called SEPTA Metro, is aimed at bringing the system design, mapping, and signage up to modern-day best practices and meet newer industry standards.

SEPTA METRO - Unification and Reorganization



Credit: SEPTA

RECOMMENDATION

1: Provide real-time status information.

Real-time status information allows riders to make real-time decisions regarding trips. This information should be available at all rail stations and transportation centers, as well as busier bus stops. All service providers should ensure that both the official and third-party apps have up-to-date schedules and real time status information. Integration into mapping software (Google Maps, Apple Maps, etc.) is particularly helpful given the widespread use of these applications.

All rail stations, transportation centers, and heavily boarded bus stops should have countdown timers. Countdown timers are digital screens that show the information on the next arriving/departing trains/buses. They are particularly helpful for buses due to the relative lack of available schedules. These are highly requested by riders and are important because they do not require the user to check the internet and are generally more accurate.

RECOMMENDATION

2: Encourage providers to provide Wi-Fi on all vehicles and at rail stations and transportation centers.

The ability to stay connected while on the go is an important selling point of transit. Suburban commuters traveling longer distances can catch up on TV shows or email on the go, which is not the case when driving. Fast, free Wi-Fi is essential in modern times.

RECOMMENDATION

3: Level boarding and full ADA compliance at all rail stations.

Mini high-level platform at Berwyn meets ADA requirements, but does not confer the other advantages of full-length high-level platforms

Every rail station in Chester County should be brought up to modern standards, with full compliance with the Americans with Disabilities Act of 1990 (ADA). Amtrak and PennDOT have been working to bring all stations with Amtrak service to these standards. Paoli and Exton are now in service, with Coatesville expected in 2025. The relocated Downingtown station will follow, then Parkesburg.

Level boarding makes it easier for passengers with physical disabilities to embark/disembark from the train, as well as those with luggage, bicycles, or strollers. There are also many payoffs for the operator, including lower station dwell times due to faster loading/unloading, as well as less staff required. Currently, additional conductors are necessary in order to raise and lower the trapdoors to stop at stations with low level platforms. Systemwide high level platforms would eliminate this need.

RECOMMENDATION

4: Provide heated shelters/waiting areas at rail stations.

Waiting on a cold platform on a dreary winter day can be difficult and could cause some people to elect not to take the train. Every station should have heated waiting areas to combat this. This idea can also be extended to prominent bus stops.

CRITICAL ISSUE

Safety

Public transit is much safer than using private vehicles, but safety issues can lead to decreased ridership. For public transit, the perceived safety level is just as important as the actual safety levels.

Safety concerns everything for the user, from the experience at the train station or bus stop, to the time spent onboard, as well as the destination and surrounding area.

Emergency button at Thorndale station

RECOMMENDATION

5: Include cameras and emergency call boxes at every rail station and transportation center.

Updated (and visible) security systems play an important role in making a rider feel safe. Prominent, working emergency call boxes are vital in case of an unexpected emergency.

Poor lighting at Coatesville station

RECOMMENDATION

6: Upgrade lighting at bus stops, rail stations, and transportation centers.

Adequate lighting affects both the real and perceived safety for a transit user. At night, users waiting for the bus can be hard to see, which can put them in danger from passing motorists.

For bus stops, the street lighting must meet code requirements for the minimum illumination levels required for public safety, not just at the stop, but also on the sidewalks leading to and from the bus stop.

CRITICAL ISSUE

Fare consistency/coordination between providers

There are currently four different service providers in Chester County between bus and rail services, all with different fare structures and accepted methods of payment.

Fare payment is a complicated process, and with evolving technology, many methods become obsolete quickly. Contactless payment is now becoming commonplace in retail settings, and some transit agencies have adopted it as well.

Transfers are an important part of the transit network, both between services operated by the same operators, as well as between operators. Free transfers help keep trip costs down. SEPTA and Amtrak both offer rail service at multiple Chester County stations, but the fare is different. Likewise, a bus trip on SEPTA that covers the same endpoints as a SEPTA Regional Rail trip will be less expensive.

Many providers in other cities coordinate bus/rail transfers with a combination of special fares and timed transfers. This is not the case with most of the SEPTA network. In areas where both services are available, there are many opportunities to gain closer coordination.

There are many transfer possibilities available between different providers, including between TMACC's SCCOOT and SEPTA's bus routes in West Chester, SEPTA's Route 135 and TMACC's Link, and various PART routes with SEPTA's Route 93 in the Pottstown area. Better fare coordination can help make these trips more viable for riders.

SEPTA Key®

RECOMMENDATION

7: Institute contactless payment on all transit vehicles in the county.

Tap to pay provides tremendous benefits. Users do not need to worry about having special farecards. A system that offers the ability for contactless payment is much easier to use for riders, particularly those who use it infrequently. Tap to pay allows credit/debit cards to be used in lieu of farecards at all fare control points on the transit system.

It is worthwhile to note that the fare system is still important, and must be simplified, as tap to pay only changes the rider's experience in terms of how they pay, not how they understand the fare system.

Transfers are available between SEPTA and TMACC buses at West Chester Transportation Center

RECOMMENDATION

8: Implement a transfer system between providers.

Because Chester County has multiple operators, there are many opportunities to transfer between routes operated by different agencies. While transfers within an agency are usually handled easily, that is not usually the case when transferring service providers.

Note: an integrated fare payment system for all providers in the region (discussed on the next page) could help this tremendously. It would make it much easier for operators to offer transfers, though special fares would still need to be in effect to make it truly worthwhile for riders.

RECOMMENDATION
9: Encourage providers to implement fare capping within service region.

Many transit agencies are moving towards fare capping, which is much easier to institute with electronic payment. Fare capping works by charging riders for individual rides, up until a certain cap/limit is reached.

For example, if a system charges $2 for a single trip and also offers an $8 daily pass, a rider can pay by single trip until reaching $8 (4 trips), from which point the rider will no longer be charged for additional trips. The same system can be used for weekly or monthly passes as well. There is often a substantial discount on monthly passes compared to single trip rides, but the up-front cost can be a burden to many.

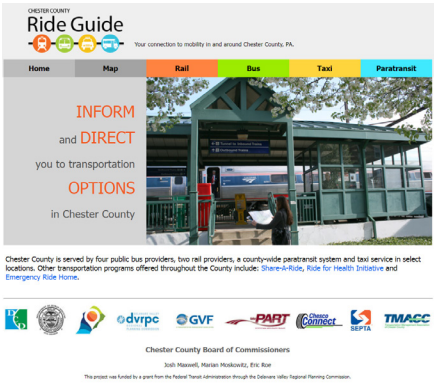
Therefore, fare capping could help both those who cannot afford the cost of a weekly/monthly pass, as well as those who are unsure how much they will ride in a given week/month. This is of particular note given the prevalence of remote/hybrid work.

Fare capping is thus more equitable and may also be of use to infrequent riders who may struggle to understand the difference between the various fares or passes offered. The combination of fare capping and contactless payment can make a trip feel no different than buying something at a retail store from the rider's perspective. Ultimately, fare capping can give much more flexibility to the rider.

RECOMMENDATION
10: Create an integrated fare payment system for all providers in the county.

A singular fare payment system will greatly help users who transfer between services. It may also help attract new riders. It would also greatly ease the implementation of many of the other recommendations found in this chapter, like fare capping.

While having an integrated fare payment system will have benefits to the county, it is more likely that one could be created for the entire region, which would be enormously beneficial.



New Technologies

New technologies can help improve the user experience with transit. Mobile devices are ubiquitous, which can make transit easier to use, both in terms of wayfinding and fare payment. Many third-party transit apps also make navigating an unfamiliar system much easier.

Trip planners can be a useful tool to help riders make atypical trips. By integrating existing transit schedules with updated mapping software, prospective riders can see the entire journey, from origin to destination, along with walking directions and fare information.

Contactless payment (also know as tap to pay) is another emerging technology with immense transit utility. Initially welcomed as a safer alternative during the pandemic, it has become much more widespread in the years following.

While many transit farecards have used this technology previously, the major addition is the ability to use credit/debit cards for fare payment. By extension, this also allows users to pay with smartphones and smartwatches, using mobile wallet features. By integrating this technology, it can be significantly easier for riders to pay, particularly new or occasional riders. It can also reduce dwell times at transit stops where riders pay upon entry, as well as reduce crowding at busy transit stations with limited ticket vending machines (TVMs). Contactless payment can also allow for an easier implementation of fare capping.

CRITICAL ISSUE

Public outreach/marketing of existing services

A significant limiting factor in people making use of the public transportation system is the user's lack of knowledge regarding the system and/or the inability to interpret and navigate the system to the full advantage.

What route should I take? What are the fares? How do I pay? How long will it take for me to get there? Will I need a transfer? These are samples of the many questions initial transit users ask before deciding whether or not to use public transit. The less information one is able to obtain, the more like that person will seek other modes of transport.

The Chester County Ride Guide – a joint effort by the Chester County Planning Commission and Chester County Health Department was developed to inform and direct Chester County residents to the available public transportation options. This information is available in both print (PDF) and interactive online formats at: www.ChescoRideGuide.org.

Additional public outreach and marketing of existing public transportation services, including development of the new service models and expansion discussed in the SYSTEM chapter could be made targeting employment centers in the county, as there are many potential riders that currently use automobiles as the primary method of commuting. The county will look to TMACC to assist with the creation, promotion, and implementation of such a marketing campaign.

RECOMMENDATION

11: Develop a public outreach program.

Knowledge is power. Spreading knowledge regarding available public transportation services and how best to take advantage of them will enlighten potential transit users to their opportunities and increase transit ridership. A public outreach program will also help to promote the new service models presented in the SYSTEM chapter, as well as help system expansion.

RECOMMENDATION

12: Create a citizens advisory panel to monitor and report on transit experience related issues.

This will allow for valuable feedback from the transit user community towards targeting specific improvements in Chester County, as well as the wider region. CCPC and TMACC should work together to develop the best methodology towards establishing such a panel.


905
905
SEPTA

Chapter 7
Implementation Plan

The Implementation Plan provides guidance towards the accomplishment of the recommendations described in the SYSTEM, ENVIRONMENT, and EXPERIENCE chapters of this plan.

Priorities

Each recommendation has been assigned a general priority as well as the organization or agency that should take the lead with its implementation.

General priorities relative to the timeframes within each recommendation should be acted upon as follows:

- **High:** Actions that require immediate attention towards implementation.
- **Medium:** Actions that require general or ongoing attention towards implementation.
- **Low:** Actions that require additional studies or events prior to implementation.

Additionally, each recommendation is given a suggested timeframe:

- **Short-term:** 0-5 years
- **Medium-term:** 5-15 years
- **Long-term:** 15+ years

Organizations

Lead organizations are abbreviated as follows:

CCPC: Chester County Planning Commission

SEPTA: Southeastern Pennsylvania Transportation Authority

PennDOT: Pennsylvania Department of Transportation (either District 6-0 for highway related matters or the Central Office Multimodal Transportation Department for matters on the Keystone Corridor).

DVRPC: Delaware Valley Regional Planning Commission

TMACC: Transportation Management Association of Chester County

Providers: All Service Providers, including: SEPTA; TMACC; Pottstown Area Rapid Transit (PART); DART: Delaware Transit Corporation, and any other future service provider that may operate in Chester County.

Recommendations are sorted relative to their respective plans on the following pages.

SYSTEM

RECOMMENDATION	PRIORITY	TIMEFRAME	LEAD	NOTES
Bus/rail connectivity				
1. Adjust bus routes to create a coordinated transfer system between bus and Regional Rail, prioritizing onward connections.	High	short-term	Providers	Integrated fares are necessary to fully take advantage of this step.
2. Coordinate new commuter services with services at rail stations and transportation centers for better connectivity.	Medium	medium-term	Providers	The success of these future services could depend on this.
First mile/last mile connections				
3. Increase micromobility options around rail stations and transportation centers.	High	medium-term	TMACC/CCPC	Provides the most robust form of solving first mile/last mile connections.
4. Promote use of rideshares and private shuttle services.	Medium	medium-term	TMACC	Efficient pickup/dropoff locations are essential.
5. Provide car shares/bike shares at rail stations and transportation centers.	Low	long-term	DVRPC	Feasibility studies should be performed to dertermine applicability.
Service reliability				
6. Increase trip speed to reduce travel times and enhance competitiveness to attract more riders.	High	medium-term	Providers	Also relates to recommendations about shorter routes and signial prioritization.
7. Plan for shorter routes with fewer stops to achieve better on-time performance.	High	medium-term	Providers	Applies to both existing fixed-route services and potential new services.
8. Implement traffic signal prioritization in major transit corridors where feasible.	Medium	medium-term	CCPC	Coordination with municipalities will be necessary as major transit corridors traverse many boundaries.
Service gaps/new service requests				
9. Create a system of community circulator/ loop services where feasible.	Low	long-term	TMACC	Another way to solve first mile/last mile connections, as well as reduce short vehicle trips within a small area.
10. Explore opportunities to use Chesco Connect fleet.	Medium	long-term	CCPC	There may be times when fewer buses are needed for Chesco Connect services, which could allow the buses to be used for other trips.
11. Encourage more transportation centers where multiple bus routes meet/connect with microtransit.	Low	long-term	DVRPC	Transportation centers can become micromobility hubs and greatly enhance the user EXPERIENCE.
System expansion				
12. Expand passenger rail service.	High	long-term	CCPC	There are many existing rail corridors with potential for reactivation.
13. Return Regional Rail service to Coatesville.	High	short-term	SEPTA	One of the most important gaps in Chester County's system.
14. Increase SEPTA rail service on the Keystone Corridor.	High	short-term	SEPTA	Better frequency will help boost ridership.
15. Expand bus service.	High	medium-term	Providers	Serve new populations and provide new connections between suburban communities, improve frequencies throughout.

ENVIRONMENT

RECOMMENDATION	PRIORITY	TIMEFRAME	LEAD	NOTES
Bus shelters				
1. Provide bus shelters and other amenities at heavily used bus stops and ensure proper bike/ped connections at all bus stops.	High	long-term	CCPC	CCPC will need to work with municipalities and providers.
Active transportation (bike/ped) connections				
2. Allow for round trip transit journeys, by connecting both related inbound and outbound stops with safe active transportation connections.	High	medium-term	CCPC	CCPC can work with providers to identify existing problem areas, then with municipalities to make necessary improvements.
3. Provide secure bicycle parking at rail stations/transportation centers.	Medium	medium-term	PennDOT/ SEPTA	The cycling environment in the vicinity of the station/transportation center must be adequate to see greater bicycle parking usage.
Municipal land use				
4. Encourage municipal adoption of complete streets policies.	High	short-term	CCPC	To ensure transit needs in each community are adequately addressed.
5. Work with local municipalities to ensure future development is transit oriented and transit connections are required to be addressed in municipal ordinances where applicable.	High	short-term	CCPC	The land development process can greatly influence transit success, as much of public transportation is driven by land use.
Parking availability at rail stations				
6. Expand surface parking at all stations where appropriate.	Low	medium-term	PennDOT/ SEPTA	Step 1
7. Maximize shared use parking opportunities adjacent to rail stations.	Medium	long-term	PennDOT/ SEPTA	Step 2
8. Determine if structured parking is necessary and create plan to implement.	Low	long-term	PennDOT/ SEPTA	Step 3
Park and ride facilities				
9. Increase utilization of existing park and ride facilities.	Medium	medium-term	CCPC/PennDOT	Possible shuttle services or integration with microtransit.
10. Include charging stations in parking lots.	Low	medium-term	DVRPC	Study and analyze key locations for charging stations in park and ride lots.

EXPERIENCE

RECOMMENDATION	PRIORITY	TIMEFRAME	LEAD	NOTES
Service quality/user amenities				
1. Provide real-time status information.	High	short-term	Providers	Includes smartphone applications, mapping apps, and at stations. Applicable to both SYSTEM and EXPERIENCE chapters.
2. Encourage operators to provide Wi-Fi on all vehicles and at rail stations and transportation centers.	High	medium-term	Providers	Users expect to be connected at all times while on the go.
3. Level boarding and full ADA compliance at all rail stations.	High	long-term	PennDOT/ SEPTA/Amtrak	Proposed S Line (15-minute service) relies on level boarding.
4. Provide heated shelters/waiting areas at rail stations.	Low	long-term	PennDOT/ SEPTA/Amtrak	Combination of new station designs and retrofits.
Safety				
5. Include cameras and emergency call boxes at every rail station and transportation center.	Medium	medium-term	PennDOT/ SEPTA/Amtrak	Need to be visible and in working order.
6. Upgrade lighting at bus stops, rail stations, and transportation centers.	Medium	long-term	PennDOT/ SEPTA/Amtrak	CCPC can also help with bus stops by working with municipalities.
Fare consistency/coordination between providers				
7. Institute contactless payment on all transit vehicles in the county.	High	short-term	Providers	Makes system use much easier for everyone.
8. Implement a transfer system between providers.	Medium	short-term	Providers	Opens up more trip opportunities and is more equitable.
9. Encourage providers to implement fare capping within service region.	High	short-term	Providers	Greater focus on equity and helps occasional riders.
10. Create an integrated fare payment system for all providers in the county.	Medium	medium-term	Providers	Would make transferring between different providers much easier and cost-effective. Likely to be most beneficial by including entire region.
Public outreach/marketing of existing services				
11. Develop a public outreach program.	Medium	medium-term	CCPC/TMACC	This program is intended to increase use of the public transportation system.
12. Create a citizens advisory panel to monitor and report on transit experience related issues.	Low	short-term	CCPC/TMACC	Agencies work together to develop most appropriate forum for public input.

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