

PATCO Franklin Square Station

November 2019



FRANKLIN SQUARE STATION



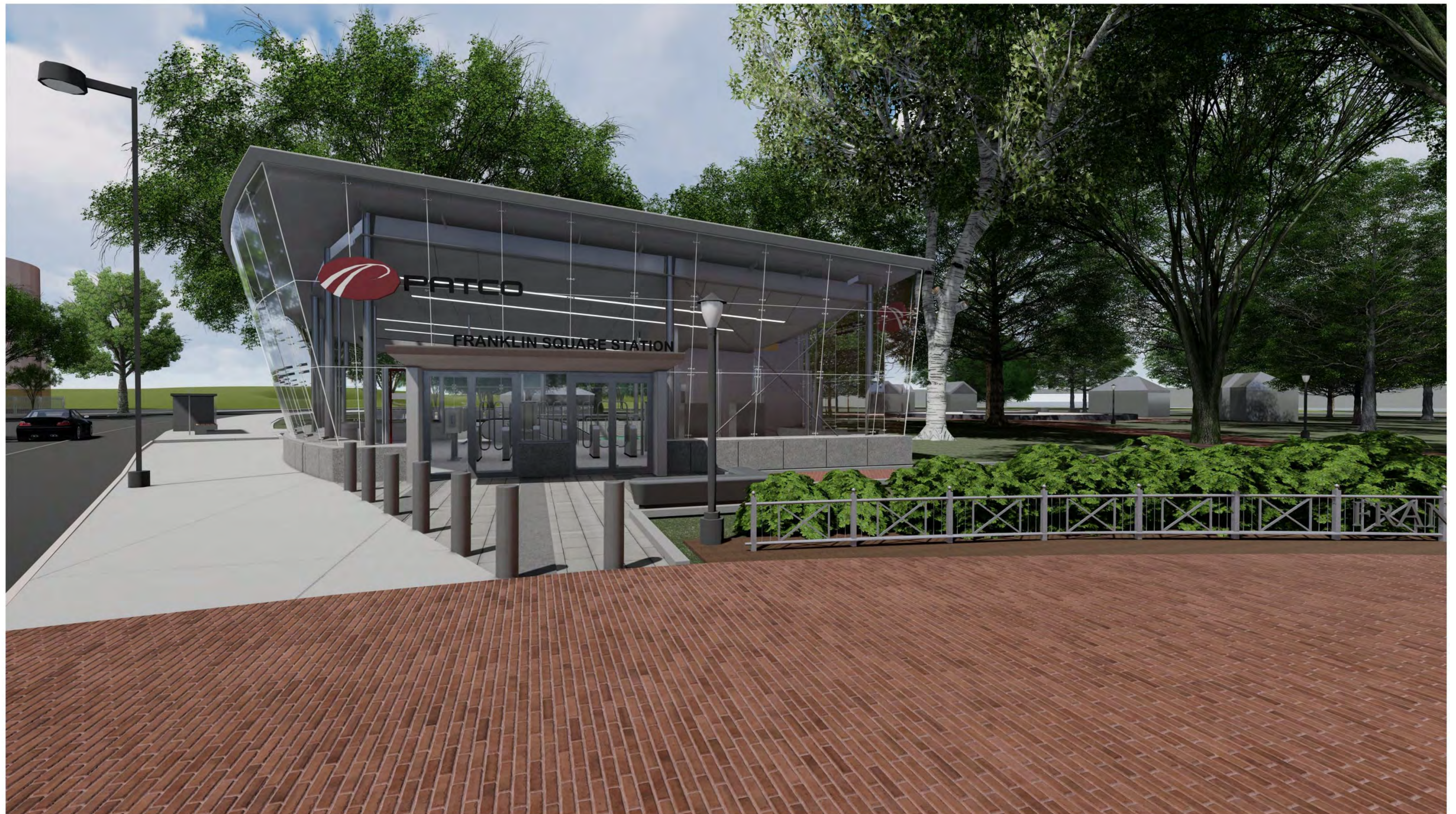
Franklin Square Station Reopening

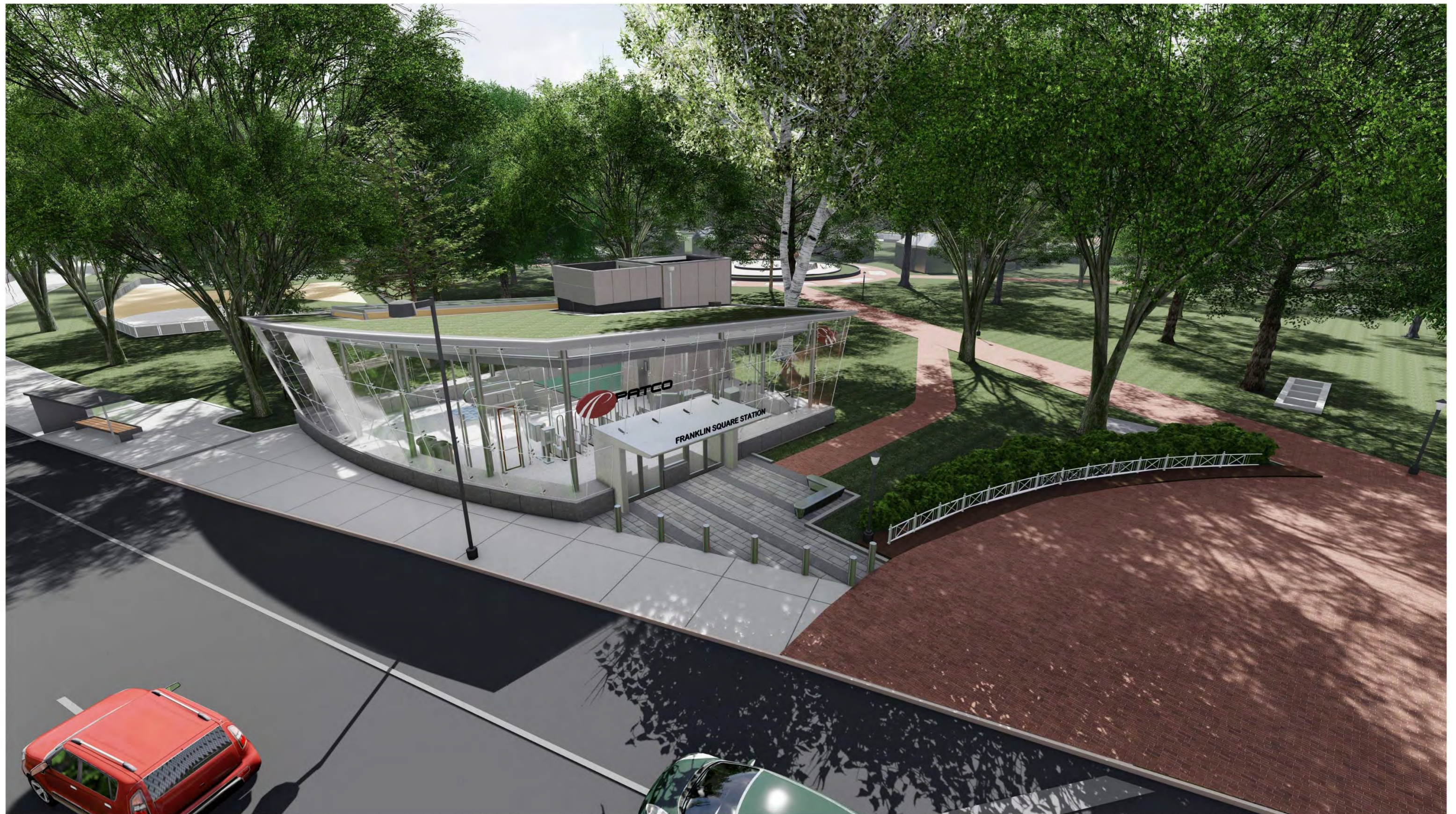
Reopen PATCO Franklin Square Station as a destination within the vibrant urban fabric that surrounds it.

The station renovation will:

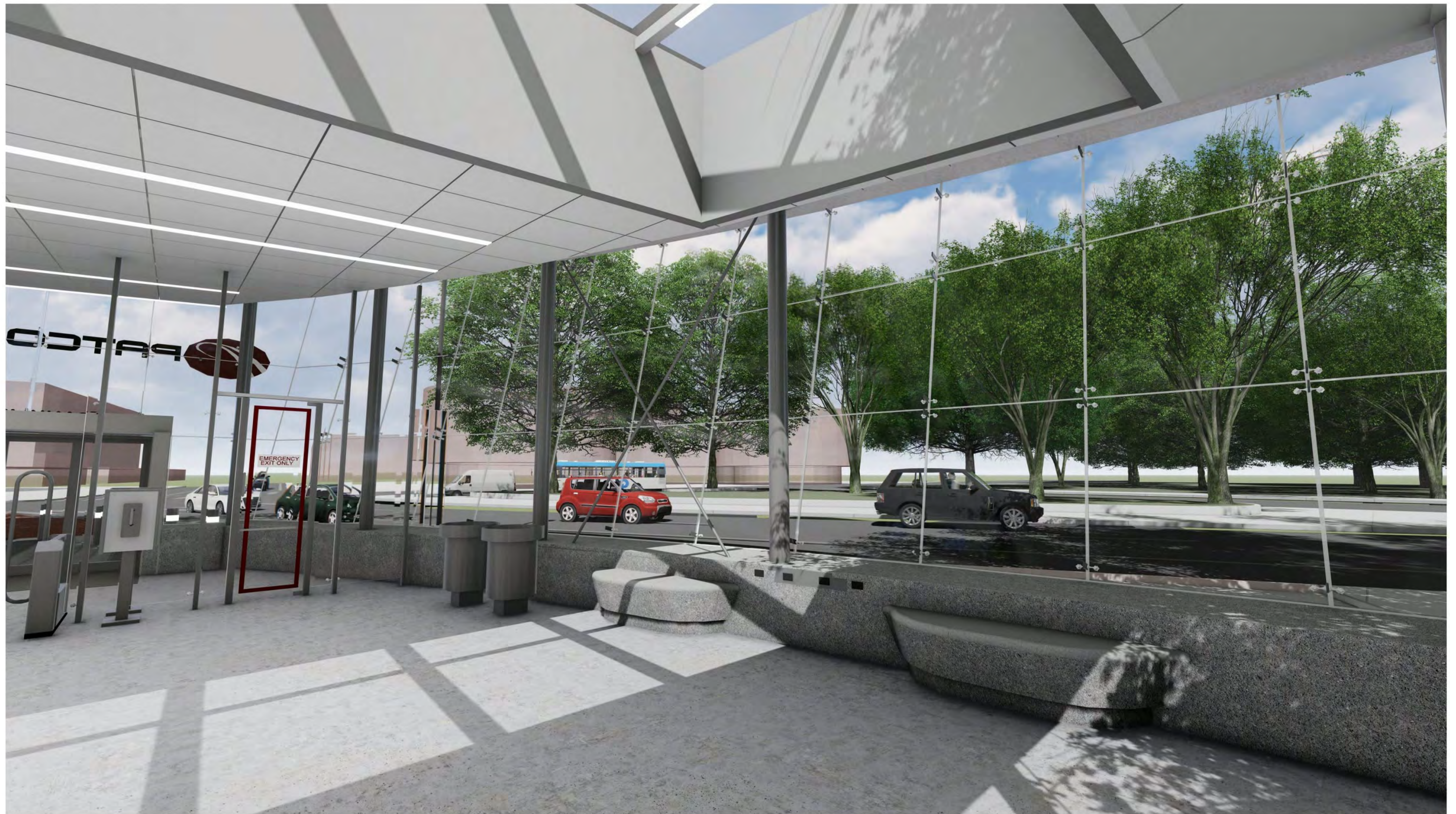
- complement the surrounding park,
- provide a safe and secure environment,
- enhance the customer experience, and
- communicate the PATCO brand to travelers.





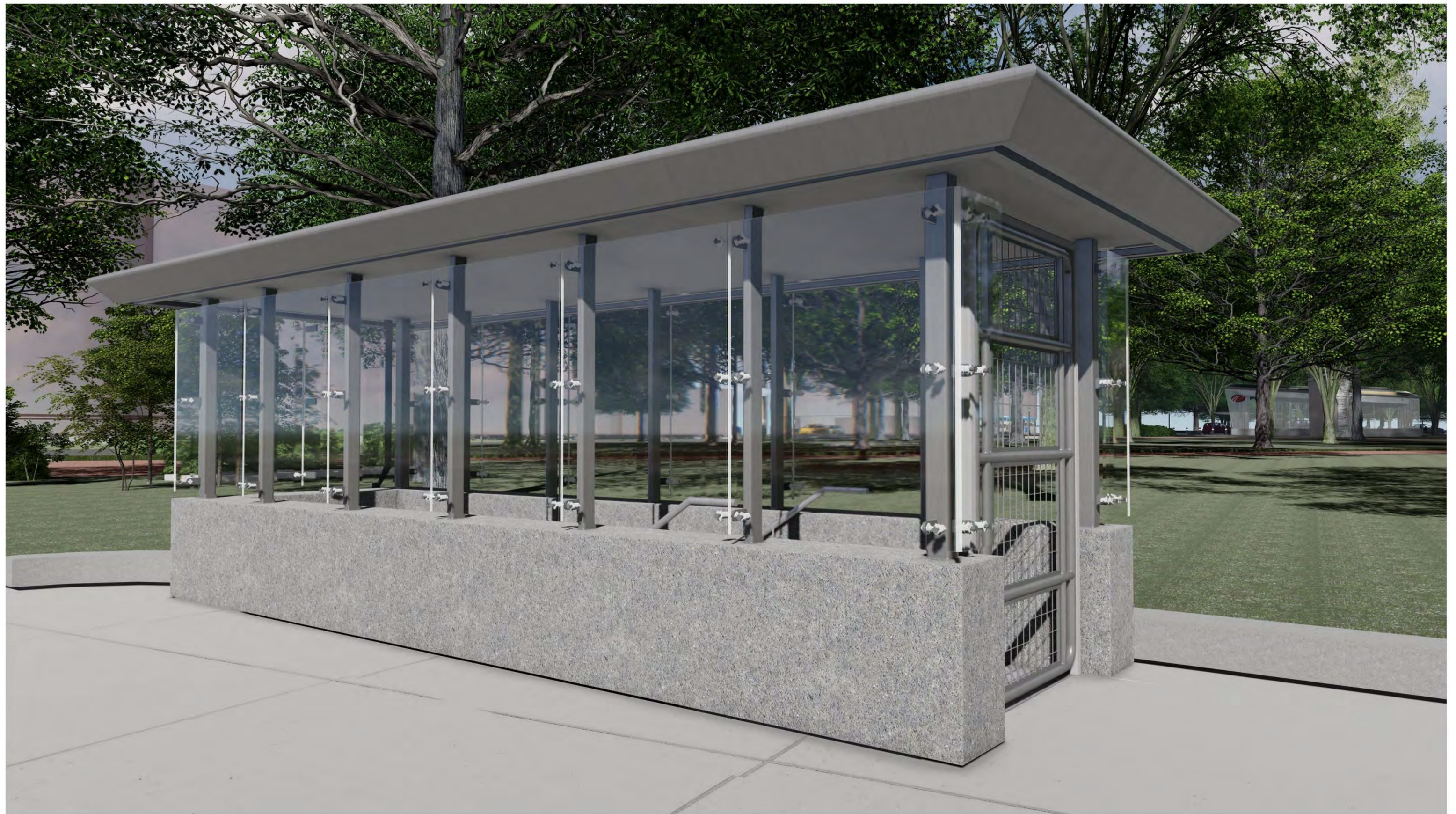














Description	Area
Headhouse (<i>main</i>)	3,200 SF
Egress Headhouses (<i>emergency only</i>)	250 SF each
Project Area / Limits of Disturbance	16,250 SF + 6,250 SF 22,500 SF

Proposed Construction Phasing

Phase 1

Water main relocation

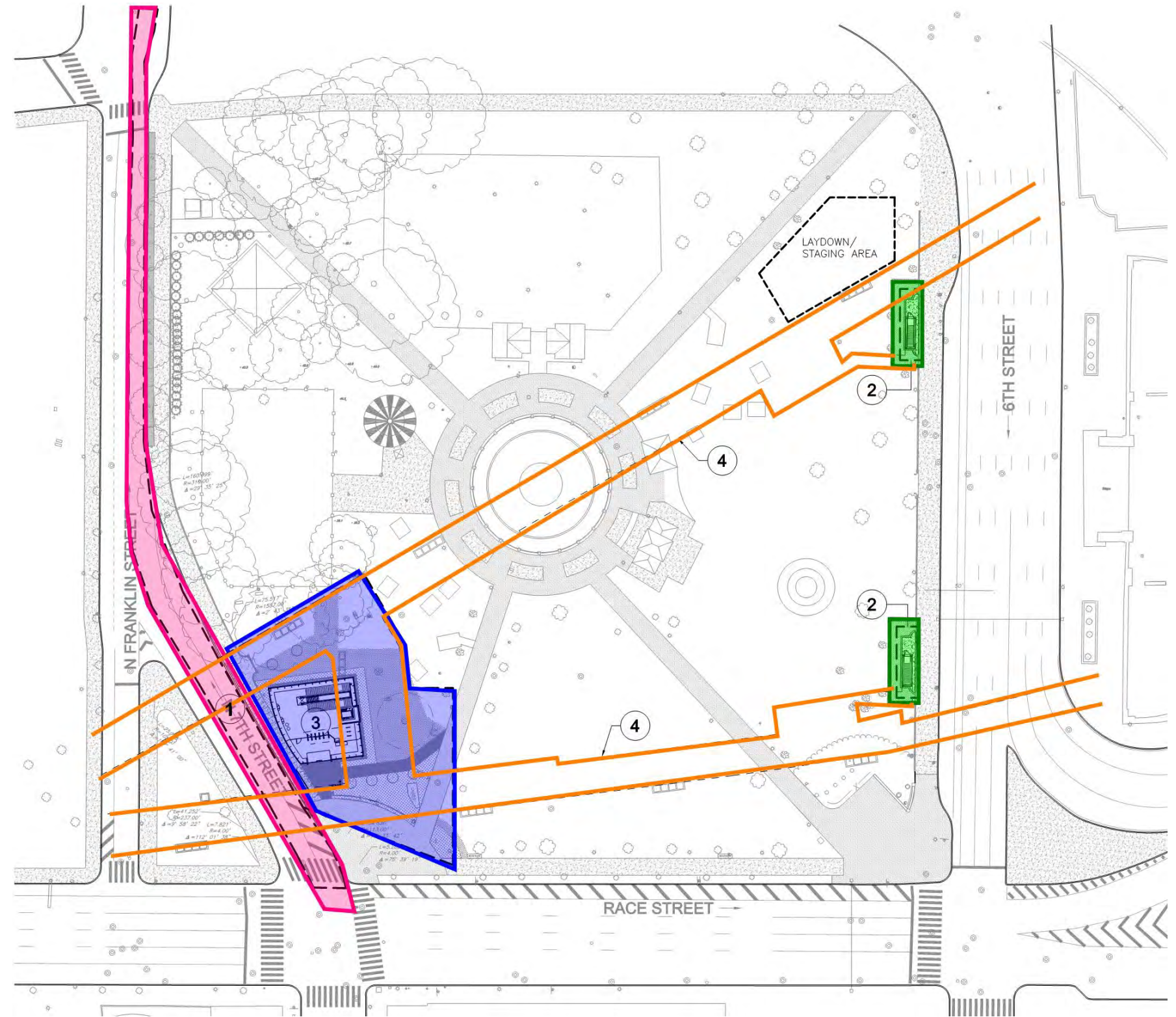
Phase 2

Emergency egress
headhouses and
station updates

Phase 3 / 4

Main headhouse and
station updates

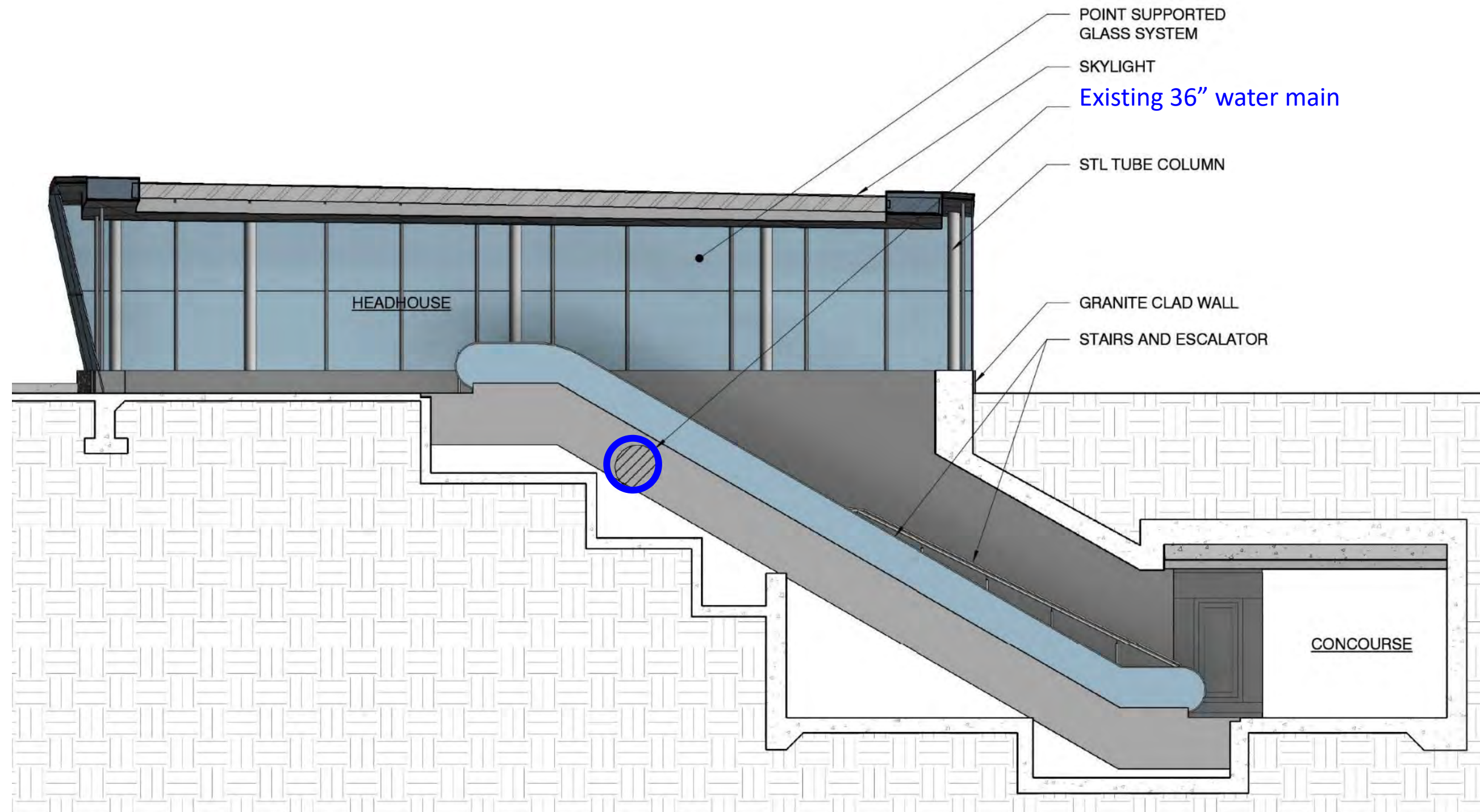
*Not shown: Contractor's staging and laydown area(s)



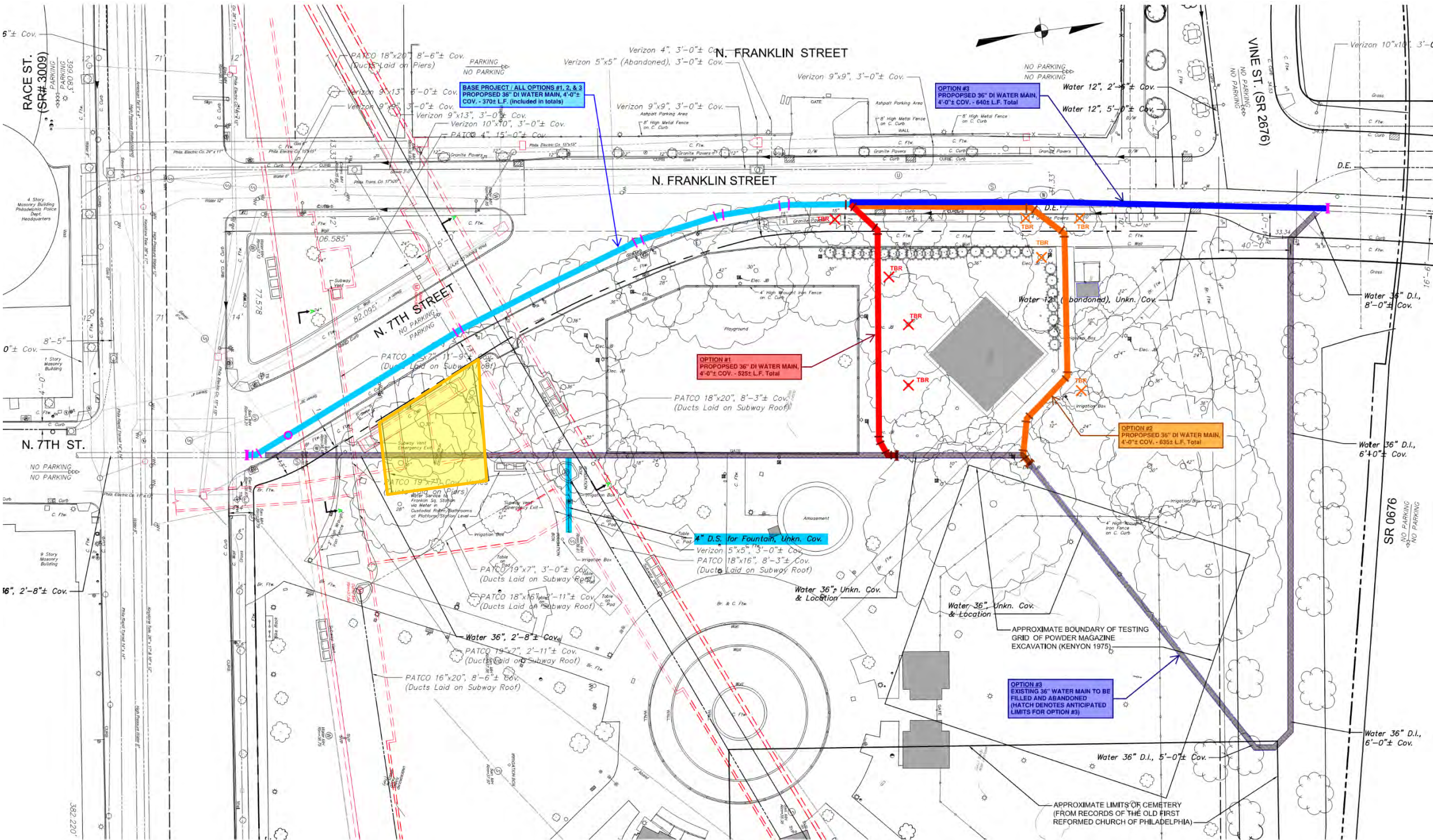
Station Design

- Architecture
- Code and ADA compliance
- Utility coordination
- Site development
- Landscaping
- Structural
- Mechanical
- Plumbing
- Fire Protection
- Electrical: power and lighting
- Fire Alarm
- Communications
- Special Systems

Existing 36" Water Main



Existing 36" Water Main Re-Route



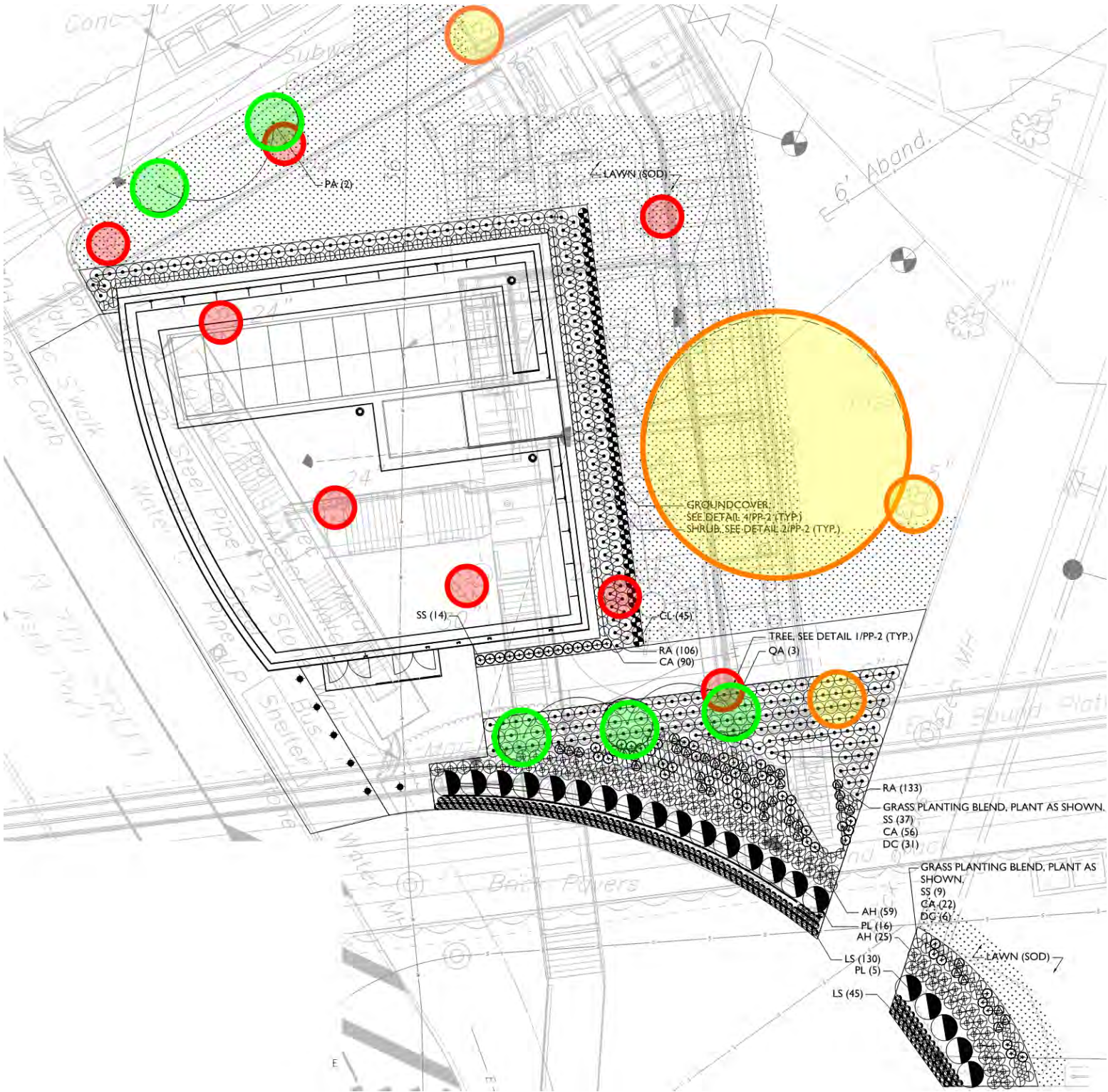
Legend

Existing routing
(abandoned in-place)

Proposed re-route

Alternative routes
(not selected)

Landscaping



PLAZA PLANT SCHEDULE

Quantity	Symbol	Scientific Name	Common Name	Size
TREES				
2	PA	PLATANUS X ACERIFOLIA	LONDON PLANE TREE	4-5" CAL., B&B
3	QA	QUERCUS ALBA	WHITE OAK	3.5-4" CAL., B&B
SHRUBS				
21	PL	PRUNUS LAUROCERASUS 'OTTO LUYKEN'	'OTTO LUYKEN' CHERRY LAUREL	30-36" HT., 60" O.C. SPACING
239	RA	RHUS AROMATICA 'GRO-LOW'	'GRO-LOW' FRAGRANT SUMAC	18" HT., 24-30" O.C. SPACING
GROUNDCOVERS, GRASSES, PERENNIALS				
168	CA	CALAMAGROSTIS X ACUTIFLORA 'KARL FOERSTER'	'KARL FOERSTER' REED GRASS	1 GAL. CONTAINER, 18" O.C.
37	DC	DESCHAMPSIA CESPITOSA	TUFTED HAIR GRASS	1 GAL. CONTAINER, 18" O.C.
60	SS	SCHIZACHYRIUM SCOPARIUM 'STANDING OVATION'	'STANDING OVATION' LITTLE BLUESTEM GRASS	1 GAL. CONTAINER, 18" O.C.
84	AH	AMSONIA HUBRICHTII	BLUE STAR	1 GAL. CONTAINER, 24" O.C.
45	CL	CAREX LAXICULMUS 'BLUE BUNNY HOBBS'	'BLUE BUNNY' SEDGE	1 GAL. CONTAINER, 18" O.C.
175	LS	LIRIOPE SPICATA	LIRIOPE SP.	1 GAL. CONTAINER, 12" O.C.

Legend

- (8) Trees Removed
- (4) Trees Protected
- (5) New Trees Planted

NEPA Documentation

National Environmental Policy Act (NEPA)
in compliance with Federal Transit Administration (FTA)
regulations:

- State Historic Preservation Office (SHPO)
- Pennsylvania Historical and Museum Commission (PHMC),
National Historic Preservation Act (NHPA) - Section 106
- Section 4(f) of the Department of Transportation Act
- Categorical Exclusion (Cat-Ex / CE)

Project Schedule

Milestone	Date
Preliminary - 30% Submission	October 15, 2018
Progress - 60% Submission	March 15, 2019
Final - 90% Submission	July 31, 2019
PS&E - 100% Submission	March 2020
Bid Set (signed and sealed)	June 2020
Bid Phase	October 2020
Construction NTP	December 2020
Construction Completion	July 1, 2023



New Pay-By-Plate Parking Kiosks



Current Meters & Kiosks



1,100
10 Years Old



8,146
Over 50 Years Old

NEW Pay-By-Plate Kiosks



Approximately 2,000 to be Installed

Why?

- ▶ Embracing Innovative Technology
- ▶ Improve the Overall Parking Experience
- ▶ Smart City Solution
- ▶ Increase Convenience & Choice



Informational Video



New Features:

- ▶ No Need to Display Receipt on Dash
- ▶ **9" Full Color Touch Screen Display**
- ▶ Text Message Receipt
- ▶ Any Kiosk Can Add More Time to Your Parking Session
- ▶ Multiple Language Options
- ▶ Payments Tracked by License Plate



When and Where?

- ▶ Began Tuesday, October 15th
- ▶ Center City
- ▶ Installed 60 kiosks week of October 15th
- ▶ Continue Installation after test period
- ▶ Expand to coin operated meters



Demonstration

Questions?



New Pay-By-Plate Parking Kiosks!

We are excited to announce the upgrade of our **on-street parking system**. Solar powered kiosks are being installed throughout the city. Patrons can pay with coins or a credit card.

The Benefits of the Updated Parking System:

- No Need to Display Receipt on Dash
- Full Color Touch Screen Display for Ease of Use
- Text Notification Through Kiosk
- Use Any Kiosk to Add More Time to Your Parking Session

How It Works

1. Press 'start' to begin.
2. The screen will ask if you are in the correct zone. If yes, select 'Yes'. If not, select 'No' and input correct zone number.
3. Input your license plate number.
4. Pay with either credit card or coins.
5. Print receipt or input phone number to receive text confirmation.





Bus Network Project

CPDC/CPTMA UPDATE

December 10, 2019

Lex Powers – SEPTA Long Range Planner

215-580-3573 / lpowers@septa.org

Bus Network Project - Background

What is a bus network redesign?

- Holistic rethinking of bus systems
- Design from scratch
- More than a plan – redesigns are implemented
- Short Timelines
- Trend in the Industry

Why do one?

- Nationwide decreases in bus ridership
- New competition – Uber & Lyft
- Moving beyond a legacy system with shifts in urban growth

Principles: Create an interconnected network, high frequency service, easy to understand routes (including new branding), and emphasis on ridership over coverage.



Bus Network Project – Where are we now?

JWA Report (finished 2018 – view at www.septa.org/bus-network)

- *Recommended undertaking a redesign*

Interim Projects (2018-2019)

- Frequency Map/Frequency Project

Consultant Support (in progress)

- Team Approach

Existing Conditions Analysis, Alternatives Development, and Implementation

- Multi-Year Effort
- Full Network
- Outreach driven

"Base Map"

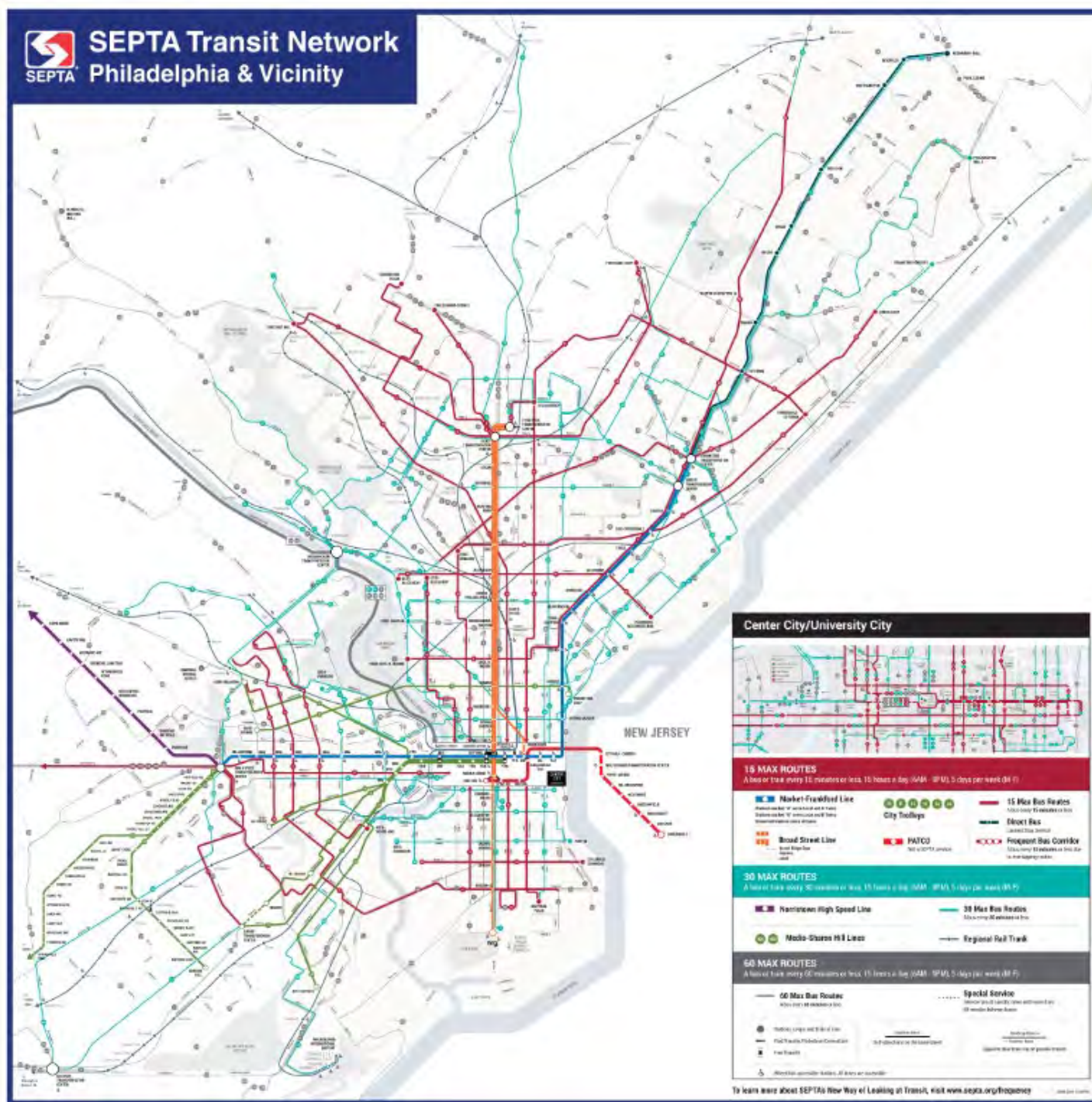
Likely the first time most Philadelphians have seen a visual representation of our transit network.

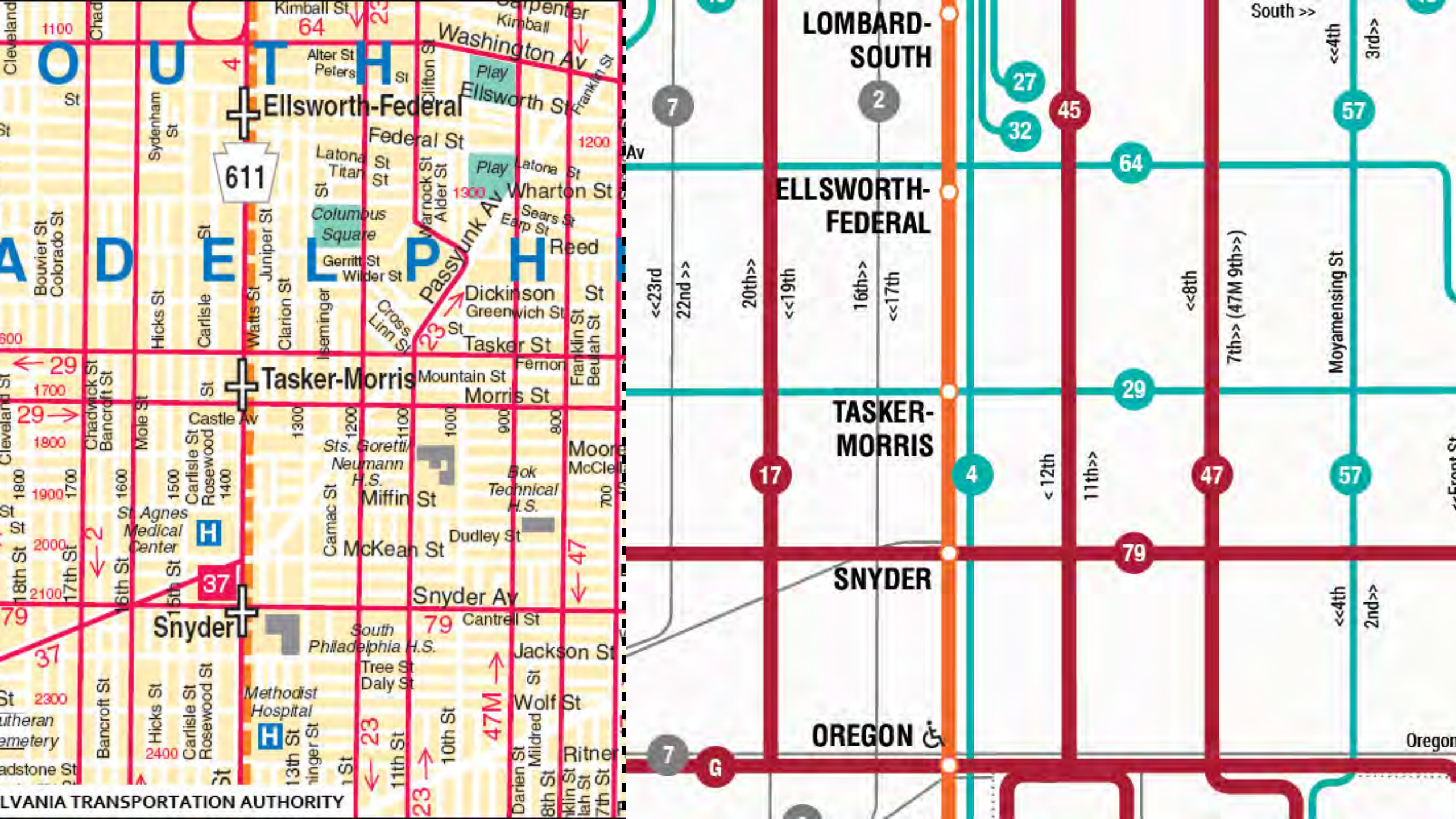
15/15/5 – 15 minutes or less, 15 hours per day (6am-9pm), 5 days per week (M-F)

15 MAX ROUTES

30 MAX ROUTES

60 MAX ROUTES





Frequency Map & CBNR

- The Frequency Map is *laying the foundation* for the bust network redesign:
 - Enable customers to see the network for the first time
 - “What’s right about the network?”
 - “What can be better?”
 - Help educate about why frequency is important
 - “How do you use the 14 differently than the 1?”
 - <http://septa.org/frequency/>



1,021 comments received through survey



SEPTA Finally Has Some Maps From the 21st Century

The transit agency has released two map prototypes as part of a push to revitalize the city's bus system — and it wants to know what you think.

SEPTA gives its bus network map an upgrade

by Jason Laughlin. Updated: February 27, 2019



JOSE F. MORENO / STAFF PHOTOGRAPHERS
SEPTA's current transit map, the big picture depiction of all buses, subways, and trolleys in the city, shows a web of indistinguishable red lines. Subscribe to read more!

SEPTA released two new transit maps and they're...legible and useful?

Twitter

Feb. 27, 2019, 2:30 p.m.

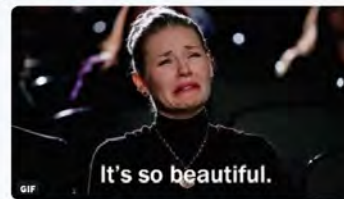
SHARE TWEET EMAIL



Billy Penn @billy_penn

SEPTA released two new transit maps and they're...legible and

Danie Bendesky @DanieBendesky · Feb 27
Replying to @billy_penn



o'dannybauder @dannybauder · Feb 27



SEPTA

Effective
February 2019

A New Way to Look at Transit

15

15 hours per day (6:00 a.m. to 9:00 p.m.)

15

Every 15 minutes or less

5

5 days per week (Monday thru Friday)

Did you know that SEPTA currently has 19 Bus Routes, 6 Trolley Lines, & 2 Subway Lines that run 15 hours a day, every 15 minutes or less, 5 days a week?

SO, HOW DID WE DO?



of all respondents found the maps somewhat or very **EASY TO UNDERSTAND**



of all respondents found the maps somewhat or very **DIFFICULT TO UNDERSTAND**



While there's room for improvement, we're heading in the right direction.

"Now that I can easily see which ones come frequently and where they go, I think I'll be more likely to consider the buses."



42% will travel somewhat or much more frequently because of these maps.

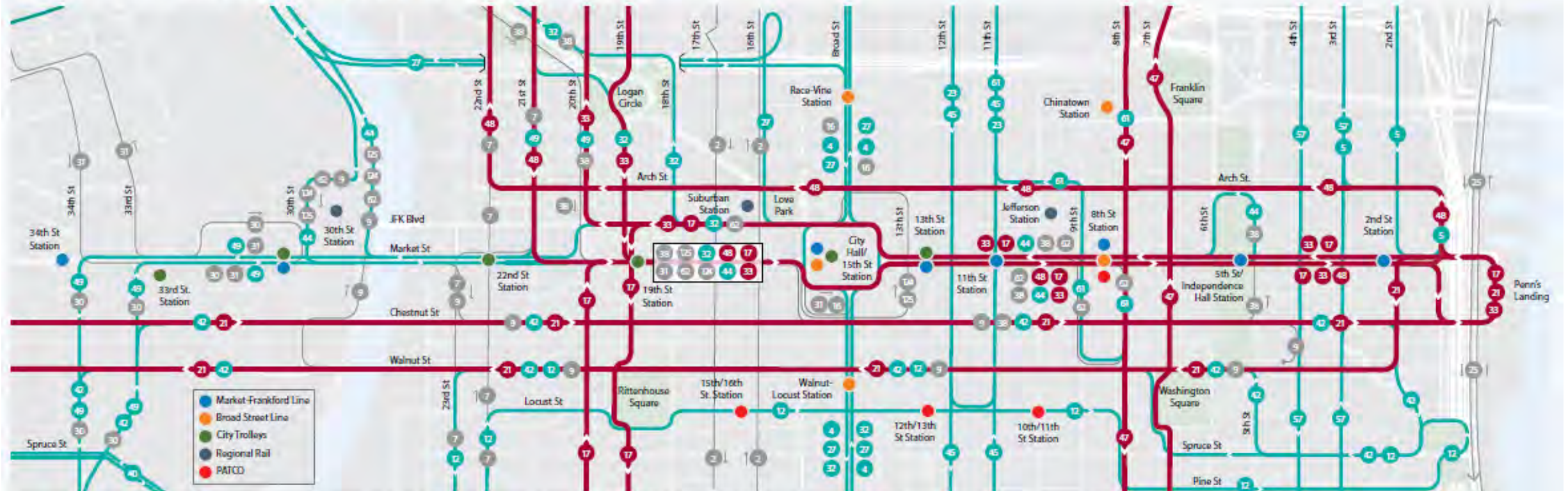
56% said the maps will have no impact on their travel.

2% will travel somewhat or much less frequently.

(Thanks, guys.)

Center City View

Center City/University City




Schedules

New schedules for the **15MAX** Routes to better advertise **frequency** of service and **connections**.

www.septa.org/frequency to submit feedback




What the frequency icons mean



15-Minute Routes
Service operates every 15 minutes or less, 15 hours a day (6:00 a.m. to 9:00 p.m.), 5 days per week (Monday thru Friday)



30-Minute Routes
Service operates every 30 minutes or less



60-Minute Routes
Service operates every 60 minutes or less

FOR MORE INFORMATION:
Customer Service: 215-580-7800
TDD/TTY: 215-580-7853
www.septa.org



June 9, 2019

60

**35th-Allegheny to
Richmond-Westmoreland**



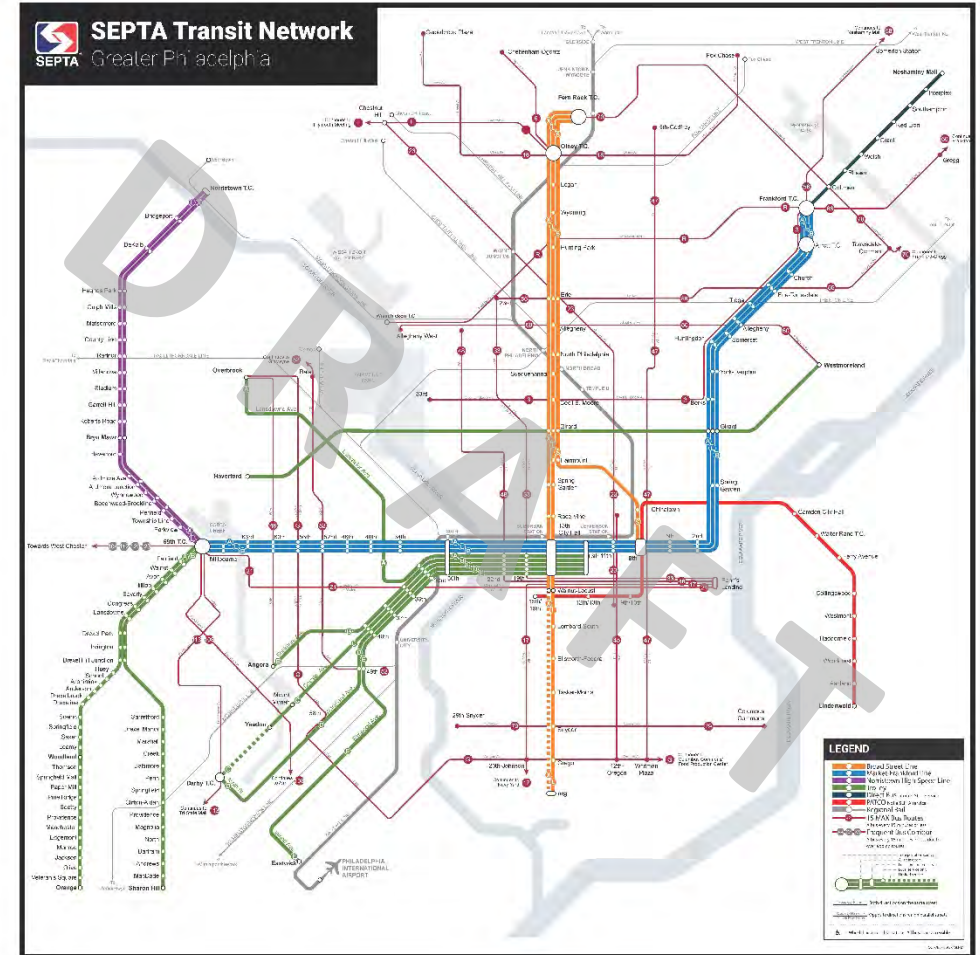
Serving
East Falls and
Port Richmond

This route runs weekdays

- 15 | Every 15 minutes or less
- 15 | 15 hours per day (6:00 a.m. to 9:00 p.m.)
- 5 | 5 days per week (Monday thru Friday)



Future: Frequent Transit Map



Next Steps

Near-term

- Installation underway – 100+ maps printed (Phase 1)
- Revise and expand new schedules program for February 2020 schedule change

Future:

- Interactive online version
- Expansion of scope to general wayfinding
- Many more opportunities through CBNR and beyond – *What do you want to see?*



The New Way to Look at Transit

We're also working on two new concepts for Transit maps as part of the 15-15-5 campaign that will give Our customers a new way to look at and envision SEPTA Transit. The map inside this brochure highlights bus, trolley and subway service that runs every 15 minutes or less, 15 hours a day (6:00 a.m. to 9:00 p.m.), 5 days per week (Monday thru Friday).

The other map includes all SEPTA routes. It identifies the frequency of service by color designation and line thickness – the more often the bus runs the thicker the line and more noticeable the color. This new intuitive tool allows customers to quickly plan trips around the region by choosing bus routes that best fit their need. The full network map will first be available on the SEPTA website and later as prototypes at stations.

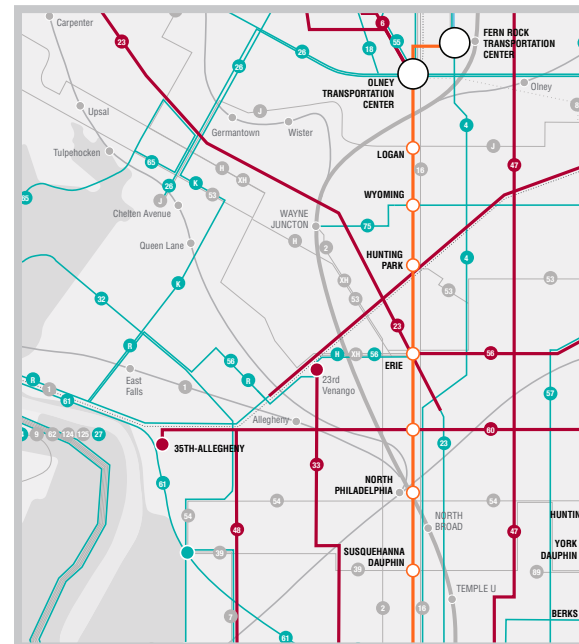
Putting Everything in Perspective

You may not realize just how vast the SEPTA network is and how many places you get to using our service.

We Want to Hear From You



These maps are just concepts, which means they're still being developed. Visit our website to submit feedback.



Check out our full map at www.septa.org/frequency

Building the Foundation for Bus Network Redesign

SEPTA will be undertaking a multi-year, comprehensive bus network redesign project. To help prepare for this effort, we want our customers to be able to quickly and clearly see what services we have now - and imagine what we could have in the future. As part of this effort, we are also working on new ideas for transit maps that make it easy to see each bus route, and how you can connect to destinations across the region using SEPTA.

The bus network redesign project is going to be a collaborative process and we welcome your input and suggestions. To learn more about the bus network redesign process and to share your thoughts visit our website. The bus network site is also where you can find out about public meetings and information sessions.

<http://www.septa.org/bus-network>



Effective
February 2019

A New Way to Look at Transit

15	Every 15 minutes or less
15	15 hours per day (6:00 a.m. to 9:00 p.m.)
5	5 days per week (Monday thru Friday)

Did you know that SEPTA currently has 19 Bus Routes, 6 Trolley Lines, & 2 Subway Lines that run every 15 minutes or less, 15 hours per day, 5 days per week?

Customer Service:
215-580-7800



TDD/TTY:
215-580-7853



FIND YOUR ROUTE AT GLANCE

Both maps identify SEPTA bus service in three, color coded frequency tiers:

15

15-Minute Routes (operating every 15 minutes or less) are noted in **magenta**. These bus routes come every 15 minutes or less, 15 hours a day, 5 days a week with frequent service consistently throughout the day. Just show up and ride.

30

30-Minute Routes (every 30 minutes or less) are noted in **blue**. These buses come every 30 minutes or less, 15 hours a day, 5 days a week with more frequent service during the AM/PM peaks. These routes connect to major regional centers and neighborhoods.

60

60-Minute Routes (every 60 minutes or less) are noted in **grey**. These buses operate every 60 minutes or less, 15 hours a day, 5 days a week, also with more frequent peak hour service. These routes reach destinations throughout the region. Be sure to use a schedule to find out when they come.

Our goal is clearly communicate information about our transit services, so that our system is easier than ever to use. These maps show the strength of SEPTA Transit and how these routes work together to create a network that can move the whole region.

Weekdays
Service
Frequency

EVERY
15
MINUTES

EVERY
10
MINUTES

EVERY
15
MINUTES

EVERY
10
MINUTES

EVERY
15
MINUTES

6AM

6:30AM

9AM

2:20PM

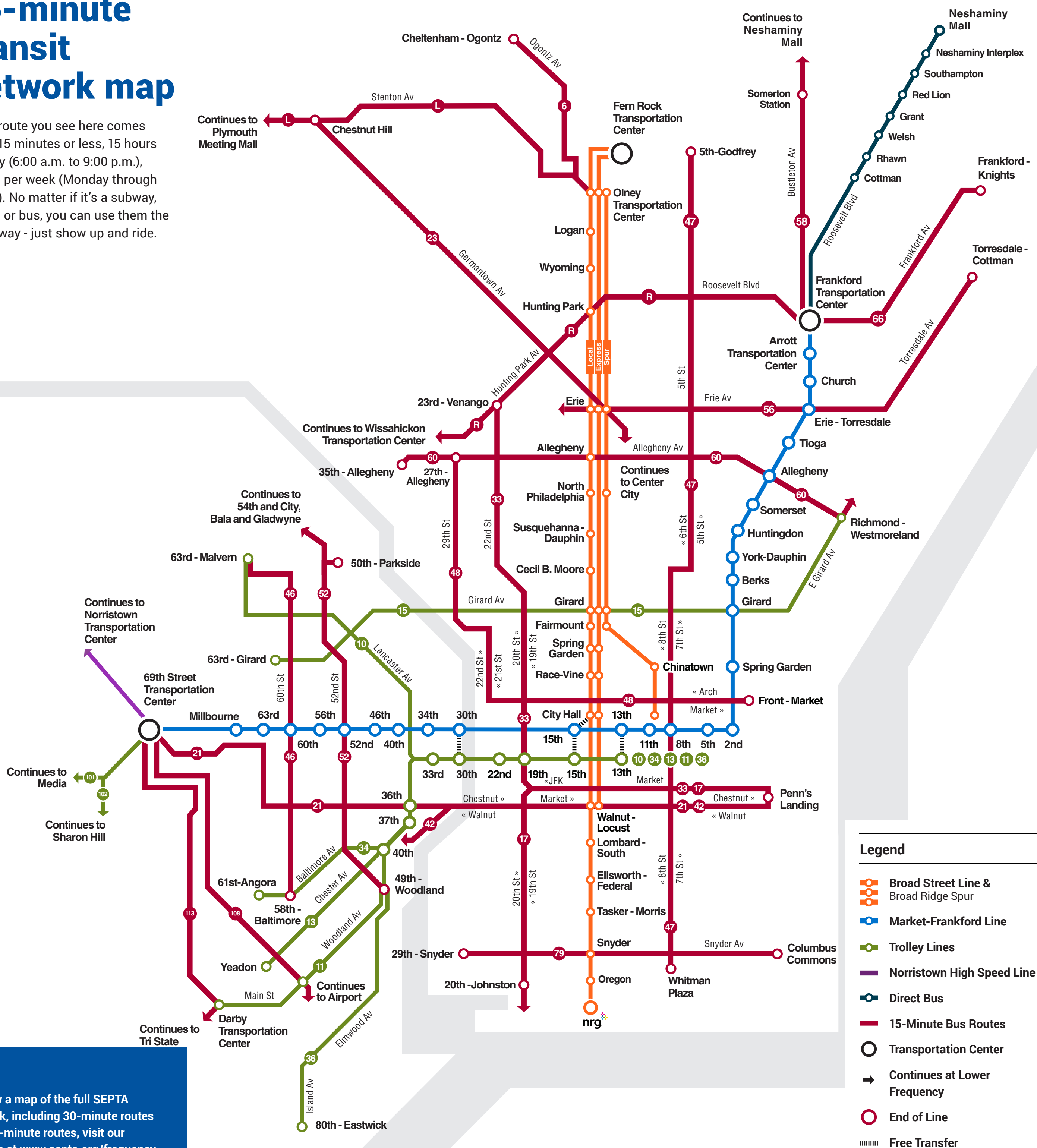
6:20PM

9:30PM

Starting with the February 2019 schedule change, the timetable front cover will promote the 15-15-5 routes; inside you will have the full weekday/weekend schedule, plus a quick glance travel headway grid. These are designed to streamline your trip planning – just walk to your stop and ride.

SEPTA 15-minute transit network map

Every route you see here comes every 15 minutes or less, 15 hours per day (6:00 a.m. to 9:00 p.m.), 5 days per week (Monday through Friday). No matter if it's a subway, trolley, or bus, you can use them the same way - just show up and ride.



To view a map of the full SEPTA network, including 30-minute routes and 60-minute routes, visit our website at www.septa.org/frequency.

BUILD TO LEAD

INVESTING IN
PA INFRASTRUCTURE



FALL 2019
**TRANSPORTATION
INFRASTRUCTURE
TASK FORCE REPORT**

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Executive Summary

The people of Pennsylvania recognize the urgent need to invest in and modernize our transportation infrastructure. Our Commonwealth has experienced the consequences of stalled projects and delayed maintenance. Our review of the state of our system revealed crumbling roads, failing bridges, aging railcars and buses along with hours of time wasted on congested highways and inner-city gridlock.

This report analyzes the current state of our transportation infrastructure, its modernization needs, funding challenges and other critical challenges. The task force also offers recommendations and suggestions by stakeholders. Our main conclusion: A comprehensive plan must be adopted to ensure Pennsylvania's competitiveness, stability and safety.

Some solutions to fund transportation are already law and will be taking effect in the next few years including a \$450 million vehicle sales tax shift from the general fund to transportation needs. However, other solutions have fallen short like gas tax revenues that have come in under projections.

We are also experiencing funding shortages caused by the diversion of Motor License Fund revenue to the Pennsylvania State Police budget totalling \$4.5 billion since 2012-13. The PA Turnpike has also amassed an estimated \$13 billion in debt obligations which has forced the Turnpike Commission to raise tolls for 11 straight years.

Costly delays due to years of underfunding have left Pennsylvania with an aging infrastructure and has forced new projects to be put on hold indefinitely. This creates safety concerns and prevents our state from being able to meet the demands needed to service a growing population.

By improving efficiency and competition we can reduce costs for building materials and stretch our investments to fund more projects. Public Private Partnerships (P3) have proven successful. They leverage private investment and use innovative delivery methods to increase efficiency as demonstrated through the Rapid Bridge Replacement project. By consolidating permitting for large projects, utilizing design-build and creating other initiatives, we can further save critical funds for reinvestment.

Underinvestment and stalled development is no longer an option. If Pennsylvania is to "Build to Lead" we must make significant investments in our Commonwealth's infrastructure to remain competitive in a global economy where investment and performance drives economic growth.



BUILD TO LEAD



Pennsylvania is a vibrant state with incredible people who need a safe and reliable transportation system in order to live and work here. The people of Pennsylvania recognize there is an urgent need to invest in and modernize our infrastructure. We have all experienced the consequences of outdated infrastructure from crumbling roads, failing bridges, aging railcars and buses to hours of wasted time idling on congested highways or inner-city gridlock.

For the Commonwealth to compete on a national or global level, significant investments in infrastructure are necessary. A core function of government is to provide infrastructure that facilitates economic growth through commerce.

As leaders, it is our responsibility to take action to strengthen the foundation of what moves Pennsylvania forward. We may be a diverse state with competing rural and urban interests; however, we rely on one another to be competitive nationally and internationally. We are “one” Pennsylvania that shares a vision of modern transportation infrastructure.

Within this report you will find a bold infrastructure proposal that serves as a foundation for making informed decisions that are in the best interest of our fellow Pennsylvanian’s and for generations that follow.

A handwritten signature in cursive script that reads "Martina White".

Martina White

Chair, Transportation Infrastructure Task Force
State Representative District 170

TASK FORCE

Task: The Transportation Infrastructure Task Force was created by House Republican Leadership, who appointed 10 members from various regions of the Commonwealth to identify the major issues facing Pennsylvania's transportation sector and develop recommendations to address them.



Rep. Martina White
Chair
Philadelphia County



Rep. Matt Gabler
Clearfield and Elk Counties



Rep. Lynda Culver
Northumberland and
Snyder Counties



Rep. John Lawrence
Chester and Lancaster
Counties



Rep. Sheryl Delozier
Cumberland County



Rep. Lori Mizgorski
Allegheny County



Rep. Torren Ecker
Adams and
Cumberland Counties



Rep. Jesse Topper
Bedford, Franklin and
Fulton Counties



Rep. Jonathan Fritz
Wayne and
Susquehanna Counties



Rep. Ryan Warner
Fayette and
Westmoreland Counties

Ex Officio Members

Hon. Bryan Cutler,
Majority Leader
Hon. Marcy Toepel,
Majority Caucus Chair
Hon. Stan Saylor,
Majority Appropriations Committee Chairman
Hon. Tim Hennessey,
Majority Transportation Committee Chairman

Approach

The Task Force was formed on July 2, 2019, by Majority Leader Cutler. Ten House Republican members were appointed to serve on the Task Force. These members provide representation from the varying regions of the Commonwealth and were selected because of their experience on Appropriations and Transportation committees.

Since the Transportation Advisory Committee (TAC) report earlier this year focused on the financial impacts of transportation funding risks and needs, we took this as an opportunity to build upon those efforts by:

Phase 1 – Surveyed Task Force to identify and prioritize transportation concerns

Phase 2 – Met with stakeholders to discuss concerns and recommendations

- Reviewed numerous studies, reports, and publications
- Hosted over 35 conference calls with stakeholders
- Conducted in-person meetings with key subject matter experts such as:
 - Secretary of PennDOT
 - Pennsylvania Turnpike Commission Leadership
- Evaluated applicable testimony from House and Senate hearings

Phase 3 – Consolidated findings from first two phases and re-evaluated priorities

Phase 4 – Recommendations to improve transportation infrastructure

The Task Force's holistic approach has led to a renewed focus on the impending funding crisis as well as the importance of connecting all parts of the Commonwealth through transportation.



PA Needs a Modern Infrastructure System

Pennsylvania's transportation system has fallen into an alarming state of disrepair and is in critical need of new funding. With today's growing economy placing increased demands on our infrastructure, we must rise to meet the needs of families and businesses across the Commonwealth including:

- Access to jobs and health care services
- Safe and secure means of transportation
- Support of a growing population
- Promote economic growth

A study conducted in February 2019 by the Pennsylvania Transportation Advisory Committee (TAC) projected that current transportation funding is not adequate to meet statewide needs and cost pressures, further strain existing resources. Along with inadequate funding, other risks include aging infrastructure, national policy changes, legal decisions and reduced oil company franchise tax revenue.

Pennsylvania is not the only state that has been underfunding its infrastructure. Many states have reduced spending on infrastructure as a share of their GDP resulting in large economic costs. According to the Congressional Budget Office, for every dollar in infrastructure investment, there is an economic benefit that ranges from approximately \$1 dollar to as high as \$2.50.

Infrastructure improvements not only increases the economic benefit for the Commonwealth, but it also prepares Pennsylvania for the future as our population grows.

According to the United States Census Bureau, Pennsylvania's population in 2018 was approximately 12.8 million making it the fifth most populated state in the country. The population is projected to grow by approximately 2.5 million in the next 20 years. Most of the state's population is currently centered among five key areas including: Philadelphia, Pittsburgh, Allentown, Erie and Reading. These areas primarily span the Southernmost region of PA and are critical to the state's economic growth. Without a reliable transportation system, PA will forgo billions in revenue generation.¹

While this report focuses on the need for Pennsylvania to fix its transportation infrastructure crisis, the state must also modernize energy, broadband and water infrastructure so that it can compete both on a national and global scale and ensure the health and safety of the families living and working in PA.

Infrastructure is an Investment

The economic benefit of investing in infrastructure can lead to a more productive population, job creation, better quality of life, and a safer more reliable transportation system.

Productivity

When we invest in infrastructure, we can positively impact productivity. For instance, implementing congestion reduction measures can improve productivity by freeing up time spent stuck in traffic. Companies, small and large, rely on being able to get their goods to market. When the infrastructure is insufficient to allow this to take place, efficiency and productivity declines and costs rise.

Safety

Without repairs to bridges and highways, roadways, and capital improvements to public transit, the state runs the risk of exposing its people to unsafe driving conditions. Driving across deteriorating infrastructure, especially bridges that have a rating of D+ by engineers is unacceptable.

One way PennDOT is working to improve traffic safety and reduce accidents is by installing roundabouts, which contributed to a 34% drop in accidents in 19 sites on state routes across PA.²

Job Creation

Businesses must be able to predict their workforce needs for the upcoming year so they can hire accordingly. When the legislature provides consistent funding specific to transportation infrastructure, the construction industry can make decisions that result in job creation.

The construction industry, including architects, engineers, builders and trade professionals, are in high demand when there is infrastructure investment. However, when government neglects infrastructure and the construction industry cannot predict what projects will be undertaken, skilled laborers are laid off.

Quality of Life

People rely on a variety of transportation modes to live a high-quality life. Our most vulnerable populations, are especially dependent on mass transit to maintain health and wellness.

Background

There are two critical government entities that implement the legislature’s priorities pertaining to transportation investments: the Pennsylvania Department of Transportation and the Pennsylvania Turnpike Commission. Background information and the scope of their responsibilities are summarized below.

The Pennsylvania Department of Transportation (PennDOT)

PennDOT is responsible for the oversight of programs and policies affecting roads, highways, urban and rural public transportation, airports, railroads, ports, and waterways. More than three-quarters of PennDOT's annual budget is invested in approximately 120,000 miles of state and local highways and 32,000 state and local bridges across PA. They are also directly responsible for 6,000 miles of freight and passenger rail, 3 maritime ports, 38 transit systems and 134 public-use airports.³ The chart below shows where PennDOT receives its funding and how the legislature authorizes PennDOT to use the funds.

The Pennsylvania Turnpike Commission (PTC or the Commission)

The PTC plays an integral role in meeting Pennsylvania’s mobility needs and is responsible for the construction, operation and maintenance of the Pennsylvania Turnpike, a system encompassing 552 route miles (the “Turnpike”). To provide and maintain high-quality transportation infrastructure for its customers and preserve the Turnpike’s economic competitiveness, the PTC is implementing a 10-year \$5.9 billion capital improvement program that features: 1) roadway resurfacing and total reconstruction programs, 2) the rehabilitation or replacement of structurally deficient bridges, 3) the Stage 1 design and construction of the I-95 Interchange Project, and 4) the implementation of Cashless Tolling at selected pilot locations. The operating budget for the Turnpike Commission for FY2019-2020 is \$1.39 billion.⁴

Revenue Sources	Fund	Uses
<ul style="list-style-type: none"> Liquid Fuels Tax Fuels Use Tax Alternative Fuels Tax Motor Carriers Road Tax Motor Licenses and Fees Vehicle Code Fines Miscellaneous DOT Permits and Fees 	Motor License Fund (MLF)	<ul style="list-style-type: none"> Highway and Safety Improvements Highway Capital Projects Rural Commercial Routes Municipal Roads and Bridge Improvements Highway Maintenance Driver and Vehicle Services Municipal Traffic Signals County Bridge Maintenance and Construction PSP Operations
<ul style="list-style-type: none"> Pennsylvania Turnpike Commission Sales and Use Tax Transfer from Lottery Fund Motor Vehicle Fees Vehicle Code Fines 	Public Transportation Trust Fund (PTTF)	<ul style="list-style-type: none"> Mass Transit Operating Expenses Public Transit Asset Improvement Programs of Statewide Significance Transit Administration and Oversight
<ul style="list-style-type: none"> PTC Payments Motor Vehicle Fees Oil Company Franchise Tax 	Multimodal Transportation Fund (MTF)	<ul style="list-style-type: none"> Aviation Grants Rail Freight Grants Passenger Rail Grants Bicycle/Pedestrian Facilities Grants Statewide Program Grants Multimodal Administration and Oversight Transfers to Commonwealth Financing Authority (CFA) PennPORTS Debt Service
<ul style="list-style-type: none"> Tire Fee Vehicle Rental Fee Vehicle Lease Tax Sales and Use Tax 	Public Transportation Assistance Fund (PTAF)	<ul style="list-style-type: none"> Transit Capital and Asset Management Projects Transit Operating Expenses

Background

A November 2006 report issued by the Pennsylvania Transportation Funding and Reform Commission (PTFRC) estimated an increase of \$1.7 billion in annual funding for transportation infrastructure needs—\$965 million for roads, highways and bridges, and \$760 million for mass transit. From its inception, Act 44 provided less than half the funding needed according to the PTFRC report.⁵

In July 2007, Act 44 was passed by the Pennsylvania General Assembly and signed by Gov. Ed Rendell. The purpose of the legislation was to help provide stable funding for statewide interstates, roads, bridges and transit projects across Pennsylvania. Under Act 44, the Pennsylvania Turnpike Commission (PTC) was required to provide PennDOT with \$450 million annually - \$200 million for roads, highways and bridges, and \$250 million for public transit.

Pennsylvania also made an application to the Federal Highway Administration for permission to place tolls on I-80 to help contribute toward the \$1.7 billion need in funding. The PTC would have been responsible for installing and managing toll collection on I-80.

After three years of studies, the federal government denied the state's application. If the I-80 tolls had been approved, they would have generated \$750 million annually - \$450 million for roads, highways, and bridges, and \$300 million for mass transit. Although this would have contributed significantly to the \$1.7 billion need, it still would have been insufficient.⁷

The PTC, even though they were denied the ability to toll I-80 to improve revenues, is still required to make annual payments to PennDOT. As a result, **the PTC has been forced to raise toll rates for 11 straight years and has driven the agency's debt levels to an estimated \$13 billion.** In addition, the agency has reduced its rebuilding program by 13% and cannot consider any potential expansion projects, including new interchanges.

Linear Miles and DVMT by Roadway Type

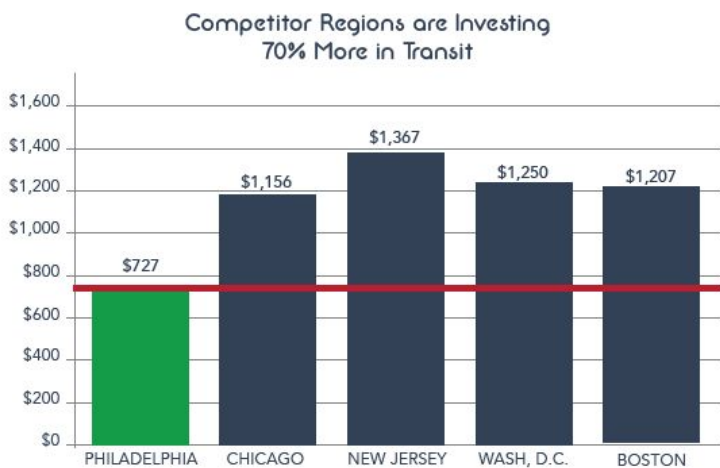
PA Highway Systems	Linear Miles	2013 DVMT	2017 DVMT	DVMT % Change
Total System	120,527	270,213,634	278,414,227	+3%
Rural	72,758	96,739,296	95,897,881	-1%
Urban	47,769	173,474,338	182,516,346	+5%
Federal-Aid System	28,742	225,550,120	237,496,378	+5%
National Highway System	7,165	142,057,916	153,914,486	+8%
Interstate System	1,868	63,784,230	72,425,755	+14%

Daily vehicle miles traveled (DVMT) is an indicator of travel demand. This table shows the linear miles and DVMT for various roadway types in Pennsylvania, and the change in DVMT from 2013 to 2017. Notable increases include an 8 percent increase in DVMT on National Highway System roadways and a 14 percent increase in DVMT on Interstate highways. It is clear that with increased DVMT and continued underfunding by the legislature, deterioration of our infrastructure will persist.⁸

Background

The PTC's current annual payment of \$450 million is required to maintain funding for mass transit and other non-highway programs. Starting in fiscal year 2022, the payments will drop to \$50 million per year until 2057 creating a large funding gap in the General Fund.

Without the subsidies, mass transit would not be financially viable leaving millions of people without transportation. Public transit agencies must be adequately funded as they are critical to power economic growth across the Commonwealth. Competing requires investment. Below is a graph that shows the funding for transit in Philadelphia in comparison to the way other cities invest in mass transit:



FY2017-2018 Capital Budgets (millions) Includes federal, state and local funding.

Without replacement funding from the legislature...

There would be no money to fund three cadet classes a year to train troopers to replace the 150 to 300 who retire annually. Further, overtime costs would rise, and safety equipment couldn't be purchased.

- Col. Evanchick, State Police Commissioner

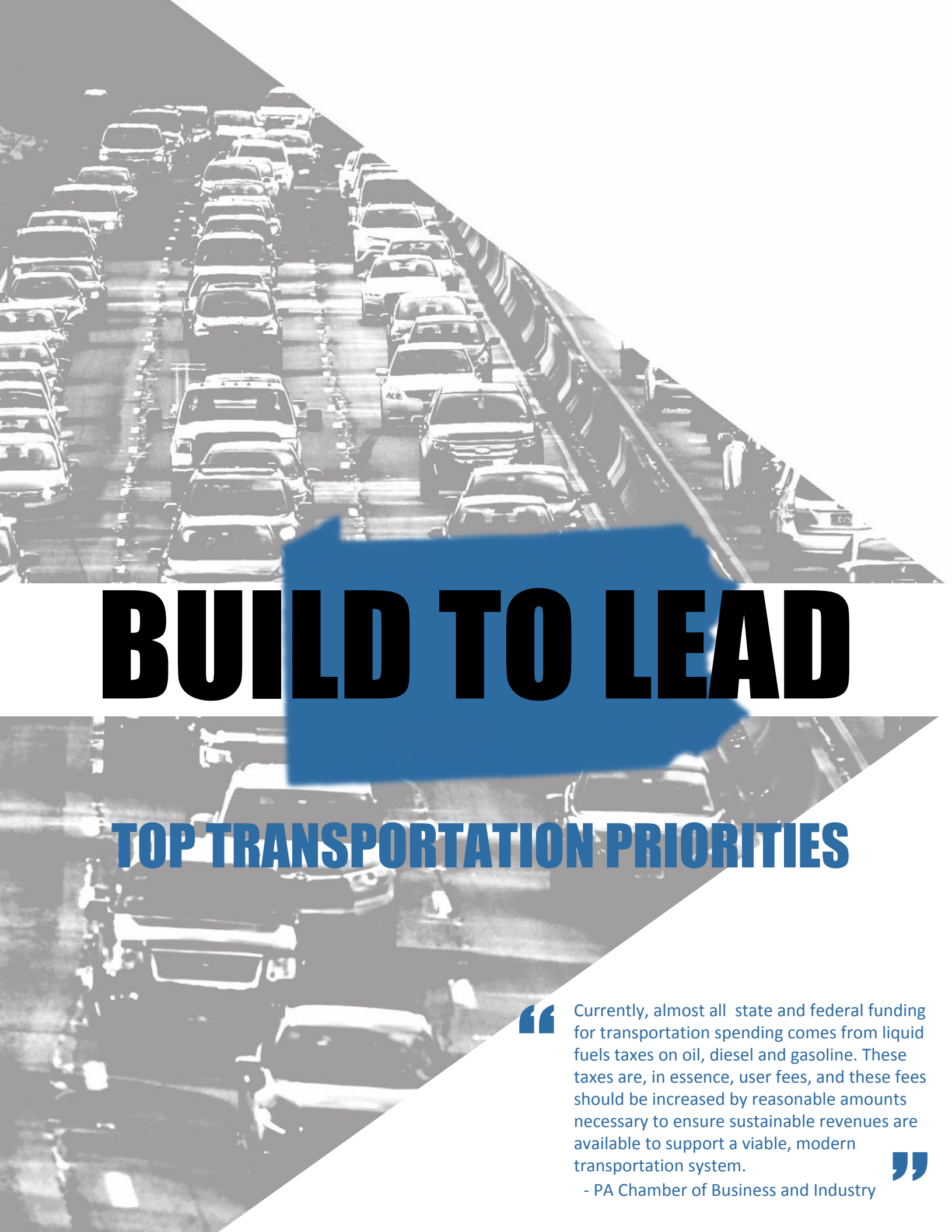
Act 89 created Pennsylvania's most comprehensive piece of state transportation legislation in decades. To help close the funding gap, it invested an additional \$2.3 billion to \$2.4 billion into transportation by the fifth year of the plan. Partial funding for the package was being derived from the elimination of the flat 12-cent gas tax and modernizing an outdated transportation financing structure through the uncapping of the wholesale Oil Company Franchise Tax. It also increased resources for transit and created a dedicated Multimodal Fund for non-highway modes' capital needs.⁸

Revenue projections fell short, however, as consumers purchased more fuel-efficient vehicles, including alternative fuel vehicles such as hybrid and electric models.

In April of 2019, after an audit of PennDOT, it was estimated that approximately **4.5 billion dollars was diverted from the state's Motor License Fund to the State Police since FY 2012-13**. Currently, an estimated \$1.25 billion or 65% percent of the state police budget is paid for with nearly one-third of the entire Motor License Fund (MLF). In 2016, the Legislature included in the fiscal code a measure that capped the portion of funding going to the state police at \$801 million, with a plan to decrease that amount by 4% per year until it reaches \$500 million.⁹

Decreasing funding for the state police from the MLF will help support transportation infrastructure costs. However, it must be replaced by the legislature with alternative funding.





BUILD TO LEAD

TOP TRANSPORTATION PRIORITIES



Currently, almost all state and federal funding for transportation spending comes from liquid fuels taxes on oil, diesel and gasoline. These taxes are, in essence, user fees, and these fees should be increased by reasonable amounts necessary to ensure sustainable revenues are available to support a viable, modern transportation system.



- PA Chamber of Business and Industry

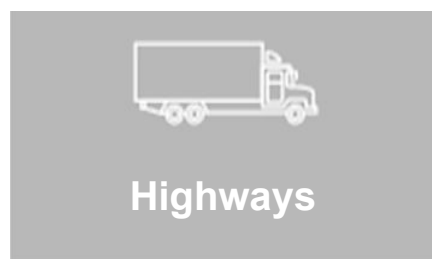
Funding Needs by Transportation Mode

After decades of underinvestment, the funding gap has grown significantly. The infrastructure dollars spent should be prioritized based on economic impact and user demand.

As of 2018, the American Society of Civil Engineers (ASCE) Infrastructure Report Card reflects Pennsylvania as having subpar transportation infrastructure for highways, bridges and public transit.¹¹

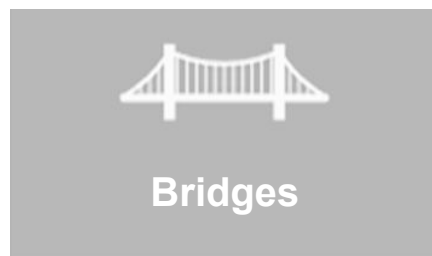
The Pennsylvania Transportation Advisory Committee (TAC) completed a study entitled, “Risks to Transportation Funding in Pennsylvania” on Feb. 21, 2019.¹²

According to the study, a safe and reliable multimodal transportation network is essential for Pennsylvania residents, businesses and visitors. Improving and maintaining this extensive multimodal system requires stable, sufficient transportation funding. Currently, projected transportation funding is not adequate. Estimates to meet Pennsylvania transportation needs are:



\$2.5 Billion

in additional annual funding is necessary to adequately address interstate system needs.



\$1.8 Billion

in additional annual funding is necessary to adequately address safety, highway and bridge improvement, and congestion needs.



\$1.2 Billion

in additional annual funding is necessary for public transportation capital, operations, and maintenance costs.

Total Annual Need:

\$5.5 Billion

Dirt Gravel and Low Volume Roads

Low volume roads are defined as having 500 vehicles or less per day. Pennsylvania has 20,000 miles of unpaved publicly owned roads. These roads are vital for rural areas connecting low-population areas to major economic industries such as tourism, agriculture, and mining.¹³

One of the challenges with these types of roads is their design often generates sediment and acts as collectors for runoff from adjacent land uses. Historically the practice was to convey water along roads and have it flow into streams. The result has increased sediment and other pollutants into local waterways and can be a contributing factor of flooding.¹⁴

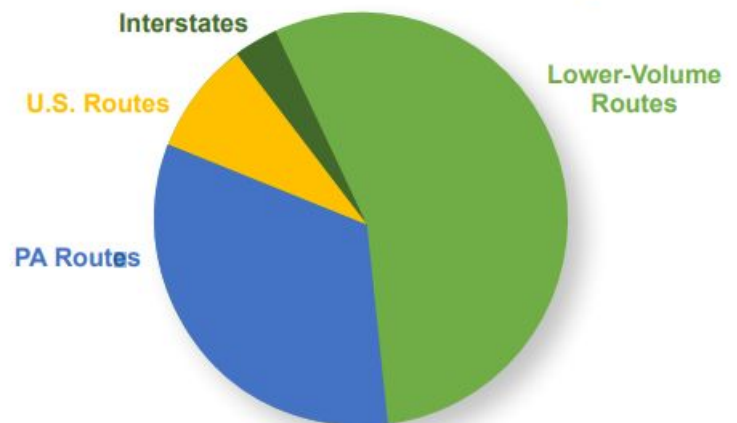
In 1997, Section 9106 was added to the PA Vehicle Code. This provided \$5 million annually for “environmentally sensitive road maintenance for unpaved roads.” The program is designed to create a more environmentally and economically sustainable low-volume road network through education, outreach and project funding.¹⁵

According to PennDot¹⁶:

- There are 18,000 miles of PennDOT-owned, low-volume bituminous roadways that are maintained with seal coating (oil and chip) and resurfacing.
- The desired cycle to seal coat is every 4-7 years and complete structural resurfacing every 15-20 years.
- More than 3,200 miles (18%) have not been seal coated in 7+ years, and more than 4,300 miles (24%) have not had structural resurfacing in 20+ years.
- Some miles are out of cycle in both categories, which means more than 6,900 (39%) miles of these roads are out of cycle.
- The cost to seal coat is \$24,700 per mile; resurface is \$101,400 per mile; and rehabilitation is \$910,000 per mile.
- Of the PennDOT-maintained roads that aren’t Interstates or on the National Highway System, 27% are rated as “Poor” on the International Roughness Index which rates pavement smoothness.



PennDOT-Maintained Mileage





Highways

Pennsylvania's state-controlled highway mileage makes it the fourth largest highway system in the country, according to a Reason Foundation Report.

With truck freight volume on the nation's highways expected to double in the next 25 years, it can be expected that PA's highly congested corridors will only get worse if nothing changes.¹⁷

Currently, Pennsylvania has five of the Nation's Top 100 Truck Bottlenecks according to a study released earlier this year by American Transportation Research Institute (ATRI).¹⁸

- No. 38** Philadelphia, I-76 at I-676
Schuylkill Expy. meets the Vine Street Expy.
- No. 62** Harrisburg, PA I-81 at I-83
- No. 63** Philadelphia, I-476 at I-95
Blue Route and I-95 in Delco
- No. 77** Philadelphia, I-76 at I-476
Schuylkill Expy. and Blue Route
- No. 92** Harrisburg, PA RT 581 at I-83

In addition to addressing current highway congestion issues we need to be proactive and plan for additional needs. For example, the new Shell Pennsylvania Petrochemicals Complex in Beaver County, near Pittsburgh is expecting to open in 2020, there will likely be additional demand and highway needs to support workers commuting to and from the region.

It's also important to note that in order for the PTC to advance its projects of significance, it would need \$50 million to \$75 million in additional bondable revenue for its capital program.

Furthermore, the Federal Highway Trust Fund is projected to be insolvent by 2021, which could result in 30% cut to federal transportation funding, and send shockwaves through the states, including Pennsylvania, who rely on these dollars for capital improvements for highways and other needs.

PennDOT has not focused on maintenance of the interstate highway system for nearly a decade in the hopes that federal dollars would be allocated to these needs. Because of the severe condition of the interstate highways, PennDOT could no longer wait for federal funds to kick in and had to shift an estimated \$400 million from local projects to the maintenance of the interstate highways.

“The Keystone State depends on trucking to deliver the goods – everything from the food we eat to the clothes we wear and the fuel we put in our cars.”

- Kevin Stewart
President & CEO,
Pennsylvania Motor
Truck Association

Bridges

Pennsylvania has the third largest number of bridges in the country. There are approximately 25,000 state-owned bridges in PA averaging 50 years of age along with over 3,500 structurally deficient bridges that are safe to travel across but at the end of their useful life. Delaying the repair of these structurally deficient bridges will result in more weight restrictions and complete bridge closures. This will have a crippling effect on farmers who rely on these bridges to get their perishable goods to market.¹⁹

In the Pittsburgh region, commuters rely heavily on bridges and tunnels making this area especially susceptible to funding issues. The Pittsburgh region's transportation infrastructure has been negatively impacted by severe flood damage. Neglecting unsafe bridges is not an option and every day of delay, the cost of repairs goes up.

In order to fix the long list of unsafe bridges, PennDot implemented an \$899 million Rapid Bridge Replacement Project. It was an experiment designed to expedite the repair of similarly designed bridges in mass and reduce costs. It was also the first project of its kind in the nation to bundle the replacement of hundreds of bridges in a public-private partnership (P3) agreement.

PennDOT will replace 558 structurally deficient bridges around the state by the end of the year. No other P3 project in the country has embarked on a multi-asset, multi-location undertaking of this magnitude. After completion, the responsibility of the bridges will be transferred to Walsh Infrastructure Management, which will oversee them for 25 years in exchange for periodic payments from PennDOT.²⁰



Photo credit: Lancaster Online

Mass Transit

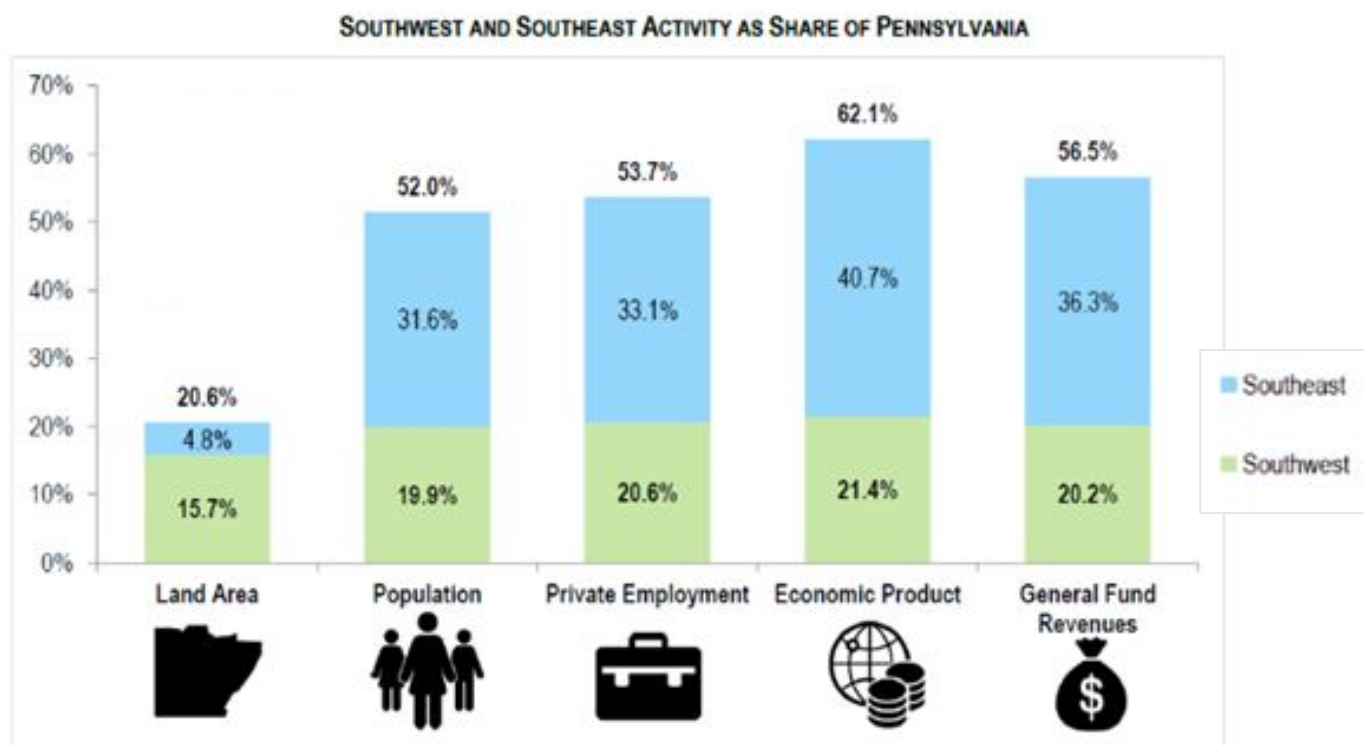
Mass transit systems in Pennsylvania serve all different commuters, including employees, students and tourists, as well as our most vulnerable populations such as seniors, people with disabilities, and the impoverished. Pennsylvania's Southeastern Pennsylvania Transportation Authority (SEPTA) is one of the largest and most efficiently operated mass transit agencies in the country with annual ridership across all its modes at over 300 million trips.

Throughout 2018, the Amazon HQ2 competition was intensifying with Philadelphia and Pittsburgh named among the 20 finalist locations. Transportation and mobility emerged as key factors in the competition. Amazon focused on public transportation as a key differentiator for moving the people who would fill the 50,000 new jobs. Business and civic leaders in the southeast and southwest regions of Pennsylvania recognized the momentum and the connection between transportation investment, business attraction and economic growth.

In each region, local executives partnered with the local transit system, SEPTA, the Port Authority of Allegheny County (PAAC), the PTC and PennDOT to create the Southeast Partnership for Mobility and the Southwest Partnership for Mobility. Independently, each group worked to develop a blueprint to meet their region's growing mobility challenges and to develop potential solutions to stabilize transportation funding.

The Southeast and Southwest Partnerships for Mobility studies acknowledged the risks to both public transportation funding and to the PA Turnpike and its customers, and the need to identify adequate and sustainable sources of transportation funding.

Detailed in the studies and the chart below is the combined economic impact of the southeast and southwest regions of Pennsylvania.²¹ **Together, these two corners of the Commonwealth produce 62.1% of the state's economic product and 56.5% of Pennsylvania General Fund Revenues.**²²



Mobility

Southeast and Southwest Partnerships for Mobility

The regions hold 52% of the state's population on just 20.6% of Pennsylvania's land mass. With this level of density, Pennsylvania now has two cities in the top 10 "Most Congested Cities in the U.S.," with Pittsburgh at No. 7 and Philadelphia at No. 9, according to INRIX.com/scorecard. To maintain mobility and economic productivity, a high-capacity, comprehensive transportation network is necessary to efficiently move people and goods throughout each region.²³

The Southeast and Southwest Mobility Partnerships studies emphasize that the transportation networks that serve as the backbone of the state's two powerful economic engines cannot be taken for granted and are in fact increasingly at risk. Together with transit agencies across all 67 counties, SEPTA and PAAC rely on Act 89 and state funding to provide quality transportation services and over 1 million trips in Pennsylvania each day.

In the southeast, SEPTA is working to address a \$20 billion backlog in critical state of good repair needs, which include infrastructure and vehicles well beyond their useful life. At Act 89 funding levels, it will take SEPTA 20 years to achieve a system state of good repair.



SEPTA's new challenge is to increase system capacity to keep pace with a region that has grown by more than 100,000 new residents since 2010. SEPTA has proposed a package of capacity-adding projects that would accommodate existing demand and unlock additional growth to keep the region's positive economic momentum going. Projects include:

- King of Prussia Rail Extension
- Market-Frankford Line Capacity
- Regional Rail Capacity
- Trolley Modernization

PROJECTS OF SIGNIFICANCE



KING OF PRUSSIA
(KOP) RAIL



MARKET-FRANKFORD
LINE CAPACITY



REGIONAL RAIL
CAPACITY



TROLLEY
MODERNIZATION

WILL ACCELERATE RATE OF GROWTH IN THE REGION BY MORE THAN 50%



+11.4 MILLION SQ. FT.
of additional commercial development
in downtown & King of Prussia



+\$20.5 BILLION VALUE ADDED
to residential & commercial property

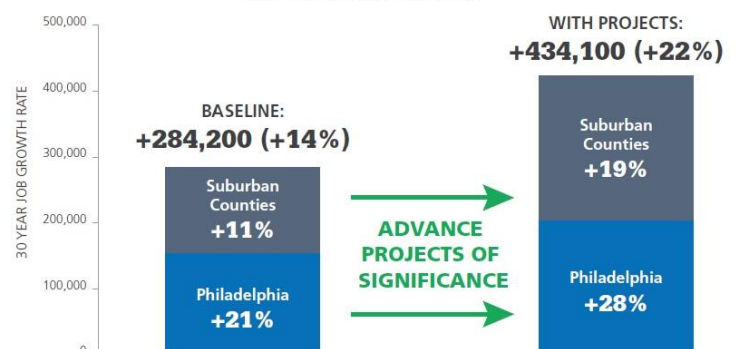


+149,900 NEW JOBS
across the region



+\$10.1 BILLION EARNINGS
across the region

JOB GROWTH FORECAST



Mobility

In southwestern Pennsylvania, the Port Authority of Allegheny County (PAAC) is the transit provider for the region's core. Stakeholders agree that "connections" are vital for residents and employers to ensure continued growth in southwestern Pennsylvania. PAAC is embarking on a long-range planning process that is inclusive, transparent and forward-thinking. Adequate and sustainable funding could help to advance high-profile initiatives and projects such as:

Improve Service Connections in Allegheny County

Regional Connections with other Counties

Light Rail Vehicle Fleet Replacement

Bus Rapid Transit (BRT) to Oakland

New Bus Maintenance Garage

Better Connections to Pittsburgh International Airport

Rapid Transit extension to Pittsburgh's eastern suburbs

The partnership studies provide a variety of options and alternatives for statewide revenue generation and regional funding and financing. They conclude that transportation is not a cost, it is an investment and urge support for two key recommendations:

Stabilize statewide public transportation funding to ease PTC's debt burden and need for future toll increases, without adversely affecting the operational stability or progress provided by Act 89 of 2013.

Pass enabling legislation to allow regions to explore local revenue sources to make additional investment in unfunded projects to accommodate and accelerate regional growth.²⁵



Congestion

Strain on Environment and Mobility

Econsult Solutions, Inc. provided a study about traffic congestion in Philadelphia, in which the report said that congestion in the City of Philadelphia costs SEPTA an additional \$21 million in bus operating and revenue losses, as well as \$152 million annual time value and transportation costs to bus and car passengers. The study also shows that 9.7 million hours are wasted annually to time delays.²⁶

Pittsburgh and Philadelphia are among the top 10 most congested cities in the U.S.²⁷ In Pittsburgh the cost of congestion is \$1,776 per driver and \$1.2 billion for the city in 2018. The study quantifies for the first time the economic cost of Philadelphia's growing problem of traffic congestion. The report finds that congestion within the Center City street grid alone impacts Philadelphians in the following ways.²⁸

- 9.7 million annual hours lost for bus and car passengers sitting in traffic.
- \$152 million in annual time value and transportation costs associated with those delays – a \$260 annual tax on each Philadelphia household.
- \$21 million in additional SEPTA bus operating costs associated with maintaining the same level of service at slower speeds.
- 15,700 potential jobs and \$1.08 billion potential earnings are foregone due to lost productivity. That's four Comcast Towers worth of unrealized workers.
- \$58 million foregone in city and school district tax revenue associated with lower productivity and earnings – or \$100 per household.

The report notes that congestion is a signal of success, with population and job growth increasing demand for travel across the city. But if not controlled, congestion threatens to short-circuit economic growth by reducing the attractiveness of Philadelphia as a place to live and do business. In effect, traffic puts a ceiling on the city's growth potential.

Philadelphia has seen an increase in the number of pedestrians, transit riders, bikers and drivers of all types that share its colonial street grid. The emergence of ride-sharing and online shopping with delivery has put new kinds of demand on the grid. The City of Philadelphia, in partnership with SEPTA and the Philadelphia Parking Authority, are working to better manage congestion by strictly enforcing traffic violations in Center City and are exploring other options.



“ Congestion costs \$152 Million in annual time value and transportation cost associated with those delays. ”

- Econsult Solutions Report

Aviation

Airports are able to make safety upgrades and expand operation opportunities with the assistance of state investments, which is a key to competing globally.

PennDOT's Bureau of Aviation through the Aviation Transportation Assistance Program is a capital budget grant program funded with bonds. The program complements the state Multimodal Fund by dedicating money toward aviation. The fund was created by Act 89, a far-reaching transportation funding program that cleared the way for significant investments in all transportation modes.

CEO, Rochelle "Chellie" Cameron in 2016 reset the priorities of Philadelphia International Airport (PHL) when she saw flying trends changing and put a halt to a new runway expansion project. Instead she reinvested in the airport terminals that were old and small. Her team brought in more than 25 new flights and 30 new restaurants, spruced up restrooms, and repaired the HVAC system.

The airport expansion plan, as of 2012, was estimated to cost between \$6.4 billion and \$10.5 billion. The construction would be paid for by Philadelphia revenue bonds, passenger-facility charges and federal FAA grants, not by taxpayers. Debt service on the bonds is primarily paid for by rates and charges that airlines pay.

Despite being one of the most-delayed airports in the country, 31.7 million passengers traveled through the airport in 2018, up more than 7% year over year, which is a 10-year high. It's an economic driver, producing \$15.4 billion in annual output within the 11-county Philadelphia area, supporting 96,300 jobs and \$4.8 billion in total earnings, according to a 2017 report by Econsult Solutions. The airport also handled 555,300 tons of cargo in 2018, more than 20% over 2017.²⁹ The airport is looking to expand its footprint to meet projected cargo freight demand in the region.

At the Pittsburgh International Airport (PIT), there have been slight increases in passengers but to a lesser extent than those at comparably sized airports across the country. Currently, \$12 million per year in state tax dollars from gaming revenues is provided to PIT. The PIT leadership has utilized carrier subsidies to draw airlines to the location but are finding it challenging to meet the operational demands of carriers long term.³⁰ The leadership has also initiated plans for reconfiguring the airport to adapt to the needs of travelers.

Aviation is a critical economic driver and key to modernizing Pennsylvania's transportation infrastructure.



ASCE RATING

C+



Airports

Ports & Waterways

There are three main ports across the state including the ports of Philadelphia, Pittsburgh and Erie generating approximately \$50 billion of economic benefit. The state ranks 9th in the country for volume of goods moved through its ports with over 100 million tons of goods.³¹

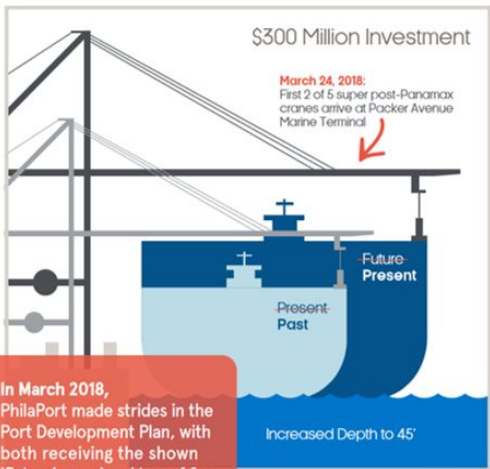
Ports and waterways are important to Pennsylvania infrastructure because they allow barges to haul commodities from a variety of industries alleviating traffic on highways and railroads. One barge is equivalent to 70 large semi trucks.³²

The port of Philadelphia is the leading handler of refrigerated and frozen cargo globally and is among the top 16 container ports in the country. The Port of Pittsburgh is the second busiest inland port in the country and the 17th busiest port of any kind in the nation.

The lock and dam system in Pittsburgh is in need of repair due to the structures being over 80 years old, thus leading to deterioration. The locks provide for a commercial passage for boaters throughout the region and the maintenance of the system is important for the sustainability and safety of boaters.

When Pennsylvania invests in its ports, the economic benefit is substantial. An example of this is the dredging of the Delaware River to 45 feet and the addition of two new post-Panamex-cranes at PhilaPort. Competitor ports may be larger, but they are congested and can wreak havoc on the first and last mile costs for shippers. Even though PhilaPort's volume in tonnage is less in comparison to New York for example, PhilaPort is quick to load and unload huge ships with large volumes of freight making it very competitive for perishable or expedited goods. Pennsylvania must continue to invest in this infrastructure in order to compete nationally and globally. Chart below shows benefits of PA's port investment.³³

Port Development Plan

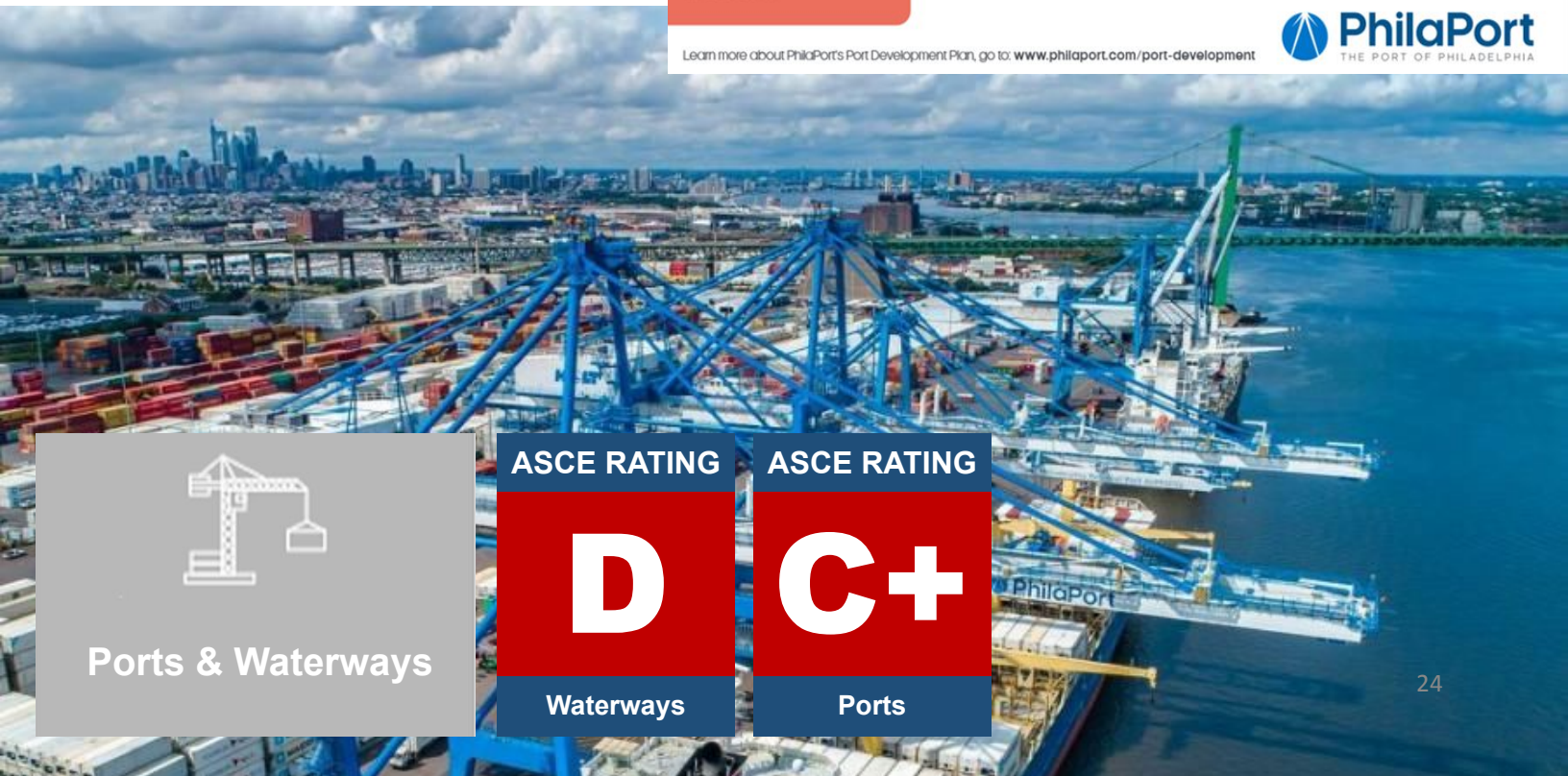



In March 2018, PhilaPort made strides in the Port Development Plan, with both receiving the shown 'Future' vessel and two of five super post-Panamax cranes. The final cranes will arrive 1st Quarter 2019.

	Present	Future
Containers	500,000 TEUs	900,000 TEUs
Jobs	10,341	17,020 65% increase
Clean Air	Diesel Operated	Diesel to Electric
Cars	155,000 Units	350,000 Units
Cranes	Small Panamax	Large Super Post-Panamax
Tax Benefit	\$69.6m Annually	\$108.4m Annually
Forest Products ¹	465,000 mt	540,000 mt

¹Number represents pulp moving through Tigua Marine Terminal as perkins to Plan
²PhilaPort handles over 1m ton of Forest Products annually

Learn more about PhilaPort's Port Development Plan, go to: www.philaport.com/port-development





Ports & Waterways

ASCE RATING

D

Waterways

ASCE RATING

C+

Ports

Rail

Rail systems are critical to our infrastructure as they offer an alternative mode of transportation to automobiles and tractor trailers enabling improved air quality and a reduction in greenhouse gas emissions and fuel consumption. Pennsylvania relies on both passenger and freight rail to move people and goods across the Commonwealth. In Pennsylvania, there are approximately 5,600 miles of track and public crossings.³⁴

Currently, approximately 65 railroad companies operate in the state, which is the largest of any state in the country. The Keystone Corridor is shared between the Norfolk Southern Pittsburgh freight line and Amtrak and SEPTA's passenger lines. The corridor is 349 miles long linking Philadelphia and Pittsburgh.³⁵

It's important to note that the land value of homes and businesses increase when they are conveniently located near or, in the case of some businesses, connected directly to rail lines. Although the state invests in these projects, local municipalities receive the benefits resulting from property taxes and savings from less congested roads.

Freight Rail

Freight railroads lower shipping costs by billions of dollars each year and produce an immense competitive advantage for farmers, manufacturers, and miners in the global marketplace. According to the association of American Railroads, a single intermodal train can haul the equivalent of 280 trucks.³⁶

Freight rail companies primarily use their own money to reinvest in the rail infrastructure verses taxpayer dollars to subsidize passenger rail. With this in mind, it is positive that Norfolk Southern expressed a willingness to engage in conversations about adding passenger rail lines to existing rail infrastructure in the Southeast region.

Short Rail

Short rail is often used in rural areas, and for the first and last mile in moving products and materials. This gives less accessible areas a way to get their products connected to a national network. It saves on wear and tear on our roadways and is more environmentally friendly than alternatives.



Rail

ASCE RATING

B

Freight Rail

Intercity Passenger Rail

Passenger rail service in Pennsylvania is provided by three major systems: Amtrak (intercity passenger rail); mass transit systems such as Southeastern Pennsylvania Transportation Authority (SEPTA – Commuter Rail); and the Port Authority of Allegheny County (PAAC – Light Rail). Two systems were previously referenced in the mass transit section of the report and below is focused on Amtrak intercity passenger rail.

Amtrak’s Keystone Corridor Improvement Project is a national example of rail revitalization where after years of neglect, electric service had been replaced by diesel locomotion. Amtrak and PennDOT collaborated and shared the \$166 million cost of the project during fiscal years 2000 through 2006. **Since the beginning of the project ridership increased by 74 percent.**³⁷

Although this project is a good example of collaboration across the Commonwealth, the need for passenger railways continues to be a challenge due to high costs and lack of funding.

Altoona–Pittsburgh Study

The feasibility study identified capital cost estimates ranging from \$1.2 billion to \$3.7 billion (with the addition of a third track) to support passenger rail service for a forecasted 531 to 840 daily one-way riders. The capital cost estimates do not include right-of-way acquisition, environmental remediation, or Norfolk Southern related costs for access or liability.³⁸

Intercity Passenger Rail Study

An Intercity Passenger Rail Study conducted by the Pennsylvania Transportation Advisory Committee in 2019 identified three corridors for access to Philadelphia: Harrisburg, Reading-Pottstown and Lehigh Valley.

It was recommended a feasibility study be conducted for the Reading–Pottstown–Philadelphia line. This corridor is densely populated and growing with the means to support strong demand at station points. It has extensive traffic congestion and established commuting patterns between the two cities.

With the concentration of economic activity, there could be potential for private sector investment—if not in the rail service, then in stations and surrounding business ventures. There is rail infrastructure that can be used to develop this rail line and services.

These factors help determine whether an intercity rail line is necessary and affordable given funding constraints.³⁹



Rail

ASCE RATING

C-

Passenger Rail

Critical Challenges to Transportation Infrastructure

Funding Crisis

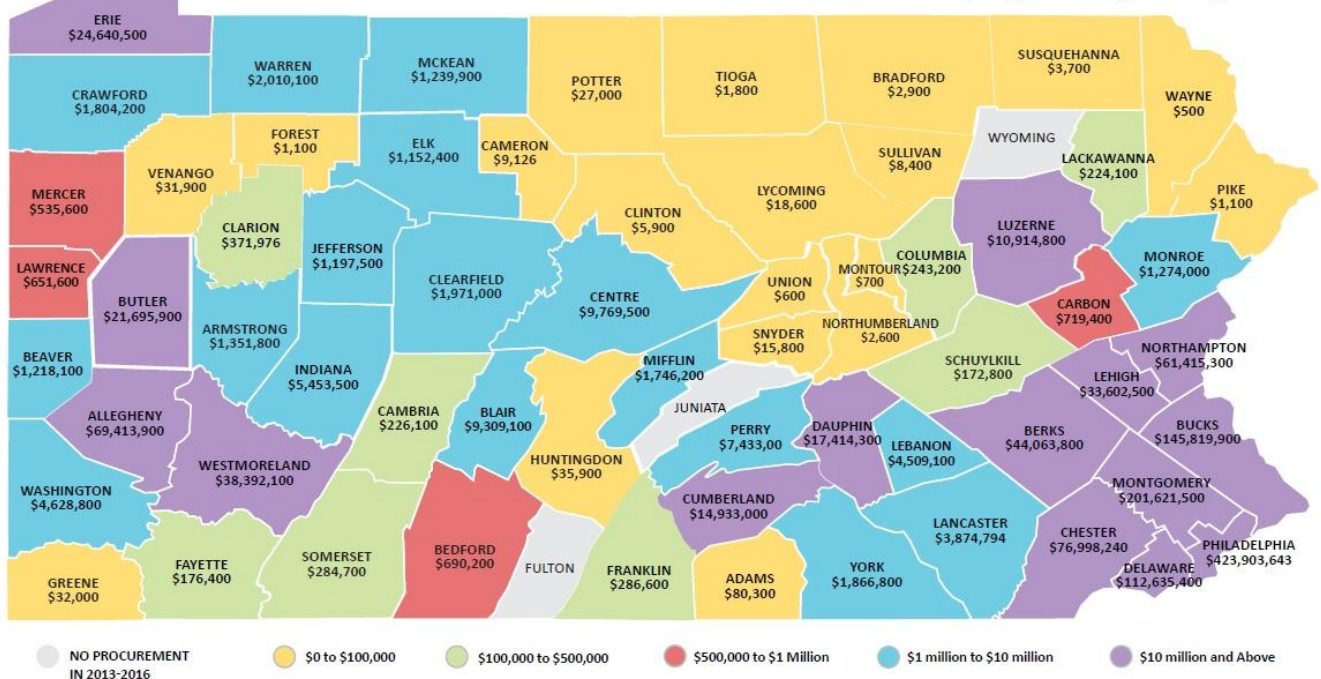
There must be a stable, reliable, and permanently dedicated revenue stream for transportation infrastructure investment in the Commonwealth.

For decades Pennsylvania has been underfunding transportation infrastructure investment. Without action by U.S. Congress, the Federal Highway Trust Fund, which is used to finance most federal government spending for highways and mass transit, is going to be insolvent in 2023. Fund revenues come from transportation-related excise taxes, primarily federal taxes on gasoline and diesel fuel. In recent years, however, the trust fund has needed significant transfers of general revenues to remain solvent.⁴⁰

\$450 Million Funding Crisis Rapidly Approaching

Pennsylvania Turnpike debt-financed required payments to PennDot of \$450 million are scheduled to transition to a general fund motor vehicle sales and use tax obligation in July 2022. By law the Pennsylvania Turnpike will continue to provide \$50 million annually to PennDot. The \$450 million shift will create competition with other necessary general fund obligations. This competition jeopardizes both the safety and reliability of the entire state's ground transportation system. Any potential service cuts to mass transit would negatively impact commerce and Pennsylvania's economy. The impact of not replacing these funds would be catastrophic to the future of our transportation system and economies in rural and urban communities alike.

2013-2016 MASS TRANSIT PROCUREMENT BY COUNTY STATEWIDE TOTAL = \$1,364,136,100



2013 - 2016



Critical Challenges to Transportation Infrastructure

Funding Crisis Continued...

PA Gas Tax Revenues Fall Short of Projections

The gas tax increase passed in 2013 isn't meeting revenue projections due to a significant increase in the use of more fuel-efficient vehicles inclusive of alternative fuel vehicles such as hybrid and electric models. The price of fuel has also remained relatively low, further contributing to missed revenue projections. The cost of the infrastructure projects, at the same time, has increased with a modest inflation rate of 2.25%. That's roughly \$100 million in lost buying power each year according to ASCE PA.

Transportation Funds Being Diverted

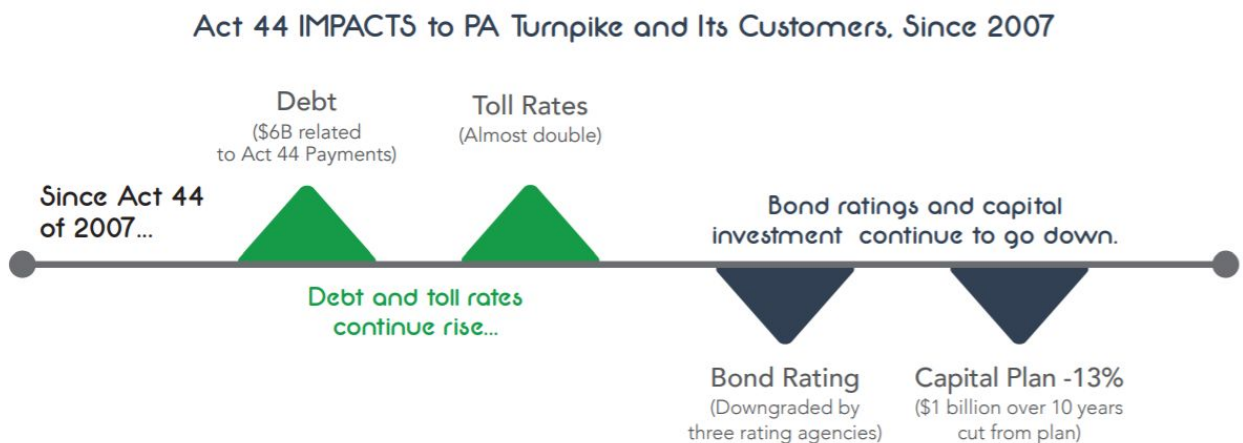
Among other diverted funds, the state has been transferring \$750 million per year of its transportation budget, through the Motor License Fund (MLF), to supplement the Pennsylvania State Police budget. In 2016 this was capped by legislative action and set to step down yearly to a target of \$500 million in 2026. This strain on MLF funds further compounds the underfunding of our highway systems critical need for maintenance and capital improvements.

Critical Challenges to Transportation Infrastructure

Debt & Excessive Toll Hikes

Act 44 required the Pennsylvania Turnpike Commission (PTC) to provide PennDOT with \$450 million annually for transportation capital needs. Originally the plan included tolls on I-80 to support the revenue stream. But the federal government rejected PennDOT's application to toll I-80. As a result, the entire toll burden has been placed on the existing turnpike and PTC has been forced to raise toll rates for 11 straight years. This has driven the agency's debt levels to more than \$13 billion. This has forced the agency to reduce its rebuilding program by 13% and it cannot consider any potential expansion projects. The PTC is facing increased pressure to provide its customers with relief from excessive toll hikes and to provide its customers with new, safe, and reliable interchanges.

Users of the turnpike have heavily criticized the PTC for its toll hikes. The Owner-Operator Independent Drivers Association (OOIDA) sued the PA Turnpike for a \$5.8 billion refund. The truckers argued the excessive toll hikes were cost prohibitive to interstate commerce and that the reason the tolls became excessive is because the money wasn't being re-invested in the highway that the money was collected for. Earlier this year the judge in the case dismissed the lawsuit and the Third Circuit Court upheld the decision.



Critical Challenges to Transportation Infrastructure

Costly Delays

Reduced Federal Support for Interstates

The federal gas tax has not been increased since 1993, which has placed a burden on state transportation funds to pay for the maintenance of the interstates. PennDOT is currently shifting approximately \$400 million from local projects to temporarily maintain and repair the interstate highway system. Although this transfer is necessary due to limited state transportation dollars, it is preventing rural communities from experiencing job growth. Urban communities foregoing investments in large local infrastructure projects has resulted in congestion and economic strain.

Congestion

Among the nation's urban areas, Pittsburgh and Philadelphia are ranked in the top 10 as having the worst congestion. Congestion within the Center City street grid, alone, impacts Philadelphians in many ways including the 15,700 potential jobs and \$1.08 billion in potential earnings foregone associated with lost productivity.⁴¹ In Pittsburgh, traffic congestion costs totaled \$1.2 billion or \$1,776 per driver. Although these are just two examples, there are many corridors impacted by congestion in PA which is limiting the potential for economic growth of the entire Commonwealth.

Aging Infrastructure Unfunded Liability

Pennsylvania has more than 22,660 bridges. Of those, 23% are considered structurally deficient. That's the highest percentage in the nation. Reports from the Secretary of Transportation Leslie Richards, the American Society of Civil Engineers, and Pennsylvania Auditor General Eugene DePasquale, note that many of the Commonwealth's bridges are over 65 years old and are in need of significant repairs.⁴² In addition to bridges, roads, mass transit, railways and airports are in need of dire upgrades and repairs. SEPTA alone has more than \$20 billion in unfunded capital improvement projects. The backlog of deferred maintenance is stressing our transportation infrastructure and exacerbates the need for new funding.

Medical Assistance Transportation Program

The well-being of many of our most vulnerable citizens is heavily reliant on the Medical Assistance Transportation Program (MATP). MATP enables individuals with disabilities to receive transportation services pertaining to their disability so that they may travel to medical appointments, pharmacies, or hospitals. Without this crucial service, many of its riders would not be able to receive the medical services and care they need. MATP is offered to the state's 2.8 million Medicaid patients and used by 55,000 of them.⁴³

Currently, county governments manage the MATP reducing duplicate trips and making PA one of the nation's lowest cost providers for nonemergency medical transportation.⁴⁴

The state plans to let private brokers become responsible for a region of the state which could result in delayed rides and worse service.⁴⁵

Task Force Recommendations

Ending Diversions & Funding Replacements

Expedite Turnpike Relief

Pennsylvania Turnpike Commission (PTC) debt-financed required payments to PennDot of \$450 million are scheduled to transition to a general fund motor vehicle sales and use tax obligation in July 2022. The General Assembly could provide further relief to the PTC prior to 2022, gradually at a \$150 million per year over a three-year period starting this year and ending in 2022. Currently the legislature is unrestricted in its appropriation of vehicle sales tax revenues. Alternatively, imposing an excise tax on vehicle sales would restrict the ability of the General Assembly to invest the money on transportation needs and create a permanent spending control measure on the General Fund.

Expedite the Transfer of State Police Funding to General Fund

According to the Auditor General, the Pennsylvania State Police since 2012-13 has received funds from the Motor License Fund (revenues generated from the gas tax and other fees) totaling more than \$4 billion.⁴⁶

As a result of the diversion, only 27% of PennDOT's projects in 2017 were completed, according to Auditor General Eugene Pasquale.⁴⁷ By ending these diversions, transportation priorities could be completed and new projects can begin. With an investment of \$90 million, the rate of transfer can be doubled from 4% to 8% per year allowing the Motor License Fund to be restored faster and more infrastructure projects funded. The Pennsylvania State Troopers have their own line item in the budget to ensure the legislature continues to invest in safety.

Nearly half of all municipalities in the state no longer offer local police services due to growing reliance solely on state police services. There have been multiple proposals to create stable and equitable funding sources for state police services across the Commonwealth. The governor has a per capita fee varying by population size or there was a fee-for service model proposed in the 2018-19 session. Regional policing is an alternative to local police where counties share local police resources and reduce the burden on state police from having to enforce local municipal laws.

Task Force Recommendations

Improve Efficiency & Competition

2

Expand Public Private Partnership Opportunities

Allow private sector managers to handle more projects for PennDOT and local government entities. Based on our experience, this not only leverages private investment, but creates innovative ways to complete projects, improving efficiency.⁴⁸ An example of this is the Rapid Bridge Replacement project where PennDOT focused on bridges of similar size and design so components could be mass produced resulting in time and cost savings to taxpayers.⁴⁹ The costs and workload were lower so that PennDOT could focus on other important projects.

House Bill 176 expands the use of P3's throughout the Commonwealth for various state projects by creating the P3 Infrastructure Board.

Develop a protocol for conducting consistent, rigorous feasibility studies for projects. Once the feasibility studies are completed and the demand estimates rise to an actionable level then the state can conduct cost and revenue studies.

Conduct a feasibility study on the Reading - Pottstown - Philadelphia line proposal and finish discussions with Norfolk Southern regarding cost study on expanding passenger rail from Altoona to Pittsburgh.

Consolidated Permitting for Highway / Large Projects

Consolidating permitting for a series of large projects would improve efficiencies. For instance, repairing hundreds of roads and/or bridges at once would improve project developments and consolidation would allow PennDOT to manage programs rather than various projects. Expedited permit approval would speed up recommended infrastructure replacement projects.

Design-Build

Provide PennDOT with the explicit authority it needs to implement the Design-Build method for certain-sized projects such as those larger than \$100 million. This method has been adapted by many states because of the advantages of saving time on projects as well as improving quality of the projects and the reduction of costs for work orders, construction, engineering and inspection (CEI) costs. According to a report by the Federal Highway Administration, studies done in the state DOTs of Ohio, Florida, Washington, New York, Illinois and Arizona have shown significant reductions in contract costs and contract durations for highway projects, when compared to the traditional Design-Bid-Build (DBB) method.⁵⁰

Improve Asphalt/Concrete Competition to Reduce Materials Cost

Simple changes to update old PennDOT contract standards to account for new technological advancements in the concrete industry could yield big savings by driving competition between asphalt and concrete companies. Massachusetts Institute of Technology state DOT's bid pricing study, showed evidence that increasing competition between paving material industries lowers paving costs for both asphalt and concrete jobs and is likely to result in significant savings for state DOT's and taxpayers. Wisconsin had the lowest unit costs for concrete and asphalt pavement thanks to the state's healthy balance of using both industries to improve the quality of the projects.⁵¹⁵²⁵³ Reducing material costs is possible through competition, however there must also be metrics to evaluate the performance of the roads so as not to jeopardize safety or quality. Two options that can be implemented to encourage competition is Alternate Design/Alternate Bidding or programmed selection.

Task Force Recommendations

Localize

Give Counties and Regions ability to consider local solutions

Act 89 authorized local counties to impose a \$5 additional vehicle registration fee to fund local transportation projects. Many counties have implemented this fee and are seeking additional options to raise funds locally. Here are a few examples of what other competitor regions have done to encourage local governments to generate revenue for transportation infrastructure.

- *New York City* passed a \$2.75 per trip charge on Transportation Network Companies (TNC) trips citywide in 2018, with proceeds dedicated to transit.
- *Chicago* proposed a \$3 per trip charge on TNC trips downtown in 2019, with proceeds dedicated to transit.
- *Los Angeles* recently voted to fund \$120 billion in transit improvements, bonding against a 1% sales tax over 30 years.
- *Seattle* recently voted for a combination of taxes to fund \$54 billion in transit improvements, bonding against funding sources including sales, property and car-tab taxes.
- *Washington, D.C., region* (VA, DC, MD) passed \$500 million in annual transit funding, with each jurisdiction coming up with its own share from unique sources. VA flexed existing highway funds and a gas tax increase, MD used its transportation trust fund, and DC raised its TNC fee, commercial property tax and sales tax.

The legislature could allow for further local taxing options such as a sales tax or realty transfer tax or TNC fee. Any increases must be dedicated to transportation infrastructure projects freeing counties to use existing funds for other investment needs.

County Infrastructure Banks

Counties that develop Infrastructure Banks would also need to have a 30-year infrastructure plan so that the loans are invested in projects that help to accomplish the long term objectives of the infrastructure needs in the county. Many local governments may not have the funds they need to match the dollars provided by other infrastructure improvement funding programs. Also, they may not have the experience with state and federal funding to be able to navigate their grants or funding programs.

The PA Infrastructure Bank could help counties leverage their own tax payer dollars by offering even better loan terms to local governments that have a county infrastructure bank. A county infrastructure bank uses an annual investment to subsidize loans from the Pennsylvania Infrastructure Bank to local governments and private companies.

The Dauphin County Infrastructure Bank (DCIB) has already proven itself to be successful. Through this approach DCIB was able to leverage nearly \$1 million into \$11 million worth of improvements into the local transportation infrastructure in the first three years of the program.⁵⁴

Stakeholders

The below stakeholders provided various suggestions to the task force however it should be noted that the suggestions made are not agreed to by all stakeholders and merely points brought to our attention in order to inform the Task Force.

- American Society of Civil Engineers
- Commonwealth Foundation
- HATS - Harrisburg Association Transportation
- Norfolk Southern
- PA Constructors Association
- PA Online Messengers Association
- PA Secretary of DOT
 - Leadership
 - Current employees
 - Former employees
- PA State Police
- PA Turnpike Commission
 - Leadership
 - Current employees
 - Former employees
- Port Authority of Allegheny County
- SEDACOG - 12 year plan (Rural perspective)
- SEPTA
- State Transportation Commission
- TexasDOT

Appendix: Chart of Revenue Sources

REV. SOURCE	DESCRIPTION	POTENTIAL REVENUE (\$M) (BUCKET)	BASIS	PEERS
Sales Tax (Rate Increase)	Increase the sales tax rate.	\$415 (State) \$130 (Local)	0.25% increase State 0.5% increase Local (Current State=6%, Philadelphia=8%)	Co.) DE - No sales tax CO - 0.62% increase to fund transportation currently on ballot Los Angeles, Denver, Atlanta - Recent sales tax increases to
	<i>A portion of sales and use tax revenues (4.4%) is already set aside for PTAF. General sales tax increase previously studied/proposed as part of budgeting process by this administration.</i>			
Sales Tax (Base Expansion)	Taxation of goods/services previously exempted in PA.	Varies by good/service; Generally > \$100 for each candidate (State)	Calculated at 6% of annual revenues for given good/service	PA's effective sales tax ranks 11th lowest in the US largely because it exempts many essential goods and most services. NY recently started taxing "luxury" clothing and shoe purchases over \$110 at the full rate, 8.875%.
	<i>The PA Independent Fiscal Office analyzed various sales tax base expansion proposals for Governor's 2015-16 budget. Example candidates include: \$147 Non-prescription Drugs; \$86 Candy and Gum; Unknown (Luxury Clothing and Footwear; All clothing and footwear sales would generate \$784M); \$268 Amusement/Entertainment; \$180 Real Estate Agent and Related; \$150 Legal; \$186 All other Recreation.</i>			
Personal Income Tax	Increase the personal income tax rate.	\$400 (State) \$165 (Local)	Increase by 0.1% (Currently 3.07% for state)	Many states and cities have graduated income tax rates - a \$50,000 individual would pay: NJ - 2.54% DE - 4.78% Seattle - 8.52%
	<i>Assumes the tax is imposed on the employee. Could impose an employer tax as well to generate another \$400M.</i>			
Vehicle Property Tax	Annual % fee on vehicle's assessed value	\$500 (State) \$120 (Local)	0.35% of annual value	North Carolina and Virginia counties charge between 0.3% and 5% of assessed vehicle value
	<i>New collection mechanism would have to be established. Also, following peer models, counties would determine the rate charged.</i>			
Property Tax Surcharge	Add percentage-based surcharge to existing property taxes to fund transportation.	\$130 (Local)	10% increase to the rate (current rates vary between 0.949% in Philadelphia Co. to 1.936% in Delaware County)	PA statewide average: 1.51% Peers: DE- 0.58% (fourth-lowest in nation); NJ- 1.89% (highest in nation); NY- 1.58%; MD- 1.08%
Public Transportation Assistance Fund (PTAF)	Increase the tire, vehicle lease, and vehicle rental fees.	\$140 (State)	2X current rates	Tire fees in other states vary from \$0.50 per tire to \$10 per tire
	<i>Current rates were implemented in 1991 as part of Act 26. Current tire fee is \$1 per tire, rental fee is \$2 per day, and lease fee is 3% of the lease payment.</i>			

Real Estate Transfer Tax	Increase Real Estate Transfer Tax within Philadelphia region	\$240 (State) \$130 (Local)	Increase rate by 0.5% state and region-wide (current rate varies)	PA statewide rate is 1%, municipalities can assess up to an additional 1%. DE: 2.5-3% statewide, plus up to 1.5% locally NJ: Variable but generally lower than PA
	<i>Increased tax could also only be assessed on transfers of a certain value; this model would follow other states such as New York and New Jersey.</i>			
Gross Receipts Tax	Increase in millage paid by electric utilities	\$100 (State)	44 to 50 mills	
	<i>Increase electric utilities from 44 to 50 mills, which is the rate paid by all other entities subject to the Gross Receipts Tax.</i>			
Gaming Revenue from New Casino	Diversion of gaming revenue	\$100 (State)	Revenue diversion from new South Phila. Casino	
	<i>Estimated annual revenue from new casino at Sports Complex in South Philadelphia.</i>			
Cap-and-Invest Plans	Investment in proceeds from allowance auctions	TBD	Dependant on CO2 emissions thresholds	
	<i>Invest a share of RGGI and/or Transportation Climate Initiative funds into emissions-reducing transportation, such as transit.</i>			
Cigarette Tax	Increase tax per pack of cigarettes purchased	\$47 (State) \$15 (Local)	10% per pack increase regionally	PA: \$2.60 per pack, NY \$ 4.35 per pack, CA \$2.87 per pack, NJ \$2.70 per pack, DE \$2.10 per pack, MD \$2.00 per pack,
	<i>Only a few municipalities have local cigarette taxes in addition to state taxes. Major cities with similar fees include New York City, Chicago, and Philadelphia. Revenue estimate assumes rate will be increased and added to cigarette purchases in surrounding counties.</i>			
Electric Vehicle Fee	Issue flat-rate fee during registration renewal to owners of electric/hybrid electric vehicles, to offset liquid fuels tax avoidance.	\$1.6 (State) \$0.4 (Local)	\$200 (fully electric vehicles) \$100 (plug-in hybrid)	17 states levy this tax NY, NJ, DE, MD- None WV- \$100/200 VA- \$64 CA- \$100 (beginning in 2020) GA- \$300 (commercial), \$200 (noncommercial)
	<i>Average Pennsylvanian pays nearly \$400/year in liquid fuels tax PA currently collects alternative fuels tax for all types of non-gasoline fuels; collection on electric vehicles is negligibly small due to low collection rate and inability to tax vehicles recharged at non-public stations. Market share for electric vehicles is expected to grow considerably over the next decade. At same levels, PennDOT estimates tax could yield anywhere from \$65M to \$316M in 2033 depending on level of policy and technology support.</i>			
Excise Tax on Adult Bicycles	Levy fee on all bicycles sold in Pennsylvania	\$7.5 (State) \$3 (Local)	\$15 per bike sold statewide	Oregon has \$15 fee for all adult bikes sold at a price greater than \$200. Projected to collect \$1 million annually. Initially figures suggest they will not reach this goal
	<i>With an average of 17.5 bikes sold nationally and assuming Pennsylvania accounts for 4% of these purchases, excluding youth bikes, one can assume approximately 700 thousand bikes are sold in PA annually. As cycling popularity increase, revenue from this policy would raise at the same rate.</i>			

Hotel/Motel Tax	Increase on current county-level surcharges	\$5 (Suburbs Only)	1.8% rate increase	Delaware: 9%; Montgomery: 10%; Philadelphia: 14.2%; Houston 17%, Chicago 16.39%, Seattle 16.6%, Atlanta 15%, New York City 14.75%,
	Municipalities in peer agency WMATA's service area recently passed a special hotel fee earmarked solely for transit. Hawaii also passed similar policy raising the rate by 1%			
Lead Acid Battery Tax	Fee on lead acid batteries sold	\$16.5 (State) \$4.2 (Local)	\$2 per battery sold (\$1 consumer, \$1 retailer)	California and Florida have similar policy but funding goes toward environmental/toxic waste cleanup
	Revenue estimate based on the number of registered vehicles in Pennsylvania. Important to consider growth of future sales, understanding all new/existing cars will still need this component for the foreseeable future			
Liquor/Malt Beverage Tax	Increase fee on liquor and beer sales	\$43 (State)	10% increase in taxes	Pennsylvania Liquor Control Board control unique when compared to peer states. No other state/municipality spends similar revenue source on transportation/transit
	Projected to bring in about \$430 million in tax revenue collectively in 2019, the liquor and malt beverage tax collect via 18% sales tax as well as a fee per ounce.			
Local Gasoline Sales Tax	Levy a percentage-based tax on the sale of gasoline within the Philadelphia region.	\$40 (Local)	2% of fuel sales pre-state and federal tax (Currently 58 cents/gallon statewide); amounts to roughly \$0.04 per gallon at \$3/gallon	Overall tax burdens at state level combined are all lower than PA. NJ: 41.4 cents/gallon; DE: 23; NY: 45.6; MD: 35.3.
	Act 89 increased state tax on gasoline in phases over last five years to roughly 58 cents per gallon Some administrative concerns with collecting percentage-based tax on fluctuating price of gasoline locally.			
Vehicle Registration Fee	Increase the registration fee charged on vehicles.	\$14 (Local)	\$5 annual increase (Currently \$37 per passenger vehicle)	NJ - fee structure is variable based on vehicle weight, age and efficiency.
	Act 89 allows counties to place a \$5 annual surcharge on vehicle registration fees; the fees must be used for highway/bridge projects. Bucks, Chester, Montgomery and Philadelphia have enacted this fee in the Philadelphia region. Act 89 allows the \$5 fee to be indexed to inflation.			
Telecom Surcharge	Tax utility to support agency telecommunication infrastructure	\$6.5 (Local)	12 cents per account	NYC MTA, Dallas Area Rapid Transit, and El Paso City Transit charge similar utility fees to recover expenses.
	Could help offset SEPTA/agency operation and maintenance cost associated with telecommunication systems.			
Motor License Fund Vehicle Codes	Transfer of transit-eligible funds from MLF	\$30 (State)	\$4 per ticket	
	Elimination of MLF-funded attorney program (\$4 per ticket) would unlock an estimated \$30M statewide in funds that could be dedicated to transit			

TNC Fee	Additional fee per trip provided by Uber, Lyft, or other ride service	\$36 (Philadelphia)	\$1 per trip	Current rate is 1.4% - goes to PPA and PSD.
	<i>Taxi license fees and other sources of revenue tied to this industry have declined since the introduction of this new ride services. Increasing the price of these services could reduce congestion by limiting car trips and support transit use.</i>			Outside of permit fees, some jurisdictions charge by trip: NYC \$2.75 in Manhattan, Chicago \$0.72, and MD \$0.25
Transit Fare Increase	Increase price to use SEPTA service	\$74 (Local)	20% increase	SEPTA's current fare structure is consistent with peer agencies.
	<i>Raising the price on transit service can improve total revenue, but can also decrease the number of unlinked passenger trips. This could have unintended consequences resulting increased congestion and decreased use, especially lower income riders.</i>			The base fare of \$2.50 coincides with: WMATA \$2.00, CTA \$2.50, and NYC MTA \$2.75.
Fee in Lieu of Transportation Improvements	Charge fee for new land development in lieu of required highway improvements which are impractical/infeasible for a given site	Low (proportional to amount of new development)	Equal to cost of otherwise-required highway improvements	Done by PennDOT as part of "Alternative Transportation Plan" process.
	<i>Used by PennDOT by policy in appropriate urban, exurban and suburban settings. Fees used by public agencies towards broader strategies to address the transportation network PA Municipalities Planning Code authorizes municipalities to charge impact fees for this purpose; however, there is limited flexibility in what funds can be used for.</i>			Used by some municipalities in Philadelphia region, particularly Montgomery County.
Fee in Lieu of Parking	Create new fee for Center City commercial office space	\$41 (Philadelphia)	\$1 per square foot of commercial office space	Miami Beach charges a onetime fee of \$35,000 per space under the parking requirement. City of Santa Monica allows businesses in designated area the ability to pay \$1.50 per square foot.
	<i>Currently, Center City has over 41 million square feet of office space and continues to expand. Due to the density of this development and business/travel activity at peak times, congestion and other negative impacts occur. Charging this fee could fund traffic mitigation strategies as well as incentivize commuters to travel via transit.</i>			
Tax Increment Financing (TIF)	Set aside a portion new (property) tax revenue to fund public transportation improvements.	Low (depends on scale of districts created and nature of development projects)	Property tax revenues for designated areas/projects	Chicago - 131 TIF districts with tax receipts totaling \$500M in 2006 Denver- Leveraged \$5B in private investment by committing to \$500M of TIF subsidies from 1995-2005.
	<i>Pennsylvania's TRID (Transit Revitalization Investment District) program encourages private development at mass transit hubs Foregone tax revenue can cause undue burden on other groups (school districts, fire/police services, etc.) that would otherwise benefit from revenue.</i>			

Surface Coverage Fee	Fee on impervious surface such as parking lots, sidewalks, private roadways, etc.	\$ 20 (Local)	\$5 fee per 1,000 square feet	Many municipalities large and small have fees and policies in order to fund water systems.
	Development can disrupt storm water management and exacerbate flooding, via replacing ground/soil which previously absorbed water. As a result municipalities/utilities need to construct storm water managements systems, basins, and other structures to avoid flooding and other issues. Parking and development are a piece of transportation demand. As a result, one can argue there is a link with transportation.			Two common methods include charging residents flat fee or property owners by square feet. However, funding does not go to transportation
Rezoning Public Property for Private and/or Transit Development	Re-zone underutilized or non-needed public property for private and/or transit development	Low (can create new one-time or recurring revenue opportunities based on	Property tax revenues for designated areas/projects	
	Effectively converts public property into a TIF district, or transportation project outright.			
Rolling Property Tax Assessment	Require property tax reassessment at regular intervals, with revenue increases shared with transportation.	Variable depending on frequency of reassessments and changes in economic	No current standard for when properties are reassessed	At least 44 states require annual reassessments or on a fixed cycle of no more than six years. NJ- Annually
	Philadelphia County's recent reassessment yielded a 10.5% increase in median property values; the City's Office of Property Assessment aims to reassess annually. Delaware County's 200,000+ properties are currently being re-assessed per a court order; due in 2021.			
Transportation Access Fee (Commercial Rent Surcharge)	Assess a surcharge to commercial property rents for transportation (transit) purposes.	\$40 (Local)	\$0.25 per square foot of rented space	
	If used for transit, only makes sense where improvements to transit network benefit the development			
Mileage Based User Fee	Charges vehicle users/owners a fee based on miles traveled annually	Low (State) Low (Local)	1 cent per mile	Oregon has a volunteer program in place, to pay per mile fee. Additionally, other states and regions are heavily studying implementing similar policy, including the Delaware Valley.
	Directly tied to transportation and infrastructure consumption, many consider this funding policy equitable due to its connection to road use. While a gas tax is considered tied to transportation, vehicle owners/users purchase more or less based on fuel efficiency. Policy could also have an impact on congestion and transit use, encouraging commuters to utilize more cost effective modes. Likely a replacement to the gas tax.			

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