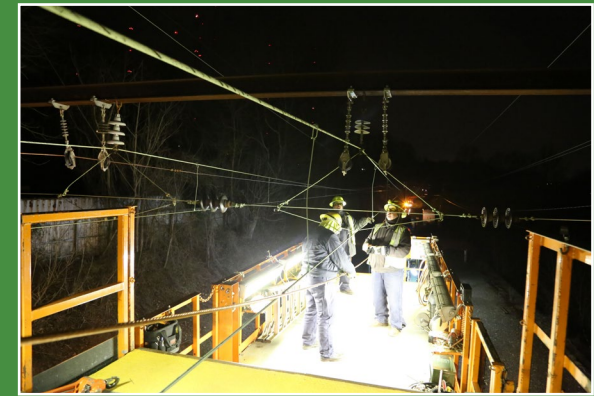




# FISCAL YEAR 2018

## CAPITAL BUDGET

Fiscal Years 2018–2029  
Capital Program



**FISCAL YEAR 2018 CAPITAL BUDGET  
AND FISCAL YEARS 2018-2029 CAPITAL PROGRAM**

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**“REBUILDING THE SYSTEM”**



**Approved by the SEPTA Board**

**May 25, 2017**





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# FY 2018 CAPITAL BUDGET AND FY 2018-2029 CAPITAL PROGRAM

## Overview and Summary

This document presents SEPTA's annual capital budget for Fiscal Year 2018 and the capital program for Fiscal Years 2018 through 2029. The annual capital budget and 12-year capital program describes the capital improvements SEPTA plans to undertake with anticipated funding. The budget is adopted by SEPTA's Board, and is reflected in the regional Transportation Improvement Program (TIP). SEPTA's capital budget document is organized as follows:

- Introduction to SEPTA
- Strategic planning efforts
- Sources of Capital Funding
- Uses of Capital Funding
- Funding projections and assumptions
- Rebuilding the System - Program Progress
- The FY 2018 Capital Budget and FY 2018-2029 Capital Program (Table)
- Descriptions of capital programs and individual projects
- Appendices

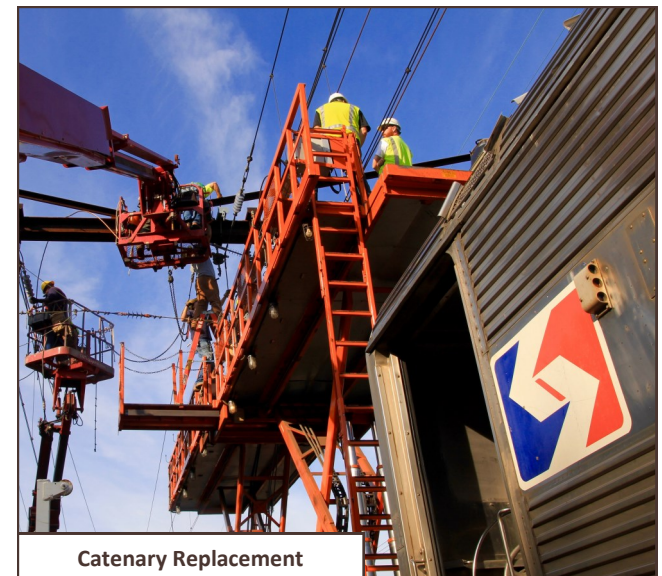
SEPTA's FY 2018 capital budget totals **\$727.23** million and the 12-year capital program totals **\$7.3** billion. By comparison, the Board-approved FY 2017 capital budget totaled \$548.63 million and the FY 2017-2028 program totaled \$7.3 billion. The FY 2018 capital budget and 12-year capital program takes into account Federal funding authorized under the Fixing America's Surface Transportation (FAST) Act; funding from the Commonwealth of Pennsylvania generated by Act 89 legislation; as well as capital financing, including anticipated borrowings under the Employment Based Immigration - 5th Preference ("EB-5") loan agreement.

The "Rebuilding the System" program was initiated following the enactment of a long-term state transportation funding solution under Act 89. To bring SEPTA's assets to a state of good repair, the Authority is rehabilitating and replacing critical infrastructure and systems, such as bridges, stations, and substations, along with vehicle maintenance facilities. The capital program will modernize communication equipment and provide real-time information for customers, while adding safety and security enhancements. The SEPTA Key project is replacing antiquated fare collection systems with cutting-edge payment technology, allowing customers to move seamlessly throughout the SEPTA transit network. SEPTA will replace rail vehicles that have far exceeded their useful life, while improving accessibility and expanding capacity to address ridership growth. SEPTA is acquiring electric buses outfitted with state-of-the-art battery technology, expanding its fleet of hybrid diesel-electric buses, and performing vehicle overhauls to optimize vehicle performance. The capital program also includes annual financial obligations such as capital leases and debt service.

Project status updates and photos for the Rebuilding the System program are available online at <http://www.SEPTA.org/rebuilding>.



Crum Creek Viaduct



Catenary Replacement



## FY 2018 CAPITAL BUDGET AND FY 2018-2029 CAPITAL PROGRAM

### Introduction to SEPTA

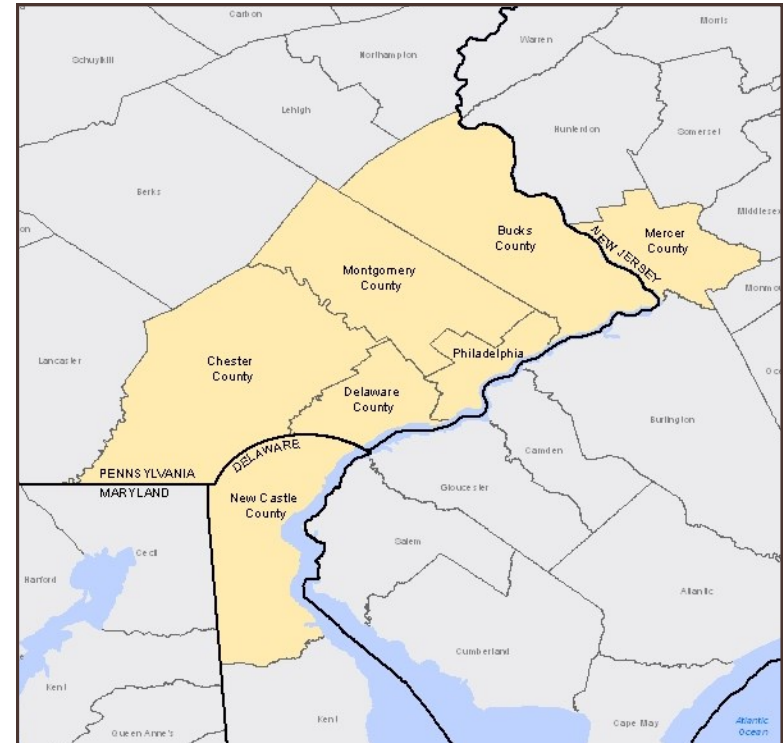
SEPTA is the nation's sixth-largest public transit agency and the primary public transit provider in the greater Philadelphia region. SEPTA was created by the Pennsylvania state legislature in 1964 and is an instrumentality of the Commonwealth of Pennsylvania. SEPTA's multimodal network serves a 2,200 square-mile region with a population exceeding four million. The SEPTA service area includes the five counties of southeastern Pennsylvania – Bucks, Chester, Delaware, Montgomery, and the City of Philadelphia – and also extends to Trenton and West Trenton in New Jersey, and Wilmington and Newark in Delaware.

SEPTA operates the following services:

- 117 bus routes
- 13 Regional Rail lines
- 8 Trolley lines
- Broad Street Line and the Market-Frankford Line (subway/elevated)
- Norristown High Speed Line (an interurban heavy rail line)
- 3 Trackless Trolley routes
- Customized Community Transportation (CCT), demand response services for seniors and individuals with disabilities
- Four small bus circulator and shuttle services

Service / Mode	Ridership	Revenue Vehicles
Bus	155,420,500	1,416
Regional Rail	37,700,800	404
Trolley	27,111,800	159
Subway/Elevated	94,560,500	343
Norristown High Speed Line	3,268,600	26
Trackless Trolley	6,240,700	38
Demand Response	1,792,300	457
<b>Total</b>	<b>326,095,200</b>	<b>2,843</b>

Source: FY 2016 SEPTA Operating Statistics



In FY 2016, the Authority provided more than **326 million** passenger trips, with average weekday ridership of approximately **1.1 million** trips.

SEPTA's Regional Rail ridership has **increased by more than 50 percent** over the last 18 years, from 24.8 million trips in 1998 to a **record-setting 37.7 million trips** in FY 2016.

## SEPTA Regional Rail and Rail Transit Map



## Recent Achievements

In July 2016, the City of Philadelphia hosted the **2016 Democratic National Convention**, held at the Wells Fargo Center. Besides adding 7 Broad Street Subway trains, 125 special SEPTA buses operated on 11 delegate shuttle routes, transporting from 9,000 to 12,000 passengers per day. A satellite bus depot was set up in the parking lot of the Center, with 200 personnel operating around the clock. Additionally, 450 SEPTA Ambassadors were stationed throughout the City to assist delegates in their travels.

SEPTA completed the **Crum Creek Viaduct** project in October 2016, replacing a bridge originally built in 1895 with a new, modern structure. The new viaduct on the Media-Elwyn Regional Rail Line is designed to last 100 years.

SEPTA opened a first ever **Travel Center** at the University of Pennsylvania in University City on December 7, 2016. The Center is manned by SEPTA employees and connects students with all forms of travel options, including Penn Transit, New Jersey Transit, Amtrak, Indego Bike Share and car sharing.

SEPTA was awarded competitive funding under the Federal Transit Administration's "Low or No Emission Vehicle Deployment Program" to assist in the acquisition of **25 all-electric buses**. The buses are scheduled for delivery in 2017-2018 and will operate on routes 29 and 79 in South Philadelphia.

On January 29, 2016, as part of SEPTA's "Rebuilding the System" initiative, a new **West Terminal at 69th Street Transportation Center** was dedicated in Upper Darby, replacing a 109 year old structure. This facility serves the Market-Frankford Line, the Norristown High Speed Line, Trolley Routes 101 and 102, and 18 bus routes.



## STRATEGIC PLANNING EFFORTS

### Strategic Business Plan

As part of its Five-Year Strategic Business Plan, SEPTA establishes vision, mission, core values, strategies, and key performance indicators to measure progress toward business objectives. The strategic planning process is a management tool that unifies and guides SEPTA's other major planning processes, including the Operating and Capital Budgets and the Annual Service Plan. The Strategic Business Plan for FY 2015-2019 uses eight corporate objectives to align these plans:

- ☑ Safety & Security
- ☑ The Customer Experience
- ☑ Sustainability
- ☑ Ridership Growth
- ☑ Emerging Technologies
- ☑ Rebuilding the System
- ☑ Human Capital Development
- ☑ Business Partnerships

SEPTA employs a balanced scorecard approach to measure quantifiable progress. "Key Performance Indicators" reports are updated monthly and are available at: <http://www.septa.org/strategic-plan/reports.html>.



**A Commitment to Sustainability** • SEPTA has achieved "Gold" level recognition for its commitment to sustainability from the American Public Transportation Association (APTA). SEPTA is one of only 19 transit agencies in North America that have received that designation.

### Sustainability Program Plan

A key programmatic element of SEPTA's Strategic Business Plan is "SEP-TAINABLE," which outlines the Authority's triple bottom line approach to sustainability: accounting for environmental, social and economic organizational needs and regional opportunities. This year SEPTA released SEP-TAINABLE 2020, the Authority's second generation sustainability plan. Because one of the guiding principles of the sustainability program is to develop financially sound investments and programs, a new economic goal was added to track and report the grants, revenue and savings SEPTA receives from sustainability initiatives. By tracking the positive financial impacts of sustainability initiatives at SEPTA, the Authority knows which investments and programs provide the greatest financial yield. Having this information allows SEPTA to make financially informed decisions on whether to continue or expand programs, helping SEPTA to grow its environmental and social impact while simultaneously improving its economic position. The total positive financial impact of sustainability initiatives exceeds \$121 million as shown in the table below. For more information about SEPTA's sustainability program visit: <http://www.septa.org/sustain>.

Fiscal Year	GRANTS	REVENUE	SAVINGS	TOTAL POSITIVE FINANCIAL IMPACT <b>\$121,151,331</b>
2009	\$-	\$-	\$-	
2010	\$-	\$70,207	\$-	
2011	\$27,640,000	\$123,780	\$-	
2012	\$-	\$179,675	\$-	
2013	\$-	\$273,312	\$726,650	
2014	\$-	\$322,263	\$583,501	
2015	\$86,800,000*	\$418,696	\$73,449	
2016	\$2,600,000	\$278,675	\$1,061,124	
<b>Total</b>	<b>\$117,040,000</b>	<b>\$1,666,607</b>	<b>\$2,444,724</b>	

\*FTA's Resilience Grant

## STRATEGIC PLANNING EFFORTS

### Transit Asset Management

The FAST Act mandated that the Federal Transit Administration (FTA) develop an overall Transit Asset Management (TAM) system to monitor and manage public transportation assets. In a July 2016 final rule, the FTA issued asset management requirements for all public transportation providers. SEPTA's Transit Asset Management Program will be finalized in October 2018 and will be in full alignment with the provisions of the FAST Act. Moreover, the TAM Program will improve SEPTA's asset management practices and guide SEPTA's capital investments. A new suite of software will help SEPTA maintain comprehensive asset inventories and maintenance information for rolling stock and fixed assets such as bridges, stations, and rail. The new programs will provide the data required for making investment decisions that will allow SEPTA to achieve corporate goals, especially the goal to Rebuild the System. The Authority continues to prioritize the replacement and renewal of infrastructure and vehicles; however, state of good repair projects require attaining a balance between operational impacts and other strategic business initiatives.



60-Foot Hybrid Bus



Chestnut Hill West Line Bridge 0.35



Arrott Transportation Center



## STRATEGIC PLANNING EFFORTS

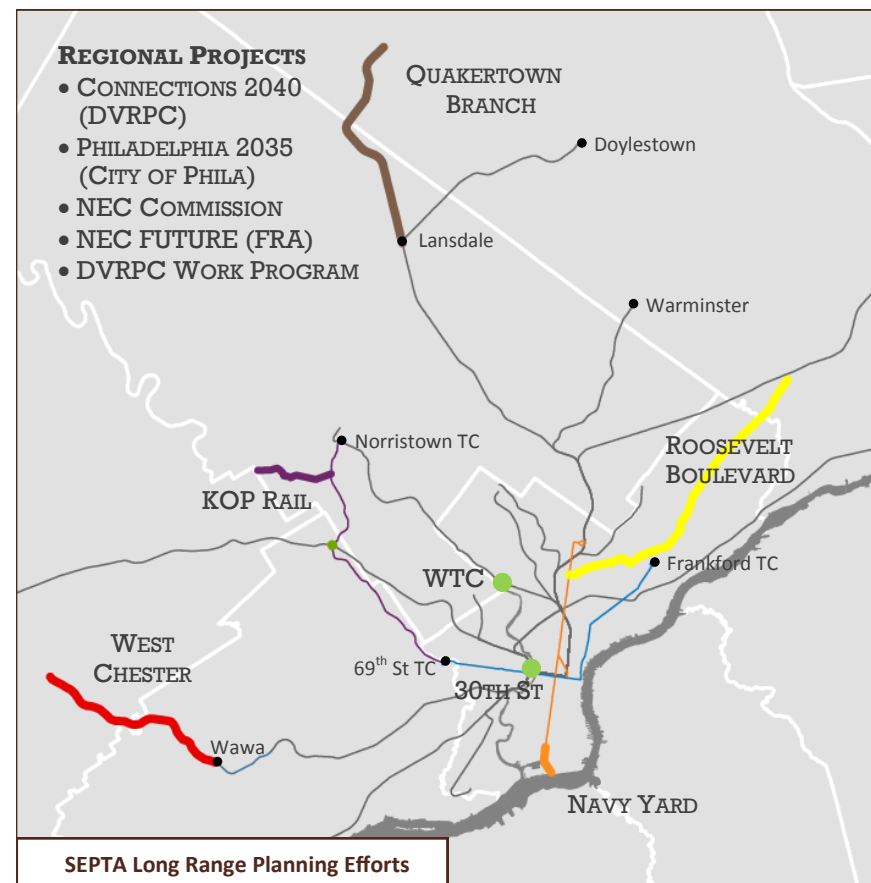
### Long Range Planning

SEPTA plays a key role in a wide variety of transportation planning efforts within the region, ranging from involvement in DVRPC's Connections 2040 Long Range Transportation Plan, to review and implementation of Philadelphia 2035 and County Plans, to local station area planning projects with Municipalities within our service area. These planning efforts help to identify potential future transportation needs as well as inform the SEPTA capital planning process of recommended future investments.

Although SEPTA will remain focused for some time to come on reducing our backlog of state of good repair projects, the Authority is able to advance planning efforts for a small number of potential future system expansion projects. These projects would allow SEPTA to see the potential for new riders to the system, as well as provide more efficient and reliable service to existing customers. SEPTA is currently involved in planning work for several of these potential future expansions: an extension of the Norristown High Speed Line to King of Prussia (the King of Prussia Rail Project), an extension of the Broad Street Line to the Philadelphia Navy Yard, and restoration of rail service on the Bethlehem Branch from Lansdale to Perkasie.

SEPTA also participates in complex and large scale planning efforts led by area stakeholders, including implementation and review of the Philadelphia 2035 plan, Amtrak Northeast Corridor Planning, and participation in the DVRPC work program and associated studies.

Many of these long term planning efforts are identified on the adjacent map. For additional details on these projects, as well as SEPTA's framework for a Long Range Plan, please refer to the following page and Appendix B.



## STRATEGIC PLANNING EFFORTS

### Highlighted Expansion Projects

#### King of Prussia Rail

The King of Prussia Rail Project is a Draft Environmental Impact Statement (DEIS) and Alternatives Analysis evaluating different alignments for an extension of the Norristown High Speed Line (NHSL) to King of Prussia. With almost 60,000 employees, King of Prussia is the largest employment center outside of the City of Philadelphia, and as a result of key assets like the King of Prussia Mall and the Valley Forge National Historical Park, serves as a popular destination for tourism within Montgomery County. The rail extension would offer improved regional transit connections to King of Prussia from communities along the existing NHSL, Norristown, and Philadelphia; improve connectivity between major destinations; better serve existing and new transit riders, and offer a reliable way to connect people to opportunities. The DEIS will also assess each alternative's impact to the natural, cultural and social environment, and address ways to minimize any impacts that cannot be avoided. Funding for planning and some design work is being provided under an existing FTA grant.

#### Upcoming Milestones

- Release of Draft Environmental Impact Statement: Anticipated Spring 2017
- Begin Final Environmental Impact Statement: Anticipated Fall 2017

Additional project information can be found at [www.kingofprussiarail.com](http://www.kingofprussiarail.com)



#### Broad Street Line Extension to the Navy Yard

The Broad Street Line Extension to the Navy Yard is a Phase 2 feasibility analysis to explore how the Broad Street Line could be extended from its current terminus at AT&T station into the Philadelphia Navy Yard. The number of employees at the Navy Yard, currently at 12,000, is rapidly growing and could increase to over 36,000 employees at full build out. This study will build upon previous planning work to update potential cost and ridership, as well as assess the overall feasibility of a subway extension to the area.

#### Upcoming Milestones

- Ridership and Cost Estimates updated: Anticipated Spring 2017
- Phase 2 Feasibility Report Completion: Anticipated Summer 2017

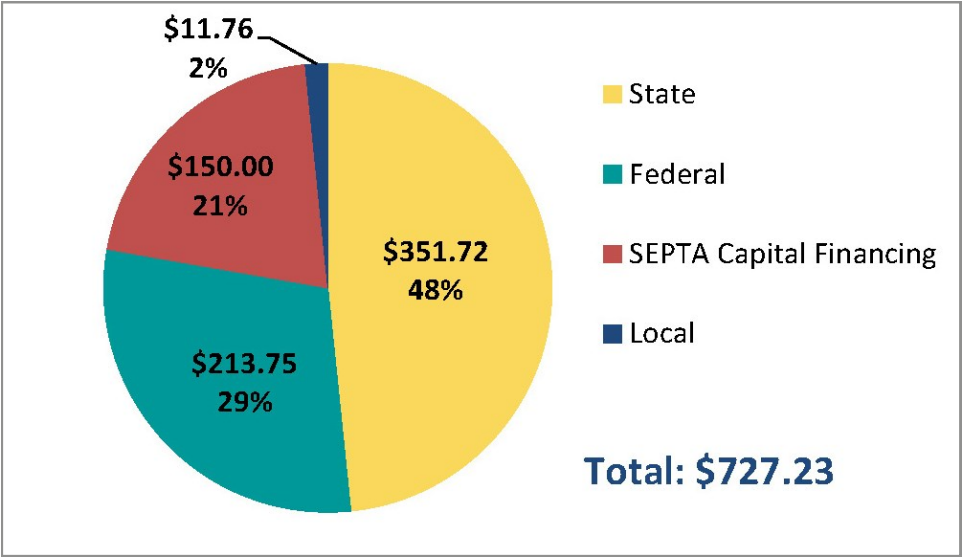
Additional project information can be found at [www.bslxnavyyard.com](http://www.bslxnavyyard.com)





# SOURCES OF CAPITAL FUNDING

## FY 2018 Capital Budget: Funds by Source (\$M)



**State Transportation Funding: The Passage of Act 89** • Act 44 of 2007 established the Public Transportation Trust Fund, which restructured state funding for public transit and replaced the previous General Fund sources with dedicated sources. However, in 2010, the Pennsylvania Turnpike Commission was unable to obtain federal approval to begin tolling Interstate 80. As a result, Act 44 funds were significantly reduced. Between FY 2011 and FY 2014, SEPTA’s capital program was reduced to about \$300 million annually, the lowest level since 1997. The state legislature recognized the need for continued investment in transportation infrastructure. Following on the recommendations of the Governor’s Transportation Funding Advisory Commission, lawmakers crafted a comprehensive transportation funding bill to provide long-term, dedicated funding for public transit as well as roads, bridges and multimodal transportation. State Act 89 of 2013 (House Bill 1060) was signed into law on November 25, 2013.

## State Funds: \$351.72 Million

Act 89 of 2013 provided a comprehensive transportation funding solution for the Commonwealth of Pennsylvania. The funding is indexed to inflation and has no legislative sunset. New revenues for transportation were generated through uncapping the Oil Company Franchise Tax (OCFT), adjusting various fees for inflation, and surcharges on traffic tickets. This long-term, dedicated source of state funding for transit means that SEPTA can begin to address its State of Good Repair backlog, resulting from years of capital funding shortfalls, while modernizing equipment and laying the groundwork for future improvements. Following the passage of Act 89, SEPTA presented the “Rebuilding for the Future” initiative in its FY 2015 capital program.

SEPTA’s FY 2018 Capital Budget includes **\$351.72 million** in state funds. SEPTA receives state capital funds primarily via Section 1514, the Asset Improvement Program. Sources of funding for Section 1514 are generated by various sources: proceeds of capital bonds; tire, vehicle lease and vehicle rental fees; traffic violation fines; motor license fund fees; and turnpike transfer funds, which will eventually be replaced with sales and use tax revenues. SEPTA receives 69.4 percent of the statewide capital funds allocated to transit authorities.

The Section 1514 program supports up to 96.775 percent of the total cost of capital projects. The remaining 3.225 percent is matched by Bucks, Chester, Delaware and Montgomery Counties and the City of Philadelphia. SEPTA also uses state transit funds to match federal grants, with the state share being 19.355 percent of the total project cost when used in this manner. The remaining 0.645 percent is matched by the four regional counties and City of Philadelphia.

## SOURCES OF CAPITAL FUNDING

### Federal Funds: \$213.75 Million

On December 4, 2015, President Obama signed into law the Fixing America's Surface Transportation (FAST) Act. The FAST Act is the first passage of a long-term surface transportation authorization since 2005. Over its five year lifespan, the FAST Act authorizes \$305 billion for surface transportation funding, including \$61 billion dedicated for public transportation. This creates a steady and predictable funding stream that also modestly increases national public transportation investment. The FAST Act maintains most program structures established in the Moving Ahead for Progress in the 21st Century (MAP-21) Act of 2012. Funding increases are targeted toward improving state of good repair and the bus program.

SEPTA's FY 2018 Capital Budget includes an estimated **\$213.75 million** in federal funds. Federal funding sources and FY 2018 estimates are shown in the adjacent table.

Most of SEPTA's federal funding is provided by grants from the Federal Transit Administration (FTA) via the formula funding programs. SEPTA also receives federal highway funds that PennDOT "flexes" (i.e., transfers) to transit agencies in the Commonwealth. SEPTA typically uses flex funds for bus replacements. The FY 2018 budget also includes \$1 million in projected Transit Security Grant Program (TSGP) funds allocated through competitive grants administered by the Federal Emergency Management Agency (FEMA).

Federal funds typically support 80 percent of the total cost of a capital project; the remaining 20 percent local match is provided by the Commonwealth of Pennsylvania, the City of Philadelphia, and Bucks, Chester, Delaware and Montgomery Counties.

The Authority applies for competitive federal grants when available, and SEPTA has received a variety of grant awards to support capital projects. For example, in 2016, SEPTA was selected to receive a \$4 million grant under the FTA's Section 5339 Bus and Bus Facilities program to support expansion of the Wissahickon Transportation Center. SEPTA also received grant awards under the FTA's Low- or No-Emission Vehicle Deployment Program, and the Federal Railroad Administration's Railroad Safety Infrastructure Improvement Grant Program.

FY 2018 Budget: Federal Funding Estimates		
Program	Description	Amount (Millions)
FTA Section 5307	Urbanized Area Formula Program. Funds transit capital projects. Allocations based on population, density, operating expenses, revenue miles and route miles.	\$65.07
FTA Section 5340	Growing States and High Density States Formula Program. Allocations based on population forecasts and population density. SEPTA receives Growing States program funding.	\$3.21
FTA Section 5337	State of Good Repair Program. Funds High Intensity Fixed Guideway (rail) and High Intensity Motorbus capital projects. Allocations based on vehicle revenue miles and route miles.	\$119.94
FTA Section 5339	Bus and Bus Facilities Formula Program. Funds capital projects to replace, rehabilitate or purchase buses and related facilities. Allocations based on population and service factors after providing a minimum amount per state.	\$7.45
Highway Flex	Federal highway program funds that PennDOT provides to state transit agencies for capital improvement projects. Based on the Governor's commitment, \$25 million per year is flexed annually to transit operators.	\$17.08
Transit Security Grant Program	Competitive grant program administered by Federal Emergency Management Agency (FEMA). Provides funds for anti-terrorism, safety and security improvements, and operational activities such as directed patrols.	\$1.00
<b>Total Federal</b>		<b>\$213.75</b>



## SOURCES OF CAPITAL FUNDING

### Local Funds: \$11.76 Million

SEPTA's FY 2018 Capital Budget includes **\$11.76 million** in local matching funds. The required local match for federal and state grant funds is provided by Bucks, Chester, Delaware and Montgomery Counties and the City of Philadelphia. SEPTA requests matching funds from the counties along with its annual operating budget request; capital funds required for the City of Philadelphia's local share are requested as part of the City's capital budget process.

### Capital Financing: \$150 Million

In FY 2018, the Capital Budget includes **\$150 million** in capital financing. SEPTA anticipates using a loan provided through the Employment Based Immigration - 5th Preference (EB-5) program to fund certain capital projects. The loan may provide up to \$300 million over the course of several years; the actual amount of borrowings under this agreement is subject to change. Refer to the "Financial Obligations" section for more information about capital financing.

### Alternative Funding Strategies for Advancing Capital Projects

SEPTA is consistently exploring alternative project financing mechanisms for capital projects.

The Authority has recently taken advantage of the Pennsylvania Guaranteed Energy Savings Act to advance capital construction projects without using capital grant funds. Projects are designed and built by a certified energy savings company (ESCO) that specializes in energy efficient technologies. SEPTA arranges for private financing for the capital construction, and the ESCOs guarantee the energy savings. If the savings do not materialize, the ESCOs will be responsible for covering the difference in repayment. SEPTA is able to use the self-funding approach to improve its environmental performance without utilizing the Authority's own capital resources.

To date, ESCO projects are advancing at nine facilities and in three rail car fleets to implement capital projects incorporating utility conservation measures. Typical projects include Heating, Ventilation and Air Conditioning (HVAC) system upgrades; building envelope and window replacements; conversion to energy-saving Light Emitting Diode (LED) light fixtures; and water conservation measures. The Authority is also using ESCO funding to finance a natural gas fired Combined Heat and Power Plant at Midvale Yard. SEPTA is evaluating the potential of adding more ESCO projects in the coming years, including improvements to additional shops and depots, substations, stations and tunnels.

Another potential source of alternative funding for capital projects is through partnerships with public and private entities. SEPTA is partnering with the Philadelphia Water Department (PWD) on the Southern Garage Stormwater Management and Paving Improvements project. In addition to making necessary repairs to the pavement at the facility, this project will also provide for the installation of a large stormwater detention basin to control runoff. The new basin will capture stormwater and release it into the sewer system in accordance with PWD standards, thereby reducing the potential for combined sewage overflows and the attendant environmental impacts. Based on the scope and impact of the project, PWD is providing SEPTA with funding to help support the capital improvements, leveraging SEPTA's grant dollars. The project is also expected to reduce SEPTA's stormwater fees going forward, an operating budget benefit.



Southern Garage Stormwater Management and Paving

## USES OF CAPITAL FUNDING

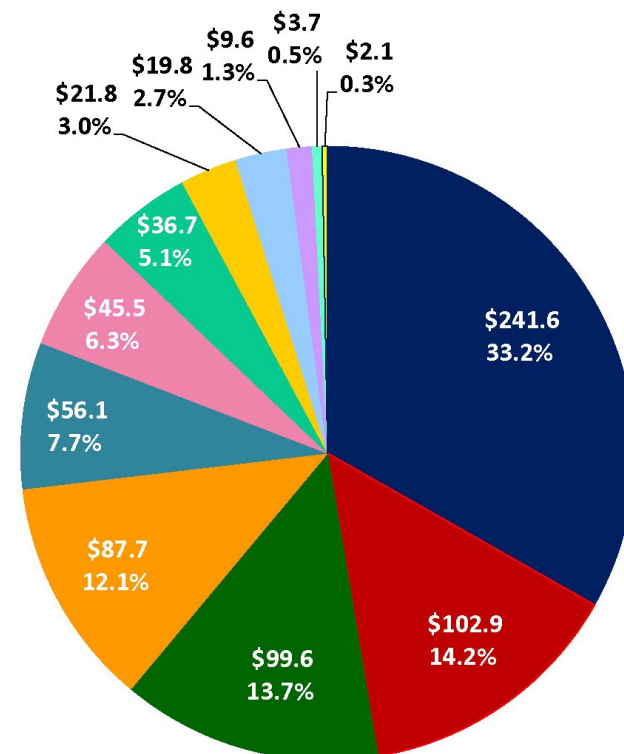
### FY 2018 Capital Budget - Summary

SEPTA's FY 2018 Capital Budget totals **\$727.2 million**. Projected FY 2018 funding is allocated among projects that will bring assets to a state of good repair, meet the Authority's financial obligations, advance strategic objectives, and implement system improvements to enhance transit service. Capital investments are focused on the following areas:

- Bridge Program (\$9.6 M):** Includes Regional Rail Stone Arch Bridges - Phase 2, a bridge on the Norristown High Speed Line, and other bridge repairs.
- Communications, Signal Systems and Technology Improvements (\$36.7 M):** Includes a variety of improvements to signals, interlockings, dispatching and operations management systems, real-time information and other technology.
- Financial Obligations (\$102.9 M):** Includes SEPTA's Amtrak trackage lease, other capital asset leases and debt service payments.
- Infrastructure Safety Renewal Program (\$45.5 M):** Includes track replacement; station renewal; rehabilitation of signals, communications equipment, traction and power systems; and rehabilitation of maintenance facilities.
- Maintenance/Transportation Shops, Offices & Roofs (\$56.1 M):** Rehabilitation of bus and rail maintenance shops, facilities maintenance shops, and offices to bring infrastructure and equipment to a state of good repair. Includes expansion of Frazer Yard to accommodate planned additions to the Regional Rail fleet.
- Safety & Security (\$19.8 M):** Includes safety and security measures for vehicles and facilities, and interoperable communications. Also includes projects competitively funded through the U.S. Department of Homeland Security (DHS) to provide protection from terrorism, major disasters and other emergencies.
- SEPTA Key (\$99.6 M):** Includes modernization of SEPTA's fare payment system and companion projects.
- Service Restoration (\$2.1 M):** Elwyn to Wawa Rail Service Restoration.
- Stations, Loops and Parking Improvements (\$87.7 M):** Reconstruction or rehabilitation of SEPTA stations and parking expansions and improvements with a focus on accessibility.

- Substations and Power Improvements (\$21.8 M):** Modernization of SEPTA's railroad and transit substations, originally built in the 1920s and 1930s, and catenary replacement.
- Track and Right-of-Way Improvements (\$3.7 M):** To return rail infrastructure to a state of good repair. Includes tie replacement and continuous welded rail (CWR).
- Vehicle Acquisitions and Overhauls (\$241.6 M):** Replacing vehicles that have exceeded their useful life, acquisition of additional locomotives, multi-level rail cars and utility vehicles, and optimizing the performance of the existing fleet through targeted overhaul campaigns.

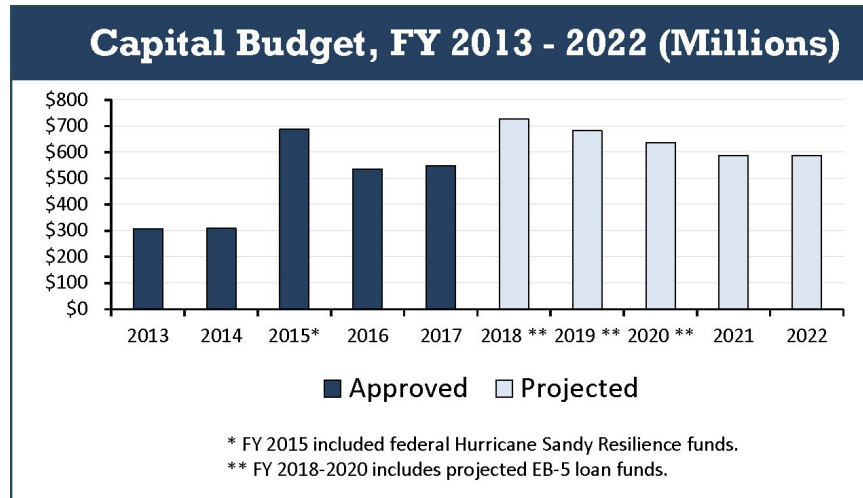
Projects are described in more detail in the Program Descriptions.



**Total: \$727.2 Million**



## FUNDING PROJECTIONS AND ASSUMPTIONS



The FAST Act authorizes federal funding for surface transportation programs through Federal Fiscal Year 2020. SEPTA's funding projections reflect the authorized growth of programs funded from the Mass Transit Account. Funding for FY 2018 is forecasted to be approximately 2 percent higher than the level projected for FY 2017, with modest growth each year until FY 2020. Funding is projected to remain flat after 2020.

While the FAST Act does provide predictability in the short term, it does not include a long-term solution for ensuring solvency of the Federal Highway Trust Fund, which supports both highway and transit programs. SEPTA is working with its industry partners to support sustainable funding for transportation infrastructure that will address State of Good Repair needs, while fostering job growth and economic development.

State funding levels are based on current financial guidance from PennDOT. For FY 2018, funding provided under Act 89 is forecasted at \$351.7 million. Starting in FY 2023, funding for the Public Transportation Trust Fund currently provided by the Pennsylvania Turnpike Commission will be replaced by new, bondable revenue sources, including sales and use tax.

The FY 2018-2029 Capital Program includes anticipated capital financing pursuant to the Employment Based Immigration - 5<sup>th</sup> preference (EB-5) program administered by United States Citizenship and Immigration Services (USCIS). The loan will be made available to SEPTA over a period of several years and may provide up to \$300 million to partially fund certain capital projects.

SEPTA's FY 2018 Capital Budget and FY 2018-2029 Capital Program totals \$7.3 billion and is fiscally constrained so that the program of projects reflects anticipated funding levels. In order to advance additional projects, other funding must be secured through competitive grants or local sources, or through the use of other capital financing tools to distribute project costs over a longer period of time.



## REBUILDING THE SYSTEM - PROGRAM PROGRESS

### Highlighted Accomplishments

SEPTA has continued to make significant progress in advancing the capital program since the passage of Act 89 in November 2013. For the period of January 1, 2014 through May 31, 2017, SEPTA issued Notices to Proceed for 120 major third-party construction contracts. Of those contracts, 37 have been completed and closed. Examples of recently completed capital projects include:

- Allegheny Garage Fire Suppression Upgrade
- Crum Creek Viaduct Replacement
- Doylestown Substation Emergency Overhaul
- Frankford Transportation Building Construction
- Jenkintown Substation Construction
- Lansdale Parking Garage
- Lenni Substation Overhaul
- Media Cut Stabilization (Resiliency Program)
- Media/Elwyn Line Viaduct Improvements - Cobbs Creek, Ridley Creek and Darby Creek
- Midvale Bus Washer Replacement
- Morton Substation Overhaul
- Route 102 Grade Crossing Improvements
- Stone Arch Bridge Rehabilitation - six (6) bridges
- Woodland Rail Shop Roof Replacement

Project status updates and photos for the Rebuilding the System program are available online at <http://www.SEPTA.org/rebuilding>.



## **FY 2018 CAPITAL BUDGET AND FY 2018-2029 CAPITAL PROGRAM**

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### **Capital Program and Project Descriptions**



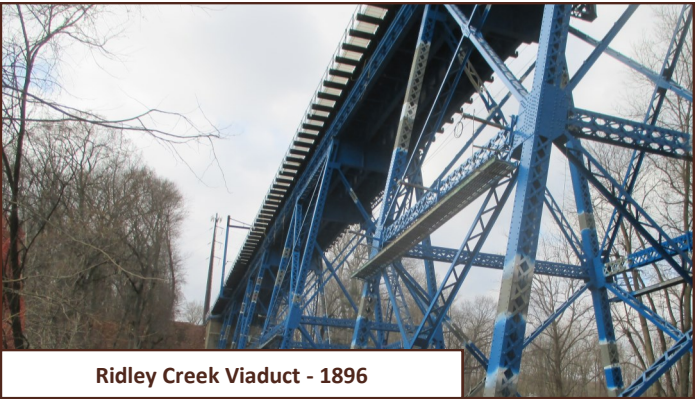


## FY 2018 CAPITAL BUDGET AND FY 2018-2029 CAPITAL PROGRAM

Capital Programs / Financial Obligations	Prior Funding	Budget Year FY 18	Program Years				FY 2023- 2029	12-Year Program Total	Beyond FY 2029	Total Budget
		FY 19	FY 20	FY 21	FY 22					
		-----\$Millions-----								
<b><u>Capital Programs</u></b>										
Bridge Program	\$1.65	\$9.64	\$9.90	\$11.71	\$11.11	\$11.23	\$128.26	\$181.85	\$0.00	\$183.50
Communications, Signal Systems and Technology Improvements	\$30.68	\$36.73	\$33.59	\$37.33	\$24.05	\$24.13	\$120.93	\$276.76	\$38.65	\$346.09
Infrastructure Safety Renewal Program	\$0.00	\$45.50	\$46.50	\$47.50	\$47.50	\$48.50	\$367.50	\$603.00	\$0.00	\$603.00
Maintenance/Transportation Shops and Offices	\$41.50	\$56.14	\$56.13	\$34.23	\$32.71	\$32.96	\$168.84	\$381.01	\$107.28	\$529.79
Safety and Security Improvements	\$8.40	\$19.79	\$19.39	\$17.73	\$10.07	\$10.45	\$47.61	\$125.04	\$0.00	\$133.44
SEPTA Key	\$137.58	\$99.63	\$30.69	\$0.00	\$0.00	\$0.00	\$0.00	\$130.32	\$0.00	\$267.90
Service Restorations	\$16.88	\$2.10	\$20.00	\$48.00	\$33.90	\$29.68	\$0.00	\$133.68	\$0.00	\$150.56
Stations, Loops and Parking Improvements	\$210.43	\$87.70	\$79.20	\$55.07	\$47.59	\$54.49	\$377.58	\$701.63	\$194.88	\$1,106.94
Substations and Power Improvements	\$9.50	\$21.76	\$39.60	\$48.93	\$47.87	\$44.81	\$123.41	\$326.38	\$14.09	\$349.97
Track and Right-of-Way Improvements	\$10.64	\$3.73	\$3.73	\$2.73	\$3.09	\$6.68	\$42.66	\$62.62	\$35.68	\$108.94
Vehicle Acquisitions and Overhauls	\$215.05	\$241.60	\$232.10	\$228.99	\$223.30	\$229.87	\$1,965.08	\$3,120.94	\$847.13	\$4,183.12
<b>Subtotal Capital Programs</b>	<b>\$682.31</b>	<b>\$624.32</b>	<b>\$570.83</b>	<b>\$532.22</b>	<b>\$481.19</b>	<b>\$492.80</b>	<b>\$3,341.87</b>	<b>\$6,043.23</b>	<b>\$1,237.71</b>	<b>\$7,963.25</b>
<b><u>Financial Obligations</u></b>										
Capital Leases	\$0.00	\$48.29	\$54.31	\$55.34	\$56.46	\$57.59	\$436.94	\$708.93	\$0.00	\$708.93
Debt Service	\$0.00	\$54.62	\$56.58	\$49.30	\$49.21	\$36.45	\$329.07	\$575.23	\$283.23	\$858.46
<b>Total Capital Budget</b>	<b>\$682.31</b>	<b>\$727.23</b>	<b>\$681.72</b>	<b>\$636.86</b>	<b>\$586.86</b>	<b>\$586.84</b>	<b>\$4,107.88</b>	<b>\$7,327.39</b>	<b>\$1,520.94</b>	<b>\$9,530.64</b>

# BRIDGE PROGRAM

The SEPTA system includes more than 350 bridges. The average age is in excess of 85 years, with 155 bridges over 100 years old. The majority of structures were constructed in the early 1900s. This program will restore SEPTA’s bridges to a state of good repair. Bridges will be repaired or replaced based on their condition, and new bridges will be constructed where required. Rehabilitation/replacement of bridges on rail lines and SEPTA right-of-ways will include culverts, pedestrian bridges and associated bridge support structures.



Bridge Program - Program Elements	Budget							12-Year		
	Prior Funding	Year FY 18	Program Years				FY 2023 - 2029	Program Total	Beyond FY 2029	Total Budget
			FY 19	FY 20	FY 21	FY 22				
-----\$Millions-----										
Bridge Program	\$1.65	\$9.64	\$9.90	\$11.71	\$11.11	\$11.23	\$128.26	\$181.85	\$0.00	\$183.50
TOTAL	\$1.65	\$9.64	\$9.90	\$11.71	\$11.11	\$11.23	\$128.26	\$181.85	\$0.00	\$183.50



## BRIDGE PROGRAM

Project Descriptions	Budget	Schedule / Status (Calendar Year)	Location	Service Area
<b>Railroad Bridge Projects (FY 2018 - 2022)</b>				
<b><i>Mainline-Schuylkill Bridges (30th St. to Suburban Station)</i></b>				
Rehabilitation of seven bridges between 30th Street Station and Suburban Station located at Mile Post 0.49, 0.58, 0.61, 0.64, 0.68, 0.72 and 0.76. These bridges were built in 1929. The first phase of this project will include critical repairs to Bridges 0.49 and 0.58 with repairs at deteriorated locations. The second phase will include complete rehabilitation of all seven bridges.	Phase 1 \$2.00 M	Design Complete  Phase 1 Construction 2017 - 2018	Philadelphia	Bucks Chester Delaware Montgomery Philadelphia Delaware (State) New Jersey
	Phase 2 \$56.00 M	Phase 2 2023 - 2029 Project		
<b><i>Stone Arch Bridge Program - Phase 2</i></b>				
Rehabilitation of the following seven (7) Stone Arch Bridges on SEPTA's Regional Railroad:				
<ul style="list-style-type: none"> <li>Lansdale/Doylestown Line Mile Post 4.87. Built 1915.</li> <li>Lansdale/Doylestown Line Mile Post 18.91. Built 1903.</li> <li>Media/Elwyn Line Mile Post 12.68. Built 1854.</li> <li>West Trenton Line Mile Post 13.70. Built 1912.</li> <li>West Trenton Line Mile Post 15.95. Built 1876.</li> <li>West Trenton Line Mile Post 18.52. Built 1948.</li> <li>West Trenton Line Mile Post 22.65. Built 1876.</li> </ul>	\$10.00 M	Design 2017  Construction 2018 - 2020	Bucks Delaware Montgomery Philadelphia	Bucks Chester Delaware Montgomery Philadelphia New Jersey
<b>Railroad Bridge Projects (FY 2023-2029)</b>				
<b><i>Chestnut Hill East Line Bridge Rehab Program</i></b>				
Rehabilitation of five bridges on the Chestnut Hill East Regional Rail Line located at Mile Post 5.04, 5.72, 7.63, 8.90, and 9.59.	\$30.00 M	2023 - 2029 Project	Philadelphia	Philadelphia
<b><i>Chestnut Hill West Line Bridge Rehab Program</i></b>				
Rehabilitation of seven bridges on the Chestnut Hill West Regional Rail Line located at Mile Post 0.06, 0.83, 1.17, 1.26, 2.98, 4.42, and 5.67.	\$35.00 M	2023 - 2029 Project	Philadelphia	Philadelphia



## BRIDGE PROGRAM

Project Descriptions	Budget	Schedule / Status (Calendar Year)	Location	Service Area
<b>Transit Bridge Projects (FY 2018 - 2022)</b>				
<i><b>NHSL Bridge 0.15 over 69th St. Yard Tracks</b></i>				
Replacement of the existing four (4) span steel structure of Bridge 0.15 on the Norristown High Speed Line. This bridge was built in 1906. Phase 1 includes critical repairs to the superstructure. Phase 2 includes complete rehabilitation of the substructure and superstructure.		Design 2016 - 2018		
	Phase 1 \$1.70 M	Phase 1 Construction 2018 - 2020	Delaware	Delaware Montgomery
	Phase 2 \$13.80 M	Phase 2 Construction 2020 - 2022		
<i><b>NHSL Viaduct over Schuylkill River</b></i>				
Rehabilitation of the Bridgeport Viaduct at Mile Post 12.81 on the Norristown High Speed Line. The project includes steel, concrete and bearing repairs and painting. The viaduct was constructed in 1911 and is 3,165 feet long.	\$35.00 M	Design 2021  Construction 2021 - 2024	Montgomery	Delaware Montgomery

## COMMUNICATIONS, SIGNAL SYSTEMS AND TECHNOLOGY IMPROVEMENTS

This program provides for improvements to SEPTA's communications systems, signal systems, and information technology infrastructure. Projects will upgrade hardware and software, replace equipment that has reached or exceeded its useful life, and bring systems to a state of good repair. As part of its Capital Program, SEPTA will rehabilitate signals and interlockings, install Positive Train Control on the Route

101/102 Trolley lines, and upgrade dispatching and scheduling systems. Rail signal modernization projects and interlocking improvements will enhance operational reliability and service quality. The annual Information Technology program provides replacement and upgrades of the Authority's computer hardware, software and network equipment, such as servers, digital signage, and Enterprise applications.

Communications, Signal Systems and Technology Improvements - Program Elements	Prior Funding	Budget	Program Years				FY 2023- 2029	12-Year Program Total	Beyond FY 2029	Total Budget
		Year								
		FY 18	FY 19	FY 20	FY 21	FY 22				
	-----\$Millions-----									
Communications & Signal Improvements	\$30.68	\$30.32	\$27.53	\$30.45	\$18.30	\$17.89	\$85.93	\$210.42	\$38.65	\$279.75
Technology Improvements	\$0.00	\$6.41	\$6.06	\$6.88	\$5.75	\$6.24	\$35.00	\$66.34	\$0.00	\$66.34
TOTAL	\$30.68	\$36.73	\$33.59	\$37.33	\$24.05	\$24.13	\$120.93	\$276.76	\$38.65	\$346.09



## COMMUNICATIONS, SIGNAL SYSTEMS AND TECHNOLOGY IMPROVEMENTS

Project Descriptions	Budget	Schedule / Status (Calendar Year)	Location	Service Area
<b>Communications &amp; Signal Improvements—Railroad Projects (FY 2018-2029)</b>				
<i><b>30th to Phil Signals, Catenary, and ROW Improvements</b></i>				
Reconfiguration and rebuilding of Regional Rail signals, track, catenary, and interlockings from 30th Street Station to Phil Interlocking (in University City). Work includes new track special work, Overhead Contact Systems (OCS), and switch and lock mechanisms, as well as the addition of new Positive Train Control (PTC) systems. The existing signal block layout will be modified to ensure safe train operations and braking.	\$41.80 M	Design 2014 - 2017 Construction 2017 - 2019	Philadelphia	Delaware Philadelphia Delaware (State)
<i><b>Interlocking Improvement Program</b></i>				
Rebuilding, reconfiguration and construction of railroad interlockings to improve the delivery of revenue service. Regional Rail locations include but are not limited to: Beth and York Interlockings on the West Trenton Line; and Hunt/Wayne Interlocking, West Interlocking (on the west side of 30th Street Station), Schuylkill Interlocking (on the east side of 30th Street Station), Broad Interlocking (west of Suburban Station), Bartram Interlocking, and 16th Street Interlocking on the Regional Rail Main Line.	\$75.00 M	Ongoing	Montgomery Philadelphia	Bucks Chester Delaware Montgomery Philadelphia Delaware (State) New Jersey
<i><b>Media/Elwyn Automatic Train Control (ATC) Upgrade</b></i>				
This project will retire the existing and unreliable wayside signals, AC track circuits and traffic signal cabling from Arsenal to Elwyn Interlocking on the Media/Elwyn Line. New pre-wired wayside cases outfitted with digital track circuits will be procured and installed at each existing wayside block location, the existing wayside signal equipment retired and Cab No-Wayside (NORAC Rule 562) instituted.	\$4.00 M	Design Complete Construction 2015 - 2018	Delaware Philadelphia	Delaware Philadelphia



## COMMUNICATIONS, SIGNAL SYSTEMS AND TECHNOLOGY IMPROVEMENTS

Project Descriptions	Budget	Schedule / Status (Calendar Year)	Location	Service Area
<b>Communications &amp; Signal Improvements - Transit Projects (FY 2018 - 2022)</b>				
<b><i>Broad Street Line Ridge-Spur Signals</i></b>				
Modernization of the signal system on the Broad Street Line's Broad-Ridge Spur. Work includes signal upgrades to improve operational reliability for the train control systems on the portion of track between Fairmount Interlocking and the 8th and Ridge Terminal Interlocking.	\$8.66 M	Design Complete Construction 2015 - 2017	Philadelphia	Philadelphia
<b><i>Route 101/102 Positive Train Control</i></b>				
Installation of a new state-of-the art Communications Based Train Control (CBTC) system for the Route 101/102 trolley lines. The new system will automatically enforce trolley separation and provide overspeed and roadway worker protection. New power switching will be installed to facilitate operational flexibility.	\$74.96 M	Design Complete Construction 2015 - 2019	Delaware	Delaware
<b>Communications &amp; Signal Improvements - System-Wide Projects (FY 2018 - 2022)</b>				
<b><i>Computer Aided Radio Dispatch (CARD) System Replacement</i></b>				
Replacement of existing Computer Aided Radio Dispatch (CARD) system. Project will retire the existing 502MHz radio system and replace it with a new state-of-the-art Computer Aided Dispatch and communications network. The new CARD system will be used to dispatch SEPTA buses and trolleys. The new system will provide real-time train arrival information to be displayed on existing and new Audio Visual Public Address (AVPA) signs, as well as the SEPTA website. The project will modernize and improve reliability of vehicle, AVPA, and website data.	\$32.50 M	Design 2017 - 2018 Construction 2019 - 2022	Philadelphia	System-wide
<b><i>Real-Time Information / Audio Visual Public Address (AVPA) System</i></b>				
Upgrades and modernization of SEPTA's real-time arrival information for customers on all modes of transit. Includes installation of a Real Time Vehicle Locating system on all SEPTA vehicles, providing vehicle location information that will be accessible to the public via smartphone applications and the web. In addition, SEPTA will upgrade Audio Visual Public Address (AVPA) equipment at all railroad and transit stations.	\$34.73 M	Design 2015 - 2017 Construction 2017 - 2021	Bucks Chester Delaware Montgomery Philadelphia Delaware (state) New Jersey	System-wide

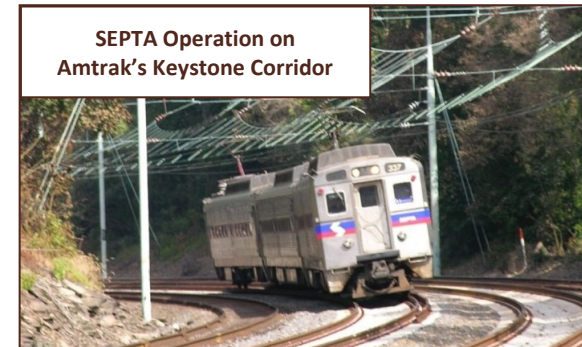
## COMMUNICATIONS, SIGNAL SYSTEMS AND TECHNOLOGY IMPROVEMENTS

Project Descriptions	Budget	Schedule / Status (Calendar Year)	Location	Service Area
<b>Technology Improvements (FY 2018 - 2029)</b>				
<b><i>Information Technology Program</i></b>				
Enhancements to SEPTA's information technology infrastructure and applications. Includes new and replacement computer hardware and software such as desktop computers, laptops, virtual server deployment for energy efficiency and redundancy, upgraded enterprise network systems, digital video recorders and software licenses. The FY 2018 program will include an initiative to upgrade Enterprise applications, including a replacement of the Materials Management application and upgrade of the Sharepoint application. A Cyber Security upgrade is also planned for proactive threat detection and prevention. Operational System improvements will support the Real-Time Communication and Audio Visual Public Address (AVPA) systems, digital signage, upgrades to servers, and web/mobile applications. The program also includes replacement of network switches, wireless systems and other hardware/software.	\$60.00 M	Ongoing	Philadelphia	System-wide
<b><i>Scheduling System Enhancements</i></b>				
SEPTA currently uses the Trapeze Scheduling System, which is an integrated operations management system that streamlines tasks such as scheduling and bus stop management. The Authority needs to enhance the system's operational capabilities and time record management. This project will build upon SEPTA's current system by adding several enhancements: bidding, dispatch, timekeeping and Yard and Workforce Management.	\$8.10 M	Implementation 2017 - 2018	Philadelphia	System-wide
<b><i>Video Systems Refreshment Program</i></b>				
Replacement of existing Mobile Video System components and equipment on SEPTA's vehicle fleets including, but not limited to: Inward Facing cameras within Regional Rail Cars; Digital Video Recording devices on board vehicles; wireless infrastructure equipment for shops and yards; and the consolidation of field-side servers into a central server in the Data Center at SEPTA Headquarters.	\$6.34 M	Implementation 2017 - 2022	Bucks Chester Delaware Montgomery Philadelphia	System-wide

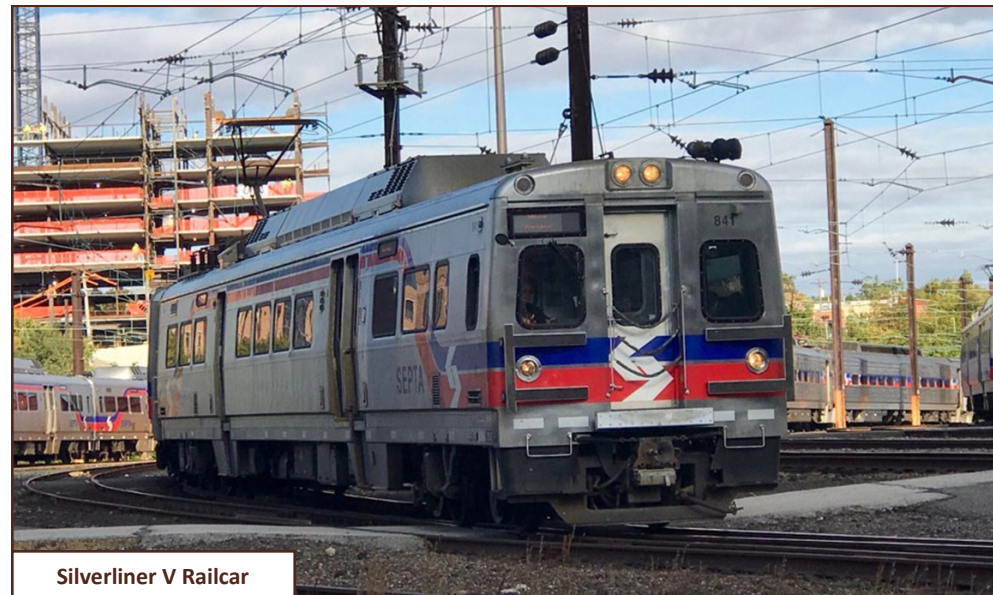
## FINANCIAL OBLIGATIONS

The Capital Asset Lease Program provides for payments attributable to capital leases. For Fiscal Year 2018, leases covered by this program include Amtrak trackage leases, a warehouse lease, copier machines throughout the Authority and communications towers.

State and federal capital funds provide for debt service and the cost of issuance of bonds, notes and other indebtedness incurred by SEPTA. In addition to the three series of bonds previously issued, SEPTA entered into a loan agreement with the Delaware Valley Regional Center (DVRC) under the Employment Based Immigration - 5th Preference (EB-5) Program for up to \$300 million in capital financing.



Financial Obligations - Program Elements	Prior Funding	Budget						12-Year		
		Year	Program Years				FY 2023 -	Program	Beyond	Total
		FY 18	FY 19	FY 20	FY 21	FY 22	2029	Total	FY 2029	Budget
-----\$Millions-----										
Capital Asset Lease Program	\$0.00	\$48.29	\$54.31	\$55.34	\$56.46	\$57.59	\$436.94	\$708.93	\$0.00	\$708.93
Debt Service	\$0.00	\$54.62	\$56.58	\$49.30	\$49.21	\$36.45	\$329.07	\$575.23	\$283.23	\$858.46
TOTAL	\$0.00	\$102.91	\$110.89	\$104.64	\$105.67	\$94.04	\$766.01	\$1,284.16	\$283.23	\$1,567.39





## FINANCIAL OBLIGATIONS

Project Descriptions	Budget	Schedule / Status (Calendar Year)	Location	Service Area
<b>Capital Asset Leases (FY 2018 - 2029)</b>				
<p><b><u>Amtrak Trackage</u></b> - This lease provides for the right to use Amtrak tracks for SEPTA's Trenton, Wilmington/Newark and Paoli/Thorndale Regional Rail service, and portions of the Chestnut Hill West, Media/Elwyn, Airport and Cynwyd Regional Rail Lines. With the enactment of the Passenger Rail Investment and Improvement Act of 2008 (PRIIA), Congress mandated that a standardized methodology be developed to allocate costs among the Northeast Corridor (NEC) owners and operators that ensures each agency take the full financial responsibility for its use of shared NEC infrastructure and related facilities. Payments made to Amtrak under this lease are SEPTA's costs based on methodologies and policies established by the Northeast Corridor (NEC) Infrastructure and Operations Advisory Commission for all NEC users pursuant to PRIIA.</p>	12 Year Total \$708.93 M	Ongoing Program through 2029	Bucks Chester Delaware Montgomery Philadelphia Delaware (state) New Jersey	Bucks Chester Delaware Montgomery Philadelphia Delaware (state) New Jersey
<p><b><u>Communications Towers</u></b> - This lease provides for the right to house voice and data transmission and receiving equipment on towers at the following locations: Y-100, Loews Hotel, Malvern, West Rockhill, Lincoln Plaza Center, Newtown Square, and New Britain.</p>				
<p><b><u>Copiers</u></b> - This lease provides for rental of copiers, which are dispersed throughout SEPTA's headquarters and transportation/maintenance facilities.</p>				
<p><b><u>Warehouse Facility</u></b> - This lease provides for rental of a storeroom facility at 2045 Wheatsheaf Lane in the City of Philadelphia.</p>				

## FINANCIAL OBLIGATIONS

Project Descriptions	Budget	Schedule / Status (Calendar Year)	Location	Service Area
<b>Debt Service (FY 2018 - 2029)</b>				
<i>Payments on Capital Grant Receipts Bonds, Series 2011</i>				
<p><b><u>Acquisition of 120 Silverliner V Regional Rail Cars</u></b> These electric multiple-unit (EMU) cars have replaced the Silverliner II and III rail cars, and provided additional cars to supplement the regional rail car fleet in response to ridership growth. Vehicles fully comply with Americans with Disabilities Act (ADA) requirements and federal and state regulations regarding safety features and systems. The cars have enhanced passenger amenities, such as larger windows, wider aisles, a state-of-the-art climate control system, and an enhanced seating arrangement with more two-passenger seating. The cars have electronic exterior and interior destination signs, voice annunciation of train destination and upcoming station stops, interior video display monitors and the capability for SEPTA's Control Center to broadcast messages directly to customers on the trains. In addition, these cars are equipped with on-board video surveillance and automatic passenger counting systems. The total cost for the Silverliner V Rail Car Acquisition Project (\$325.7 M) is funded through a combination of grants and capital financing.</p>				
<p><b><u>Rehabilitation of the Wayne Junction Intermodal Facility</u></b> The Wayne Junction Intermodal Facility was originally constructed at the turn of the 20th Century. This project provided for restoring the station's historic integrity while modernizing its structure to provide a more accessible and environmentally friendly facility for local residents. The project provided for the enhancement of passenger amenities such as lighting, signage, shelters, audio and visual public announcement system, windscreens, benches, HVAC systems (heating, ventilation, air conditioning), and sanitary systems. Structural improvements included station building rehabilitation and ADA accessibility modifications, such as high level platforms, elevators, stairway renovations, passenger tunnel improvements, new canopies and shelter improvements. The total cost of the Wayne Junction Intermodal Facility project (\$31.5 M) is funded through a Federal Transit Administration Bus and Bus Facilities Livability Grant and capital financing. The construction phase of the project achieved substantial completion in September 2015.</p>	<p>12 Year Debt Service Total for Series 2007, 2010 &amp; 2011 Bonds and EB-5 Loan  \$575.23 M</p>	<p>Final year of debt service funding for Series 2011 Bonds - 2028</p>	<p>Bucks Chester Delaware Montgomery Philadelphia Delaware (State) New Jersey</p>	<p>Bucks Chester Delaware Montgomery Philadelphia Delaware (State) New Jersey</p>

## FINANCIAL OBLIGATIONS

Project Descriptions	Budget	Schedule / Status (Calendar Year)	Location	Service Area
<b><i>Payments on Converted Indexed Rate Revenue Refunding Bonds, Series 2007</i></b>				
On December 18, 2012, the Authority converted the Variable Rate Revenue Refunding Bonds, Series 2007, from the Daily Rate Mode to the Indexed Rate Mode. Proceeds from the Variable Rate Revenue Refunding Bonds, Series 2007 were used to refund the Special Revenue Bonds, Series 1997, which provided funds for the buyout of leases on Bombardier Rail Cars, General Motors Locomotives and Frazer Rail Car Maintenance Shop and for other capital improvement projects, including the Market-Frankford Line car acquisition, Broad Street Line cable replacement, Frazer Yard interlocking construction and Market-Frankford Line infrastructure improvements.		Final year of debt service funding for Series 2007 Bonds - 2021		
<b><i>Payments on Fixed Rate Revenue Refunding Bonds, Series 2010</i></b>				
Proceeds from the Fixed Rate Revenue Refunding Bonds were used to refund the Special Revenue Bonds, Series 1999, which provided funds for the Market-Frankford Line cars, various capital improvement projects, and partial refunding of Series 1995A Bonds.		Final year of debt service funding for Series 2010 Bonds - 2027		
<b><i>Capital Financing - EB-5 Loan</i></b>				
In January 2016, SEPTA entered into a loan agreement with the Delaware Valley Regional Center (DVRC), pursuant to the Employment Based Immigration-5 <sup>th</sup> preference (EB-5) program administered by United States Citizenship and Immigration Services (USCIS). The loan will be made available to SEPTA over a period of several years and may provide up to \$300 million to partially fund certain capital projects such as the acquisition of locomotives, expansion of Frazer Yard, and substation rehabilitation projects. The loan comprises a 5-year interest-only period with an option that provides SEPTA the ability to extend the loan for an additional period of 20 years.		Final year of debt service funding for EB-5 loan - 2044		



## INFRASTRUCTURE SAFETY RENEWAL PROGRAM (ISRP)

The annual Infrastructure Safety Renewal Program (ISRP) provides for the restoration by SEPTA forces of SEPTA's City and Suburban transit and railroad infrastructure to a state of good repair. Projects to be advanced include:

- **Track and Right-of-Way** - Renewal or replacement of track, switches, and special work including yard and shop areas; track surfacing; fencing; bridges; and grade crossing improvements.
- **Station Facilities** - Rehabilitation of station buildings and associated facilities including roofs and canopies; ticket offices and waiting rooms; platforms; lighting; sanitary facilities; parking; and accessibility improvements.
- **Communications and Signals Systems** - Rehabilitation of signal systems and select communications equipment.
- **Power Systems** - Rehabilitation of electric traction and power systems and associated components including catenary and support structures; feeders and transmission lines; and localized and centralized control facilities.
- **Maintenance/Support Facilities** - Rehabilitation of shops, maintenance/storage yards, and associated maintenance and support facilities, including improvements or replacement of air compressors; sump pumps; tunnel lighting; duct banks; vehicle servicing equipment; bridges and other support functions.



Infrastructure Safety Renewal Program - Program Elements	Budget						12-Year			
	Prior Funding	Year FY 18	Program Years				FY 2023- 2029	Program Total	Beyond FY 2029	Total Budget
			FY 19	FY 20	FY 21	FY 22				
-----\$Millions-----										
Infrastructure Safety Renewal Program	\$0.00	\$45.50	\$46.50	\$47.50	\$47.50	\$48.50	\$367.50	\$603.00	\$0.00	\$603.00
TOTAL	\$0.00	\$45.50	\$46.50	\$47.50	\$47.50	\$48.50	\$367.50	\$603.00	\$0.00	\$603.00

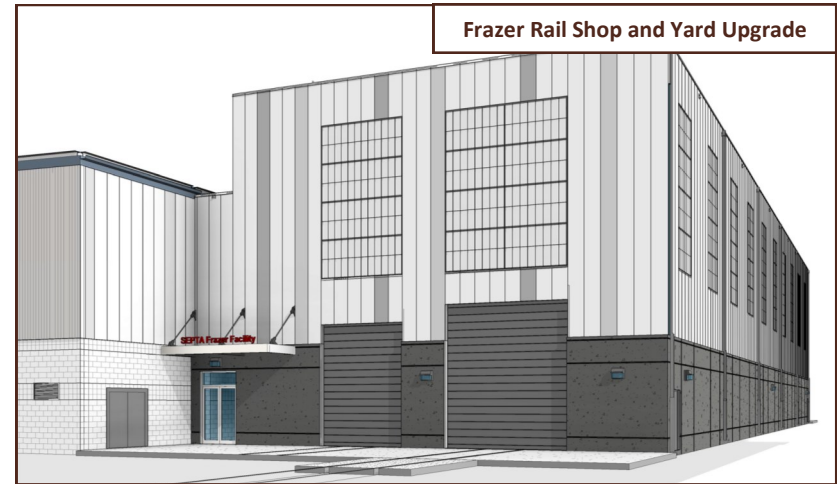


## INFRASTRUCTURE SAFETY RENEWAL PROGRAM (ISRP)

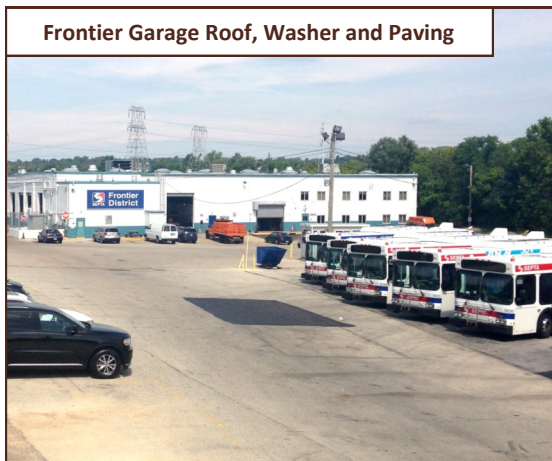
Project Descriptions	Budget	Schedule / Status	Location	Service Area
		(Calendar Year)		
<b>Fiscal Year 2018 ISRP Program</b>	<b>\$45.5 M</b>	<b>FY 2018 Program</b>	<b>System-wide</b>	<b>System-wide</b>
<p><b><i>Track and Right-of-Way Program</i></b></p> <p><u>Regional Rail</u> - Curve Worn Rail Renewal Program; Interlocking Rehabilitation Program; Open Deck Bridge Timber Renewal Program.</p> <p><u>City/Suburban Transit</u> - Curve Worn Rail Renewal Program; Special Track Work Renewal Program; Suburban Transit Grade Crossing Renewal Program; Street Track Renewal Program; and Market-Frankford Line Track Improvements.</p>	<p><b><i>Communications and Signals Program</i></b></p> <p><u>Regional Rail</u> - Communications Cable Installation Program; Grade Crossing Flashing Light Upgrade Program; Core Interlocking Reliability Improvement Program; and Main Line Cab No-Wayside Train Control Installation Program.</p> <p><u>City/Suburban Transit</u> - Station Communications Equipment Tech Refresh Project - Broad Street Subway and Market-Frankford Lines; Shop and Storeroom CCTV System Installation.</p> <p><u>Regional Rail/City &amp; Suburban Transit</u> - Video Storage and Audio-Visual Public Address Tech Refresh and Improvement Programs.</p>			
<p><b><i>Station Facilities Program</i></b></p> <p><u>Regional Rail</u> - Platform Improvement Program; Facilities Improvement Program; Retaining Wall Rehabilitation Program.</p> <p><u>City/Suburban Transit</u> - Station and Tunnel Lighting Program; Station Entrance/Stair Improvements (Market-Frankford and Broad Street Subway Lines); Station Renewal Programs: Broad Street Subway, Market-Frankford and Trolley Lines.</p>	<p><b><i>Power Systems Program</i></b></p> <p><u>Regional Rail</u> - Substation Control Battery Replacement; Sectionalizing Switch/Remote Terminal Unit (RTU)/Section Insulators (SI) Replacement Program; Control Center and Radio Room Uninterrupted Power Supply (UPS) Replacement; Overhead Catenary System (OCS) Clearance Improvement Program.</p> <p><u>City/Suburban Transit</u> - DC Traction Power Cable Replacement Program; Manhole Rehabilitation Program; Duct Bank Replacement Program; Trolley Wire Replacement Program; Trackless Trolley Power System Upgrade Program; Substation Improvement Program; Substation Control Battery Replacement; and STD LED Lighting Upgrade Program.</p>			
<p><b><i>Maintenance/Support Facilities Program</i></b></p> <p><u>Regional Rail</u> - Retaining Wall Rehabilitation Program; Bridge Rehabilitation Program; Outlying Yard Safety Improvement Program; Employee Facilities Improvement Program; Critical Catenary Structural Rehabilitation Program; and Culvert/Headwall Improvement Program.</p> <p><u>City/Suburban Transit</u> - Garage and Shop Improvements (City &amp; Suburban Transit); Vent Well and Emergency Exit Program; Employee Facilities Improvement Program; Pump Room Overhaul Program; Sewage Ejector Replacement Program; Subway Column Rehabilitation and Fall Arrest System Installation.</p>				

## MAINTENANCE/TRANSPORTATION SHOPS AND OFFICES

This program provides for improvements to SEPTA's bus, rail, and facilities maintenance shops, and office buildings. Program elements include replacement of fire suppression systems, vehicle washer systems, and boiler systems. This program also supports ongoing programs, including the wheel truing program, bus and steel wheel lift programs, underground storage tank replacement program, shop and yard upgrades, and paving improvements. In addition, this program addresses remediation and clean up activities at select facilities as well as activities that will reduce SEPTA's carbon footprint and enhance SEPTA's commitment to sustainability. This program also includes a roof rehabilitation and replacement program, which involves replacing and upgrading roof structures at numerous facilities to include new mechanical equipment, electrical connections, brick repairs, roof-mounted HVAC equipment, and the replacement of old roofing systems.



Maintenance/Transportation Shops & Offices Program Elements	Budget						12-Year			
	Prior Funding	Year FY 18	Program Years				FY 2023 - 2029	Program Total	Beyond FY 2029	Total Budget
			FY 19	FY 20	FY 21	FY 22				
-----\$Millions-----										
Maintenance/Transportation Facilities	\$35.26	\$45.55	\$45.61	\$24.75	\$24.52	\$24.80	\$117.41	\$282.64	\$101.76	\$419.66
Roof Program	\$6.24	\$10.59	\$10.52	\$9.48	\$8.19	\$8.16	\$51.43	\$98.37	\$5.52	\$110.13
TOTAL	\$41.50	\$56.14	\$56.13	\$34.23	\$32.71	\$32.96	\$168.84	\$381.01	\$107.28	\$529.79





## MAINTENANCE/TRANSPORTATION SHOPS AND OFFICES

Project Descriptions	Budget	Schedule / Status (Calendar Year)	Location	Service Area
<b>Maintenance &amp; Transportation Facilities (FY 2018 - 2022)</b>				
<b><i>103 Victory Avenue Facility Improvements</i></b>				
Improvements to shops and offices located at 103 Victory Avenue. Work includes replacing the existing office building with an accessible building, replacing the existing shop areas with a new shop complex, improvements to parking and vehicle circulation, and installation of a stormwater management system. Phase 1 will replace the office building complex and Phase 2 will replace the shop areas and includes construction of a salt dome.	Phase 1 \$12.31 M	Design Complete  Phase 1 Construction 2017 - 2018	Delaware	Delaware Montgomery Philadelphia
	Phase 2 \$7.50 M	Phase 2 2023 - 2029 Project		
<b><i>Allegheny Bus Washer</i></b>				
Replacement and upgrade of the existing vehicle wash systems at Allegheny Bus Garage.	\$2.64 M	Design Complete Construction 2016 - 2017	Philadelphia	Philadelphia
<b><i>Boiler Replacement Program</i></b>				
Replacement of boilers at various SEPTA facilities. The boilers have exceeded their useful life and will be replaced with new energy efficient boilers.	Phase 1 \$1.00 M	Phase 1 Design / Construction 2016 - 2018	Delaware Montgomery Philadelphia	Bucks Chester Delaware Montgomery Philadelphia
	Phase 2 \$3.50 M	Phase 2 2023 - 2029 Project		
<b><i>Environmental Clean Up and Protection</i></b>				
Activities include remediation and testing associated with underground storage tanks, lead-based paint and asbestos abatement, contaminated soil and groundwater and air quality. Site assessments to determine environmental exposure prior to acquiring properties are included under this program. The program also includes activities that will reduce SEPTA's environmental footprint, such as recycling containers and trash compactors.	\$5.89 M	Ongoing	Bucks Chester Delaware Montgomery Philadelphia	System-wide

## MAINTENANCE/TRANSPORTATION SHOPS AND OFFICES

Project Descriptions	Budget	Schedule / Status (Calendar Year)	Location	Service Area
<b><i>Frazer Rail Shop and Yard Upgrade</i></b>				
Upgrade of the Frazer Maintenance Facility to accommodate the expansion of SEPTA's railcar and locomotive fleets including multi-level cars. Work includes extending three existing storage tracks and adding three new storage tracks; major upgrades to the repair shop and equipment, including the wheel truing machine and drop table; construction of a shop extension, new cleaning track, train washer building, storage building and yardmaster building; utility upgrades and stormwater improvements. In addition, the roof will be upgraded and mechanical equipment and electrical connections will be replaced.	\$139.00 M	Design 2016 - 2017 Construction 2017 - 2022	Chester	Bucks Chester Delaware Montgomery Philadelphia Delaware (state) New Jersey
<b><i>Frontier Garage Roof, Washer and Paving</i></b>				
Improvements at Frontier Garage including replacement of the existing roof with a new roofing system; replacement and upgrade of the vehicle washer; drainage and site improvements; and rehabilitation of apron paving to correct settlement and paving condition issues.	\$14.20 M	Design Complete Construction 2017 - 2018	Montgomery	Bucks Chester Montgomery
<b><i>Powelton Yard Facility Improvements</i></b>				
Improvements to the Powelton Yard Facility including building repairs, new windows, new bathrooms, and replacement of the storeroom facility currently housed in a former railroad boxcar.	\$3.92 M	Design 2017 Construction 2020 - 2021	Philadelphia	Philadelphia
<b><i>SEPTA Headquarters Improvements</i></b>				
The SEPTA office building located at 1234 Market Street was built in 1973 and has served as SEPTA's Headquarters since June 1994. Much of the infrastructure equipment is original or was only partially upgraded at the time of purchase by SEPTA. Many critical components are now well past their useful service lives and will be upgraded under this project. This project will be advanced in phases. Upgrades that will advance in the first phase include, but are not limited to, the replacement of fire pump systems and floor covering; and rebuilding the cooling tower structure.	\$5.32 M	Design & Construction 2015 - 2018	Philadelphia	System-wide

## MAINTENANCE/TRANSPORTATION SHOPS AND OFFICES

Project Descriptions	Budget	Schedule / Status (Calendar Year)	Location	Service Area
<b><i>Southern Garage Stormwater Management &amp; Pavement Improvements</i></b>				
Rehabilitation of apron paving at Southern Bus Garage to correct settlement and paving condition issues. A new stormwater management system will be installed. This is a joint effort working with the Philadelphia Water Department.	\$5.88 M	Design Complete Construction 2017 - 2018	Philadelphia	Philadelphia
<b><i>Steel Wheel Lift Program</i></b>				
Rebuilding/modernization or replacement of truck and body hoist systems at various SEPTA steel wheel shops. These hoists are used to facilitate body and truck separation and to elevate railcars to safe heights and hold them as required to perform inspections and repairs under the rail vehicles.	Phase 1 \$2.11 M	Phase 1 Construction 2015 - 2018	Bucks Chester Delaware	Bucks Chester Delaware
	Phase 2 \$6.00 M	Phase 2 2023 - 2029 Project	Montgomery Philadelphia	Montgomery Philadelphia Delaware (state) New Jersey
<b><i>Underground Storage Tank Replacement Program</i></b>				
Replacement of storage tanks, which have exceeded their useful life, at various SEPTA facilities.	Phase 1 \$1.13 M	Phase 1 Construction 2015 - 2018	Bucks Chester Delaware	System-wide
	Phase 2 \$9.00 M	Phase 2 2023 - 2029 Project	Montgomery Philadelphia	
<b><i>Wayne Junction Shop Improvements</i></b>				
Upgrade of the Wayne Junction Shop to allow for improved maintenance functions and future expansion of SEPTA’s railcar and locomotive fleets. This project will be advanced in phases, and will ultimately expand the existing shop by approximately 117,000 square feet. The first phase includes the addition of a 3-car capacity blowdown building, along with a remote storage building. The second phase will begin in the outer years of the project and will expand the existing facility.	Phase 1 \$15.29 M	Phase 1 Design 2017 - 2018 Construction 2019 - 2020	Philadelphia	Bucks Chester Delaware
	Phase 2 \$134.71 M	Phase 2 2023 - 2029 Project		Montgomery Philadelphia Delaware (state) New Jersey
<b><i>Wheel Truing Program</i></b>				
Reconditioning and rebuilding wheel truing machines at Overbrook Shop, Woodland Shop, 69th Street Shop, and Fern Rock Shop.	Phase 1 \$2.40 M	Phase 1 Construction 2016 - 2018	Delaware Philadelphia	Bucks Chester Delaware
	Phase 2 \$6.00 M	Phase 2 2023 - 2029 Project		Montgomery Philadelphia Delaware (state) New Jersey



## MAINTENANCE/TRANSPORTATION SHOPS AND OFFICES

Project Descriptions	Budget	Schedule / Status (Calendar Year)	Location	Service Area
<b>Maintenance &amp; Transportation Facilities (FY 2023 - 2029)</b>				
<b><i>Bus Lift Program</i></b>				
Replacement of in-ground and portable lifts that have exceeded their useful life at select SEPTA City Transit and Suburban Transit bus maintenance facilities.	\$6.00 M	2023 - 2029 Project	Delaware Montgomery Philadelphia	Bucks Chester Delaware Montgomery Philadelphia Delaware (state) New Jersey
<b><i>Garage / Shop Overhead Doors</i></b>				
Replacement of overhead and fire doors, which have exceeded their useful life, at various SEPTA facilities.	\$7.50 M	2023 - 2029 Project	Delaware Philadelphia	Bucks Delaware Philadelphia
<b><i>On-Site Power for Major Facilities</i></b>				
Installation of emergency back-up power and power system upgrades and at major SEPTA maintenance and transportation facilities.	\$6.00 M	2023 - 2029 Project	Bucks Chester Delaware Montgomery Philadelphia	System-wide
<b><i>Vehicle Washer Program</i></b>				
Replacement and upgrading of the vehicle washers, which have exceeded their useful life, at various SEPTA facilities.	\$14.00 M	2023 - 2029 Project	Delaware Montgomery Philadelphia	System-wide
<b><i>Wyoming Complex Stormwater Retrofits</i></b>				
Reconfigure stormwater management and improve pavement conditions in the existing parking lot at SEPTA's Wyoming Complex which includes Wyoming, Berridge and Courtland shops. This is a joint effort working with the Philadelphia Water Department.	\$2.92 M	2023 - 2029 Project	Philadelphia	Philadelphia

## MAINTENANCE/TRANSPORTATION SHOPS AND OFFICES

Project Descriptions	Budget	Schedule / Status (Calendar Year)	Location	Service Area
<b>Roof Program (FY 2018 - 2022)</b>				
<b><i>69th St. Transportation Center Shop Complex Roofs Replacement</i></b>				
Replacement of existing roofs. Includes replacement of mechanical equipment and electrical connections.	\$14.10 M	Design Complete Construction 2016 - 2019	Delaware	Delaware Montgomery Philadelphia
<b><i>Broad Substation Roof Replacement</i></b>				
Replacement of the roof at Broad Substation, located on Mt. Vernon Street and serving the Broad Street Line.	\$2.00 M	Design Complete Construction 2017 - 2018	Philadelphia	Philadelphia
<b><i>Comly Roof Replacement</i></b>				
Replacement of existing roof at Comly Garage with a new roofing system. Includes replacement of mechanical equipment and electrical connections.	\$6.40 M	Design 2018 Construction 2019	Philadelphia	Philadelphia
<b><i>Courtland Shop Roof Replacement</i></b>				
Replacement of the Courtland Shop roof with a new roofing system. Includes replacement of mechanical equipment and electrical connections.	\$8.80 M	Design 2018 Construction 2019 - 2020	Philadelphia	Philadelphia
<b><i>Frankford Depot Roof Replacement</i></b>				
Replacement of the Frankford Depot roof with a new roofing system. Includes replacement of mechanical equipment and electrical connections.	\$8.80 M	Design 2019 Construction 2020 - 2021	Philadelphia	Philadelphia

## MAINTENANCE/TRANSPORTATION SHOPS AND OFFICES

Project Descriptions	Budget	Schedule / Status (Calendar Year)	Location	Service Area
<b><i>Midvale Bus Garage Roof Replacement</i></b>				
Replacement of existing roofs with a new roofing system. Includes replacement of mechanical equipment and electrical connections.	\$30.03 M	Design 2019 - 2020 Construction 2021- 2023	Philadelphia	Philadelphia
<b><i>Overbrook Maintenance Facility Roof Replacement</i></b>				
Replacement of existing roof with a new roofing system. Includes replacement of mechanical equipment and electrical connections.	\$7.55 M	Design 2016 - 2017 Construction 2017 - 2018	Philadelphia	Bucks Chester Delaware Montgomery Philadelphia
<b>Roof Program (FY 2023 - 2029)</b>				
<b><i>5800 Bustleton Roof Replacement</i></b>				
Replacement of roof at SEPTA office building located at 5800 Bustleton Avenue.	\$1.75 M	2023 - 2029 Project	Philadelphia	Philadelphia
<b><i>Maintenance, Stations and Substations Roof Program</i></b>				
Replacement and upgrade of the existing roofs at maintenance facilities, stations and substations throughout the SEPTA system. Work may include replacement of mechanical equipment and electrical connections.	\$21.00 M	2023 - 2029 Project	Bucks Chester Delaware Montgomery Philadelphia	System-wide
<b><i>Sansom Substation Roof</i></b>				
Replacement of the roof at Sansom Substation, located on Sansom Street and serving the Market-Frankford Line.	\$2.00 M	2023 - 2029 Project	Philadelphia	Philadelphia
<b><i>Southern Garage Roof Replacement</i></b>				
Replacement and upgrade of existing roof system at Southern Garage.	\$7.70 M	2023 - 2029 Project	Philadelphia	Philadelphia

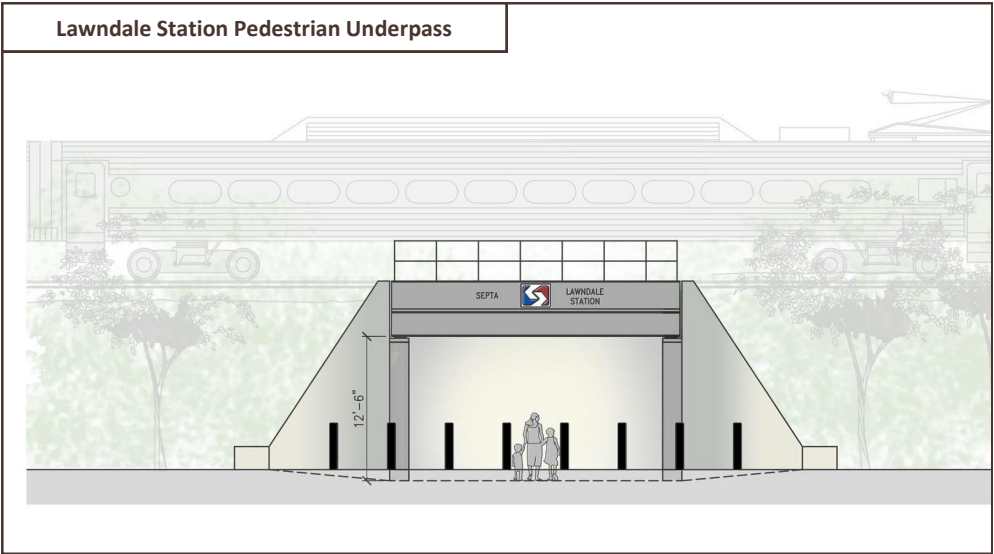


# SAFETY & SECURITY IMPROVEMENTS

Safety is a key objective of SEPTA’s Strategic Business Plan. All projects advanced in the capital program have a safety-first focus throughout. Having a comprehensive safety plan and program is part of SEPTA’s goal to provide passengers with safe, reliable, and efficient transportation. This program includes life safety assessments, facility and vehicle security measures, and interoperable communications improvement projects. This program also includes projects funded with competitive U. S. Department of Homeland Security grant funds. The Authority is part of the Philadelphia Area Regional Transit Security Working Group (PARTSWG), which is working to advance safety and security improvements for all transit operations into and out of Philadelphia and the surrounding area.



Safety & Security Improvements - Program Elements	Prior Funding	Budget					FY 2023- 2029	12-Year	Beyond FY 2029	Total Budget
		Year	Program Years					Program		
		FY 18	FY 19	FY 20	FY 21	FY 22		Total		
		-----\$Millions-----								
Safety & Security Improvements	\$8.40	\$19.79	\$19.39	\$17.73	\$10.07	\$10.45	\$47.61	\$125.04	\$0.00	\$133.44
TOTAL	\$8.40	\$19.79	\$19.39	\$17.73	\$10.07	\$10.45	\$47.61	\$125.04	\$0.00	\$133.44



## SAFETY & SECURITY IMPROVEMENTS

Project Descriptions	Budget	Schedule / Status (Calendar Year)	Location	Service Area
<b>Safety &amp; Security Projects (FY 2018 - 2022)</b>				
<b><i>Allegheny Garage Ventilation</i></b>				
Removal and replacement of eight (8) roof mounted heat recovery ventilation units at Allegheny Garage including all related ductwork, sound attenuators, structural supports and electrical power/controls.	\$3.67 M	Design Complete Construction 2017 - 2018	Philadelphia	Philadelphia
<b><i>Bus Turn Alerting System</i></b>				
Installation of a bus turn alerting system on SEPTA buses. The system will serve as a secondary warning system to alert customers, bicyclists and pedestrians, both audibly and visually, that a bus is making a turn.	\$4.85 M	Installation 2016 - 2019	System-wide	System-wide
<b><i>Jefferson Station Platform Ventilation System</i></b>				
Removal and replacement of roof mounted exhaust/supply fans including all related ductwork, sound attenuators, structural improvements and electrical controls at Jefferson Station.	\$5.08 M	Design Complete Construction 2017 - 2018	Philadelphia	Bucks Chester Delaware Montgomery Philadelphia Delaware (State) New Jersey
<b><i>Midvale Facility and Security Enhancements</i></b>				
Construction of a new consolidated employee and storage facility at SEPTA's Midvale Complex. This facility is needed to provide an accessible, secure and functional facility for SEPTA Power, Track, Bridges and Buildings, and Utilities personnel, and to protect high cost material used for SEPTA operations from theft and damage. As part of this project, Life Safety improvements including fire suppression, security elements, communications systems and perimeter fencing will be installed.	Phase 1 \$3.50 M	Phase 1 Design 2017- 2018 Construction 2018 - 2020	Philadelphia	System-wide
	Phase 2 \$23.20 M	Phase 2 2023 - 2029 Project		

## SAFETY & SECURITY IMPROVEMENTS

Project Descriptions	Budget	Schedule / Status (Calendar Year)	Location	Service Area
<b>Radio Interoperability</b>				
Replacement of the existing 40-year old radiax cable in the Market-Frankford Subway and Broad Street Subway, and procurement of new radio equipment for the Market Street, Trolley, and Railroad tunnels. This project will upgrade SEPTA's sub-surface communications infrastructure with a new distributed communication system. This will provide the capability to communicate both above and below ground using two different frequencies: SEPTA's existing train dispatch and maintenance channels, and the City of Philadelphia's channels for fire, police, and emergency medical services.	\$24.89 M	Design Complete Construction 2016 - 2019	Philadelphia	Philadelphia
<b>Safety and Security Infrastructure Hardening Program</b>				
Infrastructure improvements and modifications throughout the SEPTA system that will improve safety and security of both assets and passengers. This program will allow SEPTA to perform analysis and conceptual design of key safety and security initiatives.	\$3.00 M	Ongoing	Bucks Chester Delaware Montgomery Philadelphia	Bucks Chester Delaware Montgomery Philadelphia Delaware (State) New Jersey
<b>Station Ventilation Improvements at Suburban and AT&amp;T Stations</b>				
Replacement of the existing ventilation systems at Suburban Station and AT&T Station. Suburban Station work (Phase 1) includes replacement of platform level exhaust fans and the installation of vane axial exhaust/supply fans for the concourse level. AT&T Station work (Phase 2) includes replacement of the ventilation system and installation of a smoke abatement system. The work at both stations includes all related ductwork, sound attenuators, structural supports, and electrical power/controls.		Design 2015 - 2017		Bucks Chester Delaware Montgomery Philadelphia Delaware (State) New Jersey
	Phase 1 \$10.00 M	Phase 1 Construction 2016 - 2019	Philadelphia	
	Phase 2 \$10.00 M	Phase 2 Construction 2022 - 2023		
<b>Wayne Junction Security Improvements, Phase 2</b>				
Security improvements at Wayne Junction Yard in the City of Philadelphia and provision of secure storage facilities. Includes installation of a secure fence, cameras and improved lighting. In addition, this project includes demolition of two temporary structures (Quonset Huts) that have exceeded their useful life. The huts will be replaced with a new, secure storage structure.	\$2.50 M	Design 2017 Construction 2019	Philadelphia	Bucks Chester Delaware Montgomery Philadelphia Delaware (State) New Jersey



## SAFETY & SECURITY IMPROVEMENTS

Project Descriptions	Budget	Schedule / Status (Calendar Year)	Location	Service Area
<b><i>Elmwood Safety &amp; Security</i></b>				
Installation of security cameras, access control measures, fencing, and gates at Elmwood Carhouse.	\$0.40 M	Design 2017 Construction 2017 - 2018	Philadelphia	Philadelphia
<b><i>Escalator / Elevator Improvement Program</i></b>				
Modernization and upgrades to the escalators and elevators throughout the SEPTA system, including design, construction, and integration of an escalator remote monitoring system.	\$22.78 M	2018 - 2029	Philadelphia	System-wide
<b><i>Lawndale Station Pedestrian Underpass &amp; High Level Platform</i></b>				
Construction of a grade separated pedestrian access to Lawndale Station on the Fox Chase Regional Rail Line. This project also includes the installation of a high-level platform and passenger shelters on the SEPTA platform.	\$9.59 M	Design 2016 - 2017 Construction 2018 - 2019	Philadelphia Montgomery	Philadelphia Montgomery
<b>Safety &amp; Security Projects (FY 2023 - 2029)</b>				
<b><i>Pump Rooms</i></b>				
Improvements to pump rooms, which control water levels in SEPTA's transit and railroad tunnels.	\$ 10.00 M	2023 - 2029 Project	Philadelphia	Philadelphia
<b>Transit Security Grant Projects (FY 2018 - 2022)</b>				
Through the U.S. Department of Homeland Security, the Transit Security Grant Program provides funds to operators of public transportation systems to protect critical surface transportation assets and the traveling public from acts of terrorism, and to increase the resilience of transit infrastructure. From this grant program, SEPTA has funded closed circuit television (CCTV) cameras on vehicles; multi-jurisdictional counter terrorism emergency simulation drills on various transit modes; directed SEPTA Transit Police Patrols in strategically designated areas during periods of elevated alert using specially trained anti-terrorism teams; hazardous material identification kits for Special Operations and Response Teams (SORT); purchase of explosive detection devices, intrusion detection and surveillance equipment, and bulletproof vests; Special Operations and Response Teams (SORT) and K-9 patrol teams; upgraded mobile communications and Control Center monitoring equipment; installation of video surveillance cameras at transit facilities; implementation of a radio interoperability system (RIOS); and maintenance of a computer aided dispatch and records management system (CAD/RMS) for the Philadelphia region. SEPTA will continue to fund eligible projects from this grant program.	Competitive Annual Program \$1 M	2017 - 2018	Bucks Chester Delaware Montgomery Philadelphia Delaware (State) New Jersey	Bucks Chester Delaware Montgomery Philadelphia Delaware (State) New Jersey

## SEPTA KEY

The SEPTA Key (New Payment Technologies) Project is modernizing SEPTA's antiquated fare payment and collection system by replacing it with a system that utilizes contactless payment devices and readers. New Fare Kiosks located in stations and other terminal locations will improve customer convenience for fare instrument purchases. Key Cards will also be widely available in retail establishments throughout the SEPTA service area and will be reloadable: 1) at Fare Kiosks or ticket offices; 2) automatically through an account with SEPTA; or 3) through an on-line transaction.

SEPTA Key is unique because it will include all of SEPTA's service modes. In addition to bus, rail transit, and regional rail fare collection improvements, this project will include improvements to the payment and collection procedures for SEPTA's Customized Community Transportation (CCT) operation and SEPTA's parking operations. Computer equipment and software systems will support the enhanced system-wide fare collection system.

SEPTA introduced the SEPTA Key Early Adopters Program in June 2016 which deployed City Transit (Bus, Trolley, Trackless Trolley and High Speed Lines) but limited the products available for purchase to TransPasses, Convenience Passes, Travel Wallet and Quick Trips. Full deployment of the remaining City Transit related products is projected to be completed in the latter part of 2017. Deployment of Regional Rail and CCT Connect Paratransit Services is scheduled to be complete in 2018.

Companion projects supporting the SEPTA Key project include: bus and trolley farebox upgrade; Market-Frankford Line and Broad Street Line fiber optics improvements; electrical support for new fare lines at five downtown Railroad stations (Temple University, Jefferson, Suburban Station, 30th Street Station and University City); Broad Street Line, Market-Frankford Line and Trolley station fare line improvements; zone offices to monitor fare lines and assist passengers; control modifications for elevators; Railroad station waiting room security; provision of power to Railroad Parking Payment Stations; and 30th Street Railroad Station ticket office/vendor relocations. These SEPTA Key companion projects are necessary to provide enhanced customer service and achieve cost efficiencies and revenue enhancements.

The SEPTA Board approved a loan agreement with the Philadelphia Industrial Development Corporation (PIDC), Limited Partnership (LP) XXVIII, to partially finance this project. The total project cost includes the loan repayment and companion project costs.

Project status updates are available online at <http://www.septa.org/key/>.

SEPTA Key	Prior Funding	Budget Year FY 18	Program Years				FY 2023- 2029	12-Year Program Total	Beyond FY 2029	Total Budget
		FY 19	FY 20	FY 21	FY 22					
		-----\$Millions-----								
SEPTA Key	\$137.58	\$99.63	\$30.69	\$0.00	\$0.00	\$0.00	\$0.00	\$130.32	\$0.00	\$267.90
TOTAL	\$137.58	\$99.63	\$30.69	\$0.00	\$0.00	\$0.00	\$0.00	\$130.32	\$0.00	\$267.90



# SERVICE RESTORATIONS

This program provides for the Elwyn to Wawa Rail Service Restoration project. This project will restore rail service on the Media/Elwyn Regional Rail Line from its existing terminus at Elwyn, Delaware County, to a new terminus in Wawa, Delaware County. Regional Rail service beyond Elwyn was discontinued in the early 1980s. The project includes renewal of infrastructure, including bridges, track, signals and catenary systems, as well as construction of a new station building and parking deck at Wawa.



Service Restorations and Expansions - Project Elements	Prior Funding	Budget	Program Years				FY 2023- 2029	12-Year	Beyond FY 2029	Total Budget
		Year						Program		
		FY 18	FY 19	FY 20	FY 21	FY 22		Total		
-----\$Millions-----										
Elwyn to Wawa Rail Service	\$16.88	\$2.10	\$20.00	\$48.00	\$33.90	\$29.68	\$0.00	\$133.68	\$0.00	\$150.56
TOTAL	\$16.88	\$2.10	\$20.00	\$48.00	\$33.90	\$29.68	\$0.00	\$133.68	\$0.00	\$150.56



## SERVICE RESTORATIONS

Project Descriptions	Budget	Schedule / Status (Calendar Year)	Location	Service Area
<b>Elwyn to Wawa Rail Service (FY 2018 - 2022)</b>				
<p>This project will provide restoration of rail service from the existing Media/Elwyn Regional Rail Line terminus at Elwyn, Delaware County, to a new terminus in Wawa, Delaware County along the existing line referred to as the West Chester Branch. The scope of work for this project consists of track bed reconstruction including crossties, continuous welded rail and track interlockings; catenary system rehabilitation; a bi-directional signal system with automated train controls and positive train control; communications system improvements; and the replacement and rehabilitation of bridges and culverts.</p> <p>The new terminus at Wawa will include a station building with a passenger waiting area and restroom facilities; a high-level island platform with canopy and windscreens; a pedestrian underpass with accessible ramps and stairways; and a 600+ car parking deck. The new facility will be fully ADA compliant. The project also includes the construction of a new traffic intersection and access road connecting U.S. Route 1 to the station. Finally, a railcar storage/maintenance yard and crew facility will be constructed on SEPTA property in Lenni, Delaware County.</p>	\$150.56 M	Design Complete Construction 2018 - 2021	Delaware	Chester Delaware

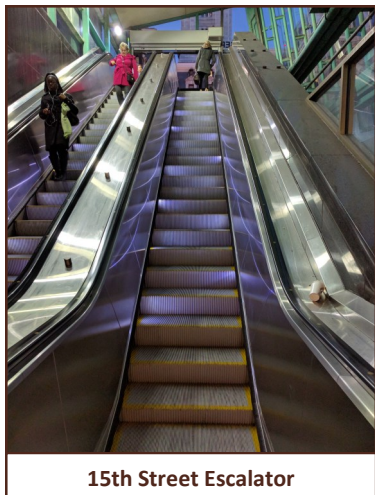


## STATIONS, LOOPS AND PARKING IMPROVEMENTS

This program provides for the construction, reconstruction or rehabilitation of transit and regional rail stations and terminals, bus/trolley loop facilities, transportation centers, bicycle facilities, and parking expansions and improvements. Program elements include the replacement or rehabilitation of station and loop facility components, such as station buildings, ticket offices, waiting rooms, passenger shelters, canopies, platforms, crosswalks and overpasses, escalators and elevators, lighting, signage, and accessible paths. All improvements fully comply with requirements of the Americans with Disabilities Act of 1990. To date, SEPTA has 108 accessible railroad / rail transit stations.



Stations, Loops & Parking Program Elements	Prior Funding	Budget Year	Program Years				FY 2023 - 2029	12-Year Program	Beyond FY 2029	Total Budget
		FY 18	FY 19	FY 20	FY 21	FY 22		Total		
		-----\$Millions-----								
City Hall & 15th Street Stations	\$34.10	\$19.00	\$19.55	\$21.50	\$12.00	\$15.00	\$25.32	\$112.37	\$0.00	\$146.47
Exton Station & Garage	\$14.90	\$4.64	\$3.90	\$0.00	\$0.00	\$0.00	\$39.50	\$48.04	\$0.00	\$62.94
Levittown Station	\$18.11	\$11.70	\$6.20	\$0.00	\$0.00	\$0.00	\$0.00	\$17.90	\$0.00	\$36.01
Paoli Transportation Center	\$7.75	\$10.99	\$12.00	\$0.00	\$0.00	\$0.25	\$50.95	\$74.19	\$0.00	\$81.94
Parking Improvements	\$47.86	\$9.42	\$10.26	\$10.04	\$10.38	\$11.30	\$75.15	\$126.55	\$56.78	\$231.19
Transit, Regional Rail Stations & Loops	\$77.94	\$23.57	\$23.65	\$23.53	\$25.21	\$27.94	\$176.21	\$300.11	\$138.10	\$516.15
Villanova Station	\$9.77	\$8.38	\$3.64	\$0.00	\$0.00	\$0.00	\$10.45	\$22.47	\$0.00	\$32.24
TOTAL	\$210.43	\$87.70	\$79.20	\$55.07	\$47.59	\$54.49	\$377.58	\$701.63	\$194.88	\$1,106.94



## STATIONS, LOOPS AND PARKING IMPROVEMENTS

Project Descriptions	Budget	Schedule / Status (Calendar Year)	Location	Service Area
<b>City Hall &amp; 15th Street Stations</b>				
<p>Rehabilitation of City Hall Station on the Broad Street Line and 15th Street Station on the Market-Frankford Line to make the stations fully ADA accessible; bring the stations to a state of good repair; improve customer use, safety and security; and reduce heavy maintenance costs. Specifically, the project will:</p> <ul style="list-style-type: none"> <li>• Provide full access for riders with disabilities through new elevators and ramps to all levels of both stations, new and wider ramped corridors connecting the stations, and new accessible fare line gates.</li> <li>• Improve passenger flow with new and reconfigured fare lines outfitted for the new SEPTA Key program, new stairs and railings, and more open areas in the 15th Street Mezzanine and on the platforms.</li> <li>• Update station interiors and systems including new architectural finishes, new signs, Art-in-Transit, new seating and other amenities, new lighting and public address systems, and closed-circuit TV.</li> <li>• Provide structural repairs and upgrades, mechanical and natural ventilation and improvements to prevent/intercept water infiltration and inflow.</li> </ul>				
<p>The City Hall / 15th Street Stations project has been divided into the following phases:</p> <ul style="list-style-type: none"> <li>• Dilworth Park Phase (complete): Included work to prepare for the park's construction by the Center City District (CCD) and construction of the new station entrance in the park outside the west portal of City Hall; and elevator access to the rebuilt farelines and 15th Street stations.</li> <li>• 15th Street Station: New elevators for 15th Street Station and overall interior renovations and upgrades to station finishes, platforms, lighting, fare lines and amenities to make the station fully ADA accessible.</li> <li>• Inter-Station Connections and City Hall Station structural work (underpinnings): New and widened corridors with ramps, improved ventilation structures, platform wall openings for easier connections, and new elevator shaftways from the mezzanines to the platforms.</li> <li>• City Hall Station: Upgrades within City Hall Station including elevators to complete ADA compliance and new or renovated platforms, stairs, lighting and amenities.</li> </ul>	\$146.47 M	<p>15th Street &amp; City Hall Stations Design 2014 - 2017</p> <p>Construction: 15th Street 2016 - 2018 City Hall 2019 - 2023</p>	Philadelphia	Philadelphia

## STATIONS, LOOPS AND PARKING IMPROVEMENTS

Project Descriptions	Budget	Schedule / Status (Calendar Year)	Location	Service Area
<b>Exton Station Improvements</b>				
<p>This project, which will be advanced in phases, will include the construction of full length high-level platforms, a station building, bus circulation loops, and a multi-level parking garage at Exton Station on the Paoli-Thorndale Regional Rail Line. Phase 1 encompasses the construction of high-level platforms with canopies and wind screens; stormwater management improvements; and a new station building. The station facilities will be fully ADA compliant. New lighting, signage, security features, and passenger amenities will also be provided. Phase 2 comprises the construction of bus circulation loops with bus shelters. The planned bus circulator loops will promote intermodal access to the station. Phase 3 includes the development and construction of a fully accessible, multi-level parking garage with pathways to the station platforms. The quantity of parking spaces and garage levels will be determined as part of the Phase 3 design.</p>	<p>Phase 1: \$23.44 M</p> <p>Phase 2 &amp; 3: \$39.50 M</p>	<p>Phase 1 Design Complete Construction 2015 - 2018</p> <p>Phase 2 &amp; 3: 2023 - 2029 Project</p>	Chester	Chester
<b>Levittown Station Reconstruction</b>				
<p>Improvements to Levittown Station on the Trenton Regional Rail Line that will make the station fully ADA accessible. Work includes installation of new full length high-level platforms with canopies; replacement of the station building; parking improvements and expansion; stormwater management; new signage, lighting, and passenger amenities. In addition, a new pedestrian overpass complete with elevators will be constructed to replace the old tunnel. Bus loops will be constructed and bus shelters installed to promote intermodal access, improve traffic flow, and enhance safety for motorists and pedestrians through the station and parking areas.</p>	<p>\$36.01 M</p>	<p>Design Complete Construction 2015 - 2018</p>	Bucks	Bucks

## STATIONS, LOOPS AND PARKING IMPROVEMENTS

Project Descriptions	Budget	Schedule / Status (Calendar Year)	Location	Service Area
<b>Paoli Intermodal Transportation Center</b>				
<p>This project provides for the engineering and construction of a new multimodal transportation center in Paoli, Chester County. The new facility will be located on the Paoli/Thorndale Regional Rail Line at the approximate location of the existing station. Connecting services include Bus Routes 92, 105, 106, 204, 205 and 206. SEPTA is partnering with PennDOT and Amtrak to advance this project.</p> <p>The project will be advanced in two phases. Phase 1 will make the existing station ADA accessible. This phase includes construction of a pedestrian overpass with elevators linking inbound and outbound station parking lots as well as a new full length high-level center platform. The outbound parking areas will be reconfigured and pedestrian linkages, such as sidewalks and crosswalks, will be provided throughout the station area. Phase 1 is progressing with funding from Amtrak, SEPTA and PennDOT. The total budget for Phase 1 is \$44.74 million. Of that amount, SEPTA is programming \$30.74 million to reflect SEPTA and PennDOT's contribution.</p> <p>A companion PennDOT project will consist of the extension of Darby Road over the railroad, including a new bridge connecting to the station, and the removal of the North Valley Road bridge. The companion project must be completed prior to Phase 2 construction.</p> <p>Phase 2 includes an intermodal station complex complete with an additional high-level platform on the outbound side, passenger amenities, enhanced bus facilities, and a 600-plus space commuter parking garage.</p>	<p>Phase 1: \$30.74 M</p> <p>Phase 2: \$51.20 M</p>	<p>Phase 1 Design Complete Construction 2017 - 2018</p> <p>Phase 2 FY 2022 - 2025</p>	Chester	Chester Montgomery
<b>Parking Improvements/Expansions (FY 2018 - 2022)</b>				
<b>69th Street Transportation Center Parking Garage</b>				
<p>Development and construction of a fully accessible parking garage at the 69th Street Transportation Center, including pedestrian connections to the historic 69th Street Terminal building. Phase 1 of the project will address site and utility work within the project perimeter, as well as upgrading electrical facilities. Phase 2 will include construction of the parking garage, bus terminal and pedestrian connections between the facilities.</p>	\$31.01 M	<p>Design Complete</p> <p>Phase 1 Construction 2015 - 2017</p> <p>Phase 2 Construction 2018 - 2023</p>	Delaware	Chester Delaware Montgomery Philadelphia



## STATIONS, LOOPS AND PARKING IMPROVEMENTS

Project Descriptions	Budget	Schedule / Status (Calendar Year)	Location	Service Area
<b><i>Gwynedd Valley Station Parking</i></b>				
Parking expansion and improvements at Gwynedd Valley Station on the Lansdale/Doylestown Regional Rail Line. Includes construction of an additional parking lot, accessible pathways, signage, new lighting, stormwater management system improvements and landscaping.	\$2.54 M	Design Complete Construction 2017 - 2018	Montgomery	Montgomery
<b><i>Lansdale Parking Garage and Lansdale Area Improvements</i></b>				
Construction of a fully accessible 680-space parking garage at the Lansdale Regional Rail Station, resulting in a total of 895 parking spaces at the station. A pedestrian overpass will provide a direct connection to a future Transit Oriented Development (TOD) project on the Borough's Madison Avenue parking lot. In addition, the following Lansdale area companion improvements are being advanced: Enhancements to the Main Street entrance to the station; construction of a bus layover area on Railroad Street south of Main Street adjacent to the tracks; and construction of a new station at 9th Street (complete).	\$42.14 M	Design Complete Construction 2015 - 2017	Montgomery	Montgomery
<b><i>Noble Station, Parking Garage and Storage Track</i></b>				
Construction of new station facilities, parking garage and storage track at Noble Station on the West Trenton Regional Rail Line, making the station fully ADA accessible. The new station will include full length high-level platforms; canopies and passenger shelters; accessible pathways, sidewalks and handrails/guardrails; new signage, lighting and security cameras; stormwater management systems and landscaping.	\$53.00 M	Design 2016 - 2018 Construction 2022 - 2025	Montgomery	Bucks Montgomery
<b><i>Philmont Station Parking</i></b>				
Parking expansion and improvements at Philmont Station on the West Trenton Regional Rail Line. This project will include expanded parking and ADA accessibility improvements at the station.	\$25.00 M	Design 2019 Construction 2020 - 2022	Montgomery	Montgomery Philadelphia

## STATIONS, LOOPS AND PARKING IMPROVEMENTS

Project Descriptions	Budget	Schedule / Status (Calendar Year)	Location	Service Area
Parking Improvements/Expansions (FY 2023 - 2029)				
Fern Rock Complex				
Renovation of Fern Rock Complex to enhance accessibility, expand parking capacity and increase operational efficiency. This project provides for station and accessibility improvements including ramps; new structured parking deck and surface lot; improved access between the Regional Rail and Broad Street lines; new bus shelters; and signage, lighting and drainage improvements.	\$77.50 M	2023 - 2029 Project	Philadelphia	Bucks Montgomery Philadelphia
Transit & Regional Rail Stations Program — Regional Rail (FY 2018 - 2022)				
Ardmore Transportation Center				
Improvements to the Ardmore Transportation Center on the Paoli/Thorndale Regional Rail Line will be completed in two phases.				
Phase 1 will make this station fully ADA accessible with enhancements that include a new inbound station building; outbound shelters; high and low-level platforms; canopies; passenger amenities; tunnel accessibility improvements; elevators and accessible pathways; improved lighting; new signage; landscaping and site improvements including stormwater management; and preparing the foundation for a future parking garage. Phase 1 costs include design for Phase 2.		Design Complete		
	Phase 1 \$36.29 M	Phase 1 Construction 2018 - 2021	Montgomery	Delaware Montgomery
	Phase 2 \$26.05 M	Phase 2 2023 - 2029 Project		
Phase 2 includes the construction of an accessible multi-level parking garage with approximately 500 spaces; landscaping; site improvements; bus berthing area inside the garage; and improved vehicle and pedestrian access to Lancaster Avenue.				
Bicycle Transit Access Program				
Installation of new bicycle parking shelters and racks at select SEPTA Regional Rail and transit stations. The addition of bicycle parking shelters and racks will improve bicycle access and security at SEPTA stations, thereby encouraging more customers to bike to transit and expanding opportunities to access SEPTA stations.	\$2.50 M	Design Complete Construction 2015 - 2019	Bucks Chester Delaware Montgomery Philadelphia	Bucks Chester Delaware Montgomery Philadelphia Delaware (State) New Jersey

## STATIONS, LOOPS AND PARKING IMPROVEMENTS

Project Descriptions	Budget	Schedule / Status (Calendar Year)	Location	Service Area
<b><i>Conshohocken Station</i></b>				
Construction of a new fully ADA accessible station, and station access improvements at Conshohocken Station on the Manayunk/Norristown Regional Rail Line. This station will receive new full length high-level platforms; new passenger shelters; accessible pathways, sidewalks and handrails/guardrails; bike facilities; additional roadway access to the station; new signage and lighting; stormwater management systems and landscaping. SEPTA is evaluating opportunities to build a parking garage at the station, which is not included in the current budget.	\$15.00 M	Design 2017 - 2018 Construction 2019 - 2020	Montgomery	Montgomery Philadelphia
<b><i>East Falls Station</i></b>				
Modernization of East Falls Station on the Manayunk/Norristown Regional Rail Line that will make the station fully ADA accessible. Work includes installing high level platforms and new passenger shelters; elevators; accessible pathways and handrails/guardrails; new signage and lighting; stormwater management systems and landscaping.	\$19.50 M	Design & Construction 2021 - 2025	Philadelphia	Philadelphia
<b><i>Jenkintown-Wyncote Station on the Regional Rail Mainline</i></b>				
Improvements that will make the station fully ADA accessible. This station will receive new full length high-level platforms; new pedestrian overpass and elevators; new passenger shelters; accessible pathways and handrails/guardrails; new signage and lighting; stormwater management systems and landscaping.	\$25.32 M	Design 2016 - 2018 Construction 2020 - 2023	Montgomery	Bucks Montgomery Philadelphia
<b><i>Secane Station on the Media/Elwyn Regional Rail Line</i></b>				
Rehabilitation of Secane Station on the Media/Elwyn Regional Rail Line that will make the station fully ADA accessible. Phase 1 work includes new full length high-level platforms, a new pedestrian tunnel and a new station building with canopies. The project will also include accessible pathways and handrails/guardrails; new signage, lighting and security cameras; drainage improvements and improved pedestrian access to the station. Phase 2 of the project will include expanded parking on the outbound side of the new station.	Phase 1 \$21.20 M  Phase 2 \$3.00 M	Design Complete  Phase 1 Construction 2015 - 2018  Phase 2 2023 - 2029 Project	Delaware	Delaware Philadelphia

## STATIONS, LOOPS AND PARKING IMPROVEMENTS

Project Descriptions	Budget	Schedule / Status (Calendar Year)	Location	Service Area
<b><i>Suburban Station Passenger and Crew Amenities</i></b>				
Construction of new and renovation of existing public restrooms at Suburban Station to address the proposed fare lines to be installed as part of the SEPTA Key initiative. The renovated restrooms will become the new “paid area” restrooms. SEPTA’s train crew quarters at Suburban Station will be expanded to include new bathrooms, crew work areas, entrances, mechanical rooms, and expanded sprinkler and fire alarm systems. In addition, SEPTA’s Accessible Travel Center (ATC) will be expanded to accommodate accessible restrooms. The ATC will expand into the adjacent Revenue Equipment Maintenance (REM) facility, which will be moved to the existing Railroad Storage Area within Suburban Station, and the Railroad Storage Area will be relocated.	\$4.74 M	Design Complete Construction 2016 - 2017	Philadelphia	Bucks Chester Delaware Montgomery Philadelphia Delaware (State) New Jersey
<b><i>Swarthmore Roof Replacement &amp; Exterior Improvements</i></b>				
Replacement of existing roof and canopy and exterior station building improvements to Swarthmore Station on the Media/Elwyn Regional Rail Line. Exterior improvements include painting, replacement of skylights and re-pointing select stone mortar joints.	\$1.00 M	Design 2016 - 2017 Construction 2017	Delaware	Delaware Philadelphia
<b><i>Willow Grove Station on the Warminster Regional Rail Line</i></b>				
Modernization of Willow Grove Station on the Warminster Regional Rail Line that will make the station fully ADA accessible. Work includes a new full length high-level platform; new passenger shelters; accessible pathways and handrails/guardrails; new signage and lighting; stormwater management systems; and landscaping.	\$6.50 M	Design 2021 Construction 2022 - 2023	Montgomery	Bucks Montgomery Philadelphia
<b><i>Wyndmoor Canopy Roof Replacement &amp; Station Improvements</i></b>				
Phased repairs at Wyndmoor Station on the Chestnut Hill East Regional Rail Line. Phase 1 of the station rehabilitation included repairs to the platform canopy roofs, station building platform entrance door, and installation of two glass block windscreen panels. Phase 2 elements include replacement of stairwell canopies; repairs to concrete stairs; replacement of metal windscreens with guardrails; replacement of station building windows and doors; masonry repairs and pointing work for station buildings; and concrete repairs. This project also includes the installation of new station LED lighting and signage, passenger amenities and site accessories.	\$4.58 M	Design Complete  Phase 1 Construction Complete  Phase 2 Construction 2017 - 2018	Philadelphia	Philadelphia Montgomery



## STATIONS, LOOPS AND PARKING IMPROVEMENTS

Project Descriptions	Budget	Schedule / Status (Calendar Year)	Location	Service Area
<b><i>Yardley Station on the West Trenton Regional Rail Line</i></b>				
Renewal of facilities at Yardley Station on the West Trenton Regional Rail Line to make the station fully ADA accessible. This station will receive a new high-level boarding platform for both inbound and outbound passenger service, pathways, two open-air shelters, and upgrades to signage, passenger amenities and lighting.	\$5.75 M	Design Complete Construction 2016 - 2017	Bucks	Bucks Montgomery Philadelphia New Jersey
<b>Transit &amp; Regional Rail Stations Program - <i>Regional Rail</i> (FY 2023 - 2029)</b>				
<b><i>Regional Rail Stations</i></b>				
Stations programmed in FY 2023 - 2029 will be modernized and made ADA accessible. A detailed scope of work will be developed for these stations as they are designed:				
• Devon Station on the Paoli/Thorndale Regional Rail Line	\$20.00 M	2023 - 2029 Project	Chester	
• Hatboro Station on the Warminster Regional Rail Line	\$7.15 M	2023 - 2029 Project	Montgomery	Bucks
• Marcus Hook Station on the Wilmington/Newark Regional Rail Line	\$22.50 M	2023 - 2029 Project	Delaware	Chester Delaware
• Roslyn Station on the Warminster Regional Rail Line	\$6.50 M	2023 - 2029 Project	Montgomery	Montgomery
• Wyndmoor Station on the Chestnut Hill East Regional Rail Line	\$19.50 M	2023 - 2029 Project	Philadelphia	Philadelphia
• Wynnewood Station on the Paoli/Thorndale Regional Rail Line	\$19.50 M	2023 - 2029 Project	Montgomery	
<b>Transit &amp; Regional Rail Stations Program — <i>Rail Transit</i> (FY 2018 - 2022)</b>				
<b><i>5th Street / Independence Hall Station</i></b>				
Rehabilitation and improvements to 5th Street / Independence Hall Station on the Market-Frankford Line. Work includes ADA accessibility upgrades; critical structural repairs and waterproofing; improvements to platforms and stairways; new fare payment, security and communication systems; new finishes, signage and lighting.	\$19.45 M	Design Complete Construction 2018 - 2020	Philadelphia	Philadelphia

## STATIONS, LOOPS AND PARKING IMPROVEMENTS

Project Descriptions	Budget	Schedule / Status (Calendar Year)	Location	Service Area
<b><i>11th Street Station</i></b>				
Improvements to 11th Street Station on the Market-Frankford Line that will make the station fully ADA accessible. The project provides for installation of elevators and accessibility improvements; renovation of existing platforms and station interior; new signage, lighting and security cameras; and waterproofing improvements.	\$9.50 M	Design 2019 - 2020 Construction 2020 - 2022	Philadelphia	Philadelphia
<b><i>30th Street Station (MFSE) Improvements &amp; Connector</i></b>				
This project will improve accessibility to SEPTA's 30th Street Station on the Market-Frankford Subway Elevated line. The project will include entrance improvements, better connections with the 30th Street Regional Rail Station, and construction of new elevators at 31st & Market Street. The project will be advanced in phases. Design funding has been identified for all phases. SEPTA will fund Phase 1 construction (31st Street Elevators) and is evaluating funding opportunities for Phase 2 and 3 construction (Connector to 30th Street Railroad Station and Station Headhouse improvements, respectively).	Phase 1 \$8.00 M	Phase 1 (Elevators) Design & Construction 2017 - 2018	Philadelphia	Philadelphia
	Phase 2 \$2.00 M	Phase 2 (Connector) Design 2017 - 2018		
	Phase 3 \$1.00 M	Phase 3 (Headhouse) Design 2017 - 2018		
<b><i>40th Street Station</i></b>				
Improvements to 40th Street Station on the Market-Frankford Line that will make the station fully ADA accessible. The scope of work will consist of improvements to platforms and stairways; installation of elevators; construction of head-houses for the elevators and station entrances at street level; new lighting, signage, security features and passenger amenities; drainage and waterproofing improvements; and Art-in-Transit.	\$10.92 M	Design Complete Construction 2015 - 2017	Philadelphia	Philadelphia
<b><i>Arrott Transportation Center (Margaret/Orthodox Station)</i></b>				
Improvements at Arrott Transportation Center (Margaret-Orthodox Station) on the Market-Frankford Line that will make the station ADA accessible. Includes installation of one elevator to connect the street and platform level of the elevated station, and two accessible elevators to connect the platform level to the East Station overpass. Other accessibility improvements include new curb ramps, sidewalk repaving and ADA-compliant signage. This project also provides for new platforms with tactile edging; repair/replacement of stairways, handrails, new metal wall panels, tile wall finishes, and canopy roof; safety and security enhancements including lighting, security cameras, power and communication system upgrades; and Art-in-Transit.	\$39.86 M	Design Complete Construction 2015 - 2018	Philadelphia	Philadelphia

## STATIONS, LOOPS AND PARKING IMPROVEMENTS

Project Descriptions	Budget	Schedule / Status (Calendar Year)	Location	Service Area
<b><i>Center City Concourses</i></b>				
<p>Multi-phase improvements to the Center City Concourses to improve accessibility and bring the concourse network to a good state of repair. This program will revitalize the concourse network with new finishes, lighting and security features; develop the concourse as a place of interest, providing a safe and pleasant environment for pedestrians; and provide potential opportunities for development in the South Broad Concourse. Infrastructure improvements will include structural rehabilitation, new drainage and electrical upgrades.</p> <p>Early action items include replacement of the two escalators at 15th Street and replacement of an escalator and an elevator at 8th Street; mitigation of water infiltration and structural repairs; South Broad concourse improvements; Emergency Call Box replacement (complete); and signage improvements.</p> <p>Major capital improvements will be advanced in the following phases:</p> <ul style="list-style-type: none"> <li>Phase 1: Center Square under South Penn St. passing over South Broad concourse and terminating at Juniper St. adjacent to the Macy's store entrance.</li> <li>Phase 2: Concourse from East Suburban Station entrance adjacent to Love Park continuing in front of the Municipal Services Building and terminating at the Market East Concourse (North).</li> <li>Phase 3: Concourse from 15th Street Station to Dilworth Park and West Trolley entrance.</li> <li>Phase 4: East Market Street Concourse (North and South Corridors).</li> <li>Phase 5: 8th Street concourse on North and South side of Market Street.</li> <li>Phase 6: Corridors under City Hall Plaza from City Hall Station to Juniper Street.</li> <li>Phase 7: Corridors in Suburban Station between 17th and 16th Streets.</li> <li>Phase 8: South Broad Concourse from City Hall to Spruce Street.</li> </ul>				
	\$59.65 M	Phases 1 - 4 2014 - 2019  Phases 5 - 8 2023 - 2029 Project	Philadelphia	Bucks Chester Delaware Montgomery Philadelphia Delaware (State) New Jersey

## STATIONS, LOOPS AND PARKING IMPROVEMENTS

Project Descriptions	Budget	Schedule / Status (Calendar Year)	Location	Service Area
<b><i>Erie Station</i></b>				
Installation of three (3) ADA-compliant elevators at Erie Station on the Broad Street Line. One elevator will move customers between the street level and the mezzanine level of the station. The other two elevators will be located within the paid areas of the mezzanine level and will serve the north and south platforms. The project will also provide for the construction of head houses for the elevator and station entrances at street level; new signage and lighting, security features including surveillance cameras, and passenger amenities; and drainage and waterproofing improvements.	\$9.00 M	Design 2021 - 2022 Construction 2022 - 2024	Philadelphia	Philadelphia
<b><i>Fairmount Station</i></b>				
Improvements to Fairmount Station on the Broad Street Line that will make the station fully ADA accessible. The project provides for the installation of elevators and accessibility improvements; renovation of existing platforms and station interior; new signage, lighting and security cameras; and waterproofing improvements.	\$18.00 M	Preliminary design 2019 - 2020  Final design & construction 2023 - 2029 Project	Philadelphia	Philadelphia
<b><i>Susquehanna-Dauphin Station</i></b>				
Modernization of Susquehanna-Dauphin Station on the Broad Street Line to make the station fully ADA accessible. The project includes the installation of elevators; relocating the existing head house and replacing with a covered head house; accessible pathways and handrails/guardrails; signage, lighting and security cameras.	\$14.94 M	Design 2016 - 2018 Construction 2018 - 2020	Philadelphia	Philadelphia
<b><i>Tasker-Morris Station</i></b>				
Improvements to Tasker-Morris Station on the Broad Street Line that will make the station fully ADA accessible. The project provides for installation of elevators and accessibility improvements; renovation of existing platforms and station interior; new signage, lighting and security cameras; and waterproofing improvements.	\$7.0 M	Design 2018 - 2019 Construction 2020 - 2022	Philadelphia	Philadelphia



## STATIONS, LOOPS AND PARKING IMPROVEMENTS

Project Descriptions	Budget	Schedule / Status (Calendar Year)	Location	Service Area
<b><i>Villanova Station on the Norristown High Speed Line</i></b>				
Improvements will make the station fully ADA accessible. Rehabilitation of station facilities, including improvements to existing platforms and shelters; accessibility improvements including ramps and handrails/guardrails; new signage, lighting and security cameras; and stormwater management.	\$6.00 M	Design & Construction 2022 - 2023	Delaware	Delaware Montgomery
<b>Transit &amp; Regional Rail Stations Program – <i>Rail Transit</i> (FY 2023 - 2029)</b>				
<b><i>Rail Transit Stations</i></b>				
Renovation of transit stations and accessibility improvements, including rehabilitation of platforms and station interiors; accessible pathways and handrails/guardrails; installation or modernization of elevators and escalators; new signage, lighting and security cameras; and drainage and waterproofing improvements. A detailed scope of work will be developed for these stations as they are designed:				
• Hunting Park on the Broad Street Line	\$5.50 M	2023 - 2029 Project	Philadelphia	Philadelphia
• Wyoming Station on the Broad Street Line	\$5.00 M	2023 - 2029 Project	Philadelphia	Philadelphia
<b>Transit &amp; Regional Rail Stations Program – <i>Bus &amp; Trolley Loops</i> (FY 2018 - 2022)</b>				
Modernization of bus and trolley loops including accessibility improvements and enhancements to shelters, loading platforms, lighting, landscaping and operator bathroom facilities. Locations include:				
• Bethlehem Pike	\$1.75 M	Design 2021 - 2022 Construction 2022 - 2023	Philadelphia	Philadelphia
• Westmoreland	\$1.75 M	Design 2018 - 2019 Construction 2019 - 2020	Philadelphia	Philadelphia
• Wissahickon Transportation Center (Includes property acquisition, entrance improvements)	\$13.25 M	Design 2017 - 2018 Construction 2018 - 2020	Philadelphia	Philadelphia Montgomery

## STATIONS, LOOPS AND PARKING IMPROVEMENTS

Project Descriptions	Budget	Schedule / Status (Calendar Year)	Location	Service Area
<b>Transit &amp; Regional Rail Stations Program – Bus &amp; Trolley Loops (FY 2023 - 2029)</b>				
Modernization of bus and trolley loops including accessibility improvements and enhancements to shelters, loading platforms, lighting, landscaping, and operator bathroom facilities. Locations include:				
• Ridge & Summit	\$1.75 M	2023 - 2029 Project	Philadelphia	Philadelphia
• Rising Sun & Olney	\$1.75 M	2023 - 2029 Project	Philadelphia	Philadelphia
• Wycombe	\$2.00 M	2023 - 2029 Project	Delaware	Delaware
<b>Villanova Station</b>				
This project will modernize Villanova Station on the Paoli/Thorndale Regional Rail Line, making the station fully ADA accessible, and will advance in phases. Phase 1 will improve station accessibility and will include construction of a new, wider pedestrian tunnel with access ramps and stairs, additional parking spaces, stormwater management improvements, new signage, lighting, and passenger amenities. Phase 2 will make the station fully ADA accessible and includes full length high-level platforms, new canopies, station building improvements, passenger shelters, security improvements and passenger amenities.	Phase 1: \$21.79 M	Phase 1 Design Complete Construction 2016 - 2018	Delaware	Delaware Montgomery
	Phase 2: \$10.45 M	Phase 2: 2023 - 2029 Project		

## SUBSTATIONS AND POWER IMPROVEMENTS

Many of SEPTA's railroad and transit substations were built in the 1920s and 1930s. In order to bring these substations up to modern standards of reliability and performance, they must be overhauled or replaced. Work includes replacing transformers, trolley breakers, feeder switches, substation switchgears and protective relaying. These projects will replace existing equipment with modern indoor switchgear and state-of-the-art industry safety systems, communications and relay protection systems, and will provide additional power and reliability.

Power infrastructure must also be brought to a state of good repair. This includes replacing catenary systems and upgrading 80+ year old Regional Rail infrastructure. Additional power improvements will be undertaken as part of the Infrastructure Safety Renewal Program (ISRP).



Substations and Power - Program Elements	Budget						FY 2023 - 2029	12-Year Program Total	Beyond FY 2029	Total Budget
	Prior Funding	Year FY 18	Program Years							
			FY 19	FY 20	FY 21	FY 22				
-----\$Millions-----										
Substations	\$5.82	\$20.46	\$30.90	\$27.93	\$31.41	\$30.27	\$112.09	\$253.06	\$14.09	\$272.97
Power Improvements	\$3.68	\$1.30	\$8.70	\$21.00	\$16.46	\$14.54	\$11.32	\$73.32	\$0.00	\$77.00
TOTAL	\$9.50	\$21.76	\$39.60	\$48.93	\$47.87	\$44.81	\$123.41	\$326.38	\$14.09	\$349.97



## SUBSTATIONS AND POWER IMPROVEMENTS

Project Descriptions	Budget	Schedule / Status (Calendar Year)	Location	Service Area
<b>Railroad Substations (FY 2018 - 2022)</b>				
<b><i>Wayne Junction Static Frequency Converters (SFC) #1-4</i></b>				
The major components of the three Static Frequency Converters (SFCs), located adjacent to Wayne Junction Substation, are past their useful lives. SFCs are necessary to convert 230 kV 60 Hz power provided from PECO into a one-of-a-kind 24/12 kV 25 Hz auto transformer system. The construction of a new #4 converter must be completed before the overhauls of the three other converters are initiated to sustain existing service during construction. After SFC #4 is completed, SFC #1 will be overhauled, followed by SFC #2 and #3.	\$60.00 M	Design 2015 - 2017 Construction 2018 - 2022	Philadelphia	Bucks Montgomery Philadelphia
<b>Multimodal Substation Overhaul Program (FY 2018 - 2022)</b>				
<b><i>Substation Design and Equipment Purchase</i></b>				
Design of improvements to seven transit substations (Market, Ellen, Ranstead, Park, Broad, Loudon, and Castor), nine railroad substations and switching stations (Neshaminy, Bethayres, Yardley, Lansdale, Chestnut Hill East, Hatboro, 18th St./12th St./Portal switching stations), and one new substation at Woodbourne. The program also includes the purchase of equipment such as auto transformers and circuit breakers that will be required for the substation improvement projects.	\$28.23 M	Design / Procurement 2016 - 2021	Bucks Montgomery Philadelphia	Bucks Chester Delaware Montgomery Philadelphia New Jersey
<b><i>Railroad Substations - Lansdale, Chestnut Hill East, 18th/12th/Portal, Hatboro</i></b>				
Overhaul of the following railroad substations and switching stations. Work includes new transformers, trolley breakers, feeder breakers, substation switchgear and protective relaying. Design is being done as part of the Substation Design and Equipment Purchase project (see description above).	\$25.24 M	Construction 2019 - 2022	Montgomery Philadelphia	Bucks Delaware Montgomery Philadelphia
• Lansdale Substation on the Lansdale/Doylestown Regional Rail Line				
• Chestnut Hill East Substation on the Chestnut Hill East Regional Rail Line				
• 18th St./12th St./Portal Switching Stations in the Center City Tunnel				
• Hatboro Substation on the Warminster Regional Rail Line				



## SUBSTATIONS AND POWER IMPROVEMENTS

Project Descriptions	Budget	Schedule / Status (Calendar Year)	Location	Service Area				
<b><i>Railroad Substations - Neshaminy, Bethayres, Yardley</i></b>								
Overhaul of the following railroad substations. Work includes new transformers, trolley breakers, feeder breakers, substation switchgear and protective relaying. Design is being done as part of the Substation Design and Equipment Purchase project (see description above).	\$24.58 M	Construction 2017 - 2021	Bucks Montgomery	Bucks Montgomery Philadelphia New Jersey				
<ul style="list-style-type: none"><li>Bethayres Substation on the West Trenton Regional Rail Line</li><li>Neshaminy Substation on the West Trenton Regional Rail Line</li><li>Yardley Substation on the West Trenton Regional Rail Line</li></ul>								
<b><i>Transit Substations - Market, Ellen, Ranstead</i></b>								
Overhaul of the following transit substations. Work includes replacement and upgrade of existing breakers, rectifiers, transformers, relays and switch gears. Design is being done as part of the Substation Design and Equipment Purchase project (see description above).								
<ul style="list-style-type: none"><li>Market Substation on Market Street, serving the Market-Frankford Line and City Trolley Lines</li><li>Ellen Substation at Front &amp; Ellen Streets, serving the Market-Frankford Line and a portion of the Rt. 15 Trolley</li><li>Ranstead Substation on Ranstead Street, serving the Market-Frankford Line and a portion of the Trolley Lines</li></ul>	\$18.68 M	Construction 2018 - 2022	Philadelphia	Philadelphia Delaware				
<b><i>Transit Substations - Park, Broad, Louden, Castor</i></b>								
Overhaul of the following transit substations. Work includes replacement and upgrade of existing breakers, rectifiers, transformers, relays and switch gears. Design is being done as part of the Substation Design and Equipment Purchase project (see description above).	\$19.95 M	Construction 2018 - 2021	Philadelphia	Philadelphia				
<ul style="list-style-type: none"><li>Park Substation at Cumberland &amp; Park Streets, serving the Broad Street Line</li><li>Broad Substation on Mt. Vernon Street, serving the Broad Street Line</li><li>Louden Substation at Carlisle &amp; Loudon Streets, serving the Broad Street Line and Rt. 75 Trackless Trolley</li><li>Castor Substation on Castor Avenue, serving the Route 59 Trackless Trolley</li></ul>								

## SUBSTATIONS AND POWER IMPROVEMENTS

Project Descriptions	Budget	Schedule / Status (Calendar Year)	Location	Service Area
<b><i>Woodbourne Substation</i></b>				
Construction of a new Traction Power and Signal Power Substation on the West Trenton Regional Rail Line. Design is being done as part of the Substation Design and Equipment Purchase project (see description above).	\$23.49 M	Construction 2019 - 2022	Bucks	Bucks Montgomery Philadelphia New Jersey
<b>Railroad Substations (FY 2023 - 2029)</b>				
<b><i>Allen Lane Substation</i></b>				
Overhaul of the Allen Lane Substation on the Chestnut Hill West Regional Rail Line. Work includes new transformers, trolley breakers, feeder breakers, substation switchgear and protective relaying.	\$15.00 M	2023 - 2029 Project	Philadelphia	Philadelphia
<b><i>Brill Substation Overhaul</i></b>				
Replacement of major power components at Brill Substation, originally built in 1985, on the Airport Regional Rail Line. Work includes installing new transformers, trolley breakers, feeder breakers, substation switchgear and protective relaying.	\$12.80 M	2023 - 2029 Project	Philadelphia	Philadelphia
<b>Transit Substations (FY 2023 - 2029)</b>				
<b><i>Transit Substation Program</i></b>				
Multi-year overhaul of other transit substations. Work includes installing new breakers, rectifiers, transformers, relays and switch gear.	\$45.00 M	2023 - 2029 Project	Philadelphia	Philadelphia
<b>Power Improvements (FY 2018 - 2022)</b>				
<b><i>30th Street West Catenary Replacement</i></b>				
Replacement and upgrade of the overhead contact system including catenary structures from 30th Street Station to 'K' Interlocking and the Powelton Yard Complex.	\$77.00 M	Design 2015 - 2018 Construction 2018 - 2022	Philadelphia	Bucks Chester Delaware Montgomery Philadelphia Delaware (State) New Jersey

# TRACK AND RIGHT-OF-WAY IMPROVEMENTS

This program will provide for improvements to SEPTA’s track and right-of-way. SEPTA operates rail service over 359 one-way route miles of track (including track owned by SEPTA, Amtrak, the City of Philadelphia, and CSX). Projects will return rail infrastructure to a state of good repair and help preserve rail transit service for current and future customers. SEPTA’s Rebuilding the System capital program includes projects across the transit and Regional Rail systems that will renew street track and special work, replace continuous welded rail (CWR), and renew ties and timbers. This program also focuses on the stabilization of soil and rock slopes, stormwater control, erosion control, soil compaction, earth-bridge construction, and the repair and prevention of sinkholes in the right-of-way and track areas. Additional track and right-of-way improvements will be undertaken as part of the Infrastructure Safety Renewal Program (ISRP).



Track and Right-of-Way - Program Elements	Prior Funding	Budget						12-Year		
		Year	Program Years				FY 2023-	Program	Beyond	Total
		FY 18	FY 19	FY 20	FY 21	FY 22	2029	Total	FY 2029	Budget
		-----\$Millions-----								
Track and Right-of-Way	\$10.64	\$3.73	\$3.73	\$2.73	\$3.09	\$6.68	\$42.66	\$62.62	\$35.68	\$108.94
TOTAL	\$10.64	\$3.73	\$3.73	\$2.73	\$3.09	\$6.68	\$42.66	\$62.62	\$35.68	\$108.94



## TRACK AND RIGHT-OF-WAY IMPROVEMENTS

Project Descriptions	Budget	Schedule / Status (Calendar Year)	Location	Service Area
<b>Transit Projects (FY 2018 - 2022)</b>				
<i><b>Market-Frankford Line Bridge Street Yard Program</b></i>				
Renewal of yard tracks including 3rd rail for the Market-Frankford Line at the Bridge Street Yard.	\$3.00 M	Construction 2022 - 2023	Philadelphia	Philadelphia Delaware
<i><b>Norristown High Speed Line Tie Replacement and Continuous Welded Rail</b></i>				
Renewal of ties and timbers, and conversion of 100 pound rail to 115 pound rail for the Norristown High Speed Line (NHSL), including track surfacing, and new special track work. Project includes the use of special rail equipment including a tie handler, tie inserter/extractor, tamper, spiker, and spike puller.	\$26.00 M	Design Complete Construction 2014 - 2023	Delaware Montgomery	Delaware Montgomery
<i><b>Track &amp; ROW Rail Service Improvements</b></i>				
Track and right-of-way improvements and modifications throughout the SEPTA system to enhance rail service. This program will allow SEPTA to perform analysis and conceptual design of key rail service improvement initiatives.	\$2.50 M	Ongoing	Bucks Delaware Montgomery Philadelphia	Bucks Chester Delaware Montgomery Philadelphia Delaware (State) New Jersey
<b>Transit Projects (FY 2023 - 2029)</b>				
<i><b>Street Track Improvements (Trolley Revenue, Non-Revenue and Diversion Routes)</b></i>				
Renewal of street track and special track work on City Transit Division trolley routes. This includes Trolley Routes 10, 11, 13, 34 and 36 and diversion routes and non-revenue routes. Trolley diversion routes are used to transport customers to 40th Street Station on the Market Frankford Line when the tunnel portion of the trolley lines is out of service for maintenance. Non-revenue tracks are used by trolleys heading to and from Elmwood and Callowhill Shops/Yards.	\$27.25 M	2023 - 2029 Project	Delaware Philadelphia	Delaware Philadelphia



## TRACK AND RIGHT-OF-WAY IMPROVEMENTS

Project Descriptions	Budget	Schedule / Status (Calendar Year)	Location	Service Area
<b><i>Route 101/102 Yard Tracks Program</i></b>				
Renewal of yard tracks and special track work for the Route 101/102 Trolley at the 69th Street maintenance complex.	\$5.69 M	2023 - 2029 Project	Delaware	Delaware Philadelphia
<b>Railroad Projects (FY 2023 - 2029)</b>				
<b><i>Norristown Station Regional Rail 3rd Track</i></b>				
Construction of a third track at Norristown Station to separate freight rail service from passenger rail service and facilitate the opportunity for increased frequency on SEPTA's Manayunk/Norristown Regional Rail Line. The Norristown Regional Rail Station will be reconstructed and made fully ADA accessible as part of this project.	\$34.50 M	2023 - 2029 Project	Montgomery	Montgomery Philadelphia

## VEHICLE ACQUISITIONS AND OVERHAULS

Based upon SEPTA FY 2016 Operating Statistics, SEPTA's revenue vehicle fleet consists of 1,416 buses, 932 rail vehicles, 38 trackless trolleys and 457 paratransit vehicles. SEPTA also operates a fleet of non-revenue vehicles and equipment which are used for construction, vehicle and facility maintenance and service supervision. Revenue vehicles will be overhauled on a planned schedule to maintain a quality state of good repair throughout a vehicle's service life. This program will replace vehicles and equipment that have exceeded their useful life. This program will also provide for fleet expansion to meet present and projected increases in ridership demand. For example, Regional Rail recently had four straight years of record breaking ridership (FY 2013 through FY 2016). SEPTA will be reviewing financing options, such as the issuance of bonds and loans, to assist in the advancement of the rail vehicle procurements included in this program. In addition, to accommodate new vehicles, SEPTA is conducting cross disciplinary systems analyses for both trolleys and Regional Rail vehicles to determine potential costs associated with infrastructure needs as well as operational and service impacts.

### Revenue Vehicle Inventory

Regional Rail Locomotives	8
Push/Pull Cars	45
Silverliner IV's	231
Silverliner V's	120
MFSE Cars	218
BSS Cars	125
NHSL Cars	26
City LRV Trolleys	112
City PCC Trolleys	18
Suburban Trolleys	29
Buses	1,416
Trackless Trolleys	38
Paratransit Vehicles	457

Vehicle Acquisitions and Overhaul - Program Elements	Budget						12-Year			
	Prior Funding	Year FY 18	Program Years				FY 2023- 2029	Program Total	Beyond FY 2029	Total Budget
			FY 19	FY 20	FY 21	FY 22				
-----\$Millions-----										
Bus Purchase Program	\$110.68	\$98.19	\$96.92	\$90.53	\$76.40	\$80.31	\$347.96	\$790.31	\$0.00	\$900.99
Paratransit Vehicle Acquisition	\$0.00	\$7.00	\$7.00	\$7.00	\$7.00	\$7.00	\$49.00	\$84.00	\$0.00	\$84.00
Regional Rail Electric Locomotive Acq.	\$61.51	\$51.08	\$39.60	\$2.31	\$0.00	\$0.00	\$0.00	\$92.99	\$0.00	\$154.50
Regional Rail Multi-Level Railcar Acq.	\$41.39	\$0.00	\$0.00	\$38.43	\$48.19	\$43.15	\$3.14	\$132.91	\$0.00	\$174.30
Regional Rail Silverliner IV Replacement	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$264.11	\$264.11	\$835.89	\$1,100.00
Trolley Acquisition	\$1.47	\$1.25	\$1.25	\$4.25	\$4.22	\$11.70	\$677.87	\$700.54	\$11.24	\$713.25
Utility Vehicle Renewal	\$0.00	\$8.00	\$8.00	\$6.00	\$6.00	\$6.00	\$42.00	\$76.00	\$0.00	\$76.00
Vehicle Overhaul Program	\$0.00	\$76.08	\$79.33	\$80.47	\$81.49	\$81.71	\$581.00	\$980.08	\$0.00	\$980.08
TOTAL	\$215.05	\$241.60	\$232.10	\$228.99	\$223.30	\$229.87	\$1,965.08	\$3,120.94	\$847.13	\$4,183.12



## VEHICLE ACQUISITIONS AND OVERHAULS

Project Descriptions	Budget	Schedule / Status (Calendar Year)	Location	Service Area
<b>Bus Purchase Program (FY 2018 - 2029)</b>				
SEPTA's Bus Fleet Management Plan provides for the acquisition of different size buses based upon needs and route characteristics. The current bus fleet consists of a variety of buses ranging from 60-foot articulated and 40-foot buses for heavy use routes to 30-foot buses for suburban circulator and contracted service routes.		40-Ft. Electric Bus Purchase \$29.75 M 25 Buses Delivery 2018		Bucks Chester Delaware Montgomery Philadelphia Delaware (State) New Jersey
In April 2016, SEPTA was awarded \$2.6 million in federal competitive "Low or No-Emission" Vehicle Deployment grant funds, which will assist in the acquisition of 25 Proterra battery electric buses and related equipment. These buses will be deployed on SEPTA Bus Routes 29 and 79 in South Philadelphia. Buses are scheduled for delivery in 2018.	\$900.99 M	40-Ft. Hybrid Bus Purchase \$467.96 M 525 Buses Delivery 2017 - 2021	Bucks Chester Delaware Montgomery Philadelphia	
In May 2016, SEPTA awarded a contract to New Flyer Industries for 525 40-foot low-floor hybrid buses to be delivered over a five year period. Deliveries will begin in 2017.		Balance of Program \$403.28 M 2022 - 2029		
<b>Paratransit Vehicle Purchase (FY 2018 - 2029)</b>				
SEPTA routinely acquires new revenue vehicles for its paratransit and shared-ride services to replace vehicles that have exceeded their useful life of five years. These vehicles are provided to private carriers, which operate the services and maintain the vehicles under contract to SEPTA.				
SEPTA ownership of these vehicles provides the following benefits:				
<ul style="list-style-type: none"> <li>The flexibility to rapidly exchange vehicles between carrier networks should the need arise</li> <li>Creates an economic incentive for carriers to provide quality service</li> <li>More control over fleet composition and standardization of the fleet</li> <li>More control over vehicle design features</li> </ul>	\$84.00 M	Annual delivery to replace vehicles beyond their useful life	Bucks Chester Delaware Montgomery Philadelphia	Bucks Chester Delaware Montgomery Philadelphia
In Calendar Year 2018, 86 vehicles are scheduled for delivery consisting of 55 lift-equipped mini-buses and 31 twelve-passenger mini-buses without wheelchair lifts.				

## VEHICLE ACQUISITIONS AND OVERHAULS

Project Descriptions	Budget	Schedule / Status (Calendar Year)	Location	Service Area
<b>Regional Rail Electric Locomotive Acquisition (FY 2018 - 2022)</b>				
<p>The acquisition of new electric locomotives will allow SEPTA to retire its current, life-expired locomotives and accommodate the planned acquisition of new multi-level push-pull railcars to address growing ridership. A contract was awarded to Siemens Industry Inc., Mobility Division for thirteen ACS-64 locomotives plus two option vehicles. These state-of-the-art locomotives are more powerful and significantly more reliable than SEPTA's current fleet. The locomotives will come equipped with SEPTA's Positive Train Control system. Supporting SEPTA's Sustainability initiatives, the ACS-64 locomotives feature regenerative braking. This capability enables energy from the train's motion when slowing down to be fed back to the power system for use by other trains. In addition, the traction and locomotive control system of the ACS-64 connects all subsystem computers, input/output stations as well as the consoles in the ergonomically-designed cab. Through the cab consoles, the engineer can monitor the performance of all locomotive systems in real time, and maintenance technicians can troubleshoot problems with an integrated maintenance manual.</p>	\$154.50 M	Contract Award Complete Delivery 2018	Regional Rail System	Bucks Chester Delaware Montgomery Philadelphia Delaware (State) New Jersey
<b>Regional Rail Multi-Level Car Acquisition (FY 2018 - 2022)</b>				
<p>This project provides for the acquisition of 45 new multi-level push-pull passenger railcars with an option for an additional 10 push-pull railcars. These cars are required to accommodate growing ridership and increased service capacity needs on SEPTA's Regional Rail system, and are additions to SEPTA's current fleet of 45 push-pull railcars. The new cars will fully comply with Americans with Disabilities Act (ADA) requirements and federal and state regulations regarding safety features and systems. The cars will include passenger amenities, such as a state-of-the-art climate control system, bicycle storage area and WiFi. The new cars will have electronic exterior and interior destination signs, voice annunciation and corresponding display on video screens of train destination and upcoming station stops. In addition, the new railcars will be equipped with on-board video surveillance and automatic passenger counting systems.</p>	\$174.30 M	Contract Award Complete Delivery 2019 - 2021	Regional Rail System	Bucks Chester Delaware Montgomery Philadelphia Delaware (State) New Jersey



## VEHICLE ACQUISITIONS AND OVERHAULS

Project Descriptions	Budget	Schedule / Status (Calendar Year)	Location	Service Area
<b>Regional Rail Silverliner IV Replacement (FY 2023 - 2029)</b>				
<p>This project will provide for the purchase of new railcars to replace SEPTA's Silverliner IV railcar fleet. The Silverliner IV railcars were built between 1974 and 1976, and by the time of replacement, the cars will be well past their expected useful life. These new railcars will fully comply with the evolving federal and state regulations regarding safety features and systems, and will be fully compliant with the Americans with Disabilities Act (ADA) requirements.</p>	\$1,100.00 M	2023 - 2029 and Beyond Project	Regional Rail System	Bucks Chester Delaware Montgomery Philadelphia Delaware (State) New Jersey
<b>Trolley Acquisition (FY 2023 - 2029)</b>				
<p>This project provides for the purchase of new trolleys for City Transit Routes 10, 11, 13, 15, 34, 36 and Suburban Transit Routes 101 &amp; 102. These rail transit lines currently operate with 141 light rail vehicles that were built in 1981, as well as 18 "Presidential Conference Committee" (PCC-II) cars originally manufactured in 1947 and rebuilt by Brookville Equipment Company in 2003-2004.</p> <p>SEPTA is advancing a Trolley Infrastructure and System Modernization program in support of the new trolleys. The trolleys will require a complex and closely interrelated series of infrastructure upgrades in areas such as communications, signals, power supplies, subway station and in-street stop upgrades, track and bridge improvements, fare payment and trolley maintenance. The goals of the Trolley Modernization Program are: a system in full compliance with the Americans with Disabilities Act (ADA); a safe and improved customer experience that will leverage modern light rail vehicles and associated infrastructure upgrades to provide faster, more reliable transit service; controlled vehicle acquisition costs by providing a faster, higher capacity service; and reduced operating costs through fleet right-sizing based on faster, higher capacity service.</p> <p>SEPTA has been working with stakeholders through a visioning and conceptual design process led by the Delaware Valley Regional Planning Commission. The rebuilding of Richmond Street on the eastern end of Route 15, in partnership with PennDOT and the City of Philadelphia Streets Department, will provide a real-life prototype opportunity to test concepts for the transformation of how the trolleys and streetscape inter-relate. In addition to the vehicle acquisition and infrastructure improvements, the planning process will also evaluate the feasibility of trolley service restoration on Routes 23/45 and 56.</p>	\$713.25 M	2023 - 2029 Project	Delaware Philadelphia	Delaware Philadelphia

## VEHICLE ACQUISITIONS AND OVERHAULS

Project Descriptions	Budget	Schedule / Status (Calendar Year)	Location	Service Area
<b>Utility Fleet Renewal (FY 2018 - 2029)</b>				
<p>The Utility Fleet Renewal Program is a comprehensive effort to upgrade and replace the Authority's utility fleet and automotive service fleet. SEPTA utility vehicles support transit and railroad operations. In order to have adequate and reliable utility vehicles, SEPTA has developed a program to periodically renew this fleet on a vehicle-by-vehicle basis, contingent upon the vehicle's age, condition and usage within the Authority.</p> <p>The utility fleet comprises the following types of vehicles and equipment:</p> <ul style="list-style-type: none"> <li>Utility vehicles for transit and paratransit supervisors, and SEPTA police officers.</li> <li>Utility vehicles for inspection, maintenance and construction of buildings, overhead power systems, communications systems, signal systems and track. These vehicles include trucks, cranes, high rail vehicles and maintenance-of-way equipment.</li> <li>Transporter vehicles used in garages and shops, including revenue trucks, forklifts for material handling, pick-up trucks for material movement between depots and shops, and for snow removal.</li> <li>Service vehicles used for vehicle maintenance including wreckers, tow tractors, man lifts and pick-up trucks.</li> <li>Miscellaneous equipment such as generators, compressors, trailers, floor scrubbers and welding units.</li> </ul>	\$76.00 M	Ongoing Program	System-Wide	Bucks Chester Delaware Montgomery Philadelphia Delaware (State) New Jersey

## VEHICLE ACQUISITIONS AND OVERHAULS

Project Descriptions	Budget	Schedule / Status (Calendar Year)	Location	Service Area
<b>Vehicle Overhaul Program (FY 2018 - 2029)</b>				
<p>SEPTA's Vehicle Overhaul Program (VOH) provides for the systematic replacement or upgrade of systems on SEPTA's rolling stock. Vehicles are scheduled for overhauls during their service lives based on vehicle type and age. A vehicle must receive periodic overhauls if it is to optimize performance throughout its useful service life. Prudent fleet management requires a program of preventive maintenance for optimal fleet reliability, service quality, efficient performance, and passenger comfort. Advanced scheduling of vehicle preventive maintenance allows SEPTA to purchase material and produce rebuilt components in an efficient and effective manner. In addition to vehicle overhauls, this program also provides for vehicle campaigns. Campaigns address both critical items and vehicle equipment upgrades and modifications, which are accomplished on a fleet-wide basis. The Vehicle Overhaul Program will allow SEPTA to continue its overhaul of rolling stock, thus ensuring continued safe and reliable service.</p>				
<p>Highlights of the Fiscal Year 2018 program include the overhaul of 40-foot low floor New Flyer hybrid buses, a prototype of a New Flyer Trackless Trolley, Broad Street B-IV cars, City and Suburban trolleys, Regional Rail Silverliner IV cars, Regional Rail Push-Pull cars, Market Frankford M-4 cars, Norristown High Speed Line N-5 cars, and support vehicles and equipment. Highlights of campaigns for Fiscal Year 2018 include: M-4 LCU Software Upgrade; Regional Rail campaigns include Push-Pull coach center door car overhaul, HVAC control box upgrade and E5-E7 Decelostat Conversion; and Silverliner IV safety, reliability and seat replacement program, rotating equipment change outs, traction motor replacements, wheel and axle replacements, PA amplifier replacement, DC to AC Compressor Upgrade, A/C unit overhaul, rebuilding of pantographs, main transformer conversion, overhead heater assembly, double-ended blower motors, and smoothing reactors. The total budget includes the phased upgrade of HVAC equipment on the B-IV cars, including auxiliary motors and power inverters. The existing HVAC system was designed in the early 1980s, and replacement is needed to improve reliability and maintainability.</p>	\$980.08 M	Annual program to overhaul a portion of each vehicle fleet	System-Wide	Bucks Chester Delaware Montgomery Philadelphia Delaware (State) New Jersey

## **FY 2018 CAPITAL BUDGET AND FY 2018-2029 CAPITAL PROGRAM**

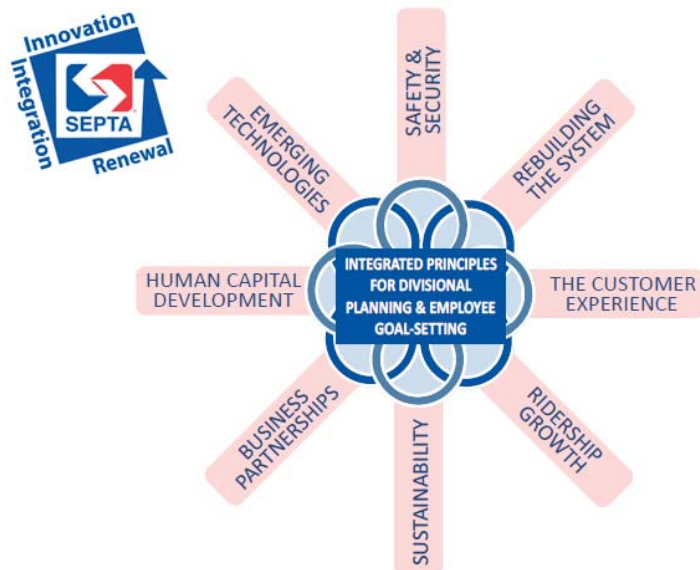
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### **Appendices**





## APPENDIX A: STRATEGIC BUSINESS PLAN AND THE CAPITAL PROGRAM



**VISION:** To be the region's preferred choice for transportation.

SEPTA's Strategic Business Plan for Fiscal Years 2015 through 2019 is the organization's framework for decision-making. The plan outlines a vision, mission, core values, and strategic objectives as guiding principles for all programs and initiatives. It also establishes a series of key performance indicators to measure progress towards goals over time. For more information on SEPTA's Strategic Business Plan, please visit <http://www.septa.org/strategic-plan/reports.html>.

The Capital Program is a key tool for implementing SEPTA's Strategic Business Plan. The matrix below illustrates the relationship between SEPTA's FY 2015-2019 Strategic Business Plan objectives and the FY 2018-2029 Capital Program.

Capital Programs	Strategic Business Plan Objectives (FY2015-2019)							
	Safety & Security	Rebuilding the System	Emerging Technology	The Customer Experience	Ridership Growth	Sustainability	Human Capital Development	Business Partnerships
Bridge Program	✓	✓				✓		
Communications, Signal Systems & Technology Improvements	✓	✓	✓	✓	✓		✓	✓
Financial Obligations		✓		✓	✓	✓		
Infrastructure Safety Renewal Program	✓	✓	✓	✓		✓	✓	
Maintenance / Transportation Shops and Offices	✓	✓		✓		✓	✓	
Safety & Security	✓	✓	✓	✓				✓
SEPTA Key	✓	✓	✓	✓	✓	✓	✓	✓
Service Restorations		✓			✓	✓		
Stations, Loops and Parking Improvements	✓	✓		✓	✓	✓		✓
Substations and Power Improvements	✓	✓	✓			✓		
Track and Right-of-Way Improvements	✓	✓			✓	✓		
Vehicle Acquisitions and Overhauls	✓	✓	✓	✓	✓	✓		

## APPENDIX B: LONG-TERM PLANNING EFFORTS

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SEPTA's current Strategic Business Plan has identified the need for SEPTA to adopt a Long-Range Plan for Capacity Enhancements and Service Expansion as one of the Business Initiatives under the Infrastructure and State of Good Repair Category. A SEPTA Long Range Plan would provide a connected framework for decision making within SEPTA, as well as a crucial link between the planning efforts of key regional stakeholders and SEPTA's long term vision and goals.

The descriptions below provide more detailed information on various transit expansion, community, and regional planning projects. These projects are included to provide information on long-term capital programming and strategic planning conducted by the Commonwealth of Pennsylvania, the Delaware Valley Regional Planning Commission (DVRPC), SEPTA, the City of Philadelphia, Bucks, Chester, Delaware and Montgomery Counties, and other transportation agencies and associations in the region.

### Project Descriptions

#### Expansion Project Planning

##### *King of Prussia Rail – An Extension of the Norristown High Speed Line (NHSL)*

Lead Agency: Southeastern Pennsylvania Transportation Authority (SEPTA)

King of Prussia Rail is a project to extend the Norristown High Speed Line to King of Prussia. The project is expected to promote and strengthen regional growth by connecting the three largest employment centers in the region – Philadelphia, University City and King of Prussia. This planning effort is critical to support evolving needs in King of Prussia given the changes in the area over the past decade in land use, population growth, the expansion of the King of Prussia Mall (the largest Mall complex in the United States) and the formation of a Business Improvement District (BID). It will provide a convenient, reliable and efficient way to connect the growing number of SEPTA bus passengers, who currently endure unpredictable and longer than desired bus travel times to the area as a result of traffic congestion on area roadways, to opportunity within the region. The project includes an Alternatives Analysis and Draft Environmental Impact Statement (AA/DEIS) which began in 2012 to evaluate the best route and potential environmental impacts. The goal of this study is to determine a locally preferred alternative for an extension of the existing Norristown High Speed line to King of Prussia providing access to the key destinations of the King of Prussia Mall, the King of Prussia Business Park, and Valley Forge National Historical Park, as well as other destinations. The study utilizes a tiered screening process to narrow down the alternatives from an initial long list of 30 potential alternatives to a single recommended locally preferred alternative. The study includes development of capital and operating costs, a simulation of service operations, appropriate environmental review steps as required by the National Environmental Policy Act (NEPA), 3D modeling of the locally preferred alternative, and significant outreach to the public as well as area stakeholders. Ridership modeling for each of the alternatives will also be developed by the Delaware Valley Regional Planning Commission (DVRPC). A recommended locally preferred alternative (LPA) was announced in March 2016 and completion of the Alternatives Analysis and Draft Environmental Impact Statement is anticipated in Spring/Summer 2017.

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##### *Broad Street Line Extension – Pattison Avenue to the Philadelphia Navy Yard*

Lead Agency: Pennsylvania Department of Transportation (PennDOT) Bureau of Public Transportation, Philadelphia Industrial Development Corporation (PIDC), SEPTA

PIDC received a DVRPC FY 2007 Transportation and Community Development Initiative (TCDI) grant to evaluate transit needs and alternatives for enhancing public transportation connections to Navy Yard redevelopment sites in South Philadelphia, including the extension of the Broad Street Line from its current terminus at AT&T Station. A final feasibility study report was issued in September 2008. In 2014, PennDOT's Bureau of Public Transportation provided funding to update that feasibility study with a Phase 2 Feasibility study. This study will update the original findings based upon the new 2013 Navy Yard Master Plan and will examine the potential to move the extension forward within the FTA New Starts guidance associated with the Fixing America's Surface Transportation Act (FAST Act). The project is expected to release its final report with estimated ridership and capital costs in 2017.

## APPENDIX B: LONG-TERM PLANNING EFFORTS

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### Project Descriptions

#### *Quakertown Branch Rail Restoration – Alternatives Analysis*

Lead Agencies: Delaware Valley Regional Planning Commission (DVRPC), Montgomery and Bucks County Planning Commissions

The Alternatives Analysis (AA) study investigated the feasibility of restoring passenger rail service linking Bucks County and North Penn communities with Center City Philadelphia, via Lansdale. The AA examined transit options that would mitigate highway congestion in the Route 309 corridor. This effort was managed by DVRPC, and coordinated with Bucks and Montgomery County Planning Commissions, the TMA of Bucks County and SEPTA. The preliminary findings of that study reflected an approach to restoring service in the Route 309 corridor by recommending electrification of the SEPTA-owned branch line to a terminus point at Pennridge in West Rockhill Township, with some degree of phasing. This project was placed on hold in 2012 pending the FTA finalization of new evaluation criteria for federal transit projects under MAP-21. DVRPC included a project within its FY2016 Work Program to update ridership projections within that corridor. Results of that analysis combined with updated capital costs will determine how to potentially move the project forward.

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#### *West Chester Branch Rail Restoration — Feasibility Study*

Lead agencies: PennDOT, SEPTA, Advisory Committee to Reestablish Rail Service to West Chester

SEPTA has participated on the Borough of West Chester’s steering committee for the Advisory Ad Hoc Committee to Reestablish Rail Service to West Chester. As a result of those efforts, PennDOT is funding a study to determine if extending the Media/Elwyn Line—currently undergoing a three-mile service restoration to Wawa—to its former terminus in West Chester is feasible. The study will examine two alternatives of extending service to West Chester and discuss the potential capital costs, ridership, and environmental impacts of an extension.

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### Long Range Planning

#### *Roosevelt Boulevard*

Lead agencies: City of Philadelphia (Office of Transportation and Infrastructure Systems and Philadelphia Streets Department), SEPTA, Pennsylvania Department of Transportation, DVRPC

The City of Philadelphia was awarded a \$2.5 million Transportation Investment Generating Economic Recovery (TIGER) grant in 2014 to develop long-range plans for the Roosevelt Boulevard. Work on this study began in 2015, with PennDOT and SEPTA being core stakeholders. The study is expected to last into 2018.

As early action item from this study and Delaware Valley Regional Planning Commission’s (DVRPC) Alternatives Development for the Roosevelt Boulevard Transit Enhancements study is the implementation of “Boulevard Direct Bus” that will provide a competitive transit alternative to personal vehicles. Boulevard Direct is SEPTA’s first foray into Bus Rapid Transit or BRT service. The route will have limited stops between the Neshaminy Mall and the Frankford Transportation Center. Service will be branded with wrapped buses and enhanced shelters. Service implementation is expected in fall 2017.

## APPENDIX B: LONG-TERM PLANNING EFFORTS

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### Project Descriptions

#### *30th Street Station District Plan*

Lead agencies and project partners: Amtrak, Brandywine Realty Trust, Drexel University, PennDOT, and SEPTA

The Philadelphia 30th Street Station District Plan presents a single, integrated vision for both the station and its surrounding area. The study was completed in 2016 and highlights opportunities for community development, economic growth and improved transportation connections. The master planning process involved three main elements of analysis: transportation, the station and associated facilities, and commercial opportunities. The planning process was guided by the project partners, including SEPTA, with input from the community at public meetings held throughout the two-year timeframe. SEPTA and its planning partners are currently working towards implementation of the plan recommendations. The 30th Street Station (MFSE) Improvements & Connector project is included in the FY2018 Capital Budget and Fiscal Years 2018-2029 Capital Program as part of the Stations, Loops and Parking Improvements Program.

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#### *Long Range Regional Transportation Plan – Connections 2045 Plan for Greater Philadelphia*

Lead agency: Delaware Valley Regional Planning Commission (DVRPC)

DVRPC is required to update the Long Range Regional Transportation Plan every five years. The plan addresses transportation, land use, environmental and economic competitiveness policies and includes fiscally constrained transportation projects. The Connections 2040 plan was adopted by the DVRPC Board in July 2013 and published in November 2013. With the passage of Act 89, a supplemental amendment was issued to include longer range projects that previously had been deferred due to fiscal constraints. That supplement was released in 2014. The development of an updated Long Range Regional Transportation Plan for 2045 is currently underway, with adoption by the DVRPC Board expected in July 2017.

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#### *City of Philadelphia: Philadelphia2035 Plan*

Lead agency: Philadelphia City Planning Commission

Philadelphia2035: The Citywide Vision was the first phase of a large scale comprehensive planning effort for the City of Philadelphia completed in 2012. Recommendations include new and extended transit lines to serve the Roosevelt Boulevard Corridor, access to the Navy Yard, connections to the Central Delaware Waterfront and the Centennial District; and the development of the Market East Station and 30th Street Station areas. The Planning Commission is currently in the second phase of Philadelphia2035, the establishment of 18 individual District Plans to develop specific recommendations for each area of the City. Other products resulting from Philadelphia2035: The Citywide Vision include The Complete Streets Manual – the balanced use of streets between pedestrians, bicyclists, transit, and vehicles, and The Philadelphia Master Trails Plan.

The following District Plans are underway or completed:

- Underway: Far Northeast, North, and West
- Completed: Lower South, West Park, Lower Northeast, Central, University Southwest, Lower North, Central Northeast, Lower Northwest, South, Riverwards, Lower Southwest, and Upper North

SEPTA participates in the district planning process by providing review, analysis and input into the District Plans to ensure consistency and integration of transportation-related planning efforts by all stakeholders.

## APPENDIX B: LONG-TERM PLANNING EFFORTS

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### Project Descriptions

#### *Northeast Corridor (NEC) Commission Actions*

Lead agency: NEC Infrastructure and Operations Advisory Commission

Under the Passenger Rail Investment and Improvement Act (PRIIA) of 2008, the NEC Infrastructure and Operations Advisory Commission was established to guide and lead the various planning efforts throughout the Corridor. The NEC Commission directs efforts to redefine the use of the NEC with its recently approved comprehensive cost-allocation methodology that has been adopted by the Northeast Corridor States. Both SEPTA and PennDOT have roles in these efforts. The implementation of full cost allocation by the States and Commuter rail carriers for operating costs and capital investments on the NEC, in addition to a stronger partnership with Amtrak on key decision-making, is ongoing.

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#### *NEC Future: A Rail Investment Plan for the Northeast Corridor*

Lead agency: Federal Railroad Administration

This study began in 2012 and includes several components: the development of a service plan for the Northeast Corridor (NEC), with consideration of both current and future markets for improved rail service and capacity; a corridor-level (Tier 1) environmental impact statement (EIS) that considers the impacts to the environment and supports reduction in energy use; and an investment plan for passenger rail on the NEC that can be approached incrementally. Primary among the plan goals is to consider high-speed rail alignments and improve connectivity among rail services and between rail and other modes. SEPTA is participating in the process and providing information to the project team about capital improvements that would enhance commuter rail operations on the NEC. The FRA released Tier 1 Draft EIS in 2015, the Tier 1 Final EIS and preferred alternative in 2016, and will coordinate with operators on a Service Development Plan.

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### Other Planning Activities

#### *DVRPC Work Program Studies*

Lead agencies: Delaware Valley Regional Planning Commission (DVRPC), member governments, transit organizations

This document outlines all of the federally funded planning projects slated for the nine-county region from July 1, 2016 to June 30, 2017. The listing includes DVRPC projects, as well as projects planned by member governments and transit organizations. The Work Program is developed annually by the DVRPC Board with its planning partners to reflect the region's short-range planning needs. The Fiscal Year 2017 DVRPC Work Program projects that SEPTA will directly contribute to and be the lead stakeholder for include:

- Safe Routes to Transit
- Centennial District Trolley Service Concept Evaluation
- South Philadelphia Transportation Center
- Exton Train Station Concept Planning
- Eastwick Intermodal Center
- Delaware County Transit Facility Bicycle Audits



## APPENDIX B: LONG-TERM PLANNING EFFORTS

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### Project Descriptions

#### *Wissahickon Transportation Center Planning*

Lead agency: SEPTA; partners include Philadelphia City Planning Commission, Philadelphia Parks & Recreation, Office of Transportation and Infrastructure Systems, Philadelphia Streets Department

Wissahickon Transportation Center (WTC) is one of SEPTA's busiest bus transfer centers, serving an average of 5,780 people, 780 trips, and 2,905 passenger boards every weekday across eleven bus routes. It provides access to destinations such as King of Prussia, Plymouth Meeting, City Avenue, and Northeast Philadelphia, as well as Center City.

Bus operations at WTC have outgrown the existing physical facilities, and expansion plans have been explored collaboratively between SEPTA and other affected agencies as a part of the Lower Northwest District Plan (part of Philadelphia2035). WTC expansion will significantly improve the customer experience, allow for new service and extension of existing bus service, reduce multi-modal congestion, enhance safety, and allow for the completion of a major portion of the Schuylkill River Trail.

SEPTA is a partner in the City of Philadelphia's Transportation and Community Development Initiative (TCDI) grant-funded Wissahickon Gateway Study, which will look at overall development in the expanded WTC area. The Wissahickon Transportation Center project is included in the FY2018 Capital Budget and Fiscal Years 2018-2029 Capital Program as part of the Stations, Loops and Parking Improvements Program.

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## APPENDIX C: BUDGET AND SCHEDULE CHANGES

The table below summarizes changes to project budgets and schedules between the approved FY 2017 Capital Budget and Fiscal Years 2017-2028 Capital Program and the proposed FY 2018 Capital Budget and Fiscal Years 2018-2029 Capital Program.

Program	Project	FY 2017 Capital Program		FY 2018 Capital Program	
		Budget	Schedule	Budget	Schedule
Bridge Program	Mainline –Schuylkill Bridges Phase 1	\$56.00 M	Was not Phased 2022-2028	\$2.00 M	Design Complete; Construction 2017-18
	Mainline –Schuylkill Bridges Phase 2			\$56.00 M	2023-2029
	NHSL Bridge 0.15 over 69th St. Yard Tracks Phase 1	\$15.50 M	Design 2016-18; Construction 2018-20	\$1.70 M	Design 2016-18; Construction 2018-20
	NHSL Bridge 0.15 over 69th St. Yard Tracks Phase 2			\$13.80 M	Construction 2020-22
	NHSL Viaduct over Schuylkill River	\$30.50 M	Design 2021-22; Construction 2022-25	\$35.00 M	Design 2021; Construction 2021-24
	Stone Arch Bridge Program – Phase 2	\$10.00 M	Design 2016-17; Construction 2017-20	\$10.00 M	Design 2017; Construction 2018-20
Communications, Signal Systems, & Technology	30th to Phil Signals, Catenary, and ROW Improvements	\$41.80 M	Design 2014-16; Construction 2017-18	\$41.80 M	Design 2014-2017; Construction 2017-19
	Broad Street Line Ridge-Spur Signals	\$6.50 M	Construction 2015-17	\$8.66 M	Construction 2015-17
	Computer Aided Radio Dispatch (CARD) System Replacement	\$32.50 M	Design 2016-17; Construction 2018-20	\$32.50 M	Design 2017-18; Construction 2019-22
	Interlocking Improvement Program	\$40.00 M	2022-2028	\$75.00 M	Ongoing
	Beth Interlocking / Signal Improvements	\$7.00 M	2022-2028		Beth, Hunt/Wayne & York Interlocking projects merged into Interlocking Improvement Program
	Hunt/Wayne Interlocking	\$14.00 M	2022-2028		
	York Interlocking	\$7.00 M	Design 2018-19; Construction 2019-22		
	Media/Elwyn Automatic Train Control (ATC) Upgrade	\$3.65 M	Construction 2015-18	\$4.00 M	Construction 2015-18
	Real-Time Information / Audio Visual Public Address (AVPA) System	\$34.73 M	Design 2014-16; Construction 2016-19	\$34.73 M	Design 2015-17; Construction 2017-21
	Route 101/102 Positive Train Control	\$74.96 M	Construction 2015-18	\$74.96 M	Construction 2015-19
	Scheduling Systems Enhancements	\$8.10 M	Implementation 2017	\$8.10 M	Implementation 2017-2018
	Video Systems Refreshment Program	N/A		\$6.34 M	Implementation 2017-2022
Financial Obligations	Capital Asset Leases	\$691.81 M	Ongoing Program through 2028	\$708.93 M	Ongoing Program through 2029
	Debt Service	\$595.94 M	Ongoing Program through 2028	\$575.23 M	Ongoing Program through 2029
ISRP	ISRP	\$588.00 M	Ongoing Program through 2028	\$603.00 M	Ongoing Program through 2029
Maintenance / Transportation Shops & Offices	103 Victory Avenue Facility Improvements Phase 1	\$10.47 M	Was not Phased	\$12.31 M	Construction 2017-18
	103 Victory Avenue Facility Improvements Phase 2		Construction 2016-17	\$7.50 M	Construction 2023-29
	Allegheny Bus Washer	\$3.55 M	Construction 2016-17	\$2.64 M	Construction 2016-17
	Boiler Replacement Program Phase 1	\$12.00 M	Was not Phased	\$1.00 M	Design/Construction 2016-2018
	Boiler Replacement Program Phase 2		Design/Construction 2017-2028	\$3.50 M	2023-2029
	Bus Lift Program	\$10.50 M	2022-2028	\$6.00 M	2023-2029
	Frontier Garage Roof, Washer and Paving	\$9.95 M	Construction 2017-18	\$14.20 M	Construction 2017-18
	Frazer Rail Shop and Yard Expansion	\$139.00 M	Design 2016-17; Construction 2016-20	\$139.00 M	Design 2016-17; Construction 2017-22
	Garage/Shop Overhead Doors	\$8.75 M	2022-2028	\$7.50 M	2023-2029
	On-Site Power for Major Facilities	\$15.00 M	2017-2028	\$6.00 M	2023-2029
	Powelton Yard Facility Improvements	\$3.92 M	Design 2015-16; Construction 2016-17	\$3.92 M	Design 2017; Construction 2020-21
	SEPTA Headquarters Improvements	\$5.32 M	Design 2015-16; Construction 2016-17	\$5.32 M	Design & Construction 2015-2018
	Southern Garage Stormwater Management & Pavement	\$4.92 M	Construction 2016-17	\$5.88 M	Construction 2017-18
	Steel Wheel Lift Program Phase 1	\$12.00 M	Was not Phased	\$2.11 M	Construction 2015-18
	Steel Wheel Lift Program Phase 2		Construction 2017-28	\$6.00 M	2023-2029

## APPENDIX C: BUDGET AND SCHEDULE CHANGES

Program	Project	FY 2017 Capital Program		FY 2018 Capital Program	
		Budget	Schedule	Budget	Schedule
Maintenance / Transportation Shops & Offices (Continued)	Underground Storage Tank Replacement Program Phase 1	\$21.00 M	Was not Phased	\$1.13 M	Construction 2015-18
	Underground Storage Tank Replacement Program Phase 2		2017-2028	\$9.00 M	2023-2029
	Vehicle Washer Program	\$17.20 M	2022-2028	\$14.00 M	2023-2029
	Wayne Junction Shop Improvements Phase 1	N/A		\$15.29 M	Design 2017-18; Construction 2018-20
	Wayne Junction Shop Improvements Phase 2	N/A		\$134.71 M	2023-2029
	Wheel Truing Program Phase 1	\$15.00 M	Was not phased	\$2.40 M	Construction 2016-18
	Wheel Truing Program Phase 2		2017-2028	\$6.00 M	2023-2029
	Wyoming Complex Stormwater Retrofits	N/A		\$2.92 M	2023-2029
Roof Program	69th St. Transportation Center Shop Complex Roofs Replacement	\$14.10 M	Construction 2016-18	\$14.10 M	Construction 2016-19
	Comly Roof Replacement	\$7.70 M	Design 2020-21; Construction 2021-22	\$6.40 M	Design 2018; Construction 2019
	Courtland Shop Roof Replacement	\$7.15 M	Design 2017-18; Construction 2018-19	\$8.80 M	Design 2018; Construction 2019-20
	Frankford Roof Replacement	N/A		\$8.80 M	Design 2019; Construction 2020-21
	Maintenance, Stations & Substations Roof Program	\$21.00 M	2022-2028	\$21.00 M	2023-2029
	Regional Rail Stations Roof Program (Combined w/above)	\$21.00 M	2022-2028		
	Midvale Bus Garage Roof Replacement	N/A		\$30.03 M	Design 2019-20; Construction 2021-23
	Southern Garage Roof Replacement	\$7.70 M	Design 2019-20; Construction 2020-21	\$7.70 M	2023-2029
Safety & Security	Bus Turn Alerting System	\$4.63 M	Installation 2016-19	\$4.85 M	Installation 2016-19
	Elmwood Safety & Security	N/A		\$0.40 M	Design 2017; Construction 2017-18
	Escalator / Elevator Improvement Program	\$22.78 M	2022-2028	\$22.78 M	2018-29
	Jefferson Station Platform Ventilation System	\$5.08 M	Design 2015-16; Construction 2016-17	\$5.08 M	Design Complete; Construction 2017-18
	Lawndale Station Pedestrian Underpass & High Level Platform	\$11.50 M	2022-2028	\$9.59 M	Design 2016-17; Construction 2018-19
	Midvale Facility and Security Enhancements Phase 1	\$26.70 M	Was not Phased	\$3.50 M	Design 2017-18; Construction 2018-20
	Midvale Facility and Security Enhancements Phase 2		Design 2016-18; Construction 2018-20	\$23.20 M	2023-2029
	Radio Interoperability	\$24.89 M	Construction 2016-18	\$24.89 M	Construction 2016-19
	Safety and Security Infrastructure Hardening Program	\$14.00 M	Ongoing	\$3.00 M	Ongoing
	Station Ventilation Improvements at Suburban & AT&T Stations Phase 1	\$20.00 M	Was not Phased	\$10.00 M	Design 2015-17; Construction 2016-19
	Station Ventilation Improvements at Suburban & AT&T Stations Phase 2		Design 2015-16; Construction 2016-18	\$10.00 M	Construction 2022-2023
	Transit Security Grant Projects	\$2.50 M	2016-2017	\$1.00 M	2017-2018
	Wayne Junction Security Improvements (Phase 2)	\$2.50 M	Design 2016-17; Construction 2017-18	\$2.50 M	Design 2017; Construction 2019
Service Restorations	Elwyn to Wawa Rail Service	\$150.60 M	Construction 2017-20	\$150.56 M	Construction 2018-21
Stations, Loops & Parking	5th Street / Independence Hall Station	\$13.00 M	Construction 2017-19	\$19.45 M	Construction 2018-2020
	11th Street Station	\$9.50 M	Design 2020-22; Construction 2022-28	\$9.50 M	Design 2019-20; Construction 2020-22
	30th Street Station (MFSE) Improvements & Connector Phase 1	N/A		\$8.00 M	Design & Construction 2017-18
	30th Street Station (MFSE) Improvements & Connector Phase 2			\$2.00 M	Design 2017-18
	30th Street Station (MFSE) Improvements & Connector Phase 3			\$1.00 M	Design 2017-18
	69th Street Transportation Center Parking Garage	\$31.01 M	P1 Constr. 2015-16; P2 Constr. 2017-19	\$31.01 M	P1 Construction 2015-17; P2 2018-2023
	Ardmore Transportation Center Phase 1	\$36.29 M	Construction 2017-18	\$36.29 M	Construction 2018-21
	Ardmore Transportation Center Phase 2	\$26.05 M	2022-2028	\$26.05 M	2023-2029
	Arrott Transportation Center (Margaret Orthodox Station)	\$38.46 M	Construction 2015-2018	\$39.86 M	Construction 2015-2018

## APPENDIX C: BUDGET AND SCHEDULE CHANGES

Program	Project	FY 2017 Capital Program		FY 2018 Capital Program	
		Budget	Schedule	Budget	Schedule
Stations, Loops & Parking (Continued)	Bicycle Transit Access Program	\$2.50 M	Construction 2017-20	\$2.50 M	Construction 2015-19
	Center City Concourses	\$59.65 M	Construction 2014-2021	\$59.65 M	P1 2014-19; P2 2023-2029
	City Avenue Bus Turnaround	\$5.28 M	Design 2016-17; Construction 2017-18		N/A
	City Hall & 15th Street Stations	\$146.47 M	15th 2016-18; CH 2017-20	\$146.47 M	15th 2016-18; CH 2019-23
	Conshohocken Station	\$30.00 M	Design 2017-18; Construction 2018-20	\$15.00 M	Design 2017-18; Construction 2019-20
	East Falls Station	\$19.50 M	2022-2028	\$19.50 M	Design/Construction 2021-25
	Erie Station	\$9.00 M	2022-2028	\$9.00 M	Design 2021-22; Construction 2022-24
	Exton Station Improvements Phase 1	\$23.44 M	Construction 2015-18	\$23.44 M	Construction 2015-18
	Exton Station Improvements Phase 2 & 3	\$39.50 M	Design 2020-21; Construction 2021-24	\$39.50 M	2023-2029
	Fairmount Station on the Broad Street Line	\$18.00 M	2022-2028	\$18.00 M	Preliminary Design 2019-20 Final Design/Construction 2023-2029
	Gwynedd Valley Station Parking	\$2.54 M	Construction 2016-17	\$2.54 M	Construction 2017-18
	Jenkintown-Wyncote Station on the Regional Rail Mainline	\$25.32 M	Construction 2017-20	\$25.32 M	Design 2016-18; Construction 2020-23
	Lansdale Parking Garage and Lansdale Area Improvements	\$43.25 M	Construction 2015-17	\$42.14 M	Construction 2015-17
	Noble Station, Parking Garage and Storage Track	\$53.00 M	Design 2015-18; Construction 2021-25	\$53.00 M	Design 2016-18; Construction 2022-25
	Paoli Intermodal Transportation Center Phase 1	\$36.00 M	Construction 2016-18	\$30.74 M	Construction 2017-18
	Paoli Intermodal Transportation Center Phase 2	\$51.20 M	2022-2028	\$51.20 M	2022-2025
	Philmont Station Parking	\$3.00 M	Construction 2022-28	\$25.00 M	Design 2019; Construction 2020-22
	Secane Station on the Media/Elwyn Regional Rail Line Phase 1	\$21.15 M	Was not Phased	\$21.20 M	Construction 2015-18
	Secane Station on the Media/Elwyn Regional Rail Line Phase 2		Construction 2015-17	\$3.00 M	2023-2029
	Suburban Station Passenger and Crew Amenities	\$4.17 M	Construction 2015-17	\$4.74 M	Construction 2016-17
	Susquehanna-Dauphin Station	\$14.90 M	Design 2016-17; Construction 2018-20	\$14.94 M	Design 2016-18; Construction 2018-20
	Swarthmore Roof Replacement & Exterior Improvements	\$0.81 M	Design 2015-16; Construction 2016	\$1.00 M	Design 2016-17; Construction 2017
	Tasker-Morris Station	\$7.00 M	Design 2020-21; Construction 2021-23	\$7.00 M	Design 2018-19; Construction 2020-22
	Villanova Station on the Norristown High Speed Line	\$6.00 M	Design 2017-19; Construction 2019-20	\$6.00 M	Design/Construction 2022-23
	Villanova Station Phase 1	\$20.15 M	Construction 2016-2018	\$21.79 M	Construction 2016-2018
	Villanova Station Phase 2	\$10.45 M	Design 2016-17; Construction 2018-21	\$10.45 M	2023-2029
	Willow Grove Station on the Warminster Regional Rail Line	\$6.50 M	Design 2021-22; Construction 2022-28	\$6.50 M	Design 2021; Construction 2022-23
	Wissahickon Transportation Center	\$10.50 M	Design 2017-19; Construction 2020-22	\$13.25 M	Design 2017-18; Construction 2018-20
	Wyndmoor Canopy Roof Replacement & Station Improvements	\$1.54 M	Design 2015-16; Construction 2016	\$4.58 M	P1 Complete; P2 Construction 2017-18
	Yardley Station on the West Trenton Regional Rail Line	\$5.50 M	Construction 2016-17	\$5.75 M	Construction 2016-17
Substations	Railroad Substations – Lansdale, Chestnut Hill East, 18th/12th/Portal, Hatboro	\$25.24 M	Construction 2017-21	\$25.24 M	Construction 2019-2022
	Substation Design and Equipment Purchase	\$25.77 M	Design/Procurement 2016-2021	\$28.23 M	Design/Procurement 2016-2021
	Transit Substations – Park, Broad, Loudon, Castor	\$19.95 M	Construction 2017-21	\$19.95 M	Construction 2018-21
	Wayne Junction Static Frequency Converters (SFC) #1-4	\$55.75 M	Design 2015-18; Construction 2016-21	\$60.00 M	Design 2015-17; Construction 2018-22
	Woodbourne Substation	\$23.49 M	Construction 2019-23	\$23.49 M	Construction 2019-22

## APPENDIX C: BUDGET AND SCHEDULE CHANGES

Program	Project	FY 2017 Capital Program		FY 2018 Capital Program	
		Budget	Schedule	Budget	Schedule
Power Improvements	30th St. West Catenary Replacement	\$77.00 M	Design 2015-18; Construction 2018-21	\$77.00 M	Design 2015-18; Construction 2018-22
	Airport Line Catenary Replacement	\$1.00 M	Design 2018-19; Construction 2019-21	Will be undertaken as part of ISRP Program	
	Chestnut Hill East Line Catenary Replacement	\$5.50 M	Design 2020-21; Construction 2022-24		
	Fox Chase Line Catenary Replacement	\$2.75 M	Design 2021-22; Construction 2022-24		
	Regional Rail Power Feeder Cable Improvements	\$3.00 M	2022-2028		
	Wayne Junction Yard Catenary Replacement	\$1.25 M	2022-2028		
Track & ROW Improvements	Market-Frankford Line Bridge Street Yard Program	\$3.00 M	Construction 2019-2020	\$3.00 M	Construction 2022-2023
	Route 101/102 Yard Tracks Program	\$5.69 M	Construction 2018-2019	\$5.69 M	2023-2029
	Street Track Improvements (Trolley Revenue, Non-Revenue and Diversion Routes)	\$27.25 M	2022-2028	\$27.25 M	2023-2029
	Route 10, 11, 13 and 36 Track Improvements <i>(Combined w/above)</i>	\$10.00 M	2022-2028		
	Track and ROW Rail Service Improvements	N/A		\$2.50 M	Ongoing
Vehicle Acquisitions & Overhauls	Bus Purchase Program	\$845.10 M	Ongoing Program through 2028	\$900.99 M	Ongoing Program through 2029
	Regional Rail Electric Locomotive Acquisition	\$162.00 M	Delivery 2018	\$154.50 M	Delivery 2018
	Regional Rail Multi-Level Car Acquisition	\$194.63 M	Delivery 2019-20	\$174.30 M	Delivery 2019-2021
	Utility Fleet Renewal	\$84.00 M	Ongoing Program through 2028	\$76.00 M	Ongoing Program through 2029
	Vehicle Overhaul Program	\$955.00 M	Ongoing Program through 2028	\$980.08 M	Ongoing Program through 2029