









REBUILDING the System



YEAR 2020 BUDGET

FISCAL YEARS 2020–2031 CAPITAL PROGRAM





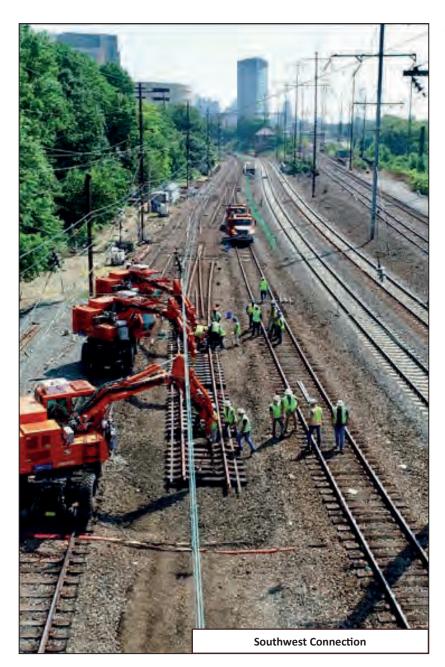


# FISCAL YEAR 2020 CAPITAL BUDGET AND FISCAL YEARS 2020-2031 CAPITAL PROGRAM

# "REBUILDING THE SYSTEM"



Approved by the SEPTA Board
May 23, 2019



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### **Overview and Summary**

This document presents SEPTA's annual capital budget for Fiscal Year 2020 and the capital program for Fiscal Years 2020 through 2031. 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 for FY 2020 reflects anticipated federal and state grants as well as available funds and is organized as follows:

- Introduction to SEPTA
- Projects of Significance
- Sources of Capital Funding, with Funding Projections and Assumptions
- Uses of Capital Funding
- Rebuilding the System Program Progress
- FY 2020 Capital Budget and FY 2020-2031 Capital Program (Table)
- Descriptions of capital programs and individual projects
- Appendices



SEPTA's approved FY 2020 capital budget totals \$675.05 million and the 12-year capital program totals \$7.24 billion. By comparison, the Board-approved FY 2019 capital budget totaled \$749.62 million and the FY 2019-2030 program totaled \$7.4 billion. The FY 2020 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 anticipated capital financing.

The passage of Act 89 in 2013 provided a long-term transportation funding solution for the Commonwealth of Pennsylvania. This allowed SEPTA to initiate the "Rebuilding the System" capital program, and advance improvements throughout the transit network to bring transit assets into a state of good repair, modernize critical systems and accommodate current and future ridership growth.

During development of the FY 2020 capital budget, the amount of state funding available for FY 2020 was uncertain due to a pending lawsuit filed against the Pennsylvania Turnpike. This led SEPTA to propose two budget options: a Reduced FY 2020 Capital Budget, wherein State funding was limited to \$107 million, and a Restoration of Full Funding FY 2020 Capital Budget and 12-Year Capital Program, which included State funding in the amount of \$352.81 million. Based on the current expectation that the Turnpike will resume making its scheduled payments to PennDOT for FY 2019-2020 and SEPTA's state funding will not be reduced significantly, SEPTA is moving forward with the Restoration of Full Funding FY 2020 Capital Budget and 12-year program.

SEPTA will continue to advance the "Rebuilding the System" capital program including improvements to critical infrastructure such as substations, bridges, track and stations. The program provides for safety and security enhancements, along with modernization of communications and signal equipment. The SEPTA Key project is ongoing, and is replacing SEPTA's antiquated fare collection systems with modern payment technology. The Authority is replacing rail vehicles that have far exceeded their useful life, while enhancing accessibility and expanding capacity to address ridership growth on the Regional Rail network. The fleet of hybrid diesel-electric buses is being expanded and vehicle overhauls are being performed to optimize vehicle performance. SEPTA is also preparing to restore rail service between Elwyn and a new station in Wawa, Delaware County. The program includes annual financial obligations such as debt service and capital lease payments. SEPTA's capital program makes vital investments in the region's transportation infrastructure and is necessary to maintain transit assets in a state of good repair.

#### **Introduction to SEPTA**

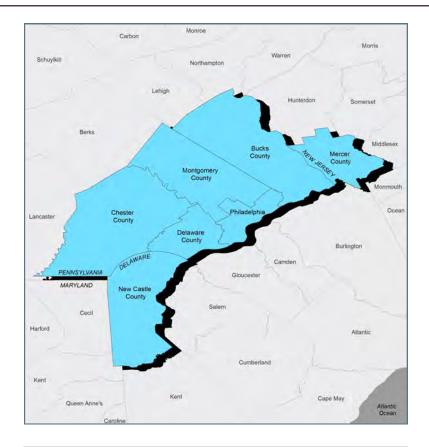
SEPTA is the nation's sixth-largest public transit agency and the primary public transit provider in the greater Philadelphia region. SEPTA was created by the Pennsylvania state legislature in 1964 and is an instrumentality of the Commonwealth of Pennsylvania. SEPTA's multimodal network serves a 2,200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

SEPTA operates the following services:

- 118 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
- Five small bus circulator and shuttle services

Service / Mode	Ridership	Revenue Vehicles
Bus	143,116,700	1,477
Regional Rail	34,355,300	396
Trolley	24,720,500	159
Subway/Elevated	90,311,200	343
Norristown High Speed Line	3,213,500	26
Trackless Trolley	5,430,200	38
Demand Response	1,554,600	460
Total	302,702,000	2,899

Source: FY 2018 SEPTA Operating Statistics



Each year, SEPTA's operations and capital investments generate \$3.05 billion in economic activity statewide, supporting more than 23,000 jobs and more than \$1.7 billion in earnings, according to a 2018 report by Econsult Solutions, Inc.

The economic impact of SEPTA's capital program has grown by **70 percent** since the passage of Act 89, which provided increased funding for capital projects.

#### **SEPTA Regional Rail and Rail Transit Map**



#### **Recent Achievements**

SEPTA was awarded a \$15 million BUILD (Better Utilizing Investments to Leverage Development) competitive grant through the U. S. Department of Transportation. The grant will leverage an additional \$23 million in state, local and private funds to modernize and improve passenger access at the 30th Street Market-Frankford Line Station.

The Department of Defense has saluted SEPTA with its Employer Support of the Guard and Reserve award. This honor commends the agency for going above and beyond in supporting SEPTA Police officers who are enlisted members of the United States Armed Forces.

The Chestnut Hill Conservancy presented SEPTA and the St. Martin's Station Committee with its 2018 Preservation Recognition Award for 35 years of joint stewardship of St. Martins Station and surrounding gardens. Originally built in 1884, the station is the oldest one serving the community.

SEPTA received a \$1.5 million grant under the Federal Transit Administration's Low or No Emission Program to support the purchase of 10 all-electric buses. SEPTA partnered with bus manufacturer New Flyer of America on the grant application. The buses will operate out of SEPTA's Midvale Depot and will be part of a pilot program to evaluate the performance and lifecycle costs of operating battery-electric buses on City Transit Division routes.

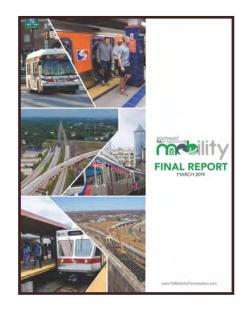
The SEPTA Board has awarded a contract to HNTB, Inc. to advance 15 percent design for the King of Prussia rail extension of the Norristown High Speed Line. This transformative project will connect the three largest employment centers in the region – King of Prussia, University City and Center City – reducing traffic congestion and improving quality of life for generations to come.

#### SEPTA'S PROJECTS OF SIGNIFICANCE

#### **Southeast Partnership for Mobility**

The Southeast Partnership for Mobility is a coalition of transportation stakeholders including SEPTA, the Pennsylvania Turnpike Commission, and PennDOT, with an advisory council made up of major employers, civic leaders, elected officials, and transportation agencies. The Partnership was formed in 2017 and convened four times in 2018 and 2019 to develop a vision for regional mobility, transportation investment and financing opportunities. The final report, published in 2019, is available at: <a href="https://www.pamobilitypartnerships.com">www.pamobilitypartnerships.com</a>. Some of the report's key points include:

- The Philadelphia region is an economic engine for Pennsylvania (PA). On just 5% of the state's land mass, Southeast Pennsylvania generates 41% of PA's economic output and produces 36% of PA's General Fund revenue.
- Projected transportation funding under existing legislation is not adequate to meet statewide needs. Higher levels of
  investment are required to support new jobs, remain competitive and improve quality of life.
- Delivering projects of significance (see next page) will require new, bondable revenue sources.
- Competing regions are investing more in transit, and the percentage of funding Southeast Pennsylvania receives from local sources is well below national averages.





Developers Building a Future that Depends on Public Transit (Source: Drexel University)

#### **Projects of Significance**

The Southeast Partnership for Mobility report highlighted Projects of Significance for both SEPTA and the Turnpike. These projects are viewed as key initiatives in meeting the region's transportation needs, accommodating the growing economy and addressing traffic congestion, but they will require additional, bondable revenue sources to complete.

SEPTA's Transit Projects of Significance are shown on the following page and include: the King of Prussia Rail project; Market-Frankford Line (MFL) Capacity Improvements; Regional Rail Capacity; and Trolley Modernization. According to the report, these transformative projects will permit increases in transit capacity and improved service quality, while generating additional tax revenues and promoting job growth across the region.

#### SEPTA'S PROJECTS OF SIGNIFICANCE

#### King of Prussia (KOP) Rail

This project will provide an extension of the Norristown High Speed Line (NHSL) to King of Prussia. The project will promote and strengthen regional growth by connecting the three largest employment centers in the region: Center City, University City and King of Prussia. The extension will provide a high-quality transportation option for SEPTA's passengers, who currently endure unpredictable and longer than desired travel times due to growing congestion.

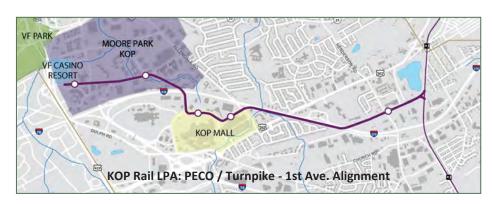
The NHSL boasts a 99% on-time rate compared to 65% for the six bus routes currently serving King of Prussia. While the bus routes serving King of Prussia carry on average 5,600 riders per day, service is significantly impacted by regular highway congestion on regional arterials and freeways. Traveling from Center City Philadelphia to the KOP Moore Park regularly takes almost 70 minutes, while the same trip on KOP Rail will take less than 40 minutes on an express train – saving commuters on average 30 minutes in travel time. During peak times, KOP Rail trains will run as frequently as every 10 minutes.

Relative to a baseline scenario of continuation of current service, KOP Rail is estimated to generate a total property value premium of \$2.5 billion, including \$1.8 billion in increased value for existing housing.

An Alternatives Analysis and Draft Environmental Impact Statement (AA/DEIS) was completed for the project in 2017 and identified the PECO / Turnpike - 1st Ave. alignment as the Locally Preferred Alternative (LPA). The Final Environmental Impact Statement (FEIS) is currently underway. SEPTA awarded a contract for the Project Development phase (preliminary engineering) in January 2019. Funding from a previously awarded federal earmark is in place to advance Project Development to the 15% design level.

SEPTA is currently evaluating funding strategies to advance this project to the 30% design level. Final design and construction is currently estimated to cost \$1.2 billion and will require additional sources of funding.

Project updates are available at the following website: http://www.koprail.com/





#### **Project Highlights**

- 4.5 miles of elevated rail
- 5 new fully ADA-compliant stations
- 2 park-and-ride facilities
- Total increase in ridership of 9,500 daily trips, doubling ridership on the NHSL
- Total travel time from 13th and Market Street to end of extension in under 40 minutes



#### SEPTA'S PROJECTS OF SIGNIFICANCE

#### **Trolley Modernization**

The \$1.55 billion Trolley Modernization Program will fund the purchase of modern light rail vehicles to replace the current fleet. The existing trolleys are beyond their useful life and are not ADA accessible. In addition to acquiring ADA accessible vehicles, the project includes infrastructure upgrades to accommodate the new fleet. The result will be an improved customer experience, increased capacity, and a higher degree of cost effectiveness.

Various planning and engineering initiatives are underway to support advancement of the Trolley Modernization Program. SEPTA staff members are currently developing preliminary modern trolley station design concepts, evaluating capacity and ridership trends, investigating potential funding sources, and developing a public-facing outreach and messaging program to support and advance the project. The Trolley Modernization Program also includes the construction of modern, expanded maintenance facilities. As the early stages of this program continue, SEPTA will advance conceptual studies and initiate vehicle specification development.

Additionally, SEPTA is actively coordinating and engaged with multiple ongoing projects led by the Philadelphia Streets Department and PennDOT, such as the reconstruction of Island Avenue, Richmond Street, and the Delaware Avenue Loop. These coordination efforts ensure that infrastructure projects support future Trolley Modernization improvements. SEPTA planners continue to attend numerous stakeholder and public meetings to engage directly with the public, and begin conversations about the importance and impact of Trolley Modernization. Early results of this coordination will include the first "pilot" modern trolley stations being constructed on a re-built Island Avenue.

Advancement of major project elements, including vehicle acquisition, depends on the availability of new revenue sources for public transit. As a member of the Southeast Partnership for Mobility, SEPTA will continue to work with a coalition of cross-sector leaders to explore funding and financing options that might be available to advance this program earlier than currently programmed.

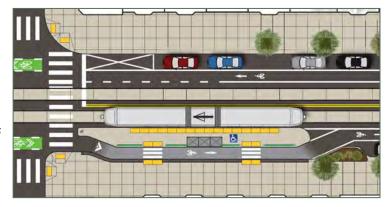
Existing vehicle and customer environment



Rendering of modern vehicle and customer environment



Prospective plans for streetscape improvements

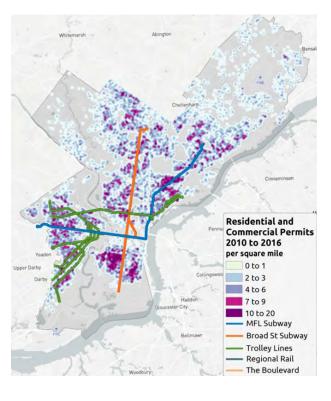


#### **Market-Frankford Line Capacity Improvements**

The Market-Frankford Line (MFL) is SEPTA's workhorse, the most heavily traveled route in SEPTA's transit network. The MFL connects with every other SEPTA rail line, inter-city service and almost two thirds of SEPTA bus routes. The MFL serves some of the region's fastest growing neighborhoods and job centers, and ridership on the line has grown by 41 percent since 2000.

This \$1.3 billion project will increase capacity on the Market-Frankford Line through extending station platforms to accommodate eight-car trains instead of six-car trains, plus associated vehicle procurement and infrastructure improvements.

This project is in conceptual design, and requires additional investment to advance design and construction.



#### **Regional Rail Capacity**

For \$2.4 billion, this project will replace SEPTA's Silverliner IV railcar fleet, which was built between 1974 and 1976, and also provide for infrastructure upgrades to increase capacity on the Regional Rail network. Ridership has increased 52 percent since 2000 with virtually no new capacity added.

The Silverliner IVs will be replaced with higher capacity railcars and SEPTA will make additional investments in track and interlockings to permit increased frequency of service.

Current funding will not allow replacement of the Silverliner IV fleet to begin until after FY 2028, and additional funding is needed to complete these infrastructure upgrades.



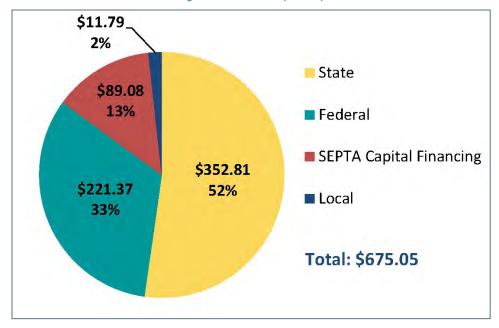


#### **FY 2020 Capital Budget**

The SEPTA Board has approved the FY 2020 budget totaling **\$675.05** million and the 12-year program totaling **\$7.24** billion. The FY 2020 Capital Budget and 12-year Program is provided on page 14. The chart below illustrates anticipated funds by source.

The FY 2020 capital budget assumes that the Pennsylvania Turnpike will resume making its scheduled payments to PennDOT for FY 2019 and FY 2020 and that SEPTA's state funding will not be reduced significantly.

#### FY 2020 Funds by Source (\$M)



#### State Funds: \$352.81 Million

SEPTA's FY 2020 Capital Budget includes \$352.81 million in state funds. The actual amount provided will be determined by PennDOT during the annual grant application process.

Act 89 of 2013 provided new State revenues for transportation 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 allowed SEPTA to begin addressing 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 initiated the "Rebuilding for the Future" initiative in its FY 2015 capital program.

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 are scheduled to be replaced with sales and use tax revenues on July 1, 2022. 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.

#### Federal Funds: \$221.37 Million

In 2015, President Obama signed into law the Fixing America's Surface Transportation (FAST) Act. The FAST Act was the first passage of a long-term surface transportation authorization since 2005. Over its five year lifespan, the FAST Act authorized \$305 billion for surface transportation funding, including \$61 billion dedicated for public transportation. This created a steady and predictable funding stream that also modestly increased 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 were targeted toward improving state of good repair and the bus program.

SEPTA's FY 2020 Capital Budget includes an estimated **\$221.37 million** in federal funds. Federal funding sources and FY 2020 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.

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 FY 2020 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). The Authority applies for other competitive federal grants when available. In recent years, SEPTA has received a variety of discretionary grant awards to support capital projects, such as the purchase of 10 electric buses and improvements at 30th Street (Market-Frankford Line) Station.

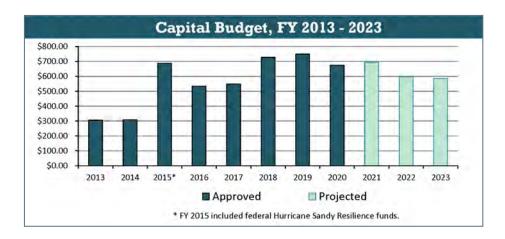
FY 2020 Budget: Federal Funding Estimates									
Program	Program Description								
FTA Section 5307	Urbanized Area Formula Program. Funds transit capital projects. Allocations based on population, density, operating expenses, revenue miles and route miles.	672.12							
FTA Section 5340	Growing States and High Density States Formula Program. Allocations based on population forecasts and population density. SEPTA receives Growing States program funding.	\$72.12							
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.								
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.	\$7.71							
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							
Total Federal		\$221.37							

#### Local Funds: \$11.79 Million

SEPTA's FY 2020 Capital Budget includes **\$11.79** million in anticipated local matching funds. The required local match for state and federal 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: \$89.08 Million

SEPTA currently anticipates using a loan provided through the Employment Based Immigration - 5th Preference (EB-5) program, administered by US Citizenship and Immigration Services (USCIS), to partially fund certain capital projects. SEPTA also anticipates using a combination of other short- and long-term financing tools in FY 2020 to advance capital projects. Refer to the "Financial Obligations" section for more information about capital financing.



#### **Funding Projections and Assumptions**

Annual capital funding for SEPTA is illustrated in the chart below. The FAST Act authorized 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. SEPTA's federal formula funding level for FY 2020 is programmed at approximately 2.6 percent higher than the level that was programmed in FY 2019. Federal funding is projected to remain flat in subsequent years.

While the FAST Act provided predictability in the short term, it did 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 were based on prior financial guidance from PennDOT. Funding provided under Act 89 had been forecasted to increase slightly, to \$352.97 million, through FY 2021. Subsequent years are held flat at the FY 2021 level. Starting in FY 2023, funding for the Public Transportation Trust Fund currently provided by the Pennsylvania Turnpike is scheduled to be replaced by new revenue sources, including sales and use tax.

The FY 2020-2031 Capital Program includes anticipated loan funds provided under the EB-5 program. The loan is being made available to SEPTA over a period of several years and may provide up to \$300 million for certain capital projects. The actual amount of borrowings under this agreement is subject to change. The capital program also includes \$175 million in additional short- and long-term financing to manage cash flow obligations for active capital projects.

SEPTA's FY 2020 Capital Budget and FY 2020-2031 Capital Program 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 additional capital financing tools to distribute project costs over a longer period of time.

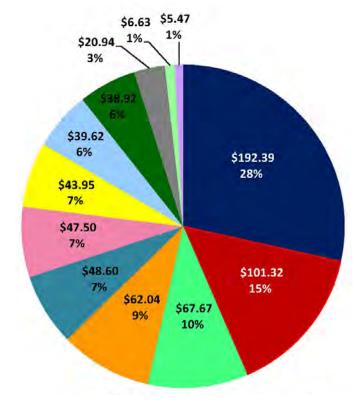
#### FY 2020 Capital Budget - Summary

SEPTA's approved FY 2020 Capital Budget totals **\$675.05 million.** Projected FY 2020 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 grouped into the following programs:

- Bridge Program (\$5.47 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 (\$67.67 M): Includes a variety of improvements to signals, interlockings, dispatching and operations management systems, real-time information and other technology.
- Financial Obligations (\$101.32 M): Includes SEPTA's Amtrak trackage lease, other capital asset leases and debt service payments.
- Infrastructure Safety Renewal Program (\$47.5 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 (\$48.6 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 and Wayne Car Shop to accommodate planned additions to the Regional Rail fleet.
- Safety & Security (\$20.94 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 (\$38.92 M): Includes modernization of SEPTA's fare payment system and companion projects.
- Service Restoration (\$43.95 M): Elwyn to Wawa Rail Service Restoration.
- Stations, Loops and Parking Improvements (\$62.04 M): Reconstruction or rehabilitation of SEPTA stations and parking expansions and improvements with a focus on accessibility.

- Substations and Power Improvements (\$39.62 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 (\$6.63 M): To return rail infrastructure to a state of good repair. Includes tie replacement and continuous welded rail (CWR).
- Vehicle Acquisitions and Overhauls (\$192.39 M): Replacing vehicles that have exceeded their useful life, acquisition of 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: \$675.05 Million

#### **REBUILDING THE SYSTEM - PROGRAM PROGRESS**

### **Highlighted Accomplishments**

Since the passage of Act 89 in November 2013, SEPTA has completed a significant number of capital improvement projects and vehicle replacements. Examples of recently completed capital projects include:

- Electric Locomotive Acquisition (15 Vehicles Delivered)
- Doylestown & Warminster Tie Renewal & Surfacing
- Frazer Shop & Yard Upgrade Site Work
- Frontier Garage Improvements
- Jenkintown-Wyncote Station Building Improvements
- Mainline Rock Cut Stabilization
- Overbrook Shop Roof Replacement
- Southern Garage Stormwater Management & Paving
- Suburban Station Passenger Amenities
- Swarthmore Station Improvements
- Victory Bus Washer Roof Replacement
- Villanova Station Phase 1
- Wyndmoor Station Improvements
- Yardley Station Improvements

For the period of January 1, 2014 through May 31, 2019, SEPTA issued Notices to Proceed for 161 major third-party construction contracts. Of those contracts, 93 have been completed and closed.









# **Capital Program and Project Descriptions**



		Budget						12-Year		
Capital Programs /	Prior	Year		Prograr	n Years		FY 2025-	Program	Beyond	Total
Financial Obligations	Funding	FY 20	FY 21	FY 22	FY 23	FY 24	2031	Total	FY 2031	Budget
					\$Mi	illions				
Capital Programs										
Bridge Program	\$2.43	\$5.47	\$7.98	\$9.70	\$31.48	\$42.98	\$148.86	\$246.47	\$0.00	\$248.90
Communications, Signal Systems and Technology Improvements	\$273.79	\$67.67	\$59.34	\$35.46	\$23.70	\$20.60	\$87.15	\$293.92	\$0.00	\$567.71
Infrastructure Safety Renewal Program	\$0.00	\$47.50	\$47.50	\$48.50	\$49.50	\$50.50	\$381.50	\$625.00	\$0.00	\$625.00
Maintenance/Transportation Shops and Offices	\$142.71	\$48.60	\$37.69	\$41.66	\$38.32	\$27.51	\$144.54	\$338.32	\$56.65	\$537.68
Safety and Security Improvements	\$53.93	\$20.94	\$19.18	\$12.61	\$16.18	\$25.25	\$133.89	\$228.05	\$0.00	\$281.98
SEPTA Key	\$248.38	\$38.92	\$15.00	\$0.00	\$0.00	\$0.00	\$0.00	\$53.92	\$0.00	\$302.30
Service Restorations	\$59.80	\$43.95	\$41.58	\$32.53	\$0.00	\$0.00	\$0.00	\$118.06	\$0.00	\$177.86
Stations, Loops and Parking Improvements	\$366.54	\$62.04	\$59.18	\$61.89	\$51.59	\$49.18	\$529.62	\$813.50	\$34.50	\$1,214.54
Substations and Power Improvements	\$29.60	\$39.62	\$40.81	\$49.44	\$64.35	\$59.82	\$94.16	\$348.20	\$19.00	\$396.80
Track and Right-of-Way Improvements	\$19.73	\$6.63	\$6.28	\$7.09	\$6.32	\$5.07	\$75.77	\$107.16	\$16.55	\$143.44
Vehicle Acquisitions and Overhauls	\$475.54	\$192.39	\$219.79	\$192.30	\$177.87	\$176.55	\$1,646.70	\$2,605.60	\$2,358.03	\$5,439.17
Financial Obligations										
Capital Leases	\$0.00	\$53.41	\$55.00	\$59.87	\$62.73	\$64.60	\$509.77	\$805.38	\$0.00	\$805.38
Debt Service	\$6.23	\$47.91	\$84.80	\$47.05	\$64.06	\$64.06	\$350.81	\$658.69	\$276.25	\$941.17
Total Capital Budget	\$1,678.68	\$675.05	\$694.13	\$598.12	\$586.12	\$586.12	\$4,102.78	\$7,242.32	\$2,760.98	\$11,681.98

#### **BRIDGE PROGRAM**

SEPTA owns and maintains more than 350 bridges. The majority of structures were constructed in the early 1900s or earlier. The bridge program consists of renewal and rehabilitation that will restore the structures to a state of good repair and extend their useful life.



	Buc							12-Year		
Pridge Program	Prior Yea		Year Program Years				FY 2025 -	Program	Beyond	Total
Bridge Program	Funding	FY 20	FY 21	FY 22	FY 23	FY 24	2031	Total	FY 2031	Budget
					\$Millic	ons				
Bridge Program	\$2.43	\$5.47	\$7.98	\$9.70	\$31.48	\$42.98	\$148.86	\$246.47	\$0.00	\$248.90
TOTAL	\$2.43	\$5.47	\$7.98	\$9.70	\$31.48	\$42.98	\$148.86	\$246.47	\$0.00	\$248.90





#### **BRIDGE PROGRAM**

Project Descriptions	Budget	Schedule / Status (Calendar Year)	Location	Service Area
Railroad Bridge Projects (FY 2020 - 2024)				
Chestnut Hill West Line Bridge Rehab Program				
Rehabilitation of seven bridges on the Chestnut Hill West Regional Rail Line located at Mile Posts 0.06, 0.83, 1.17, 1.26, 2.98, 4.42, and 5.67.	\$35.00 M	Design & Construction 2024 - 2030	Philadelphia	Philadelphia
Mainline-Schuylkill Bridges (30th St. to Suburban Station)				
Rehabilitation of seven bridges between 30th Street Station and Suburban Station located at Mile Posts 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 includes 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 Phase 2 \$56.00 M	Phase 1 Design Complete Construction 2018 - 2019 Phase 2 Design 2023 Construction 2023 - 2027	Philadelphia	Bucks Chester Delaware Montgomery Philadelphia Delaware (State) New Jersey
Stone Arch Bridge Program - Phase 2				
Rehabilitation of the following seven (7) Stone Arch Bridges on the Regional Railroad:  Doylestown Line Mile Post 4.87. Built 1915.  Lansdale Line Mile Post 18.91. Built 1903.  Media/Elwyn Line Mile Post 12.68. Built 1854.  West Trenton Line Mile Post 13.70. Built 1912.  West Trenton Line Mile Post 15.95. Built 1876.  West Trenton Line Mile Post 18.52. Built 1948.  West Trenton Line Mile Post 22.65. Built 1876.	\$11.20 M	Design 2017 - 2019 Construction 2019 - 2021	Bucks Delaware Montgomery Philadelphia	Bucks Chester Delaware Montgomery Philadelphia New Jersey
Railroad Bridge Projects (FY 2025 - 2031)				
Chestnut Hill East Line Bridge Rehab Program				
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	2025 - 2031 Project	Philadelphia	Philadelphia

#### **BRIDGE PROGRAM**

Project Descriptions	Budget	Schedule / Status (Calendar Year)	Location	Service Area
Transit and Railroad Bridge Projects (FY 2020 - 2024	4)			
Critical Bridge Program				
Annual program to rehabilitate or replace bridges throughout the system to restore infrastructure to a state of good repair.	\$64.20 M	Ongoing	System-wide	System-wide
NHSL Bridge 0.15 over 69th St. Yard Tracks				
	Phase 1	Design 2016 - 2018		
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	\$1.70 M	Phase 1		Delaware
critical repairs to the superstructure. Phase 2 will include complete rehabilitation of the substructure and superstructure.	Phase 2	Construction 2018 - 2019	Delaware	Montgomery
renabilitation of the substructure and superstructure.	\$13.80 M	Phase 2 Construction 2024 - 2025		
NHSL Viaduct over Schuylkill River				
Rehabilitation of the Bridgeport Viaduct at Mile Post 12.81 on the Norristown		Design 2021		
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	Construction 2022 - 2024	Montgomery	Delaware Montgomery

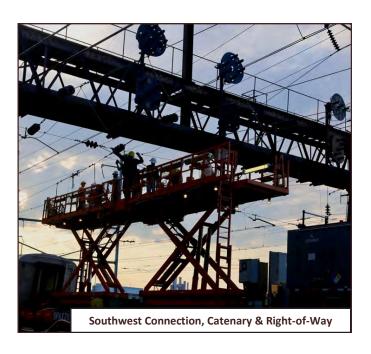
This program provides for improvements to SEPTA's communications systems, signal systems, and information technology infrastructure. Projects will upgrade hardware and software, and replace equipment that has reached or exceeded its useful life. As part of its capital program, SEPTA will install Positive Train Control on the Route 101/102 Trolley lines, rehabilitate signals and interlockings, 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.

		Budget						12-Year		
Communications, Signal Systems and	Prior Year		Program Years				FY 2025-	Program	Beyond	Total
Technology Improvements	Funding	FY 20	FY 21	FY 22	FY 23	FY 24	2031	Total	FY 2031	Budget
					\$Millio	ns				
Communications, Signals & Technology	\$273.79	\$67.67	\$59.34	\$35.46	\$23.70	\$20.60	\$87.15	\$293.92	\$0.00	\$567.71
TOTAL	\$273.79	\$67.67	\$59.34	\$35.46	\$23.70	\$20.60	\$87.15	\$293.92	\$0.00	\$567.71







Project Descriptions	Budget	Schedule / Status (Calendar Year)	Location	Service Area
Communications & Signal Improvements—Railroad	Projects (FY	Y 2020-2031)		
Interlocking Improvement Program				
Rebuilding, reconfiguration and construction of railroad interlockings to improve operational efficiency. Regional Rail locations include but are not limited to: Beth and York Interlockings, Hunt/Wayne Interlocking, West Interlocking, Schuylkill Interlocking, Broad Interlocking, Bartram Interlocking, and 16th Street Interlocking.	\$75.00 M	Ongoing	Montgomery Philadelphia	Bucks Chester Delaware Montgomery Philadelphia Delaware (State) New Jersey
Positive Train Control				
Design and installation of a Positive Train Control (PTC) system for the Railroad Division. The PTC system to be provided will be similar in all aspects to the system provided on the Northeast Corridor, to ensure complete interoperability not only with Amtrak, but with the various freight carriers that operate in SEPTA's territory.	\$170.00 M	Design Complete Construction 2012 - 2021	Bucks Chester Delaware Montgomery Philadelphia Delaware (State) New Jersey	System-wide
Southwest Connection (30th to Phil Signals, Catenary, and RO)	W Improveme	nts)		
Reconfiguration and rebuilding of signals, track, catenary, and interlockings from 30th Street Station to Phil Interlocking. 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.	\$70.99 M	Design 2014 - 2019 Construction 2017 - 2021	Philadelphia	Delaware Philadelphia Delaware (State)

Project Descriptions	Budget	Schedule / Status (Calendar Year)	Location	Service Area
Communications & Signal Improvements - Transit Pr	ojects (FY 2	2020 - 2024)		
Broad Street Line Ridge-Spur Signals				
Modernization of the signal system on the Broad Street Line's Broad-Ridge Spur. Work includes 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 - 2019	Philadelphia	Philadelphia
Norristown High Speed Line Interlockings				
Renewal and reconfiguration of interlockings on the Norristown High Speed Line at Wynnewood, Bryn Mawr, and Matsonford to bring interlockings to a state of good repair and improve operational reliability.	\$7.10 M	Design 2018 - 2019 Construction 2018 - 2021	Delaware Montgomery	Delaware Montgomery
Route 101/102 Positive Train Control and ROW Improvements	s			
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. Includes new interlockings, track special work and power work, as well as a new Remote Operations Control Center.	\$76.40 M	Design Complete Construction 2015 - 2020	Delaware	Delaware
Communications & Signal Improvements - System-W	ide Project	s (FY 2020 - 2024)		
Computer Aided Radio Dispatch (CARD) System Replacement				
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, trolleys and paratransit vehicles. In addition, 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 - 2019 Construction 2019 - 2022	Philadelphia	System-wide

Project Descriptions	Budget	Schedule / Status (Calendar Year)	Location	Service Area
Real-Time Information / Audio Visual Public Address (AVPA) S	ystem			
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 - 2019 Construction 2017 - 2021	Bucks Chester Delaware Montgomery Philadelphia Delaware (state) New Jersey	System-wide
Technology Improvements (FY 2020 - 2031)				
Crash Hardened Video Recorders				
Installation of crash and fire protected video recorders on SEPTA's rail transit fleet. Audio and video from the devices will be easily accessible for accident investigation and as a tool to improve operational safety.	\$4.80 M	Implementation 2019 - 2020	Bucks Chester Delaware Montgomery Philadelphia	System-wide
Facilities Video Systems				
Installation of video recording systems at 27 maintenance and transportation facilities. These systems will enhance property protection and improve employee security across the entire SEPTA system.	\$0.72 M	Implementation 2018 - 2022	Chester Delaware Montgomery Philadelphia	System-wide

Project Descriptions	Budget	Schedule / Status (Calendar Year)	Location	Service Area
Information Technology Program				
SEPTA continues to upgrade the organization's information technology infrastructure and applications. This upgrade 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 2020 program includes an initiative to upgrade Enterprise applications, including a replacement of the Financial, Human Resources, and Benefits systems. A Cyber Security upgrade is in process for proactive threat detection and prevention. The program also includes the installation of a new cooling system for the Data Center and replacement of the existing uninterruptable power supply unit. Finally, the program includes a railroad train scheduling system upgrade to optimize scheduling and dispatching.	\$62.08 M	Ongoing	Philadelphia	System-wide
Operations Training Simulators				
Purchase, installation and validation of training simulators for Regional Rail and Rail Transit Operations. Includes the installation of pre-fabricated modular soundproof rooms where the training simulators will be installed.	\$5.38 M	Implementation 2017 - 2020	Philadelphia	System-wide
Scheduling System Enhancements				
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 - 2020	Philadelphia	System-wide
Video Systems Refreshment Program				
Replacement of existing Mobile Video System components and installation of equipment on SEPTA's vehicle fleets including, but not limited to: Inward Facing cameras within Regional Rail Cars; and Digital Video Recording devices on board vehicles.	\$6.46 M	Implementation 2017 - 2023	Bucks Chester Delaware Montgomery Philadelphia	System-wide

The Capital Asset Lease Program provides for payments attributable to capital leases. For Fiscal Year 2020, 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. SEPTA anticipates using additional short and long-term financing tools to advance capital projects as described below.



		Budget						12-Year		
Financial Obligations -	Prior	Year		Program	Years		FY 2025 -	Program	Beyond	Total
Program Elements	Funding	FY 20	FY 21	FY 22	FY 23	FY 24	2031	Total	FY 2031	Budget
					\$Millior	ıs				
Capital Asset Lease Program	\$0.00	\$53.41	\$55.00	\$59.87	\$62.73	\$64.60	\$509.77	\$805.38	\$0.00	\$805.38
Debt Service	\$6.23	\$47.91	\$84.80	\$47.05	\$64.06	\$64.06	\$350.81	\$658.69	\$276.55	\$941.47
TOTAL	\$6.23	\$101.32	\$139.80	\$106.92	\$126.79	\$128.66	\$860.58	\$1,464.07	\$276.55	\$1,746.85





Project Descriptions	Budget	Schedule / Status (Calendar Year)	Location	Service Area
Capital Asset Leases (FY 2020 - 2031)				
Amtrak Trackage - 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.	12 Year Total \$805.38 M	Ongoing Program through 2031	Bucks Chester Delaware Montgomery Philadelphia	Bucks Chester Delaware Montgomery Philadelphia
<u>Communications Towers</u> - 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.			Delaware (state) New Jersey	Delaware (state) New Jersey
<u>Copiers</u> - This lease provides for rental of copiers, which are dispersed throughout SEPTA's headquarters and transportation/maintenance facilities.				
<u>Warehouse Facility</u> - This lease provides for rental of a storeroom facility at 2045 Wheatsheaf Lane in the City of Philadelphia.				

Project Descriptions	Budget	Schedule / Status	Location	Service
		(Calendar Year)		Area
Debt Service (FY 2020 - 2031)				
Payments on Capital Grant Receipts Bonds, Series 2011/2017				
Acquisition of 120 Silverliner V Regional Rail Cars 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.  Rehabilitation of the Wayne Junction Intermodal Facility 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	12 Year Debt Service Total for Series 2007, 2010/2017 & 2011/2017 Bonds and EB-5 Loan \$658.69 M	Final year of debt service funding for Series 2011/2017 Bonds - 2028	Bucks Chester Delaware Montgomery Philadelphia Delaware (State) New Jersey	Bucks Chester Delaware Montgomery Philadelphia Delaware (State) New Jersey

# Project Descriptions Budget Schedule / Status Location Service (Calendar Year) Area

#### Payments on Converted Indexed Rate Revenue Refunding Bonds, Series 2007

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

#### Payments on Fixed Rate Revenue Refunding Bonds, Series 2010/2017

Proceeds from the Fixed Rate Revenue Refunding Bonds ("Series 2010 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. In October 2017, the Authority advance refunded a portion of the Series 2010 Bonds to reduce future debt service payments. The final maturity date of the newly issued Series 2017 Bonds was unchanged from the Series 2010 Bonds.

Final year of debt service funding for Series 2010/2017 Bonds - 2027

#### Capital Financing - EB-5 Loan

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 (Including option period)

Project Descriptions	Budget	Schedule / Status (Calendar Year)	Location	Service Area
Capital Financing - Other				
SEPTA anticipates utilizing short and/or long-term borrowings to advance various capital projects during Fiscal Years 2020 through 2022. The other financing may take the form of additional borrowings under the EB-5 Loan Program, Grant Anticipation Notes (GANs), or other short term financing tools.		Final year of debt service funding for		
Projects to be funded under this program may include vehicle purchases and infrastructure improvements, depending upon cash flow requirements.		other Capital Financing - 2034		
There are currently no outstanding obligations under this program and the actual amount of borrowing is subject to change.				

#### **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, culverts, bridges, retaining wall, 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, and other support functions.



		Budget						12-Year		·
Infrastructure Safety Renewal Program -	Prior	Year		Program	Years		FY 2025-	Program	Beyond	Total
Program Elements	Funding	FY 20	FY 21	FY 22	FY 23	FY 24	2031	Total	FY 2031	Budget
					\$Millio	ns				
Infrastructure Safety Renewal Program	\$0.00	\$47.50	\$47.50	\$48.50	\$49.50	\$50.50	\$381.50	\$625.00	\$0.00	\$625.00
TOTAL	\$0.00	\$47.50	\$47.50	\$48.50	\$49.50	\$50.50	\$381.50	\$625.00	\$0.00	\$625.00





# INFRASTRUCTURE SAFETY RENEWAL PROGRAM (ISRP)

Project Descriptions	Budget	Schedule / Status (Calendar Year)	Location	Service Area		
Fiscal Year 2020 ISRP Program	\$47.5 M	FY 2020 Program	System-wide	System-wide		
Track and Right-of-Way Program	Communic	ations and Signals Pro	ogram			
Regional Rail - Tie Replacement, Surfacing and Brush Cutting  City/Suburban Transit - High Speed Special Track Work Renewal Program; Trolley Track Renewal Program; Market-Frankford Line (MFL) Direct Fixation Fastener Replacement; and Track Bumper Replacement Program.  Station Facilities Program	Cab No-Wayside Signaling Installation Program; Crossing Upgrade and Safety Program, and Wayne to Glenside Signal Reliability Project.  City/Suburban Transit - MFL Camera Installation Program; Erie Interlocking Microprocessor Tech Refresh Project; NHSL Code Changes Project; NHSL Relay Replacements; and Green Line Communication Based Train Control Upgrade.  Regional Rail/City & Suburban Transit - Audio-Visual Public Address Signage Refresh Program; Security Camera Program; and Communications & Signals Standards Renewal Project.					
Regional Rail - Platform Improvement Program; Wilmington Line Improvements; Paoli Line Station Improvements Program; and Pedestrian Tunnel Improvement Program.  City/Suburban Transit - Station Entrance Improvements; Norristown High Speed						
Line (NHSL) Station Renewal; Broad Street Subway Station Renewal Program; 19th Street Subway Surface Station Rehabilitation; 69th Street Transportation Center	Dowon Customs Droanam					
Master Plan; Olney Transportation Center Restrooms; 33rd & Dickinson Loop Improvements; Route 101/102 Platform Improvements; Norristown Transportation Center Bus Loop Improvements; 13th Street Trolley Panel Installation; and NHSL Township Line Station Rehabilitation.	Regional Rail - Norristown Line Catenary Replacement; Substation Control Battery Replacement; Sectionalizing Switch/Remote Terminal Unit (RTU)/Section Insulators (SI)					
Maintenance/Support Facilities Program	Replacement; Wire Train Generator Replacement; and 16th Street Interlocking Design.					
Regional Rail - Facilities Improvement Program; Critical Catenary Structural Rehabilitation Program; and Vent Well Reconstruction.  City/Suburban Transit - Vent Well and Emergency Exit Rehabilitation (Broad Street Subway); Pump Room Overhaul Program; Facilities Improvement Team (F.I.T.) Program; Garage and Shop Improvement Program; Ejector Room Replacement Program; Subway Column Rehabilitation; Shop Security Fencing; and M4 Shop Building Phase 2.	City/Suburban Transit - DC Traction Power Cable Replacement Program; M Rehabilitation Program; AC Power & Lighting Cable Replacement Program; Sub Improvement Program; Trackless Trolley Power System Upgrade Program; 4/0 Wire Replacement Program; Substation Control Battery Replacement Program Suburban Transit LED Lighting Upgrade Program.					

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.



		Budget						12-Year		
Maintenance/Transportation Shops & Offices	Prior	Year		Program	Years		FY 2025 -	Program	Beyond	Total
Program Elements	Funding	FY 20	FY 21	FY 22	FY 23	FY 24	2031	Total	FY 2031	Budget
					\$1	/lillions				
Maintenance/Transportation Facilities	\$126.83	\$35.87	\$28.22	\$30.28	\$26.64	\$17.65	\$113.87	\$252.53	\$56.65	\$436.01
Roof Program	\$15.88	\$12.73	\$9.47	\$11.38	\$11.68	\$9.86	\$30.67	\$85.79	\$0.00	\$101.67
TOTAL	\$142.71	\$48.60	\$37.69	\$41.66	\$38.32	\$27.51	\$144.54	\$338.32	\$56.65	\$537.68







Project Descriptions	Budget	Schedule / Status (Calendar Year)	Location	Service Area
Maintenance & Transportation Facilities (FY 2020 -	2024)			
103 Victory Avenue Facility Improvements				
Improvements to shops and offices located at 103 Victory Avenue. Work includes replacing the existing deteriorated facilities that have exceeded their useful life 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 building complex and Phase 2 will replace the shop areas and includes replacement of the salt dome.	Phase 1 \$12.31 M Phase 2 \$7.50 M	Design Complete  Phase 1 Complete  Phase 2 Construction 2024 - 2026	Delaware	Delaware Montgomery Philadelphia
Boiler Replacement Program				
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 \$1.18 M Phase 2	Phase 1 Design & Construction 2016 - 2019	Delaware Montgomery Philadelphia	Bucks Chester Delaware Montgomery
	\$3.50 M	Phase 2 FY 2025 - 2031 Project		Philadelphia
Broad Street Subway Stormwater (formerly "Tasker-Morris St	tormwater")			
Construction of an off-site stormwater management system associated with the Broad Street Subway Tunnel drainage near the Tasker-Morris Station.	\$8.0 M	Design 2023 Construction 2024	Philadelphia	Philadelphia
Environmental Clean Up and Protection				
Activities include remediation associated with underground storage tanks, lead-based paint, asbestos, contaminated soil and groundwater. 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.	\$6.28 M	Ongoing	Bucks Chester Delaware Montgomery Philadelphia	System-wide

Project Descriptions	Budget	Schedule / Status (Calendar Year)	Location	Service Area
Frankford Transportation Building				
Phased construction of a stand-alone transportation building at the Frankford Transportation Center and Depot. Phase 1 provided for a new building with operator welfare facilities, dispatching areas, administrative offices and training rooms to accommodate SEPTA personnel. Phase 1 construction was completed in 2017. Phase 2 will fit out the space for an Ancillary Control Center and is currently in construction.	\$20.50 M	Phase 1 Construction Complete Phase 2 Construction 2017 - 2019	Philadelphia	Philadelphia
Frazer Rail Shop and Yard Upgrade				
Phased upgrade of the Frazer Maintenance Facility to accommodate the expansion of SEPTA's railcar and locomotive fleets including multi-level cars. Work includes extending existing storage tracks and adding 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 replaced and mechanical equipment will be replaced.	\$139.00 M	Phase 1 & 2 Construction Complete  Phase 3 Construction 2019 - 2022	Chester	Bucks Chester Delaware Montgomery Philadelphia Delaware (state) New Jersey
Powelton Yard Facility Improvements				
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 Complete Construction 2019 - 2020	Philadelphia	Philadelphia
Southern Garage Stormwater Management & Pavement Impro	ovements			
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.	\$6.90 M	Design Complete Construction 2017 - 2019	Philadelphia	Philadelphia

Project Descriptions	Budget	Schedule / Status (Calendar Year)	Location	Service Area
Underground Storage Tank Relining / Replacement Program				
Replacement or relining of storage tanks, which have exceeded their useful life, at various SEPTA facilities.	Phase 1 \$2.07 M Phase 2 \$8.86 M	Phase 1 Construction 2015 - 2020 Phase 2 Construction 2024 - 2030	Bucks Chester Delaware Montgomery Philadelphia	System-wide
Wayne Junction Shop Improvements				
Upgrade of the Wayne Junction Shop to allow for improved maintenance functions and accommodate the 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 \$43.8 M Phase 2 \$106.2 M	Phase 1 Design 2017 - 2019 Construction 2019 - 2022  Phase 2 2025 - 2031 Project	Philadelphia	Bucks Chester Delaware Montgomery Philadelphia Delaware (state) New Jersey
Wheel Truing Program				Bucks
Reconditioning and rebuilding wheel truing machines at Overbrook Shop, 69th Street	Phase 1 \$3.79 M	Phase 1 Construction 2016 - 2020	Delaware	Chester Delaware Montgomery
Shop, and Fern Rock Shop, and replacing the wheel truing machine at Woodland Shop.	Phase 2 \$4.61 M	Phase 2 Construction 2024 - 2028	Philadelphia	Philadelphia Delaware (state) New Jersey
Wyoming Complex Stormwater Retrofits				
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	Design 2019 Construction 2020 - 2021	Philadelphia	Philadelphia

## MAINTENANCE/TRANSPORTATION SHOPS AND OFFICES

Project Descriptions	Budget	Schedule / Status (Calendar Year)	Location	Service Area
Maintenance & Transportation Facilities (FY 2025 - 2031)				
Steel Wheel Lift Program				Bucks
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	Phase 1 \$1.33 M	Phase 1 Construction Complete	Bucks Chester Delaware	Chester Delaware Montgomery
and to elevate railcars to safe heights and hold them as required to perform inspections and repairs under the rail vehicles.	Phase 2 \$6.78 M	Phase 2 2025 - 2031 Project	Montgomery Philadelphia	Philadelphia Delaware (State) New Jersey
<b>Bus Lift Program</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	2025 - 2031 Project	Delaware Montgomery Philadelphia	Bucks Chester Delaware Montgomery Philadelphia Delaware (State) New Jersey
Garage / Shop Overhead Doors				
Replacement of overhead and fire doors, which have exceeded their useful life, at various SEPTA facilities.	\$7.50 M	2025 - 2031 Project	Delaware Philadelphia	Bucks Delaware Philadelphia
On-Site Power for Major Facilities				
Installation of emergency back-up power and power system upgrades and at major SEPTA maintenance and transportation facilities.	\$6.00 M	2025 - 2031 Project	Bucks Chester Delaware Montgomery Philadelphia	System-wide
Vehicle Washer Program			Delaware	
Replacement and upgrading of the vehicle washers, which have exceeded their useful life, at various SEPTA facilities.	\$14.00 M	2025 - 2031 Project	Montgomery Philadelphia	System-wide

## MAINTENANCE/TRANSPORTATION SHOPS AND OFFICES

Project Descriptions	Budget	Schedule / Status (Calendar Year)	Location	Service Area
Roof Program (FY 2020 - 2024)				
5800 Bustleton Roof Replacement				
Replacement of roof at SEPTA's office building located at 5800 Bustleton Avenue.	\$1.75 M	Design & Construction 2024 - 2025	Philadelphia	Philadelphia
69th St. Transportation Center Shop Complex Roofs Replacemen	nt			
Replacement of existing roofs. Includes replacement of mechanical equipment. Prior phases replaced roofs at the 69th Street Terminal, Media-Sharon Hill Line (MSHL) Car Shop, Norristown High Speed Line (NHSL) Maintenance Facility and Victory Bus Washer. Remaining phases include the Market-Frankford Line Canopy Roof and miscellaneous associated mechanical equipment.	\$14.10 M	Design Complete Construction 2016 - 2020	Delaware	Delaware Montgomery Philadelphia
Comly Roof Replacement				
Replacement of existing roof at Comly Garage with a new roofing system. Includes replacement of mechanical equipment. Includes critical roof repairs at Frankford Depot.	\$7.50 M	Design Complete Construction 2018 - 2019	Philadelphia	Philadelphia
Courtland Shop Roof Replacement				
Replacement of the Courtland Shop roof with a new roofing system. Includes replacement of mechanical equipment.	\$8.80 M	Design 2018 - 2019 Construction 2019 - 2020	Philadelphia	Philadelphia
Frankford Depot Roof Replacement				
Replacement of the Frankford Depot roof with a new roofing system. Includes replacement of mechanical equipment.	\$8.80 M	Design 2024 Construction 2024 - 2025	Philadelphia	Philadelphia

## MAINTENANCE/TRANSPORTATION SHOPS AND OFFICES

Project Descriptions	Budget	Schedule / Status (Calendar Year)	Location	Service Area
Midvale Bus Garage Roof Replacement				
Replacement of existing roofs with a new roofing system. Includes replacement of mechanical equipment.	\$30.03 M	Design 2018 - 2019 Construction 2020 - 2023	Philadelphia	Philadelphia
Southern Garage Roof Replacement				
Replacement and upgrade of the existing roof system at Southern Garage. Phase 1 will address critical repair work and Phase 2 will include complete roof replacement.	Phase 1 \$4.3 M Phase 2 \$3.4 M	Phase 1 Design & Construction 2018 - 2019  Phase 2 Design & Construction 2024 - 2028	Philadelphia	Philadelphia
Roof Program (FY 2025 - 2031)				
Maintenance, Stations and Substations Roof Program				
Replacement and upgrade of the existing roofs at maintenance facilities, stations and substations throughout the SEPTA system. Work may include replacement of mechanical equipment.	\$21.00 M	2025 - 2031 Project	Bucks Chester Delaware Montgomery Philadelphia	System-wide
Sansom Substation Roof				
Replacement of the roof at Sansom Substation, located on Sansom Street and serving the Market-Frankford Line.	\$2.00 M	2025 - 2031 Project	Philadelphia	Philadelphia

Safety is a core value at SEPTA. 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.



		Budget						12-Year		
Safaty & Sacurity Improvements	Prior	rior Year Program Years					FY 2025-	Program	Beyond	Total
Safety & Security Improvements	Funding	FY 20	FY 21	FY 22	FY 23	FY 24	2031	Total	FY 2031	Budget
	\$Millions									
Safety & Security Improvements	\$53.93	\$20.94	\$19.18	\$12.61	\$16.18	\$25.25	\$133.89	\$228.05	\$0.00	\$281.98
TOTAL	\$53.93	\$20.94	\$19.18	\$12.61	\$16.18	\$25.25	\$133.89	\$228.05	\$0.00	\$281.98





Project Descriptions	Budget	Schedule / Status (Calendar Year)	Location	Service Area
Safety & Security Projects (FY 2020 - 2024)				
Bus Operator Shields				
Installation of operator safety shields on SEPTA buses and trackless trolleys to increase transit operator safety. The operator enclosure system will help protect the operator in the event of an emergency.	\$6.26 M	Installation 2018 - 2020	System-wide	System-wide
Bus Turn Alerting System				
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
Elmwood Safety & Security				
Installation of security cameras, access control measures, fencing, and gates at Elmwood Carhouse.	\$0.40 M	Design Complete Construction 2019	Philadelphia	Philadelphia
Escalator / Elevator Improvement Program				
Modernization and upgrades to the escalators and elevators throughout the SEPTA system, including design, construction, and integration of an escalator remote monitoring system.	\$74.58 M	Ongoing	Philadelphia	System-wide
Fern Rock Transportation Center Safety Improvements				
Safety improvements at Fern Rock Transportation Center Railroad Station, which serves the Lansdale/Doylestown, Warminster and West Trenton Regional Rail Lines and provides connecting service to the Broad Street Line. Includes construction of a grade-separated pedestrian crossing, overhauling the elevator, platform repairs and related station modifications.	\$20.52 M	Design 2018 - 2019 Construction 2019 - 2022	Philadelphia	Bucks Montgomery Philadelphia

Project Descriptions	Budget	Schedule / Status (Calendar Year)	Location	Service Area	
Jefferson Station Ventilation  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 2019 - 2020	Philadelphia	Bucks Chester Delaware Montgomery Philadelphia Delaware (State) New Jersey	
Lawndale Station Pedestrian Underpass & High Level Platform					
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, passenger shelters, and improved station accessibility.	\$9.59 M	Design 2016 - 2019 Construction 2020 - 2022	Philadelphia Montgomery	Philadelphia Montgomery	
Midvale Facility and Security Enhancements					
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	Phase 1 \$3.50 M	Phase 1 Design Complete Construction 2019 - 2020	Philadelphia	System-wide	
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.	Phase 2 \$23.20 M	Phase 2 2025 - 2031 Project	· ·····accipilia	System-wide	
Radio Interoperability					
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	

Project Descriptions	Budget	Schedule / Status (Calendar Year)	Location	Service
Safety and Security Infrastructure Hardening Program  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.	\$44.20 M	Ongoing	Bucks Chester Delaware Montgomery Philadelphia	Bucks Chester Delaware Montgomery Philadelphia Delaware (State) New Jersey
Sharon Hill Line Flood Mitigation				
To provide relief from flooding on the Route 102 Sharon Hill Trolley Line, a pumped drainage system will be constructed where Sharon Hill Trolley crosses under a freight railroad bridge at Milepost 5.30 in Delaware County. This frequently flooded underpass forces SEPTA to rely on a bus substitution program to detour service around the high-water area more than a dozen times each year. Bus substitution is employed at a significant cost and disruption to passengers.	\$12.18 M	Design Complete Construction 2018 - 2020	Delaware	Delaware
Shoreline Stabilization on the Manayunk/Norristown Line				
This project will stabilize 2.45 miles of railroad right of way adjacent to the Schuylkill River in Montgomery County. The Manayunk/Norristown Line is one of SEPTA's most flood-prone assets and was the focus of a comprehensive FTA-funded vulnerability and risk assessment undertaken in 2012. The Schuylkill River has experienced more than half of its highest crests in recorded history at Norristown since 2003. This project will decrease the likelihood of washouts and increase the speed with which service can be restored after a flooding event.	\$8.23 M	Design Complete Construction 2019 - 2020	Montgomery	Montgomery Philadelphia
Station Ventilation Improvements at Suburban and NRG Statio	ns			
Replacement and upgrade of the existing ventilation systems at Suburban Station and NRG 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. NRG 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.	Phase 1 \$10.00 M Phase 2 \$10.00 M	Design Complete  Phase 1 Construction 2016 - 2020  Phase 2 2025 - 2031 Project	Philadelphia	Bucks Chester Delaware Montgomery Philadelphia Delaware (State) New Jersey

Project Descriptions	Budget	Schedule / Status (Calendar Year)	Location	Service Area
Wayne Junction Security Improvements, Phase 2  Security improvements at Wayne Junction Yard and provision of secure storage facilities. Includes installation of a secure fence, cameras and improved lighting.	\$2.50 M	Design Complete Construction 2021	Philadelphia	Bucks Chester Delaware Montgomery Philadelphia Delaware (State) New Jersey
Safety & Security Projects (FY 2025 - 2031)				
Pump Rooms				
Improvements to pump rooms, which control water levels in SEPTA's transit and railroad tunnels.	\$ 10.00 M	2025 - 2031 Project	Philadelphia	Philadelphia
Transit Security Grant Projects (FY 2020 - 2024)				
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	2019 - 2020	Bucks Chester Delaware Montgomery Philadelphia	System-wide

#### **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 or the Call Center.

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 Key deployment is nearing completion for Transit services (Bus, Trolley, Trackless Trolley and High Speed Lines). Regional Rail phased roll-out is underway with Zones 3 and 4 Trailpasses in service. Railroad deployment will continue throughout 2019 with Zones 1 and 2 Trailpasses, Travel Wallet, conductor sales, and

other features and products. CCT development is underway with deployment starting later in 2019.

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 Station, 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. Much of this work is complete or nearing completion.

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, interest, and companion project costs.

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

		Budget						12-Year		
SEPTA Key	Prior	Year	Program Years				FY 2025-	Program	Beyond	Total
SEF IA REY	Funding	FY 20	FY 21	FY 22	FY 23	FY 24	2031	Total	FY 2031	Budget
					\$Million	s				
SEPTA Key	\$248.38	\$38.92	\$15.00	\$0.00	\$0.00	\$0.00	\$0.00	\$53.92	\$0.00	\$302.30
TOTAL	\$248.38	\$38.92	\$15.00	\$0.00	\$0.00	\$0.00	\$0.00	\$53.92	\$0.00	\$302.30







#### **SERVICE RESTORATION**

This program provides for the Elwyn to Wawa Rail Service Restoration project. This 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 and crew facilities at Lenni.



		Budget						12-Year			
Service Restoration -	Prior	Year Program Years				FY 2025-	Program	Beyond	Total		
Project Elements	Funding	FY 20	FY 21	FY 22	FY 23	FY 24	2031	Total	FY 2031	Budget	
		\$Millions									
Elwyn to Wawa Rail Service	\$59.80	\$43.95	\$41.58	\$32.53	\$0.00	\$0.00	\$0.00	\$118.06	\$0.00	\$177.86	
TOTAL	\$59.80	\$43.95	\$41.58	\$32.53	\$0.00	\$0.00	\$0.00	\$118.06	\$0.00	\$177.86	





#### **SERVICE RESTORATION**

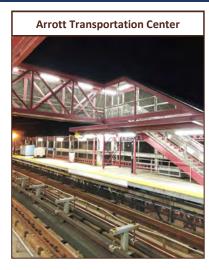
Project Descriptions	Budget	Schedule / Status (Calendar Year)	Location	Service Area
Elwyn to Wawa Rail Service (FY 2020 - 2024)				
This project will provide restoration of rail service from the existing Media/ Elwyn Regional Rail Line terminus at Elwyn, Delaware County, to a new terminus in Wawa, Delaware County along the existing right-of-way 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 replacement; and the replacement and rehabilitation of bridges and culverts. The installation of a bi-directional signal system and communications system improvements including Positive Train Control (PTC) is being funded separately under a competitive PTC grant from the Federal Transit Administration.  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.	\$177.86 M	Design Complete Construction 2018 - 2021	Delaware	Chester Delaware

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. SEPTA currently has 115 wheelchair accessible railroad / rail transit stations.



		Budget						12-Year		
Stations, Loops & Parking	Prior	Year		Program	Years		FY 2025 -	Program	Beyond	Total
Program Elements	Funding	FY 20	FY 21	FY 22	FY 23	FY 24	2031	Total	FY 2031	Budget
					\$Millio	ns				
City Hall & 15th Street Stations	\$64.46	\$3.95	\$6.65	\$9.28	\$22.30	\$19.29	\$20.54	\$82.01	\$0.00	\$146.47
Exton Station & Garage	\$24.88	\$0.23	\$0.00	\$0.00	\$0.00	\$0.00	\$38.63	\$38.86	\$0.00	\$63.74
Levittown Station	\$36.80	\$1.36	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$1.36	\$0.00	\$38.16
Paoli Transportation Center	\$35.37	\$0.56	\$0.00	\$0.00	\$0.00	\$0.00	\$50.28	\$50.84	\$0.00	\$86.21
Parking Improvements	\$13.58	\$3.79	\$13.09	\$5.37	\$6.04	\$6.63	\$151.06	\$185.98	\$34.50	\$234.06
Transit, Regional Rail Stations & Loops	\$169.10	\$48.86	\$39.44	\$47.24	\$23.25	\$21.33	\$264.43	\$444.55	\$0.00	\$613.65
Villanova Station	\$22.35	\$3.28	\$0.00	\$0.00	\$0.00	\$1.93	\$4.68	\$9.89	\$0.00	\$32.24
TOTAL	\$366.54	\$62.04	\$59.18	\$61.89	\$51.59	\$49.18	\$529.62	\$813.49	\$34.50	\$1,214.53







Project Descriptions	Budget	Schedule / Status (Calendar Year)	Location	Service Area
City Hall & 15th Street Stations				
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:  • Provide full access for riders with disabilities through fourteen new elevators and ramps to all levels of both stations, new and wider ramped corridors connecting the stations, and new accessible fare line gates.  • Improve passenger flow with new and reconfigured fare lines outfitted for the new SEPTA Key program, new and wider stairs and railings, and more open areas in the 15th Street Mezzanine and on the platforms.  • 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, new updated fire alarm system, closed-circuit TV and security systems.  • Provide structural repairs and upgrades, mechanical and natural ventilation and improvements to prevent/intercept water infiltration and inflow, new fire suppression systems and new employee restrooms.  The City Hall / 15th Street Stations project has been divided into the following phases:  • 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 through five new elevators connecting street level to the rebuilt farelines and 15th Street station Market Frankford Line (MFL) and the eastbound trolley platform.  • 15th Street Station (in construction): Five new elevators for 15th Street Station connecting street level to MFL and trolley platforms and overall interior renovations and upgrades to station finishes, platforms, lighting, fare lines, security system and amenities to make the station fully ADA accessible.  • Inter-Station Connections and City Hall Statio	\$146.47 M	15th Street & City Hall Stations Design 2014 - 2019 Construction: 15th Street 2017 - 2019 City Hall 2020 - 2025	Philadelphia	Philadelphia

Project Descriptions	Budget	Schedule / Status (Calendar Year)	Location	Service Area
Exton Station Improvements				
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 will provide for the development and construction of a fully accessible parking expansion.	Phase 1: \$25.10 M Phase 2 & 3: \$38.64 M	Phase 1 Design Complete Construction 2015 - 2019 Phase 2 & 3: Design and Construction 2024 - 2027	Chester	Chester Delaware Montgomery Philadelphia
Levittown Station Reconstruction				
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.	\$38.16 M	Design Complete Construction 2015 - 2019	Bucks	Bucks Philadelphia

Project Descriptions	Budget	Schedule / Status (Calendar Year)	Location	Service Area
Paoli Intermodal Transportation Center				
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.  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 \$48.69 million. Of that amount, SEPTA is programming \$35.93 million to reflect SEPTA and PennDOT's contribution.  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 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.	Phase 1: \$35.93 M Phase 2: \$50.28 M	Phase 1 Design Complete Construction 2017 - 2019 Phase 2 FY 2025 - 2031 Project	Chester	Chester Delaware Montgomery Philadelphia

Project Descriptions	Budget	Schedule / Status (Calendar Year)	Location	Service Area
Parking Improvements/Expansions (FY 2020 - 2024	<b>!</b> )			
69th Street Transportation Center Parking Garage				
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 included 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.	\$31.01 M	Design Complete Phase 1 Construction Complete Phase 2 Construction 2019- 2023	Delaware	Delaware Montgomery Philadelphia
Conshohocken Station Parking				
In support of PennDOT's I-76 Integrated Corridor Management (ICM) Program, this project provides for design and construction of additional parking at Conshohocken Station including property acquisition. SEPTA is currently evaluating opportunities for providing additional parking such as construction of a surface lot and/or structured parking. SEPTA anticipates receiving a total of \$10 million in Federal Highway Administration (FHWA) Flex funds to support this project.	\$10.00 M	Design 2019 Construction 2020 - 2021	Montgomery	Delaware Montgomery Philadelphia
Gwynedd Valley Station Parking				
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 2019 - 2020	Montgomery	Montgomery
Noble Station, Parking Garage and Storage Track				
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. This project is being advanced in coordination with PennDOT's replacement of the adjacent Route 611 bridge.	\$53.00 M	Design 2016 - 2019 Construction 2024 - 2027	Montgomery	Bucks Montgomery

Project Descriptions	Budget	Schedule / Status (Calendar Year)	Location	Service Area
Parking Improvements/Expansions (FY 2025 - 2031)				
Ivy Ridge Parking Improvements				
Parking expansion and improvements at Ivy Ridge Station on the Manayunk / Norristown Regional Rail Line. This project will include expanded parking and access improvements at the station.	\$35.00 M	2025 - 2031 Project	Philadelphia	Montgomery Philadelphia
Philmont Station Parking				
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	2025 - 2031 Project	Montgomery	Montgomery Philadelphia
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	2025 - 2031 Project	Philadelphia	Bucks Montgomery Philadelphia

Project Descriptions	Budget	Schedule / Status (Calendar Year)	s Location	Service Area
Transit & Regional Rail Stations Program — Regional Rail (	FY 2020—	2024)		
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 installing foundations for a future parking garage. Phase 1 costs include design for Phase 2.  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.	Phase 1 \$36.29 M Phase 2 \$26.05 M	Design Complete  Phase 1 Construction 2019 - 2021  Phase 2 Construction 2025 - 2031 Project	Montgomery	Montgomery Philadelphia
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	Ongoing	Bucks Chester Delaware Montgomery Philadelphia	Bucks Chester Delaware Montgomery Philadelphia
Accessibility improvements at the Chestnut Hill East Regional Rail Station including construction of a high-level platform, station building improvements and an ADA-accessible pathway to the station.	\$11.17 M	Design 2021 - 2022 Construction 2022 - 2023	Philadelphia	Montgomery Philadelphia

Project Descriptions	Budget	Schedule / Status (Calendar Year)	Location	Service Area
Conshohocken Station				
In support of PennDOT's I-76 Integrated Corridor Management (ICM) Program, this project provides for design and 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. A separate project will provide expanded parking at the station.	\$15.00 M	Design 2018 - 2019 Construction 2019 - 2021	Montgomery	Delaware Montgomery Philadelphia
East Falls Station				
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 2024 - 2027	Philadelphia	Philadelphia
Jenkintown-Wyncote Station on the Regional Rail Mainline				
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 - 2019 Construction 2020 - 2023	Montgomery	Bucks Montgomery Philadelphia
Secane Station on the Media/Elwyn Regional Rail Line				
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 construction of expanded parking on the outbound side of the new station.	Phase 1 \$26.45 M Phase 2 \$3.00 M	Phase 1 Design Complete Phase 1 Construction 2015 - 2019 Phase 2 2025 - 2031 Project	Delaware	Delaware Philadelphia

Project Descriptions	Budget	Schedule / Status (Calendar Year)	Location	Service Area
Willow Grove Station on the Warminster Regional Rail Line				
Relocation 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 center platform and related right-of-way improvements; new passenger shelters; accessible pathways and handrails/guardrails; improved station access; parking expansion; new signage and lighting; stormwater management systems; and landscaping.	\$20.89 M	Design 2017 - 2020  Construction 2025 - 2031 Project	Montgomery	Bucks Montgomery Philadelphia
Transit & Regional Rail Stations Program - Regional Rail (FY	<mark>7 2025 - 2</mark>	031)		
Malvern Station High Level Platforms				
Design and construction of high-level platforms and accessibility improvements at Malvern Station on the Paoli/Thorndale Regional Rail Line. This station will receive new full length high-level platforms; new passenger shelters; accessible pathways; bike facilities; additional new signage and lighting; stormwater management systems and landscaping.	\$15.26 M	2025 - 2031 Project	Chester	Chester Delaware Montgomery Philadelphia
Regional Rail Stations				
Stations programmed in FY 2025 - 2031 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	2025 - 2031 Project	Chester	
Hatboro Station on the Warminster Regional Rail Line	\$7.15 M	2025 - 2031 Project	Montgomery	
Marcus Hook Station on the Wilmington/Newark Regional Rail Line	\$22.50 M	2025 - 2031 Project	Delaware	Bucks Chester
Roslyn Station on the Warminster Regional Rail Line	\$6.50 M	2025 - 2031 Project	Montgomery	Delaware
Swarthmore Station on the Media/Elwyn Regional Rail Line	\$17.96 M	2025 - 2031 Project	Delaware	Montgomery Philadelphia
Wyndmoor Station on the Chestnut Hill East Regional Rail Line	\$19.50 M	2025 - 2031 Project	Philadelphia	
Wynnewood Station on the Paoli/Thorndale Regional Rail Line	\$19.50 M	2025 - 2031 Project	Montgomery	

Project Descriptions	Budget	Schedule / Status (Calendar Year)	Location	Service Area
Transit & Regional Rail Stations Program — Rail Transit (FY 20	020-2024)			
5th Street / Independence Hall Station				
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.	\$27.52 M	Design Complete Construction 2018 - 2020	Philadelphia	Philadelphia
11th Street Station				
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
30th Street Station (MFL) - Phase A				_
This project will improve accessibility to and around SEPTA's 30th Street Station on the Market-Frankford Line (MFL) and Trolley Routes through phased construction. Includes reconstruction of the west headhouses and installation of two new elevators at the 31st Street entrance and reconfiguration of the fare lines at that entrance. This project includes design for Phases A and B.	\$28.55 M	Design Complete Construction 2017 - 2019	Philadelphia	Philadelphia
30th Street Station (MFL) - Phase B				
Modernization of 30th Street Station on the Market-Frankford Line that will increase capacity and support economic development. This phase includes the construction of a new headhouse at the 30th Street entrance, installation of new escalators, elevators, and stairways from the street to the mezzanine, and a new elevator and rehabilitated stairways from the mezzanine to the platform. Also includes new fare lines, floor finishes, signage, lighting and security cameras.	\$38.80 M	Construction 2019 - 2021	Philadelphia	Philadelphia

Project Descriptions	Budget	Schedule/Status (Calendar Year)	Location	Service Area	
Arrott Transportation Center (Margaret/Orthodox Station)					
Improvements at Arrott Transportation Center (Margaret-Orthodox Station) on the Market-Frankford Line to 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 - 2019	Philadelphia	Philadelphia	
Center City Concourses					
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.					
Completed early action items included replacement of the two escalators at 15th Street and replacement of an escalator and an elevator at 8th Street; waterproofing improvements and structural repairs; South Broad concourse improvements; Emergency Call Box replacement; and signage improvements.		Phase 1	Philadelphia	Bucks Chester Delaware Montgomery Philadelphia Delaware (State) New Jersey	
Major capital improvements will be advanced in the following phases:	ĆEO CE NA	Complete			
<ul> <li>Phase 1 (Complete): 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> </ul>	\$59.65 M	Phase 2 - 8 Design 2016 - 2030 Construction 2019 - 2031	rniiadeipnia		
<ul> <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>					

Project Descriptions	Budget	Schedule / Status (Calendar Year)	Location	Service Area
Erie Station				
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 2019 - 2020 Construction 2021 - 2023	Philadelphia	Philadelphia
Fairmount Station				
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 2021 - 2022 Final Design & Construction 2024 - 2027	Philadelphia	Philadelphia
Susquehanna-Dauphin Station				
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 Complete Construction 2019 - 2021	Philadelphia	Philadelphia
Tasker-Morris Station				
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.	\$9.8 M	Design 2017 - 2019 Construction 2020 - 2022	Philadelphia	Philadelphia

Project Descriptions	Budget	Schedule / Status (Calendar Year)	Location	Service Area
Stadium Station on the Norristown High Speed Line				
Improvements will make the station fully ADA accessible. Project includes new 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.	\$4.65 M	Construction 2018 - 2019	Delaware	Delaware Montgomery
Villanova Station on the Norristown High Speed Line				
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.	\$4.00 M	Design & Construction 2022 - 2023	Delaware	Delaware Montgomery
Transit & Regional Rail Stations Program - Rail Transi	t (FY 2025	- 2031)		
Rail Transit Stations				
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	2025 - 2031 Project	Philadelphia	Philadelphia
Snyder Station on the Broad Street Line	\$9.80 M	2025 - 2031 Project	Philadelphia	Philadelphia
Spring Garden Station on the Market-Frankford Line	\$7.37 M	2025 - 2031 Project	Philadelphia	Philadelphia
Wyoming Station on the Broad Street Line	\$5.00 M	2025 - 2031 Project	Philadelphia	Philadelphia

Project Descriptions	Budget	Schedule / Status (Calendar Year)	Location	Service Area
Transit & Regional Rail Stations Program - Bus & Tro	lley Loops	(FY 2020 - 2024)		
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 Construction 2022 - 2023	Philadelphia	Philadelphia
Rising Sun & Olney	\$1.75 M	Design 2022 Construction 2023 - 2024	Philadelphia	Philadelphia
Westmoreland	\$1.75 M	Design 2019 Construction 2020	Philadelphia	Philadelphia
<ul> <li>Wissahickon Transportation Center (Includes property acquisition, entrance improvements)</li> </ul>	\$14.22 M	Design 2017 - 2020 Construction 2020 - 2022	Philadelphia	Montgomery Philadelphia
• Wycombe	\$2.00 M	Design 2023 Construction 2024 - 2025	Delaware	Delaware
Transit & Regional Rail Stations Program - Bus & Tro	lley Loops	(FY 2025 - 2031)		
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	2025 - 2031 Project	Philadelphia	Philadelphia
Villanova Station				
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. Design is complete.	Phase 1: \$21.79 M Phase 2: \$10.45 M	Phase 1 Construction Complete  Phase 2 - Canopies Construction 2019 - 2020  Phase 2 - Station Construction 2024 - 2026	Delaware	Delaware Montgomery Philadelphia

Many of SEPTA's railroad and transit substations have been in continuous operation since the 1920s and 1930s. In order to bring these substations up to modern standards of reliability and performance, they must be overhauled or replaced. 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. Work includes replacing transformers, trolley breakers, feeder switches, substation switchgears and protective relaying.

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	Budget Year						12-Year Program			
Substations and Power	Funding	FY 20	FY 21	FY 22	FY 23	FY 24	2031	Total	FY 2031	Budget
					\$Millions					
Substations and Power	\$29.60	\$39.62	\$40.81	\$49.44	\$64.35	\$59.82	\$94.16	\$348.20	\$19.00	\$396.80
TOTAL	\$29.60	\$39.62	\$40.81	\$49.44	\$64.35	\$59.82	\$94.16	\$348.20	\$19.00	\$396.80





Project Descriptions	Budget	Schedule / Status (Calendar Year)	Location	Service Area
Railroad Substations (FY 2020 - 2024)				
Wayne Junction Static Frequency Converters (SFC) #1-4				
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 - 2019 Construction 2019 - 2022	Philadelphia	Bucks Montgomery Philadelphia
Multimodal Substation Overhaul Program (FY 2020 - 2024)				
Substation Design and Equipment Purchase				
This program includes the design necessary for improvements to seven transit substations (Market, Ellen, Ranstead, Park, Broad, Louden, and Castor), eight railroad substations and switching stations (Neshaminy, Bethayres, Yardley, Lansdale, Hatboro, 18th St./12th St./Portal switching stations), and two new substations at Woodbourne and Chestnut Hill. The program also includes procuring long lead equipment such as auto transformers and circuit breakers that will be required for the substation construction projects.	\$28.23 M	Design / Procurement 2016 - 2023	Bucks Montgomery Philadelphia	Bucks Chester Delaware Montgomery Philadelphia New Jersey
Railroad Substations - Chestnut Hill Substation and 18th Street Switching	g Station			
Construction/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).  • New Chestnut Hill Substation for the Chestnut Hill East and West Regional Rail Lines  • Overhaul 18th Street Switching Station in the Center City Tunnel	\$35.54 M	Construction 2023 - 2026	Philadelphia	Bucks Chester Delaware Montgomery Philadelphia New Jersey

Project Descriptions	Budget	Schedule / Status (Calendar Year)	Location	Service Area
Railroad Substations - Lansdale, Hatboro and 12th Street/Port	tal Switching S	Stations		
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 performed as part of the Substation Design and Equipment Purchase project (see description above).  • Lansdale Substation on the Lansdale/Doylestown Regional Rail Line  • Hatboro Substation on the Warminster Regional Rail Line  • 12th Street and Portal Switching Stations in the Center City Tunnel	\$33.87 M	Construction 2019 - 2022	Montgomery Philadelphia	Bucks Delaware Montgomery Philadelphia New Jersey
Railroad Substations - Neshaminy, Bethayres, Yardley				
Overhaul of the following railroad substations. Work includes new transformers, trolley breakers, feeder breakers, substation switchgear and protective relaying. Design is being performed as part of the Substation Design and Equipment Purchase project (see description above).  • Neshaminy Substation on the West Trenton Regional Rail Line  • Bethayres Substation on the West Trenton Regional Rail Line  • Yardley Substation on the West Trenton Regional Rail Line	\$24.58 M	Construction 2018 - 2021	Bucks Montgomery	Bucks Montgomery Philadelphia New Jersey
Transit Substations - Market, Ellen, Ranstead				
Overhaul of the following transit substations. Work includes replacement and upgrade of existing breakers, rectifiers, transformers, relays and switch gears. Design is being performed as part of the Substation Design and Equipment Purchase project (see description above).  • Market Substation, serving the Market-Frankford Line and City Trolley Lines  • Ellen Substation, serving the Market-Frankford Line and a portion of the Rt. 15 Trolley  • Ranstead Substation, serving the Market-Frankford Line and a portion of the Trolley Lines	\$18.68 M	Construction 2019 - 2022	Philadelphia	Philadelphia Delaware

Project Descriptions	Budget	Schedule / Status (Calendar Year)	Location	Service Area
Transit Substations - Park, Broad, Louden, Castor				
Overhaul of the following transit substations. Work includes replacement and upgrade of existing breakers, rectifiers, transformers, relays and switch gears.  Design is being performed as part of the Substation Design and Equipment Purchase project (see description above).  • Park Substation, serving the Broad Street Line  • Broad Substation, serving the Broad Street Line  • Louden Substation, serving the Broad Street Line and Rt. 75 Trackless Trolley  • Castor Substation, serving the Route 59 Trackless Trolley	\$19.95 M	Construction 2020 - 2023	Philadelphia	Philadelphia
Woodbourne Substation				
Construction of a new Traction Power and Signal Power Substation on the West Trenton Regional Rail Line. Design is being performed as part of the Substation Design and Equipment Purchase project (see description above).	\$23.49 M	Construction 2020 - 2023	Bucks	Bucks Montgomery Philadelphia New Jersey
Railroad Substations (FY 2025 - 2031)				
Allen Lane Substation				
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	2025 - 2031 Project	Philadelphia	Philadelphia
Brill Substation Overhaul				
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	2025 - 2031 Project	Philadelphia	Philadelphia

Project Descriptions	Budget	Schedule / Status (Calendar Year)	Location	Service Area
Transit Substations (FY 2025 - 2031)				
Transit Substation Program				
Multi-year overhaul of other transit substations. Work includes installing new breakers, rectifiers, transformers, relays and switch gear.	\$47.66 M	2025 - 2031 Project	Philadelphia	Philadelphia
Power Improvements (FY 2020 - 2024)				
30th Street West Catenary Replacement  Replacement and upgrade of the overhead contact system including catenary		Design 2015 - 2019		Bucks Chester Delaware Montgomery
structures from 30th Street Station to 'K' Interlocking and the Powelton Yard Complex.	\$77.00 M	Construction 2019 - 2024	Philadelphia	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 605 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. This program includes projects on both 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 and erosion control, track drainage, and the repair and prevention of sinkholes in the right-of-way. Additional track and right-of-way improvements will be undertaken as part of the Infrastructure Safety Renewal Program (ISRP).



		Budget						12-Year		
Track and Right-of-Way	Prior	Year		Progra	m Years		FY 2025-	Program	Beyond	Total
Track and Right-OI-Way	Funding	FY 20	FY 21	FY 22	FY 23	FY 24	2031	Total	FY 2031	Budget
					\$Millions					
Track and Right-of-Way	\$19.73	\$6.63	\$6.28	\$7.09	\$6.32	\$5.07	\$75.77	\$107.16	\$16.55	\$143.44
TOTAL	\$19.73	\$6.63	\$6.28	\$7.09	\$6.32	\$5.07	\$75.77	\$107.16	\$16.55	\$143.44





## TRACK AND RIGHT-OF-WAY IMPROVEMENTS

Project Descriptions	Budget	Schedule / Status (Calendar Year)	Location	Service Area
Railroad and Transit Projects (FY 2020 - 2024)				
Market-Frankford Line Bridge Street Yard Program				
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
Norristown High Speed Line Tie Replacement and Continuous W	Velded Rail			
Renewal of ties and bridge 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 acquiring special rail maintenance of way (MOW) equipment including a tie handler, tie inserter/extractor, tamper, spiker, and spike puller.	\$29.60 M	Design Complete Construction 2014 - 2025	Delaware Montgomery	Delaware Montgomery
Street Track Improvements (Trolley Revenue, Non-Revenue and	l Diversion Ro	outes)		
Renewal of street track and special track work on City Transit Division trolley routes. This includes Trolley Routes 15, 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	Design & construction 2024 - 2031 and beyond	Delaware Philadelphia	Delaware Philadelphia
Track & ROW Rail Service Improvements				
Track and right-of-way improvements and modifications throughout the SEPTA system to enhance rail service. This program will allow SEPTA to perform analysis, conceptual design, and construction of strategic rail service improvement initiatives. This program includes Railroad and Transit projects.	\$19.25 M	Ongoing	System-wide	System-wide

## TRACK AND RIGHT-OF-WAY IMPROVEMENTS

Project Descriptions	Budget	Schedule / Status (Calendar Year)	Location	Service Area
Trolley Tunnel Blitz				
Annual program to renew track, ties, and curve worn rail in the City Transit Division Trolley Tunnel. The tunnel serves Trolley Routes 10, 11, 13, 34 and 36.	\$24.15 M	Ongoing	Philadelphia	Philadelphia
Transit Projects (FY 2025 - 2031)				
Route 101/102 Yard Tracks Program				
Renewal of yard tracks and special track work for the Suburban Transit Division Route 101/102 Trolley Lines at the 69th Street maintenance complex.	\$5.69 M	2025 - 2031 Project	Delaware	Delaware Philadelphia
Railroad Projects (FY 2025 - 2031)				
Norristown Station Regional Rail 3rd Track				
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	2025 - 2031 Project	Montgomery	Montgomery Philadelphia

#### **VEHICLE ACQUISITIONS AND OVERHAULS**

Based upon SEPTA FY 2018 Operating Statistics, SEPTA's revenue vehicle fleet consists of 1,477 buses, 924 rail vehicles, 38 trackless trolleys and 460 paratransit vehicles. SEPTA also operates 15 new Regional Rail locomotives to accommodate its fleet of push/pull regional rail cars and utilizes a fleet of non-revenue vehicles and equipment which are used for construction, vehicle and facility maintenance and service supervision. Under this Program of Projects, vehicles will be overhauled on a planned schedule to maintain a quality state of good repair throughout a vehicle's service life. This program also provides for the replacement of vehicles and equipment that have exceeded their useful life and for fleet expansion to meet present and projected increases in ridership demand. 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 trolleys to determine potential costs associated with infrastructure needs as well as operational and service impacts.

Vehicle Inventory	
Regional Rail Locomotives	15
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	1,477
Trackless Trolleys	38
Paratransit Vehicles	460

		Budget						12-Year		
Vehicle Acquisitions and Overhaul -	Prior	Year		Program	Years		FY 2025 -	Program	Beyond	Total
Program Elements	Funding	FY 20	FY 21	FY 22	FY 23	FY 24	2031	Total	FY 2031	Budget
					\$Millior	าร				
Bus Purchase Program	\$283.71	\$97.56	\$112.61	\$26.55	\$40.92	\$62.00	\$719.90	\$1,059.54	\$0.00	\$1,343.25
Paratransit Vehicle Acquisition	\$7.00	\$0.00	\$7.00	\$7.00	\$7.00	\$7.00	\$49.00	\$77.00	\$0.00	\$84.00
Regional Rail Electric Locomotive Acq.	\$139.92	\$5.90	\$5.18	\$0.00	\$0.00	\$0.00	\$0.00	\$11.08	\$0.00	\$151.00
Regional Rail Multi-Level Railcar Acq.	\$41.39	\$0.00	\$8.54	\$69.21	\$36.10	\$16.39	\$2.67	\$132.91	\$0.00	\$174.30
Regional Rail Silverliner IV Replacement	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$101.79	\$101.79	\$998.21	\$1,100.00
Trolley Acquisition and Infrastructure	\$3.52	\$0.66	\$0.68	\$1.75	\$3.50	\$0.33	\$129.74	\$136.66	\$1,359.82	\$1,500.00
Utility Vehicle Renewal	\$0.00	\$5.00	\$5.00	\$6.00	\$7.00	\$7.00	\$47.90	\$77.90	\$0.00	\$77.90
Vehicle Overhaul Program	\$0.00	\$83.27	\$80.78	\$81.79	\$83.35	\$83.83	\$595.70	\$1,008.72	\$0.00	\$1,008.72
TOTAL	\$475.54	\$192.39	\$219.79	\$192.30	\$177.87	\$176.55	\$1,646.70	\$2,605.60	\$2,358.03	\$5,439.17







# VEHICLE ACQUISITIONS AND OVERHAULS

Project Descriptions	Budget	Schedule / Status (Calendar Year)	Location	Service Area
Bus Purchase Program (FY 2020 - 2031)				
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. The procurements of 35 battery electric buses are part of a pilot program to evaluate the viability of cost-effective "green technology" buses on SEPTA's diverse service territory.  In August 2018, the Federal Transit Administration awarded SEPTA a "Low or No Emission Program" (Low-No) grant to assist in the purchase of 10 New Flyer of America Xcelsior CHARGE model battery-electric buses and related infrastructure and equipment. This \$1.5 million grant represents the differential in price over 10 diesel-electric hybrid buses. These buses will operate on routes originating from Midvale Bus Garage.  In February 2017, SEPTA issued a Notice to Proceed to Proterra for 25 battery electric buses and related equipment. These buses will operate on SEPTA Bus Routes 29 and 79 in South Philadelphia.  In June 2016, SEPTA issued a Notice to Proceed to New Flyer Industries for the manufacture of 525 40-foot low-floor hybrid buses. These buses will be delivered over a five-year period, which began in 2017.	\$1,343.25 M	40-Ft. Electric Bus Purchase \$21.15 M 10 Buses Delivery 2020-2021  40-Ft. Electric Bus Purchase \$29.75 M 25 Buses Delivery 2018-2019  40-Ft. Hybrid Bus Purchase \$460.00 M 525 Buses Delivery 2017 - 2021  Balance of Program \$832.35 M	Bucks Chester Delaware Montgomery Philadelphia	Bucks Chester Delaware Montgomery Philadelphia Delaware (State) New Jersey

# VEHICLE ACQUISITIONS AND OVERHAULS

Project Descriptions	Budget	Schedule / Status (Calendar Year)	Location	Service Area
Paratransit Vehicle Purchase (FY 2020- 2031)				
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.				
<ul> <li>SEPTA ownership of these vehicles provides the following benefits:</li> <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 2020, 71 vehicles are scheduled for delivery consisting of 23 lift-equipped mini-buses and 48 twelve-passenger mini-buses without wheelchair lifts.				
Regional Rail Electric Locomotive Acquisition (FY 2020 - 2024)				
This project provides for the acquisition of new electric locomotives. In 2015, SEPTA awarded a contract to Siemens Industry Inc., Mobility Division for thirteen ACS-64 locomotives plus two option vehicles. These locomotives have replaced SEPTA's life-expired fleet of AEM-7/ALP-44 locomotives and will accommodate the acquisition of an expanded fleet of new multi-level push-pull railcars. All 15 locomotives have been delivered and are currently being utilized in passenger rail service. These state-of-the-art locomotives are more powerful and significantly more reliable than SEPTA's former locomotives. The new locomotives fully comply with all federal standards and regulations and are 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.	\$151.00 M	Project Close-out 2022	Regional Rail System	Bucks Chester Delaware Montgomery Philadelphia Delaware (State) New Jersey

Project Descriptions	Budget	Schedule / Status (Calendar Year)	Location	Service Area
Regional Rail Multi-Level Car Acquisition (FY 2020 -	2024)			
This project provides for the acquisition of new multi-level push-pull passenger 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. In 2017, a contract was awarded to CRRC MA Corp. for 45 railcars with an option for an additional 10 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.	\$174.30 M	Contract Award Complete Delivery 2020 - 2022	Regional Rail System	Bucks Chester Delaware Montgomery Philadelphia Delaware (State) New Jersey
Regional Rail Silverliner IV Replacement (FY 2025 -	2031)			
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.	\$1,100.00 M	2025 - 2031 and Beyond Project	Regional Rail System	Bucks Chester Delaware Montgomery Philadelphia Delaware (State) New Jersey

Project Descriptions	Budget	Schedule / Status (Calendar Year)	Location	Service Area
<b>Trolley Acquisition and Infrastructure (FY 2025 - 203</b>	31)			
This project provides for the purchase of modern low-floor articulated light rail vehicles to replace trolleys on City Transit Routes 10, 11, 13, 15, 34, 36 and Suburban Transit Routes 101 & 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.				
In support of the vehicle acquisition, this project will also require an infrastructure modernization program. The modern light rail vehicles 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 maintenance facilities. The goals of the program are: 1) a system in full compliance with the Americans with Disabilities Act (ADA); 2) a safe and improved customer experience; 3) controlled vehicle acquisition costs by providing a faster, higher capacity service; and 4) reduced operating costs through fleet right-sizing based on faster, higher capacity service.	\$1,500.00 M	2025 - 2031 and Beyond Project	Delaware Philadelphia	Delaware Philadelphia
SEPTA has been working with stakeholders through a visioning and conceptual design process led by the Delaware Valley Regional Planning Commission.				

Project Descriptions	Budget	Schedule / Status (Calendar Year)	Location	Service
Utility Fleet Renewal (FY 2020 - 2031)				
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.				
The utility fleet comprises the following types of vehicles and equipment:				
<ul> <li>Utility vehicles for transit and paratransit supervisors, and SEPTA police officers.</li> </ul>				Bucks
<ul> <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> </ul>	\$77.90 M	Ongoing Program	System-Wide	Chester Delaware Montgomery Philadelphia Delaware (State)
<ul> <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> </ul>				New Jersey
• Service vehicles used for vehicle maintenance including wreckers, tow tractors, man lifts and pick-up trucks.				
<ul> <li>Miscellaneous equipment such as generators, compressors, trailers, floor scrubbers and welding units.</li> </ul>				

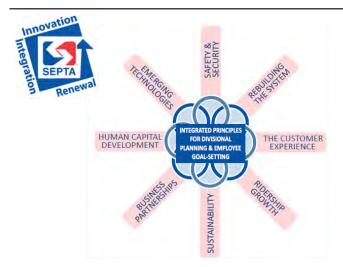
Project Descriptions	Budget	Schedule / Status (Calendar Year)	Location	Service Area
Vehicle Overhaul Program (FY 2020 - 2031)				
SEPTA's Vehicle Overhaul Program (VOH) provides for the systematic replacement or upgrade of systems on SEPTA's rolling stock. Vehicles are scheduled for overhauls during 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.  Highlights of the Fiscal Year 2020 program include the overhaul of 40-foot low floor New Flyer hybrid buses, New Flyer Trackless Trolleys, Broad Street B-IV cars, City and Suburban trolleys, Regional Rail Silverliner IV and V 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 2020 include: Hybrid Bus and Trackless Trolley Driver Protection System installations; M-4 LCU Software Upgrade; Regional Rail campaigns include Push-Pull cab/coach center door overhaul, HVAC control box upgrade, battery overhaul and E5-E7 Decelostat Conversion; and Silverliner IV safety, reliability and seat replacement program, cab heater installation, 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 tota	\$1,008.72 M	Annual program to overhaul a portion of each vehicle fleet	System-Wide	Bucks Chester Delaware Montgomery Philadelphia Delaware (State) New Jersey

## FY 2020 CAPITAL BUDGET AND FY 2020-2031 CAPITAL PROGRAM

# **Appendices**



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



**SEPTA's Strategic Business Plan** for Fiscal Years 2015 through 2019 provided an organizational framework for decision-making. The plan outlined a vision, mission, core values, and strategic objectives as guiding principles for all programs and initiatives. It also established a series of key performance indicators to measure progress towards goals over time. For more information on SEPTA's FY 2015-19 Strategic Business Plan, please visit <a href="http://www.septa.org/strategic-plan/reports.html">http://www.septa.org/strategic-plan/reports.html</a>.

The Capital Program is a key tool for implementing SEPTA's Strategic Business Plan. The matrix below illustrates the relationship between SEPTA's Strategic Business Plan objectives and the FY 2020-2031 Capital Program.

The FY 2020-24 Strategic Business Plan update is under development and will be used to guide future fiscal year capital budgets. The matrix will be updated for the new Strategic Business Plan in the coming fiscal years.

	Strategic Business Plan Objectives							
Capital Programs	Safety & Security	Rebuilding the System	Emerging Technologies	The Customer Experience	Ridership Growth	Sustain- ability	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 Expansions				✓	✓	✓		✓
Service Restorations		✓			✓	✓		
Stations, Loops and Parking Improvements	✓	✓		✓	✓	✓		✓
Substations and Power Improvements	✓	✓	✓			✓		
Track and Right-of-Way Improvements	✓	✓		✓	✓	✓		
Vehicle Acquisitions and Overhauls	✓	✓	✓	✓	✓	✓		

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**

### 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 NRG 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 updated the original findings based upon the 2013 Navy Yard Master Plan and examined 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 final report was released in March 2019.

### 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 Perkasie Borough, with some degree of phasing. An Alternatives Analysis was completed in 2012. Further studies were placed on hold due to the changes first included in MAP-21 and continued in the FAST Act regarding minimum rating criteria to determine eligibility of projects for the New Starts program. DVRPC released updated ridership estimates as part of its FY15 Work Program. There will be an opportunity for additional studies of this proposed extension, including capital operational and maintenance cost analyses, as part of a future SEPTA Long Range Plan.

## **Project Descriptions**

### 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 funded 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 examined two alternatives of extending service to West Chester and discussed the potential capital costs, ridership, and environmental impacts of an extension. The Feasibility Study was released in Spring 2018.

## **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, and 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 2020. An 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", a bus service that provides a competitive transit alternative to personal vehicles. Boulevard Direct (Phase A) was introduced in Fall 2017, operating with limited stops between the Neshaminy Mall and the Frankford Transportation Center. The service has many of the characteristics of a Bus Rapid Transit (BRT) service, including greater stop spacing, enhanced bus stops or "stations", with shelters and other amenities and uniquely branded (wrapped) buses. The new service is 30% faster than the Route 14 local service and has increased overall transit ridership on the Boulevard. An additional station was opened at Southampton Road in February 2019. Boulevard Direct (Phase B) will connect the Frankford Transportation Center and the Wissahickon Transportation Center on the southern portion of Roosevelt Boulevard, and is expected to begin service with the opening of the new Wissahickon Transportation Center.

#### 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 and meet regularly to advance plan implementation. The 30th Street Station (MFL) Improvements project is included in the FY 2020 Capital Budget and Fiscal Years 2020-2031 Capital Program as part of the Stations, Loops and Parking Improvements Program. Construction has begun on new elevator access at the 31st Street entrance to the SEPTA station.

## **Project Descriptions**

### 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 Jefferson (Market East) Station and 30th Street Station areas. The Planning Commission completed the second phase of Philadelphia2035, the establishment of 18 individual District Plans to develop specific recommendations for each area of the City in FY 2019. 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.

SEPTA has collaborated with the following District Plans:

- Completed in 2019: Upper Northwest
- Previously completed: Lower South, West Park, Lower Northeast, Central, University Southwest, Lower North, Central Northeast, Lower Northwest, South, Riverwards, Lower Southwest, Upper North, Far Northeast, West and 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.

### 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 the planning efforts along the Corridor. The NEC Commission directs efforts to redefine the use of the NEC with its comprehensive cost-allocation methodology that has been adopted by the Northeast Corridor States. SEPTA's General Manager was designated by Governor Wolf to represent the Commonwealth of Pennsylvania as a voting member on the NEC Commission. As a Commission member, SEPTA is engaged in decision making for short and long term financial, operational, and infrastructure policies impacting the Northeast Corridor.

### **NEC Strategic Development Plan**

Lead agency: NEC Commission

In 2019, the NEC Commission began the creation of the NEC Strategic Development Plan (SDP). The purpose of the SDP is to create a feasible, consensus-based vision for advancing state of good repair and improving rail service along the NEC. The SDP will build upon the NEC FUTURE planning vision and articulate the benefits of investment and risks of not investing, identify key vulnerabilities and investment priorities, identify and resolve challenges of funding and implementing projects and inform the Commission's ongoing five-year capital planning process. The SDP is expected to be complete in the summer of 2021.

## **Project Descriptions**

## **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, 2018 to June 30, 2019. 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. These DVRPC Work Program projects span Fiscal Years 2017-2019 and reflect projects SEPTA will directly contribute to and be the lead stakeholder for:

- Safe Routes to Transit
- King of Prussia Rail Modeling
- License Plate Survey of SEPTA Passenger Rail Stations
- Bus Stop Design Guidelines Update

- Eastwick Intermodal Center
- TOD Policy Analysis
- Centennial District Trolley Service Concept Evaluation
- South Philadelphia Transportation Center
- Feasibility Study for New Regional Rail Station in East Whiteland Township

### APPENDIX C: BUDGET AND SCHEDULE CHANGES

The table below summarizes changes to project budgets and schedules between the approved FY 2019 Capital Budget and Fiscal Years 2019-2030 Capital Program and the approved FY 2020 Capital Budget and Fiscal Years 2020-2031 Capital Program. A significant number of projects were adversely impacted by the lawsuit against the Pennsylvania Turnpike (refer to page 1) and the resulting slowdown or stopping of work due to funding shortfalls. Schedule impacts will continue until additional state funding is provided.

Duaguana	Project		Y 2019 Capital Program	FY 2020 Capital Program		
Program		Budget	Schedule	Budget	Schedule	
Buides Buseus	Critical Bridge Program	\$45.00 M	Ongoing	\$64.20 M	Ongoing	
Bridge Program	Stone Arch Bridge Program – Phase 2	\$10.00 M	Design 2017-18; Construction 2018-20	\$11.20 M	Design 2017-19; Construction 2019-20	
	Computer Aided Radio Dispatch (CARD) System Replacement	\$32.50 M	Design 2017-18; Construction 2019-22	\$32.50 M	Design 2017-19; Construction 2019-22	
	Crash Hardened Video Recorders	N/A	N/A	\$4.80 M	Implementation 2019-20	
	Facilities Video Systems	N/A	N/A	\$0.72 M	Implementation 2018-22	
	Information Technology Program	\$60.00 M	Ongoing	\$62.08 M	Ongoing	
Communications, Signal Systems, &	Operations Training Simulators	N/A	N/A	\$5.38 M	Implementation 2017-20	
Technology	Positive Train Control	\$157.0 M**	Construction 2012-15**	\$170.0 M	Construction 2012-21	
, , , , , , , , , , , , , , , , , , , ,	Real-Time Information / Audio Visual Public Address (AVPA)	\$34.73 M	Design 2015-18; Construction 2017-21	\$34.73 M	Design 2015-19; Construction 2017-21	
	Route 101/102 Positive Train Control & ROW Improvements	\$76.40 M	Construction 2015-19	\$76.40 M	Construction 2015-20	
	Scheduling Systems Enhancements	\$9.80 M	Implementation 2017-2020	\$8.10 M	Implementation 2017-2020	
	Southwest Connection (30th to Phil Signals, Catenary & ROW)	\$45.90 M	Design 2014-2018; Construction 2017-19	\$70.99 M	Design 2014-2019; Construction 2017-20	
Financial	Capital Asset Leases	\$733.85 M	Ongoing Program through 2030	\$805.38 M	Ongoing Program through 2031	
Obligations	Debt Service	\$745.10 M	Ongoing Program through 2030	\$658.69 M	Ongoing Program through 2031	
ISRP	Infrastructure Safety Renewal Program (ISRP)	\$614.00 M	Ongoing Program through 2030	\$625.00 M	Ongoing Program through 2031	
	Boiler Replacement Program Phase 1	\$1.18 M	Design/Construction 2016-2018	\$1.18 M	Design/Construction 2016-2019	
	Environmental Clean Up and Protection	\$5.64 M	Ongoing	\$6.28 M	Ongoing	
	Frankford Transportation Building	\$17.60 M	Phase 1 2015-2017; Phase 2 2017-2019	\$20.50 M	Phase 1 Complete; Phase 2 2017-2019	
	Frazer Rail Shop and Yard Expansion	\$139.00 M	Design 2016-18; Construction 2017-22 \$13		Design 2016-19; P1&2 Complete; P3 Construction 2019-22	
	Powelton Yard Facility Improvements	\$3.92 M	Design 2017-2018; Construction 2020-21	\$3.92 M	Design 2017-2018; Construction 2019-20	
Maintenance /	Southern Garage Stormwater Management & Paving	\$5.88 M	Construction 2017-18	\$6.90 M	Construction 2017-19	
Transportation Shops	Steel Wheel Lift Program Phase 1	\$2.11 M	Construction 2015-18	\$1.33 M	Construction Complete	
& Offices	Steel Wheel Lift Program Phase 2	\$6.0 M	2024-2030	\$6.78 M	2025-2031	
	Underground Storage Tank Replacement Program Phase 1	\$1.93 M	Construction 2015-20	\$2.07 M	Construction 2015-20	
	Underground Storage Tank Replacement Program Phase 2	\$9.00 M	2024-2030	\$8.86 M	2024-2030	
	Wayne Junction Shop Improvements Phase 1	\$25.29 M	Design 2017-18; Construction 2018-20 \$43.8 M Design 20		Design 2017-19; Construction 2019-22	
	Wayne Junction Shop Improvements Phase 2	\$124.71 M	2024-2030	\$106.2 M	2025-2031	
	Wheel Truing Program Phase 1	\$2.40 M	Construction 2016-19	\$3.79 M	Construction 2016-20	
	Wheel Truing Program Phase 2	\$6.00 M	2024-2030	\$4.61 M	Construction 2024-28	

## **APPENDIX C: BUDGET AND SCHEDULE CHANGES**

Program	Project		FY 2019 Capital Program	FY 2020 Capital Program		
Trogram		Budget	Schedule	Budget	Schedule	
	69th St. Transportation Center Shop Complex Roofs Replacement	\$14.10 M	Construction 2016-19	\$14.10 M	Construction 2016-20	
Ì	Comly Roof Replacement	\$7.50 M	Design 2018; Construction 2018-20	\$7.50 M	Design Complete; Construction 2018-19	
	Courtland Shop Roof Replacement	\$8.80 M	Design 2018; Construction 2019-20	\$8.80 M	Design 2018-19; Construction 2019-20	
Roof Program	Frankford Depot Roof Replacement	\$0.66 M \$8.14 M	P1 Design/Construction 2018-19 P2 2024-2030	\$8.80 M	Design 2024; Construction 2024-25	
	Southern Garage Roof Replacement Phase 1	\$3.25 M	Design/Construction 2018-19	\$4.3 M	Design/Construction 2018-19	
	Southern Garage Roof Replacement Phase 2	\$4.45 M	2024-2030	\$3.4 M	Design/Construction 2024-28	
	Elmwood Safety & Security	\$0.40 M	Design 2017-18; Construction 2018-19	\$0.40 M	Design Complete; Construction 2019	
	Escalator / Elevator Improvement Program	\$25.43 M	2019-2030	\$74.58 M	Ongoing	
	Fern Rock Transportation Center Safety Improvements	\$19.52 M	Design 2018-19; Construction 2019-22	\$20.52 M	Design 2018-19; Construction 2019-22	
	Jefferson Station Ventilation	\$5.08 M**	Construction 2017-18**	\$5.08 M	Construction 2019-20	
1	Lawndale Station Pedestrian Underpass & High Level Platform	\$9.59 M	Design 2016-18; Construction 2019-20	\$9.59 M	Design 2016-19; Construction 2020-22	
Safety & Security	Midvale Facility and Security Enhancements Phase 1	\$3.50 M	Design 2017-18; Construction 2018-20	\$3.50 M	Design Complete; Construction 2019-20	
	Safety and Security Infrastructure Hardening Program	\$3.00 M	Ongoing	\$44.20 M	Ongoing	
	Sharon Hill Line Flood Mitigation	\$5.0 M**	Design 2015-17; Construction 2017-19**	\$12.18 M	Design Complete; Construction 2018-20	
	Shoreline Stabilization on the Manayunk/Norristown Line	\$6.0 M**	Design 2015-16; Construction 2016-18**	\$8.23 M	Design Complete; Construction 2019-20	
	Station Ventilation Improvements at Suburban & NRG Stations Phase 1	\$10.00 M	Construction 2016-19	\$10.00 M	Construction 2016-20	
SEPTA Key	SEPTA Key	\$297.77 M	Ongoing	\$302.30 M	Ongoing	
	5th Street / Independence Hall Station	\$19.45 M	Construction 2018-20	\$27.52 M	Construction 2018-20	
	11th Street Station	\$9.50 M	Design 2019-20; Construction 2021-23	\$9.50 M	Design 2019-20; Construction 2020-22	
	30th Street Station (MFL) - Phase A	\$28.55 M	P1 2017-18; P2 2019-21	\$28.55 M	Design complete; Construction 2017-19	
	30th Street Station (MFL) - Phase B	N/A	N/A	\$38.80 M	Design 2018-19; Construction 2019-21	
	Arrott Transportation Center (Margaret-Orthodox Station)	\$39.86 M	Construction 2015-18	\$39.86 M	Construction 2015-19	
	Bethlehem Pike Loop	\$1.75 M	Design 2021-22, Construction 2022-23	\$1.75 M	Design 2021, Construction 2022-23	
	Center City Concourses	\$59.65 M	P1,2,4 2014-20; P3,5-8 2024-2030	\$59.65 M	P1 Complete, P2-8 Design 2016-2030, Construction 2019-2031	
	City Hall & 15th Street Stations	\$146.47 M	15th 2017-19; CH 2020-24	\$146.47 M	15th 2017-19; CH 2020-25	
Stations, Loops &	Conshohocken Station	\$15.00 M	Design 2018-19; Construction 2019-20	\$15.00 M	Design 2018-19; Construction 2019-21	
Parking	Conshohocken Station Parking	\$2.00 M	Design 2019	\$10.00 M	Design 2019; Construction 2020-21	
	East Falls Station	\$19.50 M	Design & Construction 2021-25	\$19.50 M	Design & Construction 2024-27	
	Exton Station Improvements Phase 1	\$24.42 M	Construction 2015-18	\$25.10 M	Construction 2015-19	
	Exton Station Improvements Phase 2 & 3	\$39.50 M	2024-2030	\$38.64 M	Design and construction 2024-27	
	Gwynedd Valley Station Parking	\$2.54 M	Construction 2018-19	\$2.54 M	Construction 2019-20	
]	Jenkintown-Wyncote Station	\$25.32 M	M Design 2016-18; Construction 2020-23 \$25.32 M De		Design 2016-19; Construction 2020-23	
	Levittown Station Reconstruction	\$36.01 M	Construction 2015-18	\$38.16 M	Construction 2015-19	
	Malvern Station High Level Platforms	\$15.26 M	Design 2021-22; Construction 2023-25	\$15.26 M	2025-2031	
	Noble Station, Parking Garage and Storage Track	\$53.00 M	Design 2016-19; Construction 2022-25	\$53.00 M	Design 2016-19; Construction 2024-27	

## **APPENDIX C: BUDGET AND SCHEDULE CHANGES**

Duaguana	Project	FY	2019 Capital Program	FY 2020 Capital Program		
Program		Budget	Schedule	Budget	Schedule	
	Paoli Intermodal Transportation Center Phase 1	\$35.01 M	Construction 2017-19	\$35.93 M	Construction 2017-19	
	Paoli Intermodal Transportation Center Phase 2	\$51.20 M	2024-2030	\$50.28 M	2025-2031	
	Ridge & Summit Bus Loop	\$1.75 M	Design 2023-24; Construction 2024-25	\$1.75 M	2025-2031	
	Rising Sun & Olney Loop	\$1.75 M	2024-2030	\$1.75 M	Design 2022, Construction 2023-24	
	Secane Station Phase 1	\$21.20 M	Construction 2015-18	\$26.45 M	Construction 2015-19	
	Spring Garden (MFL) ADA Improvements	N/A	N/A	\$7.37 M	2025-2031	
	Stadium Station on the Norristown High Speed Line	\$3.00 M	Construction 2018-19	\$4.65 M	Construction 2018-19	
Stations, Loops & Parking	Susquehanna-Dauphin Station	\$14.94 M	Construction 2018-20	\$14.94 M	Construction 2019-21	
(Continued)	Swarthmore Station ADA Improvements	N/A	N/A	\$17.96 M	2025-2031	
(continuou)	Tasker-Morris Station	\$9.80 M	Design 2017-18; Construction 2019-21	\$9.80 M	Design 2017-19, Construction 2020-22	
	Villanova Station Phase 1	\$21.79 M	Construction 2016-18	\$21.79 M	Construction Complete	
	Villanova Station Phase 2	\$10.45 M	2024-2030	\$10.45 M	Canopies Const. 2019-20, Station Const. 2024-26	
	Willow Grove Station on the Warminster Regional Rail Line	\$20.89 M	Design 2017-19; Construction 2020-22	\$20.89 M	Design 2017-20; Construction 2025-2031 Project	
	Westmoreland Loop	\$1.75 M	Design 2019-20; Construction 2020-21	\$1.75 M	Design 2019, Construction 2020	
	Wissahickon Transportation Center	\$14.22 M	Design 2017-18; Construction 2018-20	\$14.22 M	Design 2017-20, Construction 2020-22	
	Wycombe Loop	\$2.00 M	2024-2030	\$2.00 M	Design 2023, Construction 2024-25	
	30th Street West Catenary Replacement	\$77.00 M	Design 2015-18; Construction 2018-22	\$77.00 M	Design 2015-19; Construction 2019-24	
	Railroad Substations - Chestnut Hill Substation and 18th St	N/A	N/A	\$35.54 M	Construction 2023-26	
Cubatatiana 0	Railroad Substations - Lansdale, Hatboro, 12th, Portal	\$25.24 M	Construction 2019-22	\$33.87 M	Construction 2019-22	
Substations & Power	Substation Design and Equipment Purchase	\$28.23 M	Design/Procurement 2016-21	\$28.23 M	Design/Procurement 2016-23	
i owe.	Transit Substations – Market, Ellen, Ranstead	\$18.68 M	Construction 2018-21	\$18.68 M	Construction 2019-22	
	Transit Substation Program	\$45.00 M	2024-2030	\$47.66 M	2025-2031	
	Wayne Junction Static Frequency Converters (SFC) #1-4	\$60.00 M	Design 2015-18; Construction 2018-22	\$60.00 M	Design 2015-19; Construction 2019-22	
Track & ROW	Norristown High Speed Line Tie Replacement and CWR	\$26.00 M	Construction 2014-23	\$29.60 M	Construction 2014-25	
Improvements	Trolley Tunnel Blitz (Trolley Tunnel Track Renewal)	\$1.50 M	Construction 2018	\$24.15 M	Ongoing	
	Bus Purchase Program	\$927.28 M	Ongoing Program through 2030	\$1,343.25 M	Ongoing Program through 2031	
	Regional Rail Electric Locomotive Acquisition	\$154.50 M	Contract Award Complete, Delivery 2018	\$151.00 M	Project Complete 2022	
Vehicle Acquisitions	Regional Rail Multi-Level Car Acquisition	\$174.30 M	Delivery 2020-21	\$174.30 M	Delivery 2020-22	
& Overhauls	Trolley Acquisition and Infrastructure	\$1,100.00 M	2024-2030 and Beyond	\$1,500.00 M	2025 - 2031 and Beyond	
	Utility Fleet Renewal	\$74.00 M	Ongoing Program	\$77.90 M	Ongoing Program	
	Vehicle Overhaul Program	\$996.31 M	Ongoing Program	\$1,008.72 M	Ongoing Program	

<sup>\*\*</sup> Budget / Schedule from a prior year capital budget document