

# Appendix C:

## Proposed Passenger Rail Projects (2015-2040)



Amtrak Acela Locomotive

Source: Amtrak

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**Table C-1: SEPTA Project List**

Project Number	Project Description	Estimated Cost (2015 dollars)	County	PennDOT District
15407	Modernize Villanova Station	\$30.6	Delaware	6
59973	Upgrade and replace the Authority's utility fleet and automotive service fleet. SEPTA utility vehicles support transit and railroad operations.	\$9.8	Multi-county	6
59973	Upgrade and replace the Authority's utility fleet and automotive service fleet. SEPTA utility vehicles support transit and railroad operations	\$13.7	Multi-county	6
60255	Signal Modernization	\$34.2	Multi-county	6
60540	Gwynedd Valley Station	\$3.0	Montgomery	6
60540	Lansdale Station Garage	\$20.0	Montgomery	6
60540	North Wales Station Improvements	\$3.0	Montgomery	6
60540	Philmont Station Improvements	\$3.0	Montgomery	6
60540	Fern Rock Transportation Center Complex	\$77.5	Montgomery	6
60540	Manayunk/Norristown Regional Rail Line Parking Expansion (Conshohocken and other stations)	\$27.5	Montgomery	6
60540	Noble Station Improvements	\$53.0	Montgomery	6
60574	Paoli Transportation Multi-Modal Center	\$56.0	Chester	6
60582	SEPTA system wide Vehicle Overhaul Program provides for the systematic replacement or upgrade of systems on SEPTA's rolling stock.	\$117.3	Multi-county	6
60582	SEPTA system wide Vehicle Overhaul Program provides for the systematic replacement or upgrade of systems on SEPTA's rolling stock	\$178.0	Multi-county	6
60611	New Payment Technologies (NPT) Project: Provide single electronic fare payment system for entire SEPTA transportation network	\$66.3	Multi-county	6
60636	Wawa Extension: Three mile 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	\$127.2	Delaware	6
60638	Regional Rail Bi-Level Car & Locomotive Acquisition	\$235.0	Multi-county	6
60638	Regional Rail Silverliner IV Replacement	\$1,103.0	Multi-county	6
60651	Bethayres Substation Improvement	\$12.9	Bucks	6
60651	Chestnut Hill East Substation Improvement	\$7.7	Bucks	6

Table C-1: SEPTA Project List, cont.

Project Number	Project Description	Estimated Cost (2015 dollars)	County	PennDOT District
60651	Hatboro Substation Improvement	\$7.7	Delaware	6
60651	Lansdale Substation Improvement	\$11.0	Montgomery	6
60651	Lenni/Morton Substation Improvement	\$20.1	Montgomery	6
60651	Wayne Junction Static Frequency Converters	\$50.0	Philadelphia	6
60651	Wood Substation Improvements	\$27.5	Philadelphia	6
60651	18th/12th/Portal Substation Improvement	\$7.0	Philadelphia	6
60651	Ambler Substation Improvement	\$11.5	Montgomery	6
60651	Brill Substation Improvement	\$12.8	Philadelphia	6
60651	Doylestown Substation Improvement	\$8.8	Bucks	6
60651	Jenkintown Substation Improvement	\$42.2	Montgomery	6
60651	Neshaminy Substation Improvement	\$10.8	Bucks	6
60651	Wayne Junction Static Frequency Converters	\$50.0	Philadelphia	6
60651	Yardley Substation Improvements	\$10.8	Bucks	6
60655	Levittown Intermodal Facility Improvements	\$30.0	Bucks	6
73214	Ardmore Transportation Center (Phase I)	\$4.1	Montgomery	6
77183	Conshohocken Station Improvements	\$15.0	Delaware	6
77183	East Falls Station Improvements	\$19.5	Montgomery	6
77183	Jenkintown Station High Level Platforms	\$25.3	Montgomery	6
77183	Secane Station Improvements	\$23.1	Montgomery	6
77183	Willow Grove Station Improvements	\$6.5	Philadelphia	6
77183	Devon Station Improvements	\$20.0	Chester	6
77183	Hatboro Station Improvements	\$6.5	Montgomery	6
77183	Lawndale Station Improvements	\$11.5	Philadelphia	6
77183	Marcus Hook Station Improvements	\$22.5	Delaware	6
77183	Roslyn Station Improvements	\$6.5	Montgomery	6
77183	Wyndmoor Station Improvements	\$19.5	Montgomery	6
77183	Wynnewood Station Improvements	\$20.0	Montgomery	6
77183	Yardley Station Improvements	\$5.5	Bucks	6
93588	Exton Station: High-level platforms, station building, bus circulation loops, and multi-level parking garage	\$56.3	Chester	6



**Table C-1: SEPTA Project List, cont.**

Project Number	Project Description	Estimated Cost (2015 dollars)	County	PennDOT District
95402	Chestnut Hill West Regional Rail Line 7 Bridges	\$35.0	Delaware	6
95402	Chestnut Hill West Regional Rail Line Bridge 0.35 Replacement	\$7.6	Delaware	6
95402	Media/Elwyn Line Crum Creek Viaduct Replacement	\$77.5	Multi-county	6
95402	Media/Elwyn Regional Rail Line Viaduct Improvements (Cobbs Creek, Darby Creek, Ridley Creek Viaducts)	\$43.3	Philadelphia	6
95402	Regional Rail Line Stone Arch Bridges	\$8.8	Philadelphia	6
95402	Chestnut Hill East Regional Rail Line 5 Bridges	\$30.0	Philadelphia	6
95402	Regional Rail Bridges between 30th Street Station and Suburban Station over Schuylkill River	\$56.0	Philadelphia	6
98235	West Trenton Line Third Track Project: Reduce congestion by separating SEPTA service from CSX freight rail service on the West Trenton Line	\$38.8	Bucks	6
102565	Regional Rail Special Works Program	\$2.0	Multi-county	6
102565	Norristown Regional Rail Line Third Track	\$32.3	Montgomery	6
102567	Frazer Shop	\$6.8	Chester	6
102567	Overbrook Maintenance Facility	\$7.6	Philadelphia	6
102567	Temple Station Roof Improvements	\$1.5	Philadelphia	6
102567	Regional Rail Stations Roof Program	\$7.0	Multi-county	6
102569	Boiler Program	\$1.1	Multi-county	6
102569	Frazer Washer	\$3.4	Multi-county	6
102569	Lift Program	\$10.0	Multi-county	6
102569	Steel Wheel Lift Program	\$1.2	Multi-county	6
102569	Storage Tank Program	\$1.3	Multi-county	6
102569	Wheel Truing Program	\$15.0	Multi-county	6
102569	Boiler Program	\$4.3	Multi-county	6
102569	Lift Program	\$10.0	Multi-county	6
102569	Overbrook Washer	\$3.2	Philadelphia	6
102569	Pump Room Program	\$10.0	Multi-county	6
102569	Steel Wheel Lift Program	\$4.7	Multi-county	6
102569	Storage Tank Program	\$5.2	Multi-county	6
102569	Washer Program	\$7.0	Multi-county	6
102571	Arsenal Interlocking	\$27.0	Bucks	6

**Table C-1: SEPTA Project List, cont.**

Project Number	Project Description	Estimated Cost (2015 dollars)	County	PennDOT District
102571	Beth Interlocking	\$14.0	Multi-county	6
102571	CARD (Computer Aided Radio Dispatch) System Replacement	\$32.5	Multi-county	6
102571	Real Time Information / Audio-Video Public Address System (AVPA)	\$26.5	Philadelphia	6
102573	30th Street to Arsenal Interlocking	\$4.3	Delaware	6
102573	Arsenal Interlocking Design Catenary Improvements	\$0.5	Philadelphia	6
102573	Media/Elwyn Line Catenary Improvements	\$10.7	Philadelphia	6
102573	Wayne Junction Yard Catenary Improvements	\$1.3	Philadelphia	6
102573	Chestnut Hill East Line Catenary Improvements	\$5.5	Philadelphia	6
102573	Fox Chase Line Catenary Improvements	\$2.8	Philadelphia	6
102573	System-Wide Catenary Feeder Lines	\$7.0	Multi-county	6
103626	Flood Mitigation at Jenkintown (Resiliency Program)	\$19.9	Montgomery	6
103626	Manayunk/Norristown Line Shoreline Stabilization (Resiliency Program)	\$6.0	Montgomery	6
103626	Railroad Embankment/Slope Stability at Media, Mainline, Limekiln, Ardsley and Chestnut Hill East Cuts Resiliency Program (Resiliency Program)	\$25.0	Multi-county	6
103626	Railroad Signal Power Reinforcement (Resiliency Program)	\$42.7	Multi-county	6
103626	Ancillary Control Center (Resiliency Program)	\$12.0	Multi-county	6
N/A	Positive Train Control (PTC)*	\$72.8	Multi-county	6
N/A	Rail Yard Storage Expansion Program*	\$34.5	Multi-county	6
<b>SEPTA Total</b>		<b>\$3,516.2</b>		



**Table C-2: Amtrak Project List**

Project Number	Project Description	Estimated Cost (2015 dollars)	County	PennDOT District
<b>Keystone Corridor</b>				
C.EN.100046	Bryn Mawr Interlocking Turnout Replacement	\$1.0	Delaware	6
C.EN.100127	Public Grade Crossing Elimination	\$0.4	Multi-county	6, 8
C.EN.100142	12kv Substation Breakers	\$3.0	Multi-county	6, 8
C.EN.100282	Culverts	\$1.8	Multi-county	6, 8
C.EN.100307	Signal Power Upgrades	\$1.1	Multi-county	6, 8
C.EN.100347	Safe Harbor Frequency Converter Upgrade	\$13.7	Lancaster	8
C.EN.100416	State Interlocking Renewal (Harrisburg)	\$43.0	Dauphin	8
C.EN.100417	Mount Joy Station Improvements	\$30.0	Lancaster	8
C.EN.100663	Conestoga Step-up Yard Replace Transformer	\$9.5	Lancaster	8
C.EN.100751	Zoo-44th St Interlocking Reconfiguration	\$25.3	Philadelphia	6
C.EN.100793	Cynwyd / Paxton Interlocking Renewal	\$3.0	Montgomery	6
C.EN.100885	PA067.85 Lititz Pike Bridge Catenary Improvements	\$0.3	Lancaster	8
C.EN.100891	New Middletown Station	\$32.0	Dauphin	8
C.EN.100892	Interlocking Improvements Design	\$0.2	Multi-county	6, 8
C.EN.100894	Exton New High Level Platform Station	\$2.0	Chester	6
C.EN.100898	PA080.03 Marietta St Bridge Catenary Improvements	\$0.3	Lancaster	8
C.EN.101171	Royalton Sub 71 Transformer Installation	\$0.9	Dauphin	8
C.EN.101173	Catenary Pole Replacement	\$2.3	Multi-county	6, 8
C.EN.101185	Transmission Line	\$0.4	Multi-county	6, 8
C.EN.101248	Static Wire Installation	\$0.5	Multi-county	6, 8
C.EN.101312	PA002.88 41St Catenary Improvements	\$1.0	Philadelphia	6
C.EN.101355	Manhole Covers	\$0.1	Multi-county	6, 8
C.EN.101386	Harrisburg Sub 72 Transformer Installation	\$1.0	Dauphin	8
C.EN.101392	Conestoga Frequency Control House Design	\$0.3	Lancaster	8
C.EN.101395	Witmer Sub 68 Transformer Installation	\$1.0	Lancaster	8
C.EN.101396	Kinzer Sub 67 Transformer Installation	\$1.0	Lancaster	8
C.EN.101397	Landisville Sub 69 Transformer Installation	\$1.9	Lancaster	8
C.EN.101398	Parkesburg Sub 66 Transformer Installation	\$1.0	Chester	6
C.EN.101401	Catenary Hardware Renewal	\$4.0	Multi-county	6, 8

**Table C-2: Amtrak Project List, cont.**

Project Number	Project Description	Estimated Cost (2015 dollars)	County	PennDOT District
C.EN.101404	Royalton Sub 71 Transformer Installation #2	\$1.8	Dauphin	8
C.EN.101405	Thorndale Sub 65 Transformer Installation	\$1.9	Chester	6
C.EN.101406	Frazer Sub 64 Transformer Installation	\$1.0	Chester	6
C.EN.101407	Paoli Sub 4 Transformer Installation	\$1.0	Chester	6
C.EN.101412	Substation Upgrades	\$0.9	Multi-county	6, 8
C.EN.101413	Catenary Hardware Renewal	\$0.9	Multi-county	6, 8
C.EN.101425	Communications Shelter Backup Power	\$0.2	Multi-county	6, 8
C.EN.101467	Rheems Sub 70 Transformer Installation	\$1.9	Lancaster	8
C.EN.101484	Wynnfield Interlocking Renewal	\$11.5	Philadelphia	6
C.EN.101488	Paoli Interlocking Renewal	\$31.0	Chester	6
C.EN.201264	Zoo-Paoli Catenary Pole Design	\$3.0	Philadelphia	6
C.EV.100013	Lancaster PA Mail Tun Ground Water Mitigation	\$0.1	Lancaster	8
N/A	Harrisburg ADA Improvements (Elevator & High Level Platforms)*	\$11.5	Dauphin	8
N/A	New "Potts" Interlocking (Including Glen 103 Switch Removal & Retire Downs Interlocking) *	\$23.4	Chester	6
N/A	New Cab No-Wayside Signal System Paoli To Zoo *	\$17.5	Multi-county	6
N/A	New Cab No-Wayside Signal System Park To Paoli*	\$17.5	Chester	6
N/A	New Downingtown Station (Preliminary Engineering)*	\$35.0	Chester	6
N/A	New Coatesville Station (Preliminary Engineering)*	\$40.0	Chester	6
N/A	New "Villa" & "Nova" Interlockings Bracketing Villanova Station (To Replace Bryn Mawr Interlocking)*	\$82.2	Montgomery	6
N/A	New Bailey Interlocking (Retires Thorn / Caln)*	\$46.6	Chester	6
N/A	SEPTA Cynwyd Connection (Includes 52nd Street Bridge Rehabilitation)*	\$9.0	Philadelphia	6
N/A	Benders Road Private Grade Crossing Closure*	\$1.5	Lancaster	8
<b>Keystone Total</b>		<b>\$521.4</b>		
<b>NEC Corridor</b>				
C.EN.100039	30th Street Station Facade Repair	\$73.0	Philadelphia	6
C.EN.100042	Lamokin Transformer Breakers Renewal	\$6.7	Delaware	6
C.EN.100044	Richmond Frequency Circuit Breakers	\$6.5	Philadelphia	6
C.EN.100090	Phl-Wil Catenary Structure Replacement	\$2.7	Delaware	6





**Table C-2: Amtrak Project List, cont.**

Project Number	Project Description	Estimated Cost (2015 dollars)	County	PennDOT District
C.EN.100091	Phil Subdiv Catenary Pole Replacement	\$2.7	Philadelphia	6
C.EN.100096	Phil Subdiv Interlocking Remote Terminal Unit Replacement	\$0.5	Philadelphia	6
C.EN.100159	NY DIV Catenary Pole	\$4.0	Multi-county	6
C.EN.100173	NY DIV Concrete Ties Replacement	\$9.5	Multi-county	6
C.EN.100204	MAD North Hot Box Detector Replacement	\$0.5	Multi-county	6
C.EN.100213	30th Street Station Fire Alarm System	\$1.0	Philadelphia	6
C.EN.100230	NY DIV West Joint Elimination	\$4.8	Multi-county	6
C.EN.100260	MAD North Signal Bridge Upgrade	\$5.3	Multi-county	6
C.EN.100269	Wash-New York Sys Undercutting	\$202.3	Multi-county	6
C.EN.100276	Morris-Holmes Catenary Upgrades	\$1.3	Delaware	6
C.EN.100324	MAD S Substation Control House Upgrades	\$0.9	Multi-county	6
C.EN.100362	MAD Turnout Replacement	\$17.9	Multi-county	6
C.EN.100379	MAD Bridge Timber Replacement	\$6.5	Multi-county	6
C.EN.100627	30th Street Station Elevator Replacement	\$21.4	Philadelphia	6
C.EN.100679	South Penn Interlocking Renewal	\$9.6	Philadelphia	6
C.EN.100689	NY DIV Spot Renew Pads, Clips, and Insulators	\$1.1	Multi-county	6
C.EN.100702	30th Street Station Emergency Generator	\$0.2	Philadelphia	6
C.EN.100794	SEPTA Stations Intertrack Fence	\$0.6	Multi-county	6
C.EN.100837	30th Street Station HVAC Control Upgrade	\$7.1	Philadelphia	6
C.EN.100857	NY DIV Concrete Tie Replacement	\$10.0	Multi-county	6
C.EN.100873	30th St Station Block Ties	\$5.7	Philadelphia	6
C.EN.100954	Mid-Atlantic Div Concrete Tie Replacement	\$215.8	Multi-county	6
C.EN.100994	Mid-Atlantic Interlocking Steel Renewal	\$22.1	Multi-county	6
C.EN.100995	NY DIV Non-NJT Territory Joint Elimination	\$1.5	Multi-county	6
C.EN.101002	NY DIV Non-NJT Territory Insulated Joint	\$1.5	Multi-county	6
C.EN.101003	Mid-Atlantic Tie / Timber Replacement	\$64.7	Multi-county	6
C.EN.101099	NY DIV NJT Territory-Joint Elimination	\$1.4	Multi-county	6
C.EN.101100	MAD Concrete Tie Replacement	\$12.6	Multi-county	6
C.EN.101101	Mid-Atlantic Div Insulation Joints	\$7.9	Multi-county	6
C.EN.101102	Mid-Atlantic Surfacing Program	\$54.1	Multi-county	6

**Table C-2: Amtrak Project List, cont.**

Project Number	Project Description	Estimated Cost (2015 dollars)	County	PennDOT District
C.EN.101118	Mid-Atlantic Div Drainage Upgrades	\$10.6	Multi-county	6
C.EN.101122	Mid-Atlantic Joint Elimination	\$22.1	Multi-county	6
C.EN.101140	Sub 32 to Sub 34 Signal Power System Upgrades	\$0.9	Multi-county	6
C.EN.101183	Mid-Atlantic Division Spot Undercutting	\$20.2	Multi-county	6
C.EN.101186	Philadelphia Subdiv Install Static Wire	\$0.5	Philadelphia	6
C.EN.101187	Philadelphia Subdiv Transmission Line	\$0.2	Philadelphia	6
C.EN.101221	30th Street Station Construction Upgrades	\$36.4	Philadelphia	6
C.EN.101244	MAD Tunnel Construction & Upgrades	\$2.4	Multi-county	6
C.EN.101245	NY DIV Retaining Wall Upgrades	\$10.3	Multi-county	6
C.EN.101249	MAD Retaining Wall Upgrades	\$9.3	Multi-county	6
C.EN.101259	MAD Undergrade Bridge Upgrades	\$46.9	Multi-county	6
C.EN.101262	NY DIV Undergrade Bridge Upgrades	\$31.8	Multi-county	6
C.EN.101263	Mid Atlantic Division Culvert Upgrades	\$10.1	Multi-county	6
C.EN.101280	Clearfield Interlocking Renewal	\$6.9	Philadelphia	6
C.EN.101283	Lehigh Interlocking Renewal	\$16.4	Philadelphia	6
C.EN.101298	Hook Interlocking Turnout Renewal	\$6.2	Delaware	6
C.EN.101299	Baldwin Interlocking Turnout Renewal	\$3.4	Delaware	6
C.EN.101319	South Penn Interlocking C&S Upgrades Design	\$0.3	Philadelphia	6
C.EN.101320	North Penn Interlocking-C&S Upgrades Design	\$0.3	Philadelphia	6
C.EN.101326	MAD North Convert Track Circuits to 562	\$2.5	Multi-county	6
C.EN.101329	Mid-Atlantic Div C&S Interlocking Upgrades	\$2.0	Multi-county	6
C.EN.101331	South Penn Interlocking C&S Upgrades	\$8.5	Philadelphia	6
C.EN.101332	North Penn Interlocking C&S Upgrades	\$3.0	Philadelphia	6
C.EN.101340	Mid-Atlantic Div Event Recorders Upgrades	\$0.2	Multi-county	6
C.EN.101348	MAD Renew Pads, Clips, and Insulators	\$1.3	Multi-county	6
C.EN.101356	MAD Install Secure Manhole Covers	\$0.5	Multi-county	6
C.EN.101359	Mid-Atlantic Div Communications Equipment Houses	\$0.3	Multi-county	6
C.EN.101361	MAD Ride Quality Improvements	\$62.5	Multi-county	6
C.EN.101362	New York Div Ride Quality Improvement Program	\$4.7	Multi-county	6
C.EN.101382	PA014.28 Lloyd St Catenary Improvements	\$0.1	Delaware	6



**Table C-2: Amtrak Project List, cont.**

Project Number	Project Description	Estimated Cost (2015 dollars)	County	PennDOT District
C.EN.101393	Lamokin Sub 11 Transformer Installation	\$1.8	Delaware	6
C.EN.101402	Philadelphia Subdiv Catenary	\$0.9	Philadelphia	6
C.EN.101408	Philadelphia Subdiv Substation Upgrades	\$1.8	Philadelphia	6
C.EN.101410	Philadelphia Subdiv Substation Upgrades	\$1.1	Philadelphia	6
C.EN.101421	Mid-Atlantic North C&S Cable Replacement	\$0.3	Multi-county	6
C.EN.101426	MAD Communications Shelter Alarm System Upgrades	\$0.2	Multi-county	6
C.EN.101436	Hook Interlocking Upgrade to Microlok 2	\$5.2	Delaware	6
C.EN.101440	Holmes Interlocking C&S Upgrades	\$2.0	Philadelphia	6
C.EN.101465	Mid-Atlantic Div-352 Signal Power Breaker	\$0.6	Multi-county	6
C.EN.101470	MAD North Signal Bridge Fall Protection	\$1.5	Multi-county	6
C.EN.101473	Mid-Atlantic Division Support Facilities / Track Rehabilitation	\$4.2	Multi-county	6
C.EN.101475	Sub Frankford Sub 30 Transformer Installation	\$1.0	Philadelphia	6
C.EN.101476	Sub Edgely Sub 33 Transformer Installation	\$1.0	Bucks	6
C.EN.101479	Sub Cornwells Sub 32 Transformer Installation	\$1.0	Bucks	6
C.EN.101480	Ballast Mid-Atlantic Division - Shoulder Cleaning Program	\$1.0	Multi-county	6
C.EN.101486	Ballast New York Division - Shoulder Cleaning Program	\$1.0	Multi-county	6
C.EN.101498	Sub Bellevue Sub 12 Transformer Installation	\$1.0	Bucks	6
C.EN.101499	Holmes Interlocking Renewal	\$17.0	Philadelphia	6
C.EN.201274	MAD Transmission Breaker Design	\$1.2	Multi-county	6
C.SP.100022	30th Street Station Signage	\$1.6	Philadelphia	6
C.SP.100033	30th Street Station Concourse & Facilities Upgrades	\$20.0	Philadelphia	6
<b>NEC Total</b>		<b>\$1,169.6</b>		
<b>Amtrak Total</b>		<b>\$1,691.0</b>		

*Notes:*

All costs shown in millions of dollars

Amtrak NEC Projects include division-wide work that extends beyond Pennsylvania.

Projects that are listed in the SEPTA Capital Plan as system-wide projects were pro-rated to the Regional Rail system based on historic data.

NY DIV= New York Division

MAD DIV= Mid-Atlantic Division

C&S = Communications & Signals

Sources: Amtrak Five Year Capital Plan, SEPTA Capital Plan, PennDOT

\*Not included in Amtrak Five Year Capital Plan or SEPTA Capital Plan