



Project Information Appendix

Northeast Corridor Capital Investment Plan Fiscal Years 2022-2026

October 2021

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Appendix 1:

One-Year (FY22) Summary

A. FY22 Baseline Capital Charges (BCCs)

Service operators pay right-of-way owners Baseline Capital Charges (BCCs) for their relative use of NEC infrastructure. Each operator's BCC is determined as a percentage of the corridor's Normalized Replacement Amount and calculated annually through the NEC Cost Allocation Model. Following eligibility criteria outlined in the Cost Allocation Policy, owners use BCCs to fund capital renewal of basic infrastructure. For this plan, owners identified whether investments included in their capital renewal plans were BCC-eligible and if so, for which operators' BCCs. Appendix Figure A1-1 below shows each owner's anticipated FY22 capital renewal expenditure according to BCC-eligibility.

Appendix Figure A1-1. FY22 capital renewal investments by BCC-eligibility

	MBTA	Amtrak	Connecticut DOT	Metro-North	Total
Capital renewal investment	\$23.32M	\$889.52M	\$122.50M	\$24.10M	\$1,059.44M
BCC-eligible	\$23.32M	\$638.73M	\$122.50M	\$24.10M	\$808.65M
Not BCC-eligible	\$0	\$250.79M	\$0	\$0	\$250.79M

In general, the Policy requires right-of-way owners to invest operators' BCCs on eligible assets within the operators' service territories during the fiscal year the BCCs are provided. Appendix Figure A1-2 shows the BCC-eligible expenditures planned for FY22 that are within, or provide benefit to, each operator's territory, and Appendix Figure A1-3 shows FY22 BCC obligations.

Appendix Note: Some numbers may not add up due to rounding.

Appendix Figure A1-2. FY22 Planned BCC-eligible Capital Renewal Expenditure by Operator and Owner Territory

Service Operator	Right-of-Way Owner Territory				Total
	MBTA	Amtrak	Connecticut DOT	Metro-North	
Amtrak	\$7,221,545	\$451,932,891	\$23,167,345	\$2,767,684	\$485,089,465
MBTA	\$16,102,396	\$2,205,861			\$18,308,257
Rhode Island DOT		\$3,244,374			\$3,244,374
CTDOT (Shore Line East)		\$4,083,840	\$526,259		\$4,610,098
CTDOT (Hartford Line)		\$8,363,587	\$394,340		\$8,757,927
CTDOT (New Haven Line)			\$98,412,057		\$98,412,057
MTA Metro-North Railroad				\$21,332,316	\$21,332,316
MTA Long Island Rail Road		\$14,416,271			\$14,416,271
NJ TRANSIT		\$97,904,900			\$97,904,900
SEPTA		\$34,470,132			\$34,470,132
Delaware DOT		\$3,301,919			\$3,301,919
Maryland DOT		\$17,722,640			\$17,722,640
Virginia Railway Express		\$1,084,131			\$1,084,131
Total	\$23,323,941	\$638,730,546	\$122,500,000	\$24,100,000	\$808,654,487

Appendix Figure A1-3. FY22 BCC Obligations by Operator and Owner Territory

Service Operator	Right-of-Way Owner Territory				Total
	MBTA	Amtrak	Connecticut DOT	Metro-North	
Amtrak	\$8,763,643	\$318,760,329	\$23,167,345	\$2,767,684	\$353,459,000
MBTA	\$19,540,921	\$2,205,861			\$21,746,782
Rhode Island DOT		\$3,244,374			\$3,244,374
CTDOT (Shore Line East)		\$4,083,840	\$526,259		\$4,610,098
CTDOT (Hartford Line)		\$8,363,587	\$394,340		\$8,757,927
CTDOT (New Haven Line)			\$66,408,016		\$66,408,016
MTA Metro-North Railroad				\$13,335,834	\$13,335,834
MTA Long Island Rail Road		\$22,730,783			\$22,730,783
NJ TRANSIT		\$117,904,900			\$117,904,900
SEPTA		\$34,470,132			\$34,470,132
Delaware DOT		\$3,301,919			\$3,301,919
Maryland DOT		\$17,722,640			\$17,722,640
Virginia Railway Express		\$1,084,131			\$1,084,131
Total	\$28,304,564	\$533,872,497	\$90,495,959	\$16,103,519	\$668,776,538

A key purpose of this plan is to facilitate an exchange of information between right-of-way owners and operators regarding the owners' ability to spend operators' BCCs during the upcoming fiscal year. To that end, Appendix Figure A1-4 shows the difference between owners' planned FY22 BCC-eligible expenditures and agencies' FY22 BCC obligations. For all agencies, the data provided represents a snapshot in time and actual work completed during FY22 and funded with BCCs may vary.

The FY22 capital renewal plans submitted by Amtrak, Connecticut DOT, and Metro-North indicate that the right-of-way owners will spend all BCCs provided for their territories. (See table notes 2 and 3.) These three right-of-way owners have indicated they intend to spend above their FY22 BCC obligations, therefore requiring additional funds to complete this eligible work. MBTA's capital renewal plan does not indicate that all BCCs provided for its territory will be spent during FY22. However, remaining obligations can be contributed towards the "Boston South Station: Tower 1 Interlocking" which is a BCC-eligible special project. (See table note 1.)

Appendix Figure A1-4. FY22 Planned BCC-eligible Capital Renewal Expenditure and BCC Obligation Comparison

Service Operator	Right-of-Way Owner Territory				Total
	MBTA ¹	Amtrak	Connecticut DOT	Metro-North	
Amtrak	\$(1,542,097)	\$133,172,562	\$0	\$0	\$131,630,464
MBTA	\$(3,438,525)	\$0			\$(3,438,525)
Rhode Island DOT		\$0			\$0
CTDOT (Shore Line East)		\$0	\$0		\$0
CTDOT (Hartford Line)		\$0	\$0		\$0
CTDOT (New Haven Line)			\$32,004,041		\$32,004,041
MTA Metro-North Railroad				\$7,996,481	\$7,996,481
MTA Long Island Rail Road ²		\$(8,314,513)			\$(8,314,513)
NJ TRANSIT ³		\$(20,000,000)			\$(20,000,000)
SEPTA		\$0			\$0
Delaware DOT		\$0			\$0
Maryland DOT		\$0			\$0
Virginia Railway Express		\$0			\$0
Total	\$(4,980,623)	\$104,858,049	\$32,004,041	\$7,996,481	\$139,877,949

Notes: (1) MBTA plans to spend approximately \$13.1M in FY22 on the "Boston South Station: Tower 1 Interlocking" special project. As all of this planned work on Tower 1 is considered BCC-eligible, MBTA can put any remaining FY22 BCCs towards that project, if needed. (2) Long Island Rail Road's obligation is subject to revision based on actual expenditures per Amtrak-LIRR agreement. (3) The \$20M discrepancy between NJ TRANSIT's allocations and obligations reflects the NJ TRANSIT-Amtrak BCC variance for Portal North Bridge, approved by the Commission in August 2019.

BCC Segments

To determine if right-of-way owners plan to invest operators' BCCs within their respective service territories, the corridor is divided into 31 BCC segments generally defined as points on the NEC where the mix of owners and/or operators changes. Each segment then has a distinct set of operators whose BCCs may be applied to fund BCC-eligible capital renewal investments.

Appendix Figure A1-5. Owner and Operators by BCC Segment

BCC Segment	Owner	Operators
1. Boston South Station to MA/RI State Line	MBTA	Amtrak, MBTA
2. MA/RI State Line to Providence	Amtrak	Amtrak, MBTA
3. Providence to Wickford Junction	Amtrak	Amtrak, MBTA (on behalf of RIDOT)
4. Wickford Junction to New London	Amtrak	Amtrak
5. New London to New Haven	Amtrak	Amtrak, CT <i>rail</i> Shore Line East
6. New Haven to CT/NY State Line	Connecticut DOT	Amtrak, Metro-North (on behalf of CTDOT)
7. CT/NY State Line to New Rochelle	Metro-North	Amtrak, Metro-North
8. New Rochelle to Harold	Amtrak	Amtrak
9. Harold to F Interlocking	Amtrak	Amtrak, LIRR
10. F Interlocking to Penn Station New York	Amtrak	Amtrak, LIRR, NJT
11. Penn Terminal	Amtrak	Amtrak, LIRR, NJT
12. Penn Station New York to Trenton	Amtrak	Amtrak, NJT
13. Trenton to Morris	Amtrak	Amtrak, NJT, SEPTA
14. Morris to Holmes	Amtrak	Amtrak, SEPTA
15. Holmes to Shore	Amtrak	Amtrak, SEPTA
16. Shore to Girard	Amtrak	Amtrak, NJT, SEPTA
17. Girard to Philadelphia 30th Street	Amtrak	Amtrak, NJT
18. Philadelphia 30th Street to Arsenal	Amtrak	Amtrak
19. Arsenal to Marcus Hook	Amtrak	Amtrak, SEPTA
20. Marcus Hook to Bacon	Amtrak	Amtrak, SEPTA (on behalf of DelDOT)
21. Bacon to Perryville	Amtrak	Amtrak
22. Perryville to WAS	Amtrak	Amtrak, MARC
23. Washington Union Terminal	Amtrak	Amtrak, MARC, VRE
24. WAS to CP Virginia	Amtrak	Amtrak, VRE
25. Springfield to New Haven	Amtrak	Amtrak, CT <i>rail</i> Hartford Line
26. Poughkeepsie - Spuyten Duyvil (exempt from plan)	MNR	Amtrak, MNR
27. Spuyten Duyvil to Penn Station New York	Amtrak	Amtrak
28. Penn to 36th Street	Amtrak	Amtrak
29. 36th Street to Thorndale	Amtrak	Amtrak, SEPTA
30. Thorndale to Harrisburg	Amtrak	Amtrak
31. Amtrak System-wide	Amtrak	Amtrak

Appendix Figure A1-6. FY22 BCC-eligible capital renewal by segment

The following table shows each owner's planned BCC-eligible capital renewal expenditure by operator territory. Investments by BCC segment can be found in each regional summary and full details by BCC segment can be found at www.nec-commission.com.

BCC Segment	Owner	Amtrak BCCs	MBTA BCCs	Rhode Island DOT BCCs	Connecticut DOT BCCs			MTA Metro-North Railroad BCCs
					Shore Line East	Hartford Line	New Haven Line	
1	MBTA	\$7,221,545	\$16,102,396					
2	Amtrak	\$5,503,706	\$2,205,861					
3	Amtrak	\$3,535,080		\$3,244,374				
4	Amtrak	\$3,078,750						
5	Amtrak	\$11,504,957			\$4,083,840			
6	CTDOT	\$23,167,345			\$526,259	\$394,340	\$66,408,016	
7	Metro-North	\$2,767,684						\$13,335,834
8	Amtrak	\$1,519,920						
9	Amtrak	\$21,285,329						
10	Amtrak	\$2,325,872						
11	Amtrak	\$41,745,355						
12	Amtrak	\$2,681,000						
13	Amtrak	\$1,342,455						
14	Amtrak	\$6,113,553						
15	Amtrak	\$6,241,720						
16	Amtrak	\$21,350,744						
17	Amtrak	\$22,152,476						
18	Amtrak	\$1,508,487						
19	Amtrak	\$30,453,819						
20	Amtrak	\$15,819,719						
21	Amtrak	\$8,952,965						
22	Amtrak	\$62,563,814						
23	Amtrak	\$14,572,792						
24	Amtrak	\$483,286						
25	Amtrak	\$15,554,842				\$8,363,587		
27	Amtrak	\$8,652,091						
28	Amtrak	\$155,944						
29	Amtrak							
30	Amtrak	\$9,661,654						
31	Amtrak							
Total		\$351,916,905	\$18,308,257	\$3,244,374	\$4,610,098	\$8,757,927	\$66,408,016	\$13,335,834

Note: (1) Long Island Rail Road's obligation is subject to revision based on actual expenditures per Amtrak-LIRR agreement.

MTA Long Island Rail Road BCCs ¹	NJ TRANSIT BCCs	SEPTA BCCs	Delaware DOT BCCs	Maryland DOT BCCs	VRE BCCs	Other Capital Funds	BCC-eligible Total
							\$23,323,941
							\$7,709,567
							\$6,779,454
						\$5,973,702	\$9,052,452
							\$15,588,797
						\$32,004,041	\$122,500,000
						\$7,996,481	\$24,100,000
						\$2,992,099	\$4,512,019
							\$21,285,329
\$3,721,725							\$6,047,597
\$10,694,546							\$52,439,901
	\$96,722,407						\$99,403,407
	\$1,182,493						\$2,524,949
							\$6,113,553
							\$6,241,720
							\$21,350,744
							\$22,152,476
						\$248,733	\$1,757,220
		\$7,910,708					\$38,364,527
			\$3,301,919				\$19,121,638
						\$23,458,043	\$32,411,008
				\$17,722,640			\$80,286,454
							\$14,572,792
					\$1,084,131		\$1,567,418
							\$23,918,429
						\$13,935,783	\$22,587,874
						\$2,412,899	\$2,568,843
		\$26,559,424					\$26,559,424
						\$9,365,376	\$19,027,030
						\$74,785,924	\$74,785,924
\$14,416,271	\$97,904,900	\$34,470,132	\$3,301,919	\$17,722,640	\$1,084,131	\$173,173,082	\$808,654,487

B. FY22 Investment Summary by Region

The NEC Capital Program Delivery Reports monitor the implementation of the first year of the Capital Investment Plan as approved by the Commission. The reports serve two key purposes: (1) document how planned capital investments are progressing with respect to their approved scope, schedules, and budgets; and (2) document any plan adjustments (i.e., changes to approved scopes, schedules, and budgets and new, canceled, or indefinitely delayed investments) which stakeholders recognize may occur given the dynamic and complex nature of the corridor.

New England	A1-10
Connecticut-Westchester (NHL)	A1-16
New York City Metro	A1-18
Mid-Atlantic North	A1-24
Mid-Atlantic South	A1-30
Amtrak System-wide	A1-34



New England

Boston, MA to New Haven, CT
Springfield, MA to New Haven CT
BCC Segments 1-5, 25

Connecticut-Westchester (NHL)

New Haven, CT to New Rochelle, NY
BCC Segments 6-7

Mid-Atlantic North

Morrisville, PA to Bacon Interlocking in MD
Harrisburg, PA to Philadelphia, PA
BCC Segments 14-20, 28-30

New York City Metro

New Rochelle, NY to Morrisville, PA
BCC Segments 8-13, 27

Amtrak System-wide

All Amtrak-owned territory
BCC Segment 31

Mid-Atlantic South

Bacon Interlocking in MD to Washington, DC
BCC Segments 21-24

New England

The New England region includes the NEC main line spanning from Boston South Station to New Haven, CT and the branch line to Springfield, MA. This region includes train operations from Amtrak, MBTA, and CTrail. Amtrak owns and manages the right-of-way with BCC payments from MBTA, Rhode Island DOT, Connecticut DOT. Special projects in this region are coordinated by Amtrak, Connecticut DOT, MBTA, and Rhode Island DOT.



FY22 New England planned expenditures

			FY22 Planned Expenditure
Capital Renewal by BCC Segment	Owner	Operators	\$86,533,501
1: Boston South Station to MA/RI State Line	MBTA	Amtrak, MBTA	\$23,323,941
2: MA/RI State Line to Providence	Amtrak	Amtrak, MBTA	\$7,709,567
3: Providence to Wickford Junction	Amtrak	Amtrak, MBTA (on behalf of RIDOT)	\$6,779,454
4: Wickford Junction to New London	Amtrak	Amtrak	\$9,213,312
5: New London to New Haven	Amtrak	Amtrak, CTrail Shore Line East	\$15,588,797
25: Springfield to New Haven	Amtrak	Amtrak, CTrail Hartford Line	\$23,918,429
Special Projects by Project Sponsor			\$109,732,786
Amtrak			\$22,562,702
Connecticut River Bridge Replacement			\$8,204,410
Fitter Interlocking			\$12,652,452
Veltri Interlocking			\$1,705,840
Connecticut DOT			\$28,000,000
Enfield Station			\$2,000,000
North Haven Station			\$2,000,000
Shore Line East Track & Catenary Improvements (FY22)			\$4,000,000
Windsor Locks Station and Interlocking Improvements			\$20,000,000
Windsor Station Improvements			TBD
MBTA			\$31,070,084
Attleboro Line Track 3 OCS Installation			\$2,558,319
Back Bay Station: Platform Ventilation (Phases 1, 2, and 3)			\$4,000,000
Boston - Providence Capacity Study & Implementation: NEC & Fairmount Line			\$3,000,000
Boston South Station: Tower 1 Interlocking			\$13,111,765

	FY22 Planned Expenditure
Massachusetts Third Track: Readville to Canton	\$2,000,000
MBTA Pawtucket Layover Facility	\$3,000,000
Ruggles Street Station Accessibility Improvements: Phase 1	\$1,000,000
Ruggles Street Station Accessibility Improvements: Phase 2	\$400,000
South Attleboro Station Accessibility Improvements	\$2,000,000
Rhode Island DOT	\$28,100,000
Pawtucket/Central Falls Station	\$17,800,000
Providence Station Improvements	\$7,300,000
Warwick/T.F. Green Airport Station Expansion	\$3,000,000
Total	\$196,266,287

Major production program FY22 units
planned, New England

Unit Type	FY22 Planned Units
Linear feet of rail	43,734
Number of Ties	2,500
Number of Turnouts	6

New England Capital Renewal Summary by Segment

The tables that follow include capital renewal projects and programs with expenditures in each BCC segment in this region. Complete details on each project and program can be found in Appendix 2 on capital renewal of basic infrastructure or by BCC segment on www.nec-commission.com.

BCC Segment 1: Boston South Station to MA/RI State Line

Total FY22 Capital Renewal Planned Expenditure	\$23,323,941
BCC-eligible	\$23,323,941
Battery Bank Replacement Program	\$124,000
CWR Replacement Program	\$1,000,000
Gas Hot Air Switch Blower Program	\$50,000
Grade Crossing Replacement Program	\$1,000,000
Hawk Hot Box / Dragging Equipment Detector Upgrade Project	\$1,396,469
Insulated Joint Program	\$153,750
Insulated Joint Replacement Project	\$1,200,000
Interlocking Crossover Replacement Program	\$2,100,000
Interlocking Steel Replacement Program	\$370,800
Joint Elimination Program	\$276,000
M3 Switch Machine Program	\$205,000
Out Of Face Surfacing Program	\$2,306,250
Power and Express Cable Upgrade Project	\$171,514
Readville Material Control Warehouse Project	\$1,000,000
RoW Fence Upgrades Program	\$1,400,000
South Station Tie and Rail Replacement Project	\$2,726,887
Southampton Street and South Bay I/L Upgrades Project	\$1,657,129
Spot Surfacing Program	\$1,648,000
Spot Undercutting Program	\$309,000
Switch Heater Cabinet / Control Program	\$50,000
TAMS Upgrades Project: Various Stations	\$566,017
Tie/Timber Program	\$2,562,500
Tree Cutting Program	\$1,050,625

BCC Segment 2: MA/RI State Line to Providence

Total FY22 Capital Renewal Planned Expenditure	\$7,709,567
BCC-eligible	\$7,709,567
Fence Upgrades Program	\$1,653,390
New England Catenary Program	\$29,553
New England Communications Program	\$33,398
New England Facilities Program	\$317,803
New England Signals Program	\$217,335
New England Track Program	\$1,416,658
Rail Grinding Program	\$273,505
Rail Replacement Program	\$706,623
Turnout Renewal Program	\$3,061,304

BCC Segment 3: Providence to Wickford Junction

Total FY22 Capital Renewal Planned Expenditure	\$6,779,454
BCC-eligible	\$6,779,454
Fence Upgrades Program	\$3,572,336
New England Catenary Program	\$29,553
New England Communications Program	\$55,149
New England Signals Program	\$296,012
New England Substations Program	\$481,869
New England Track Program	\$1,037,348
Rail Grinding Program	\$246,154
Rail Replacement Program	\$1,061,033

BCC Segment 4: Wickford Junction to New London

Total FY22 Capital Renewal Planned Expenditure	\$9,213,312
BCC-eligible	\$9,052,452
Fence Upgrades Program	\$2,004,367
New England Catenary Program	\$99,385
New England Communications Program	\$343,404
New England Signals Program	\$1,321,495
New England Structures Program	\$303,348
New England Substations Program	\$199,992
New England Track Program	\$2,510,997
Pawcatuck River RI Bridge Replacement Project	\$531,546
Rail Grinding Program	\$601,711

Rail Replacement Program	\$1,136,209
Not BCC-eligible	\$160,860
Track Rehabilitation Program	\$160,860

BCC Segment 5: New London to New Haven

Total FY22 Capital Renewal Planned Expenditure	\$15,588,797
BCC-eligible	\$15,588,797
Cedar Hill - Remediation	\$536,200
Fence Upgrades Program	\$478,837
Guilford Interlocking Renewal	\$536,200
New England Catenary Program	\$352,207
New England Communications Program	\$892,828
New England Facilities Program	\$287,015
New England Signals Program	\$612,039
New England Structures Program	\$1,281,404
New England Substations Program	\$550,186
New England Track Program	\$1,572,957
Rail Grinding Program	\$683,763
Rail Replacement Program	\$1,843,261
Shaws Cove CT Swing Bridge Fender Replacement Project	\$4,300,059
Turnout Renewal Program	\$1,661,839

BCC Segment 25: Springfield to New Haven

Total FY22 Capital Renewal Planned Expenditure	\$23,918,429
BCC-eligible	\$23,918,429
Fence Upgrades Program	\$653,499
New England Facilities Program	\$359,846
New England Signals Program	\$1,199,844
New England Structures Program	\$8,506,022
New England Track Program	\$4,491,439
Production Wood Tie/Timber Replacement Program	\$4,360,779
Rail Grinding Program	\$738,464
Rail Replacement Program	\$1,538,115
Spring (Springfield, MA) Interlocking Renewal Project	\$2,070,420

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Connecticut-Westchester (New Haven Line)

The Connecticut-Westchester (New Haven Line) region includes the NEC main line spanning from New Haven, CT to New Rochelle, NY. This region includes train operations from Amtrak and MTA Metro-North Railroad. Connecticut DOT owns the right-of-way in Connecticut and Metro-North manages the right-of-way in New York with BCC payments from Amtrak, Connecticut DOT, and Metro-North. Special projects in this region are coordinated by Connecticut DOT.



Metro-North Railroad

FY22 Connecticut-Westchester (NHL) planned expenditures

			FY22 Planned Expenditure
Capital Renewal by BCC Segment	Owner	Operators	\$146,600,000
6: New Haven to CT/NY State Line	Connecticut DOT	Amtrak, Metro-North (on behalf of CTDOT)	\$122,500,000
7: CT/NY State Line to New Rochelle	Metro-North	Amtrak, Metro-North	\$24,100,000
Special Projects by Project Sponsor			\$274,200,000
Connecticut DOT			\$274,200,000
Devon Bridge Replacement			\$500,000
New Haven Line Signal System Replacement: Stratford to New Haven			\$500,000
New Haven Line Station Platform Replacement Program (New Haven, Darien)			\$20,000,000
New Haven Line Yard and Facility Program			\$10,000,000
New Haven Union Station Improvements			\$1,000,000
Saugatuck River Bridge Replacement			\$200,000
Stamford Station Improvements			\$20,000,000
Walk Bridge Program			\$222,000,000
Total			\$420,800,000

Major production program FY22 units planned, Connecticut-Westchester (NHL)

Unit Type	FY22 Planned Units
Linear feet of rail	TBD
Number of Ties	TBD
Number of Turnouts	TBD
Number of Catenary Poles	TBD

Connecticut-Westchester (NHL) Capital Renewal Summary by Segment

The tables that follow include capital renewal projects and programs with expenditures in each BCC segment in this region. Complete details on each project and program can be found in Appendix 2 on capital renewal of basic infrastructure or by BCC segment on www.nec-commission.com.

BCC Segment 6: New Haven to CT/NY State Line

Total FY22 Capital Renewal Planned Expenditure	\$122,500,000
BCC-eligible	\$122,500,000
Atlantic Street Bridge Project	\$15,000,000
Auto-Tension Catenary Replacement Project	\$4,000,000
Bridge Design Program	\$2,500,000
East Ave, Osbourne, and Fort Point Bridges Replacement Project	\$10,000,000
Moveable Bridges Repair Program	\$8,000,000
Network Infrastructure Upgrade Project	\$10,000,000
Positive Train Control Program	\$12,000,000
Power Program	\$1,000,000
Signal System Replacement Program	\$15,000,000
Stamford Elevator and Escalator Replacement Project	\$5,000,000
Structures (S) Program	\$2,000,000
Substation Repairs/Improvements	\$4,000,000
TIME for CT Program	\$15,000,000
Track (C) Program	\$19,000,000

BCC Segment 7: CT/NY State Line to New Rochelle

Total FY22 Capital Renewal Planned Expenditure	\$24,100,000
BCC-eligible	\$24,100,000
Comms & Signal Program	\$500,000
Overhead Bridge Rehabilitation Program	\$500,000
Retaining Wall Reconstruction	\$800,000
Structures Program	\$100,000
Substation 128 and 178 Replacement	\$6,500,000
Systemwide Support Programs	\$450,000
Track Programs	\$2,250,000
Undergrade Bridge Rehabilitation Program	\$13,000,000

New York City Metro

The New York City Metro region includes the NEC main line spanning from New Rochelle, NY to Morris Interlocking near Trenton, NJ. This region includes train operations from Amtrak, MTA Long Island Rail Road, NJ TRANSIT, and SEPTA. Amtrak owns and manages the right-of-way with BCC payments from Amtrak, LIRR, and NJ TRANSIT BCCs. Special projects in this region are coordinated by Amtrak, MTA Metro-North Railroad, MTA, and NJ TRANSIT.



Metro-North Railroad



Long Island Rail Road

NJ TRANSIT
The Way To Go.



FY22 New York City Metro planned expenditures

			FY22 Planned Expenditure
Capital Renewal by BCC Segment	Owner	Operators	\$232,504,023
8: New Rochelle to Harold	Amtrak	Amtrak	\$4,512,019
9: Harold to F Interlocking	Amtrak	Amtrak, MTA Long Island Rail Road	\$32,613,761
10: F Interlocking to Penn Station New York	Amtrak	Amtrak, MTA Long Island Rail Road, NJ TRANSIT	\$6,047,597
11: Penn Terminal	Amtrak	Amtrak, MTA Long Island Rail Road, NJ TRANSIT	\$62,718,472
12: Penn Station New York to Trenton	Amtrak	Amtrak, NJ TRANSIT	\$101,499,345
13: Trenton to Morris	Amtrak	Amtrak, NJ TRANSIT, SEPTA	\$2,524,949
27: Spuyten Duyvil to Penn Station New York	Amtrak	Amtrak	\$22,587,874
Special Projects by Project Sponsor			\$1,146,302,267
Amtrak¹			\$131,636,185
East River Tunnel Rehabilitation: Enabling Components			\$1,647,019
East River Tunnel Rehabilitation: Tunnel Proper			\$5,029,686
Gateway: Dock Bridge Rehabilitation			\$1,030,656
Gateway: Harrison Fourth Track			\$1,427,900
Gateway: Hudson Tunnel Project			\$20,423,220
Gateway: Sawtooth Bridges Replacement			\$12,890,000
Newark Penn Station: Platform Rehabilitation (A, B, C)			\$700,000
Next Generation High Speed Fleet Infrastructure: Sunnyside Yard Facility Improvements			\$69,850,000
Pelham Bay Bridge Replacement			\$637,704

	FY22 Planned Expenditure
MTA¹	\$861,222,900
Gateway: New York Penn Station Expansion	\$20,000,000
Harold Interlocking	\$164,000,000
New York Penn Station: LIRR Concourse: Reconstruction (Near-Term)	\$250,000,000
New York Penn Station: Master Plan: Reconstruction	\$5,000,000
New York Penn Station: Platforms 7 & 8 Refurbishment	\$15,222,900
Penn Station Access	\$400,000,000
River-to-River Rail (R4) Resiliency Projects	\$25,000,000
NJ TRANSIT	\$153,443,182
Delco Lead	TBD
Elizabeth Station Improvements	TBD
Gateway: NJ TRANSIT Gateway Storage Yard	TBD
Gateway: Portal North Bridge	\$150,000,000
Hunter Flyover	TBD
New York Penn Station: NJ TRANSIT Near-Term Improvements	\$1,500,000
Newark Penn Station: Platform D and Station Rehabilitation	TBD
Newark Penn Station: State of Good Repair Program (Phase 1)	TBD
NJ TRANSITGRID	TBD
Trenton Transit Center: State of Good Repair Program	\$1,943,182
Total	\$1,378,806,285

Major production program FY22 units planned, New York City Metro

Unit Type	FY22 Planned Units
Linear feet of rail	20,810
Number of Ties	4,853
Number of Turnouts	250
Number of Catenary Poles	12

Notes: (1) The FY22 Planned Expenditure for the Gateway: New York Penn Station Expansion special project of \$20M is based on an MTA planned expenditure of \$2M and an Amtrak planned expenditure of \$18M. Each agency's individual expenditure has been included in their respective FY22 planned expenditure total.

New York City Metro Capital Renewal Summary by Segment

The tables that follow include capital renewal projects and programs with expenditures in each BCC segment in this region. Complete details on each project and program can be found in Appendix 2 on capital renewal of basic infrastructure or by BCC segment on www.nec-commission.com.

BCC Segment 8: New Rochelle to Harold

Total FY22 Capital Renewal Planned Expenditure	\$4,512,019
BCC-eligible	\$4,512,019
Fence Upgrades Program	\$1,296,017
Hellgate Substation 45-47 Upgrade Project	\$1,136,589
New York Catenary Program	\$300,676
New York Structures Program	\$195,775
New York Track Program	\$1,582,962

BCC Segment 9: Harold to F Interlocking

Total FY22 Capital Renewal Planned Expenditure	\$32,613,761
BCC-eligible	\$21,285,329
New York Signals Program	\$294,359
New York Substations Program	\$300,849
New York Track Program	\$4,536,162
Q Interlocking C&S Equipment Replacement Project	\$6,577,634
Sunnyside Yard - Oil/PCB Remediation	\$53,620
Sunnyside Yard - Service Platform Upgrades	\$1,072,402
Sunnyside Yard Frequency Converter Upgrade Project	\$8,450,303
Not BCC-eligible	\$11,328,433
New York Facilities Program	\$249,907
Sunnyside Yard - Service Platform Upgrades	\$1,825,225
Sunnyside Yard S4 Substation Relocation/Upgrades Project	\$2,524,463
Sunnyside Yard Watermain Upgrades	\$6,728,838

BCC Segment 10: F Interlocking to Penn Station New York

Total FY22 Capital Renewal Planned Expenditure	\$6,047,597
BCC-eligible	\$6,047,597
1st Avenue Ventilation Fan Attenuator Upgrade	\$501,620
Communications System Upgrades Program	\$257,138
East River Tunnels Rail/Tie Replacement Lines 3/4	\$268,100
New York Signals Program	\$685,041
New York Structures Program	\$1,292,577
New York Track Program	\$2,687,565
Rail Grinding Program	\$355,556

BCC Segment 11: Penn Terminal

Total FY22 Capital Renewal Planned Expenditure	\$62,718,472
BCC-eligible	\$52,439,901
Communications System Upgrades Program	\$26,811
FDNY Tunnel Radio System Upgrades	\$268,866
New York Facilities Program	\$748,331
New York Structures Program	\$34,310
New York Substations Program	\$2,515,475
NYP Elevator C2 & P4 Modernization	\$2,159,875
NYP to Moynihan Station Wayfinding Upgrades	\$211,829
Penn Station New York Escalator Replacement	\$3,432,216
Penn Station NY - Infrastructure Renewal	\$38,297,954
Penn Station NY Scada Phase II	\$934,109
Penn Station NY Sectionalizing Project	\$592,925
Penn Station, NY - Track Remediation	\$3,217,200
Not BCC-eligible	\$10,278,571
New York Penn Station Customer Now Station Refresh Program	\$2,479,389
NYP Crew Base Renovation	\$1,268,418
NYP Departure Concourse Renovation	\$1,815,268
NYP North Concourse & Retail Renovation	\$2,967,421
NYP South Concourse & BOH Renovation	\$1,253,395
NYP West Reconfiguration FY22	\$494,681

BCC Segment 12: Penn Station New York to Trenton

Total FY22 Capital Renewal Planned Expenditure	\$101,499,345
BCC-eligible	\$99,403,407
AEI Tag Reader Wayside Defect Detection	\$318,347
Amtrak NEC Nortrak Operating Rods Replacement Project	\$624,450
Clark to Ham Constant Tension Upgrade Project	\$22,345,882
Fair Interlocking Renewal Project	\$1,167,874
Fence Upgrades Program	\$2,767,756
Ham Interlocking Renewal Project	\$6,368,543
Kearny Sub 41 Relocation Design and Construction	\$3,327,296
Kearny to Waverly Transmission Tower Upgrade Project	\$4,672,684
New Hackensack Substation 42 Control House Project	\$5,846,047
New York Catenary Program	\$656,736
New York Facilities Program	\$809,266
New York Signals Program	\$1,501,361
New York Structures Program	\$3,676,950
New York Substations Program	\$3,534,600
New York Track Program	\$16,526,148
Newark Penn Station PCB Remediation	\$375,340
Production High Speed Surfacing Program	\$4,806,012
Production Wood Tie/Timber Replacement Program	\$2,590,257
Rail Grinding Program	\$1,119,761
Rail Replacement Program	\$750,680
Signal System Upgrade to 562 - County To Elmora Project	\$4,528,737
Trenton NJ, - Commuter Yard remediation	\$2,681,000
Turnout Renewal Program	\$8,407,680
Not BCC-eligible	\$2,095,938
New Brunswick, NJ - Commuter Yard Remediation	\$1,179,640
New York Structures Program	\$195,775
Track Rehabilitation Program	\$720,523

BCC Segment 13: Trenton to Morris

Total FY22 Capital Renewal Planned Expenditure	\$2,524,949
BCC-eligible	\$2,524,949
New York Catenary Program	\$417,111
New York Track Program	\$928,566
Production High Speed Surfacing Program	\$83,575
Rail Grinding Program	\$164,103
Washington Ave. Bridge Replacement Project	\$931,593

BCC Segment 27: Spuyten Duyvil to Penn Station New York

Total FY22 Capital Renewal Planned Expenditure	\$22,587,874
BCC-eligible	\$22,587,874
Empire Line Lighting Upgrade Project	\$15,711,443
New York Signals Program	\$323,854
New York Structures Program	\$621,539
New York Track Program	\$172,980
Spuyten Duyvil Fenders System Upgrades Project	\$5,758,058

Mid-Atlantic North

The Mid-Atlantic North region includes the NEC main line spanning from Bacon Interlocking to Morris Interlocking and the connecting corridor from Harrisburg to Philadelphia.

This region includes train operations from SEPTA, NJ TRANSIT, and Amtrak. Amtrak owns and manages the right-of-way with BCC payments from DelDOT, SEPTA, NJ TRANSIT, and Amtrak. Special projects in this region are coordinated by DelDOT, PennDOT, SEPTA, and Amtrak.



FY22 Mid-Atlantic North planned expenditures

			FY22 Planned Expenditure
Capital Renewal by BCC Segment	Owner	Operators	\$174,515,207
14: Morris to Holmes	Amtrak	Amtrak, SEPTA	\$6,113,553
15: Holmes to Shore	Amtrak	Amtrak, SEPTA	\$6,241,720
16: Shore to Girard	Amtrak	Amtrak, NJ TRANSIT, SEPTA	\$21,350,744
17: Girard to Philadelphia 30th Street	Amtrak	Amtrak, NJ TRANSIT	\$22,926,640
18: Philadelphia 30th Street to Arsenal	Amtrak	Amtrak	\$1,757,220
19: Arsenal to Marcus Hook	Amtrak	Amtrak, SEPTA	\$39,402,498
20: Marcus Hook to Bacon	Amtrak	Amtrak, SEPTA (on behalf of DelDOT)	\$28,567,536
28: Philadelphia 30th Street to 36th Street	Amtrak	Amtrak	\$2,568,843
29: 36th Street to Thorndale	Amtrak	Amtrak, SEPTA	\$26,559,424
30: Thorndale to Harrisburg	Amtrak	Amtrak	\$19,027,030
Special Projects by Project Sponsor			\$124,853,279
Amtrak			\$24,273,104
Harrisburg Line Automatic Block System: Park to Paoli			\$814,999
Philadelphia 30th Street Station District Plan Implementation			\$23,458,105
SEPTA			\$30,814,175
30th Street West Catenary Replacement			\$1,360,000
Ardmore Transportation Center: Phase 1 ADA Improvements			\$5,089,000
Frazer Rail Shop and Yard Upgrade			\$2,039,000
Harrisburg Line Signal Upgrade: Paoli to Overbrook			\$675,000

	FY22 Planned Expenditure
Harrisburg Line Track 2 Upgrade: Glen to Thorn (MP 25.3 to 35.0)	\$12,425,175
Southwest Connection Improvement Project	\$9,226,000
Pennsylvania DOT	\$15,766,000
Coatesville Station Improvements	\$8,436,000
Downingtown Station Improvements	\$1,800,000
Harrisburg Line Interlocking Improvements: Zoo	\$3,200,000
Lancaster Station Improvements	\$2,000,000
Middletown Station Improvements	TBD
Parkesburg Station Improvements	\$330,000
Delaware DOT	\$54,000,000
Claymont Regional Transportation Center	\$22,000,000
Newark (DE) Regional Transportation Center	\$32,000,000
Total	\$299,368,486

Major production program FY22 units
planned, Mid-Atlantic North

Unit Type	FY22 Planned Units
Linear feet of rail	16,243
Number of Ties	2,970
Number of Turnouts	37
Number of Catenary Poles	2

Mid-Atlantic North Capital Renewal Summary by Segment

The tables that follow include capital renewal projects and programs with expenditures in each BCC segment in this region. Complete details on each project and program can be found in Appendix 2 on capital renewal of basic infrastructure or by BCC segment on www.nec-commission.com.

BCC Segment 14: Morris to Holmes

Total FY22 Capital Renewal Planned Expenditure	\$6,113,553
BCC-eligible	\$6,113,553
New York Signals Program	\$387,386
New York Structures Program	\$311,217
New York Substations Program	\$1,325,383
New York Track Program	\$1,528,027
Production High Speed Surfacing Program	\$487,063
Rail Grinding Program	\$273,505
Turnout Renewal Program	\$1,800,971

BCC Segment 15: Holmes to Shore

Total FY22 Capital Renewal Planned Expenditure	\$6,241,720
BCC-eligible	\$6,241,720
Mid-Atlantic North Catenary Program	\$3,753,402
Mid-Atlantic North Track Program	\$1,943,005
Production High Speed Surfacing Program	\$299,158
Rail Grinding Program	\$246,154

BCC Segment 16: Shore to Girard

Total FY22 Capital Renewal Planned Expenditure	\$21,350,744
BCC-eligible	\$21,350,744
Mid-Atlantic North Catenary Program	\$1,447,740
Mid-Atlantic North Substations Program	\$3,954,360
Mid-Atlantic North Track Program	\$1,839,711
Rail Grinding Program	\$136,752
Turnout Renewal Program	\$13,972,181

BCC Segment 17: Girard to Philadelphia 30th Street

Total FY22 Capital Renewal Planned Expenditure	\$22,926,640
BCC-eligible	\$22,152,476
30th Street Station - Platform Area PCB Remediation	\$911,540
30th Street Station - UPS Replacement	\$761,402
AEI Tag Reader Wayside Defect Detection	\$318,347
CETC 30th Street Station HVAC Upgrades FY22	\$504,028
Mid-Atlantic North Track Program	\$2,243,941
Penn Coach Yard High Mast Lighting Project	\$168,726
Penn Coach Yard Paving Improvements Project	\$3,244,339
Penn Coach Yard Water Main Replacement Project	\$3,182,664
Production High Speed Surfacing Program	\$466,858
Total Track Renewal Program	\$10,350,630
Not BCC-eligible	\$774,163
30th Street Station Facade Restoration Project	\$14,136
Mid-Atlantic North Catenary Program	\$321,721
Mid-Atlantic North Structures Program	\$10,724
Mid-Atlantic North Track Program	\$427,582

BCC Segment 18: Philadelphia 30th Street to Arsenal

Total FY22 Capital Renewal Planned Expenditure	\$1,757,220
BCC-eligible	\$1,757,220
Mid-Atlantic North Signals Program	\$15,220
Mid-Atlantic North Track Program	\$1,496,285
Production High Speed Surfacing Program	\$245,715

BCC Segment 19: Arsenal to Marcus Hook

Total FY22 Capital Renewal Planned Expenditure	\$39,402,498
BCC-eligible	\$38,364,527
Amtrak System - Ride Quality Improvement Program	\$14,397,116
ET Linear Assets Research and Development Program	\$50,026
Mid-Atlantic North Catenary Program	\$965,160
Mid-Atlantic North Signals Program	\$25,948
Mid-Atlantic North Structures Program	\$2,252,028
Mid-Atlantic North Substations Program	\$8,160,666

Mid-Atlantic North Track Program	\$5,736,072
Turnout Renewal Program	\$6,777,510
Not BCC-eligible	\$1,037,972
Sellers Avenue Bridge Reconstruction	\$1,037,972

BCC Segment 20: Marcus Hook to Bacon

Total FY22 Capital Renewal Planned Expenditure	\$28,567,536
BCC-eligible	\$19,121,638
AEI Tag Reader Wayside Defect Detection	\$318,347
Mid-Atlantic North Catenary Program	\$214,480
Mid-Atlantic North Signals Program	\$321,718
Mid-Atlantic North Substations Program	\$723,873
Mid-Atlantic North Track Program	\$3,855,158
Mid-Atlantic South Signals Program	\$128,401
Mid-Atlantic South Structures Program	\$732,971
Mid-Atlantic South Substations Program	\$283,559
Mid-Atlantic South Track Program	\$5,183,005
Production High Speed Surfacing Program	\$3,601,974
Production Wood Tie/Timber Replacement Program	\$275,287
Rail Grinding Program	\$273,505
Rail Replacement Program	\$2,136,961
Wilmington DE Customer Now Station Refresh Program FY22	\$321,720
Wilmington DE Platform Lighting Upgrades FY22	\$375,340
Wilmington Maintenance Facility Stormwater Upgrades	\$375,340
Not BCC-eligible	\$9,445,897
Mid-Atlantic North Facilities Program	\$995,635
Mid-Atlantic North Track Program	\$779,126
Track Rehabilitation Program	\$3,631,413
Wilmington High Speed Rail Training Center Roof Upgrades	\$53,621
Wilmington Training Center Parking Access Improvements Project	\$1,117,372
Wilmington, DE - MOFE Facility PCB/O Remediation	\$2,600,629
Wilmington, DE - West Yard Remediation	\$268,100

BCC Segment 28: Philadelphia 30th Street to 36th St

Total FY22 Capital Renewal Planned Expenditure	\$2,568,843
BCC-eligible	\$2,568,843
Turnout Renewal Program	\$2,568,843

BCC Segment 29: 36th St to Thorndale

Total FY22 Capital Renewal Planned Expenditure	\$26,559,424
BCC-eligible	\$26,559,424
Mid-Atlantic North Catenary Program	\$2,216,650
Mid-Atlantic North Facilities Program	\$482,579
Mid-Atlantic North Signals Program	\$536,203
Mid-Atlantic North Substations Program	\$908,636
Mid-Atlantic North Track Program	\$4,947,385
Production High Speed Surfacing Program	\$3,246,219
Production Wood Tie/Timber Replacement Program	\$128,643
Rail Grinding Program	\$574,360
Turnout Renewal Program	\$12,099,601
Zoo to Paoli Catenary Structure Upgrade Project	\$1,419,148

BCC Segment 30: Thorndale to Harrisburg

Total FY22 Capital Renewal Planned Expenditure	\$19,027,030
BCC-eligible	\$19,027,030
Amtrak NEC Nortrak Operating Rods Replacement Project	\$150,047
Conestoga Substation Improvements Project	\$2,134,669
Conestoga to Royalton Transmission Line Replacement Project	\$2,726,569
Fence Upgrades Program	\$2,195,308
Mid-Atlantic North Facilities Program	\$268,096
Mid-Atlantic North Signals Program	\$628,172
Mid-Atlantic North Track Program	\$3,874,596
Production High Speed Surfacing Program	\$339,696
Production Wood Tie/Timber Replacement Program	\$6,299,620
Rail Grinding Program	\$410,257

Mid-Atlantic South

The Mid-Atlantic South region includes the NEC main line spanning from Bacon Interlocking in Maryland through Washington, DC.

This region includes train operations from MARC, VRE, and Amtrak. Amtrak owns and manages the right-of-way with BCC payments from Maryland DOT, VRE, and Amtrak. Special projects in this region are coordinated by Maryland DOT, VRE, and Amtrak.



FY22 Mid-Atlantic South planned expenditures

			FY22 Planned Expenditure
Capital Renewal by BCC Segment	Owner	Operators	\$146,337,300
21: Bacon to Perryville	Amtrak	Amtrak	\$32,411,008
22: Perryville to Washington Union Station	Amtrak	Amtrak, MARC	\$89,252,801
23: Washington Union Terminal	Amtrak	Amtrak, MARC, VRE	\$23,106,073
24: Washington Union Station to CP Virginia	Amtrak	Amtrak, VRE	\$1,567,418
Special Projects by Project Sponsor			\$237,740,150
Amtrak			\$192,366,302
B&P Tunnel Replacement Program: Construction - Approaches			\$5,010,000
B&P Tunnel Replacement Program: Construction - Track A Winans to Bridge			\$68,039
B&P Tunnel Replacement Program: Construction - Tunnel			\$100,000
B&P Tunnel Replacement Program: Planning, Program Management, Design			\$26,560,193
B&P Tunnel Replacement Program: Property Acquisition			\$15,000,000
B&P Tunnel Replacement Program: Wilkens			\$10,000
Baltimore Penn Station: Infrastructure Improvements			\$46,461,007
Baltimore Penn Station: Master Plan			\$18,419,302
Hanson Interlocking			\$10,627,363
New Carrollton Station: Next-Generation Acela Upgrades			\$1,714,680
New Carrollton Station: State of Good Repair Improvements			\$750,000
Susquehanna River Bridge Replacement: Phase 1			\$11,500,003
Washington Union Station: Claytor Concourse Modernization Program			\$8,680,895
Washington Union Station: Long Term Station Expansion			\$11,865,578
Washington Union Station: Near Term Rail Program			\$5,789,535
Washington Union Station: Subbasement Program			\$29,809,707

	FY22 Planned Expenditure
Maryland DOT	\$44,873,848
MARC Martin's Yard: Power-Operated Switch and High-Speed Crossover	\$763,553
MARC Martin's Yard: Storage Improvements	\$6,944,000
Penn-Camden Connector	\$591,195
Riverside Yard Heavy Maintenance Building	\$36,575,100
VRE	\$500,000
VRE Midday Storage Facility	\$500,000
Total	\$384,077,449

Major production program FY22 units
planned, Mid-Atlantic South

Unit Type	FY22 Planned Units
Linear feet of rail	174,498
Number of Ties	2,060
Number of Turnouts	20
Number of Catenary Poles	6

Mid-Atlantic South Capital Renewal Summary by Segment

The tables that follow include capital renewal projects and programs with expenditures in each BCC segment in this region. Complete details on each project and program can be found in Appendix 2 on capital renewal of basic infrastructure or by BCC segment on www.nec-commission.com.

BCC Segment 21: Bacon to Perryville

Total FY22 Capital Renewal Planned Expenditure	\$32,411,008
BCC-eligible	\$32,411,008
AEI Tag Reader Wayside Defect Detection	\$318,348
Mid-Atlantic South Catenary Program	\$1,789,137
Mid-Atlantic South Structures Program	\$1,580,945
Mid-Atlantic South Track Program	\$1,662,718
Rail Grinding Program	\$164,103
TLS Concrete Tie Replacement Program	\$15,808,505
Track Undercutting Program	\$11,087,252

BCC Segment 22: Perryville to Washington Union Station

Total FY22 Capital Renewal Planned Expenditure	\$89,252,801
BCC-eligible	\$80,286,454
Amtrak NEC Nortrak Operating Rods Replacement Project	\$112,536
Fence Upgrades Program	\$116,235
Gunpow Substation 18 New Prefabricated Control House	\$719,516
Ivy City Yard - Remediation	\$107,240
Jericho Park Frequency Converter Replacement	\$1,486,249
Mid-Atlantic South Catenary Program	\$2,753,632
Mid-Atlantic South Facilities Program	\$160,860
Mid-Atlantic South Signal System Upgrades to 562 Project	\$8,225,308
Mid-Atlantic South Signals Program	\$874,022
Mid-Atlantic South Structures Program	\$4,727,370
Mid-Atlantic South Substations Program	\$1,281,009
Mid-Atlantic South Track Program	\$11,412,437
Production High Speed Surfacing Program	\$697,357
Production Wood Tie/Timber Replacement Program	\$314,355
Rail Grinding Program	\$410,257
Rail Replacement Program	\$2,886,297

TLS Concrete Tie Replacement Program	\$21,153,108
Track Undercutting Program	\$8,318,569
Turnout Renewal Program	\$14,530,098
Not BCC-eligible	\$8,966,347
Ivy City Potable Water System Replacement Project	\$8,885,917
Mid-Atlantic South Facilities Program	\$80,430

BCC Segment 23: Washington Union Terminal

Total FY22 Capital Renewal Planned Expenditure	\$23,106,073
BCC-eligible	\$14,572,792
Mid-Atlantic South Catenary Program	\$448,231
Mid-Atlantic South Structures Program	\$75,595
Mid-Atlantic South Substations Program	\$85,171
Mid-Atlantic South Track Program	\$5,649,417
Production Wood Tie/Timber Replacement Program	\$1,091,929
Turnout Renewal Program	\$6,686,249
Washington Union Station Hi-Level Platform Refresh	\$375,340
Washington Union Station Platform Emergency Lighting (Design and Construction)	\$160,860
Not BCC-eligible	\$8,533,281
Mid-Atlantic South Facilities Program	\$3,678,159
WAS DC Handrail and Stair Improvements	\$321,720
Washington Terminal & Ivy City Facility Electrical Upgrades Project	\$2,999,870
Washington Union Station Platform 16/17 Refresh	\$1,533,532

BCC Segment 24: Washington Union Station to CP Virginia

Total FY22 Capital Renewal Planned Expenditure	\$1,567,418
BCC-eligible	\$1,567,418
Mid-Atlantic South Structures Program	\$96,788
Turnout Renewal Program	\$1,470,629

Amtrak System-wide

The Amtrak System-wide region includes all non-geographic specific investments, such as corridor-wide systems, as well as capital renewal investments that cannot be broken into individual BCC Segments.

This region includes Amtrak System-wide capital renewal and special projects completed by Amtrak.



FY22 Amtrak System-wide planned expenditures

			FY22 Planned Expenditure
Capital Renewal by BCC Segment	Owner	Operators	\$272,950,562
31: Amtrak System-wide	Amtrak	All NEC Operators	\$272,950,562
Special Projects by Project Sponsor			\$32,277,189
Amtrak			\$32,277,189
Next Generation High Speed Fleet Infrastructure: Ride Quality Investment			\$4,532,635
Next Generation High Speed Fleet Infrastructure: Safety Mitigation			\$27,744,554
Total			\$305,227,751

Amtrak System-wide Capital Renewal Summary by Segment

The tables that follow include capital renewal projects and programs with expenditures in each BCC segment in this region. Complete details on each project and program can be found in Appendix 2 on capital renewal of basic infrastructure or by BCC segment on www.nec-commission.com.

BCC Segment 31: Amtrak System-wide

Total FY22 Capital Renewal Planned Expenditure	\$272,950,562
BCC-eligible	\$74,785,924
AEI Tag Reader Wayside Defect Detection	\$128,687
Amtrak NEC Nortrak Operating Rods Replacement Project	\$90,175
Amtrak Owned Positive Train CTRL (PTC) Installation Program	\$11,583,600
Amtrak System - Ride Quality Improvement Program	\$1,253,119
Brill to Landlith OCS Improvements Project	\$5,275,066
Communications System Upgrades Program	\$6,926,869
Electric Traction System Aerial System Assessment Project	\$2,429,828
Engineering Advanced Technology Track Inspection Program	\$1,327,030
Engineering Asset Management System	\$3,753,398
Engineering Capital Program/Project Management	\$15,003,128
ET Linear Assets Research and Development Program	\$3,410,234
Fence Upgrades Program	\$106,124
High Speed Adjacent Track Signage	\$1,431,701
Mid-Atlantic North Catenary Program	\$139,414
Mid-Atlantic North Facilities Program	\$85,794
Mid-Atlantic North Signals Program	\$85,794
Mid-Atlantic North Structures Program	\$85,794
Mid-Atlantic North Substations Program	\$193,034
Mid-Atlantic North Track Program	\$213,085
Mid-Atlantic South Catenary Program	\$64,346
Mid-Atlantic South Facilities Program	\$94,013
Mid-Atlantic South Signal System Upgrades to 562 Project	\$195,177
Mid-Atlantic South Signals Program	\$100,111
Mid-Atlantic South Structures Program	\$63,932
Mid-Atlantic South Substations Program	\$59,476
Mid-Atlantic South Track Program	\$1,163,189
New England Catenary Program	\$57,948
New England Communications Program	\$51,501

New England Facilities Program	\$77,329
New England Signals Program	\$38,190
New England Structures Program	\$77,058
New England Substations Program	\$51,501
New England Track Program	\$77,329
New York Catenary Program	\$28,233
New York Facilities Program	\$38,113
New York Signals Program	\$346,082
New York Structures Program	\$62,828
New York Substations Program	\$71,198
New York Track Program	\$2,298,882
Penn Coach Yard/Ivy City Track Pan Upgrades	\$280,969
Production High Speed Surfacing Program	\$2,386,209
Production Wood Tie/Timber Replacement Program	\$471,857
Radio Infrastructure Upgrades Project	\$2,161,657
Rail Grinding Program	\$117,966
Rail Replacement Program	\$139,412
Stations Systemwide Escalator Safety Initiative - PM	\$407,587
TLS Concrete Tie Replacement Program	\$4,894,645
Total Track Renewal Program	\$48,257
Track Undercutting Program	\$3,742,355
Turnout Renewal Program	\$846,021
UV Sanitization - Elevator Cab	\$750,680
Not BCC-eligible	\$198,164,637
ACELA 21 Electric Traction Load Flow Study	\$65,782
Engineering Equipment Acquisition Program	\$22,843,213
Engineering Equipment Heavy Overhaul Program	\$9,651,602
Engineering Major Equipment Acquisition	\$155,101,776
Engineering Vehicle Acquisition Program	\$4,364,058
NEC Trip Time Reduction	\$1,804,491
Rolling Stock Heavy Overhaul Program	\$2,669,794
Stations and Facilities Signage	\$1,444,078
Track Rehabilitation Program	\$112,603
Turnout Renewal Program	\$107,240

Appendix 2:

Capital Renewal of Basic Infrastructure

A. FY22-26 Capital Renewal Summaries by Owner

Right-of-way owners submit five-year capital renewal plans for their territories. The tables below include summary information on owners' five-year plans including investment levels by year by discipline. Additional details on specific investments and fiscal year details (if available) can be found in B. Capital Renewal Investment Details by Owner.

MBTA FY22-26 capital renewal plan summary (\$M)

	FY22	FY23	FY24	FY25	FY26	FY22-26 Total
MBTA-owned territory						
Communication & Signals	\$4.2	\$24.3	\$25.1	\$16.7	\$13.9	\$84.2
Electric Traction	\$0	\$0	\$0	\$0	\$0	\$0
Structures & Facilities	\$2.4	\$20.3	\$21.0	\$14.0	\$11.6	\$69.3
Track	\$16.7	\$28.2	\$29.1	\$19.4	\$16.1	\$109.5
Other	\$0	\$0	\$0	\$0	\$0	\$0
Total	\$23.3	\$72.8	\$75.2	\$50.1	\$41.6	\$263.0

Notes: Table shows MBTA submitted data for FY22, and C35 projections for FY23-26.

Connecticut DOT FY22-26 capital renewal plan summary (\$M)

	FY22	FY23	FY24	FY25	FY26	FY22-26 Total
Connecticut DOT-owned territory						
Communication & Signals	\$25.0	\$30.0	\$26.0	\$25.0	\$25.0	\$131.0
Electric Traction	\$9.0	\$9.5	\$7.5	\$5.5	\$2.5	\$34.0
Structures & Facilities	\$42.5	\$77.5	\$84.5	\$48.5	\$35.5	\$288.5
Track	\$34.0	\$27.0	\$23.0	\$17.0	\$12.0	\$113.0
Other	\$12.0	\$12.0	\$3.0	\$-	\$-	\$27.0
Total	\$122.5	\$156.0	\$144.0	\$96.0	\$75.0	\$593.5

Notes: Data submitted by Connecticut DOT for FY22-26.

Metro-North FY22-26 capital renewal plan summary (\$M)

	FY22	FY23	FY24	FY25	FY26	FY22-26 Total
Metro-North-owned territory						
Communication & Signals	\$0.5	\$0.5	\$0.5	\$0.5	\$0.5	\$2.5
Electric Traction	\$6.5	\$16.5	\$16.5	\$1.3	\$2.3	\$43.0
Structures & Facilities	\$13.6	\$2.1	\$0.9	\$2.1	\$5.1	\$23.8
Track	\$3.1	\$2.3	\$2.3	\$1.0	\$2.5	\$11.1
Other	\$0.4	\$0.5	\$0.5	\$0.5	\$0.5	\$2.3
Total	\$24.1	\$21.8	\$20.6	\$5.4	\$10.9	\$82.7

Notes: Data submitted by Metro-North for FY22-26.

Amtrak FY22-26 capital renewal plan summary (\$M)

	FY22	FY23-26	Totals
New England	\$62.7	\$2,226.1	\$2,288.8
Communications and Signals	\$5.0	\$248.7	\$253.7
Electric Traction	\$1.7	\$854.3	\$856.0
Structures	\$15.9	\$906.8	\$922.7
Track	\$40.1	\$216.3	\$256.4
New York City Metro	\$207.5	\$890.0	\$1,097.5
Communications and Signals	\$10.9	\$103.3	\$114.2
Electric Traction	\$56.6	\$320.3	\$376.9
Structures	\$44.4	\$435.5	\$479.9
Track	\$95.6	\$30.9	\$126.5
Mid-Atlantic North	\$168.3	\$3,515.3	\$3,683.6
Communications and Signals	\$2.8	\$405.5	\$408.3
Electric Traction	\$31.6	\$1,345.9	\$1,377.5
Structures	\$12.8	\$1,471.8	\$1,484.6
Track	\$121.1	\$292.1	\$413.2
Mid-Atlantic South	\$143.9	\$1,827.2	\$1,971.1
Communications and Signals	\$9.5	\$195.5	\$205.0
Electric Traction	\$8.6	\$668.2	\$676.8
Structures	\$22.3	\$839.3	\$861.6
Track	\$103.5	\$124.2	\$227.7
Amtrak System-wide	\$38.4	\$176.7	\$215.1
Communications and Signals	\$10.1	\$24.7	\$34.8
Electric Traction	\$8.4	\$4.5	\$12.9
Structures	\$0.6	\$115.5	\$116.1
Track	\$19.3	\$32.0	\$51.3
Other Disciplines (All Regions)	\$268.9	\$0	\$268.9
Engineering Capital Renewal	\$889.7	\$8,635.3	\$9,525.0
Communications and Signals	\$38.3	\$977.7	\$1,016.0
Electric Traction	\$106.9	\$3,193.2	\$3,300.1
Structures	\$96.0	\$3,768.9	\$3,864.9
Track	\$379.6	\$695.5	\$1,075.1
Other	\$268.9	\$0	\$268.9

Notes: FY22 is based on Amtrak submission, and FY23-26 are taken from the C35 analysis. This analysis was built up from the asset level, then divided between disciplines. Projected protection costs were split proportionally between disciplines to align with Amtrak data. New England territory does not include the MA-owned portion of the NEC. The Springfield Line is in the New England region, and the Harrisburg Line is in the Mid-Atlantic North region.

B. Capital Renewal Investment Details by Owner

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CAPITAL RENEWAL PROJECT
Example Project Page

Owner: BCC Segment Owner (MBTA, Connecticut DOT, Metro-North, or Amtrak) [see Table A1-5]
Type: Capital Renewal Program or Project
Agency Project Number: Agency internal project number (also ID Number or PMO Level 1)

General Project Information

Scope	Complete scope for the entire project, including previously completed work and work to be completed beyond fiscal year 2026.
Schedule	Most recent project schedule estimate. Ongoing programs may occur after FY22. Detailed schedules are provided when available.

FY22 Plan

Planned Expenditure in FY22	Planned fiscal year 2022 expenditure.
Scope of FY22 work	Planned fiscal year 2022 scope associated with the planned expenditure in fiscal year 2022.

Note: Some owners may have additional planned work beyond FY22. If available, this information will be provided in subsequent tables labeled "FY23 Plan" and "FY24-26" Plan".

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
Project Name				Project Start Date	Project End Date	Total FY22 Planned Expenditure
BCC Segment Number	Project Phase Name	Yes/No	When available, unit data is provided.	Phase Start Date	Phase End Date	Phase FY22 Planned Expenditure

Capital Renewal: MBTA-Owned Territory

CAPITAL RENEWAL PROGRAM

CWR Replacement Program

Owner: MBTA

Type: Capital Renewal Program

Discipline: Track

Agency Project Number: N/A

General Project Information	
Scope	This program is to replace CWR along the Attleboro Line, MP190.9 to MP229.0.
Schedule	On-going -
BCC Segment	BCC-eligible, Segment 1
Overall Planned Expenditure	N/A

FY22 Plan	
Planned Expenditure in FY22	\$1,000,000
FY22 Schedule	Jun 2022 - Aug 2022
Scope of FY22 work	4000 LF Rail - Location TBD
FY22 Units	4000 LF

CAPITAL RENEWAL PROGRAM

Battery Bank Replacement Program

Owner: MBTA

Type: Capital Renewal Program

Discipline: Communication & Signals

Agency Project Number: N/A

General Project Information

Scope	This program is for the replacement of battery banks along the Attleboro Line, MP190.9 to MP229.0.
Schedule	On-going -
BCC Segment	BCC-eligible, Segment 1
Overall Planned Expenditure	N/A

FY22 Plan

Planned Expenditure in FY22	\$124,000
FY22 Schedule	Oct 2021 - Sep 2022
Scope of FY22 work	Replace Battery Banks at Interlockings between MP190.9 - MP229.0

CAPITAL RENEWAL PROGRAM

Gas Hot Air Switch Blower Program

Owner: MBTA

Type: Capital Renewal Program

Discipline: Communication & Signals

Agency Project Number: N/A

General Project Information

Scope	This program is for the installation of gas hot air switch blowers at turnouts and crossovers along the Attleboro Line, MP190.9 to MP229.0.
Schedule	On-going -
BCC Segment	BCC-eligible, Segment 1
Overall Planned Expenditure	N/A

FY22 Plan

Planned Expenditure in FY22	\$50,000
FY22 Schedule	Oct 2021 - Sep 2022
Scope of FY22 work	Begin process of installing Gas Hot Air Blower Switch Heaters (4 Units) - Location TBD - to be continued into FY23.
FY22 Units	

CAPITAL RENEWAL PROGRAM

Grade Crossing Replacement Program

Owner: MBTA

Type: Capital Renewal Program

Discipline: Track

Agency Project Number: N/A

General Project Information

Scope	This program is to replace the Wet and Dry Loop tracks at Southampton Street Yard.
Schedule	Oct 2021 - Sep 2022
BCC Segment	BCC-eligible, Segment 1
Overall Planned Expenditure	\$1,000,000

FY22 Plan

Planned Expenditure in FY22	\$1,000,000
FY22 Schedule	Oct 2021 - Sep 2022
Scope of FY22 work	Replace grade crossings on the Wet and Dry Loop at Southampton Street Yard.

CAPITAL RENEWAL PROJECT

**Hawk Hot Box / Dragging
Equipment Detector Upgrade
Project****Owner:** MBTA**Type:** Capital Renewal Project**Discipline:** Communication & Signals**Agency Project Number:** N/A**General Project Information**

Scope	This project is for the installation of Hot Box / Dragging Equipment Detectors on Track 1 and Track 2 at Hawk MP208.7.
Schedule	Oct 2021 - Sep 2022
BCC Segment	BCC-eligible, Segment 1
Overall Planned Expenditure	\$1,396,469

FY22 Plan

Planned Expenditure in FY22	\$1,396,469
FY22 Schedule	Oct 2021 - Sep 2022
Scope of FY22 work	Complete the installation of the Hawk Hot Box and Dragging Equipment detector upgrades.

CAPITAL RENEWAL PROGRAM

Insulated Joint Program

Owner: MBTA

Type: Capital Renewal Program

Discipline: Track

Agency Project Number: N/A

General Project Information

Scope	This program is to replace insulated joints along the Attleboro Line, MP190.9 to MP229.0.
Schedule	On-going -
BCC Segment	BCC-eligible, Segment 1
Overall Planned Expenditure	N/A

FY22 Plan

Planned Expenditure in FY22	\$153,750
FY22 Schedule	Oct 2021 - Sep 2022
Scope of FY22 work	20 Insulated Joints - MP190.9 - MP229.0
FY22 Units	20 Units

CAPITAL RENEWAL PROJECT

Insulated Joint Replacement Project

Owner: MBTA

Type: Capital Renewal Project

Discipline: Track

Agency Project Number: N/A

General Project Information

Scope	This project is for the replacement of insulated joints in the Boston area between Transfer I/L and South Station.
Schedule	Oct 2021 - Sep 2022
BCC Segment	BCC-eligible, Segment 1
Overall Planned Expenditure	\$1,200,000

FY22 Plan

Planned Expenditure in FY22	\$1,200,000
FY22 Schedule	Oct 2021 - Sep 2022
Scope of FY22 work	Replacement of insulated joints in the Boston area between Transfer I/L and South Station.
FY22 Units	50 Units

CAPITAL RENEWAL PROGRAM

Interlocking Crossover Replacement Program

Owner: MBTA

Type: Capital Renewal Program

Discipline: Track

Agency Project Number: N/A

General Project Information

Scope	This program is for the replacement of turnouts and crossovers along the Attleboro Line, MP190.9 to MP229.0.
Schedule	On-going -
BCC Segment	BCC-eligible, Segment 1
Overall Planned Expenditure	N/A

FY22 Plan

Planned Expenditure in FY22	\$2,100,000
FY22 Schedule	Oct 2021 - Sep 2022
Scope of FY22 work	Transfer 26 and Read 53 Turnout Replacement
FY22 Units	2 Units

CAPITAL RENEWAL PROGRAM

Interlocking Steel Replacement Program

Owner: MBTA
Type: Capital Renewal Program
Discipline: Track
Agency Project Number: N/A

General Project Information

Scope	This program is for the replacement of interlocking rail, stockrails, switch points, frogs and associated attachments along the Attleboro Line, MP190.9 to MP229.0.
Schedule	On-going -
BCC Segment	BCC-eligible, Segment 1
Overall Planned Expenditure	N/A

FY22 Plan

Planned Expenditure in FY22	\$370,800
FY22 Schedule	Oct 2021 - Sep 2022
Scope of FY22 work	Replace 5 Units Interlocking Steel - MP190.9 - MP229.0
FY22 Units	5 Units

CAPITAL RENEWAL PROGRAM

Joint Elimination Program

Owner: MBTA

Type: Capital Renewal Program

Discipline: Track

Agency Project Number: N/A

General Project Information

Scope	This program is to provide joint elimination along the Attleboro Line, MP190.9 to MP229.0.
Schedule	On-going -
BCC Segment	BCC-eligible, Segment 1
Overall Planned Expenditure	N/A

FY22 Plan

Planned Expenditure in FY22	\$276,000
FY22 Schedule	Oct 2021 - Sep 2022
Scope of FY22 work	50 Thermite Welds - MP190.9 - MP229.0
FY22 Units	50 Units

CAPITAL RENEWAL PROGRAM

M3 Switch Machine Program

Owner: MBTA
Type: Capital Renewal Program
Discipline: Communication & Signals
Agency Project Number: N/A

General Project Information

Scope	This program is for the replacement of switch machines, including rods, attachments and head blocks along the Attleboro Line, MP190.9 to MP229.0.
Schedule	On-going -
BCC Segment	BCC-eligible, Segment 1
Overall Planned Expenditure	N/A

FY22 Plan

Planned Expenditure in FY22	\$205,000
FY22 Schedule	Oct 2021 - Sep 2022
Scope of FY22 work	Upgrade to M3 Switch Machines at 8 locations between MP190.9 and MP229.0.
FY22 Units	8 Units

CAPITAL RENEWAL PROGRAM

Out Of Face Surfacing Program

Owner: MBTA

Type: Capital Renewal Program

Discipline: Track

Agency Project Number: N/A

General Project Information

Scope	This program is to provide out of face surfacing along the Attleboro Line, MP190.9 to MP229.0.
Schedule	On-going -
BCC Segment	BCC-eligible, Segment 1
Overall Planned Expenditure	N/A

FY22 Plan

Planned Expenditure in FY22	\$2,306,250
FY22 Schedule	Oct 2021 - Sep 2022
Scope of FY22 work	80,000 Pass-Feet of Out-of-Face High Speed Surfacing - MP190.9 - MP229.0
FY22 Units	80,000 Pass-Feet

CAPITAL RENEWAL PROJECT

Power and Express Cable Upgrade Project

Owner: MBTA

Type: Capital Renewal Project

Discipline: Communication & Signals

Agency Project Number: N/A

General Project Information

Scope	This project is for the installation and upgrade of approx. 21,000 feet of power, express, and communication cable between Read Interlocking (MP219.4) and Forest Interlocking (MP223.4). These cables have reached the end of their expected design life and this project will return this asset to a state of good repair and mitigate the potential for delays due to failures with the signal and communication system.
Schedule	May 2019 - Dec 2021
BCC Segment	BCC-eligible, Segment 1
Overall Planned Expenditure	\$5,597,277

FY22 Plan

Planned Expenditure in FY22	\$171,514
FY22 Schedule	Oct 2021 - Dec 2021
Scope of FY22 work	Complete the power/express/communication cable upgrades between Read I/L and Forest I/L.
FY22 Units	N/A

CAPITAL RENEWAL PROGRAM

R.O.W. Fence Upgrades Program

Owner: MBTA

Type: Capital Renewal Program

Discipline: Structures & Facilities

Agency Project Number: N/A

General Project Information

Scope	This program is for the installation of right of way fencing along the Attleboro Line, MP190.9 to MP229.0.
Schedule	On-going -
BCC Segment	BCC-eligible, Segment 1
Overall Planned Expenditure	N/A

FY22 Plan

Planned Expenditure in FY22	\$1,400,000
FY22 Schedule	Oct 2021 - Sep 2022
Scope of FY22 work	Install impasse fence in Hyde Park, MA along Track 2.
FY22 Units	3,200 Linear Feet

CAPITAL RENEWAL PROJECT
Readville Material Control Warehouse Project

Owner: MBTA
Type: Capital Renewal Project
Discipline: Structures & Facilities
Agency Project Number: N/A

General Project Information	
Scope	This project is for the design and construction of a material control warehouse at Yard 5, Readville, MA.
Schedule	Jan 2021 - Sep 2022
BCC Segment	BCC-eligible, Segment 1
Overall Planned Expenditure	\$1,545,697

FY22 Plan	
Planned Expenditure in FY22	\$1,000,000
FY22 Schedule	Oct 2021 - Sep 2022
Scope of FY22 work	Complete the construction of a material control warehouse at Yard 5, Readville, MA.
FY22 Units	N/A

CAPITAL RENEWAL PROJECT

South Station Tie and Rail Replacement Project

Owner: MBTA

Type: Capital Renewal Project

Discipline: Track

Agency Project Number: N/A

General Project Information

Scope	This project is to upgrade the ties to concrete guardrail ties and replace the rail, clip, pads, insulators, and ballast to Tracks 1-13 at South Station, Boston, MA.
Schedule	Aug 2022 - Aug 2024
BCC Segment	BCC-eligible, Segment 1
Overall Planned Expenditure	\$20,404,098

FY22 Plan

Planned Expenditure in FY22	\$2,726,887
FY22 Schedule	Oct 2021 - Aug 2022
Scope of FY22 work	Complete the upgrade to concrete guardrail ties and replace the rail, clip, pads, insulators, and ballast to Tracks 1-2 at South Station.
FY22 Units	1,534 Track Feet

CAPITAL RENEWAL PROJECT

Southampton Street and South Bay I/L Upgrades Project

Owner: MBTA

Type: Capital Renewal Project

Discipline: Track

Agency Project Number: N/A

General Project Information

Scope	This project is for interlocking upgrades to South Bay I/L, installation of DTMF switches at Southampton Street Yard, upgrades to the transformer at the South Bay I/L and installation of backup generators at Broad, Loop, Cabot, and South Bay I/L.
Schedule	Jan 2020 - Sep 2022
BCC Segment	BCC-eligible, Segment 1
Overall Planned Expenditure	\$9,246,318

FY22 Plan

Planned Expenditure in FY22	\$1,657,129
FY22 Schedule	Oct 2021 - Sep 2022
Scope of FY22 work	Complete the design and begin the installation of upgrades at South Bay I/L and backup generators.
FY22 Units	N/A

CAPITAL RENEWAL PROGRAM

Spot Surfacing Program

Owner: MBTA
Type: Capital Renewal Program
Discipline: Track
Agency Project Number: N/A

General Project Information

Scope	This program is to provide spot surfacing along the Attleboro Line, MP190.9 to MP229.0.
Schedule	On-going -
BCC Segment	BCC-eligible, Segment 1
Overall Planned Expenditure	N/A

FY22 Plan

Planned Expenditure in FY22	\$1,648,000
FY22 Schedule	Oct 2021 - Sep 2022
Scope of FY22 work	50,000 Feet of Spot Surfacing - MP190.9 - MP229.0
FY22 Units	60,000 Feet

CAPITAL RENEWAL PROGRAM
Spot Undercutting Program

Owner: MBTA
Type: Capital Renewal Program
Discipline: Track
Agency Project Number: N/A

General Project Information	
Scope	This program is to provide spot undercutting along the Attleboro Line, MP190.9 to MP229.0.
Schedule	On-going -
BCC Segment	BCC-eligible, Segment 1
Overall Planned Expenditure	N/A

FY22 Plan	
Planned Expenditure in FY22	\$309,000
FY22 Schedule	Oct 2021 - Sep 2022
Scope of FY22 work	150 Feet of Spot Undercutting - MP190.9 - MP229.0
FY22 Units	150 Feet

CAPITAL RENEWAL PROGRAM

Switch Heater Cabinet / Control Program

Owner: MBTA

Type: Capital Renewal Program

Discipline: Communication & Signals

Agency Project Number: N/A

General Project Information

Scope	This program is for the replacement of switch heater cabinet / control upgrades along the Attleboro Line, MP190.9 to MP229.0.
Schedule	On-going -
BCC Segment	BCC-eligible, Segment 1
Overall Planned Expenditure	N/A

FY22 Plan

Planned Expenditure in FY22	\$50,000
FY22 Schedule	Oct 2021 - Sep 2022
Scope of FY22 work	Replace Switch Hear Cabinet / Controls - Location TBD
FY22 Units	1 Units

CAPITAL RENEWAL PROJECT

TAMS Upgrades Project

Owner: MBTA

Type: Capital Renewal Project

Discipline: Communication & Signals

Agency Project Number: N/A

General Project Information

Scope	This project is for the installation of new Train Approach Message Systems at seven stations over two years. This work will be performed at Canton Junction Station (MP213.7), Ruggles Street Station (MP226.4), Forest Hills Station (MP223.8), Mansfield Station (MP204.0), Sharon Station (MP210.6), South Attleboro Station (MP191.7), and Hyde Park Station (MP220.4).
Schedule	Jan 2020 - Dec 2021
BCC Segment	BCC-eligible, Segment 1
Overall Planned Expenditure	\$4,083,967

FY22 Plan

Planned Expenditure in FY22	\$566,017
FY22 Schedule	Oct 2021 - Dec 2021
Scope of FY22 work	Complete the TAMS system upgrades between S. Attleboro and Ruggles.
FY22 Units	N/A

CAPITAL RENEWAL PROGRAM
Tie/Timber Program

Owner: MBTA
Type: Capital Renewal Program
Discipline: Track
Agency Project Number: N/A

General Project Information

Scope	This program is to replace ties/timber along the Attleboro Line, MP190.9 and MP229.0.
Schedule	On-going -
BCC Segment	BCC-eligible, Segment 1
Overall Planned Expenditure	N/A

FY22 Plan

Planned Expenditure in FY22	\$2,562,500
FY22 Schedule	Oct 2021 - Sep 2022
Scope of FY22 work	Replace 1,500 ties/timbers - MP190.9 - MP229.0
FY22 Units	1,500 Units

CAPITAL RENEWAL PROGRAM

Tree Cutting Program

Owner: MBTA
Type: Capital Renewal Program
Discipline: Track
Agency Project Number: N/A

General Project Information	
Scope	This program is to provide tree cutting along the Attleboro Line, MP190.9 to MP229.0.
Schedule	On-going -
BCC Segment	BCC-eligible, Segment 1
Overall Planned Expenditure	N/A

FY22 Plan	
Planned Expenditure in FY22	\$1,050,625
FY22 Schedule	Oct 2021 - Sep 2022
Scope of FY22 work	50 weeks tree cutting program - MP190.9 - MP229.0
FY22 Units	50 Weeks

Capital Renewal: Connecticut DOT-Owned Territory

CAPITAL RENEWAL PROJECT

Atlantic Street Bridge Project

Owner: Connecticut DOT

Type: Capital Renewal Project

Discipline: Structures & Facilities

Agency Project Number: N/A

General Project Information

Scope	There are three projects ongoing in the Stamford area. Project # 301-163 involves the lowering of the catenary system to the standard configuration height, Project 135-301 involves replacement of Atlantic Street bridge and Project # 135-326 is Utility Breakout project (Phase I) for Atlantic Street bridge.
Schedule	In Progress - Mar 2022
BCC Segment	BCC-eligible, Segment 6
Overall Planned Expenditure	\$175,000,000

FY22 Plan

Planned Expenditure in FY22	\$15,000,000
FY22 Schedule	Oct 2021 - Sep 2022
Scope of FY22 work	Finish remaining track work for Atlantic Street, advertise track and catenary modification work.
FY22 Units	

FY23 Plan

Planned Expenditure in FY23	\$12,000,000
FY23 Schedule	Oct 2022 - Sep 2023
Scope of FY23 work	Begin track and catenary modification work

FY24-26 Plan

Planned Expenditure in FY24	\$10,000,000
Planned Expenditure in FY25	\$-
Planned Expenditure in FY26	\$-

CAPITAL RENEWAL PROJECT

Auto-Tension Catenary Replacement Project: Segments C1A and C2 - Construction

Owner: Connecticut DOT

Type: Capital Renewal Project

Discipline: Electric Traction

Agency Project Number: DOT03010145CN

General Project Information

Scope	Replacement of existing Catenary with Auto-Tension Catenary CP-241 to CP248(C1A) and CP255 to CP261(C2)
Schedule	In Progress - Dec 2021
BCC Segment	BCC-eligible, Segment 6
Overall Planned Expenditure	\$160,000,000

FY22 Plan

Planned Expenditure in FY22	\$4,000,000
FY22 Schedule	Oct 2021 - Dec 2021
Scope of FY22 work	Complete punch list items
FY22 Units	

FY23 Plan

Planned Expenditure in FY23	\$2,000,000
FY23 Schedule	N/A - N/A
Scope of FY23 work	No work planned

CAPITAL RENEWAL PROGRAM
Bridge Design Program

Owner: Connecticut DOT
Type: Capital Renewal Program
Discipline: Structures & Facilities
Agency Project Number: DOT03000175PE

General Project Information	
Scope	This project is used for all engineering design related tasks carried out by the Office of Rail Staff.
Schedule	On-going -
BCC Segment	BCC-eligible, Segment 6
Overall Planned Expenditure	N/A

FY22 Plan	
Planned Expenditure in FY22	\$2,500,000
FY22 Schedule	Oct 2021 - Sep 2022
Scope of FY22 work	Cyclical Program

FY23 Plan	
Planned Expenditure in FY23	\$2,500,000
FY23 Schedule	Oct 2022 - Sep 2023
Scope of FY23 work	Cyclical Program

FY24-26 Plan	
Planned Expenditure in FY24	\$2,500,000
Planned Expenditure in FY25	\$2,500,000
Planned Expenditure in FY26	\$2,500,000

CAPITAL RENEWAL PROGRAM

Cos Cob Bridge Interim Repairs

Owner: Connecticut DOT

Type: Capital Renewal Program

Discipline: Structures & Facilities

Agency Project Number: DOT03010173CN

General Project Information

Scope	The short-term repair project will address mechanical, electrical and access deficiencies as well as additional steel repairs. . Extension of life project. MP 30.0
Schedule	Feb 2022 - Dec 2023
BCC Segment	BCC-eligible, Segment 6
Overall Planned Expenditure	\$20,000,000

FY22 Plan

Planned Expenditure in FY22	\$4,000,000
FY22 Schedule	Feb 2022 - Sep 2022
Scope of FY22 work	Advertise for construction

FY23 Plan

Planned Expenditure in FY23	\$8,000,000
FY23 Schedule	Oct 2022 - Sep 2023
Scope of FY23 work	Continue Construction

FY24-26 Plan

Planned Expenditure in FY24	\$6,000,000
Planned Expenditure in FY25	\$2,000,000
Planned Expenditure in FY26	\$-

CAPITAL RENEWAL PROJECT

East Ave, Osbourne, and Fort Point Bridges Replacement Project**Owner:** Connecticut DOT**Type:** Capital Renewal Project**Discipline:** Structures & Facilities**Agency Project Number:** N/A**General Project Information**

Scope	Replacement of all three Bridges. MP 41.79, MP 41.96, MP 42.15
Schedule	Apr 2022 - Feb 2027
BCC Segment	BCC-eligible, Segment 6
Overall Planned Expenditure	\$140,000,000

FY22 Plan

Planned Expenditure in FY22	\$10,000,000
FY22 Schedule	Apr 2022 - Sep 2022
Scope of FY22 work	Begin construction activities

FY23 Plan

Planned Expenditure in FY23	\$30,000,000
FY23 Schedule	Oct 2022 - Sep 2023
Scope of FY23 work	Continue Construction

FY24-26 Plan

Planned Expenditure in FY24	\$40,000,000
Planned Expenditure in FY25	\$30,000,000
Planned Expenditure in FY26	\$30,000,000

CAPITAL RENEWAL PROGRAM

Network Infrastructure Upgrade Program: Phase 3 - Construction

Owner: Connecticut DOT

Type: Capital Renewal Program

Discipline: Communication & Signals

Agency Project Number: DOT03000202CN

General Project Information

Scope	Fiber optic installation for SCADA control and security. Stamford to Westport MP33-47
Schedule	In Progress - Oct 2021
BCC Segment	BCC-eligible, Segment 6
Overall Planned Expenditure	\$25,000,000

FY22 Plan

Planned Expenditure in FY22	\$8,000,000
FY22 Schedule	Oct 2021 - Oct 2021
Scope of FY22 work	Complete Construction

FY23 Plan

Planned Expenditure in FY23	\$8,000,000
FY23 Schedule	Oct 2022 - Sep 2023
Scope of FY23 work	Complete Punch List

FY24-26 Plan

Planned Expenditure in FY24	\$2,000,000
Planned Expenditure in FY25	\$-
Planned Expenditure in FY26	\$-

CAPITAL RENEWAL PROGRAM

Network Infrastructure Upgrade Program: Phase 4 - Construction

Owner: Connecticut DOT

Type: Capital Renewal Program

Discipline: Communication & Signals

Agency Project Number: DOT03000215CN

General Project Information

Scope	Network Infrastructure Upgrade for Security and SCADA control between Greenwich and Stamford, and three branches. MP 26 - MP 33
Schedule	Nov 2022 - Dec 2024
BCC Segment	BCC-eligible, Segment 6
Overall Planned Expenditure	\$25,000,000

FY22 Plan

Planned Expenditure in FY22	\$-
FY22 Schedule	N/A - N/A
Scope of FY22 work	No work planned

FY23 Plan

Planned Expenditure in FY23	\$-
FY23 Schedule	Oct 2022 - Sep 2023
Scope of FY23 work	Begin Construction

FY24-26 Plan

Planned Expenditure in FY24	\$5,000,000
Planned Expenditure in FY25	\$10,000,000
Planned Expenditure in FY26	\$10,000,000

CAPITAL RENEWAL PROGRAM

Network Infrastructure Upgrade Program: Phase 4 - Preliminary Engineering

Owner: Connecticut DOT

Type: Capital Renewal Program

Discipline: Communication & Signals

Agency Project Number: DOT03000215PE

General Project Information

Scope	Network Infrastructure Upgrade for Security between Greenwich and Westport, and three branches. MP 26 - MP 33
Schedule	In Progress - Nov 2022
BCC Segment	BCC-eligible, Segment 6
Overall Planned Expenditure	\$6,000,000

FY22 Plan

Planned Expenditure in FY22	\$2,000,000
FY22 Schedule	Oct 2021 - Sep 2022
Scope of FY22 work	continue construction

FY23 Plan

Planned Expenditure in FY23	\$2,000,000
FY23 Schedule	Oct 2022 - Nov 2022
Scope of FY23 work	Complete Construction

FY24-26 Plan

Planned Expenditure in FY24	\$2,000,000
Planned Expenditure in FY25	\$-
Planned Expenditure in FY26	\$-

CAPITAL RENEWAL PROGRAM

Positive Train Control

Owner: Connecticut DOT

Type: Capital Renewal Program

Discipline: Other

Agency Project Number: DOT030000149CN

General Project Information

Scope	Installation of Positive Train Control for the entire New Haven Line.
Schedule	In Progress - Dec 2022
BCC Segment	BCC-eligible, Segment 6
Overall Planned Expenditure	\$190,000,000

FY22 Plan

Planned Expenditure in FY22	\$12,000,000
FY22 Schedule	Oct 2021 - Sep 2022
Scope of FY22 work	Complete software revisions and final fiber optic tie in

FY23 Plan

Planned Expenditure in FY23	\$12,000,000
FY23 Schedule	Oct 2022 - Dec 2022
Scope of FY23 work	Complete any remaining software revisions and permanent tie ins

FY24-26 Plan

Planned Expenditure in FY24	\$12,000,000
Planned Expenditure in FY25	\$3,000,000
Planned Expenditure in FY26	\$-

CAPITAL RENEWAL PROGRAM
Power Program

Owner: Connecticut DOT
Type: Capital Renewal Program
Discipline: Electric Traction
Agency Project Number: DOT03010520PE

General Project Information

Scope	Program will include projects that equipment across 3 areas of the NHL Power System - Railroad Supply Substation, oil circuit breakers, switches, potential transformer, and electromechanical relays at Cos COB, Sasco Creek and Devon
Schedule	In Progress - Dec 2022
BCC Segment	BCC-eligible, Segment 6
Overall Planned Expenditure	\$8,500,000

FY22 Plan

Planned Expenditure in FY22	\$1,000,000
FY22 Schedule	Oct 2021 - Sep 2022
Scope of FY22 work	Preconstruction activates

FY23 Plan

Planned Expenditure in FY23	\$2,500,000
FY23 Schedule	Oct 2022 - Sep 2023
Scope of FY23 work	Complete Preconstruction activities and initiate construction contract.

FY24-26 Plan

Planned Expenditure in FY24	\$2,500,000
Planned Expenditure in FY25	\$2,500,000
Planned Expenditure in FY26	\$2,500,000

CAPITAL RENEWAL PROJECT

Retaining Wall 27 Replacement

Owner: Connecticut DOT

Type: Capital Renewal Project

Discipline: Structures & Facilities

Agency Project Number: DOT03010190CN

General Project Information

Scope	Replacement of the failing retaining wall in Norwalk. Project to be bundled with Walk Improvements.
Schedule	Apr 2022 - Feb 2027
BCC Segment	BCC-eligible, Segment 6
Overall Planned Expenditure	\$10,000,000

FY22 Plan

Planned Expenditure in FY22	\$-
FY22 Schedule	Apr 2022 - Sep 2022
Scope of FY22 work	Begin construction activities

FY23 Plan

Planned Expenditure in FY23	\$2,000,000
FY23 Schedule	Oct 2022 - Sep 2023
Scope of FY23 work	Continue Construction

FY24-26 Plan

Planned Expenditure in FY24	\$5,000,000
Planned Expenditure in FY25	\$3,000,000
Planned Expenditure in FY26	\$-

CAPITAL RENEWAL PROJECT

Sasco Creek Power Supply, Oil-Filled Circuit Breakers, and Installation of Human Machine Interface (HMI)

Owner: Connecticut DOT

Type: Capital Renewal Project

Discipline: Electric Traction

Agency Project Number: DOT03010505CN, DOT03010508CN, DOT03010517CN

General Project Information

Scope	Replace utility supply transformers; Replacement of Oil-Filled Circuit Breakers, Installation of Human Machine Interface
Schedule	In Progress - Dec 2021
BCC Segment	BCC-eligible, Segment 6
Overall Planned Expenditure	\$17,000,000

FY22 Plan

Planned Expenditure in FY22	\$4,000,000
FY22 Schedule	Oct 2021 - Dec 2021
Scope of FY22 work	Complete installation of Sasco Creed transformers

FY23 Plan

Planned Expenditure in FY23	\$5,000,000
FY23 Schedule	Oct 2022 - Sep 2023
Scope of FY23 work	Complete replacement of oil filled circuit breakers and HMIs

FY24-26 Plan

Planned Expenditure in FY24	\$5,000,000
Planned Expenditure in FY25	\$3,000,000
Planned Expenditure in FY26	\$-

CAPITAL RENEWAL PROGRAM

Saugatuck River Bridge Interim Repairs

Owner: Connecticut DOT

Type: Capital Renewal Program

Discipline: Structures & Facilities

Agency Project Number: DOT03010177CN

General Project Information

Scope	The short-term repair project will address mechanical, electrical and access deficiencies as well as additional steel repairs. . The M&E repairs include replacement of the diesel engines with electric motors for improved reliability; conversion of span drive to electric drive; addition of a hard stop for span opening to protect miter rails. The structural repairs include stabilization repair to Pier 2 masonry where movement has been identified; additional structural repair and modification of drop-down walkway framing. MP 44.30
Schedule	Feb 2022 - Dec 2023
BCC Segment	BCC-eligible, Segment 6
Overall Planned Expenditure	\$20,000,000

FY22 Plan

Planned Expenditure in FY22	\$4,000,000
FY22 Schedule	Feb 2022 - Sep 2022
Scope of FY22 work	Advertise for construction

FY23 Plan

Planned Expenditure in FY23	\$8,000,000
FY23 Schedule	Oct 2022 - Sep 2023
Scope of FY23 work	Continue Construction

FY24-26 Plan

Planned Expenditure in FY24	\$6,000,000
Planned Expenditure in FY25	\$2,000,000
Planned Expenditure in FY26	\$-

CAPITAL RENEWAL PROGRAM

Signal System Replacement Program: Segment 2

Owner: Connecticut DOT

Type: Capital Renewal Program

Discipline: Communication & Signals

Agency Project Number: DOT03010154

General Project Information

Scope	Replacement of the signal system on the New Haven Line with a modern processor based system.
Schedule	In Progress - Dec 2022
BCC Segment	BCC-eligible, Segment 6
Overall Planned Expenditure	\$100,000,000

FY22 Plan

Planned Expenditure in FY22	\$10,000,000
FY22 Schedule	Oct 2021 - Sep 2022
Scope of FY22 work	continue construction

FY23 Plan

Planned Expenditure in FY23	\$10,000,000
FY23 Schedule	Oct 2022 - Sep 2023
Scope of FY23 work	Complete Punch List

FY24-26 Plan

Planned Expenditure in FY24	\$2,000,000
Planned Expenditure in FY25	\$-
Planned Expenditure in FY26	\$-

CAPITAL RENEWAL PROGRAM
**Signal System Replacement
Program: Segment 3**

Owner: Connecticut DOT
Type: Capital Renewal Program
Discipline: Communication & Signals
Agency Project Number: DOT03010519

General Project Information	
Scope	Replacement of the signal system on the New Haven Line with a modern processor based system.
Schedule	TBD FY23 - TBD FY25
BCC Segment	BCC-eligible, Segment 6
Overall Planned Expenditure	\$60,000,000

FY22 Plan	
Planned Expenditure in FY22	\$5,000,000
FY22 Schedule	Oct 2021 - Sep 2022
Scope of FY22 work	Preconstruction activates

FY23 Plan	
Planned Expenditure in FY23	\$10,000,000
FY23 Schedule	Oct 2022 - Sep 2023
Scope of FY23 work	Begin Construction

FY24-26 Plan	
Planned Expenditure in FY24	\$15,000,000
Planned Expenditure in FY25	\$15,000,000
Planned Expenditure in FY26	\$15,000,000

CAPITAL RENEWAL PROJECT

Stamford Elevator and Escalator Replacement

Owner: Connecticut DOT

Type: Capital Renewal Project

Discipline: Structures & Facilities

Agency Project Number: DOT03010507CN

General Project Information

Scope	Replacement and upgrade of failing elevator and escalators at the Stamford Transportation Center.
Schedule	Dec 2021 - Mar 2024
BCC Segment	BCC-eligible, Segment 6
Overall Planned Expenditure	\$30,000,000

FY22 Plan

Planned Expenditure in FY22	\$5,000,000
FY22 Schedule	Dec 2021 - Sep 2022
Scope of FY22 work	Begin construction activities

FY23 Plan

Planned Expenditure in FY23	\$10,000,000
FY23 Schedule	Oct 2022 - Sep 2023
Scope of FY23 work	Continue Construction

FY24-26 Plan

Planned Expenditure in FY24	\$10,000,000
Planned Expenditure in FY25	\$5,000,000
Planned Expenditure in FY26	\$-

CAPITAL RENEWAL PROGRAM

Structures Program S-23

Owner: Connecticut DOT

Type: Capital Renewal Program

Discipline: Structures & Facilities

Agency Project Number: DOT03000207CN

General Project Information

Scope	Major steel and masonry repairs on various bridges.
Schedule	In Progress - Jan 2022
BCC Segment	BCC-eligible, Segment 6
Overall Planned Expenditure	\$12,000,000

FY22 Plan

Planned Expenditure in FY22	\$2,000,000
FY22 Schedule	Oct 2021 - Sep 2022
Scope of FY22 work	Complete structural repairs in order of priority
FY22 Units	

FY23 Plan

Planned Expenditure in FY23	\$2,000,000
FY23 Schedule	Oct 2022 - Sep 2023
Scope of FY23 work	Complete structural repairs in order of priority

CAPITAL RENEWAL PROGRAM

Structures Program S-24

Owner: Connecticut DOT

Type: Capital Renewal Program

Discipline: Structures & Facilities

Agency Project Number: DOT03000213CN

General Project Information

Scope	Major steel and masonry repairs on various bridges.
Schedule	TBD FY23 - TBD FY25
BCC Segment	BCC-eligible, Segment 6
Overall Planned Expenditure	\$8,000,000

FY22 Plan

Planned Expenditure in FY22	\$-
FY22 Schedule	N/A - N/A
Scope of FY22 work	No work planned
FY22 Units	

FY23 Plan

Planned Expenditure in FY23	\$3,000,000
FY23 Schedule	Oct 2022 - Sep 2023
Scope of FY23 work	Begin Construction

FY24-26 Plan

Planned Expenditure in FY24	\$3,000,000
Planned Expenditure in FY25	\$1,000,000
Planned Expenditure in FY26	\$1,000,000

CAPITAL RENEWAL PROGRAM
Structures Program S-25

Owner: Connecticut DOT
Type: Capital Renewal Program
Discipline: Structures & Facilities
Agency Project Number: DOT0300XXXX

General Project Information

Scope	Major steel and masonry repairs on various bridges.
Schedule	TBD FY25 - TBD FY27
BCC Segment	BCC-eligible, Segment 6
Overall Planned Expenditure	\$8,000,000

FY22 Plan

Planned Expenditure in FY22	\$-
FY22 Schedule	N/A - N/A
Scope of FY22 work	No work planned

FY23 Plan

Planned Expenditure in FY23	\$-
FY23 Schedule	N/A - N/A
Scope of FY23 work	No work planned

FY24-26 Plan

Planned Expenditure in FY24	\$2,000,000
Planned Expenditure in FY25	\$3,000,000
Planned Expenditure in FY26	\$2,000,000

CAPITAL RENEWAL PROJECT
TIME Phase 1 Design

Owner: Connecticut DOT
Type: Capital Renewal Project
Discipline: Track
Agency Project Number: DOT03000214PE

General Project Information

Scope	Replacement of 4 bridges, track re-alignment, catenary realignment, and signal modification to achieve speed increases and State-of-good repair upgrades between the Devon Bridge and East Bridgeport.
Schedule	Mar 2023 - Mar 2026
BCC Segment	BCC-eligible, Segment 6
Overall Planned Expenditure	\$20,000,000

FY22 Plan

Planned Expenditure in FY22	\$15,000,000
FY22 Schedule	Oct 2021 - Sep 2022
Scope of FY22 work	Preconstruction activates

FY23 Plan

Planned Expenditure in FY23	\$5,000,000
FY23 Schedule	Oct 2022 - Sep 2023
Scope of FY23 work	Begin Construction

FY24-26 Plan

Planned Expenditure in FY24	\$5,000,000
Planned Expenditure in FY25	\$5,000,000
Planned Expenditure in FY26	\$-

CAPITAL RENEWAL PROGRAM

Track Program C-32

Owner: Connecticut DOT

Type: Capital Renewal Program

Discipline: Track

Agency Project Number: DOT03000206CN

General Project Information

Scope	Purchase and install wood ties, surface track, install 16 track miles of new 136lb rail for various curves, purchase and install Switch at CP 271, Drainage Improvements at various location
Schedule	In Progress - Dec 2022
BCC Segment	BCC-eligible, Segment 6
Overall Planned Expenditure	\$45,000,000

FY22 Plan

Planned Expenditure in FY22	\$4,000,000
FY22 Schedule	Oct 2021 - Sep 2022
Scope of FY22 work	Cyclical capital track maintenance

FY23 Plan

Planned Expenditure in FY23	\$4,000,000
FY23 Schedule	Oct 2022 - Dec 2022
Scope of FY23 work	Cyclical capital track maintenance

CAPITAL RENEWAL PROGRAM

Track Program C-33

Owner: Connecticut DOT

Type: Capital Renewal Program

Discipline: Track

Agency Project Number: DOT03000217CN

General Project Information

Scope	purchase and installation of approximately 31,000 Ties, surfacing of approximately 51 track miles, installation of approximately 33 miles of rail, installation of approximately 26 switches located at CP 271, CP 274 and in the New Haven Yard vicinity.
Schedule	Mar 2022 - 2/31/2024
BCC Segment	BCC-eligible, Segment 6
Overall Planned Expenditure	\$75,000,000

FY22 Plan

Planned Expenditure in FY22	\$15,000,000
FY22 Schedule	Mar 2022 - Sep 2022
Scope of FY22 work	Begin construction activities

FY23 Plan

Planned Expenditure in FY23	\$18,000,000
FY23 Schedule	Oct 2022 - Sep 2023
Scope of FY23 work	Continue Construction

FY24-26 Plan

Planned Expenditure in FY24	\$18,000,000
Planned Expenditure in FY25	\$12,000,000
Planned Expenditure in FY26	\$12,000,000

Capital Renewal: Metro-North-Owned Territory

CAPITAL RENEWAL PROGRAM

Comms & Signal Program

Owner: Metro-North

Type: Capital Renewal Program

Discipline: Communication & Signals

Agency Project Number: N/A

General Project Information

Scope	Replace and update outdated comms & signal system components, including network infrastructure, radio systems, fire alarm & suppression systems, cctv, and track circuit reliability
Schedule	Ongoing -
BCC Segment	BCC-eligible, Segment 7
Overall Planned Expenditure	N/A

FY22 Plan

Planned Expenditure in FY22	\$500,000
FY22 Schedule	Oct 2021 - Sep 2022
Scope of FY22 work	Work may include component replacement of Communications and Signal systems

FY23 Plan

Planned Expenditure in FY23	\$500,000
FY23 Schedule	Oct 2022 - Sep 2023
Scope of FY23 work	Work may include component replacement of Communications and Signal systems

FY24-26 Plan

Planned Expenditure in FY24	\$500,000
Planned Expenditure in FY25	\$500,000
Planned Expenditure in FY26	\$500,000

CAPITAL RENEWAL PROGRAM
Electric Traction Program

Owner: Metro-North
Type: Capital Renewal Program
Discipline: Electric Traction
Agency Project Number: N/A

General Project Information

Scope	Replace deteriorated components beyond useful life, including catenary wire, and repairs to catenary structures, including painting and component replacement
Schedule	Ongoing -
BCC Segment	BCC-eligible, Segment 7
Overall Planned Expenditure	N/A

FY22 Plan

Planned Expenditure in FY22	\$-
FY22 Schedule	N/A - N/A
Scope of FY22 work	N/A

FY23 Plan

Planned Expenditure in FY23	\$-
FY23 Schedule	N/A - N/A
Scope of FY23 work	N/A

FY24-26 Plan

Planned Expenditure in FY24	\$-
Planned Expenditure in FY25	\$1,250,000
Planned Expenditure in FY26	\$2,250,000

CAPITAL RENEWAL PROJECT

Overhead Bridge Rehabilitation Program

Owner: Metro-North

Type: Capital Renewal Project

Discipline: Structures & Facilities

Agency Project Number: N/A

General Project Information

Scope	This project will support ongoing pre-construction (preliminary design) efforts for the replacement of Overhead bridges in this segment. Centre Ave (NH 16.37) is identified for rehabilitation in the next capital program (starting in FY25 and continuing in FY26 and FY27). Other designs for bridges in this segment may be advanced during the duration of this project. This project will also cover force account costs for minor repairs.
Schedule	Oct 2022 - Sep 2024
BCC Segment	BCC-eligible, Segment 7
Overall Planned Expenditure	N/A

FY22 Plan

Planned Expenditure in FY22	\$500,000
FY22 Schedule	Oct 2021 - Sep 2022
Scope of FY22 work	Advance pre-construction activities for Centre Avenue (NH 16.37) replacement.

FY23 Plan

Planned Expenditure in FY23	\$750,000
FY23 Schedule	Oct 2022 - Sep 2023
Scope of FY23 work	Advance pre-construction activities for Centre Avenue (NH 16.37) replacement. In house repairs for up to two other bridges (NH 19.74 and NH 20.89)

FY24-26 Plan

Planned Expenditure in FY24	\$750,000
Planned Expenditure in FY25	\$2,000,000
Planned Expenditure in FY26	\$5,000,000

CAPITAL RENEWAL PROJECT

Retaining Wall Reconstruction Project

Owner: Metro-North

Type: Capital Renewal Project

Discipline: Structures & Facilities

Agency Project Number: N/A

General Project Information

Scope	Reconstruction of retaining walls in the vicinity of Port Chester station (NH 25.55). Work is proceeding along with Undergrade Bridge rehabilitation Program
Schedule	May 2020 - Nov 2022
BCC Segment	BCC-eligible, Segment 7
Overall Planned Expenditure	\$1,800,000

FY22 Plan

Planned Expenditure in FY22	\$800,000
FY22 Schedule	Oct 2021 - Sep 2022
Scope of FY22 work	Continued construction of retaining wall. Will utilize continuous outages used for Willet Ave/ Highland St construction. Operations in this segment assume 3 track operation, and existing train schedules outages of this type in this segment, allowing for normal operations.
FY22 Units	

FY23 Plan

Planned Expenditure in FY23	\$-
FY23 Schedule	Oct 2022 - Nov 2022
Scope of FY23 work	Wrap up of construction activities, with more limited track outages for construction closeout

CAPITAL RENEWAL PROGRAM

Structures Program

Owner: Metro-North

Type: Capital Renewal Program

Discipline: Structures & Facilities

Agency Project Number: N/A

General Project Information

Scope	Replace deteriorated components beyond useful life, including culverts, bridge drainage and bridge timbers, install bridge walkways and ROW fencing
Schedule	Ongoing -
BCC Segment	BCC-eligible, Segment 7
Overall Planned Expenditure	N/A

FY22 Plan

Planned Expenditure in FY22	\$100,000
FY22 Schedule	Oct 2021 - Sep 2022
Scope of FY22 work	Work may include replacing deteriorated bridge culverts, bridge timbers, installing bridge walkways and ROW fencing

FY23 Plan

Planned Expenditure in FY23	\$100,000
FY23 Schedule	Oct 2022 - Sep 2023
Scope of FY23 work	Work may include replacing deteriorated bridge culverts, bridge timbers, installing bridge walkways and ROW fencing

FY24-26 Plan

Planned Expenditure in FY24	\$100,000
Planned Expenditure in FY25	\$125,000
Planned Expenditure in FY26	\$125,000

CAPITAL RENEWAL PROJECT

Substation 128 and 178 Replacement Project

Owner: Metro-North

Type: Capital Renewal Project

Discipline: Electric Traction

Agency Project Number: N/A

General Project Information

Scope	Rebuild two AC substations that provide catenary traction power to MNR and Amtrak trains on the segment. Substation 128 (south of Mamaroneck) and Substation 178 (north of Harrison) replacement will improve reliability and resiliency of the AC power network on the New Haven Line in New York and Connecticut. The design/build project will advance preliminary design and construct the replacement substations for MNR.
Schedule	Oct 2021 - Oct 2024
BCC Segment	BCC-eligible, Segment 7
Overall Planned Expenditure	\$39,500,000

FY22 Plan

Planned Expenditure in FY22	\$6,500,000
FY22 Schedule	Oct 2021 - Sep 2022
Scope of FY22 work	Scope detail to be defined with the approval of a DB consultant. Tasks will include: pre-construction activities (advance design to commence construction) and construction activities (provide for temporary power systems while substations 128 and 178 can begin reconstruction)
FY22 Units	

FY23 Plan

Planned Expenditure in FY23	\$16,500,000
FY23 Schedule	Oct 2022 - Sep 2023
Scope of FY23 work	Continuation of scope from FY22.

FY24-26 Plan

Planned Expenditure in FY24	\$16,500,000
Planned Expenditure in FY25	\$-
Planned Expenditure in FY26	\$-

CAPITAL RENEWAL PROGRAM

Systemwide Support Programs

Owner: Metro-North

Type: Capital Renewal Program

Discipline: Other

Agency Project Number: N/A

General Project Information

Scope	Covers MNR costs associated with capital investment in the NEC Corridor; including Railroad Protective Liability, Independent Engineer, Program Administration, Program Scope Development
Schedule	Ongoing -
BCC Segment	BCC-eligible, Segment 7
Overall Planned Expenditure	N/A

FY22 Plan

Planned Expenditure in FY22	\$450,000
FY22 Schedule	Oct 2021 - Sep 2022
Scope of FY22 work	Ongoing work associated with the delivery of capital program projects at MNR.

FY23 Plan

Planned Expenditure in FY23	\$450,000
FY23 Schedule	Oct 2022 - Sep 2023
Scope of FY23 work	Ongoing work associated with the delivery of capital program projects at MNR.

FY24-26 Plan

Planned Expenditure in FY24	\$450,000
Planned Expenditure in FY25	\$500,000
Planned Expenditure in FY26	\$500,000

CAPITAL RENEWAL PROGRAM
Track Programs

Owner: Metro-North
Type: Capital Renewal Program
Discipline: Track
Agency Project Number: N/A

General Project Information

Scope	Replace and renew track components, including track, ballast, timbers, turnouts, drainage; procure MOW equipment
Schedule	Ongoing -
BCC Segment	BCC-eligible, Segment 7
Overall Planned Expenditure	N/A

FY22 Plan

Planned Expenditure in FY22	\$2,250,000
FY22 Schedule	Oct 2021 - Sep 2022
Scope of FY22 work	Work may include track replacement, ballast and timber work, interlocking replacement, procurement of MOW equipment

FY23 Plan

Planned Expenditure in FY23	\$2,250,000
FY23 Schedule	Oct 2022 - Sep 2023
Scope of FY23 work	Work may include track replacement, ballast and timber work, interlocking replacement, procurement of MOW equipment

FY24-26 Plan

Planned Expenditure in FY24	\$2,250,000
Planned Expenditure in FY25	\$1,000,000
Planned Expenditure in FY26	\$2,500,000

CAPITAL RENEWAL PROGRAM

Undergrade Bridge Rehabilitation Program

Owner: Metro-North

Type: Capital Renewal Program

Discipline: Structures & Facilities

Agency Project Number: N/A

General Project Information

Scope	Reconstruction of Willet Avenue (NH 25.74) and Highland St (NH 25.83) bridges. Work is proceeding along with Retaining Wall Reconstruction program
Schedule	May 2020 - Nov 2021
BCC Segment	BCC-eligible, Segment 7
Overall Planned Expenditure	\$32,800,000

FY22 Plan

Planned Expenditure in FY22	\$13,000,000
FY22 Schedule	Oct 2021 - Sep 2021
Scope of FY22 work	Continued construction of bridges spans. Between CP 223 and CP 229, continuous outages will be utilized on Track 3 between October 2021 and May 2022, with support on Track 1 in off-peak periods and weekends. Outage will migrate to Track 1 for the remainder of FY22. Operations in this segment assume 3 track operation, and existing train schedules assume outages of this type in this segment, allowing for normal operations.
FY22 Units	

FY23 Plan

Planned Expenditure in FY23	\$1,200,000
FY23 Schedule	Oct 2022 - Dec 2022
Scope of FY23 work	Wrap up of construction activities, with more limited track outages for construction closeout

Capital Renewal: Amtrak-Owned Territory

CAPITAL RENEWAL PROJECT

1st Avenue Ventilation Fan Attenuator Upgrade

Owner: Amtrak

Type: Capital Renewal Project

ID Number: C.EN.101910

PMO Level 1: P000170

General Project Information

Scope	The scope of this project is to ensure efficient and safe operation of Amtrak's assets and infrastructure to maintain compliance with current regulations and standards and includes the replacement of the sound attenuators in the North and South ventilation shafts over the East River tunnels located in Manhattan. Currently, the sound attenuators are damaging the fans within the ventilation shafts when on leading to non-compliance with NFPA 130 as required by the Fire Department of New York. The purpose of the sound attenuators replacement as a critical life safety system is to utilize the tunnel ventilation fans in case of emergencies and when maintenance work is performed in the East River tunnels. The sound attenuators replacement will allow for the closures of the East River Tunnels Rehabilitation projects to proceed. The work performed under this project includes replacement of twelve sound attenuators in total in both the North and South ventilation shafts over tunnels 1,2,3 and 4.
Schedule	Oct 2020-Mar 2025

FY22 Plan

Planned Expenditure in FY22	\$501,620
Scope of FY22 work	The scope for FY22 includes advertising for a construction services contract, awarding a construction services contract, preparing phasing plans and submittals, beginning the sound attenuators replacement and testing functionality. There are twelve attenuators in total split evenly below and above the tunnel ventilation fans in the North and South ventilation buildings.

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>1st Avenue Ventilation Fan Attenuator Upgrade</i>				<i>Oct 2020</i>	<i>Mar 2025</i>	<i>\$501,620</i>
10	60% Design Review	Y		Sep 2022	Jan 2023	\$18,981
10	Construction Management	Y		Oct 2021	Sep 2022	\$279,873
10	Environmental/NEPA	Y		Jun 2022	Dec 2022	\$13,849
10	Preliminary Design	Y		Oct 2020	Mar 2025	\$108,942
10	Preliminary Design Review	Y		May 2022	Sep 2022	\$32,172
10	Project Management	Y		Oct 2021	Oct 2022	\$21,705
10	Project Management Support	Y		Oct 2020	Mar 2025	\$19,956
10	RWP Protection	Y		Oct 2021	Sep 2022	\$6,142
Grand Total				Oct 2020	Mar 2025	\$501,620

CAPITAL RENEWAL PROJECT

30th Street Station - UPS Replacement

Owner: Amtrak

Type: Capital Renewal Project

ID Number: C.RE.100069

PMO Level 1:

General Project Information

Scope	The 3 existing Uninterruptable Power Supply (UPS) systems will be replaced with (2) new units in a redundant configuration. The existing units are quite old and obsolete with manufacturer's support no longer available. They have exceeded their service life & spare parts are not available. One unit has already been taken off-line due to lack of parts. The reliability of power to Amtrak's critical systems would be in jeopardy if something was to fail on one of the other 2 units.
Schedule	Oct 2021-Apr 2022

FY22 Plan

Planned Expenditure in FY22	\$761,402
Scope of FY22 work	Completion of construction of the UPS replacement project.

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
30th Street Station - UPS Replacement				Oct 2021	Apr 2022	\$761,402
17	(blank)	Y	N/A	Oct 2021	Apr 2022	\$761,402
Grand Total				Oct 2021	Apr 2022	\$761,402

CAPITAL RENEWAL PROJECT

30th Street Station - Platform Area PCB Remediation

Owner: Amtrak

Type: Capital Renewal Project

ID Number: C.EV.100021

PMO Level 1:

General Project Information

Scope	Remediation of PCB contamination that has been identified in the sediment accumulated on the concrete track structure adjacent to the platforms at 30th Street Station, Philadelphia. Remediation required for compliance with Environmental regulations, and also to create a safer environment for employees and passengers. Historic electric train operations, prior to the creation of Amtrak and through subsequent operations, led to PCB contamination in and around the track areas of Philadelphia 30th Street Station. Initial testing was performed in FY17 and Tracks 4, 5, 6, 7, 8, 9 and 10 have been cleaned. Remaining tracks to be cleaned (1, 2, and 3) in FY22 & FY23.
Schedule	Oct 2021-Sep 2022

FY22 Plan

Planned Expenditure in FY22	\$911,540
Scope of FY22 work	This is a recurring annual maintenance project. Milestones will only be tracked for fiscal year 2022. Out-year funding planned. PCB bulk sediment removal from two tracks (2&3). PCB concrete removal from two tracks (Track #s TBD pending Engineering plans). In FY 22, anticipate cleaning and tie replacement of 2 tracks. Concrete disposal = \$450,000 total (~\$225K/track). Cleaning total = \$400,000 (\$200,000/ track) for (100K/ track Clean Harbors), oversight (40K/track - Stantec) + Amtrak protection (60K/track). Tracks 1,2,3 remain for cleaning. Tracks 1-6 concrete disposal work remaining.

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
30th Street Station - Platform Area PCB Remediation				Oct 2021	Sep 2022	\$911,540
17	(blank)	Y	N/A	Oct 2021	Sep 2022	\$911,540
Grand Total				Oct 2021	Sep 2022	\$911,540

CAPITAL RENEWAL PROJECT

30th Street Station Facade Restoration Project

Owner: Amtrak

Type: Capital Renewal Project

ID Number: C.EN.100039

PMO Level 1: P000091

General Project Information

Scope	Masonry and limestone repairs; reconstruction of the interior parapets except 8th floor roof and east and west main elevations; repairs at the base of curtain wall areas on the north, south, east, west and recessed north and recessed south elevations. Major metal restoration work included restoration of cast iron curtain wall areas of the building and removal and replacement of all steel double hung windows within the light court and roof areas; and the restoration of the steel double hung and casement windows on the exterior faces of the building and the restoration of the clerestory windows above the concourse. Additional scope items were added to the project due to unforeseen conditions and potential safety issues. These included abatements of asbestos containing materials, the pinning of decorative limestone brackets, additional limestone repairs to cracks and spalls not visible during the initial design surveys. Additional spalled decorative limestone pieces were replaced at Amtrak's request. The conditions of the parapets above the fifth floor and adjacent to the light courts required that they be demolished and reconstructed.
Schedule	Oct 2015-Sep 2022

FY22 Plan

Planned Expenditure in FY22	\$14,137
Scope of FY22 work	Project management and construction management personnel performing project oversight and updating and project reporting until investigation is finished.

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>30th Street Station Facade Restoration Project</i>				<i>Oct 2015</i>	<i>Sep 2022</i>	<i>\$14,136</i>
17	Construction Management	N	N/A	Oct 2015	Sep 2022	\$6,515
17	Project Management	N	N/A	Oct 2015	Sep 2022	\$7,622
Grand Total				Oct 2015	Sep 2022	\$14,136

CAPITAL RENEWAL PROJECT

ACELA 21 Electric Traction Load Flow Study

Owner: Amtrak

Type: Capital Renewal Project

ID Number: C.EN.101887

PMO Level 1: P000151

General Project Information

Scope	The scope of this project is to study ET system capacity and the impacts of the Acela 21 operating plan to ensure ET infrastructure can support the roll-out and full deployment of the new fleet. Work includes performing an entire analysis on the 25Hz Electric Traction system and identifying potential problem areas, identifying capacity shortfalls, and making recommendations for upgrades and capacity enhancements. Work applies only to the Electric Traction system South of Bowery Bay (Hell Gate Line) phase break in New York to the end of catenary in the First Street Tunnel, South of Washington Union Station, as well as West to Harrisburg. The completion of this work will ensure efficient and safe operation of Amtrak's assets and infrastructure, to maintain compliance with current regulations and standards.
Schedule	Oct 2020-Dec 2021

FY22 Plan

Planned Expenditure in FY22	\$65,782
Scope of FY22 work	The engineering services contractor shall complete the Final ET Load Flow Study Report in FY22. The Final ET Load Flow Study Report will include a summary section highlighting the recommendations from the overall study. These recommendations will include the placement or expansion of additional equipment such as, substations, frequency converter converters, or any system changes.

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>ACELA 21 Electric Traction Load Flow Study</i>				<i>Oct 2020</i>	<i>Dec 2021</i>	<i>\$65,782</i>
31	Conceptual Design	N	N/A	Oct 2020	Dec 2021	\$63,638
31	Project Management	N	N/A	Oct 2020	Dec 2021	\$2,144
Grand Total				Oct 2020	Dec 2021	\$65,782

CAPITAL RENEWAL PROJECT

AEI Tag Reader Wayside Defect Detection

Owner: Amtrak

Type: Capital Renewal Project

ID Number: C.EN.101929

PMO Level 1: P000200

General Project Information

Scope	The scope for the project is to install a total of twenty-eight (28) single-track AEI Tag Reader sites at eighteen (18) new critical locations throughout the NEC over the next several years. The scope of work for this project relies on MOW Production crews, C&S Communication crews and / or contractor services to perform the installation of the AEI Tag Readers while the network interface will be performed by Amtrak's IT department. Tag readers assist managers with locating equipment which will enhance the ability to support track construction.
Schedule	Jan 2021-Oct 2022

FY22 Plan

Planned Expenditure in FY22	\$1,402,076
Scope of FY22 work	The scope includes the completion of the in house design, ordering material and completing construction for the following AEI Tag Reader Locations: South and north end leads out of Race Street, The "O" Track at Landlith, NS Reybold Branch just north of Southward Home signal, Perryville MW Base both ends, and Aberdeen Industrial.

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>AEI Tag Reader Wayside Defect Detection</i>				<i>Jan 2021</i>	<i>Oct 2022</i>	<i>\$1,402,077</i>
12	Ham Interlocking Install	Y	N/A	Jan 2022	Sep 2022	\$318,347
17	Race Street Install	Y	N/A	Jan 2022	Oct 2022	\$318,347
20	"O" Track Landlith Install	Y	N/A	Jan 2021	Sep 2022	\$318,347
21	Perryville Yard Install	Y	N/A	Mar 2022	Sep 2022	\$318,348
31	Design Support	Y	N/A	Oct 2021	Sep 2022	\$64,344
31	Project Management	Y	N/A	Oct 2021	Sep 2022	\$64,343
Grand Total				Jan 2021	Oct 2022	\$1,402,077

CAPITAL RENEWAL PROJECT

Amtrak NEC Nortrak Operating Rods Replacement Project

Owner: Amtrak

Type: Capital Renewal Project

ID Number: C.EN.101894

PMO Level 1: P000160

General Project Information

Scope	The scope of this project is to institute a new design to replace the existing design of the operating rods on moveable point frogs to eliminate a weak adjustment point in the current assembly, which results in breakage and frog failures, to a design that moves the adjustment point to a different part of the rod that can tolerate the stresses of daily operations and eliminates the threaded section of the rod that has been failing. The work performed under this project includes installing new rods in 62 total turnouts along the Northeast Corridor which need replacement. The completion of this work will ensure efficient and safe operation of Amtrak's assets and infrastructure, to maintain compliance with current regulations and standards.
Schedule	Oct 2020-Oct 2022

FY22 Plan

Planned Expenditure in FY22	\$977,208
Scope of FY22 work	In FY22 there will be a replacement of operating rods at various interlockings on the NEC with a new style of operating rods. The planned rod replacement locations for FY22 include: • Post Interlocking • Liberty Interlocking • Midway Interlocking • Union Interlocking • Delco Interlocking • Adams Interlocking • Swift Interlocking • Park Interlocking • Hanson Interlocking • Bowie Interlocking

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>Amtrak NEC Nortrak Operating Rods Replacement Project</i>				Oct 2020	Oct 2022	\$977,207
12	Adams Interlocking Rod Replacement MP 37.1 AN Line	Y	N/A	May 2021	Oct 2022	\$66,577
12	Delco Interlocking Rod Replacement MP 33.75 AN Line	Y	N/A	May 2021	Oct 2022	\$66,576
12	Midway Interlocking Rod Replacement MP 41.3 AN Line	Y	N/A	Feb 2021	Oct 2022	\$218,355
12	Swift Interlocking Rod Replacement MP 7.2 AZ Line	Y	N/A	Dec 2020	Oct 2022	\$72,785
12	Union Interlocking Rod Replacement MP 19.7 AN Line	Y	N/A	Jun 2021	Oct 2022	\$200,158
22	Bowie Interlocking Rod Replacement MP 120.5 AP Line	Y	N/A	Oct 2021	Sep 2022	\$37,511
22	Hanson Interlocking Rod Replacement MP 128.4 AP Line	Y	Mount Switch Machine, 1 EA	Oct 2021	Sep 2022	\$75,024
30	Park Interlocking Rod Replacement MP 46.3 AH Line	Y	N/A	Oct 2021	Sep 2022	\$150,047
31	Project Control Support	Y	N/A	Oct 2021	Sep 2022	\$30,222
31	Project Management	Y	N/A	Oct 2020	Sep 2022	\$59,953
Grand Total				Oct 2020	Oct 2022	\$977,207

CAPITAL RENEWAL PROGRAM

Amtrak System - Ride Quality Improvement Program

Owner: Amtrak

Type: Capital Renewal Program

ID Number: C.EN.101902

PMO Level 1: PG00088

General Project Information

Scope	The scope of this program is to establish and maintain a State of Good Repair (SOGR), efficient and safe operation for Systemwide Track assets to maintain compliance with current regulations and standards. The Ride Quality Program addresses ride quality issues by improving the drainage (in the affected areas), bridge approaches and exits by removing the ballast/sub ballast and replacing it with a Geoweb (that will then be filled with ballast). The netting is used to stiffen the area and absorb the impact when trains go across and the Geo Cell will be used to create a gradual slope to the bridges. The Geo Cell will help reduce bumps created over the years. The work performed under this program includes improving ride quality and reducing the likelihood of speed restrictions associated with bridge transitions between Hook and Baldwin. The plan for each bridge addressed will be to remove the ballast/sub ballast and subgrade. The compacted, GEOWEB will be laid in place and filled for further compaction with new ballast. Then new specialized "transition" panels will be put into place. New continuous welded rail will be installed, and all drainage issues in the immediate areas will be addressed. After original work is completed it will be followed up with maintenance repairs (if needed) on a routine / annual basis.
Schedule	Oct 2021-Sep 2022

FY22 Plan

Planned Expenditure in FY22	\$15,650,235
Scope of FY22 work	The work for FY22 includes addressing ride quality issues by improving the drainage (in the affected areas), bridge approaches and exits by removing the ballast/sub ballast and replacing it with a Geoweb (that will then be filled with ballast). The netting is used to stiffen the area and absorb the impact when trains go across and the Geo Cell will be used to create a gradual slope to the bridges. The bridge approaches that will be worked on include: Central Avenue, Tilghman Road, Kerlin Street, Parker Street, and Barclay Street. Work also includes cleaning out the viaduct, side trenches, and correcting any other drainage issues. The project will work on TK(s) #2, and #3 in FY22.

CAPITAL RENEWAL PROGRAM

Amtrak System - Ride Quality Improvement Program (continued)

Owner: Amtrak

Type: Capital Renewal Program

ID Number: C.EN.101902

PMO Level 1: PG00088

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>Amtrak System - Ride Quality Improvement Program</i>				<i>Oct 2021</i>	<i>Sep 2022</i>	<i>\$15,650,235</i>
19	Central Ave/Tilghman Rd Track Panels & Drainage Improvements Track 2	Y	N/A	Oct 2021	Sep 2022	\$1,919,219
19	Central Ave/Tilghman Rd Track Panels & Drainage Improvements Track 3	Y	N/A	Oct 2021	Sep 2022	\$1,882,536
19	Concord Ave Track 2 Stairs Upgrade	Y	N/A	Oct 2021	Sep 2022	\$170,182
19	Concord Ave/Barclay St Track Panels & Drainage Improvements Track 2	Y	N/A	Oct 2021	Sep 2022	\$1,897,105
19	Concord Ave/Barclay St Track Panels & Drainage Improvements Track 3	Y	N/A	Oct 2021	Sep 2022	\$1,897,103
19	Hook to Baldwin Track Panel Replacement Track 2	Y	Install Track Panels, 640 FT	Oct 2021	Sep 2022	\$1,498,535
19	Hook to Baldwin Track Panel Replacement Track 3	Y	Install Track Panels, 640 FT	Oct 2021	Sep 2022	\$1,267,165
19	Kerlin St/Parker St Track Panels & Drainage Improvements Track 2	Y	N/A	Oct 2021	Sep 2022	\$1,939,963
19	Kerlin St/Parker St Track Panels & Drainage Improvements Track 3	Y	N/A	Oct 2021	Sep 2022	\$1,925,308
31	Equipment Rental	Y	N/A	Oct 2021	Sep 2022	\$965,161
31	Project Control Support	Y	N/A	Oct 2021	Jun 2022	\$26,809
31	Project Management	Y	N/A	Oct 2021	Jun 2022	\$261,149
Grand Total				Oct 2021	Sep 2022	\$15,650,235

CAPITAL RENEWAL PROGRAM

Amtrak Owned Positive Train CTRL (PTC) Installation Program**Owner:** Amtrak**Type:** Capital Renewal Program**ID Number:** C.EN.201034**PMO Level 1:** PG00085**General Project Information**

Scope	Positive Train Control is a mandatory safety measure that has been mandated by the federal government for train operations which is used for collision avoidance, civil speed restrictions enforcement, temporary speed restrictions, and rail worker wayside safety. Positive train control includes track infrastructure, electronic equipment and software, on board computers and back office computers that must constantly be upgraded and maintained for the system to function properly and safely, and the on-board NEC ACSES (Advanced Civil Speed Enforcement System) which covers the new ACSES Display Unit (ADU) to be installed on all NEC trains. This work includes upgrades to communications systems, transponder upgrades and replacements, WIU upgrades and replacements and on-board computer upgrades and replacements.
Schedule	Oct 2017-Oct 2022

FY22 Plan

Planned Expenditure in FY22	\$11,583,600
Scope of FY22 work	FY22 will focus on increased functionality to the on-board computer system such as the Boxcars Technology and Back to Back technology, upgrades to communications systems to make them compatible with PTC, upgrades to the back office systems and wayside upgrades associated with increased functionality technology.

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>Amtrak Owned Positive Train CTRL (PTC) Installation Program</i>				<i>Oct 2017</i>	<i>Oct 2022</i>	<i>\$11,583,600</i>
31	Back Office & Software Upgrades	Y	N/A	Oct 2021	Sep 2022	\$3,217,200
31	Final Design	Y	N/A	Oct 2021	Sep 2022	\$2,144,802
31	NEC Transponder Improvement	Y	N/A	Oct 2021	Oct 2022	\$1,608,601
31	Project Control Support	Y	N/A	Oct 2021	Sep 2022	\$38,606
31	Project Management	Y	N/A	Oct 2017	Oct 2022	\$193,033
31	Safety System Upgrades	Y	N/A	Jan 2020	Jul 2022	\$91,762
31	Siemens OBC Upgrades	Y	N/A	Oct 2020	Oct 2022	\$4,289,596
Grand Total				Oct 2017	Oct 2022	\$11,583,600

CAPITAL RENEWAL PROJECT
**Brill to Landlith OCS
Improvements Project**

Owner: Amtrak
Type: Capital Renewal Project
ID Number: C.EN.101880
PMO Level 1: P000109

General Project Information

Scope	The scope of this project is for the design, permitting, NEPA/SHPO compliance, utility coordination, construction, testing/commissioning and closeout of 20 miles of new overhead catenary structures and wires from Brill Substation to Landlith Interlocking. The existing circa 1930 overhead catenary structures will be removed and salvaged. The design will be contracted out while the construction work will be performed by both 3rd party and division forces. The completion of this work will ensure efficient and safe operation of Amtrak's assets and infrastructure, to maintain compliance with current regulations and standards.
Schedule	Oct 2020-Sep 2028

FY22 Plan

Planned Expenditure in FY22	\$5,275,065
Scope of FY22 work	Complete the Preliminary Engineering includes: Preliminary Plan and Specifications to a 30% design level, Geotechnical Boring Program, Order of Magnitude Construction Estimate, and NEPA requirements. Initiate Final Design effort which includes: Site plans, specifications, construction cost estimate and schedule, electrical system, structural to 60% and 90% submissions.

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>Brill to Landlith OCS Improvements Project</i>				<i>Oct 2020</i>	<i>Sep 2028</i>	<i>\$5,275,066</i>
31	Design Review	Y	N/A	Oct 2020	Nov 2021	\$41,871
31	Final Catenary Design	Y	N/A	Dec 2021	Feb 2023	\$3,915,404
31	Final Design	Y	N/A	Apr 2022	May 2022	\$91,752
31	Preliminary Design	Y	N/A	Nov 2020	Nov 2021	\$660,494
31	Project Management	Y	N/A	Oct 2020	Sep 2028	\$350,117
31	RWP Protection	Y	N/A	Mar 2021	Aug 2022	\$215,427
Grand Total				Oct 2020	Sep 2028	\$5,275,066

CAPITAL RENEWAL PROJECT

Cedar Hill - Remediation

Owner: Amtrak

Type: Capital Renewal Project

ID Number: C.EV.100374

PMO Level 1:

General Project Information

Scope	Following the discovery of elevated concentrations of PCBs in soil at the site in 2006 (which constitutes a Significant Environmental Hazard), interim measures were implemented and the site was investigated over a 10-year period to determine the nature and extent of the contamination. The results of those investigations indicated that PCB contamination extends to the adjacent property which is owned by CSX. The purpose of this project is to eliminate the Significant Environmental Hazard condition that exists at the site, comply with TSCA regulations to address the PCB contamination, create a safer work environment for employees, and return the site to productive use. This is a recurring annual maintenance project. Milestones will only be tracked for FY22. Out-year funding planned.
Schedule	Oct 2021-Sep 2022

FY22 Plan

Planned Expenditure in FY22	\$536,200
Scope of FY22 work	In FY22, a final round of groundwater sampling will be conducted to complete the delineation of PCB contamination at the site and on the adjacent CSX property, after which a Characterization Report will be prepared and submitted to the Connecticut DEEP and the EPA for review. Subsequently, a meeting will be held with the agencies to review the findings of the report and to discuss the joint Amtrak/CSX plan to remediate the PCB soil contamination. Based on agency feedback, an Engineered Control Variance (ECV) Application will be prepared and submitted to CT DEEP to address the Significant Environmental Hazard condition that exists on both properties, and a TSCA Plan will be submitted to EPA to address federal requirements for remediating the PCB soil contamination. Following the receipt of agency approval for the ECV Application and TSCA Plan, Procurement will solicit bids for a contractor to perform the site remediation. It is anticipated that remediation will be initiated in late FY22.

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>Cedar Hill - Remediation</i>				<i>Oct 2021</i>	<i>Sep 2022</i>	<i>\$536,200</i>
5	(blank)	Y	N/A	Oct 2021	Sep 2022	\$536,200
Grand Total				Oct 2021	Sep 2022	\$536,200

CAPITAL RENEWAL PROJECT

CETC 30th Street Station HVAC Upgrades FY22

Owner: Amtrak

Type: Capital Renewal Project

ID Number: C.RE.100096

PMO Level 1:

General Project Information

Scope	This project will replace aged HVAC equipment, 20-25 years old, that serves the 24/7 mission-critical Centralized Electrification and Traffic Control (CETC) on the 8th Floor of 30th Street Station. The HVAC equipment is nearing the end of its useful life and requires frequent repairs.
Schedule	Oct 2021-Sep 2022

FY22 Plan

Planned Expenditure in FY22	\$504,028
Scope of FY22 work	The CETC substation's cooling units and the rooftop dry coolers will be removed and replaced with new units. The existing piping serving the units will remain. The equipment replacement will be a "one for one" swap. Work will be performed at the platform level and 8th Floor roof. The equipment for the 8th floor roof will need to be craned into position.

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>CETC 30th Street Station HVAC Upgrades FY22</i>				<i>Oct 2021</i>	<i>Sep 2022</i>	<i>\$504,028</i>
17	(blank)	Y	N/A	Oct 2021	Sep 2022	\$504,028
Grand Total				Oct 2021	Sep 2022	\$504,028

CAPITAL RENEWAL PROJECT

Clark to Ham Constant Tension Upgrade Project

Owner: Amtrak

Type: Capital Renewal Project

ID Number: C.EN.101765

PMO Level 1: P000011

General Project Information

Scope	Provide constant tension Upgrade between Clark NJ to Ham Interlocking. Construction, testing/commissioning, acceptance and closeout for 7 route miles of 4-track mainline constant tension catenary, including installation of 305 Foundations, 155 portal beams, 6 catenary cantilever structures, and approximately 28 miles of constant tension catenary wires and hardware. Removal and retire existing catenary structures, installation of temporary platforms at two New Jersey Transit stations and other support tasks.
Schedule	Jun 2020-Nov 2026

FY22 Plan

Planned Expenditure in FY22	\$22,345,884
Scope of FY22 work	Complete remaining 93 foundations at Track 4 and 13 foundations at Track 1, remove temporary platforms at Hamilton and Princeton Junction, received the balance of steel such as the 92 lower & 96 upper columns, and 155 portal Beams. Complete installation of lower columns catenary and approximately 36 portal beams

CAPITAL RENEWAL PROJECT

Clark to Ham Constant Tension Upgrade Project (continued)

Owner: Amtrak

Type: Capital Renewal Project

ID Number: C.EN.101765

PMO Level 1: P000011

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>Clark to Ham Constant Tension Upgrade Project</i>				<i>Jun 2020</i>	<i>Nov 2026</i>	<i>\$22,345,882</i>
12	B&B Temporary Platforms	Y	N/A	Apr 2021	Sep 2025	\$812,456
12	C&S Construction	Y	N/A	Apr 2021	Sep 2025	\$543,116
12	C&S Underground Assets	Y	N/A	Jan 2021	Aug 2022	\$443,847
12	Catenary Pole/Portal Erection	Y	Install / Rehabilitate Cat. Poles, 250 EA	Jun 2020	Jun 2024	\$151,332
12	Catenary Structures	Y	Install / Rehabilitate Cat. Cross-beam/cantilever beam, 36 EA	Oct 2021	Sep 2022	\$10,370,744
12	Construction Management	Y	N/A	Jan 2021	May 2026	\$621,307
12	Construction Support	Y	N/A	Oct 2020	Sep 2026	\$505,471
12	Design Services	Y	N/A	Aug 2020	Sep 2025	\$95,088
12	ET Construction	Y	N/A	Mar 2021	Jul 2022	\$214,480
12	Headquarter Lease	Y	N/A	Oct 2020	Sep 2025	\$557,422
12	Headquarter Maintenance	Y	N/A	Nov 2020	Mar 2024	\$8,842
12	HNTB Contract	Y	N/A	Jan 2021	May 2025	\$130,284
12	Legal	Y	N/A	Oct 2020	Mar 2025	\$24,501
12	Office Equipment & Supplies	Y	N/A	Oct 2020	Aug 2025	\$21,835
12	Project Management	Y	N/A	Oct 2020	Feb 2026	\$129,114
12	Project Management Support	Y	N/A	Oct 2020	Feb 2026	\$103,708
12	Steel Procurement	Y	N/A	Oct 2021	Sep 2022	\$3,753,400
12	Structure Procurement	Y	N/A	Nov 2020	Sep 2022	\$3,436,509
12	Testing & Commissioning	Y	N/A	Jun 2021	Jun 2025	\$81,996
12	Vehicle Leases	Y	N/A	Jan 2021	Nov 2026	\$340,432
Grand Total				Jun 2020	Nov 2026	\$22,345,882

CAPITAL RENEWAL PROGRAM

Communications System Upgrades Program

Owner: Amtrak

Type: Capital Renewal Program

ID Number: C.EN.101857

PMO Level 1: PG00083

General Project Information

Scope	The scope of this program is to establish and maintain a State of Good Repair (SOGR), efficient and safe operations for Amtrak's Systemwide Communication Network to maintain compliance with current regulations and standards. The work performed under this program includes providing upgrades to the communication and signals network equipment to support the increased demands of both communications and data usage. This work will be performed on a routine or annual basis.
Schedule	Oct 2020-Oct 2022

FY22 Plan

Planned Expenditure in FY22	\$7,210,819
Scope of FY22 work	The scope for FY22 will be the following: 1. Completion of Washington 1st Street Tunnel Upgrades, 2. Completion of Radio Hut replacement at Grundy Interlocking, 3. Continuance of Fiber Transport Upgrades on the Harrisburg Line, NYD East and West, Completion of Fiber Optic Transport System, Completion of Radio System Upgrade Conceptual Phase and completion of a specification for wayside fiber upgrades from New York to Washington DC.

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>Communications System Upgrades Program</i>				Oct 2020	Oct 2022	\$7,210,818
10	Fiber Cable Transport Upgrades NYD East	Y	N/A	Oct 2020	Sep 2022	\$257,138
11	Penn Station Radio System Upgrades	Y	N/A	Oct 2020	Dec 2021	\$26,811
31	Communication House Replacement	Y	N/A	Oct 2021	Sep 2022	\$268,099
31	Fiber Cable Lateral Upgrades NYD West	Y	N/A	Oct 2020	Oct 2022	\$161,803
31	Fiber Transport Upgrade	Y	N/A	Oct 2021	Sep 2022	\$804,397
31	Fiber Transport Upgrades	Y	N/A	Oct 2021	Sep 2022	\$107,240
31	Harrisburg Line Fiber Transport Upgrades	Y	Install / Renew Fiber Optic Cable, 203000 FT	Oct 2020	Sep 2022	\$480,560
31	NEC Cable Fiber Transport Backbone	Y	N/A	Sep 2021	Apr 2022	\$3,217,201
31	Network System Upgrades	Y	N/A	Oct 2021	Sep 2022	\$107,240
31	Project Control Support	Y	N/A	Oct 2021	Sep 2022	\$10,679
31	Project Management	Y	N/A	Oct 2021	Sep 2022	\$32,172
31	Radio System Upgrades	Y	N/A	May 2021	Mar 2022	\$32,362
31	Conceptual Phase Design	Y	N/A	May 2021	Mar 2022	\$1,597,877
31	Wayside Fiber Upgrade New York to Washington DC	Y	Install / Renew Fiber Optic Cable, 377000 FT	Jan 2021	Jun 2022	\$107,240
Grand Total				Oct 2020	Oct 2022	\$7,210,818

CAPITAL RENEWAL PROJECT

Conestoga Substation Improvements Project

Owner: Amtrak

Type: Capital Renewal Project

ID Number: C.EN.101877

PMO Level 1: P000111

General Project Information

Scope	The scope of this project is for the design, permit (NEPA/SHPO), perform utility coordination, construct, test and commission, startup, and accept substation improvements at Amtrak's Conestoga substation at Safe Harbor. New construction includes a new control house, replacement of the P7 and P8 transformers and low side breakers, replacement of switches and cabling, rehabilitation of gantry structure and general site improvements. All design and construction will be performed by outside companies. The completion of this work will ensure efficient and safe operation of Amtrak's assets and infrastructure, to maintain compliance with current regulations and standards.
Schedule	Jun 2021-May 2027

FY22 Plan

Planned Expenditure in FY22	\$2,134,669
Scope of FY22 work	Progress the 30% design to 100% design and initiate the Construction procurement process of sub station improvements.

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>Conestoga Substation Improvements Project</i>				<i>Jun 2021</i>	<i>May 2027</i>	<i>\$2,134,669</i>
30	60% Design	Y	N/A	Jul 2021	Nov 2021	\$454,572
30	90% Design	Y	N/A	Nov 2021	Feb 2022	\$486,685
30	Contractor	Y	N/A	Oct 2021	Sep 2022	\$281,108
30	Design Review	Y	N/A	Jul 2021	Apr 2022	\$43,566
30	Final Design	Y	N/A	Feb 2022	Apr 2022	\$712,374
30	Project Management	Y	N/A	Jun 2021	May 2027	\$102,693
30	Project Management Support	Y	N/A	Jun 2021	May 2027	\$19,728
30	RWP Protection	Y	N/A	Jul 2021	May 2027	\$1,164
30	Testing	Y	N/A	Oct 2021	Sep 2022	\$32,779
Grand Total				Jun 2021	May 2027	\$2,134,669

CAPITAL RENEWAL PROJECT

Conestoga to Royalton Transmission Line Replacement Project

Owner: Amtrak

Type: Capital Renewal Project

ID Number: C.EN.101785

PMO Level 1: P000014

General Project Information

Scope	Design, permit (NEPA/SHPO), utility and NS coordination, construct, test and commission, startup, accept and closeout a rebuild of 29 miles of 138 kV transmission line (the line 11 circuit) from Safe Harbor substation to the Harrisburg Line's Royalton substation on an existing 24 mile utility easement along Norfolk Southern's tracks and 5 miles on local township rights-of-way. The rebuilt line 11 circuit will include 2-phase conductor wire, static wire, and associated insulators and reduce the number of transmission structures from 632 to approximately 350. New structures will have pre-cast concrete foundations and monolithic transmission poles. Design and construction will be contracted to outside companies.
Schedule	Oct 2020-May 2025

FY22 Plan

Planned Expenditure in FY22	\$2,726,569
Scope of FY22 work	Funded for the completion of final design (60%, 90%, 100% and final) and reviews for the project, and to begin the procurement of 3rd party General contractors to furnish and install new transmission poles.

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>Conestoga to Royalton Transmission Line Replacement Project</i>				<i>Oct 2020</i>	<i>May 2025</i>	<i>\$2,726,569</i>
30	100% Design	Y	N/A	Jun 2021	May 2022	\$414,492
30	60% Design	Y	N/A	Oct 2020	Dec 2022	\$766,036
30	90% Design	Y	N/A	Apr 2021	Jan 2023	\$163,111
30	Construction Contractor	Y	N/A	May 2022	May 2025	\$69,039
30	Construction Management	Y	N/A	Sep 2021	Apr 2023	\$299,193
30	ET Construction	Y	N/A	Aug 2021	Jun 2023	\$375,340
30	Final Design Review	Y	N/A	Jun 2021	May 2022	\$107,240
30	Project Management	Y	N/A	Oct 2020	Apr 2023	\$264,017
30	R.O.W./Easements	Y	N/A	Feb 2022	Jul 2022	\$268,101
Grand Total				Oct 2020	May 2025	\$2,726,569

CAPITAL RENEWAL PROJECT

East River Tunnels Rail/Tie Replacement Lines 3/4

Owner: Amtrak

Type: Capital Renewal Project

ID Number: C.EN.100756

PMO Level 1: P000021

General Project Information

Scope	The Scope of this project is to replace the track structure and third rail, and improve drainage for the East River Tunnel. This work is necessary to remediate the damage that was caused when the tunnels were flooded as a result of Hurricane Sandy in 2012. The completion of this work will ensure efficient and safe operation of Amtrak's assets and infrastructure, to maintain compliance with current regulations and standards.
Schedule	Oct 2020-Sep 2022

FY22 Plan

Planned Expenditure in FY22	\$268,100
Scope of FY22 work	Project to hit substantial completion at end of September 2021 when new CWR is installed in Line 4. FY22 work is to complete punch list work in Line 4 and then close out project. Punchlist work may include removal of temporary lights in tunnel, final surfacing, breaking down old rail and track panels, and completing any welds.

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>East River Tunnels Rail/Tie Replacement Lines 3/4</i>				<i>Oct 2020</i>	<i>Sep 2022</i>	<i>\$268,100</i>
10	C&S Support	Y	N/A	Oct 2020	Sep 2022	\$26,810
10	Contractor	Y	N/A	Oct 2020	Sep 2022	\$53,620
10	Project Management	Y	N/A	Oct 2020	Mar 2022	\$26,810
10	Track Support	Y	N/A	Oct 2020	Sep 2022	\$160,860
Grand Total				Oct 2020	Sep 2022	\$268,100

CAPITAL RENEWAL PROJECT
Electric Traction System Aerial System Assessment Project

Owner: Amtrak
Type: Capital Renewal Project
ID Number: C.EN.101809
PMO Level 1: P000158

General Project Information

Scope	Perform and complete assessment, categorization, prioritization, and project management for Amtrak's catenary, signal, transmission system structures, electrical lines, components and system assets along Amtrak's Electric Traction System right of way.
Schedule	Oct 2020-Sep 2024

FY22 Plan

Planned Expenditure in FY22	\$2,429,828
Scope of FY22 work	Overhead catenary system structures and components/connections inspected in Mid Atlantic and New York Divisions including pole and foundation interface.

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>Electric Traction System Aerial System Assessment Project</i>				<i>Oct 2020</i>	<i>Sep 2024</i>	<i>\$2,429,828</i>
31	Contractor	Y	N/A	Oct 2021	Sep 2024	\$2,403,017
31	Project Management	Y	N/A	Oct 2020	Sep 2024	\$26,811
Grand Total				Oct 2020	Sep 2024	\$2,429,828

CAPITAL RENEWAL PROJECT

Empire Line Lighting Upgrade Project

Owner: Amtrak

Type: Capital Renewal Project

ID Number: C.EN.100732

PMO Level 1: P000136

General Project Information

Scope	The scope of this project is to ensure efficient and safe operation of Amtrak's assets and infrastructure to maintain compliance with current regulations and standards by designing and installing a new and energy-efficient LED lighting system with an emergency lighting inverter distribution in the Empire Line Overbuild between 72nd to 125th Street under Riverside Park, NY. In addition to lighting the work performed under this project includes the tunnel egress stairs at four locations which will be designed and replaced, as well as the installation of Emergency Blue Station Lights, all in compliance with NFPA 70 and 130.
Schedule	Feb 2020-Jan 2023

FY22 Plan

Planned Expenditure in FY22	\$15,711,443
Scope of FY22 work	FY22 scope includes the Issue a Notice to Proceed to the Contractor in October 2021. The Contractor is to install a new and energy-efficient LED lighting system with an emergency lighting inverter distribution in the Empire Line Overbuild between 72nd to 125th Street under Riverside Park, NY. The work will include rehabilitating four electrical rooms by upgrading the switchgear bus bars and performing structural repairs to the walls. In addition to this work, we are planning to replace four egress stairs.

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>Empire Line Lighting Upgrade Project</i>				<i>Feb 2020</i>	<i>Jan 2023</i>	<i>\$15,711,443</i>
27	B&B Construction	Y	N/A	Oct 2021	Sep 2022	\$1,407,739
27	Construction Design Services	Y	N/A	Jun 2021	Nov 2022	\$221,497
27	Construction Management	Y	N/A	Feb 2020	Dec 2022	\$592,990
27	Contractor	Y	N/A	Oct 2021	Sep 2022	\$12,528,044
27	Project Control Support	Y	N/A	Oct 2020	Apr 2022	\$23,961
27	Project Management	Y	N/A	Oct 2020	Jan 2023	\$88,014
27	RWP Protection	Y	N/A	Oct 2021	Sep 2022	\$818,249
27	Testing & Commissioning	Y	N/A	Oct 2021	Sep 2022	\$30,949
Grand Total				Feb 2020	Jan 2023	\$15,711,443

CAPITAL RENEWAL PROGRAM

Engineering Advanced Technology Track Inspection Program

Owner: Amtrak

Type: Capital Renewal Program

ID Number: C.EN.101659

PMO Level 1: PG00066

General Project Information

Scope	The scope of this program is to provide for compliance with current regulations and the Tier III operation waiver for the Acela 2 (new Acela) trainsets. This work includes two projects which are 1) construction of a track geometry car and 2) the development of a computer-based visual inspection system to improve effectiveness of high speed track inspections. This work will be performed over multiple years.
Schedule	Dec 2020-Sep 2022

FY22 Plan

Planned Expenditure in FY22	\$1,327,029
Scope of FY22 work	Finish procurement of parts for and construction of the track geometry car. Award contract for the computer-based visual inspection system, develop operational procedures for the system and test the system.

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>Engineering Advanced Technology Track Inspection Program</i>				<i>Dec 2020</i>	<i>Sep 2022</i>	<i>\$1,327,030</i>
31	Contractor	Y	N/A	Oct 2021	Jan 2022	\$967,562
31	Design	Y	N/A	Dec 2020	Feb 2022	\$220,125
31	Material Procurement	Y	N/A	Dec 2020	Dec 2021	\$32,085
31	Project Control Support	Y	N/A	Oct 2021	Sep 2022	\$53,622
31	Project Management	Y	N/A	Oct 2021	Sep 2022	\$53,635
Grand Total				Dec 2020	Sep 2022	\$1,327,030

CAPITAL RENEWAL PROGRAM

Engineering Asset Management System

Owner: Amtrak

Type: Capital Renewal Program

ID Number: C.EN.100123

PMO Level 1: PG00078

General Project Information

Scope	The Enterprise Asset Management Program sets the asset management strategy for the Engineering Department through the development of the 5 year infrastructure asset line plan (49 USC 24320) and the Northeast Corridor Asset Management Plan (49 USC 24904). This program addresses key improvement actions within those plans through process engineering and technology advancements. It maintains the infrastructure asset inventory in a geospatial database for 2,000+ track miles of linear assets and 500,000+ discrete assets. Work includes continued maintenance on the work order management system to support completion of FRA mandated tests and inspections, including the training and support of users; and development of tools and technology to advance asset management practices and support informed decision making by department and division management.
Schedule	Oct 2021-Sep 2022

FY22 Plan

Planned Expenditure in FY22	\$3,753,397
Scope of FY22 work	The Enterprise Asset Management Program scope is to support as needed projects and improvement's around asset management strategy for the Engineering Department.

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>Engineering Asset Management System</i>				<i>Oct 2021</i>	<i>Sep 2022</i>	<i>\$3,753,398</i>
31	Asset Library Upgrade	Y	N/A	Oct 2021	Sep 2022	\$1,341,573
31	Asset Management Plan	Y	N/A	Oct 2021	Sep 2022	\$2,050,428
31	Maximo App Upgrades	Y	N/A	Oct 2021	Sep 2022	\$199,466
31	Maximo Modifications	Y	N/A	Oct 2021	Sep 2022	\$97,586
31	Project Management	Y	N/A	Oct 2021	Sep 2022	\$64,344
Grand Total				Oct 2021	Sep 2022	\$3,753,398

CAPITAL RENEWAL PROGRAM

Engineering Capital Program/ Project Management

Owner: Amtrak

Type: Capital Renewal Program

ID Number: C.EN.100418

PMO Level 1: PG00077

General Project Information

Scope	The scope of this program is to establish and maintain a project management office to develop and maintain standards, processes and procedures for the Engineering Department to ensure the project delivery organization is in compliance with internal and external stakeholder requirements for fiscal year and life of project scope, schedule and budget for projects and fiscal year and 5-year plan scope, schedule and budget for programs. This work includes but is not limited to estimating, scheduling, forecasting, change management, monthly and quarterly reporting, document control and annual capital plan submission. The resources include Project Management Office (PMO) support for the overall capital process from project initiation to project closeout and requires support from Engineering portfolio management, workforce management, Information Technology and Finance to accomplish objectives. This work is performed on a routine or annual basis.
Schedule	Oct 2021-Sep 2022

FY22 Plan

Planned Expenditure in FY22	\$15,003,127
Scope of FY22 work	Support of FY22 Engineering portfolio with project controls services including not limited to estimating, scheduling, change management, monthly and quarterly reporting, document control and annual capital submission. Special items to be delivered in FY22 include an assessment of the portfolio risk and quality of current data, evaluation of estimation procedures and implementation of enhancements / training to meet best practices, and a gap analysis of what is needed to deliver more capital in compliance with requirements of stimulus grant.

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>Engineering Capital Program/Project Management</i>				<i>Oct 2021</i>	<i>Sep 2022</i>	<i>\$15,003,128</i>
31	1801 Market Street Philadelphia - Engineering Office Rent	Y	N/A	Oct 2021	Sep 2022	\$117,106
31	Engineering Capital Program - Non Project Management Office Staff	Y	N/A	Oct 2021	Sep 2022	\$100,163
31	Engineering Capital Program - Project Management Office Staff	Y	N/A	Oct 2021	Sep 2022	\$2,576,329
31	Engineering Readiness Assessment	Y	N/A	Oct 2021	Sep 2022	\$5,362,004
31	Engineering Schedule Cost/Support	Y	N/A	Oct 2021	Sep 2022	\$1,485,521
31	Project Controls Process Improvements	Y	N/A	Oct 2021	Sep 2022	\$5,362,004
Grand Total				Oct 2021	Sep 2022	\$15,003,128

CAPITAL RENEWAL PROGRAM

Engineering Equipment Acquisition Program

Owner: Amtrak

Type: Capital Renewal Program

ID Number: C.EN.100285

PMO Level 1: PG00054

General Project Information

Scope	This project is for the replacement of existing Maintenance of Way Equipment including beyond their useful life. This equipment is used by Division and Production personnel in the construction and maintenance of infrastructure assets to address State of Good Repair backlog. This work is performed on a routine or annual basis.
Schedule	Oct 2021-Sep 2022

FY22 Plan

Planned Expenditure in FY22	\$22,843,211
Scope of FY22 work	The scope for FY22 includes milestones for equipment in various stages of design, fabrication and delivery as well as the procurement of newly identified equipment. FY22 will include Backhoes, Ballast Regulator, Barge/Boat Motor, Broom Regulator, Catenary Inspection Car, Conveyors, Cribber Adzer, CX Spiker, 6" Trash Pumps, Excavator Trailers, Extendable Trailers, Generator Container, Rail Heater Cart, Vertical Mass Lift, Mini Excavator, Nipper Clipper, Spiker, TLM Overhaul, Over road Gradall, Power Tread, Scissor Lift, Skid Steer, Spike Puller, Telehandler, Tie Adzer, Tie Handler, Tilt Cars, and Wheel Loaders.

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>Engineering Equipment Acquisition Program</i>				<i>Oct 2021</i>	<i>Sep 2022</i>	<i>\$22,843,213</i>
31	Engineering Equipment Acquisition	N	N/A	Oct 2021	Sep 2022	\$22,843,213
Grand Total				Oct 2021	Sep 2022	\$22,843,213

CAPITAL RENEWAL PROGRAM

Engineering Equipment Heavy Overhaul Program

Owner: Amtrak

Type: Capital Renewal Program

ID Number: C.EN.100157

PMO Level 1: PG00053

General Project Information

Scope	The scope of the Track Equipment Heavy Overhaul Program is to establish and maintain efficient and safe operation of track work equipment to remain compliant with current regulations and standards.
Schedule	Oct 2021-Sep 2022

FY22 Plan

Planned Expenditure in FY22	\$9,651,602
Scope of FY22 work	The scope of work to be performed in FY22 for the Track Equipment Heavy Overhaul Program includes the overhaul and delivery of several types of equipment, including Spiker, Catenary Inspection Car, Hopper Car, Stabilizer, Ballast Regulator, TLM, Undercutter, Tie Handler, Tamper, and Gradall. The completion of the equipment heavy overhaul work ensures Amtrak will meet its commitment to safe operation of trains by way of the preventative and predictive maintenance of heavy repair equipment.

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>Engineering Equipment Heavy Overhaul Program</i>				<i>Oct 2021</i>	<i>Sep 2022</i>	<i>\$9,651,602</i>
31	Engineering Equipment Overhaul - Heavy Overhaul	N	N/A	Oct 2021	Sep 2022	\$9,651,602
Grand Total				Oct 2021	Sep 2022	\$9,651,602

CAPITAL RENEWAL PROGRAM

Engineering Major Equipment Acquisition

Owner: Amtrak

Type: Capital Renewal Program

ID Number: C.EN.101757

PMO Level 1: PG00052

General Project Information

Scope	The scope of this project is to help establish and maintain a State of Good Repair (SOGR), efficient and safe operation for track assets to maintain compliance with current regulations and standards. This work includes the acquisition of Maintenance of Way Equipment for the Engineering Department for the Track Laying System, Undercutting, High Speed Surfacing and Reference Surfacing. This work will occur over multiple years.
Schedule	Oct 2021-Sep 2022

FY22 Plan

Planned Expenditure in FY22	\$155,101,774
Scope of FY22 work	Continue overseeing multi year procurement, fabrication and delivery of MoW Equipment including but not limited to switch tampers, undercutting machines, track laying machines, stabilizers, tampers, Brandt trucks, ballast cars, side dump cars, flat cars, and material hopper conveyor cars along with begin fabrication of TLM, BMS and railbound tunnel crane.

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>Engineering Major Equipment Acquisition</i>				<i>Oct 2021</i>	<i>Sep 2022</i>	<i>\$155,101,776</i>
31	Engineering Equipment Purchase	N	N/A	Oct 2021	Sep 2022	\$155,101,776
Grand Total				Oct 2021	Sep 2022	\$155,101,776

CAPITAL RENEWAL PROGRAM

Engineering Vehicle Acquisition Program

Owner: Amtrak

Type: Capital Renewal Program

ID Number: C.EN.101455

PMO Level 1: PG00056

General Project Information

Scope	The scope of the Engineering Vehicle Acquisition Program is to evaluate, identify and procure vehicles necessary to maintain an efficiently functioning departmental vehicle fleet. The acquisition of these vehicles are pertinent to the repair and maintenance personnel ability to perform work tasks that ensure Amtrak meets its commitment to efficient and safe operation of Amtrak's assets and infrastructure. This work is performed on a routine or annual basis.
Schedule	Oct 2021-Sep 2022

FY22 Plan

Planned Expenditure in FY22	\$4,364,057
Scope of FY22 work	The FY22 scope for the Engineering Vehicle Acquisition Program includes the procurement of several types of vehicles, including Knuckle Boom Cranes, Grapple Trucks, Rotary Dump Trucks, Chemical Welding Trucks, Fuel/Lube Trucks, 19' Scissor Lifts, 39' Scissor Lifts, 46' Articulating Lifts, 84' Articulating Lifts, Compressors, Manual Knee Mills, Skid Steer, and Telehandler.

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>Engineering Vehicle Acquisition Program</i>				<i>Oct 2021</i>	<i>Sep 2022</i>	<i>\$4,364,058</i>
31	Engineering Vehicle Acquisition	N	N/A	Oct 2021	Sep 2022	\$4,364,058
Grand Total				Oct 2021	Sep 2022	\$4,364,058

CAPITAL RENEWAL PROGRAM

ET Linear Assets Research and Development Program

Owner: Amtrak

Type: Capital Renewal Program

ID Number: C.EN.101873

PMO Level 1: PG00086

General Project Information

Scope	The scope of this program is to establish and maintain a State of Good Repair (SOGR), and ensure efficient and safe operations by conducting research and development for Electric Traction Improvements along Amtrak's right of way to maintain compliance with current regulations and standards. The work included in this program includes conducting research and development for Electric Traction improvements along Amtrak's right of way, by providing conceptual designs, final designs, construction and installation of prototypes of these improvements. Examples of this work include post incident outage analysis, review of third party design submissions, review of Amtrak-generated designs, relay settings recommendations, development of equipment testing and commissioning plans, and routine substation, SCADA, and frequency converter design support. This work will be performed on a routine or annual basis.
Schedule	Aug 2021-Oct 2022

FY22 Plan

Planned Expenditure in FY22	\$3,460,260
Scope of FY22 work	The scope is to construct and install 6 signal power huts along the northeast corridor, install two dead end pulley assembly prototypes in the New England Division and develop a voltage detection system prototype to be placed on one of the catcar vehicles.

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>ET Linear Assets Research and Development Program</i>				<i>Aug 2021</i>	<i>Oct 2022</i>	<i>\$3,460,261</i>
19	Arsenal to Glenolden Substation 1001 Circuit Study	Y	N/A	Aug 2021	Apr 2022	\$50,026
31	New England Division Deadend Assembly Study	Y	N/A	Apr 2022	Sep 2022	\$65,050
31	Project Control Support	Y	N/A	Oct 2021	Sep 2022	\$5,793
31	Project Management	Y	N/A	Oct 2021	Sep 2022	\$11,184
31	Research and Development	Y	N/A	Oct 2021	Oct 2022	\$48,258
31	Supply and Install Prototype Signal Huts	Y	Install CIH Location, 6 EA	Oct 2021	Sep 2022	\$3,226,329
31	Voltage Detection System	Y	N/A	Oct 2021	Sep 2022	\$53,620
Grand Total				Aug 2021	Oct 2022	\$3,460,261

CAPITAL RENEWAL PROJECT

Fair Interlocking Renewal Project

Owner: Amtrak

Type: Capital Renewal Project

ID Number: C.EN.101277

PMO Level 1: P000026

General Project Information

Scope	The scope of this project is to allow Amtrak to maintain state of good repair and increase operational capacity for Amtrak, NJT and SEPTA. Once completed the interlocking will include upgraded special trackwork, catenary and signal infrastructure facilitating higher speeds through the O track and improving reliability of existing assets. This work includes the renewal of Fair Interlocking and involves design, construction, testing, commissioning, acceptance and closeout of turnout and crossover replacement including associated ballast and switch machines. This project will remove and replace five crossovers and seven turnouts, remove # 10 and # 15 crossovers and replace with track panels; replace approximately 300 feet of track in Hill Yard; and conversion of switch machines and heaters to electrically-operated.
Schedule	Oct 2020-Sep 2022

FY22 Plan

Planned Expenditure in FY22	\$1,167,873
Scope of FY22 work	The scope for FY22 includes the completion the catenary improvements within the interlocking on the O and Wall tracks, upgrading power sectionalizing switches, closing out all late arriving invoices, improving curve alignment into the O track, reaching construction completion and closing out the project in its entirety.

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>Fair Interlocking Renewal Project</i>				<i>Oct 2020</i>	<i>Sep 2022</i>	<i>\$1,167,874</i>
12	Catenary Crossover Modifications	Y	N/A	Jul 2021	Jul 2022	\$65,195
12	Construction Support	Y	N/A	Oct 2020	Jul 2022	\$62,199
12	Contractor	Y	N/A	Oct 2020	Jul 2022	\$334,589
12	ET Construction	Y	N/A	Oct 2021	Dec 2021	\$494,411
12	Final Design	Y	N/A	Oct 2021	Dec 2021	\$26,810
12	Project Management	Y	N/A	Oct 2020	Sep 2022	\$88,627
12	Project Management Support	Y	N/A	Oct 2020	Sep 2022	\$24,211
12	RWP Protection	Y	N/A	Oct 2020	Jul 2022	\$71,831
Grand Total				Oct 2020	Sep 2022	\$1,167,874

CAPITAL RENEWAL PROJECT
FDNY Tunnel Radio System Upgrades

Owner: Amtrak
Type: Capital Renewal Project
ID Number: C.EN.101627
PMO Level 1: P000177

General Project Information

Scope	The scope of this project is to expand the Fire Department of New York (FDNY) radio coverage in all New York tunnels which include the Empire Line Overbuild, North River Tunnel, and East River Tunnel. This project will increase the safety of workers and employees by expanding radio communications of first responders. The work performed under this project includes upgrading and reconfiguring the Penn Station New York communication room and expanding other communication locations at Weehawken, NJ; 1st Avenue North; 1st Avenue South; 11th Avenue; 72nd Street hut; and 125th Street huts in New York.
Schedule	Aug 2020-Jan 2023

FY22 Plan

Planned Expenditure in FY22	\$268,867
Scope of FY22 work	The FY22 scope is to bring the radio expansion for coverage at the North River Tunnel, Empire Tunnel, and the East River Tunnel to 100% completion. This work includes configuration of existing radio equipment and the installation of new equipment such as clocks, batteries, GPS antennas, network switches and other components.

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>FDNY Tunnel Radio System Upgrades</i>				<i>Aug 2020</i>	<i>Jan 2023</i>	<i>\$268,866</i>
11	C&S Construction	Y	N/A	May 2021	Jul 2022	\$109,464
11	Construction Design Services	Y	N/A	May 2021	Oct 2021	\$32,389
11	Construction Management	Y	N/A	Aug 2020	Jul 2022	\$9,302
11	Final Design	Y	N/A	Oct 2020	Jan 2023	\$46,495
11	Final Design Review	Y	N/A	Oct 2020	Sep 2022	\$10,724
11	Project Management	Y	N/A	Aug 2020	Nov 2022	\$38,448
11	Project Management Support	Y	N/A	Aug 2020	Nov 2022	\$11,030
11	RWP Protection	Y	N/A	Aug 2020	Jul 2022	\$2,918
11	Testing	Y	N/A	Sep 2021	Jul 2022	\$8,097
Grand Total				Aug 2020	Jan 2023	\$268,866

CAPITAL RENEWAL PROGRAM

Fence Upgrades Program

Owner: Amtrak

Type: Capital Renewal Program

ID Number: C.EN.101854

PMO Level 1: PG00069

General Project Information

Scope	The scope of this program is to establish and maintain a State of Good Repair (SOGR), and ensure efficient and safe operations by securing Amtrak Infrastructure Assets to maintain compliance with current regulations and standards. Under this program high security fencing and gates are installed to property adjacent to Amtrak's critical infrastructure assets such as track right of way, bridges, tunnels and MOFW / MOFE yards and facilities which are susceptible to pedestrian and vehicular trespassers and acts of vandalism. This work will be performed on a routine or annual basis.
Schedule	Aug 2021-Nov 2022

FY22 Plan

Planned Expenditure in FY22	\$14,843,868
Scope of FY22 work	<p>In FY22 fencing will be installed in a significant number of locations across the Northeast Corridor (NEC) and Central Division. Work will be done in the following locations in FY22: • In the Central Division fencing is being installed in Sanford (two locations), Hialeah, NOL, Beech Grove and on the Michigan line (three locations).</p> <ul style="list-style-type: none">• On the NEC, we are installing fencing in all three Divisions. In the New England Division, we are installing fencing in Pawtucket, Niantic, East Greenwich, Branford, Wallingford, New London and a few other locations.• In the New York Division, we are installing fencing in the Bronx, Metuchen and Elizabeth.• In the Mid-Atlantic Division, we are installing fencing in Parkesburg and Baltimore.• On the Empire Line, fencing is planned to be installed on the west end of the line.

CAPITAL RENEWAL PROGRAM

**Fence Upgrades Program
(continued)**

Owner: Amtrak

Type: Capital Renewal Program

ID Number: C.EN.101854

PMO Level 1: PG00069

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>Fence Upgrades Program</i>				<i>Aug 2021</i>	<i>Nov 2022</i>	<i>\$14,843,869</i>
2	RR Ave. Pawtucket, RI Track 7	Y	Install Right of Way Fencing, 5280 FT	Oct 2021	Sep 2022	\$1,653,390
3	East Greenwich, CT Tracks 1 and 2	Y	Install Right of Way Fencing, 11616 FT	Oct 2021	Jun 2022	\$3,572,336
4	Niantic, CT Track 1	Y	Install Right of Way Fencing, 3300 FT	Oct 2021	Sep 2022	\$1,056,094
4	Stonington, CT between Quiambug Cove and MP 133.5, Track 1	Y	Install Right of Way Fencing, 3000 FT	Oct 2021	Sep 2022	\$948,273
5	Branford, CT Cemetary Track 1	Y	Repair Right of Way Fencing, 800 FT	Oct 2021	Sep 2022	\$256,312
5	New London, CT Track 2	Y	Install Right of Way Fencing, 600 FT	Oct 2021	Sep 2022	\$222,525
8	Bronx, NYC Fence Installation	Y	Install Right of Way Fencing, 4200 FT	Aug 2021	Nov 2022	\$1,296,017
12	Elizabeth, NJ Fencing Track 4	Y	Install Right of Way Fencing, 4200 FT	Oct 2021	Sep 2022	\$1,321,960
12	Metuchen, NJ Track 4	Y	Install Right of Way Fencing, 1500 FT	Oct 2021	Sep 2022	\$504,507
12			Install Right of Way Fencing, 3000 FT	Mar 2022	May 2022	\$941,288
22	Baltimore, MD	Y	Repair Right of Way Fencing, 350 FT	Oct 2021	Sep 2022	\$116,235
25	Rt 68 Wallingford, CT Track 1 Side	Y	Install Right of Way Fencing, 2000 FT	Oct 2021	Sep 2022	\$653,499
30	Mt. Joy, PA	Y	N/A	Jul 2022	Sep 2022	\$53,620
30	Parkesburg Station	Y	Install Right of Way Fencing, 7000 FT	Oct 2021	Sep 2022	\$2,141,688
31	Project Control Support	Y	N/A	Oct 2021	Sep 2022	\$20,332
31	Project Management	Y	N/A	Oct 2021	Sep 2022	\$85,792
Grand Total				Aug 2021	Nov 2022	\$14,843,869

CAPITAL RENEWAL PROJECT

Guilford Interlocking Renewal

Owner: Amtrak

Type: Capital Renewal Project

ID Number: C.EN.101927

PMO Level 1: P000211

General Project Information

Scope	This project will upgrade and replace all signal equipment at Guilford Interlocking, including new houses, microlok 2 upgrade, cable, etc. The project will also investigate replacement of the track infrastructure including switch machines and crossovers. This interlocking is a 1st generation high speed interlocking built in the 1990's, the 1st gen #32.7 turnouts are obsolete technology, as is the Microlok 1 processor and the CIH circuitry and relays.
Schedule	Oct 2021-Sep 2022

FY22 Plan

Planned Expenditure in FY22	\$536,200
Scope of FY22 work	Develop scope and issue RFP for designer, review proposals and award for signal upgrades and track design. Progress to 30% design, including survey and environmental investigations.

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>Guilford Interlocking Renewal</i>				<i>Oct 2021</i>	<i>Sep 2022</i>	<i>\$536,200</i>
5	Contractor Services	Y	N/A	Oct 2021	Sep 2022	\$471,856
5	Design Review	Y	N/A	Apr 2022	Sep 2022	\$16,086
5	Project Management	Y	N/A	Oct 2021	Sep 2022	\$10,724
5	RWP Protection	Y	N/A	Oct 2021	Sep 2022	\$16,085
5	Track Design	Y	N/A	Oct 2021	Sep 2022	\$21,449
Grand Total				Oct 2021	Sep 2022	\$536,200

CAPITAL RENEWAL PROJECT

Gunpow Substation 18 New Prefabricated Control House

Owner: Amtrak

Type: Capital Renewal Project

ID Number: C.EN.101900

PMO Level 1: P000168

General Project Information

Scope	The scope and objective for the Gunpow Substation project is to maintain and establish a State of Good Repair by replacing the existing, deteriorated concrete control house located in the middle of the Gunpow substation in Chase, MD. Included in this scope will be replacement of antiquated protection equipment and components associated with the control house that were constructed in the 1930s by the Pennsylvania Railroad Company (PRR). The completion of this work will ensure efficient and safe operation of Amtrak's assets and infrastructure, to maintain compliance with current regulations and standards on the Northeast Corridor.
Schedule	May 2021-Dec 2026

FY22 Plan

Planned Expenditure in FY22	\$719,516
Scope of FY22 work	The scope and objective for FY22 is to procure a design firm for the scope of work, provide conceptual and Preliminary Design for review for the new control house at the Gunpow Substation in Chase, MD. The completion of this project will ensure reliable and safe operation of Amtrak's assets and to maintain compliance with current regulations and standards on the Northeast Corridor.

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>Gunpow Substation 18 New Prefabricated Control House</i>				<i>May 2021</i>	<i>Dec 2026</i>	<i>\$719,516</i>
22	Environmental/NEPA	Y	N/A	Nov 2021	May 2023	\$85,792
22	Final Design Review	Y	N/A	Jan 2022	Jul 2023	\$187,670
22	Gunpow Substation 18 New Prefabricated Control House	Y	N/A	Oct 2021	Sep 2022	\$210,125
22	Preliminary Design	Y	N/A	Jun 2021	Jan 2022	\$160,861
22	Project Management	Y	N/A	May 2021	Dec 2026	\$53,620
22	R.O.W./Easements	Y	N/A	Jun 2022	Aug 2023	\$21,448
Grand Total				May 2021	Dec 2026	\$719,516

CAPITAL RENEWAL PROJECT

Ham Interlocking Renewal Project

Owner: Amtrak

Type: Capital Renewal Project

ID Number: C.EN.101308

PMO Level 1: P000156

General Project Information

Scope

The scope of this project is the renewal of the track infrastructure at Ham Interlocking. The completion of this work will ensure efficient and safe operation of Amtrak's assets and infrastructure, to maintain compliance with current regulations and standards. The work being done includes; replacement-in-kind of six #20 crossovers, removal of two #10 crossovers and replacement with two #15 crossovers on east end, removal of one #15 crossover and replacement with one #20 crossover on west end, removal of one #15 crossover (61) and replacement with one #20 turnout, removal of unused portion of 0 Track and reconfiguration of access to 1 MU and 2 MU tracks, installation of #15 spur off of 5 Track between 54 switch and 45 switch, overhead catenary modification including new crossover wiring throughout the signal house, design, furnish and installation of new signal system including cabling, huts and trough and replacement of electrically-operated switch machines, if necessary. Also, replacement of electrically-operated switch heaters, if necessary. New power balancing station and Positive Train Controls (PTC) transponder modification, as required

Schedule

Oct 2020-Mar 2025

FY22 Plan

Planned Expenditure in FY22

\$6,368,542

Scope of FY22 work

The FY22 scope includes the completion of the signal system, track and OCS final designs, as well as the start of fabrication and installation of new signal enclosures, cables and conduits within the eastern and western limits of Ham Interlocking. The signal enclosures will be fabricated in Amtrak's Lancaster signal shop prior to delivery.

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>Ham Interlocking Renewal Project</i>				<i>Oct 2020</i>	<i>Mar 2025</i>	<i>\$6,368,543</i>
12	C&S Construction	Y	Signal Construction and Renewals, 1 EA	Oct 2020	Jul 2024	\$4,949,279
12	Construction Design Services	Y	N/A	Jan 2022	Nov 2024	\$166,879
12	Construction Management	Y	N/A	Jan 2021	Mar 2025	\$231,638
12	ET Construction	Y	Align / Shift Catenary, 1 FT	Sep 2021	Jul 2024	\$26,810
12	Final Design Review	Y	N/A	Oct 2021	Oct 2022	\$220,485
12	Final Signal Design	Y	N/A	Apr 2021	Dec 2021	\$97,757
12	Final Track & ET Design	Y	N/A	Apr 2022	Oct 2022	\$332,444
12	Preliminary Design Review	Y	N/A	Oct 2021	Sep 2022	\$42,896
12	Preliminary Track & ET Design	Y	N/A	Oct 2021	Mar 2022	\$75,068
12	Project Management	Y	N/A	Oct 2020	Mar 2025	\$151,810
12	Project Management Support	Y	N/A	Oct 2021	Oct 2022	\$46,667
12	Track Construction	Y	Surface Track, Spot, 200 FT	Sep 2021	Apr 2024	\$26,809
Grand Total				Oct 2020	Mar 2025	\$6,368,543

CAPITAL RENEWAL PROJECT

Hellgate Substation 45-47 Upgrade Project

Owner: Amtrak

Type: Capital Renewal Project

ID Number: C.EN.101745

PMO Level 1: P000018

General Project Information

Scope	The scope of this project is for improvements to substations 45, 46 and 47 on the Hellgate Line. Completion of this work will ensure efficient and safe operation of Amtrak's assets and infrastructure, to maintain compliance with current regulations and standards. The work performed under this project includes; design, permitting, utility coordination, NEPA compliance; upgrades to relays, breakers, one motor generator and civil improvements; construction, testing/commissioning, acceptance and closeout of improvements to substations 45, 46 and 47 on the Hellgate Line.
Schedule	Oct 2019-Sep 2022

FY22 Plan

Planned Expenditure in FY22	\$1,136,587
Scope of FY22 work	In FY22 the 3rd party contractor EJ Electric will; complete contract scope, fabricate and install new 27.5KV breakers at Substation 45, 46 and 47 on the Hellgate line.

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>Hellgate Substation 45-47 Upgrade Project</i>				<i>Oct 2019</i>	<i>Sep 2022</i>	<i>\$1,136,589</i>
8	Preliminary Design	Y	N/A	Oct 2021	Feb 2022	\$22,789
8	Project Management	Y	N/A	Oct 2019	May 2022	\$17,480
8	Project Management Support	Y	N/A	May 2020	Jun 2022	\$2,715
8	RWP Protection	Y	N/A	May 2021	Sep 2022	\$17,786
8	Testing & Commissioning	Y	N/A	Aug 2021	May 2022	\$10,523
8	Trolley Breakers	Y	Install / Renew Breaker, 18 EA	Oct 2020	Jan 2022	\$1,065,295
Grand Total				Oct 2019	Sep 2022	\$1,136,589

CAPITAL RENEWAL PROJECT

High Speed Adjacent Track Signage

Owner: Amtrak

Type: Capital Renewal Project

ID Number: C.EN.101926

PMO Level 1: P000215

General Project Information

Scope	On June 27, 2017, two CSX T&E employees were struck and fatally injured while fouling Amtrak's main line outside of Washington DC. Following an investigation by the NTSB and Amtrak System Safety, several risks were discovered. As a result of these discoveries, five mitigations were developed. Four of the mitigations have already been completed. The only remaining open mitigation is to install wayside signage in highest risk locations to supplement already established administration actions (op rules). This project scope includes the design, procurement, and installation of wayside signage in high-risk locations, as identified by System Safety. These locations are primarily where Amtrak high speed main line tracks are in close proximity to freight operated railroad tracks/switches.
Schedule	Aug 2021-Sep 2022

FY22 Plan

Planned Expenditure in FY22	\$1,431,701
Scope of FY22 work	This project scope includes the design, procurement, and installation of wayside signage in high-risk locations, as identified by System Safety. These locations are primarily where Amtrak high speed main line tracks are in close proximity to freight operated railroad tracks/switches.

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>High Speed Adjacent Track Signage</i>				<i>Aug 2021</i>	<i>Sep 2022</i>	<i>\$1,431,701</i>
31	Contingency	Y	N/A	Oct 2021	Sep 2022	\$187,670
31	Phase 1	Y	N/A	Aug 2021	Nov 2021	\$569,904
31	Phase 2	Y	N/A	Dec 2021	Mar 2022	\$623,822
31	Project Management	Y	N/A	Aug 2021	Nov 2021	\$50,305
Grand Total				Aug 2021	Sep 2022	\$1,431,701

CAPITAL RENEWAL PROJECT

Ivy City Potable Water System Replacement Project

Owner: Amtrak

Type: Capital Renewal Project

ID Number: C.EN.101718

PMO Level 1: P000123

General Project Information

Scope	Design, construct, test, accept and closeout the replacement of the water main piping around both the S&I facility and the Coachyard. Install new natural gas piping, new water boosting station, electrical switchgear, and related power distribution replacement. This will reduce/eliminate existing water leakage, ensure adequate water pressure for fire protection, safe drinking water for coaches meeting USDA/EPA standards, and clean coaches.
Schedule	Oct 2020-Jan 2023

FY22 Plan

Planned Expenditure in FY22	\$8,885,916
Scope of FY22 work	Procure third-party contractor and initiate construction for the replacement of the potable water system at Ivy City

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>Ivy City Potable Water System Replacement Project</i>				<i>Oct 2020</i>	<i>Jan 2023</i>	<i>\$8,885,917</i>
22	Amtrak Force Account	N	N/A	Oct 2021	Jan 2023	\$437,475
22	Archaeological Services	N	N/A	Oct 2020	Jan 2023	\$45,582
22	Construction	N	N/A	Oct 2020	Jan 2023	\$7,501,442
22	Construction Management	N	N/A	Oct 2020	Jan 2023	\$321,722
22	Project Management	N	N/A	Oct 2020	Sep 2022	\$472,454
22	Testing & Commissioning	N	N/A	Jun 2021	Jan 2023	\$107,241
Grand Total				Oct 2020	Jan 2023	\$8,885,917

CAPITAL RENEWAL PROJECT

Ivy City Yard - Remediation

Owner: Amtrak

Type: Capital Renewal Project

ID Number: C.EV.100040

PMO Level 1:

General Project Information

Scope	This project will complete the remedial investigation, execute remedial activities where needed, and cover ongoing monitoring and regulatory reporting at the Ivy City, Washington, DC yard. Areas of petroleum contamination identified during the investigation include soil and groundwater around leaking storm and sewer piping; historic underground storage tanks; and underground diesel fuel piping. Activities will include the installation of soil borings and groundwater monitoring wells to investigate the various contaminated source areas. Some areas were able to move towards remedial design during FY20. Out years scope will include completion of remedial investigations, remedial design, and implementation of remedial activities for the areas identified above.
Schedule	Oct 2021-Sep 2022

FY22 Plan

Planned Expenditure in FY22	\$107,240
Scope of FY22 work	Selection, installation, and operation of petroleum product recovery system in a targeted area of the yard. Additional petroleum recovery areas/remediation may be warranted pending investigation.

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>Ivy City Yard - Remediation</i>				<i>Oct 2021</i>	<i>Sep 2022</i>	<i>\$107,240</i>
22	(blank)	Y	N/A	Oct 2021	Sep 2022	\$107,240
Grand Total				Oct 2021	Sep 2022	\$107,240

CAPITAL RENEWAL PROJECT

Jericho Park Frequency Converter Replacement

Owner: Amtrak

Type: Capital Renewal Project

ID Number: C.EN.101750

PMO Level 1: P000169

General Project Information

Scope	The scope of the Frequency Converter Replacement project will be to design and construct a new frequency converter station at Jericho Park, including associated components at the upgraded frequency converter station located near Bowie, MD. The objective is to establish and maintain a State of Good Repair (SOGR) to ensure efficient and safe operation of Amtrak's assets and infrastructure, to maintain compliance with current regulations and standards on the Northeast Corridor.
Schedule	Oct 2021-Sep 2025

FY22 Plan

Planned Expenditure in FY22	\$1,486,249
Scope of FY22 work	The scope and objective for FY22 is to generate the design services scope of work, procure the design firm for the scope of work, provide conceptual and preliminary design for review for the new frequency converter. The completion of this project will ensure reliable and safe operation of Amtrak's assets and maintain compliance with current regulations and standards on the Northeast Corridor.

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>Jericho Park Frequency Converter Replacement</i>				<i>Oct 2021</i>	<i>Sep 2025</i>	<i>\$1,486,249</i>
22	Frequency Converter	Y	N/A	Oct 2021	Sep 2025	\$1,486,249
Grand Total				Oct 2021	Sep 2025	\$1,486,249

CAPITAL RENEWAL PROJECT

Kearny Sub 41 Relocation Design and Construction

Owner: Amtrak

Type: Capital Renewal Project

ID Number: C.EN.101928

PMO Level 1: P000207

General Project Information

Scope	To replace the existing Substation 41 at Kearny, NJ with a new substation at a higher elevation to make it more resilient during storm surges. The new Substation 41 structure will be located on a platform in an existing marsh area. The majority of the proposed platform structure will be constructed of precast concrete slab elements supported by cast-in-place reinforced concrete piers on driven steel concrete-filled pipe piles. Along with the new Substation 41 structure, the associated overhead power distribution system will be constructed across the marsh from NJ Transit's M&E right of way. The distribution system will tie into the proposed CPP and also into the proposed Hudson-Bergen Light Rail system.
Schedule	Jun 2020-Jun 2025

FY22 Plan

Planned Expenditure in FY22	\$3,327,298
Scope of FY22 work	In FY22, this is a new project to the Engineering Department. The project is currently at the 20% design stage and will advance towards 90%. This work includes: <ul style="list-style-type: none"> Progress design from 20% to 30%, including geotechnical field visits and reports and site visits Progress design from 30% to 60% Perform value engineering and incorporate results into 90% design Progress design from 60% towards 90% Coordinate with FRA and NJ Transit

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>Kearny Sub 41 Relocation Design and Construction</i>				<i>Jun 2020</i>	<i>Jun 2025</i>	<i>\$3,327,296</i>
12	Construction Management	Y	N/A	Feb 2022	Mar 2025	\$354,937
12	Final Design	Y	N/A	Feb 2022	Jun 2022	\$942,114
12	Final Design Review	Y	N/A	Oct 2021	Sep 2022	\$56,416
12	Legal	Y	N/A	Oct 2021	Sep 2022	\$95,874
12	Preliminary Design	Y	N/A	Jul 2021	Jan 2022	\$886,281
12	Preliminary Design Review	Y	N/A	Jan 2022	Feb 2022	\$65,819
12	Project Control Support	Y	N/A	Aug 2020	Jun 2025	\$18,161
12	Project Management	Y	N/A	Jun 2020	Jun 2025	\$611,064
12	ROW/Easements	Y	N/A	Oct 2021	Sep 2022	\$49,896
12	ROW/Utilities	Y	N/A	Oct 2021	Sep 2022	\$124,740
12	RWP/Flag Support	Y	N/A	Aug 2021	Jan 2023	\$24,026
12	Safety	Y	N/A	Oct 2021	Sep 2022	\$97,969
Grand Total				Jun 2020	Jun 2025	\$3,327,296

CAPITAL RENEWAL PROJECT

Kearny to Waverly Transmission Tower Upgrade Project

Owner: Amtrak

Type: Capital Renewal Project

ID Number: C.EN.101787

PMO Level 1: P000036

General Project Information

Scope	Design, NEPA compliance, permit, fabrication, installation and testing/commissioning twelve (12) new "monopole" transmission towers and circuits, including foundations, to bring the existing transmission infrastructure crossing the Passaic River to a state of good repair. Install new transmission lines on a modified alignment for the new towers, cutover transmission power to new transmission lines at Kearny Substation and the existing lines to remain just (railroad) west of the Passaic River and demolition of two existing support structures and decommissioned lines.
Schedule	Oct 2020-Jul 2023

FY22 Plan

Planned Expenditure in FY22	\$4,672,684
Scope of FY22 work	Issue Notice to Proceed to 3rd Party contractor and mobilize 3rd Party contractor. Commence construction of new monopoles. Continued Construction Design Services, Construction Management and Project Manager support.

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>Kearny to Waverly Transmission Tower Upgrade Project</i>				<i>Oct 2020</i>	<i>Jul 2023</i>	<i>\$4,672,684</i>
12	Construction Design	Y	N/A	Dec 2020	Jul 2022	\$134,049
12	Construction Management	Y	N/A	Dec 2020	Jul 2022	\$80,429
12	Construction Surveys	Y	N/A	Dec 2020	Apr 2022	\$3,916,198
12	ET Construction	Y	N/A	Jul 2021	Jul 2022	\$101,395
12	External Construction Management Services	Y	N/A	Oct 2021	Jul 2023	\$302,945
12	Project Management	Y	N/A	Oct 2020	Oct 2022	\$90,659
12	Project Management Support	Y	N/A	Oct 2020	Oct 2022	\$12,868
12	ROW Utility	Y	N/A	Oct 2021	Sep 2022	\$34,141
Grand Total				Oct 2020	Jul 2023	\$4,672,684

CAPITAL RENEWAL PROGRAM

Mid-Atlantic North Catenary Program

Owner: Amtrak

Type: Capital Renewal Program

ID Number: C.EN.101822

PMO Level 1: PG00013

General Project Information

Scope	The scope of this program is to establish and maintain a State of Good Repair (SOGR), efficient and safe operation for catenary assets to maintain compliance with current regulation and standards. Catenary assets include catenary hardware renewal, catenary poles, signal power, switch heater, and transmission improvements. Work includes overhead catenary and hardware such as wire, insulators, rods, and clips; catenary poles and associated hardware; foundations, and guy wire supports; signal power hardware; signal cut sections; solid state signal machines; switch heaters; transmission lines, static line and crossover wire runs as needed based on inspection and testing of the various components. This work will be performed on a routine or annual basis.
Schedule	Oct 2021-Sep 2022

FY22 Plan

Planned Expenditure in FY22	\$9,058,567
Scope of FY22 work	<p>The FY22 scope of the program is catenary improvement throughout the Mid Atlantic North division. This work includes the following:</p> <ul style="list-style-type: none">• Switch heater replacement at Bryan Mawr, Overbook, Shore, and Phil Interlockings• AN Line Wheatsheaf Catenary Portal Install• Paoli Interlocking Switch motor and cable replacement• Battery replacement at AP LN MP17.1-29.6• AH Line Pole Repairs• AN Line N 8 Pole Repairs

CAPITAL RENEWAL PROGRAM

**Mid-Atlantic North Catenary
Program
(continued)**

Owner: Amtrak

Type: Capital Renewal Program

ID Number: C.EN.101822

PMO Level 1: PG00013

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>Mid-Atlantic North Catenary Program</i>				<i>Oct 2021</i>	<i>Sep 2022</i>	<i>\$9,058,567</i>
Mid-Atlantic North Catenary Program				Oct 2021	Sep 2022	\$9,058,567
15	Wheatsheaf Catenary Portal Install	Y	Install / Rehabilitate Cat. Poles, 1 EA	Oct 2021	Sep 2022	\$3,753,402
16	8 Pole Repairs AN Line	Y	Install / Rehabilitate Cat. Poles, 1 EA	Oct 2021	Sep 2022	\$268,100
16	Mantua Interlocking Sectionalizing Switch Motor Replacement	Y	Install / Renew Switches (ET), 5 EA	Oct 2021	Sep 2022	\$536,199
16	Shore Interlocking Switch Heater Replacement	Y	Install / Renew Switch Heaters, 2 EA	Oct 2021	Sep 2022	\$643,441
17	Penn Coach Yard Pit Track Kirk Key Fall Protection	N	N/A	Oct 2021	Sep 2022	\$321,721
19	Phil Interlocking Switch Heater Replacement	Y	Install / Renew Switch Heaters, 3 EA	Oct 2021	Sep 2022	\$965,160
20	Interlocking Battery Replacement MP 17.1 - 29.6	Y	N/A	Oct 2021	Sep 2022	\$214,480
29	Bryn Mawr Interlocking Switch Heater Replacement	Y	Install / Renew Switch Heaters, 1 EA	Oct 2021	Sep 2022	\$321,720
29	Overlook Interlocking Switch Heater Replacement	Y	Install / Renew Switch Heaters, 1 EA	Oct 2021	Sep 2022	\$321,720
29	Paoli Interlocking Sectionalize Switch Motor Cable Replacement	Y	Install / Renew Switches (ET), 6 EA	Oct 2021	Sep 2022	\$643,440
29	Pole Repairs AH Line	Y	N/A	Oct 2021	Sep 2022	\$80,429
29	Thorndale Trolley and Auxiliary Wire Replacement	Y	Install / Renew Constant Tension Wire, 47520 FT	Oct 2021	Sep 2022	\$849,341
31	ET CAD Support	Y	N/A	Oct 2021	Sep 2022	\$53,620
31	Project Management	Y	N/A	Oct 2021	Sep 2022	\$85,794
Grand Total				Oct 2021	Sep 2022	\$9,058,567

CAPITAL RENEWAL PROGRAM

Mid-Atlantic North Facilities Program

Owner: Amtrak

Type: Capital Renewal Program

ID Number: C.EN.101824

PMO Level 1: PG00015

General Project Information

Scope	The scope of this program is to establish and maintain a State of Good Repair (SOGR), efficient and safe operation of facility assets to maintain compliance with current regulations and standards. Facility assets include the Maintenance of Way (MOFW) bases, Maintenance of Equipment (MOFE) facilities, Transportation facilities, and their individual components. Work includes roof replacement, window and door replacement, HVAC replacement and other mechanical upgrades, electrical and plumbing upgrades, lighting improvement, and site improvements. This work will be performed on a routine or annual basis.
Schedule	Oct 2021-Sep 2022

FY22 Plan

Planned Expenditure in FY22	\$1,832,105
Scope of FY22 work	<p>The FY22 scope of the program is facilities improvements throughout the Mid Atlantic North division. This work includes the following:</p> <ul style="list-style-type: none"> • Wilmington DE CNOC Electrical System Upgrades • Philadelphia Zoo Service Substation Upgrades • New Cover on existing Rubb Building in Wilmington, DE • Demolition study for Wilmington Car Shop Buildings 1 and 2 • State Interlocking C&S Maintenance HQ replacement

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>Mid-Atlantic North Facilities Program</i>				<i>Oct 2021</i>	<i>Sep 2022</i>	<i>\$1,832,104</i>
20	Car Shop Building 1/2 Demo Design	N	N/A	Oct 2021	Sep 2022	\$187,668
20	Electrical System Upgrades	N	N/A	Oct 2021	Sep 2022	\$218,149
20	Rubb Building (Wilmington MOFE Facility) - Replacement Cover	N	N/A	Oct 2021	Sep 2022	\$589,819
29	Zoo Service Substation Upgrades	Y	N/A	Oct 2021	Sep 2022	\$482,579
30	State Interlocking C&S Maintenance Headquarters Building Replacement	Y	N/A	Oct 2021	Sep 2022	\$268,096
31	Program Management	Y	N/A	Oct 2021	Sep 2022	\$85,794
Grand Total				Oct 2021	Sep 2022	\$1,832,104

CAPITAL RENEWAL PROGRAM

Mid-Atlantic North Signals Program

Owner: Amtrak

Type: Capital Renewal Program

ID Number: C.EN.101825

PMO Level 1: PG00017

General Project Information

Scope	Establish and maintain a state of good repair, efficient and safe operation for signal assets. Work includes SCADA-RTU upgrades, C&S network upgrades, split-point derails, signal system upgrades, upgrades to 562, relay code transmitters, event recorders, switch machines, Lancaster Signal shop equipment and Microlok II. This work will be performed on a routine or annual basis.
Schedule	Oct 2021-Sep 2022

FY22 Plan

Planned Expenditure in FY22	\$1,613,055
Scope of FY22 work	This program will include ; SCADA-RTU upgrades, C&S network upgrades, spit-point derails, signal system upgrades, upgrades to 562, relay code transmitters, event recorders, switch machines, Lancaster Signal shop equipment, Microlok II.

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>Mid-Atlantic North Signals Program</i>				<i>Oct 2021</i>	<i>Sep 2022</i>	<i>\$1,613,055</i>
18	Penn Interlocking to Arsenal Substation Track Circuit	Y	Signals, 1 EA	Oct 2021	Sep 2022	\$15,220
19	Arsenal Substation to Baldwin Interlocking Dupline Track Circuit	Y	N/A	Oct 2021	Sep 2022	\$15,220
19	Monitoring Equipment Upgrades MP 2.7 - 6.4 AP Line	Y	N/A	Oct 2021	Sep 2022	\$5,364
19	Monitoring Equipment Upgrades MP 6.4 - 17.1 AP Line	Y	N/A	Oct 2021	Sep 2022	\$5,364
20	Wilmington Subdivision M3 Switch Machine Replacement	Y	Install / Renew Switches (ET), 1 EA	Oct 2021	Sep 2022	\$321,718
29	Thorndale ABS Phase Break Signal & Case Renewal	Y	Install High Signal on Bridge, 4 EA	Oct 2021	Sep 2022	\$536,203
30	Park Interlocking to State 60/100 HZ Converter Install	Y	N/A	Oct 2021	Sep 2022	\$536,203
30	RTU Upgrades MP 35.3 - 105.2 AH Line	Y	N/A	Oct 2021	Sep 2022	\$5,364
30	State Interlocking West RTU Upgrades	Y	Install / Renew RTU, 1 EA	Oct 2021	Sep 2022	\$86,605
31	Program Management	Y	N/A	Oct 2021	Sep 2022	\$85,794
Grand Total				Oct 2021	Sep 2022	\$1,613,055

CAPITAL RENEWAL PROGRAM

Mid-Atlantic North Structures Program

Owner: Amtrak

Type: Capital Renewal Program

ID Number: C.EN.101826

PMO Level 1: PG00018

General Project Information

Scope	The scope of this program is to establish and maintain a State of Good Repair (SOGR), efficient and safe operation for structures assets to maintain compliance with current regulations and standards. Work includes undergrade bridges (concrete, steel and masonry rehabilitation, waterproofing, painting, component replacement, waterway improvements, and roadway clearance work); bridge timbers (timber replacement); movable bridges [undergrade bridge scope and movable components (motors, gears, bearings, and other mechanical and electrical components rehabilitation)]; culverts (concrete and masonry rehabilitation, inlet, interior and outlet improvements, waterway improvements and culvert replacement); retaining walls (concrete and masonry rehabilitation, reconstruction, and new wall construction); signal bridges (re-decking the signal bridges, installation of, or upgrading, fall protection equipment, including tie offs and safety lines on signals bridge); tunnels (drainage improvements, benchwall rehabilitation, emergency egress improvements, concrete and masonry rehabilitation, ventilation improvements, lighting improvements); and interlocking lighting (light fixture upgrades, and rehabilitation/replacement of components). This work will be performed on a routine or annual basis.
Schedule	Oct 2021-Dec 2022

FY22 Plan

Planned Expenditure in FY22	\$2,348,547
Scope of FY22 work	<p>The FY22 scope of the program is structures improvements throughout the Mid Atlantic North division. This work includes the following:</p> <ul style="list-style-type: none">• Bridge Tie replacement for Parker St Tk2 (PA13.96), Kerlin St Tk2 (PA 14.02), Yarnall St Tk3 (PA 14.94), Welsh St Tk 3 (PA 13.42), and Wilson St Tk3 (PA 15.63)• Bridge Tie design at Chester Viaduct Tk1 (PA 13.51), Yarnall St Tk3 (PA14.94), Parker St Tk2 (PA 13.96), Wilson St Tk3 (PA 15.63), and Kerlin St Tk2 (PA14.02)• Final Design of Darby Wall Replacement (MP 4.85)• Final Design of Welsh St Bridge Tie (PA 13.42)

CAPITAL RENEWAL PROGRAM

**Mid-Atlantic North Structures
Program
(continued)**

Owner: Amtrak

Type: Capital Renewal Program

ID Number: C.EN.101826

PMO Level 1: PG00018

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>Mid-Atlantic North Structures Program</i>				<i>Oct 2021</i>	<i>Dec 2022</i>	<i>\$2,348,546</i>
17	Penn Coach Yard Stringer Rehab	N	N/A	Oct 2021	Sep 2022	\$10,724
19	Chester Viaduct Track 1 Design	Y	N/A	Oct 2021	Sep 2022	\$16,085
19	Darby Retaining Wall Replacement Final Design	Y	N/A	Oct 2021	Sep 2022	\$10,724
19	Kerlin Street Track 2 Design	Y	N/A	Oct 2021	Dec 2021	\$16,085
19	Kerlin Street Track 2 Replacement	Y	Install Bridge Timber, 45 EA	Oct 2021	Dec 2021	\$428,959
19	Parker Street Track 2 Design	Y	N/A	Oct 2021	Dec 2021	\$16,085
19	Parker Street Track 2 Replacement	Y	Install Bridge Timber, 45 EA	Oct 2021	Dec 2022	\$428,959
19	Welsh Street Track 3 Final Design	Y	N/A	Oct 2021	Dec 2021	\$16,085
19	Welsh Street Track 3 Replacement	Y	Install Bridge Timber, 65 EA	Oct 2021	Sep 2022	\$428,959
19	Wilson Street Track 3 Replacement	Y	Install Bridge Timber, 45 EA	Jan 2022	Feb 2022	\$428,959
19			N/A	Oct 2021	Sep 2022	\$16,085
19	Yarnall Street Track 3 Design	Y	N/A	Oct 2021	Dec 2021	\$16,085
19	Yarnall Street Track 3 Replacement	Y	Install Bridge Timber, 65 EA	Oct 2021	Sep 2022	\$428,959
31	Program Management	Y	N/A	Oct 2021	Sep 2022	\$85,794
Grand Total				Oct 2021	Dec 2022	\$2,348,546

CAPITAL RENEWAL PROGRAM

Mid-Atlantic North Substations Program

Owner: Amtrak

Type: Capital Renewal Program

ID Number: C.EN.101827

PMO Level 1: PG00019

General Project Information

Scope	The scope of this program is to establish and maintain a State of Good Repair (SOGR), efficient and safe operation for substation assets to maintain compliance with current regulations and standards. Substation assets include substation components and frequency converter improvements. Work includes air brakes, breakers, control house renovations, fencing, frequency converters and components such as metering panels, capacity of power, and control houses (batteries, chargers, relay and control panels, and remote terminal units), lighting, and transformers as needed based on inspection and testing of the various components. This work will be performed on a routine or annual basis.
Schedule	Oct 2021-Oct 2022

FY22 Plan

Planned Expenditure in FY22	\$13,940,569
Scope of FY22 work	<p>The FY22 scope of the program is substation improvements throughout the Mid Atlantic North division. This work includes the following:</p> <ul style="list-style-type: none">• Lamokin Substation-resistor banks replacement, control house roof replacement, and 4L breaker replacement• North Philadelphia Substation-12KV Breaker replacement• Paoli Substation-12KV Switch replacement and RTU upgrades• Zoo Substation-109 ABS Replacement• Glenolden Substation-Battery Replacement• Bellevue Substation-Battery replacement• West Yard Substation-Control house replacement design• Richmond Substation-relay upgrades, SFC battery, SFC camera, fall arrest upgrades, HVAC upgrade design, and puffer breakers overhaul• Distribute network protocol for Richmond Frequency Converter

CAPITAL RENEWAL PROGRAM

Mid-Atlantic North Substations Program (continued)

Owner: Amtrak

Type: Capital Renewal Program

ID Number: C.EN.101827

PMO Level 1: PG00019

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>Mid-Atlantic North Substations Program</i>				Oct 2021	Oct 2022	\$13,940,569
16	North Philadelphia Substation #6 12KV Breaker Replacement	Y	N/A	Oct 2021	Sep 2022	\$482,580
16	Richmond Frequency Converter Battery Upgrade	Y	N/A	Oct 2021	Sep 2022	\$428,960
16	Richmond Frequency Converter Building Restoration	Y	N/A	Mar 2022	Sep 2022	\$190,061
16	Richmond Frequency Converter Camera Upgrade	Y	N/A	Oct 2021	Sep 2022	\$697,060
16	Richmond Frequency Converter Control Upgrade	Y	N/A	Oct 2021	Sep 2022	\$386,238
16	Richmond Frequency Converter Fall Arrest Installation	Y	N/A	Oct 2021	Sep 2022	\$428,960
16	Richmond Frequency Converter HVAC Upgrade Design	Y	N/A	Oct 2021	Sep 2022	\$536,200
16	Richmond Frequency Converter Puffer Breakers Overhaul	Y	Install / Renew Single-Pole Breakers, 1 EA	Oct 2021	Sep 2022	\$482,580
16	Richmond Frequency Converter Relay Upgrade	Y	Install / Renew Frequency Converter, 1 EA	Oct 2021	Sep 2022	\$321,721
19	Glenolden Substation #10 Battery Replacement	Y	N/A	Oct 2021	Sep 2022	\$134,050
19	Lamokin Frequency Converter #11 4L Breaker	Y	Install / Renew Two-Pole Breakers, 1 EA	Oct 2021	Dec 2021	\$37,534
19	Lamokin Frequency Converter #4 Rewind	Y	Install / Renew Frequency Converter, 1 EA	Oct 2021	Sep 2022	\$7,506,800
19	Lamokin Frequency Converter Control Upgrade	Y	N/A	Oct 2021	Sep 2022	\$214,479
19	Lamokin Substation #11 Control House Roof Replacement	Y	N/A	Oct 2021	Sep 2022	\$21,151
19	Lamokin Substation #11 Step Up Transformer Neutral Ground Resistor & Bushings Replacement	Y	N/A	Oct 2021	Sep 2022	\$246,652
20	Bellevue Substation #12 Battery Replacement	Y	N/A	Oct 2021	Sep 2022	\$134,050
20	West Yard Substation # 13 Control House Replacement Design	Y	N/A	Oct 2021	Sep 2022	\$536,203
20	West Yard Substation # 13 Control House Replacement Install	Y	N/A	Oct 2021	Sep 2022	\$53,620
29	Paoli Substation #4 12KV Switch Replacement	Y	Install / Renew Switches (ET), 6 EA	Oct 2021	Oct 2022	\$637,913
29	Paoli Substation #4 RTU Upgrade	Y	N/A	Oct 2021	Sep 2022	\$148,577
29	Zoo Substation #9 109 ABS Replacement	Y	Install / Renew 138 KV Trans. Sectionalizing Switches (ABS), 1 EA	Oct 2021	Sep 2022	\$122,146
31	ET CAD Support	Y	N/A	Oct 2021	Sep 2022	\$107,240
31	Program Management	Y	N/A	Oct 2021	Sep 2022	\$85,794
Grand Total				Oct 2021	Oct 2022	\$13,940,569

CAPITAL RENEWAL PROGRAM

Mid-Atlantic North Track Program

Owner: Amtrak

Type: Capital Renewal Program

ID Number: C.EN.101828

PMO Level 1: PG00020

General Project Information

Scope	The scope of this program is to establish and maintain a State of Good Repair (SOGR), efficient and safe operation for track assets to maintain compliance with current regulations and standards. . Track assets include components related to track infrastructure (rails, ties, ballast), track roadbed and longitudinal right of way. Work includes right of way crossing upgrades and replacement, insulated joint replacement, interlocking steel renewal, rail joint elimination, wayside detector replacements, ride quality improvements, wood and concrete tie/timber replacement, tie hardware renewal, spot surfacing and spot undercutting. This work will be performed on a routine or annual basis.
Schedule	Nov 2020-Sep 2022

FY22 Plan

Planned Expenditure in FY22	\$27,355,945
Scope of FY22 work	The FY22 scope of the program is track improvements throughout the Mid Atlantic North division. This work includes the following:• Insulated joint replacement on AN Line (MP1.9-87.7) and AP Line (MP1.4-87.7) • Joint elimination on AH Line (MP1.9-105.2) and AP Line (MP1.4-87.7) • Concrete tie replacement on AN Line (MP77.2-87.7) and AP Line (MP1.4-29.6)• Tie and Timber replacement on AH Line (MP1.9-105.2), AN Line (MP77.2-87.7), and AP Line (MP1.4-29.6)

CAPITAL RENEWAL PROGRAM

**Mid-Atlantic North Track Program
(continued)**

Owner: Amtrak

Type: Capital Renewal Program

ID Number: C.EN.101828

PMO Level 1: PG00020

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>Mid-Atlantic North Track Program</i>				<i>Nov 2020</i>	<i>Sep 2022</i>	<i>\$27,355,948</i>
15	Concrete Tie Replacement MP 77.2 - 82.1 AN Line	Y	Install Ties, Concrete, 20 EA	Nov 2020	Sep 2022	\$52,488
15	Drainage Improvements MP 77.2 - 82.1 AN Line	Y	Ditching and Grading, 500 FT	Oct 2021	Sep 2022	\$63,891
15	High Speed Surfacing MP 77.2 - 82.1 AN Line	Y	Surface Track, High Speed, 7500 FT	Nov 2020	Sep 2022	\$87,909
15	Insulated Joint Removal MP 77.2 - 82.1 AN Line	Y	Install Insulated Joint (Includes OTM), 6 EA	Jan 2021	Sep 2022	\$65,108
15	Interlocking Steel MP 77.2 - 82.1 AN Line	Y	Renew Frog, 2 EA	Dec 2020	Sep 2022	\$38,996
15	Joint Elimination MP 77.2 - 82.1 AN Line	Y	Field Weld and Grind Rail (Joint Elimination), 20 EA	Apr 2021	Sep 2022	\$238,931
15	Rail Lubrication Upgrades MP 77.2 - 82.1 AN Line	Y	Install and Service Rail Lubricators, 1 EA	Oct 2021	Sep 2022	\$26,809
15	Spot Surfacing MP 77.2 - 82.1 AN Line	Y	Surface Track, Spot, 40000 FT	Oct 2021	Sep 2022	\$591,810
15	Spot Undercutting MP 77.2 - 82.1 AN Line	Y	Vacuum Train, Spot Undercut, 1500 FT	Jan 2021	Sep 2022	\$537,310
15	Wood Tie/Timber Replacement MP 77.2 - 82.1 AN Line	Y	Install Ties and Timbers, 200 EA	Jan 2021	Sep 2022	\$239,754
16	Concrete Tie Replacement MP 82.1 - 87.7 AN Line	Y	Install Ties, Concrete, 7 EA	Jan 2021	Sep 2022	\$35,488
16	Drainage Improvements MP 82.1 - 87.7 AN Line	Y	Ditching and Grading, 500 FT	Oct 2021	Sep 2022	\$63,891
16	High Speed Surfacing MP 82.1 - 87.7 AN Line	Y	Surface Track, High Speed, 15000 FT	Nov 2020	Sep 2022	\$175,818
16	Insulated Joint Removal MP 82.1 - 87.7 AN Line	Y	Install Insulated Joint (Includes OTM), 8 EA	Feb 2021	Sep 2022	\$86,812
16	Interlocking Steel MP 82.1 - 87.7 AN Line	Y	Renew Frog, 2 EA	Feb 2021	Sep 2022	\$38,996
16	Joint Elimination MP 82.1 - 87.7 AN Line	Y	Field Weld and Grind Rail (Joint Elimination), 20 EA	May 2021	Sep 2022	\$238,931
16	Rail Lubrication Upgrades MP 82.1 - 87.7 AN Line	Y	Install and Service Rail Lubricators, 1 EA	Oct 2021	Sep 2022	\$26,809
16	Spot Surfacing MP 82.1 - 87.7 AN Line	Y	Surface Track, Spot, 30000 FT	Oct 2021	Sep 2022	\$443,856
16	Spot Undercutting MP 82.1 - 87.7 AN Line	Y	Vacuum Train, Spot Undercut, 1500 FT	Feb 2021	Sep 2022	\$537,310
16	Wood Tie/Timber Replacement MP 82.1 - 87.7 AN Line	Y	Install Ties and Timbers, 160 EA	Feb 2021	Sep 2022	\$191,801
17	Concrete Tie Replacement MP 87.7 - 1.5 AP/AN Line	Y	Install Ties, Concrete, 7 EA	Mar 2021	Sep 2022	\$35,488

CAPITAL RENEWAL PROGRAM

**Mid-Atlantic North Track Program
(continued)**

Owner: Amtrak

Type: Capital Renewal Program

ID Number: C.EN.101828

PMO Level 1: PG00020

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
17	Drainage Improvements MP 87.7 - 1.5 AN/AP Line	Y	Ditching and Grading, 500 FT	Oct 2021	Sep 2022	\$63,891
17	High Speed Surfacing Girard/30th St AN/AP Line	Y	Surface Track, High Speed, 6700 FT	Oct 2021	Sep 2022	\$78,535
17	Insulated Joint Removal MP 87.7 - 1.5 AP/AN Line	Y	Install Insulated Joint (Includes OTM), 5 EA	Feb 2021	Sep 2022	\$54,256
17	Interlocking Steel MP 87.7 - 1.5 AP/AN Line	Y	Renew Frog, 4 EA	Mar 2021	Sep 2022	\$77,996
17	Joint Elimination MP 87.7 - 1.5 AP/AN Line	Y	Field Weld and Grind Rail (Joint Elimination), 50 EA	Mar 2021	Sep 2022	\$597,321
17	Penn Coach Yard Track Improvements	N	Install / Maintain Rail, 1 FT	Oct 2021	Sep 2022	\$427,582
17	Rail Lubrication Upgrades MP 87.7 - 1.5 AP/AN Line	Y	Install and Service Rail Lubricators, 1 EA	Oct 2021	Sep 2022	\$26,809
17	Spot Surfacing MP 87.7 - 1.5 AP/AN Line	Y	Surface Track, Spot, 40000 FT	Oct 2021	Sep 2022	\$591,810
17	Spot Undercutting MP 87.7 - 1.5 AP Line	Y	Vacuum Train, Spot Undercut, 1000 FT	Jul 2021	Sep 2022	\$358,205
17	Wood Tie/Timber Replacement MP 87.7 - 1.5 AP/AN Line	Y	Install Ties and Timbers, 300 EA	Mar 2021	Sep 2022	\$359,629
18	Concrete Tie Replacement MP 1.4 - 2.7 AP Line	Y	Install Ties, Concrete, 9 EA	Oct 2021	Dec 2021	\$38,105
18	Drainage Improvements MP 1.4 - 2.7 AP Line	Y	Ditching and Grading, 500 FT	Oct 2021	Sep 2022	\$63,891
18	High Speed Surfacing MP 1.4 - 2.7 AP Line	Y	Surface Track, High Speed, 6700 FT	Nov 2020	Sep 2022	\$78,535
18	Insulated Joint Removal MP 1.4 - 2.7 AP Line	Y	Install Insulated Joint (Includes OTM), 6 EA	Oct 2021	Oct 2021	\$65,108
18	Interlocking Steel MP 1.4 - 2.7 AP Line	Y	Renew Frog, 2 EA	Apr 2021	Sep 2022	\$38,996
18	Joint Elimination MP 1.4 - 2.7 AP Line	Y	Field Weld and Grind Rail (Joint Elimination), 20 EA	Oct 2021	Nov 2021	\$238,931
18	Rail Lubrication Upgrades MP 1.4 - 2.7 AP Line	Y	Install and Service Rail Lubricators, 1 EA	Oct 2021	Sep 2022	\$26,809
18	Spot Surfacing MP 1.4 - 2.7 AP Line	Y	Surface Track, Spot, 30000 FT	Oct 2021	Sep 2022	\$443,856
18	Spot Undercutting MP 1.4 - 2.7 AP Line	Y	Vacuum Train, Spot Undercut, 1000 FT	Mar 2021	Sep 2022	\$358,205
18	Wood Tie/Timber Replacement MP 1.4 - 2.7 AP Line	Y	Install Ties and Timbers, 120 EA	Apr 2021	Sep 2022	\$143,851
19	Concrete Tie Replacement MP 2.7 - 6.4 AP Line	Y	Install Ties, Concrete, 13 EA	Dec 2020	Sep 2022	\$43,332
19	Concrete Tie Replacement MP 6.4 - 17.1 AP Line	Y	Install Ties, Concrete, 25 EA	Mar 2021	Sep 2022	\$59,025
19	Drainage Improvements MP 2.7 - 6.4 AP Line	Y	Ditching and Grading, 5000 FT	Oct 2021	Sep 2022	\$319,455

CAPITAL RENEWAL PROGRAM

**Mid-Atlantic North Track Program
(continued)**

Owner: Amtrak

Type: Capital Renewal Program

ID Number: C.EN.101828

PMO Level 1: PG00020

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
19	Drainage Improvements MP 6.4 - 17.1 AP Line	Y	Ditching and Grading, 2000 FT	Oct 2021	Sep 2022	\$255,566
19	High Speed Surfacing MP 2.7 - 6.4 AP Line	Y	Surface Track, High Speed, 15000 FT	Nov 2020	Sep 2022	\$175,818
19	High Speed Surfacing MP 6.4 - 17.1 AP Line	Y	Surface Track, High Speed, 6700 FT	Oct 2021	Sep 2022	\$78,535
19	Insulated Joint Removal MP 2.7 - 6.4 AP Line	Y	Install Insulated Joint (Includes OTM), 2 EA	Nov 2020	Sep 2022	\$21,700
19	Insulated Joint Removal MP 6.4 - 17.1 AP Line	Y	Install Insulated Joint (Includes OTM), 15 EA	Dec 2020	Sep 2022	\$162,773
19	Interlocking Steel MP 2.7 - 6.4 AP Line	Y	Renew Frog, 1 EA	Mar 2021	Sep 2022	\$19,498
19	Interlocking Steel MP 6.4 - 17.1 AP Line	Y	Renew Frog, 4 EA	Apr 2021	Sep 2022	\$77,996
19	Joint Elimination MP 2.7 - 6.4 AP Line	Y	Field Weld and Grind Rail (Joint Elimination), 30 EA	Nov 2020	Sep 2022	\$358,396
19	Joint Elimination MP 6.4 - 17.1 AP Line	Y	Field Weld and Grind Rail (Joint Elimination), 40 EA	Dec 2020	Sep 2022	\$477,859
19	Rail Lubrication Upgrades MP 2.7 - 6.4 AP Line	Y	Install and Service Rail Lubricators, 1 EA	Oct 2021	Sep 2022	\$26,809
19	Rail Lubrication Upgrades MP 6.4 - 17.1 AP Line	Y	Install and Service Rail Lubricators, 1 EA	Oct 2021	Sep 2022	\$26,809
19	Relieve Flooding Track 4 & Culvert Clean	Y	Ditching and Grading, 1 FT	Oct 2021	Sep 2022	\$268,096
19	Spot Surfacing MP 2.7 - 6.4 AP Line	Y	Surface Track, Spot, 80000 FT	Oct 2021	Sep 2022	\$591,810
19	Spot Surfacing MP 6.4 - 17.1 AP Line	Y	Surface Track, Spot, 20000 FT	Oct 2021	Sep 2022	\$295,905
19	Spot Undercutting MP 2.7 - 6.4 AP Line	Y	Vacuum Train, Spot Undercut, 4000 FT	Apr 2021	Sep 2022	\$902,168
19	Spot Undercutting MP 6.4 - 17.1 AP Line	Y	Vacuum Train, Spot Undercut, 7600 FT	May 2021	Sep 2022	\$1,095,017
19	Wood Tie/Timber Replacement MP 2.7 - 6.4 AP Line	Y	Install Ties and Timbers, 300 EA	May 2021	Sep 2022	\$359,629
19	Wood Tie/Timber Replacement MP 6.4 - 17.1 AP Line	Y	Install Ties and Timbers, 100 EA	Jun 2021	Sep 2022	\$119,875
20	Bear Yard DE -Track Improvements	N	N/A	Oct 2021	Sep 2022	\$214,481
20	Christiana Rock Cut Stabilization AH Line	Y	Ditching and Grading, 1 FT	Oct 2021	Sep 2022	\$30,566
20	Concrete Tie Replacement MP 17.1 - 29.6 AP Line	Y	Install Ties, Concrete, 80 EA	May 2021	Sep 2022	\$130,939
20	Drainage Improvements MP 17.1 - 29.6 AP Line	Y	Ditching and Grading, 1500 FT	Oct 2021	Sep 2022	\$191,671
20	High Speed Surfacing MP 17.1 - 29.6 AP Line	Y	Surface Track, High Speed, 13000 FT	Nov 2020	Sep 2022	\$152,377

CAPITAL RENEWAL PROGRAM

**Mid-Atlantic North Track Program
(continued)**

Owner: Amtrak

Type: Capital Renewal Program

ID Number: C.EN.101828

PMO Level 1: PG00020

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
20	Insulated Joint Removal MP 17.1 - 29.6 AP Line	Y	Install Insulated Joint (Includes OTM), 15 EA	Jan 2021	Sep 2022	\$162,773
20	Interlocking Steel MP 17.1 - 29.6 AP Line	Y	Renew Frog, 8 EA	May 2021	Sep 2022	\$155,991
20	Joint Elimination MP 17.1 - 29.6 AP Line	Y	Field Weld and Grind Rail (Joint Elimination), 40 EA	Feb 2021	Sep 2022	\$418,129
20	Rail Lubrication Upgrades MP 17.1 - 29.6 AP Line	Y	Install and Service Rail Lubricators, 1 EA	Oct 2021	Sep 2022	\$26,809
20	Spot Surfacing MP 17.1 - 29.6 AP Line	Y	Surface Track, Spot, 40000 FT	Oct 2021	Sep 2022	\$591,810
20	Spot Undercutting MP 17.1 - 29.6 AP Line	Y	Vacuum Train, Spot Undercut, 32000 FT	Jun 2021	Sep 2022	\$1,095,017
20	West Yard DE Yard Track Improvements	N	Install / Maintain Rail, 1 FT	Oct 2021	Sep 2022	\$214,481
20	Wilmington DE Yard Track Improvements	N	Install / Maintain Rail, 1 FT	Oct 2021	Sep 2022	\$350,164
20	Wood Tie/Timber Replacement MP 17.1 - 29.6 AP Line	Y	Install Ties and Timbers, 750 EA	Jul 2021	Sep 2022	\$899,075
29	Concrete Tie Replacement MP 1.9 - 20.2 AH Line	Y	Install Ties, Concrete, 20 EA	Oct 2021	Sep 2022	\$224,788
29	Drainage Improvements MP 1.9 - 20.2 AH Line	Y	Ditching and Grading, 5000 FT	Oct 2021	Sep 2022	\$319,455
29	Drainage Improvements MP 20.2 - 35.3 AH Line	Y	Ditching and Grading, 500 FT	Apr 2021	Sep 2022	\$63,891
29	High Speed Surfacing MP 1.9 - 20.2 AH Line	Y	Surface Track, High Speed, 24000 FT	Nov 2020	Sep 2022	\$281,312
29	High Speed Surfacing MP 20.2 - 35.3 AH Line	Y	Surface Track, High Speed, 15000 FT	Nov 2020	Sep 2022	\$175,818
29	Insulated Joint Removal MP 1.9 - 20.2 AH Line	Y	Install Insulated Joint (Includes OTM), 4 EA	Oct 2021	Sep 2022	\$43,405
29	Insulated Joint Removal MP 20.2 - 35.3 AH Line	Y	Install Insulated Joint (Includes OTM), 3 EA	Mar 2021	Sep 2022	\$32,556
29	Interlocking Steel MP 1.9 - 20.2 AH Line	Y	Renew Frog, 4 EA	Oct 2021	Oct 2021	\$77,996
29	Interlocking Steel MP 20.2 - 35.3 AH Line	Y	Renew Frog, 2 EA	Nov 2020	Sep 2022	\$38,996
29	Joint Elimination MP 1.9 - 20.2 AH Line	Y	Field Weld and Grind Rail (Joint Elimination), 30 EA	Oct 2021	Jan 2022	\$358,396
29	Joint Elimination MP 20.2 - 35.3 AH Line	Y	Field Weld and Grind Rail (Joint Elimination), 10 EA	Jan 2021	Sep 2022	\$119,461
29	Rail Lubrication Upgrades MP 20.2 - 35.3 AH Line	Y	Install and Service Rail Lubricators, 1 EA	Oct 2021	Sep 2022	\$26,809
29	Spot Surfacing MP 1.9 - 20.2 AH Line	Y	Surface Track, Spot, 40000 FT	Oct 2021	Sep 2022	\$591,810

CAPITAL RENEWAL PROGRAM

**Mid-Atlantic North Track Program
(continued)**

Owner: Amtrak

Type: Capital Renewal Program

ID Number: C.EN.101828

PMO Level 1: PG00020

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
29	Spot Surfacing MP 20.2 - 35.3 AH Line	Y	Surface Track, Spot, 70000 FT	Oct 2021	Sep 2022	\$591,810
29	Spot Undercutting MP 1.9 - 20.2 AH Line	Y	Vacuum Train, Spot Undercut, 4000 FT	Oct 2021	Oct 2021	\$902,168
29	Spot Undercutting MP 20.2 - 35.3 AH Line	Y	Vacuum Train, Spot Undercut, 2000 FT	Nov 2020	Sep 2022	\$716,406
29	Thorndale Yard PA-Track Improvements	Y	N/A	Oct 2021	Sep 2022	\$214,481
29	Wood Tie/Timber Replacement MP 1.9 - 20.2 AH Line	Y	Install Ties and Timbers, 100 EA	Oct 2021	Oct 2021	\$119,875
29	Wood Tie/Timber Replacementt MP 20.2 - 35.3 AH Line	Y	Install Ties and Timbers, 40 EA	Nov 2020	Sep 2022	\$47,951
30	Concrete Tie Replacement MP 35.3 - 105.2 AH Line	Y	Install Ties, Concrete, 30 EA	Oct 2021	Sep 2022	\$337,177
30	Dock Street Yard NJ-Track Improvements	Y	N/A	Oct 2021	Sep 2022	\$214,481
30	Drainage Improvements MP 35.3- 105.2 AH Line	Y	Ditching and Grading, 500 FT	Apr 2021	Sep 2022	\$63,891
30	High Speed Surfacing MP 35.3 - 105.2 AH Line	Y	Surface Track, High Speed, 40000 FT	Nov 2020	Sep 2022	\$468,849
30	Insulated Joint Removal MP 35.3 - 105.2 AH Line	Y	Install Insulated Joint (Includes OTM), 4 EA	Apr 2021	Sep 2022	\$43,405
30	Interlocking Steel MP 35.3 - 105.2 AH Line	Y	Renew Frog, 2 EA	Jul 2021	Sep 2022	\$38,996
30	Joint Elimination MP 35.3 - 105.2 AH Line	Y	Field Weld and Grind Rail (Joint Elimination), 40 EA	Feb 2021	Sep 2022	\$477,858
30	Mt. Joy Drainage Study	Y	Ditching and Grading, 1 FT	Oct 2021	Sep 2022	\$53,620
30	Rail Lubrication Upgrades MP 35.3 - 105.2 AH Line	Y	Install and Service Rail Lubricators, 1 EA	Oct 2021	Sep 2022	\$26,809
30	Spot Surfacing MP 35.3 - 105.2 AH Line	Y	Surface Track, Spot, 60000 FT	Oct 2021	Sep 2022	\$887,712
30	Spot Undercutting MP 35.3 - 105.2 AH Line	Y	Vacuum Train, Spot Undercut, 3000 FT	Dec 2020	Sep 2022	\$902,168
30	Wood Tie/Timber Replacement MP 35.3 - 105.2 AH Line	Y	Install Ties and Timbers, 300 EA	Dec 2020	Sep 2022	\$359,629
31	Project Control Support	Y	N/A	Oct 2021	Sep 2022	\$25,416
31	Project Management	Y	N/A	Oct 2021	Sep 2022	\$160,860
31	Rail Lubrication Upgrades	Y	Install and Service Rail Lubricators, 1 EA	Oct 2021	Sep 2022	\$26,809
Grand Total				Nov 2020	Sep 2022	\$27,355,948

CAPITAL RENEWAL PROGRAM

Mid-Atlantic South Catenary Program

Owner: Amtrak

Type: Capital Renewal Program

ID Number: C.EN.101829

PMO Level 1: PG00021

General Project Information

Scope	Establish and maintain a state of good repair and provide for an efficient and safe operation of track assets. Track assets include components related to track infrastructure (rails, ties, ballast), track roadbed and longitudinal right of way. Work includes right of way crossing upgrades and replacement, insulated joint replacement, interlocking steel renewal, rail joint elimination, wayside detector replacements, ride quality improvements, wood and concrete tie/timber replacement, tie hardware renewal, spot surfacing and spot undercutting.
Schedule	Oct 2021-Sep 2022

FY22 Plan

Planned Expenditure in FY22	\$5,055,347
Scope of FY22 work	Continuation of the SAP installation on Tracks 2 & 3, Switch heater upgrades and catenary wire replacements.

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>Mid-Atlantic South Catenary Program</i>				<i>Oct 2021</i>	<i>Sep 2022</i>	<i>\$5,055,346</i>
21	Bacon Interlocking Batteries & Charger Replacement	Y	Install / Renew Battery, Chargers, 1 EA	Oct 2021	Sep 2022	\$60,729
21	Prince Interlocking Batteries & Charger Replacement	Y	Install / Renew Battery, Chargers, 1 EA	Oct 2021	Sep 2022	\$60,729
21	Prince Interlocking Damaged Catenary Pole Replacement	Y	Install / Rehabilitate Cat. Poles, 6 EA	Oct 2021	Sep 2022	\$1,667,680
22	B&P Tunnel Bracket Replacement for Catenary	Y	Install / Renew Signal Power Hardware, 50 FT	Oct 2021	Sep 2022	\$919,532
22	B&P Tunnel Signal Line Relocation & Replacement	Y	Install / Renew Signal Power Wire, 11000 FT	Oct 2021	Sep 2022	\$697,060
22	Biddle Interlocking Switch Heater Replacement	Y	Install / Renew Switch Heaters, 1 EA	Oct 2021	Sep 2022	\$448,231
22	Fulton Interlocking Catenary Hardware Replacement	Y	Install / Renew Circuit Switchers, 3 EA	Oct 2021	Sep 2022	\$154,786
22	Grove Interlocking Switch Heater Replacement	Y	Install / Renew Switch Heaters, 1 EA	Oct 2021	Sep 2022	\$448,231
22	Hanson Interlocking to Bridge Interlocking SAP Installation Construction Phase Services	Y	N/A	Oct 2021	Sep 2022	\$85,792
23	Washington Interlocking Switch Heater Replacement	Y	Install / Renew Switch Heaters, 1 EA	Oct 2021	Sep 2022	\$448,231
31	Program Management	Y	N/A	Oct 2021	Sep 2022	\$37,538
31	Project Control Support	Y	N/A	Oct 2021	Sep 2022	\$26,808
Grand Total				Oct 2021	Sep 2022	\$5,055,346

CAPITAL RENEWAL PROGRAM

Mid-Atlantic South Facilities Program

Owner: Amtrak

Type: Capital Renewal Program

ID Number: C.EN.101831

PMO Level 1: PG00023

General Project Information

Scope	Establish and maintain a state of good repair, efficient and safe operation for facility assets and maintain compliance with current regulations and standards. Facility assets include the Maintenance of Way (MOFW) bases, Transportation facilities and their individual components. Work includes roof replacements, window and door replacements, HVAC replacement and other mechanical upgrades, electrical and plumbing upgrades, lighting improvements and site improvements. This work will be performed on a routine or annual basis.
Schedule	Mar 2020-Oct 2023

FY22 Plan

Planned Expenditure in FY22	\$4,013,462
Scope of FY22 work	Compressor installation at Ivy City, various electrical upgrades at Ivy City and Union Station Terminal, wayside potable water box upgrades at Ivy City, asphalt improvements at various locations.

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>Mid-Atlantic South Facilities Program</i>				<i>Mar 2020</i>	<i>Oct 2023</i>	<i>\$4,013,462</i>
22	Odenton Maintenance of Way Base High Mast Lighting Upgrade	Y	N/A	Oct 2021	Sep 2022	\$160,860
22	Quad Ave. Facility Entrance Security and Safety Upgrades	N	N/A	Oct 2021	Sep 2022	\$80,430
23	Ivy City Compressor Upgrades	N	N/A	Oct 2021	Oct 2023	\$2,954,290
23	Ivy City High Speed Rail S&I Shop Roof Drainage Improvements - Force Account	N	N/A	Oct 2021	Sep 2022	\$107,240
23	Ivy City Sewage System Upgrades	N	N/A	Mar 2020	Oct 2022	\$26,809
23	Ivy City Station Air Line Defects	N	N/A	Oct 2021	Sep 2022	\$107,240
23	Ivy City Water Box Upgrades Track 13 & 14	N	N/A	Oct 2021	Sep 2022	\$53,620
23	Ivy City Wayside 480 Power Breaker Upgrades	N	N/A	Oct 2021	Sep 2022	\$107,240
23	Ivy City Yard Facility Electrical Upgrades	N	N/A	Oct 2021	Sep 2022	\$160,860
23	Washington Union Station Electrical Upgrades	N	N/A	Oct 2021	Sep 2022	\$160,860
31	Program Management	Y	N/A	Oct 2021	Sep 2022	\$61,841
31	Project Control Support	Y	N/A	Oct 2021	Sep 2022	\$32,172
Grand Total				Mar 2020	Oct 2023	\$4,013,462

CAPITAL RENEWAL PROJECT

Mid-Atlantic South Signal System Upgrades to 562 Project

Owner: Amtrak

Type: Capital Renewal Project

ID Number: C.EN.101872

PMO Level 1: P000120

General Project Information

Scope Design, construct, test, accept and closeout a new 562 cab no wayside signal system to replace the existing 251/261 ABS system including new interlockings with new signal houses containing vital microprocessor equipment, new signal heads with clear block aspects. Existing wayside intermediate signals will be retired.

Schedule Oct 2020-Sep 2024

FY22 Plan

Planned Expenditure in FY22 \$8,420,485

Scope of FY22 work Hut build out for CP Ave to Landover, 562 Upgrades for CP Ave to Landover, Design for Winans to Grove, Design for Grove to Landover, Design for Magnolia to River. These designs include microprocessor equipment, new signal heads and clear block aspects.

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>Mid-Atlantic South Signal System Upgrades to 562 Project</i>				Oct 2020	Sep 2024	\$8,420,485
22	Bush Interlocking to Wood Interlocking ABS System Upgrades	Y	N/A	Apr 2021	Sep 2022	\$643,440
22	CP Ave Interlocking to Landover Interlocking ABS Final Design	Y	N/A	Mar 2021	May 2022	\$214,480
22	Grove Interlocking to Bowie Interlocking ABS Final Design	Y	N/A	Oct 2021	Apr 2023	\$375,340
22	Lancaster Shop Fabrication	Y	N/A	Oct 2021	Sep 2022	\$1,683,668
22	Landover Interlocking to Winans Interlocking Clear Block Final Design	Y	N/A	Oct 2021	Sep 2022	\$428,960
22	Magnolia Interlocking to River Interlocking Clear Block Final Design	Y	N/A	Oct 2021	Sep 2022	\$428,960
22	Winans Interlocking to Grove Interlocking 562 Upgrades	Y	N/A	Oct 2021	Sep 2023	\$3,431,681
22	Winans Interlocking to Grove Interlocking ABS Final Design	Y	N/A	Oct 2021	Sep 2022	\$482,580
22	Wood Interlocking to Magnolia Interlocking ABS System Upgrades	Y	N/A	Oct 2021	Sep 2022	\$536,199
31	Project Management	Y	N/A	Oct 2020	Sep 2024	\$195,177
Grand Total				Oct 2020	Sep 2024	\$8,420,485

CAPITAL RENEWAL PROGRAM

Mid-Atlantic South Signals Program

Owner: Amtrak

Type: Capital Renewal Program

ID Number: C.EN.101832

PMO Level 1: PG00025

General Project Information

Scope	Establish and maintain a state of good repair, efficient and safe operation for signal assets. Work includes SCADA-RTU upgrades, C&S network upgrades, split-point derails, signal system upgrades, upgrades to 562, relay code transmitters, event recorders, switch machines, Lancaster Signal shop equipment and Microlok II. This work will be performed on a routine or annual basis.
Schedule	Dec 2020-Sep 2022

FY22 Plan

Planned Expenditure in FY22	\$1,102,533
Scope of FY22 work	Switch heater upgrades (Ragan MP29.7 to Bacon (MP51.0), switch machine upgrades (MP 135 - 137.1), signal cable upgrades (MP29.7 to 137.1), impedance bond upgrades (MP29.7 to 135), relay upgrades (MP29.7 to 137.1), CIH upgrades (Ragan to Perry), RTU upgrades (MP29.7 to 135), train control system upgrades (MP29.7 to 135) , monitoring equipment upgrades (Ragan to Lorton), WIU upgrades (Ragan to Lorton), transponder upgrades, wayside signal upgrades, train detector upgrades.

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>Mid-Atlantic South Signals Program</i>				<i>Dec 2020</i>	<i>Sep 2022</i>	<i>\$1,102,533</i>
20	Interlocking Switch Heater Upgrades MP 29.7 - 51.0 AP Line	Y	N/A	Oct 2021	Sep 2022	\$128,401
22	Interlocking Switch Heater Upgrades MP 59.5 - 135.0 AP Line	Y	N/A	Oct 2021	Sep 2022	\$874,022
31	Interlocking Switch Machine Upgrades MP 59.5 - 135.0 AP Line	Y	N/A	Oct 2021	Sep 2022	\$69,763
31	Long Lead Material	Y	N/A	Oct 2021	Sep 2022	\$8,382
31	Program Management	Y	N/A	Dec 2020	Sep 2022	\$11,827
31	Program Management	Y	N/A	Oct 2021	Sep 2022	\$10,138
Grand Total				Dec 2020	Sep 2022	\$1,102,533

CAPITAL RENEWAL PROGRAM

Mid-Atlantic South Structures Program

Owner: Amtrak

Type: Capital Renewal Program

ID Number: C.EN.101833

PMO Level 1: PG00026

General Project Information

Scope	Establish and maintain a State of Good Repair (SOGR), efficient and safe operation for right-of-way operation of structure assets. Work includes undergrade bridges (concrete, steel and masonry rehabilitation, waterproofing, painting, component replacement, waterway improvements, and roadway clearance work); bridge timbers (timber replacement); movable bridges [movable components (motors, gears, bearings, and other mechanical and electrical upgrades)]; culverts (concrete and masonry rehabilitation, inlet, waterway improvements and culvert replacement); retaining walls (concrete and masonry rehabilitation, reconstruction, and new wall construction); signal bridges (safety lines, re-decking the signal bridges, upgrading fall protection equipment); and tunnels (drainage improvements, benchwall rehabilitation, emergency egress improvements, and ventilation upgrades).
Schedule	Oct 2021-Sep 2022

FY22 Plan

Planned Expenditure in FY22	\$7,277,602
Scope of FY22 work	Planned work includes: Replacement of 3 culverts, various movable bridge upgrades, ventilation upgrades in the 1st St. Tunnel, and install of 1 bridge strike mitigation beam.

CAPITAL RENEWAL PROGRAM

Mid-Atlantic South Structures Program (continued)

Owner: Amtrak

Type: Capital Renewal Program

ID Number: C.EN.101833

PMO Level 1: PG00026

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>Mid-Atlantic South Structures Program</i>				Oct 2021	Sep 2022	\$7,277,601
20	Brick Arch Upgrades MP 30.70 AP Line	Y	N/A	Oct 2021	Sep 2022	\$207,646
20	Contractor Construction Management	Y	Culvert Upgrade, 1 EA	Oct 2021	Sep 2022	\$333,022
20	James Street Strike Beam Installation MP 30.67 AP Line	Y	N/A	Oct 2021	Sep 2022	\$192,304
21	Principio Creek Arch Upgrades MP Line MP 56.92	Y	N/A	Oct 2021	Sep 2022	\$1,580,945
22	Bush River Movable Bridge Upgrades	Y	N/A	Oct 2021	Sep 2022	\$269,275
22	Culvert & Embankment Upgrades MP 125.85 AP Line	Y	Culvert Upgrade, 1 EA	Oct 2021	Sep 2022	\$1,113,025
22	Culvert Upgrades MP 122.45 AP Line	Y	Culvert Upgrade, 1 EA	Oct 2021	Sep 2022	\$1,113,025
22	Pier Rehab MP 115 AP Line	Y	N/A	Oct 2021	Sep 2022	\$233,251
22	Stone Arch Wall Upgrades MP 128.76 AP Line	Y	N/A	Oct 2021	Sep 2022	\$324,757
22	Undergrade Bridge Column Base Concrete Encasement MP 98.45 AP Line	Y	N/A	Oct 2021	Sep 2022	\$145,281
22	Undergrade Bridge Column Base Concrete Encasement MP 98.96 AP Line	Y	N/A	Oct 2021	Sep 2022	\$145,281
22	Undergrade Bridge Upgrade MP 94.07 AP Line	Y	N/A	Oct 2021	Sep 2022	\$270,451
22	Wingwall, Headwall, & Culvert Upgrades MP 120.88 AP Line	Y	N/A	Oct 2021	Sep 2022	\$1,113,024
23	Upgrade Fall Protection at H Signal Bridge WAS Terminal	Y	N/A	Oct 2021	Sep 2022	\$25,198
23	Upgrade Fall Protection at J Signal Bridge WAS Terminal	Y	N/A	Oct 2021	Sep 2022	\$25,198
23	Upgrade Fall Protection at K Signal Bridge WAS Terminal	Y	Signal Bridge Component Upgrades, 1 EA	Oct 2021	Sep 2022	\$25,198
24	Potable Hydrant & Pipe Replacement	Y	N/A	Oct 2021	Sep 2022	\$96,788
31	Program Management	Y	N/A	Oct 2021	Sep 2022	\$43,601
31	Project Control Support	Y	N/A	Oct 2021	Sep 2022	\$20,332
Grand Total				Oct 2021	Sep 2022	\$7,277,601

CAPITAL RENEWAL PROGRAM

Mid-Atlantic South Substations Program

Owner: Amtrak

Type: Capital Renewal Program

ID Number: C.EN.101834

PMO Level 1: PG00027

General Project Information

Scope Establish and maintain a state of good repair, efficient and safe operations for substation assets. Substation assets include substation components and frequency converter improvements. Work includes air brakes, breakers, control house renovations, fencing, frequency converters and components such as metering panels, capacity of power, and control houses (batteries, chargers, relay and control panels and remote terminal units), lighting, and transformers as needed based on inspection and testing of the various components.

Schedule Oct 2021-Sep 2022

FY22 Plan

Planned Expenditure in FY22 \$1,709,214

Scope of FY22 work Jericho Park OCB upgrade, Bowie air-break replacement, CAD support, Perryville phase break replacement, Davis 12kv break replacement, Perryville sub control house replacement design, Fulton 352 signal break replacement, Landover sub air-break replacement, Baltimore sub air-break replacement.

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>Mid-Atlantic South Substations Program</i>				<i>Oct 2021</i>	<i>Sep 2022</i>	<i>\$1,709,215</i>
20	Davis Substation #14 12kV Breaker Replacement AP Line	Y	Install / Renew Single-Pole Breakers, 1 EA	Oct 2021	Sep 2022	\$283,559
22	Baltimore Substation #20 Air Break Replacement AP Line	Y	Install / Renew Single-Pole Breakers, 1 EA	Oct 2021	Sep 2022	\$130,264
22	Baltimore Substation #20 Signal Power Frequency Converter AP Line	Y	Install / Renew Signal Power Transformer - Cut Section, 1 EA	Oct 2021	Sep 2022	\$117,964
22	Fulton Interlocking 352 Signal Breaker Replacement	Y	Install / Renew Single-Pole Breakers, 1 EA	Oct 2021	Sep 2022	\$142,050
22	Landover Substation #24 Air Break Replacement AP Line	Y	Install / Renew Single-Pole Breakers, 1 EA	Oct 2021	Sep 2022	\$130,264
22	Landover Substation #24 Transformer Replacement AP Line	Y	Install / Renew 4.5 MVA Transformer, 1 EA	Oct 2021	Sep 2022	\$435,801
22	Loudon Park Substation #21 Remote Terminal Unit Upgrade AP Line	Y	N/A	Oct 2021	Sep 2022	\$80,268
22	Perryman Substation # 17 Remote Terminal Unit Upgrade AP Line	Y	N/A	Oct 2021	Sep 2022	\$80,076
22	Severn Substation #22 Airbreak Replacement AP Line	Y	Install / Renew Single-Pole Breakers, 1 EA	Oct 2021	Sep 2022	\$164,321
23	Ivy City Substation #25 Transformer Upgrade	Y	Install / Renew Signal Power Transformer - Cut Section, 1 EA	Oct 2021	Sep 2022	\$85,171
31	Program Management	Y	N/A	Oct 2021	Sep 2022	\$24,796
31	Project Control Support	Y	N/A	Oct 2021	Sep 2022	\$34,680
Grand Total				Oct 2021	Sep 2022	\$1,709,215

CAPITAL RENEWAL PROGRAM

Mid-Atlantic South Track Program

Owner: Amtrak

Type: Capital Renewal Program

ID Number: C.EN.101835

PMO Level 1: PG00028

General Project Information

Scope	Establish and maintain a state of good repair and provide of efficient and safe operation of track assets. Track assets include components related to track infrastructure (rails, ties, ballast), track roadbed and longitudinal right of way. Work includes right of way crossing upgrades and replacement, insulated joint replacement, interlocking steel renewal, rail joint elimination, wayside detector replacements, ride quality improvements, wood and concrete tie/timber replacement, tie hardware renewal, spot surfacing and spot undercutting.
Schedule	Oct 2020-Sep 2022

FY22 Plan

Planned Expenditure in FY22	\$25,070,765
Scope of FY22 work	Insulated joint replacement, joint elimination, drainage improvement, tie replacement, interlocking steel replacement, mud spot elimination, spot surfacing. This scope of work will take place between Ragan and Lorton.

CAPITAL RENEWAL PROGRAM

**Mid-Atlantic South Track Program
(continued)**

Owner: Amtrak

Type: Capital Renewal Program

ID Number: C.EN.101835

PMO Level 1: PG00028

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>Mid-Atlantic South Track Program</i>				Oct 2020	Sep 2022	\$25,070,766
20	Concrete Tie Replacement MP 29.6 - 41.4 AP Line	Y	Install Ties, Concrete, 20 EA	Nov 2020	Jan 2022	\$148,288
20	Concrete Tie Replacement MP 41.4 - 51.0 AP Line	Y	Install Ties, Concrete, 15 EA	Dec 2020	Jan 2022	\$88,546
20	Drainage Improvements MP 29.6 - 41.4 AP Line	Y	N/A	Oct 2021	Sep 2022	\$202,019
20	Drainage Improvements MP 41.4 - 51.0 AP Line	Y	N/A	Oct 2021	Sep 2022	\$202,019
20	High Speed Surfacing MP 29.6 - 41.4 AP Line	Y	Surface Track, High Speed, 3000 FT	Nov 2020	Dec 2021	\$27,033
20	High Speed Surfacing MP 41.4 - 51.0 AP Line	Y	Surface Track, High Speed, 3000 FT	Dec 2020	Nov 2021	\$27,033
20	Insulated Joint Removal MP 29.6 - 41.4 AP Line	Y	Install Insulated Joint (Includes OTM), 4 EA	Oct 2021	Oct 2021	\$33,369
20	Insulated Joint Removal MP 41.4 - 51.0 AP Line	Y	Install Insulated Joint (Includes OTM), 4 EA	Nov 2020	Oct 2021	\$33,370
20	Interlocking Steel MP 29.6 - 41.4 AP Line	Y	Renew Frog, 1 EA	Oct 2021	Oct 2021	\$64,907
20	Interlocking Steel MP 41.4 - 51.0 AP Line	Y	Renew Frog, 7 EA	Oct 2020	Oct 2021	\$89,942
20	Joint Elimination MP 29.6 - 41.4 AP Line	Y	Field Weld and Grind Rail (Joint Elimination), 60 EA	Oct 2021	Jan 2022	\$519,942
20	Joint Elimination MP 41.4 - 51.0 AP Line	Y	Field Weld and Grind Rail (Joint Elimination), 20 EA	Oct 2020	Mar 2022	\$173,315
20	Spot Undercutting MP 29.6 - 41.4 AP Line	Y	Vacuum Train, Spot Undercut, 2500 FT	Nov 2020	Sep 2022	\$976,473
20	Spot Undercutting MP 41.4 - 51.0 AP Line	Y	Vacuum Train, Spot Undercut, 2500 FT	Oct 2021	Oct 2021	\$842,727
20	Wood Tie/Timber Replacement MP 29.6 - 41.4 AP Line	Y	Install Ties and Timbers, 125 EA	Nov 2020	Oct 2021	\$1,552,041
20	Wood Tie/Timber Replacement MP 41.4 - 51.0 AP Line	Y	Install Ties and Timbers, 25 EA	Dec 2020	Nov 2021	\$201,981
21	Concrete Tie Replacement MP 51.0 - 59.4 AP Line	Y	Install Ties, Concrete, 15 EA	Jan 2021	Feb 2022	\$170,024
21	Drainage Improvements MP 51.0 - 59.4 AP Line	Y	N/A	Oct 2021	Sep 2022	\$202,019
21	High Speed Surfacing MP 51.0 - 59.4 AP Line	Y	Surface Track, High Speed, 3000 FT	Jan 2021	Dec 2021	\$27,033
21	Insulated Joint Removal MP 51.0 - 59.4 AP Line	Y	Install Insulated Joint (Includes OTM), 6 EA	Dec 2020	Dec 2021	\$50,054
21	Interlocking Steel MP 51.0 - 59.4 AP Line	Y	Renew Frog, 5 EA	Jan 2021	Dec 2021	\$89,942

CAPITAL RENEWAL PROGRAM

**Mid-Atlantic South Track Program
(continued)**

Owner: Amtrak

Type: Capital Renewal Program

ID Number: C.EN.101835

PMO Level 1: PG00028

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
21	Joint Elimination MP 51.0 - 59.4 AP Line	Y	Field Weld and Grind Rail (Joint Elimination), 60 EA	Nov 2020	May 2022	\$519,923
21	Slope and Roadbed Stability MP 52.7 AP Line	Y	N/A	Oct 2021	Sep 2022	\$375,812
21	Wood Tie/Timber Replacement MP 51.0 - 59.4 AP Line	Y	Install Ties and Timbers, 25 EA	Jan 2021	Nov 2021	\$227,911
22	Concrete Tie Replacement MP 131.6 - 135.0 AP Line	Y	Install Ties, Concrete, 11 EA	Apr 2021	Apr 2022	\$79,632
22	Concrete Tie Replacement MP 59.4 - 79.3 AP Line	Y	Install Ties, Concrete, 25 EA	Feb 2021	Mar 2022	\$222,085
22	Concrete Tie Replacement MP 79.3 - 131.6 AP Line	Y	Install Ties, Concrete, 33 EA	Apr 2021	Apr 2022	\$347,583
22	Drainage Improvements MP 59.4 - 79.3 AP Line	Y	N/A	Oct 2021	Sep 2022	\$202,019
22	Drainage Improvements Seabrook MP 124.8 AP Line	Y	N/A	Oct 2021	Sep 2022	\$50,454
22	Flood Protection MP 131 AP Line	Y	N/A	Oct 2021	Sep 2022	\$89,842
22	Fulton Interlocking Pipe Replacement MP 97.56	Y	N/A	Oct 2021	Sep 2022	\$129,761
22	High Speed Surfacing MP 131.6 - 135.0 AP Line	Y	Surface Track, High Speed, 3000 FT	Mar 2021	Jun 2022	\$27,033
22	High Speed Surfacing MP 59.4 - 79.3 AP Line	Y	Surface Track, High Speed, 3000 FT	Jan 2021	Aug 2022	\$27,033
22	High Speed Surfacing MP 79.3 - 131.6 AP Line	Y	Surface Track, High Speed, 3000 FT	Feb 2021	Feb 2022	\$27,033
22	Insulated Joint Removal MP 131.6 - 135.0 AP Line	Y	Install Insulated Joint (Includes OTM), 5 EA	Mar 2021	Feb 2022	\$41,712
22	Insulated Joint Removal MP 59.4 - 79.3 AP Line	Y	Install Insulated Joint (Includes OTM), 6 EA	Jan 2021	Jan 2022	\$50,054
22	Insulated Joint Removal MP 79.3 - 131.6 AP Line	Y	Install Insulated Joint (Includes OTM), 12 EA	Feb 2021	Dec 2021	\$100,109
22	Interlocking Steel MP 131.6 - 135.0 AP Line	Y	N/A	Jan 2021	Jun 2022	\$299,806
22	Interlocking Steel MP 59.4 - 79.3 AP Line	Y	Renew Frog, 1 EA	Nov 2020	Aug 2022	\$149,903
22	Interlocking Steel MP 79.3 - 131.6 AP Line	Y	Renew Frog, 6 EA	Dec 2020	Dec 2021	\$449,709
22	Joint Elimination MP 131.6 - 135.0 AP Line	Y	Field Weld and Grind Rail (Joint Elimination), 37 EA	Jan 2021	Mar 2022	\$320,630
22	Joint Elimination MP 59.4 - 79.3 AP Line	Y	Field Weld and Grind Rail (Joint Elimination), 80 EA	Nov 2020	Jun 2022	\$693,256

CAPITAL RENEWAL PROGRAM

**Mid-Atlantic South Track Program
(continued)**

Owner: Amtrak

Type: Capital Renewal Program

ID Number: C.EN.101835

PMO Level 1: PG00028

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
22	Joint Elimination MP 79.3 - 131.6 AP Line	Y	Field Weld and Grind Rail (Joint Elimination), 37 EA	Dec 2020	Feb 2022	\$320,632
22	Roadbed Stabilization Bowie State MP 118.9 AP Line	Y	N/A	Oct 2021	Sep 2022	\$29,641
22	Spot Undercutting MP 131.6 - 135 AP Line	Y	Vacuum Train, Spot Undercut, 1000 FT	Apr 2021	Jun 2022	\$1,282,028
22	Spot Undercutting MP 79.3 - 131.6 AP Line	Y	Vacuum Train, Spot Undercut, 2000 FT	Feb 2021	Dec 2021	\$1,188,028
22	Spot Undercutting MP 59.4 - 79.3 AP Line	Y	Vacuum Train, Spot Undercut, 2500 FT	Feb 2021	Aug 2022	\$1,305,849
22	Washington Union Station Drainage Improvements Lower Platform	Y	N/A	Oct 2021	Sep 2022	\$304,954
22	Wood Tie/Timber Replacement Ivy City Yard	Y	Install Ties and Timbers, 75 EA	Oct 2021	Sep 2022	\$163,566
22	Wood Tie/Timber Replacement MP 131.6 - 135.0 AP Line	Y	Install Ties and Timbers, 100 EA	Apr 2021	Jan 2022	\$775,184
22	Wood Tie/Timber Replacement MP 59.4 - 79.3 AP Line	Y	Install Ties and Timbers, 75 EA	Feb 2021	Jan 2022	\$987,516
22	Wood Tie/Timber Replacement MP 79.3 - 131.6 AP Line	Y	Install Ties and Timbers, 650 EA	Mar 2021	Feb 2022	\$1,638,339
22	Wood Tie/Timber Replacement MP 92.0 - 93.0 AP Line	Y	Install Ties and Timbers, 50 EA	Oct 2021	Sep 2022	\$109,044
23	Concrete Tie Replacement MP 135.0 - 136.0 AP Line	Y	Install Ties, Concrete, 25 EA	Oct 2021	Oct 2021	\$138,798
23	High Speed Surfacing MP 135.0 - 136.0 AP Line	Y	Surface Track, High Speed, 3000 FT	Mar 2021	Jun 2022	\$27,033
23	Insulated Joint Removal MP 135.0 - 136.0 AP Line	Y	Install Insulated Joint (Includes OTM), 5 EA	Apr 2021	Jan 2022	\$41,712
23	Interlocking Steel MP 135.0 - 136.0 AP Line	Y	N/A	Mar 2021	Jan 2022	\$449,709
23	Joint Elimination MP 135.0 - 136.0 AP Line	Y	Field Weld and Grind Rail (Joint Elimination), 30 EA	Jan 2021	Jun 2022	\$259,971
23	Spot Undercutting MP 135 - 136 AP Line	Y	Vacuum Train, Spot Undercut, 5000 FT	Jun 2021	Jun 2022	\$3,584,799
23	Wood Tie/Timber Replacement MP 135.0 - 136.0 AP Line	Y	Install Ties and Timbers, 350 EA	May 2021	Feb 2022	\$1,147,395
31	Project Control Support	Y	N/A	Oct 2021	Dec 2021	\$18,128
31	Rail Lubrication Upgrades	Y	Install and Service Rail Lubricators, 1 EA	Oct 2021	Nov 2021	\$506,023
31	Track Layover Equipment	Y	N/A	Oct 2021	Oct 2021	\$639,039
Grand Total				Oct 2020	Sep 2022	\$25,070,766

CAPITAL RENEWAL PROGRAM

NEC Trip Time Reduction

Owner: Amtrak

Type: Capital Renewal Program

ID Number: C.EN.101909

PMO Level 1: PG00089

General Project Information

Scope	The scope of the NEC Trip Time Reduction Project includes work to Implement speed increases throughout the Northeast Corridor (NEC) and focus on areas on the NEC where Acela trains run (Boston, MA to Washington, D.C.) to allow greater speed capabilities. The completion of this work will ensure efficient and safe operation at higher rates of speed of Amtrak's assets, to maintain compliance with current regulations and standards.
Schedule	Sep 2021-Oct 2022

FY22 Plan

Planned Expenditure in FY22	\$1,804,491
Scope of FY22 work	The scope for FY 22 includes work to complete: Design and construction for speed increases from Bayview to Biddle; Complete design for speed increases at Transfer; Complete design for speed increases for the new Acela 21 curve speeds; complete design for removal of the EO#31 speed restrictions and complete a signal spacing study.

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>NEC Trip Time Reduction</i>				<i>Sep 2021</i>	<i>Oct 2022</i>	<i>\$1,804,491</i>
31	Acela 21 Curve Speeds	N	N/A	Sep 2021	Oct 2022	\$516,897
31	Bayview to Biddle Speed Increases	N	N/A	Oct 2021	Sep 2022	\$516,962
31	Executive Order #31 Removal	N	N/A	Oct 2021	Sep 2022	\$516,962
31	Project Control Support	N	N/A	Oct 2021	Sep 2022	\$5,175
31	Project Management	N	N/A	Oct 2021	Sep 2022	\$41,736
31	Signal Spacing Study	N	N/A	Oct 2021	Sep 2022	\$206,759
Grand Total				Sep 2021	Oct 2022	\$1,804,491

CAPITAL RENEWAL PROJECT

New Brunswick, NJ - Commuter Yard Remediation

Owner: Amtrak

Type: Capital Renewal Project

ID Number: C.EV.100002

PMO Level 1:

General Project Information

Scope

This commuter yard in New Brunswick NJ was never operated by Amtrak. Although it is Amtrak owned, Amtrak has had an operating agreement with NJT for commuter operations. New Jersey Department of Environmental Protection (NJDEP) regulations require that County Yard be investigated and remediated as previous spills have been reported. Unless funded, this facility will remain out of compliance with NJDEP clean up regulations. The State of New Jersey has been notified of the PCB contamination, and Amtrak has an affirmative obligation to Investigate and Remediate the site. WOOD Consulting has been obtained as Amtrak's Licensed Site Remediation Professional (LSRP) to oversee this work. In February 2012, Amtrak received a Real Estate Property Clearance Form request from NJT for a long term lease at this property to build a new maintenance yard. NJT has offered to complete the bulk of the remediation of the property should they be able to agree with Amtrak on this lease. The property known as the Millstone Branch and several off-site parcels have also been impacted by PCBs.

Schedule

Oct 2021-Sep 2022

FY22 Plan

Planned Expenditure in FY22

\$1,179,640

Scope of FY22 work

Completion of one off-site parcel cleanup in FY 22. Support of NJT work when lease agreement is signed between Amtrak and NJT. NJT will then be responsible to cleanup most of yard. Amtrak is responsible for cleanup of off-site contaminated properties. This is a recurring annual maintenance project. Milestones will only be tracked for fiscal year 2022. Out-year funding planned.

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>New Brunswick, NJ - Commuter Yard Remediation</i>				<i>Oct 2021</i>	<i>Sep 2022</i>	<i>\$1,179,640</i>
12	(blank)	N	N/A	Oct 2021	Sep 2022	\$1,179,640
Grand Total				Oct 2021	Sep 2022	\$1,179,640

CAPITAL RENEWAL PROGRAM

New England Catenary Program

Owner: Amtrak

Type: Capital Renewal Program

ID Number: C.EN.101836

PMO Level 1: PG00029

General Project Information

Scope	The scope of this program is to establish and maintain a State of Good Repair (SOGR), efficient and safe operation for the New England Catenary Program assets to maintain compliance with current regulations and standards. This work includes the replacement of the overhead catenary and hardware such as wire, insulators, rods, and clips, signal power hardware, signal cut sections, transmission lines, crossover wire runs, solid state signal machines, existing catenary poles, associated hardware, foundations, and guy wire supports. This work will be performed on a routine or annual basis.
Schedule	Oct 2019-Sep 2023

FY22 Plan

Planned Expenditure in FY22	\$568,645
Scope of FY22 work	This is an annual state of good repair program for the catenary system on the New England Division. Planned work for FY22 includes replacement of motor operated disconnect switches at Southampton Street Yard, catenary hardware renewal, and upgrading interlocking lighting to LEDs at Guilford I/L.

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>New England Catenary Program</i>				Oct 2019	Sep 2023	\$568,647
2	Catenary Hardware Renewal MP 185.1 - MP 190.9 AB Line	Y	N/A	Oct 2020	Sep 2022	\$29,553
3	Catenary Hardware Renewal MP 165.9 - MP 185.1 AB Line	Y	N/A	Oct 2020	Sep 2022	\$29,553
4	Catenary Hardware Renewal MP 122.9 - MP 158.0 AB Line	Y	N/A	Oct 2019	Sep 2022	\$69,831
4	Catenary Hardware Renewal MP 158.0 - MP 165.9 AB Line	Y	N/A	Oct 2020	Sep 2022	\$29,553
5	Catenary Hardware Renewal MP 73.5 - MP 122.9 AB Line	Y	N/A	Oct 2019	Sep 2022	\$177,322
5	Guilford Interlocking Lighting Up-grades MP 90.4	Y	N/A	Oct 2021	Sep 2023	\$174,885
31	Program Management	Y	N/A	Oct 2021	Sep 2022	\$32,288
31	Project Control Support	Y	N/A	Oct 2021	Sep 2022	\$25,660
Grand Total				Oct 2019	Sep 2023	\$568,647

CAPITAL RENEWAL PROGRAM

New England Communications Program

Owner: Amtrak

Type: Capital Renewal Program

ID Number: C.EN.101837

PMO Level 1: PG00030

General Project Information	
Scope	The scope of this program is to establish and maintain a State of Good Repair (SOGR), efficient and safe operation for the New England Communications Program assets to maintain compliance with current regulations and standards. This work includes upgrades and replacements to the Operations Network, fiber optic and copper cabling, communications transport systems/components, radio site equipment, towers, radio system and network, backup power systems, PTC network and site upgrades, equipment shelters, and substation SCADA-RTUs. This work will be performed on a routine or annual basis.
Schedule	Sep 2021-Sep 2023

FY22 Plan	
Planned Expenditure in FY22	\$1,376,280
Scope of FY22 work	<div>The FY22 Scope includes the following work:</div> <ul style="list-style-type: none">Upgrades to the SCADA/RTUs at ten locations on the AB lineUpgrades to the climate control systems at the LDS houses on the AB lineReplacement of fiber cable at locations in Connecticut on the AB line.

CAPITAL RENEWAL PROGRAM

**New England Communications
Program (continued)**

Owner: Amtrak

Type: Capital Renewal Program

ID Number: C.EN.101837

PMO Level 1: PG00030

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>New England Communications Program</i>				<i>Sep 2021</i>	<i>Sep 2023</i>	<i>\$1,376,280</i>
2	Signal Hut AC Unit Replacement MP 185.1 - 190.9 AB Line	Y	N/A	Jun 2022	Jun 2022	\$33,398
3	Signal Hut AC Unit Replacement MP 165.9 - 185.1 AB Line	Y	N/A	Oct 2021	Sep 2023	\$55,149
4	Signal Hut AC Unit Replacement MP 122.9 - 141.35 AB Line	Y	N/A	Apr 2022	Apr 2022	\$33,398
4	Signal Hut AC Unit Replacement MP 141.35 - 165.9 AB Line	Y	N/A	Oct 2021	Sep 2022	\$66,796
4	Stonington Fiber Cable Replacement	Y	Install / Renew Fiber Optic Cable, 11000 FT	Oct 2021	Sep 2022	\$139,288
4	Stonington Substation #82B SCADA/RTU Upgrades	Y	Install / Renew RTU, 1 EA	Oct 2021	Sep 2022	\$103,923
5	Grove Beach Fiber Cable Replacement	Y	Install / Renew Fiber Optic Cable, 6100 FT	Sep 2021	Dec 2021	\$264,309
5	Guilford East Scada/RTU Upgrades	Y	Install / Renew RTU, 1 EA	Oct 2021	Sep 2022	\$103,923
5	Guilford West Scada/RTU Upgrades	Y	Install / Renew RTU, 1 EA	Sep 2021	Aug 2022	\$103,923
5	Millstone Substation #81B SCADA/RTU Upgrades	Y	Install / Renew RTU, 1 EA	Oct 2021	Sep 2022	\$103,923
5	Old Lyme Fiber Cable Replacement	Y	Install / Renew Fiber Optic Cable, 600 FT	Oct 2021	Sep 2023	\$56,969
5	Old Lyme Substation #81A Parallel-ing SCADA/RTU Upgrades	Y	Install / Renew RTU, 1 EA	Oct 2021	Sep 2022	\$103,923
5	Signal Hut AC Unit Replacement MP 72.90 - 122.9 AB Line	Y	N/A	Oct 2021	Sep 2023	\$155,857
31	Program Management	Y	N/A	Oct 2021	Sep 2022	\$25,841
31	Project Control Support	Y	N/A	Oct 2021	Sep 2022	\$25,660
Grand Total				Sep 2021	Sep 2023	\$1,376,280

CAPITAL RENEWAL PROGRAM

New England Facilities Program

Owner: Amtrak

Type: Capital Renewal Program

ID Number: C.EN.101838

PMO Level 1: PG00031

General Project Information

Scope	The scope of this program is to establish and maintain a State of Good Repair (SOGR), efficient and safe operation for maintenance of way (MOFW) base assets, maintenance of equipment (MOFE) facility assets, and station (STA) facility assets to maintain compliance with current regulations and standards. This work includes HVAC replacement, roof replacement, electrical upgrades, and lighting improvements. Typical asset life varies from component to component. This work will be performed on a routine or annual basis.
Schedule	Jan 2021-Feb 2023

FY22 Plan

Planned Expenditure in FY22	\$1,041,991
Scope of FY22 work	Facilities upgrades include the Southampton Street Yard facility water mains and parking lot, replacement of the Sub579 switch gear and transformer, upgrades to the S&I exhaust system, as well as upgrades to the train servicing platforms inside the S&I building. Complete safety and energy efficiency upgrades at Southampton Street and Hamden MOW Facilities. Upgrade the air compressor equipment at South Station. Begin the design for a salt shed, Track/B&B building, and emergency backup generator at the Providence MOW base as well as for the replacement of the high mast light poles at the Hamden MOW base.

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>New England Facilities Program</i>				<i>Jan 2021</i>	<i>Feb 2023</i>	<i>\$1,041,992</i>
2	Providence MOFW Emergency Back-up Generator	Y	N/A	Oct 2021	Sep 2022	\$68,482
2	Providence MOFW Salt Shed	Y	N/A	Oct 2021	Feb 2023	\$68,024
2	Providence MOFW Track and Structures Workshop	Y	N/A	Oct 2021	Sep 2022	\$181,296
5	Midway MOFW Efficiency Upgrades	Y	N/A	Oct 2021	Sep 2022	\$287,015
25	Hamden MOFW Base Upgrades	Y	N/A	Jan 2021	Oct 2021	\$359,846
31	Project Management	Y	N/A	Oct 2021	Sep 2022	\$51,668
31	Project Management Support	Y	N/A	Oct 2021	Sep 2022	\$25,660
Grand Total				Jan 2021	Feb 2023	\$1,041,992

CAPITAL RENEWAL PROGRAM

New England Signals Program

Owner: Amtrak

Type: Capital Renewal Program

ID Number: C.EN.101839

PMO Level 1: PG00033

General Project Information

Scope	The scope of this program is to establish and maintain a State of Good Repair (SOGR), efficient and safe operation for the New England Facilities Program assets to maintain compliance with current regulations and standards. This work includes upgrades and replacements to SCADA-RTU equipment, C&S network, spit-point derails, signal system, 562, relay code transmitters, event recorders, switch machines, Lancaster Signal shop equipment, and Microlok II components. This work will be performed on a routine or annual basis.
Schedule	Oct 2019-Sep 2026

FY22 Plan

Planned Expenditure in FY22	\$3,684,916
Scope of FY22 work	<p>The FY22 Scope includes work at the following locations:</p> <ul style="list-style-type: none">• On the AB Line Switch machine replacements, impendence bond replacements, and upgrade the RTUs at five locations.• Replace the switch lock modules at three locations on the AB Line• Replace battery banks and chargers in Rhode Island• Replace LED signal lights in Rhode Island• Install grade crossing cameras on the AS Line and AB Line• Replace the submarine cable at Shaws Cove Swing Bridge• Replace the circuit control boxes at Shaws Cove and Mystic River Swing Bridges

CAPITAL RENEWAL PROGRAM

**New England Signals Program
(continued)**

Owner: Amtrak

Type: Capital Renewal Program

ID Number: C.EN.101839

PMO Level 1: PG00033

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>New England Signals Program</i>				Oct 2019	Sep 2026	\$3,684,915
2	Battery Replacement MP 185.1 - 190.9 AB Line	Y	Mount Switch Machine, 8 EA	Oct 2021	Sep 2022	\$60,166
2	Impedance Bonds MP 185.1 - 190.9 AB Line	Y	Install Impedance Bonds, 25 EA	Oct 2019	Sep 2022	\$157,169
3	Battery Replacement MP 165.9 - 185.1 AB Line	Y	Mount Switch Machine, 8 EA	Oct 2021	Sep 2022	\$60,166
3	Impedance Bonds MP 165.9 - 185.1 AB Line	Y	Install Impedance Bonds, 25 EA	Oct 2019	Sep 2022	\$157,169
3	LED Replacements MP 165.9 - 185.1 AB Line	Y	N/A	Oct 2021	Sep 2022	\$78,678
4	Battery Replacement MP 141.35 - 165.9 AB Line	Y	Install Batteries / Transformers, 4 EA	Oct 2021	Sep 2022	\$30,083
4	Grade Crossing Recorders Installations MP 122.9 - 141.35 AB Line	Y	N/A	Oct 2021	Sep 2024	\$580,338
4	Groton Interlocking RTU Upgrades	Y	N/A	Oct 2021	Sep 2023	\$117,760
4	Interlocking Switch Machine Upgrades MP 141.35 - 165.9 AB Line	Y	Mount Switch Machine, 8 EA	Oct 2020	Oct 2022	\$314,539
4	LED Replacements MP 141.35 - 165.9 AB Line	Y	N/A	Oct 2021	Sep 2022	\$78,678
4	Moveable Bridges Circuit Control Upgrades MP 122.3 - 132.16 AB Line	Y	N/A	Oct 2021	Sep 2022	\$27,657
4	Switch Lock Module Upgrades West-erly Yard AB Line	Y	N/A	Oct 2021	Sep 2023	\$86,220
4	Switch Lock Module Upgrades Wood River AB Line	Y	N/A	Oct 2021	Sep 2023	\$86,220
5	Brook Interlocking RTU Upgrades	Y	N/A	Oct 2021	Sep 2023	\$117,760
5	Guilford Interlocking RTU Upgrades	Y	N/A	Oct 2021	Sep 2023	\$117,760
5	Moveable Bridges Circuit Control Upgrades MP 122.3 - 132.16 AB Line	Y	N/A	Oct 2021	Sep 2022	\$54,778
5	Saybrook Interlocking RTU Upgrades	Y	N/A	Oct 2021	Sep 2023	\$117,760
5	Switch Lock Module Upgrades MP105.3 AB Line	Y	N/A	Oct 2021	Sep 2022	\$86,220
5	View Interlocking RTU Upgrades	Y	N/A	Oct 2021	Sep 2023	\$117,760
25	Grade Crossing Recorders Installations MP 1.5 - 62.0 AS Line	Y	N/A	Mar 2021	Jun 2024	\$1,199,844
31	Program Management	Y	N/A	Oct 2019	Sep 2026	\$19,162
31	Project Control Support	Y	N/A	Oct 2019	Sep 2026	\$19,029
Grand Total				Oct 2019	Sep 2026	\$3,684,915

CAPITAL RENEWAL PROGRAM

New England Structures Program

Owner: Amtrak

Type: Capital Renewal Program

ID Number: C.EN.101840

PMO Level 1: PG00034

General Project Information

Scope	The scope of this program is to establish and maintain a State of Good Repair (SOGR), for efficient and safe operation of New England Structure assets to maintain compliance with current regulations and standards. This work includes the upgrade and replacement of structural assets to bring them to a state of good repair. Work includes upgraded bridge replacement, upgraded bridge selective component replacement, ballast deck conversions, bridge timber replacement, movable bridge selective component upgrades and replacement, culverts upgrades, and replacement, retaining wall reconstruction and replacement, signal bridge fall protection upgrades, and tunnel upgrades. This work will be performed on a routine or annual basis.
Schedule	Sep 2020-Oct 2023

FY22 Plan

Planned Expenditure in FY22	\$10,167,832
Scope of FY22 work	Complete the steel upgrades and bridge timber replacement at the Conn. River Bridge (CT49.73) on the AS Line and replace the bridge timbers on the Conn. River Bridge (CT106.89) on the AB Line. Procure equipment for the replacement of the gearbox at CT132.16 Mystic River Bridge along with several other SOGR projects at the movable bridges on the AB Line. Design projects include Hartford Tunnel Drainage Improvements and culvert upgrades on the AS line.

CAPITAL RENEWAL PROGRAM

**New England Structures Program
(continued)**

Owner: Amtrak

Type: Capital Renewal Program

ID Number: C.EN.101840

PMO Level 1: PG00034

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>New England Structures Program</i>				<i>Sep 2020</i>	<i>Oct 2023</i>	<i>\$10,167,832</i>
4	Mystic River Bridge Gearbox Replacement MP 132.16 AB Line	Y	N/A	Aug 2021	Oct 2022	\$140,940
4	Mystic River Bridge Motor Drive Replacement MP 132.16 AB Line	Y	N/A	Oct 2021	Sep 2022	\$113,121
4	Shaws Cove Moveable Bridge Wedge Screw Jack Upgrades MP 122.65 AB Line	Y	N/A	Sep 2020	Apr 2022	\$49,286
5	Connecticut River Bridge Girder Upgrades MP 106.89 AB Line	Y	N/A	Mar 2021	Oct 2022	\$243,194
5	Connecticut River Bridge Motor Drive Replacement MP 106.89 AB Line	Y	N/A	Oct 2021	Sep 2022	\$56,561
5	Connecticut River Bridge Timber Replacement MP 106.89 AB Line	Y	Install Bridge Timber, 250 EA	Oct 2021	Sep 2022	\$595,641
5	Shaws Cove Moveable Bridge Shaft Bearing Upgrades MP 122.65 AB Line	Y	N/A	Feb 2021	Oct 2022	\$386,009
25	Conn River Bridge Steel/Timber Upgrades MP 49.73 AS Line	Y	N/A	Jan 2021	Oct 2022	\$732,507
25	Conn River Bridge Steel/Timber Upgrades MP 49.73 AS Line Contractor	Y	N/A	Dec 2020	Oct 2022	\$3,487,103
25	Conn River Bridge Steel/Timber Upgrades MP 49.73 AS Line Design Review	Y	N/A	Jan 2021	Oct 2022	\$888,612
25	Conn River Bridge Steel/Timber Upgrades MP 49.73 AS Line Track 1 Force Account	Y	N/A	Dec 2020	Oct 2022	\$3,018,789
25	Hart Tunnel Drainage Improvements MP 36.99	Y	N/A	Jan 2021	Oct 2022	\$290,042
25	Windsor, CT Culvert Replacement MP 44.10 AS Line	Y	N/A	Apr 2021	Oct 2023	\$88,968
31	Project Control Support	Y	N/A	Oct 2021	Sep 2022	\$16,099
31	Project Management	Y	N/A	Oct 2021	Sep 2022	\$60,960
Grand Total				Sep 2020	Oct 2023	\$10,167,832

CAPITAL RENEWAL PROGRAM

New England Substations Program

Owner: Amtrak

Type: Capital Renewal Program

ID Number: C.EN.101841

PMO Level 1: PG00035

General Project Information

Scope	The scope of this program is to establish and maintain a State of Good Repair (SOGR), efficient and safe operation for the New England Substation Program assets to maintain compliance with current regulations and standards. This work includes Upgrades and replacements to electric traction substation components, transformers, and frequency converter improvements. Substation improvements include air brakes, breakers, remote terminal units, control house renovations, substation lighting, and fencing as needed based on inspection and testing of the various components. Frequency converter improvements include metering panels, the capacity of power, and control houses components (batteries, chargers, relay panels, control panels, and remote terminal units). This work will be performed on a routine or annual basis.
Schedule	Feb 2021-Sep 2022

FY22 Plan

Planned Expenditure in FY22	\$1,283,548
Scope of FY22 work	Projects include replacing the transformer at the Norton switching station (MP198.9). Replace the sump pumps at Westbrook and State Line. Replace the batteries at seven locations along the AB Line. Replace breaker relays and breaker vacuum bottles at the Branford and Warwick substations.

CAPITAL RENEWAL PROGRAM

**New England Substations
Program (continued)**

Owner: Amtrak

Type: Capital Renewal Program

ID Number: C.EN.101841

PMO Level 1: PG00035

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>New England Substations Program</i>				<i>Feb 2021</i>	<i>Sep 2022</i>	<i>\$1,283,548</i>
3	Warwick Substation #84 Breaker and Relay Replacement	Y	N/A	Oct 2021	Sep 2022	\$98,949
3	Warwick Substation #84 Vacuum Bottle Replacement	Y	Install / Renew Single-Pole Breakers, 2 EA	Oct 2021	Sep 2022	\$382,920
4	Branford Interlocking 125V Battery Replacement	Y	N/A	Oct 2021	Sep 2022	\$20,585
4	New London Substation #82 Breaker Relay Replacement	Y	N/A	Feb 2021	Jan 2022	\$96,725
4	State Line Substation #82C Paralleling 125V Battery Replacement	Y	N/A	Oct 2021	Sep 2022	\$20,585
4	State Line Substation #82C Sump Pump Replacement	Y	N/A	Oct 2021	Sep 2022	\$62,097
5	Branford Substation #80 Vacuum Bottle Replacement	Y	N/A	Oct 2021	Sep 2022	\$380,378
5	Exeter Substation Paralleling Battery Replacement	Y	N/A	Oct 2021	Sep 2022	\$29,923
5	Junction Interlocking Battery Replacement	Y	N/A	Oct 2021	Sep 2022	\$16,033
5	Mill River Interlocking 125V Battery Replacement	Y	N/A	Oct 2021	Sep 2022	\$20,585
5	Shoreline Junction Interlocking 125V Battery Replacement	Y	N/A	Oct 2021	Sep 2022	\$20,585
5	West Brook Substation #81 Switch Stand 125V Battery Replacement	Y	N/A	Oct 2021	Sep 2022	\$20,585
5	West Brook Substation #81 Switch Stand Sump Pump Replacement	Y	N/A	Oct 2021	Sep 2022	\$62,097
31	Program Management	Y	N/A	Oct 2021	Sep 2022	\$25,841
31	Project Control Support	Y	N/A	Oct 2021	Sep 2022	\$25,660
Grand Total				Feb 2021	Sep 2022	\$1,283,548

CAPITAL RENEWAL PROGRAM

New England Track Program

Owner: Amtrak

Type: Capital Renewal Program

ID Number: C.EN.101842

PMO Level 1: PG00036

General Project Information

Scope	The scope of this program is the upgrade and replacement of track assets to establish and maintain a State of Good Repair (SOGR), efficient and safe operation for the New England Track Program assets, to maintain compliance with current regulations and standards. This work includes roadbed improvements, rail lubricators, insulated joint replacement, interlocking steel replacement, grade crossing upgrades, joint elimination, wayside signal detectors, spot surfacing, spot undercutting, ride quality improvements, tie/timber replacements, and concrete tie replacement. This work will be performed on a routine or annual basis.
Schedule	Oct 2019-Oct 2023

FY22 Plan

Planned Expenditure in FY22	\$11,106,723
Scope of FY22 work	Replace wood ties, concrete ties, interlocking steel, and insulated joints as well as continue joint elimination across the AS Line in Connecticut and Massachusetts and the AB Line in Connecticut and Rhode Island. Perform ride quality, drainage, and road bed improvements through spot surfacing, spot undercutting, spot rock scaling, ditching and grading across the AS Line in Connecticut and Massachusetts and the AB Line in Connecticut and Rhode Island. Continue design phase for slope stabilization at MP59.5 on the AS Line.

CAPITAL RENEWAL PROGRAM

**New England Track Program
(continued)**

Owner: Amtrak

Type: Capital Renewal Program

ID Number: C.EN.101842

PMO Level 1: PG00036

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>New England Track Program</i>				Oct 2019	Oct 2023	\$11,106,726
2	Drainage Improvements MP 185.1 - 190.9 AB Line	Y	Ditching and Grading, 500 FT	Oct 2019	Sep 2022	\$120,736
2	Interlocking Steel MP 185.1 - 190.9 AB Line	Y	Renew Frog, 1 EA	Oct 2021	Oct 2021	\$133,906
2	Joint Elimination MP 185.1 - 190.9 AB Line	Y	Field Weld Thermite, 40 EA	Oct 2021	Sep 2022	\$321,068
2	Spot Surfacing MP 185.1 - 190.9 AB Line	Y	Surface Track, Spot, 22000 FT	Oct 2021	Sep 2022	\$216,800
2	Spot Undercutting MP 185.1 - 190.9 AB Line	Y	Vacuum Train, Spot Undercut, 100 FT	Oct 2021	Oct 2021	\$207,241
2	Wood Tie/Timber Replacement MP 185.1 - 190.9 AB Line	Y	Install Ties and Timbers, 500 EA	Oct 2021	Sep 2022	\$416,906
3	Drainage Improvements MP 165.9 - 185.1 AB Line	Y	Ditching and Grading, 500 FT	Oct 2021	Mar 2022	\$120,736
3	Interlocking Steel MP 165.9 - 185.1 AB Line	Y	Renew Frog, 2 EA	Oct 2021	Oct 2021	\$267,813
3	Joint Elimination MP 165.9 - 185.1 AB Line	Y	Field Weld Thermite, 40 EA	Oct 2021	Sep 2022	\$224,758
3	Spot Surfacing MP 165.9 - 185.1 AB Line	Y	Surface Track, Spot, 25000 FT	Oct 2021	Sep 2022	\$216,800
3	Spot Undercutting MP 165.9 - 185.1 AB Line	Y	Vacuum Train, Spot Undercut, 100 FT	Oct 2021	Oct 2021	\$207,241
4	Concrete Tie Replacement MP 122.9 - 158.0 AB Line	Y	Install Ties, Concrete, 75 EA	Oct 2021	Sep 2022	\$185,381
4	Drainage Improvements MP 122.9 - 158.0 AB Line	Y	Ditching and Grading, 500 FT	Mar 2021	Oct 2022	\$120,736
4	Drainage Improvements MP 158.0 - 165.9 AB Line	Y	Ditching and Grading, 500 FT	Oct 2019	Sep 2022	\$120,736
4	Interlocking Steel MP 122.9 - 158.0 AB Line	Y	Renew Frog, 2 EA	Oct 2021	Sep 2022	\$267,813
4	Interlocking Steel MP 158.0 - 165.9 AB Line	Y	Renew Frog, 1 EA	Oct 2021	Oct 2021	\$133,906
4	Joint Elimination MP 122.9 - 158.0 AB Line	Y	Field Weld Thermite, 35 EA	Oct 2021	Sep 2022	\$194,576
4	Joint Elimination MP 158.0 - 165.9 AB Line	Y	Field Weld Thermite, 40 EA	Oct 2021	Sep 2022	\$224,758
4	Spot Surfacing MP 122.9 - 158.0 AB Line	Y	Surface Track, Spot, 25000 FT	Oct 2021	Sep 2022	\$216,800
4	Spot Surfacing MP 158.0 - 165.9 AB Line	Y	Surface Track, Spot, 25000 FT	Oct 2021	Sep 2022	\$216,800
4	Spot Undercutting MP 122.9 - 158.0 AB Line	Y	Vacuum Train, Spot Undercut, 100 FT	Oct 2021	Oct 2021	\$207,241

CAPITAL RENEWAL PROGRAM

**New England Track Program
(continued)**

Owner: Amtrak

Type: Capital Renewal Program

ID Number: C.EN.101842

PMO Level 1: PG00036

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
4	Spot Undercutting MP 158.0 - 165.9 AB Line	Y	Vacuum Train, Spot Undercut, 100 FT	Oct 2021	Oct 2021	\$207,241
4	Wood Tie/Timber Replacement MP 122.9 - 158.0 AB Line	Y	Install Ties and Timbers, 500 EA	Oct 2021	Sep 2022	\$415,008
5	Drainage Improvements MP 72.9 - 122.9 AB Line	Y	Ditching and Grading, 500 FT	Oct 2021	Sep 2022	\$120,736
5	Interlocking Steel MP 72.9 - 122.9 AB Line	Y	Renew Frog, 4 EA	Oct 2021	Sep 2022	\$535,625
5	Joint Elimination MP 72.9 - 122.9 AB Line	Y	Field Weld Thermite, 55 EA	Oct 2021	Sep 2022	\$309,042
5	Spot Surfacing MP 72.9-122.9 AB Line	Y	Surface Track, Spot, 50000 FT	Oct 2021	Sep 2022	\$433,599
5	Spot Undercutting AB LN-MP72.9-122.9	Y	Vacuum Train, Spot Undercut, 500 FT	Oct 2021	Oct 2021	\$173,954
25	Drainage Improvements MP 55.8 - 62.0 AS Line	Y	N/A	Oct 2021	Oct 2021	\$120,736
25	Embankment Stabilization MP 59.5 AS Line	Y	N/A	May 2021	Oct 2023	\$3,227,524
25	Interlocking Steel MP 1.5 - 62.0 AS Line	Y	Renew Frog, 4 EA	Oct 2021	Sep 2022	\$535,625
25	Spot Surfacing MP1.5 - 62.0 AS Line	Y	Surface Track, Spot, 50000 FT	Oct 2021	Sep 2022	\$433,599
25	Spot Undercutting MP 1.5 - 62.0 AS Line	Y	Vacuum Train, Spot Undercut, 500 FT	Oct 2021	Oct 2021	\$173,954
31	Program Management	Y	N/A	Oct 2021	Sep 2022	\$51,668
31	Project Control Support	Y	N/A	Oct 2021	Sep 2022	\$25,660
Grand Total				Oct 2019	Oct 2023	\$11,106,726

CAPITAL RENEWAL PROJECT

New Hackensack Substation 42 Control House Project

Owner: Amtrak

Type: Capital Renewal Project

ID Number: C.EN.101535

PMO Level 1: P000048

General Project Information

Scope	The scope of this project is to ensure efficient and safe operation of Amtrak's assets and infrastructure, to maintain compliance with current regulations and standards for the design, NEPA compliance, installation, and testing and commissioning of New Control House #42. The work performed under this project includes procurement of a 3rd party contractor to furnish and install a new prefabricated traction power substation control building with pre-wired relay control panels, auxiliary power systems, lighting, grounding, wiring, terminations, RTU and all associated equipment within the control house building; procurement of a 3rd party contractor to perform civil/site work including demolition, clearing, grading, drainage, utilities, fencing, grounding, steel work, and retaining wall; mothballing existing structure and removal of existing substation control house; and modifying existing design of the control house to make provisions for the Gateway-Hudson River Tunnel Project.
Schedule	Jan 2020-Apr 2024

FY22 Plan

Planned Expenditure in FY22	\$5,846,047
Scope of FY22 work	FY22 scope includes issuance of NTP to a 3rd party contractor to perform civil-site work within the substation 42 yard, including clearing of vegetation, grading the site, erecting a new retaining wall, installing new fencing, trenching, installing erosion and sediment control, coordinating with a control house fabricator, and installing foundations for the new control house; completion of the lighting design and completion of the design to mothball the Pennsylvania Railroad building. Amtrak force account will perform decommissioning of ET assets, support testing and commissioning, and RWP services. Procurement tasks include issuance of a BPO for the yard lighting design effort within substation 42 and issuance of a BPO for the design to mothball the Pennsylvania Railroad building.

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>New Hackensack Substation 42 Control House Project</i>				<i>Jan 2020</i>	<i>Apr 2024</i>	<i>\$5,846,047</i>
12	3rd Party Construction Management	Y	N/A	Oct 2021	Mar 2024	\$311,080
12	3rd Party Contractor	Y	N/A	Oct 2021	Jan 2024	\$4,161,890
12	Construction Design Services	Y	N/A	Oct 2021	Jan 2024	\$148,154
12	Construction Management	Y	N/A	Jan 2020	Jan 2024	\$256,383
12	Construction RWP/Flag Support	Y	N/A	Oct 2021	Jan 2024	\$75,010
12	Design Services	Y	N/A	Jan 2022	Sep 2022	\$80,431
12	ET Construction	Y	N/A	Oct 2021	Jan 2024	\$234,894
12	NEPA/Environmental	Y	N/A	Oct 2021	Sep 2022	\$67,561
12	Project Management	Y	N/A	Oct 2020	Apr 2024	\$69,367
12	Project Management Support	Y	N/A	Oct 2020	Apr 2024	\$36,998
12	ROW Easement Agreements with Conrail	Y	N/A	Oct 2021	Dec 2023	\$53,620
12	ROW Easement Agreements with NJT	Y	N/A	Nov 2021	Dec 2023	\$214,480
12	SCADA Construction	Y	N/A	Jul 2022	Jan 2024	\$136,179
Grand Total				Jan 2020	Apr 2024	\$5,846,047

CAPITAL RENEWAL PROGRAM

New York Catenary Program

Owner: Amtrak

Type: Capital Renewal Program

ID Number: C.EN.101843

PMO Level 1: PG00037

General Project Information

Scope	Establish and maintain a State of Good Repair (SOGR), efficient and safe operation for catenary assets to maintain compliance with current regulations and standards. Work includes repair/replacement of the overhead catenary and associated hardware such as wire, insulators, rods, and clips, catenary poles and associated hardware, foundations, and guy wire supports, signal power hardware, signal cut sections, solid-state signal machines, switch heaters, transmission lines, static line, and crossover wire runs as required based on the inspection and testing of these components. Other work may be included in the catenary program as necessary.
Schedule	Oct 2021-Sep 2022

FY22 Plan

Planned Expenditure in FY22	\$1,402,755
Scope of FY22 work	Establish and maintain a State of Good Repair (SOGR), efficient and safe operation for catenary assets to maintain compliance with current regulations and standards. Work includes repair/replacement of the overhead catenary and associated hardware at Bergen, Dock West, and Morris; post insulators at MP12.8 MP13.8 at Hellgate Line and Hudson to Lane Trolley Auxiliary Wire replacement.

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>New York Catenary Program</i>				<i>Oct 2021</i>	<i>Sep 2022</i>	<i>\$1,402,756</i>
8	Hellgate Catenary Renewal MP 12.8 - 13.8 AG Line	Y	Install / Renew Catenary Insulators / Hardware, 250 FT	Oct 2021	Sep 2022	\$300,676
12	Bergen Interlocking Catenary Upgrades	Y	Catenary Hardware and Wire Renewal, 1 EA	Oct 2021	Sep 2022	\$353,276
12	Hudson Interlocking to Lane Interlocking Auxiliary Wire Replacement	Y	Install / Renew Catenary Insulators / Hardware, 24000 FT	Oct 2021	Sep 2022	\$303,459
13	Morris Interlocking Catenary Upgrades MP 58.4 AN Line	Y	Catenary Hardware and Wire Renewal, 1 EA	Oct 2021	Sep 2022	\$417,111
31	Program Management	Y	N/A	Oct 2021	Sep 2022	\$10,165
31	Project Management	Y	N/A	Oct 2021	Sep 2022	\$18,068
Grand Total				Oct 2021	Sep 2022	\$1,402,756

CAPITAL RENEWAL PROGRAM

New York Facilities Program

Owner: Amtrak

Type: Capital Renewal Program

ID Number: C.EN.101845

PMO Level 1: PG00039

General Project Information

Scope	Establish and maintain a State of Good Repair (SOGR), efficient and safe operation for facility assets to maintain compliance with current regulations and standards. Facility assets include the Maintenance of Way (MOFW) bases, Maintenance of Equipment (MOFE) facilities, Transportation facilities, and their individual components. Work includes upgrades/replacement of the roof, windows and doors, HVAC and other mechanical equipment, electrical and plumbing, lighting, and site improvements. Other work may be included in the facilities program as necessary.
Schedule	Oct 2020-Oct 2022

FY22 Plan

Planned Expenditure in FY22	\$1,845,619
Scope of FY22 work	Establish and maintain a State of Good Repair (SOGR), efficient and safe operation for facility assets to maintain compliance with current regulations and standards. FY22 scope includes the MOFW/MOFE trailer upgrades, sump pump rehabilitation, station asset improvements, HVAC upgrades, and platform improvements across New York Division.

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>New York Facilities Program</i>				Oct 2020	Oct 2022	\$1,845,618
9	Replacement of C&S Maintenance Trailer at SSYD	N	N/A	Oct 2021	Sep 2022	\$249,907
11	42nd Street Sump Pump Rehab	Y	N/A	Oct 2021	Sep 2022	\$236,547
11	7th Avenue Sump Pump Replacement Upgrades	Y	N/A	Oct 2021	Sep 2022	\$511,785
12	Metro Park Low Level Platform Replacement Track 4	Y	N/A	Oct 2021	Sep 2022	\$284,645
12	Rahway Trailer Replacement	Y	N/A	Oct 2021	Sep 2022	\$350,792
12	Union Tower MOFW Field Office Renovation	Y	N/A	Oct 2021	Sep 2022	\$173,830
31	Project Control Support	Y	N/A	Oct 2020	Oct 2022	\$9,150
31	Project Management	Y	N/A	Oct 2021	Sep 2022	\$28,963
Grand Total				Oct 2020	Oct 2022	\$1,845,618

CAPITAL RENEWAL PROJECT

New York Penn Station Customer Now Station Refresh Program

Owner: Amtrak

Type: Capital Renewal Project

ID Number: C.SP.100077

PMO Level 1:

General Project Information

Scope	In 2022, customer now will replace ATS switches that support the emergency lighting in various passenger areas that are beyond their useful lives and no longer functional. Project will also replace HVAC units to bring additional fresh air into the facility and improve customer comfort.
Schedule	Oct 2019-Sep 2024

FY22 Plan

Planned Expenditure in FY22	\$2,479,389
Scope of FY22 work	Replace AHU7, renovate baggage facility for night operations

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>New York Penn Station Customer Now Station Refresh Program</i>				<i>Oct 2019</i>	<i>Sep 2024</i>	<i>\$2,479,389</i>
11	(blank)	N	N/A	Oct 2019	Sep 2024	\$2,479,389
Grand Total				Oct 2019	Sep 2024	\$2,479,389

CAPITAL RENEWAL PROGRAM

New York Signals Program

Owner: Amtrak

Type: Capital Renewal Program

ID Number: C.EN.101846

PMO Level 1: PG00041

General Project Information

Scope	Establish and maintain a State of Good Repair (SOGR), efficient and safe operation for signal assets to maintain compliance with current regulations and standards. Work includes SCADA-RTU upgrades, C&S network upgrades, split-point derails, signal system upgrades, upgrades to 562, relay code transmitter, event recorder, switch machines, Lancaster signal shop equipment, and Microlok II. Other work may be included in the signals program as necessary.
Schedule	Oct 2020-Oct 2022

FY22 Plan

Planned Expenditure in FY22	\$3,538,083
Scope of FY22 work	Establish and maintain a State of Good Repair (SOGR), efficient and safe operation for signal assets to maintain compliance with current regulations and standards. FY22 scope includes RTU upgrades, electronic relays replacement, signal LED upgrades, high-efficiency heaters replacement, bonding remediation, and rectifier upgrades across the New York Division.

CAPITAL RENEWAL PROGRAM

**New York Signals Program
(continued)**

Owner: Amtrak

Type: Capital Renewal Program

ID Number: C.EN.101846

PMO Level 1: PG00041

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>New York Signals Program</i>				Oct 2020	Oct 2022	\$3,538,082
9	Sunnyside Yard R Switch RTU Replacement	Y	N/A	Oct 2021	Apr 2022	\$294,359
10	East River Tunnel Line 1 and 4 Electronic Relay Replacement	Y	Track Circuits, Relays, and ACSES, 100 EA	Oct 2021	Sep 2022	\$214,480
10	East River Tunnel Line 1 and 4 Relay Replacement	Y	Track Circuits, Relays, and ACSES, 200 EA	Oct 2021	Sep 2022	\$470,561
12	Adams Interlocking High Efficiency Heaters	Y	Install Heaters, 6 EA	Oct 2021	Sep 2022	\$321,720
12	Delco Interlocking High Efficiency Heaters	Y	Install Heaters, 6 EA	Oct 2021	Sep 2022	\$321,720
12	Erie Interlocking High Efficiency Heaters	Y	Install Heaters, 15 EA	Oct 2021	Sep 2022	\$321,720
12	Iselin Interlocking Bonding Remediation	Y	Install Impedance Bonds, 2 EA	Oct 2021	Sep 2022	\$268,102
12	Menlo Interlocking Bonding Remediation	Y	Install Impedance Bonds, 2 EA	Oct 2021	Sep 2022	\$268,099
14	Grundy Interlocking RTU Upgrade	Y	N/A	Oct 2021	Sep 2022	\$164,593
14	Signal Renewal MP 58.3-MP 76.0 AN Line	Y	N/A	Oct 2021	Sep 2022	\$222,793
27	Empire Interlocking RTU Upgrade	Y	N/A	Oct 2021	Sep 2022	\$161,927
27	Jervis Interlocking RTU Upgrades	Y	N/A	Oct 2021	Sep 2022	\$161,927
31	Program Management	Y	N/A	Oct 2021	Sep 2022	\$21,760
31	Project Control Support	Y	N/A	Oct 2020	Oct 2022	\$11,184
31	Upgrade PSCC Rectifiers	Y	N/A	Oct 2021	Sep 2022	\$214,480
31	Wayside Interface Unit & Transponder Replacement	Y	Install / Replace Transponders, 1 EA	Oct 2021	Sep 2022	\$98,658
Grand Total				Oct 2020	Oct 2022	\$3,538,082

CAPITAL RENEWAL PROGRAM

New York Structures Program

Owner: Amtrak

Type: Capital Renewal Program

ID Number: C.EN.101847

PMO Level 1: PG00042

General Project Information

Scope	Establish and maintain a State of Good Repair (SOGR), efficient and safe operation for structure assets to maintain compliance with current regulations and standards. Work includes upgrade bridges (concrete, steel and masonry rehabilitation, waterproofing, painting, component replacement, waterway improvements, and roadway clearance work); bridge timbers (timber replacement); movable bridges [undergrade bridge scope and movable components (motors, gears, bearings, and other mechanical and electrical components rehabilitation)]; culverts (concrete and masonry rehabilitation, inlet, interior and outlet improvements, waterway improvements and culvert replacement); retaining walls (concrete and masonry rehabilitation, reconstruction, and new wall construction); signal bridges (re-decking the signal bridges, installation of, or upgrading, fall protection equipment, including tie-offs and safety lines on signals bridge); tunnels (drainage improvements, bench wall rehabilitation, emergency egress improvements, concrete and masonry rehabilitation, ventilation improvements, lighting improvements); and interlocking lighting (light fixture upgrades, and rehabilitation/replacement of components).
Schedule	Mar 2021-Sep 2022

FY22 Plan

Planned Expenditure in FY22	\$6,390,969
Scope of FY22 work	Establish and maintain a State of Good Repair (SOGR), efficient and safe operation for structure assets to maintain compliance with current regulations and standards. FY22 scope includes bridge upgrades, bridge miter rail upgrades, signal bridge fall protection upgrades, tunnel lighting improvements, tunnel bench wall, and handrail improvements, tunnel flood gates upgrades, tunnel airline upgrades, retaining wall upgrades, and block ties replacement.

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>New York Structures Program</i>				<i>Mar 2021</i>	<i>Sep 2022</i>	<i>\$6,390,971</i>
8	Pelham Bay Bridge Counterweight Rehab & Re-balance	Y	N/A	Oct 2021	Sep 2022	\$195,775
10	East River Tunnels Air Line Replacement	Y	N/A	Oct 2021	Sep 2022	\$195,775
10	East River Tunnels Leak Mitigation Improvements	Y	N/A	Oct 2021	Sep 2022	\$287,227
10	East River Tunnels Line 1 & 4 Flood Gates Improvements	Y	N/A	Oct 2021	Dec 2021	\$271,589
10	East River Tunnels Line 1 & 4 Lighting Upgrades	Y	N/A	Oct 2021	Sep 2022	\$229,810
10	East River Tunnels Line 2 Benchwall Handrail Replacements	Y	N/A	Oct 2021	Sep 2022	\$102,725
10	East River Tunnels Line 3 Benchwall Handrail Replacements	Y	N/A	Oct 2021	Sep 2022	\$102,725

CAPITAL RENEWAL PROGRAM

New York Structures Program (continued)

Owner: Amtrak

Type: Capital Renewal Program

ID Number: C.EN.101847

PMO Level 1: PG00042

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
10	East River Tunnels Line 4 Benchwall Handrail Replacements	Y	N/A	Oct 2021	Sep 2022	\$102,725
11	Penn Station Tunnel Door Replacement	Y	N/A	Oct 2021	Sep 2022	\$34,310
12	Broad Street Retaining Wall	N	Install / Renew Retaining Wall, 300 FT	Oct 2021	Sep 2022	\$195,775
12	East Bound & West Bound Hole Parapet & Handrail Rehab MP 20.05 AN Line	Y	N/A	Oct 2021	Sep 2022	\$332,220
12	Highland Park Culvert Rehab MP 34.51 AN Line	Y	Install / Renew Culvert, 400 EA	Oct 2021	Sep 2022	\$195,775
12	Inman Ave - Bridge Strike Mitigation MP 20.16 AN Line	Y	N/A	Oct 2021	Sep 2022	\$161,373
12	Lincoln Interlocking Lighting Upgrades	Y	N/A	Oct 2021	Sep 2022	\$150,584
12	Manor Interlocking Signal Retaining Wall	Y	Install / Renew Retaining Wall, 50 FT	Oct 2021	Sep 2022	\$195,775
12	McClellan Street Bridge Strike Mitigation MP 12.37 AN Line	Y	N/A	Oct 2021	Sep 2022	\$161,373
12	North River Tunnels Flood Gates Improvements	Y	N/A	Mar 2021	May 2022	\$249,435
12	North River Tunnels Leak Mitigation Improvements	Y	N/A	Oct 2021	Dec 2021	\$304,583
12	North River Tunnels Lighting Upgrades	Y	N/A	Oct 2021	Sep 2022	\$130,350
12	North Tube Benchwall Rehab	Y	N/A	Oct 2021	Sep 2022	\$107,563
12	North Tube Benchwall Rehab LED Light Replacement	Y	N/A	Oct 2021	Sep 2022	\$121,574
12	North Tube Blue LED Lighting Replacement	Y	N/A	Oct 2021	Sep 2022	\$28,783
12	Northern Blvd Concrete Cover Rehab MP 4.85 AN Line	Y	N/A	Oct 2021	Sep 2022	\$195,775
12	Poplar Street Wing Wall Rehab MP 19.21	Y	N/A	Oct 2021	Sep 2022	\$195,775
12	Portal Bridge Miter Rail Lifters Replacement	Y	N/A	Oct 2021	Sep 2022	\$249,082
12	Project Control Support	Y	N/A	Oct 2021	Sep 2022	\$20,332
12	Signal Bridge Fall Protection at County Interlocking MP 32.95 AN Line	Y	N/A	Oct 2021	Sep 2022	\$253,219
12	Steel Ballast Retainer Installation at Elizabeth Station	Y	Install / Renew Retaining Wall, 105 FT	Oct 2021	Sep 2022	\$231,828
12	Swift Interlocking Lights	Y	N/A	Oct 2021	Sep 2022	\$195,775

CAPITAL RENEWAL PROGRAM

New York Structures Program (continued)

Owner: Amtrak

Type: Capital Renewal Program

ID Number: C.EN.101847

PMO Level 1: PG00042

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
12	W. Jersey Street Wingwall Rehab MP 14.22 AN Line	Y	N/A	Oct 2021	Sep 2022	\$195,775
14	Bath Road New Parapet Wall MP 66.86 AN Line	Y	N/A	Oct 2021	Sep 2022	\$311,217
27	Empire Tunnel Egress Fence/Door Replacement	Y	Install Right of Way Fencing, 200 FT	Oct 2021	Sep 2022	\$167,364
27	Harlem River Bridge Fall Protection MP 10.24 AN Line	Y	N/A	Jun 2021	May 2022	\$97,541
27	Spuyten Duyvil Main Gearbox Replacement	Y	N/A	Oct 2021	Sep 2022	\$195,775
27	St. Clair Viaduct Steel Upgrades MP 5.7 AE Line	Y	N/A	Oct 2021	Sep 2022	\$160,859
31	Program Management	Y	N/A	Oct 2021	Sep 2022	\$62,828
Grand Total				Mar 2021	Sep 2022	\$6,390,971

CAPITAL RENEWAL PROGRAM

New York Substations Program

Owner: Amtrak

Type: Capital Renewal Program

ID Number: C.EN.101848

PMO Level 1: PG00043

General Project Information

Scope	Establish and maintain a State of Good Repair (SOGR), efficient and safe operation for substation assets to maintain compliance with current regulations and standards. Substation assets include substation components and frequency converter improvements. Work includes air brakes, breakers, control house renovations, fencing, frequency converters and components such as metering panels, the capacity of power, and control houses (batteries, chargers, relay and control panels, and remote terminal units), lighting, and transformers as needed based on inspection and testing of the various components. Other work may be included in the substation program as necessary.
Schedule	Oct 2019-Oct 2023

FY22 Plan

Planned Expenditure in FY22	\$7,747,506
Scope of FY22 work	Establish and maintain a State of Good Repair (SOGR), efficient and safe operation for substation assets to maintain compliance with current regulations and standards. FY22 scope includes control house improvements, signal cut sections upgrade, B&F switch improvements, static feeder cable improvements, and signal machines upgrades across New York Division.

CAPITAL RENEWAL PROGRAM

New York Substations Program (continued)

Owner: Amtrak

Type: Capital Renewal Program

ID Number: C.EN.101848

PMO Level 1: PG00043

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>New York Substations Program</i>				<i>Oct 2019</i>	<i>Oct 2023</i>	<i>\$7,747,506</i>
9	Sunnyside Yard Substation #44 Static Feeder Cable Trough Upgrade	Y	N/A	Oct 2021	Sep 2022	\$300,849
11	PSNY Track 1 12KV Feeder Blast Door Replacement	Y	N/A	Oct 2021	Sep 2022	\$2,515,475
12	Bergen Interlocking Battery Upgrades	Y	N/A	Oct 2021	Sep 2022	\$180,270
12	Hackensack Substation #42 Resistors and Relay Replacement	Y	N/A	Oct 2019	Oct 2023	\$605,533
12	Lane Interlocking Substation Unit Replacement	Y	N/A	Oct 2021	Sep 2022	\$138,215
12	Lincoln Interlocking Switch Heater Replacement	Y	N/A	Oct 2021	Sep 2022	\$471,344
12	NJ West RTU Upgrades	Y	N/A	Oct 2021	Sep 2022	\$180,270
12	Princeton Substation #35 Signal Power Frequency Converter	Y	N/A	Mar 2020	Dec 2021	\$150,233
12	Princeton Substation #36 Control House Replacement	Y	N/A	Oct 2021	Sep 2022	\$959,408
12	Rahway Substation #39 Signal Static Feeder Cable Install	Y	N/A	Oct 2021	Sep 2022	\$849,327
14	Cornwells Substation #32 - Trough Replacement	Y	N/A	Oct 2021	Sep 2022	\$209,676
14	Cornwells Substation #32 Signal Static FC Install	Y	N/A	Oct 2021	Sep 2022	\$849,327
14	Grundy to Cornwells Signal Cut Section Replacement AN Line	Y	N/A	Oct 2021	Sep 2022	\$266,381
31	Program Management	Y	N/A	Oct 2019	Oct 2022	\$50,866
31	Project Control Support	Y	N/A	Oct 2021	Sep 2022	\$20,332
Grand Total				Oct 2019	Oct 2023	\$7,747,506

CAPITAL RENEWAL PROGRAM
New York Track Program

Owner: Amtrak
Type: Capital Renewal Program
ID Number: C.EN.101849
PMO Level 1: PG00044

General Project Information

Scope	Establish and maintain a State of Good Repair (SOGR), efficient and safe operation for track assets to maintain compliance with current regulations and standards. Track assets include all components related to tracking infrastructure (rail, ties, ballast), track roadbed, and the longitudinal right of way. Work includes drainage and roadbed improvements, right of way clean-up, rail lubricator upgrades and replacement, right of way crossing upgrades and replacement, insulated joint replacement, interlocking steel renewal, rail joint elimination, wayside detector replacements, ride quality improvements, wood and concrete tie/timber replacement, tie hardware renewal, spot surfacing, and spot undercutting. Other work may be included in the track program as necessary.
Schedule	Oct 2019-Oct 2022

FY22 Plan

Planned Expenditure in FY22	\$30,261,297
Scope of FY22 work	Establish and maintain a State of Good Repair (SOGR), efficient and safe operation for track assets to maintain compliance with current regulations and standards. FY22 scope includes the track improvements in regards to surfacing, insulated joint replacements, joint eliminations, interlocking steel replacements, spot rail replacements, timber/concrete ties replacement, drainage upgrades, and ballast replacement across New York Division

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>New York Track Program</i>				<i>Oct 2019</i>	<i>Oct 2022</i>	<i>\$30,261,294</i>
8	Concrete Tie Replacement, AG Line, MP 18.3 - 3.7	Y	Install Ties, Concrete, 64 EA	Oct 2021	Sep 2022	\$111,104
8	Drainage Improvements MP 18.9 - E3.7 AG Line	Y	N/A	Oct 2019	Feb 2022	\$9,453
8	High Speed Surfacing MP E18.9 - E3.7 AG Line	Y	Surface Track, High Speed, 100 FT	Oct 2020	Oct 2022	\$1,171
8	Insulated Joint Removal, MP 18.9 - 3.7, AG Line	Y	Install Insulated Joint (Includes OTM), 1 EA	Oct 2021	Sep 2022	\$8,116
8	Interlocking Steel MP 18.9 - 3.7 AG Line	Y	Renew Frog, 1 EA	Oct 2021	Sep 2022	\$17,505
8	Joint Elimination MP 18.9 - 3.7 AG Line	Y	Field Weld and Grind Rail (Joint Elimination), 48 EA	Oct 2021	Sep 2022	\$630,787
8	Spot Rail Replacement MP 18.9 - 3.7 AG Line	Y	Install Rail, Bolted (Includes OTM), 1250 FT	Oct 2021	Sep 2022	\$206,272
8	Spot Surfacing MP 18.9 - 3.7 AG Line	Y	Surface Track, Spot, 14000 FT	Oct 2021	Sep 2022	\$270,245

CAPITAL RENEWAL PROGRAM

**New York Track Program
(continued)**

Owner: Amtrak

Type: Capital Renewal Program

ID Number: C.EN.101849

PMO Level 1: PG00044

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
8	Vac Train MP 18.9 - 3.7 AG Line	Y	Vacuum Train, Spot Undercut, 310 FT	Oct 2021	Sep 2022	\$109,390
8	Wood Tie/Timber Replacement MP 18.9 - 3.7 AG Line	Y	Install Ties and Timbers, 130 EA	Oct 2021	Sep 2022	\$218,920
9	Concrete Tie Replacement, AG Line, MP 3.7 - 3.0	Y	Install Ties, Concrete, 8 EA	Oct 2021	Sep 2022	\$11,778
9	Drainage Improvements MP 3.7 - 3.0 AG Line	Y	N/A	Oct 2021	Sep 2022	\$9,453
9	High Speed Surfacing MP E3.7 - E3.0 AG Line	Y	Surface Track, High Speed, 100 FT	Oct 2021	Sep 2022	\$1,171
9	Insulated Joint Removal, MP 3.7 - 3.0, AG LN	Y	Install Insulated Joint (Includes OTM), 5 EA	Oct 2021	Sep 2022	\$40,580
9	Interlocking Steel MP 3.7 - 3.0 AG Line	Y	Renew Frog, 11 EA	Oct 2021	Sep 2022	\$295,205
9	Joint Elimination MP 3.7 - 3.0 AG Line	Y	Field Weld and Grind Rail (Joint Elimination), 2 EA	Oct 2021	Sep 2022	\$26,542
9	Spot Rail Replacement MP 3.0 - .01 AG Line	Y	Install Rail, Bolted (Includes OTM), 5250 FT	Oct 2021	Sep 2022	\$911,184
9	Spot Rail Replacement MP 3.7 - 3.0 AG Line	Y	Install Rail, Bolted (Includes OTM), 5450 FT	Oct 2021	Sep 2022	\$916,486
9	Spot Surfacing, AG LN, MP 3.7 - 3.0	Y	Surface Track, Spot, 18000 FT	Oct 2021	Sep 2022	\$382,886
9	Vac Train MP 3.7 - 3.0 AG Line	Y	Vacuum Train, Spot Undercut, 500 FT	Oct 2021	Sep 2022	\$196,308
9	Wood Tie/Timber Replacement MP 3.7 - 3.0 AG Line	Y	Install Ties and Timbers, 1050 EA	Oct 2021	Sep 2022	\$1,744,569
10	Concrete Tie Replacement, AG Line, MP 3.0 - 0.01	Y	Install Ties, Concrete, 12 EA	Oct 2021	Sep 2022	\$20,832
10	Drainage Improvements MP E3.7 - E0.01 AG Line	Y	N/A	Oct 2020	Mar 2022	\$9,452
10	High Speed Surfacing MP E3.0 - E0.01 AG Line	Y	Surface Track, High Speed, 100 FT	Oct 2020	Oct 2022	\$1,171
10	Insulated Joint Removal, MP 3.0 - 0.01, AG Line	Y	Install Insulated Joint (Includes OTM), 6 EA	Oct 2021	Sep 2022	\$46,747
10	Interlocking Steel MP 3.0 - 0.01 AG Line	Y	Renew Frog, 1 EA	Oct 2021	Sep 2022	\$12,324
10	Joint Elimination MP 3.0 - 0.01 AG Line	Y	Field Weld and Grind Rail (Joint Elimination), 1 EA	Oct 2021	Sep 2022	\$16,791
10	Spot Surfacing, AG LN, MP 3.0 - 0.01	Y	Surface Track, Spot, 12000 FT	Oct 2021	Sep 2022	\$260,851
10	Vac Train MP 3.0 - 0.01 AG Line	Y	Vacuum Train, Spot Undercut, 975 FT	Oct 2021	Sep 2022	\$382,802
10	Wood Tie/Timber Replacement MP 3.0 - 0.01 AG Line	Y	Install Ties and Timbers, 1150 EA	Oct 2021	Sep 2022	\$1,936,596
12	Concrete Tie Replacement MP 0.1- 11.0 AN Line	Y	Install Ties, Concrete, 470 EA	Oct 2021	Sep 2022	\$813,099

CAPITAL RENEWAL PROGRAM

**New York Track Program
(continued)**

Owner: Amtrak

Type: Capital Renewal Program

ID Number: C.EN.101849

PMO Level 1: PG00044

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
12	Concrete Tie Replacement MP 11.0-56.7 AN Line	Y	Install Ties, Concrete, 260 EA	Oct 2021	Sep 2022	\$451,358
12	Dock Bridge Timber Replacement Track 3	Y	Install Bridge Timber, 56 EA	Oct 2021	Sep 2022	\$139,412
12	Drainage at Lincoln Interlocking	Y	N/A	Oct 2021	Sep 2022	\$139,412
12	Drainage Improvements MP .1 - 11.0 AN Line	Y	N/A	Oct 2020	Apr 2022	\$9,453
12	Drainage Improvements MP 11.0 - 56.7 AN Line	Y	N/A	Oct 2021	Sep 2022	\$46,617
12	High Speed Surfacing MP W0.1 - 11.0 AN Line	Y	Surface Track, High Speed, 100 FT	Oct 2020	Oct 2022	\$1,171
12	Insulated Joint Removal, MP 0.01 - 11.0, AN Line	Y	Install Insulated Joint (Includes OTM), 15 EA	Oct 2021	Sep 2022	\$170,432
12	Insulated Joint Removal, MP 11.0 - 56.7, AN Line	Y	Install Insulated Joint (Includes OTM), 56 EA	Oct 2021	Sep 2022	\$454,483
12	Interlocking Steel MP .1 - 11.0 AN Line	Y	Renew Frog, 1 EA	Oct 2021	Sep 2022	\$1,840,364
12	Interlocking Steel MP 11.0 - 56.7 AN Line	Y	Renew Frog, 71 EA	Oct 2021	Sep 2022	\$1,425,600
12	Iselin Interlocking and Menlo Interlocking Concrete Tie Replacement	Y	Install Ties, Concrete, 105 EA	Oct 2021	Sep 2022	\$214,480
12	Joint Elimination MP .1 - 11.0 AN Line	Y	Field Weld and Grind Rail (Joint Elimination), 28 EA	Oct 2021	Sep 2022	\$373,269
12	Joint Elimination MP 11.0 - 56.7 AN Line	Y	Field Weld and Grind Rail (Joint Elimination), 40 EA	Oct 2021	Sep 2022	\$530,836
12	Joint Elimination PSNY - MP 10.8 AN Line	Y	Field Weld and Grind Rail (Joint Elimination), 1 EA	Oct 2021	Sep 2022	\$4,248
12	Menlo Interlocking to Lincoln Interlocking Rail Replacement	Y	Install / Maintain Rail, 400 FT	Oct 2021	Sep 2022	\$214,480
12	North Tube Track Panel	Y	Install Ties, Concrete, 105 EA	Oct 2021	Sep 2022	\$107,240
12	Portal Timber Replacement	Y	Install Bridge Timber, 220 EA	Oct 2021	Sep 2022	\$139,412
12	Spot Rail Replacement MP .1 - 11.0 AN Line	Y	Install Rail, Bolted (Includes OTM), 950 FT	Oct 2021	Sep 2022	\$161,000
12	Spot Rail Replacement MP 11.0 - 56.7 AN Line	Y	Install Rail, Bolted (Includes OTM), 50 FT	Oct 2021	Sep 2022	\$8,473
12	Spot Surfacing, AN LN, MP 0.1 - 11.0	Y	Surface Track, Spot, 39500 FT	Oct 2021	Sep 2022	\$858,496
12	Spot Surfacing, AN LN, MP 11.0 - 56.7	Y	Surface Track, Spot, 100000 FT	Oct 2021	Sep 2022	\$2,173,406
12	Spot Surfacing, AN LN, MP 58.3 - 76.0	Y	Surface Track, Spot, 29000 FT	Oct 2021	Sep 2022	\$609,471
12	Vac Train MP 0.1- 11.0 AN Line	Y	Vacuum Train, Spot Undercut, 1460 FT	Oct 2021	Sep 2022	\$538,476

CAPITAL RENEWAL PROGRAM

**New York Track Program
(continued)**

Owner: Amtrak

Type: Capital Renewal Program

ID Number: C.EN.101849

PMO Level 1: PG00044

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
12	Vac Train MP 11.0 - 56.7 AN Line	Y	Vacuum Train, Spot Undercut, 3500 FT	Oct 2021	Sep 2022	\$1,285,016
12	Wood Tie/Timber Replacement MP .1 - 11.0 AN Line	Y	Install Ties and Timbers, 1120 EA	Oct 2021	Sep 2022	\$1,879,847
12	Wood Tie/Timber Replacement MP 11.0 - 56.7 AN Line	Y	Install Ties and Timbers, 1150 EA	Oct 2021	Sep 2022	\$1,936,596
13	Concrete Tie Replacement MP 56.7- 58.3 AN Line	Y	Install Ties, Concrete, 45 EA	Oct 2021	Sep 2022	\$78,119
13	Drainage Improvements MP 56.7 - 58.3 AN Line	Y	N/A	Oct 2021	Sep 2022	\$46,617
13	Insulated Joint Removal, MP 56.7 - 58.3, AN LN	Y	Install Insulated Joint (Includes OTM), 1 EA	Oct 2021	Sep 2022	\$8,116
13	Interlocking Steel MP 56.7 - 58.3 AN Line	Y	Renew Frog, 10 EA	Oct 2021	Sep 2022	\$200,789
13	Joint Elimination MP 56.7 - 58.3 AN Line	Y	Field Weld and Grind Rail (Joint Elimination), 13 EA	Oct 2021	Sep 2022	\$172,521
13	Spot Rail Replacement MP 56.7 - 58.3 AN Line	Y	Install Rail, Bolted (Includes OTM), 20 FT	Oct 2021	Sep 2022	\$3,390
13	Spot Surfacing, AN LN, MP 56.7 - 58.3	Y	Surface Track, Spot, 10000 FT	Oct 2021	Sep 2022	\$213,900
13	Vac Train MP 56.7 - 58.3 AN Line	Y	Vacuum Train, Spot Undercut, 100 FT	Oct 2021	Sep 2022	\$36,715
13	Wood Tie/Timber Replacement MP 56.7 - 58.3 AN Line	Y	Install Ties and Timbers, 100 EA	Oct 2019	Oct 2022	\$168,400
14	Concrete Tie Replacement MP 58.3 -76.0 AN Line	Y	Install Ties, Concrete, 58 EA	Oct 2021	Sep 2022	\$100,688
14	Drainage Improvements MP 58.3 - 76.0 AN Line	Y	N/A	Oct 2019	Oct 2022	\$93,236
14	Grundy Interlocking Timber Replacement	Y	Install Ties and Timbers, 200 EA	Oct 2021	Sep 2022	\$139,412
14	High Speed Surfacing MP 58.3 - 76.0 AN Line	Y	Surface Track, High Speed, 3000 FT	Oct 2021	Sep 2022	\$35,161
14	Insulated Joint Removal, MP 58.3 - 76, AN Line	Y	Install Insulated Joint (Includes OTM), 3 EA	Oct 2021	Sep 2022	\$24,259
14	Interlocking Steel MP 58.3 - 76.0 AN Line	Y	Renew Frog, 23 EA	Oct 2021	Sep 2022	\$461,814
14	Joint Elimination MP 58.3 - 76.0 AN Line	Y	Field Weld and Grind Rail (Joint Elimination), 13 EA	Oct 2021	Sep 2022	\$172,521
14	Spot Rail Replacement MP 58.3 - 76 AN Line	Y	Install Rail, Bolted (Includes OTM), 40 FT	Oct 2021	Sep 2022	\$6,779
14	Vac Train MP 58.3 - 76.0 AN Line	Y	Vacuum Train, Spot Undercut, 210 FT	Oct 2021	Sep 2022	\$73,160
14	Wood Tie/Timber Replacement MP 58.3 - 76.0 AN Line	Y	Install Ties and Timbers, 250 EA	Oct 2021	Sep 2022	\$420,999

CAPITAL RENEWAL PROGRAM

**New York Track Program
(continued)**

Owner: Amtrak

Type: Capital Renewal Program

ID Number: C.EN.101849

PMO Level 1: PG00044

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
27	Concrete Tie Replacement, AE Line, MP 10.8	Y	Install Ties, Concrete, 3 EA	Oct 2021	Sep 2022	\$5,173
27	Drainage Improvements MP PSNY - 10.8 AE Line	Y	N/A	Oct 2020	Apr 2022	\$9,453
27	High Speed Surfacing MP 10.8 AE Line	Y	Surface Track, High Speed, 100 FT	Oct 2021	Sep 2022	\$1,171
27	Insulated Joint Removal, MP 10.8, AE Line	Y	Install Insulated Joint (Includes OTM), 1 EA	Oct 2021	Sep 2022	\$5,193
27	Interlocking Steel MP PSNY - 10.8 AE Line	Y	Field Weld and Grind Rail (Joint Elimination), 1 EA	Oct 2021	Sep 2022	\$53,741
27	Spot Rail Replacement PSNY - MP 10.8 AE Line	Y	Install Rail, Bolted (Includes OTM), 40 FT	Oct 2021	Sep 2022	\$6,780
27	Spot Surfacing, AE LN, MP 10.8	Y	Surface Track, Spot, 550 FT	Oct 2021	Sep 2022	\$11,954
27	Vac Train PSNY to MP 10.8 AE Line	Y	Vacuum Train, Spot Undercut, 60 FT	Oct 2021	Sep 2022	\$23,557
27	Wood Tie/Timber Replacement PSNY - MP 10.8 AE Line	Y	Install Ties and Timbers, 33 EA	Oct 2021	Sep 2022	\$55,958
31	New York Track - Layover Equipment	Y	N/A	Oct 2021	Sep 2022	\$1,773,321
31	Project Control Support	Y	N/A	Oct 2021	Sep 2022	\$103,268
31	Project Management	Y	N/A	Oct 2021	Sep 2022	\$205,914
31	Rail Lubrication Upgrades	Y	N/A	Oct 2021	Sep 2022	\$216,380
Grand Total				Oct 2019	Oct 2022	\$30,261,294

CAPITAL RENEWAL PROJECT

Newark Penn Station PCB Remediation

Owner: Amtrak

Type: Capital Renewal Project

ID Number: C.EV.100023

PMO Level 1:

General Project Information

Scope	Retain services of qualified outside contractor, clean contaminated materials off of six concrete track structures at Newark, NJ Station. Objective is to remove all contaminated materials off of concrete tracks. Supporting Amtrak Engineering group with proper disposal of generated materials from track reconstruction.
Schedule	Oct 2021-Sep 2022

FY22 Plan

Planned Expenditure in FY22	\$375,340
Scope of FY22 work	Cleaning of tracks 2 & 3 concrete structures at Newark, NJ Station. All sediment, debris and solids to be removed from track structure by outside qualified contractor. All generated materials to be properly disposed of. This is a continuation of a project that was in effect for FY 20 and earlier. This project was not funded in FY 21. Tracks A, 1, 4 and 5 were cleaned and reconstructed in prior years. Milestones will only be tracked for fiscal year 2022. This project will not continue into FY 23.

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>Newark Penn Station PCB Remediation</i>				<i>Oct 2021</i>	<i>Sep 2022</i>	<i>\$375,340</i>
12	(blank)	Y	N/A	Oct 2021	Sep 2022	\$375,340
Grand Total				Oct 2021	Sep 2022	\$375,340

CAPITAL RENEWAL PROJECT
NYP Crew Base Renovation

Owner: Amtrak
Type: Capital Renewal Project
ID Number: C.RE.100212
PMO Level 1:

General Project Information

Scope	<p>Amtrak's Major Stations Department is completing an Interim Improvements Plan for Penn Station to re-purpose spaces vacated after the transfer of our daytime customer-facing operations to Moynihan Train Hall in January 2021 and consolidate operational spaces that were previously inefficiently used throughout the station. This project scope includes renovating the existing crew base utilized by multiple groups of employees. By providing an updated space for a large amount of Amtrak employees, employees can have a better experience and "home base" in the station. Project objective is to repair existing back-of-house operations base in the western portion of level A and complete SOGR work in the vicinity of the project. Scope is as follows:</p> <ul style="list-style-type: none"> • Consolidate crew using the area into one half of the space • Gut renovation of existing crew base in the unused area • Move crew to newly renovated space • Renovate other half of crew base
Schedule	Oct 2021-Jun 2024

FY22 Plan

Planned Expenditure in FY22	\$1,268,418
Scope of FY22 work	Complete defining scope of work.

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>NYP Crew Base Renovation</i>				<i>Oct 2021</i>	<i>Jun 2024</i>	<i>\$1,268,418</i>
11	(blank)	N	N/A	Oct 2021	Jun 2024	\$1,268,418
Grand Total				Oct 2021	Jun 2024	\$1,268,418

CAPITAL RENEWAL PROJECT
NYP Departure Concourse Renovation

Owner: Amtrak
Type: Capital Renewal Project
ID Number: C.RE.100202
PMO Level 1:

General Project Information

Scope

Schedule

Amtrak’s Major Stations Department is completing an Interim Improvements Plan for Penn Station, to re-purpose and renovate spaces vacated after the transfer of our daytime customer-facing operations to Moynihan Train Hall in January 2021 and consolidate operational spaces that were previously inefficiently spread throughout the station. This project will modernize a portion of Amtrak’s remaining customer-facing operation in NYP – the departure concourse. This area can optionally be used by passengers during the day and is utilized by all passengers at night. The project will refresh the columns and ceiling to give the concourse a new and update look. Project objective is to refresh the departure concourse and complete SOGR work in the vicinity of the project. Scope of work includes the following:

- Remove existing ceiling and install new ceiling with integrated lighting, security, speakers, and heating, ventilation, and air conditioning (HVAC) distribution
- Clad columns for an updated finish
- Remove existing concourse signage; install updated signage

Oct 2021-Sep 2024

FY22 Plan

Planned Expenditure in FY22

Scope of FY22 work

\$1,815,268

Complete defining Scope of Work for Design procurement.

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
NYP Departure Concourse Renovation				Oct 2021	Sep 2024	\$1,815,268
11	(blank)	N	N/A	Oct 2021	Sep 2024	\$1,815,268
Grand Total				Oct 2021	Sep 2024	\$1,815,268

CAPITAL RENEWAL PROJECT
**NYP Elevator C2 & P4
Modernization**

Owner: Amtrak
Type: Capital Renewal Project
ID Number: C.RE.100078
PMO Level 1:

General Project Information

Scope	This vertical transportation improvements project is one of numerous improvement initiatives underway at New York Penn Station that support the transition to Moynihan Train Hall, while providing overdue state of good repair upgrades to Penn Station facilities that will remain in continued use. Specific improvements, including replacement of the C2 and P4 elevators, have been selected to work in tandem with the passenger experience goals established for Moynihan Train Hall and other intermodal connectivity initiatives. Replacement of the C2 and P4 elevators will dramatically improve safety and operations, improve station assets, introduce operational efficiencies, and support revenue growth by enhancing the customer experience.
Schedule	Oct 2016-Mar 2022

FY22 Plan

Planned Expenditure in FY22	\$2,159,875
Scope of FY22 work	Both elevator cars will be replaced in the modernization scope. The new cars and hoistways will incorporate full height glazing to provide visibility into each car. The scope also includes replacing the elevator equipment in each machine room. Modern controllers, as well as a new hydraulic piston, motor, and vegetable oil hydraulic fluid lines will be required for each elevator. Both elevators will meet the requirements of ANSI A117.1 and the Americans with Disabilities Act Guidelines (ADAAG) for size, configuration, and controls. Renovations will meet the requirements for construction in New York City. Significant portions of the hoistway enclosures will be replaced at the C and B Levels of the station. The replacement enclosure will be a fire-resistance rated curtain wall assembly. Structural steel members will be visible through the glass. The C2 hoistway will be glazed on three sides at the C Level (street level), two sides on the B Level, and one side on the A Level. Access to the elevator on the C Level (sidewalk) will be from within Penn Station, rather than directly from the former taxiway. The P4 hoistway will be glazed on four sides at the B Level. No glazing will be provided on the A or Platform Levels.

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>NYP Elevator C2 & P4 Modernization</i>				<i>Oct 2016</i>	<i>Mar 2022</i>	<i>\$2,159,875</i>
11	(blank)	Y	N/A	Oct 2016	Mar 2022	\$2,159,875
Grand Total				Oct 2016	Mar 2022	\$2,159,875

CAPITAL RENEWAL PROJECT
NYP North Concourse & Retail Renovation

Owner: Amtrak
Type: Capital Renewal Project
ID Number: C.RE.100210
PMO Level 1:

General Project Information	
Scope	This project will renovate the space on the upper (Level B) concourse of New York Penn Station. This space is comprised of the north retail block, north level B restrooms, staircase between level A and B, and associated back of house areas. The goals of this project include monetizing our space to produce retail revenue and to provide sufficient and updated back of house space for APD and NJT. This project is estimated to take 37 months .
Schedule	Oct 2021-Dec 2025

FY22 Plan	
Planned Expenditure in FY22	\$2,967,421
Scope of FY22 work	Complete scope development, procure designer, complete through 60% design.

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
NYP North Concourse & Retail Renovation				Oct 2021	Dec 2025	\$2,967,421
11	(blank)	N	N/A	Oct 2021	Dec 2025	\$2,967,421
Grand Total				Oct 2021	Dec 2025	\$2,967,421

CAPITAL RENEWAL PROJECT

NYP South Concourse & BOH Renovation

Owner: Amtrak

Type: Capital Renewal Project

ID Number: C.RE.100216

PMO Level 1:

General Project Information

Scope	With the move of multiple Amtrak functions and daytime customer-facing operations to Moynihan Train Hall, there are vacant spaces within Penn Station that can be developed for new uses. These reallocated spaces will include an expanded retail footprint and a reuse of back of house spaces. Through the expansion of vertical connections and elevator service in the area, passengers will also be given easier access to both street and platform levels. Lastly, the renovations on the concourse will bring this area up to modernity and unify its looks with other newly renovated portions of the project. This project will renovate the upper (Level B) concourse of New York Penn Station. This space includes the retail space just south of the ticketed waiting area and back of house areas further south of that. The goals of this project include modernizing existing retail and monetizing additional space to produce retail revenue. The project will also increase vertical passenger flow in this portion of the station. This project is estimated to take 54 months.
Schedule	Oct 2021-Aug 2026

FY22 Plan

Planned Expenditure in FY22	\$1,253,395
Scope of FY22 work	Financial and scope development. Procure designer and complete through 30% drawings.

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>NYP South Concourse & BOH Renovation</i>				<i>Oct 2021</i>	<i>Aug 2026</i>	<i>\$1,253,395</i>
11	(blank)	N	N/A	Oct 2021	Aug 2026	\$1,253,395
Grand Total				Oct 2021	Aug 2026	\$1,253,395

CAPITAL RENEWAL PROJECT

NYP to Moynihan Station Wayfinding Upgrades

Owner: Amtrak

Type: Capital Renewal Project

ID Number: C.RE.100077

PMO Level 1:

General Project Information

Scope	Amtrak opened New York City's Moynihan Train Hall (MOY), across the street from New York Penn Station (NYP), on January 1, 2021. This project focuses on providing a new unified sign set on Levels A and B to guide passengers from NYP to MOY and clear simplified guidance throughout NYP. Scope includes: providing an updated sign set and detailed inventory of signs; removal of existing signage and installation of new signage; repairs to any areas that will have visible damage due to removal of old signage.
Schedule	Apr 2019-Mar 2022

FY22 Plan

Planned Expenditure in FY22	\$211,829
Scope of FY22 work	Complete construction/installation work and close out project.

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>NYP to Moynihan Station Wayfinding Upgrades</i>				<i>Apr 2019</i>	<i>Mar 2022</i>	<i>\$211,829</i>
11	(blank)	Y	N/A	Apr 2019	Mar 2022	\$211,829
Grand Total				Apr 2019	Mar 2022	\$211,829

CAPITAL RENEWAL PROJECT

NYP West Reconfiguration FY22

Owner: Amtrak

Type: Capital Renewal Project

ID Number: C.RE.100203

PMO Level 1:

General Project Information

Scope

Amtrak's Major Stations Department is completing an Interim Improvements Plan for Penn Station, to re-purpose spaces vacated after the transfer of our daytime customer-facing operations to Moynihan Train Hall in January 2021 and consolidate operational spaces that were previously inefficiently spread throughout the station. These spaces comprise primarily the vacated ticketing and customer service space as well as the former Club Acela lounge at Penn Station. In addition, through an analysis of Amtrak's footprint across the entire Penn-Moynihan station complex, the need for space to consolidate APD's operations was identified. This project will re-purpose a portion of the existing back of house space on the west side of Penn Station into necessary operational space for Amtrak and NJT as well as new retail. The nearly 36,000 sf within the project area will be divided roughly as follows: • 12,000 sf for new retail. • 3,000 sf for NJ Transit ticketing and customer service • 10,000 sf for NJ Transit locker rooms • 17,000 sf of back of house space for Amtrak, largely for APD Improvements to this space will position APD centrally on both the upper and lower concourses and provide them with an interior means of circulating between the two. The relocation and expansion of the NJT ticketing area will create a better passenger experience for NJT riders, who will be the majority users of this concourse when we return to normal operations after the COVID-19 pandemic. Additionally, with the opening of Moynihan Train Hall's Metropolitan Lounge, we will also re-purpose the former Club Acela into a new restaurant space. This project will increase Penn Station's leasable retail space by a significant amount, augmenting Amtrak rent revenues significantly while increasing passenger servicing options within the station.

Schedule

Jun 2021-Apr 2024

FY22 Plan

Planned Expenditure in FY22

\$494,681

Scope of FY22 work

Complete project initiation activities. Establish project team. Procure designer of record and begin preliminary design.

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>NYP West Reconfiguration FY22</i>				<i>Jun 2021</i>	<i>Apr 2024</i>	<i>\$494,681</i>
11	(blank)	N	N/A	Jun 2021	Apr 2024	\$494,681
Grand Total				Jun 2021	Apr 2024	\$494,681

CAPITAL RENEWAL PROJECT
Pawcatuck River RI Bridge Replacement Project

Owner: Amtrak
Type: Capital Renewal Project
ID Number: C.EN.101866
PMO Level 1: P000125

General Project Information	
Scope	Bridge RI 146.39 Pawcatuck River is a 2-span bridge structure built in 1887 with each span 73' in length for a total bridge length of 146'±. The superstructure consists of a deck girder and concrete slab which has deteriorated over time and the girders are in need of repair. Given the age and condition of the structure's components replacement of the bridge is necessary in order to increase the reliability for train operations. If this project is not funded for FY22, design and permitting will be deferred and the bridge replacement will be delayed out beyond FY24-25.
Schedule	Nov 2019-Sep 2024

FY22 Plan	
Planned Expenditure in FY22	\$531,546
Scope of FY22 work	Finalize scope for design and issue RFP and on-board designer. Progress design to 30%. Perform/protect survey work and environmental investigations to support design.

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
Pawcatuck River RI Bridge Replacement Project				Nov 2019	Sep 2024	\$531,546
4	Pawcatuck River Bridge Replacement (RI146.39)	Y	N/A	Nov 2019	Sep 2024	\$531,546
Grand Total				Nov 2019	Sep 2024	\$531,546

CAPITAL RENEWAL PROJECT

Penn Coach Yard High Mast Lighting Project

Owner: Amtrak

Type: Capital Renewal Project

ID Number: C.EN.101874

PMO Level 1: P000112

General Project Information

Scope	The scope of this project is to replace and install three (3) lighting towers that provide lighting for all Amtrak operations within Penn Coach Yard. The completion of this work will ensure efficient and safe operation of Amtrak's assets and infrastructure, to maintain compliance with current regulations and standards. The work performed under this project includes Installation of North, South and QX Tower. Demolition of the existing North, South and QX Towers. Replacement of the existing 2" conduit that feeds the North and South Towers. Electrical upgrades to the electrical boxes at QX.
Schedule	Dec 2020-Jan 2022

FY22 Plan

Planned Expenditure in FY22	\$168,727
Scope of FY22 work	<p>FY22 The following work will be completed:</p> <ul style="list-style-type: none"> • Approve all SSWP's for the installation of the towers • Install three Lighting towers • Installation of the foundations for the North, South and QX Towers • Electrical upgrades to the QX fuse box.

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>Penn Coach Yard High Mast Lighting Project</i>				<i>Dec 2020</i>	<i>Jan 2022</i>	<i>\$168,726</i>
17	Construction Contractor	Y	N/A	Feb 2021	Dec 2021	\$157,110
17	Construction Management	Y	N/A	Feb 2021	Dec 2021	\$3,904
17	Project Management	Y	N/A	Dec 2020	Jan 2022	\$7,713
Grand Total				Dec 2020	Jan 2022	\$168,726

CAPITAL RENEWAL PROJECT

Penn Coach Yard Paving Improvements Project

Owner: Amtrak

Type: Capital Renewal Project

ID Number: C.EN.101807

PMO Level 1: P000135

General Project Information

Scope	The scope of this project is to procure the original Engineering Firm TRC to complete the design of the project. Install bituminous pavement and storm water management features in the Amtrak Penn Coach Yard. The completion of this work will ensure efficient use of the yard, maximize parking stalls, travel lanes and storm water management thus creating a safe environment for Amtrak and its employees
Schedule	Oct 2020-Sep 2023

FY22 Plan

Planned Expenditure in FY22	\$3,244,338
Scope of FY22 work	FY22 the following work will be completed to procure acceptable updated plans that have been approved by the Philadelphia Water Department and Pennsylvania Department of Environmental Protection. The work performed under this project includes the following: Fully accepted/approved plans and specifications, local and government agency permits for construction, installation of bituminous pavement, storm water management devices. Install bituminous pavement and storm water management features in the Amtrak Penn Coach Yard.

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>Penn Coach Yard Paving Improvements Project</i>				<i>Oct 2020</i>	<i>Sep 2023</i>	<i>\$3,244,339</i>
17	60% Design	Y	N/A	Oct 2020	Feb 2022	\$112,606
17	Construction Management	Y	N/A	Oct 2021	Sep 2022	\$239,885
17	Contractor	Y	N/A	Aug 2022	Sep 2023	\$2,680,466
17	Design Review	Y	N/A	Aug 2021	May 2022	\$21,448
17	Project Management	Y	N/A	Oct 2020	Jun 2023	\$48,263
17	RWP Protection	Y	N/A	Oct 2021	Sep 2022	\$141,670
Grand Total				Oct 2020	Sep 2023	\$3,244,339

CAPITAL RENEWAL PROJECT

Penn Coach Yard Water Main Replacement Project

Owner: Amtrak

Type: Capital Renewal Project

ID Number: C.EN.101876

PMO Level 1: P000114

General Project Information

Scope	The scope of this project is for the design, permit, construct, test, accept and closeout a new water main to replace the 100 year old water main that services the Penn Coach yard. New hydrants fire protection and back flow preventers will also be installed. The design will be contracted out while the construction work will be performed by 3rd party contractor. The completion of this work will ensure efficient and safe operation of Amtrak's assets and infrastructure, to maintain compliance with current regulations and standards.
Schedule	Oct 2020-Oct 2022

FY22 Plan

Planned Expenditure in FY22	\$3,182,665
Scope of FY22 work	Delivery of the final plans and specification and use as bid documents for the procurement of the third party Contractor for the installation of new watermain. Scope to include fire hydrants and backflow preventers along with all required piping.

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>Penn Coach Yard Water Main Replacement Project</i>				Oct 2020	Oct 2022	\$3,182,664
17	90% Design	Y	N/A	Oct 2021	Dec 2021	\$134,048
17	Construction Management	Y	N/A	Mar 2022	Sep 2022	\$118,215
17	Contractor	Y	N/A	May 2022	Sep 2022	\$2,273,489
17	Final Design	Y	N/A	Dec 2021	Sep 2022	\$23,661
17	Project Management	Y	N/A	Oct 2020	Oct 2022	\$40,934
17	RWP Protection	Y	N/A	May 2022	Sep 2022	\$592,318
Grand Total				Oct 2020	Oct 2022	\$3,182,664

CAPITAL RENEWAL PROJECT

Penn Coach Yard/Ivy City Track Pan Upgrades

Owner: Amtrak

Type: Capital Renewal Project

ID Number: C.EV.100042

PMO Level 1:

General Project Information

Scope	Objective of this two year project is design, contractor selection and installation of upgraded track pans at the Penn Coach Yard Race street diesel refueling area (Tracks 1 and 2) in FY22 and Ivy City Lube Oil track Pan in FY23. Total lengths of new track pans is roughly 300 linear feet (200 LF in PCY Race 1 and Race 2 tracks; 100 LF in Ivy city track 26. Track pan drainage will be connected to the sites' industrial waste water treatment system.
Schedule	Oct 2021-Sep 2023

FY22 Plan

Planned Expenditure in FY22	\$280,969
Scope of FY22 work	FY22 Scope will include design selection, vendor selection, and install of track pan upgrades for Race Street Tracks 1 and 2. Costs anticipated are \$300 / LF for track pan procurement based on historic Contech pricing proposal. Estimated cost for install is \$150K using historic pricing proposal on a similar project. Scope and financials assume contractors will perform track pan replacement.

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>Penn Coach Yard/Ivy City Track Pan Upgrades</i>				<i>Oct 2021</i>	<i>Sep 2023</i>	<i>\$280,969</i>
31	(blank)	Y	N/A	Oct 2021	Sep 2023	\$280,969
Grand Total				Oct 2021	Sep 2023	\$280,969

CAPITAL RENEWAL PROJECT

Penn Station New York Escalator Replacement

Owner: Amtrak
Type: Capital Renewal Project
ID Number: C.EN.100316
PMO Level 1:

General Project Information

Scope	Continue the Amtrak Escalator Replacement Program at NYP. Amtrak is committed to upgrading and/or replacing Escalators at PSNY. There are 4 additional machines that are on the list to be replaced due the overall condition and age. There are 27 Units in total and this proposed project will bring the number to 24 having been completed.
Schedule	Oct 2009-Sep 2024

FY22 Plan

Planned Expenditure in FY22	\$3,432,216
Scope of FY22 work	Replace one Escalator in the Amtrak Departure Concourse.

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
Penn Station New York Escalator Replacement				Oct 2009	Sep 2024	\$3,432,216
11	(blank)	Y	N/A	Oct 2009	Sep 2024	\$3,432,216
Grand Total				Oct 2009	Sep 2024	\$3,432,216

CAPITAL RENEWAL PROJECT

Penn Station NY - Infrastructure Renewal

Owner: Amtrak

Type: Capital Renewal Project

ID Number: C.EN.101104

PMO Level 1: P000059

General Project Information

Scope	This program is for the renewal of the track infrastructure at Penn Station NY. Completion of this work will ensure efficient and safe operation of Amtrak's assets and infrastructure, to maintain compliance with current regulations and standards. The work performed under this project includes; procurement of materials; replacing track components including concrete block tie, direct fixation and ballasted body tracks, turnouts, special track work and ballasted track in "A", "C", "JO" and "KN" Interlockings and Ladder Tracks. This work will be performed on a routine or annual basis.
Schedule	Oct 2020-Oct 2023

FY22 Plan

Planned Expenditure in FY22	\$38,297,953
Scope of FY22 work	Replacement of Track 13 and Track 5 body tracks. Replacement of 123/127. 105/119, 121/125, 125/129, 129/133, and 81/91 slip switches. Replacement of 553, 77, 79, 91, 75, 17W, and 15W turnouts.

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>Penn Station NY - Infrastructure Renewal</i>				<i>Oct 2020</i>	<i>Oct 2023</i>	<i>\$38,297,954</i>
11	#633/637 Switch Replacement - C&S	Y	Mount Switch Machine, 1 EA	Oct 2021	Nov 2021	\$474,939
11	#633/637 Switch Replacement - ET	Y	Install / Renew Third Rail, 100 FT	Oct 2021	Nov 2021	\$161,182
11	#633/637 Switch Replacement - Track	Y	Install Slip Switch, 1 EA	Oct 2021	Nov 2021	\$2,016,468
11	17W & 15W Turnout Replacement - C&S	Y	Mount Switch Machine, 1 EA	Mar 2022	Sep 2022	\$184,805
11	17W & 15W Turnout Replacement - ET	Y	Install / Renew Third Rail, 100 FT	Mar 2022	Sep 2022	\$124,897
11	17W & 15W Turnout Replacement - Track	Y	Install Wood Turnout, 1 EA	Mar 2022	Sep 2022	\$1,389,613
11	Employee Parking	Y	N/A	Oct 2020	Oct 2023	\$43,754
11	Project Control Support	Y	N/A	Oct 2020	Sep 2022	\$42,896
11	Project Management	Y	N/A	Oct 2020	Sep 2022	\$107,240
11	Slip Switch Replacement - C&S	Y	Mount Switch Machine, 4 EA	Oct 2021	Sep 2022	\$1,430,544
11	Slip Switch Replacement - ET	Y	Install / Renew Third Rail, 400 FT	Oct 2021	Sep 2022	\$770,828

CAPITAL RENEWAL PROJECT

**Penn Station NY - Infrastructure
Renewal (continued)**

Owner: Amtrak

Type: Capital Renewal Project

ID Number: C.EN.101104

PMO Level 1: P000059

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
11	Slip Switch Replacement - Track	Y	Install Slip Switch, 4 EA	Oct 2021	Sep 2022	\$7,140,677
11	T&E Support	Y	N/A	Oct 2020	Oct 2023	\$539,282
11	Total Track 13 Renewal - B&B	Y	Install / Maintain Track, 1000 FT	Jun 2022	Sep 2022	\$4,346,942
11	Total Track 13 Renewal - C&S	Y	N/A	Jun 2022	Sep 2022	\$425,498
11	Total Track 13 Renewal - ET	Y	Install / Renew Third Rail, 1140 FT	Jun 2022	Sep 2022	\$1,113,595
11	Total Track 13 Renewal - Track	Y	Install Track Panels, 140 FT	Jun 2022	Sep 2022	\$3,082,534
11	Total Track 5 Renewal - B&B	Y	N/A	Jan 2022	Mar 2022	\$2,417,888
11	Total Track 5 Renewal - C&S	Y	Mount Switch Machine, 1 EA	Jan 2022	Mar 2022	\$309,013
11	Total Track 5 Renewal - ET	Y	Install / Renew Third Rail, 630 FT	Jan 2022	Mar 2022	\$815,487
11	Total Track 5 Renewal - Track	Y	Install Wood Turnout, 1 EA	Jan 2022	Mar 2022	\$1,130,368
11	Turnout Replacement - C&S	Y	Mount Switch Machine, 5 EA	Dec 2021	Aug 2022	\$1,228,036
11	Turnout Replacement - ET	Y	Install / Renew Third Rail, 500 FT	Dec 2021	Aug 2022	\$785,018
11	Turnout Replacement - Track	Y	Install Wood Turnout, 1 EA	Dec 2021	Aug 2022	\$8,216,449
Grand Total				Oct 2020	Oct 2023	\$38,297,954

CAPITAL RENEWAL PROJECT

Penn Station NY Scada Phase II

Owner: Amtrak

Type: Capital Renewal Project

ID Number: C.EN.100081

PMO Level 1: P000060

General Project Information

Scope	The scope of this project the Penn Station NY Supervisory Control And Data Acquisition (SCADA) Phase II Project is to design, procure equipment and services, software and interface development, implement, construct and install supporting hardware, then to test, validate, train personnel, and obtain acceptance and closeout of the new SCADA system for Fire and Life Safety elements from Weehawken NJ to First Avenue Long Island City including New York Penn Station. The new system will replace the existing SCADA Fire and Life Safety System and ensure efficient and safe operation of Amtrak's assets and infrastructure, to maintain compliance with current regulations and standards.
Schedule	Oct 2016-Mar 2022

FY22 Plan

Planned Expenditure in FY22	\$934,109
Scope of FY22 work	The FY22 scope includes: Amtrak Fire & Life Safety SCADA Server Client System Upgrade from WinCC V7.0 to WinCC V7.5; replacement of PLC communication cards to standardize the interface with the Amtrak F&LS SCADA system over layer 3 ISO over TCP protocol; a change to standardize the Brookfield FLSS HMI screen in line with the remaining Amtrak F&LS sites SCADA HMI screens as per design plan specifications; Implementation of System Administration Guidelines to Amtrak F&LS SCADA system; Removal of the existing East River Tunnel Lines 1 and 3 (with additional work at Lines 2 and 4) and installation of a shop fabricated S7-400H PLC- E enclosure; plus Conversion from S7-300 PLC to DIOP at the East River Tunnel. These above mentioned FLSS sites shall be monitored and controlled from the upgraded SCADA HMI Server/Client workstations at OCC and ICC, in accordance with the Engineer's design plans and specifications. Implementation of OT cybersecurity measures in accordance Amtrak Infosec requirements and Engineer's design plans and specifications are also part of FY22 scope.

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>Penn Station NY Scada Phase II</i>				<i>Oct 2016</i>	<i>Mar 2022</i>	<i>\$934,109</i>
11	Construction Management	Y	N/A	Mar 2019	Jan 2022	\$152,841
11	Design Consultant	Y	N/A	Oct 2016	Dec 2021	\$10,724
11	Force Account Support	Y	N/A	Oct 2016	Feb 2022	\$64,550
11	General Contractor	Y	N/A	Oct 2016	Feb 2022	\$666,949
11	Project Management	Y	N/A	Mar 2019	Mar 2022	\$39,045
Grand Total				Oct 2016	Mar 2022	\$934,109

CAPITAL RENEWAL PROJECT

Penn Station NY Sectionalizing Project

Owner: Amtrak

Type: Capital Renewal Project

ID Number: C.EN.101783

PMO Level 1: P000037

General Project Information

Scope

The scope of this project is to replace the sectionalizing switches within Penn Station, NY with upgraded switches that will allow for remote operation by the Power Directors. The current ET system does not allow the Power Directors to remotely control the switches to de-energize the catenary at the station. Instead, the existing switches are being manually operated in the field by Amtrak personnel. By installing the switches with remote capabilities, the resulting benefits will be quicker response times; reduced manual operation that has a potential to cause worker injuries; improved performance and resiliency in the event of emergencies throughout Penn Station NY and enhanced customer service and on time performance. This work includes replacement of existing sectionalizing switches, feeder cables, motor mechanisms and Remote Terminal Units (RTUs) at walkovers WO 18, 36, and 45 within the station and installation of new fiber connections to each to allow for remote operation of the new switches; and replacement and relocation of other switches throughout the station, substations and East River switches that are beyond their useful lives and currently installed in inaccessible locations for maintenance. The work will be performed by Amtrak's Electric Traction (ET) and Communication & Signal (C&S) groups. All design efforts will be performed by Amtrak's in-house design personnel as required to support the upgrades. There are a total of 59 switches along with motor mechs that will be replaced in this project.

Schedule

Aug 2019-Jan 2023

FY22 Plan

Planned Expenditure in FY22

\$592,925

Scope of FY22 work

The work for FY22 is to replace the switches and motor mechs on Walkovers WO 18 and 36. Tasks to be performed in FY22 are: • Mounting switches and motor mechs for WO 18/36 • Install conduits and pull wiring for WO 18/36 • Terminate wiring for WO 18/36 • Install RTUs and splice fiber cables for WO 18/36 • Testing and commissioning of switches for WO 18/36

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>Penn Station NY Sectionalizing Project</i>				<i>Aug 2019</i>	<i>Jan 2023</i>	<i>\$592,925</i>
11	C&S Construction	Y	N/A	Jul 2021	Sep 2022	\$175,962
11	C&S Testing & Commissioning	Y	N/A	Aug 2021	Oct 2022	\$10,431
11	ET Testing & Commissioning	Y	N/A	Aug 2021	Oct 2022	\$134,737
11	Project Control Support	Y	N/A	Mar 2021	Jan 2023	\$7,077
11	Project Management	Y	N/A	Aug 2019	Jan 2023	\$56,185
11	Project Management Support	Y	N/A	Nov 2019	Jan 2023	\$129,502
11	RWP Protection	Y	N/A	May 2021	Oct 2022	\$79,031
Grand Total				Aug 2019	Jan 2023	\$592,925

CAPITAL RENEWAL PROJECT

Penn Station, NY - Track Remediation

Owner: Amtrak

Type: Capital Renewal Project

ID Number: C.EV.100032

PMO Level 1:

General Project Information

Scope	PCB's were discovered in sediment which accumulated on PSNY Track 1 concrete track structure in April 2016. Subsequent testing found high levels of PCBs in sediment and tar under the sediment on other concrete track structures. There are 18 concrete track structures in Penn Station New York (PSNY) The sediment and tar must be removed and the concrete tracks washed with diesel fuel. Overhead platform structures such as lights, signs, piping and conduits have an accumulation of PCB-contaminated dust and these must also be cleaned. Any generated materials are properly disposed of. Amtrak is working closely with the USEPA on this project. A Remedial Investigation and Risk Assessment will be performed. When track replacement and work is required in PSNY, soil and concrete must be removed and properly disposed of to comply with EPA regulations. Air sampling is performed on a quarterly basis to monitor air quality in PSNY. After risk assessment is performed, remediation of targeted areas will be planned.
Schedule	Oct 2021-Sep 2022

FY22 Plan

Planned Expenditure in FY22	\$3,217,200
Scope of FY22 work	This is a recurring annual maintenance project. Milestones will only be tracked for Fiscal Year 2022. Out-year funding planned. Continue and complete dust removal at platform areas. Continue remedial investigation and quarterly air sampling. Support Engineering state of good repair projects with air monitoring, waste management and disposal. Complete dust removal as long as track access and Engineering support allows.

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>Penn Station, NY - Track Remediation</i>				<i>Oct 2021</i>	<i>Sep 2022</i>	<i>\$3,217,200</i>
11	(blank)	Y	N/A	Oct 2021	Sep 2022	\$3,217,200
Grand Total				Oct 2021	Sep 2022	\$3,217,200

CAPITAL RENEWAL PROGRAM

Production High Speed Surfacing Program

Owner: Amtrak

Type: Capital Renewal Program

ID Number: C.EN.101855

PMO Level 1: PG00060

General Project Information

Scope	The scope of this program is to establish and maintain a State of Good Repair (SOGR), efficient and safe operation for the track structure alignment and profile to maintain compliance with current regulations and standards. This work includes surfacing cycle program blocks and interlockings as well as performing undercutter settlement surfacing. Surfacing will be performed at interlockings and track segments on the AB, AP, AH, AN, AR and AZ lines. This work follows a planned cycle of interlockings and track segments on those lines as well as addressing division surfacing needs at times. This work results in a safer and smoother riding surface to trains. Periodic settlement or degradation of the subbase and track structure occurs over time as train traffic rides over sections of the railroad. The program ensures that every interlocking and block segment on surfaced on a regular schedule to help reduce the impact of settlement and degradation and prolong the life of other assets that would be negatively impacted by this settlement including switches and approaches to fixed locations line bridges. By addressing settlement, alignment, and profile issues. The work performed in this program contributes to On-time performance by reducing track restrictions or the need to lower the speed at which trains can travel on a given track segment. This improved surface condition is achieved through the use of tampers, stabilizers, regulators, and Ballast Management System machines that can lift the ties and rail and shore up the ballast beneath and around the ties. New stone can be dropped as needed and track raises can be performed as needed with this equipment as well.
Schedule	Oct 2021-Oct 2022

FY22 Plan

Planned Expenditure in FY22	\$16,659,837
Scope of FY22 work	FY22 the following work will be performed: • Start Interlockings and track segments on the following lines AB, AP, AH, AN, AR and AZ. • Start undercutter settlement surfacing and dropping new stones as needed and track raises.

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>Production High Speed Surfacing Program</i>				Oct 2021	Oct 2022	\$16,659,835
12	High Speed Surfacing Production MP 11.0 - 56.7 AN Line	Y	Surface Track, High Speed, 522983 FT	Oct 2021	Sep 2022	\$4,806,012
13	High Speed Surfacing Production MP 56.7 - 58.3 AN Line	Y	Surface Track, High Speed, 13596 FT	Oct 2021	Sep 2022	\$83,575
14	High Speed Surfacing Production MP 58.3 - 76.0 AN Line	Y	Surface Track, High Speed, 86724 FT	Oct 2021	Sep 2022	\$487,063
15	High Speed Surfacing Production MP 76.0 - 82.1 AN Line	Y	Surface Track, High Speed, 52668 FT	Oct 2021	Sep 2022	\$299,158
17	High Speed Surfacing Production MP 82.1 - 87.7 AN Line	Y	Surface Track, High Speed, 78408 FT	Oct 2021	Sep 2022	\$466,858
18	High Speed Surfacing Production MP 1.4 - 2.7 AP Line	Y	Surface Track, High Speed, 10230 FT	Oct 2021	Sep 2022	\$245,715
20	High Speed Surfacing Production MP 17.1 - 29.6 AP Line	Y	Surface Track, High Speed, 66528 FT	Oct 2021	Sep 2022	\$316,873

CAPITAL RENEWAL PROGRAM

**Production High Speed Surfacing
Program (continued)**

Owner: Amtrak

Type: Capital Renewal Program

ID Number: C.EN.101855

PMO Level 1: PG00060

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
20	High Speed Surfacing Production MP 29.6 - 41.4 AP Line	Y	Surface Track, High Speed, 432828 FT	Oct 2021	Sep 2022	\$3,285,101
22	High Speed Surfacing Production MP 59.4 - 79.3 AP Line	Y	Surface Track, High Speed, 8712 FT	Oct 2021	Sep 2022	\$44,662
22	High Speed Surfacing Production MP 79.3 - 131.6 AP Line	Y	Surface Track, High Speed, 141702 FT	Oct 2021	Sep 2022	\$652,695
29	High Speed Surfacing Production MP 1.9 - 20.2 AP Line	Y	Surface Track, High Speed, 295680 FT	Oct 2021	Sep 2022	\$2,817,297
29	High Speed Surfacing Production MP 20.2 - 35.3 AH Line	Y	Surface Track, High Speed, 87780 FT	Oct 2021	Sep 2022	\$428,922
30	High Speed Surfacing Production MP 35.3 - 105.2 AH Line	Y	Surface Track, High Speed, 70488 FT	Oct 2021	Sep 2022	\$339,696
31	Contractor Equipment	Y	N/A	Oct 2021	Sep 2022	\$162,799
31	Overlift Tamping Training	Y	N/A	Oct 2021	Sep 2022	\$20,349
31	Overlift Tamping Upgrade	Y	N/A	Oct 2021	Sep 2022	\$27,921
31	Program Development	Y	N/A	Oct 2021	Oct 2022	\$895,389
31	Project Control Support	Y	N/A	Oct 2021	Sep 2022	\$47,779
31	Project Management	Y	N/A	Oct 2021	Sep 2022	\$214,481
31	System Surfacing Equipment Maintenance	Y	N/A	Oct 2021	Oct 2022	\$976,791
31	Tamping Effectiveness	Y	N/A	Oct 2021	Sep 2022	\$40,701
Grand Total				Oct 2021	Oct 2022	\$16,659,835

CAPITAL RENEWAL PROGRAM

Production Wood Tie/Timber Replacement Program

Owner: Amtrak

Type: Capital Renewal Program

ID Number: C.EN.101858

PMO Level 1: PG00071

General Project Information

Scope	The scope of this program is to establish and maintain a State of Good Repair (SOGR), and ensure efficient and safe operations of Amtrak Systemwide Track Assets to maintain compliance with current regulations and standards. The work performed under this program includes the replacement of wood ties and timbers on the Amtrak system that have lost their ability to hold their gage (distance between the rail) due to continued use, loss of strength and increased age. Work will be done at various locations on the following lines; the Harrisburg Line, the AP Line, the Springfield Line, the Empire Line and the AN Line.
Schedule	Oct 2020-Sep 2022

FY22 Plan

Planned Expenditure in FY22	\$15,532,726
Scope of FY22 work	The FY22 scope of this program is the replacement of wood ties and timbers at the following locations: On the Harrisburg Line Rheems to State, on the AP Line Washington Union Station, Overbrook, Brandy to Wine and Bell to Landlith, Landover, Grove, Winans to Bridge, and Lorton Auto Train facility in Virginia; On the Springfield Line between Windsor and Spring; on the Empire Line between MP 142 and 169; On the AN Line between Elmora and Union.

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>Production Wood Tie/Timber Replacement Program</i>				<i>Oct 2020</i>	<i>Sep 2022</i>	<i>\$15,532,727</i>
12	Elmora Interlocking 43XO & 12 XO - Install	Y	Install Ties and Timbers, 120 EA	Oct 2021	Sep 2022	\$559,793
12	Elmora Interlocking to Union Interlocking Track A AN Line - Install	Y	Install Ties, Wood, 5000 EA	Oct 2020	Dec 2021	\$1,031,474
12	Elmora Interlocking to Union Interlocking Track B AN Line- Install	Y	Install Ties, Wood, 5000 EA	Jan 2021	Feb 2022	\$998,990
12	Roy o State Track 2 AH Line - Install	Y	Install Ties, Wood, 500 EA	Oct 2021	Sep 2022	\$272,548
20	Landlith Interlocking Track 5 MP 25.5 AP Line - Install	Y	Install Ties, Wood, 1800 EA	Nov 2021	Feb 2022	\$275,287
22	Landover Interlocking Track 2 & 3 - Install	Y	Install Ties and Timbers, 435 EA	Oct 2021	Sep 2022	\$314,355
23	Washington Union Station - Install	Y	Install Ties and Timbers, 300 EA	Oct 2020	Apr 2022	\$1,091,929
25	Field Interlocking to Spring Interlocking AS Line - Install	Y	Install Ties, Wood, 4000 EA	Oct 2021	Sep 2022	\$2,180,390

CAPITAL RENEWAL PROGRAM

**Production Wood Tie/
Timber Replacement Program
(continued)****Owner:** Amtrak**Type:** Capital Renewal Program**ID Number:** C.EN.101858**PMO Level 1:** PG00071

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
25	Windsor Interlocking to Field Interlocking AS Line- Install	Y	Install Ties, Wood, 4000 EA	Oct 2021	Sep 2022	\$2,180,390
29	Overbrook Interlocking Track 3 - Install	Y	Install Ties, Wood, 236 EA	Oct 2021	Sep 2022	\$128,643
30	CRC Northside Industrial MP 68 AH Line - Install	Y	Install Ties, Wood, 1046 EA	Oct 2021	Sep 2022	\$570,171
30	New Holland Secondary Track - Install	Y	Install Ties, Wood, 742 EA	Oct 2021	Sep 2022	\$404,462
30	Rheems Interlocking to Roy Interlocking Track 1 AH Line - Install	Y	Install Ties, Wood, 11500 EA	Jul 2021	Dec 2021	\$2,389,945
30	Rheems Interlocking to Roy Interlocking Track 2 AH Line - Install	Y	Install Ties, Wood, 11500 EA	Sep 2021	Nov 2021	\$2,389,944
30	Roy to State Track 1 - Install	Y	Install Ties, Wood, 500 EA	Oct 2021	Sep 2022	\$272,548
31	Equipment Maintenance	Y	N/A	Oct 2021	Sep 2022	\$160,860
31	Equipment Rentals	Y	N/A	Oct 2021	Sep 2022	\$214,481
31	Project Control Support	Y	N/A	Oct 2021	Sep 2022	\$42,896
31	Project Management	Y	N/A	Oct 2021	Sep 2022	\$53,620
Grand Total				Oct 2020	Sep 2022	\$15,532,727

CAPITAL RENEWAL PROJECT

Q Interlocking C&S Equipment Replacement Project

Owner: Amtrak

Type: Capital Renewal Project

ID Number: C.EN.100676

PMO Level 1: P000066

General Project Information

Scope	The scope of this project is the; design, permitting, NEPA/SHPO compliance, procurement, construction, testing/commissioning, acceptance and closeout of a new Q Interlocking including installation of signal and communication cables; installation of signal and communication houses, and track circuits . ACSES (PTC) wayside units and transponders will be provided with back-office system changes to CETC for dispatcher control, power director control and PTC ACSES system software modifications to locomotives and power cars. Testing and systems interfaces will be checked before placed into service. Retirement of the old Q Tower and cleanup is also included. Completion of this work will ensure efficient and safe operation of Amtrak's assets and infrastructure, to maintain compliance with current regulations and standards.
Schedule	Jan 2020-Jan 2028

FY22 Plan

Planned Expenditure in FY22	\$6,577,635
Scope of FY22 work	3rd party contractor Gannett Fleming to complete software design of new Q-interlocking signal system, Amtrak forces to install, test, and commission phase 1 construction of signal & communication houses QB, QD, and QCIH (Central Instrumentation House).

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>Q Interlocking C&S Equipment Replacement Project</i>				<i>Jan 2020</i>	<i>Jan 2028</i>	<i>\$6,577,634</i>
9	B&B Construction	Y	N/A	Nov 2020	Feb 2022	\$143,347
9	C&S Communications Construction	Y	N/A	Oct 2020	Oct 2021	\$830,930
9	C&S Construction	Y	Signal Construction and Renewals, 8 EA	Aug 2020	Oct 2025	\$4,386,554
9	Construction Design Services	Y	N/A	Nov 2020	Nov 2023	\$95,477
9	Design Review	Y	N/A	Jan 2020	Apr 2022	\$27,724
9	ET Construction	Y	N/A	Apr 2021	Jul 2023	\$138,834
9	Force Account Support	Y	N/A	Oct 2020	Dec 2021	\$112,383
9	Lancaster Shop Fabrication	Y	N/A	Oct 2020	Dec 2021	\$697,613
9	Project Management	Y	N/A	Oct 2020	Jan 2028	\$128,688
9	Project Management Support	Y	N/A	Nov 2020	Jan 2028	\$16,085
Grand Total				Jan 2020	Jan 2028	\$6,577,634

CAPITAL RENEWAL PROJECT

Radio Infrastructure Upgrades Project

Owner: Amtrak

Type: Capital Renewal Project

ID Number: C.EN.101932

PMO Level 1: P000198

General Project Information

Scope	The scope of this project is to upgrade all wayside and office radio equipment to modernize Amtrak's voice radio systems and bring all systems to a state of good repair. This will include, but may not be limited to, replacement of or addition to base station radio equipment, radio equipment shelters, radio antenna systems, radio antenna towers/poles, network equipment utilized directly in support of radio systems, radio console hardware and/or software, power systems and any other ancillary support equipment deemed necessary by a fully developed and approved design.
Schedule	Oct 2021-Sep 2022

FY22 Plan

Planned Expenditure in FY22	\$2,161,657
Scope of FY22 work	Scope is for the 60%, 90% and final design of the voice radio systems. This includes issuance of RFP, review of bidders' documents, contract award and notice to proceed to selected vendor. Begin procurement of radio system equipment and materials.

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>Radio Infrastructure Upgrades Project</i>				<i>Oct 2021</i>	<i>Sep 2022</i>	<i>\$2,161,657</i>
31	Project Control Support	Y	N/A	Oct 2021	Sep 2022	\$5,622
31	Project Management	Y	N/A	Oct 2021	Sep 2022	\$11,233
31	Radio Infrastructure Upgrades	Y	N/A	Oct 2021	Sep 2022	\$2,144,802
Grand Total				Oct 2021	Sep 2022	\$2,161,657

CAPITAL RENEWAL PROGRAM

Rail Grinding Program

Owner: Amtrak

Type: Capital Renewal Program

ID Number: C.EN.101794

PMO Level 1: PG00064

General Project Information

Scope

The work of the "Rail Grinder" is performed by a contractor which gets support from Amtrak. Amtrak directly support the contractor by providing the contractor a Foreman each night and watchman when necessary. The contractor performs work Sun. thru and including Thursday nights, and then performs maintenance on their machine Friday and Saturday nights. The goal of the Rail Grinder is to complete 6.5 TK miles grinded per night. Amtrak's task manager also provides a loose schedule for the Rail Grinder to follow based on the Geometry Car information, and division requests. The schedule is considered loose because the Rail Grinder must be willing to move to another location "at the drop of a hat" based on work needed to be completed and at the request of transportation, Track Production or Engineering. In general, the Rail Grinder will grind all the tracks in a location: #1, #2, #3, #4, and SG Lines. The locations include: - The AN Line (MP .1 – MP 131). - The AP Line (MP29.2 – MP 131.6). - The AH Line (MP1.9 – MP104). - The AS Line (MP1.59 – MP61.65). - The AE Line (MP.2 – MP11). - The AZ Line (MP.35 – MP8.3). and - The AT Line (MP .25 – MP 3.18). (Note: The current FY22 schedule focuses on these lines first. The schedule can be changed later to include other lines such as the AB Line, if deemed necessary.) If the rail is not tested and appropriately maintained the asset life will be reduced.

Schedule

Oct 2020-Nov 2022

FY22 Plan

Planned Expenditure in FY22

\$6,789,874

Scope of FY22 work

Grinding continuously welded rail and switches along the NEC. The NEC locations include: - The AN Line (MP .1 – MP 131). - The AP Line (MP29.2 – MP 131.6). - The AH Line (MP1.9 – MP104). - The AS Line (MP1.59 – MP61.65). - The AE Line (MP.2 – MP11). - The AZ Line (MP.35 – MP8.3). and - The AT Line (MP .25 – MP 3.18). The current FY22 schedule focuses on these lines.

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>Rail Grinding Program</i>				<i>Oct 2020</i>	<i>Nov 2022</i>	<i>\$6,789,879</i>
2	Rail Grinding MP 190.8 - 185.6 AB Line	Y	Grind Rail, 5 FT	Jul 2021	May 2022	\$191,453
2	Rail Grinding MP 185.6 - 185.1 AB Line	Y	Grind Rail, 1 FT	Oct 2021	Oct 2022	\$82,051
3	Rail Grinding MP 185.1 - 165.7 AB Line	Y	Grind Rail, 19 FT	Jun 2021	May 2022	\$246,154
4	Rail Grinding MP 141.1 - 122.9 AB Line	Y	Grind Rail, 18.2 FT	Oct 2021	Oct 2022	\$300,855
4	Rail Grinding MP 165.7 - 141.1 AB Line	Y	Grind Rail, 24 FT	Oct 2021	Oct 2022	\$300,855
5	Rail Grinding MP 122.9 - 105.1 AB Line	Y	Grind Rail, 17 FT	Jun 2021	Apr 2022	\$300,855
5	Rail Grinding MP 105.1 - 73.6 AB Line	Y	Grind Rail, 31 FT	Jun 2021	Apr 2022	\$382,908
10	Rail Grinding MP 0.25 - MP 3.18 AT Line	Y	Grind Rail, 3 FT	Oct 2020	Nov 2022	\$355,556

CAPITAL RENEWAL PROGRAM

**Rail Grinding Program
(continued)**

Owner: Amtrak

Type: Capital Renewal Program

ID Number: C.EN.101794

PMO Level 1: PG00064

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
12	Rail Grinding MP 0.1-11.0 AN Line	Y	Grind Rail, 11 FT	Oct 2021	Oct 2022	\$273,505
12	Rail Grinding MP 0.35 - MP 8.3 AZ Line	Y	Grind Rail, 8 FT	Oct 2021	Oct 2022	\$299,247
12	Rail Grinding MP 11.0-56.7 AN Line	Y	Grind Rail, 45 FT	Oct 2021	Oct 2022	\$547,010
13	Rail Grinding MP 56.7 - 58.3 AN Line	Y	Grind Rail, 2 FT	Oct 2021	Oct 2022	\$164,103
14	Rail Grinding MP 58.3 - 76.0 AN Line	Y	Grind Rail, 18 FT	Oct 2021	Oct 2022	\$273,505
15	Rail Grinding MP 76.0 - 82.1 AN Line	Y	Grind Rail, 6.1 FT	Oct 2021	Oct 2022	\$246,154
16	Rail Grinding MP 82.1 - 87.7 AN Line	Y	Grind Rail, 6 FT	Oct 2021	Oct 2022	\$136,752
20	Rail Grinding MP 17.1 - 29.6 AP Line	Y	N/A	Oct 2021	Sep 2022	\$109,402
20	Rail Grinding MP 29.6 - 41.4 AP Line	Y	Grind Rail, 12 FT	Oct 2021	Oct 2022	\$136,752
20	Rail Grinding MP 41.4 - 51.0 AP Line	Y	Grind Rail, 10 FT	Oct 2021	Oct 2022	\$27,350
21	Rail Grinding MP 51.4 - 59.4 AP Line	Y	Grind Rail, 8 FT	Oct 2021	Oct 2022	\$164,103
22	Rail Grinding MP 59.4-79.3 AP Line	Y	Grind Rail, 20 FT	Oct 2021	Sep 2022	\$54,701
22	Rail Grinding MP 79.3 - 131.6 AP Line	Y	Grind Rail, 52.3 FT	Oct 2021	Oct 2022	\$355,556
25	Rail Grinding MP 1.5 - MP 62 AS Line	Y	Grind Rail, 60 FT	Sep 2021	Oct 2021	\$738,464
29	Rail Grinding MP 1.9-20.2 AH Line	Y	Grind Rail, 18 FT	Oct 2021	Oct 2022	\$300,855
29	Rail Grinding MP 20.2 - 35.3 AH Line	Y	Grind Rail, 15 FT	Oct 2021	Oct 2022	\$273,505
30	Rail Grinding MP 35.2 - 104 AH Line	Y	Grind Rail, 69 FT	Oct 2021	Oct 2022	\$410,257
31	Project Control Support	Y	N/A	Oct 2020	Sep 2022	\$32,172
31	Project Management	Y	N/A	Oct 2020	Sep 2022	\$85,794
Grand Total				Oct 2020	Nov 2022	\$6,789,879

CAPITAL RENEWAL PROGRAM

Rail Replacement Program

Owner: Amtrak

Type: Capital Renewal Program

ID Number: C.EN.101856

PMO Level 1: PG00003

General Project Information

Scope	The scope of this program is to establish and maintain a State of Good Repair (SOGR), efficient and safe operation for the systemwide Rail assets to maintain compliance with current regulations and standards. The Rail Replacement Program replaces rail that is approaching the end of its useful life at various location on the NEC. The rail that is being replaced does not meet the horizontal or vertical wear limits as defined by MW1000. This program will replace the highest critical continuous welded rail (CWT) or curve patch first.
Schedule	Oct 2021-Oct 2022

FY22 Plan

Planned Expenditure in FY22	\$12,198,591
Scope of FY22 work	<p>This FY22 program will replace the highest critical continuous welded rail (CWT) or curve patch first. The following FY22 work will be performed:</p> <ul style="list-style-type: none"> The curve patch locations on the NY Line include: - Replacing rail at MP 26.39, and at MP 24.69. The rail on the AZ Line includes: - Replacing rail on the low sided rail on track #2 at Bergen, and Replacing rail on the low sided rail on track #3 at Bergen. On the AB Line the FY 22 planned list includes: Replacing rail at: NED AB Line: Groton(MP124.2) to High Street (MP142.9). Replacing rail on the NED AB Line: Cranston (MP181.2) to Atwells (MP184.2). Replacing rail between Atwells (MP184.2) to ORMS (MP185.6).

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>Rail Replacement Program</i>				Oct 2021	Oct 2022	\$12,198,591
2	Orms to Lawn Interlocking AB Line - Install	Y	Install Rail, CWR (Includes OTM), 1400 FT	Oct 2021	Sep 2022	\$706,623
3	Atwells to Orms Interlocking AB Line - Install	Y	Install Rail, CWR (Includes OTM), 4800 FT	Oct 2021	Sep 2022	\$1,061,033
4	Groton to High Street Interlocking Track 1 AB Line - Install	Y	Install Rail, CWR (Includes OTM), 6400 FT	Oct 2021	Sep 2022	\$1,136,209
5	Shoreline Junction to Branford Interlocking AB Line - Install	Y	Install Rail, CWR (Includes OTM), 12800 FT	Oct 2021	Sep 2022	\$1,843,261
12	Bergen Curve Track 2 High Rail MP 2.94 AZ Line	Y	Install Rail, CWR (Includes OTM), 3200 FT	Oct 2021	Oct 2022	\$375,340
12	Bergen Curve Track 3 High Rail MP 2.94 AZ Line	Y	Install Rail, CWR (Includes OTM), 3200 FT	Oct 2021	Sep 2022	\$375,340
20	General Foods Track Installs AP Line MP 37.4	Y	Install Rail, CWR (Includes OTM), 4200 FT	Oct 2021	Sep 2022	\$555,218
20	Newcastle Secondary Track Install AP Line MP 29.7	Y	Install Rail, CWR (Includes OTM), 5200 FT	Oct 2021	Sep 2022	\$680,775
20	Wilmington Yard Track Installs AP Line MP25.45	Y	Install Rail, CWR (Includes OTM), 6800 FT	Oct 2021	Sep 2022	\$900,968

CAPITAL RENEWAL PROGRAM

Rail Replacement Program (continued)

Owner: Amtrak

Type: Capital Renewal Program

ID Number: C.EN.101856

PMO Level 1: PG00003

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
22	Clorox Rail Installs AP Line MP 68.3	Y	Install Rail, CWR (Includes OTM), 5400 FT	Oct 2021	Sep 2022	\$713,500
22	Perryville NS Wye Tracks Install AP Line MP 59.5	Y	Install Rail, CWR (Includes OTM), 6400 FT	Oct 2021	Sep 2022	\$848,601
22	Perryville Yard MP 58.5 C Track Install	Y	Install Rail, CWR (Includes OTM), 4000 FT	Oct 2021	Sep 2022	\$529,035
22	Perryville Yard MP 58.5 E Track Install	Y	Install Rail, CWR (Includes OTM), 3600 FT	Oct 2021	Sep 2022	\$475,595
22	Perryville Yard MP 58.5 I Track Install	Y	Install Rail, CWR (Includes OTM), 2400 FT	Oct 2021	Sep 2022	\$319,566
25	Mill River to Shoreline Junction Interlocking AB Line - Install	Y	Install Rail, CWR (Includes OTM), 12800 FT	Oct 2021	Nov 2021	\$1,538,115
31	Project Control Support	Y	N/A	Oct 2021	Sep 2022	\$42,898
31	Project Management	Y	N/A	Oct 2021	May 2022	\$96,514
Grand Total				Oct 2021	Oct 2022	\$12,198,591

CAPITAL RENEWAL PROGRAM

Rolling Stock Heavy Overhaul Program

Owner: Amtrak

Type: Capital Renewal Program

ID Number: C.EN.101456

PMO Level 1: PG00055

General Project Information

Scope	The scope of the Engineering Rolling Stock Heavy Overhaul program is to overhaul Maintenance of Way (M/W) rolling stock fleet, including ballast cars, side dump cars, concrete tie cars, and other ad hoc overhaul or rebuild needs, to establish and maintain a State of Good Repair, and efficient and safe operation for engineering rolling stock, in order to remain compliant with current regulations and standards.
Schedule	Oct 2021-Sep 2022

FY22 Plan

Planned Expenditure in FY22	\$2,669,794
Scope of FY22 work	In FY22, the scope for the Engineering Rolling Stock Heavy Overhaul program includes the overhaul of at least three different types of equipment. First, it is expected that 14 tie cars will be overhauled within the year, however, this is entirely dependent on staffing. Next, there are 5 side dump cars that will be overhauled in FY22. The completion of this task is also dependent on staffing. Finally, 21 hopper cars are currently being overhauled, and are expected to be completed and delivered by 11/30/2021.

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>Rolling Stock Heavy Overhaul Program</i>				Oct 2021	Sep 2022	\$2,669,794
31	Engineering Equipment Overhaul - Rolling Stock Heavy Overhaul	N	N/A	Oct 2021	Sep 2022	\$2,669,794
Grand Total				Oct 2021	Sep 2022	\$2,669,794

CAPITAL RENEWAL PROJECT

Sellers Avenue Bridge Reconstruction

Owner: Amtrak

Type: Capital Renewal Project

ID Number: C.EN.101931

PMO Level 1: P000206

General Project Information

Scope	A PennDOT District 6 3rd party bridge reconstruction project. Amtrak C&S department's construction will consist of relocation of the existing signal to a new location, as well as relocation of all connecting service lines to the signal and signal hut. Amtrak ET department's construction will consist of the installation of a new portal structure and detachment of the overhead lines from the bridge and reprofile the overhead lines. 3rd party construction will require RWP during demo and replacement. Local and State agencies will extend the closure of the bridge for vehicle and pedestrian usage until Amtrak commits to supporting this construction.
Schedule	Oct 2021-Sep 2024

FY22 Plan

Planned Expenditure in FY22	\$1,037,972
Scope of FY22 work	Amtrak C&S construction - Relocation signal, relocate underground service lines to signal, signal hut and box. Amtrak ET construction - Installation of new portal structure, reprofile overhead, remove and temporarily bond new ped bridge. Amtrak RWP for the demolition of existing bridge, installation of new temporary ped bridge, installation of shielding

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>Sellers Avenue Bridge Reconstruction</i>				<i>Oct 2021</i>	<i>Sep 2024</i>	<i>\$1,037,972</i>
19	Design Support	N	N/A	Oct 2021	Sep 2022	\$379,163
19	ET Construction	N	N/A	Oct 2021	Sep 2022	\$541,914
19	Project Control Support	N	N/A	Oct 2021	Sep 2024	\$10,178
19	Project Management	N	N/A	Oct 2021	Sep 2024	\$106,717
Grand Total				Oct 2021	Sep 2024	\$1,037,972

CAPITAL RENEWAL PROJECT

Shaws Cove CT Swing Bridge Fender Replacement Project

Owner: Amtrak

Type: Capital Renewal Project

ID Number: C.EN.101584

PMO Level 1: P000127

General Project Information

Scope	The scope of this project is to replace the existing bridge fenders at Shaw's cove. The completion of this work will ensure efficient and safe operation of Amtrak's assets and infrastructure, to maintain compliance with current regulations and standards. The work performed under this project includes the design, permitting, construction, testing, accepting and closeout the replacement of 1140 linear feet of existing timber fender system including installation of navigation lighting and power cables.
Schedule	Oct 2020-Dec 2022

FY22 Plan

Planned Expenditure in FY22	\$4,300,061
Scope of FY22 work	Complete re-design of fender system upgrade. Start procurement of contractor based on revised design. Revise and re-submit applications for environmental permits where necessary.

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>Shaws Cove CT Swing Bridge Fender Replacement Project</i>				<i>Oct 2020</i>	<i>Dec 2022</i>	<i>\$4,300,059</i>
5	B&B Construction	Y	N/A	May 2021	Jul 2022	\$25,249
5	C&S Construction	Y	N/A	May 2021	Jul 2022	\$63,472
5	Construction Design Services	Y	N/A	Dec 2020	Dec 2021	\$19,043
5	Construction Management	Y	N/A	Oct 2020	Jul 2022	\$187,948
5	Contractor	Y	N/A	May 2021	Jul 2022	\$3,627,683
5	Contractor Construction Management	Y	N/A	Mar 2021	Dec 2022	\$235,747
5	ET Construction	Y	N/A	May 2021	Jul 2022	\$17,209
5	Project Management	Y	N/A	Oct 2020	Dec 2022	\$28,634
5	RWP Protection	Y	N/A	May 2021	Oct 2022	\$95,076
Grand Total				Oct 2020	Dec 2022	\$4,300,059

CAPITAL RENEWAL PROJECT

Signal System Upgrade to 562 - County To Elmora Project

Owner: Amtrak

Type: Capital Renewal Project

ID Number: C.EN.101817

PMO Level 1: P000129

General Project Information

Scope	The scope of this project is to design, supply, procure, install, test, commission, accept, and closeout a new Rule 562 cab no wayside signal system between County Interlocking MP 32.8 and Elmora Interlocking MP 14.7. Completion of this work will ensure efficient and safe operation of Amtrak's assets and infrastructure, to maintain compliance with current regulations and standards. The work performed under this project includes replacement of existing Interlocking signals with new signal head with clear block aspects and retire all intermediate signals between County and Elmora. The existing signal system in operation between County and Elmora is a traditional NORAC rule 251/261 compliant system. Tracks 1 and A are signaled in compliance with NORAC rule 251, signaled for eastbound traffic, only; tracks 2 and 3 are signaled in compliance with NORAC rule 261, signaled for traffic in both directions; tracks 4 and B are signaled in compliance with NORAC rule 251, signaled for westbound traffic, only
Schedule	Oct 2018-Sep 2027

FY22 Plan

Planned Expenditure in FY22	\$4,528,737
Scope of FY22 work	The FY22 scope is to complete the trenching design for the plow train (currently at 60%) between County to Iselin. Design of Signal Instrument Houses will continue and anticipate three houses being designed, fabricated, and installed between County and Lincoln. C&S Production will continue working County to Lincoln, completing cross-track digs, running conduits, and installing three Signal Instrument Houses in the field.

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>Signal System Upgrade to 562 - County To Elmora Project</i>				<i>Oct 2018</i>	<i>Sep 2027</i>	<i>\$4,528,737</i>
12	C&S Construction	Y	N/A	Oct 2018	Sep 2022	\$2,209,142
12	Construction E.T.	Y	N/A	Oct 2019	Jul 2024	\$64,345
12	Construction Management	Y	N/A	Oct 2018	Jul 2027	\$57,911
12	Design Review	Y	N/A	Jan 2020	Jun 2022	\$23,550
12	Design Services	Y	N/A	Oct 2018	Sep 2022	\$321,721
12	Final Design	Y	N/A	Oct 2018	Jun 2022	\$646,376
12	Lancaster Shop Fabrication	Y	N/A	Aug 2019	Jun 2022	\$1,126,020
12	Project Management	Y	N/A	Jul 2019	Sep 2027	\$64,344
12	Project Management Support	Y	N/A	Oct 2021	Sep 2027	\$15,328
Grand Total				Oct 2018	Sep 2027	\$4,528,737

CAPITAL RENEWAL PROJECT

Spring (Springfield, MA) Interlocking Renewal Project

Owner: Amtrak

Type: Capital Renewal Project

ID Number: C.EN.101777

PMO Level 1: P000046

General Project Information

Scope	The scope of this project is the design, procurement, permitting, construction, testing, acceptance and closeout of Spring Interlocking located just west of Springfield Station. This project plans to separate Spring interlocking from Sweeny Interlocking with the addition of a standalone CIH at Spring. Interlocking renewal also includes a new No. 8 crossover connecting tracks 2A and 4; replacement and reconfiguration of turnouts at Sweeny; rail, ties, ballast, signal transformers, signals cables, dwarf signals, switch heaters, switch machines, signal houses, and CETC/PTC modifications. The completion of this work will ensure efficient and safe operation of Amtrak's assets and infrastructure, to maintain compliance with current regulations and standards.
Schedule	Oct 2019-Sep 2024

FY22 Plan

Planned Expenditure in FY22	\$2,070,420
Scope of FY22 work	Progress design to 90% level with consultant. Begin organizing LL material lists and orders for Lancaster Shop and track construction. Submit and approve FRA network configuration schematics with Amtrak, 3rd party, and FRA sign off. Hold at least the pre-app meeting with MASSDEM and other required agencies for environmental permitting. On-board CM services contractor at 60% submission level for constructibility analysis.

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>Spring (Springfield, MA) Interlocking Renewal Project</i>				<i>Oct 2019</i>	<i>Sep 2024</i>	<i>\$2,070,420</i>
25	Amtrak Internal Design Review	Y	N/A	May 2021	Sep 2022	\$82,771
25	C&S Design	Y	N/A	Jun 2021	Dec 2021	\$1,038,083
25	C&S Force Account - Labor and Materials	Y	N/A	Oct 2019	Sep 2024	\$772,255
25	Construction Management	Y	N/A	Oct 2019	Sep 2024	\$25,638
25	Force Account Support	Y	N/A	Jun 2021	Aug 2022	\$112,177
25	Project Management	Y	N/A	Oct 2020	Feb 2022	\$39,496
Grand Total				Oct 2019	Sep 2024	\$2,070,420

CAPITAL RENEWAL PROJECT

Spuyten Duyvil Fenders System Upgrades Project

Owner: Amtrak

Type: Capital Renewal Project

ID Number: C.EN.101791

PMO Level 1: P000049

General Project Information

Scope	The scope of this project is to ensure efficient and safe operation of Amtrak's assets and infrastructure, to maintain compliance with current regulations and standards and will replace the east fender system which has outlived its useful life. This bridge connects New York to New England along the Northeast Corridor and the fender system protects the bridge piers in the water from collisions with vessels or debris. The existing timber fender system is extremely deteriorated from fires and vessel collisions. At current conditions the timber fender system may not withstand an impact from a vessel and replacement of the fender system will provide Amtrak with greater reliability and protection to the bridge in the event of any vessel collisions. This work includes replacement of the fender system with a new steel structure fender system less prone to fires and relocating and/or replacing power and communication cables that operate the bridge.
Schedule	Sep 2019-Sep 2022

FY22 Plan

Planned Expenditure in FY22	\$5,758,058
Scope of FY22 work	Complete construction of new steel fender system, install walkways and navigational lights, testing & acceptance of fender system, power cable replacement, and project close-out.

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>Spuyten Duyvil Fenders System Upgrades Project</i>				<i>Sep 2019</i>	<i>Sep 2022</i>	<i>\$5,758,058</i>
27	C&S Support	Y	N/A	Sep 2021	Jan 2022	\$72,679
27	Construction Design Services	Y	N/A	Oct 2020	Jan 2022	\$206,553
27	Construction Management	Y	N/A	Jul 2021	Jan 2022	\$200,236
27	Construction Services	Y	N/A	Nov 2020	Apr 2022	\$5,065,855
27	Project Management	Y	N/A	Sep 2019	May 2022	\$42,359
27	Project Management Support	Y	N/A	Aug 2020	Apr 2022	\$11,809
27	Testing & Commissioning	Y	N/A	Oct 2021	Sep 2022	\$26,126
27	Track Support	Y	N/A	Sep 2021	Jan 2022	\$132,441
Grand Total				Sep 2019	Sep 2022	\$5,758,058

CAPITAL RENEWAL PROJECT

Stations and Facilities Signage

Owner: Amtrak

Type: Capital Renewal Project

ID Number: C.RE.100020

PMO Level 1:

General Project Information

Scope	This program would replace damaged signs, install new signs and improve passenger communication at rail and Thruway bus stations throughout the network. This will increase safety, improvement passenger experience and improve CSI scores.
Schedule	Oct 2021-Sep 2022

FY22 Plan

Planned Expenditure in FY22	\$1,444,078
Scope of FY22 work	This program includes new and replacement of damaged signs at station and facility signage throughout the Amtrak network related to safety and passenger experience. These signs will include new platform location signs, wayfinding, parking zones, safety signs, passenger information and station waiting area signs.

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>Stations and Facilities Signage</i>				Oct 2021	Sep 2022	\$1,444,078
31	(blank)	N	N/A	Oct 2021	Sep 2022	\$1,444,078
Grand Total				Oct 2021	Sep 2022	\$1,444,078

CAPITAL RENEWAL PROJECT

Stations Systemwide Escalator Safety Initiative - PM

Owner: Amtrak

Type: Capital Renewal Project

ID Number: C.EN.100462

PMO Level 1:

General Project Information

Scope	ESCALATOR SAFETY INITIATIVE Installation of audio and visual devices on the escalators systemwide. This will include installing signage and speakers with pre-recording safety messages on the escalators. 30th Street 9 Union Station D.C.- 5 Union Station Chicago 12 RTE 128 4 Providence 2 New Carrollton 2 Union station Baltimore 1 Wilmington 2 Pittsburgh 1 Albany 2 Schenectady 2 Rochester 2
Schedule	Oct 2020-Sep 2022

FY22 Plan

Planned Expenditure in FY22	\$407,587
Scope of FY22 work	Install safety audio messaging in PHL and MTH

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>Stations Systemwide Escalator Safety Initiative - PM</i>				<i>Oct 2020</i>	<i>Sep 2022</i>	<i>\$407,587</i>
31	(blank)	Y	N/A	Oct 2020	Sep 2022	\$407,587
Grand Total				Oct 2020	Sep 2022	\$407,587

CAPITAL RENEWAL PROJECT

Sunnyside Yard - Oil/PCB Remediation

Owner: Amtrak

Type: Capital Renewal Project

ID Number: C.EV.100033

PMO Level 1:

General Project Information

Scope	Prior operations, beginning in the 1930's and continuing in to the 1980's caused PCB and diesel fuel releases which contaminated the subsoil and sewer system at Sunnyside Yard. The property was divided into six Operable Units (OUs) for remedial action. OUs 1, 2, 3, 5 and 6 are complete for remediation and are in monitoring phase. Remediation of OU4 (soil hot spots) will continue. This project is mandatory based on an Order on Consent signed with the New York State Department of Environmental Conservation. This is a recurring annual maintenance project. Milestones will only be tracked for Fiscal Year 2022. Out-year funding is planned.
Schedule	Oct 2021-Sep 2022

FY22 Plan

Planned Expenditure in FY22	\$53,620
Scope of FY22 work	Monitoring of site, groundwater and sewer system. Support of Engineering work as it proceeds in Yard. Work with Acela 21 Team on their work in SSY.

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>Sunnyside Yard - Oil/PCB Remediation</i>				<i>Oct 2021</i>	<i>Sep 2022</i>	<i>\$53,620</i>
9	(blank)	Y	N/A	Oct 2021	Sep 2022	\$53,620
Grand Total				Oct 2021	Sep 2022	\$53,620

CAPITAL RENEWAL PROJECT

Sunnyside Yard - Service Platform Upgrades

Owner: Amtrak

Type: Capital Renewal Project

ID Number: C.EN.101433

PMO Level 1: P000016

General Project Information

Scope	The scope of this project is to ensure efficient and safe operation of Amtrak's assets and infrastructure to maintain compliance with current regulations and standards. This project will rehabilitate the 31 service platforms in Sunnyside Yard which have deteriorated over the years. Many of these platforms are deteriorated and in poor condition, posing a serious safety risk to the end users. Platforms are low-level constructed of concrete and asphalt, contain trenches with water supply lines and/or have the supply lines buried directly. Platforms are used on a 24/7 basis by the Mechanical Department to access and maintain Amtrak's fleet. Replacement of the platforms will ensure a safe travel/work surface for employees as well as a continuous supply of potable and non-potable water to clean and supply the rolling stock. This work includes rebuilding platform edges, replacing asphalt and concrete surfaces, replacing the trenching system and covers, the water supply lines, and water hydrants or boxes. Heat tracing of the water supply lines will be provided within the trenches to prevent freezing in cold weather conditions.
Schedule	Dec 2020-Sep 2023

FY22 Plan

Planned Expenditure in FY22	\$2,897,627
Scope of FY22 work	FY22 scope will include continuing 30% design for remaining 11 service platforms, commence procurement of a design builder which will complete final design and construction, and complete a track outage plan in coordination with transportation and mechanical departments at Sunnyside Yard. Project will also coordinate with the Ready Tracks Project.

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>Sunnyside Yard - Service Platform Upgrades</i>				<i>Dec 2020</i>	<i>Sep 2023</i>	<i>\$2,897,627</i>
9	Contractor Services	Y	N/A	Oct 2021	Sep 2022	\$1,072,402
9	Project Management	N	N/A	Oct 2021	Sep 2022	\$128,688
9	Project Support	N	N/A	Oct 2021	Sep 2022	\$12,868
9	Water Design Contractor	N	N/A	Mar 2021	Sep 2023	\$75,068
9	Water Service Force Account	N	N/A	Dec 2020	Mar 2023	\$1,608,601
Grand Total				Dec 2020	Sep 2023	\$2,897,627

CAPITAL RENEWAL PROJECT

Sunnyside Yard Frequency Converter Upgrade Project

Owner: Amtrak

Type: Capital Renewal Project

ID Number: C.EN.101239

PMO Level 1: P000077

General Project Information

Scope	The scope of this project is for the converter replacement at the Sunnyside Yard Static Frequency Converter. The static frequency converters are approaching their end of 20 year service life and thus need to be replaced to not impact Amtrak service. The project will provide Amtrak a reliable power network and give Amtrak the capacity to increase train service for future growth. Full scope includes Design, supply, procure, install, test, commission, accept, and closeout 4 new static frequency converters, with sitework, switches and controls, RTU, SCADA including demolition of the existing frequency converter. The completion of this work will ensure efficient and safe operation of Amtrak's assets and infrastructure, to maintain compliance with current regulations and standards.
Schedule	Oct 2020-Sep 2027

FY22 Plan

Planned Expenditure in FY22	\$8,450,304
Scope of FY22 work	Issue award and NTP to design builder, progress project design to 60% and 90% completion, commence field survey and coordination with power utilities, commence procurement of frequency converter equipment and material.

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>Sunnyside Yard Frequency Converter Upgrade Project</i>				<i>Oct 2020</i>	<i>Sep 2027</i>	<i>\$8,450,303</i>
9	Construction Management	Y	N/A	Aug 2021	May 2027	\$268,096
9	Construction Professional Services	Y	N/A	Oct 2021	Sep 2022	\$268,096
9	Contractor	Y	Install / Renew Frequency Converter, 1 EA	Mar 2021	Sep 2027	\$7,506,800
9	ET Construction	Y	N/A	Mar 2021	Sep 2027	\$107,240
9	Final Design Review	Y	N/A	Mar 2021	Apr 2023	\$64,146
9	Force Account Support	Y	N/A	Mar 2021	Apr 2023	\$64,344
9	Project Management	Y	N/A	Oct 2020	Feb 2025	\$128,688
9	Project Management Support	Y	N/A	Oct 2020	Feb 2025	\$16,085
9	RWP Protection	Y	N/A	Mar 2021	Sep 2027	\$26,809
Grand Total				Oct 2020	Sep 2027	\$8,450,303

CAPITAL RENEWAL PROJECT

Sunnyside Yard S4 Substation Relocation/Upgrades Project

Owner: Amtrak

Type: Capital Renewal Project

ID Number: C.EN.101792

PMO Level 1: P000051

General Project Information

Scope	The scope of this project is to ensure efficient and safe operation of Amtrak's network by replacing the S4 substation asset at Sunnyside Yard that is at the end of its useful life while also supporting future expansion within the yard by increasing capacity and allowing for new track alignments. The current S4 substation at Sunnyside Yard has outlived its useful life and is inadequate to provide the future power requirements needed at the wayside power cabinets. The existing substation is also located in the alignment of the future Ready Tracks project and Sunnyside Expansion project. This project will replace the entire substation with increased capacity at a location that does not conflict with the on-going track projects in the yard. This work includes the final design, fabrication, installation and testing of a new substation with increased capacity, followed by the decommissioning and demolition of the existing substation.
Schedule	Nov 2017-Apr 2022

FY22 Plan

Planned Expenditure in FY22	\$2,524,464
Scope of FY22 work	The scope of work for FY22 is to finish installation of the new substation on top of the completed foundations and perform commissioning. Once the new substation is commissioned and cut over, the existing substation will be demolished. Project to be closed out in FY 22. The completion of this work in FY22 will increase the power capacity of the yard and allow for track realignment as part of the Ready Tracks project.

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>Sunnyside Yard S4 Substation Relocation/Upgrades Project</i>				<i>Nov 2017</i>	<i>Apr 2022</i>	<i>\$2,524,463</i>
9	B&B Construction	N	N/A	Jun 2021	Jan 2022	\$25,725
9	Construction Management	N	N/A	Dec 2018	Dec 2021	\$2,324
9	Contractor	N	N/A	Mar 2020	Feb 2022	\$2,332,470
9	ET Construction	N	N/A	Jun 2021	Jan 2022	\$93,759
9	Project Management	N	N/A	Nov 2017	Apr 2022	\$21,220
9	Project Management Support	N	N/A	Oct 2020	Apr 2022	\$6,070
9	Testing & Commissioning	N	N/A	Jul 2021	Jan 2022	\$42,896
Grand Total				Nov 2017	Apr 2022	\$2,524,463

CAPITAL RENEWAL PROJECT

Sunnyside Yard Watermain Upgrades

Owner: Amtrak

Type: Capital Renewal Project

ID Number: C.EN.101913

PMO Level 1: P000176

General Project Information

Scope	The scope of this project is to replace and improve the water mains in Sunnyside Yard that supply combined potable and fire protection water for all facilities within the yard. The existing water main and existing 12" combined potable water and fire protection water supply line at Sunnyside Yard have outlived their useful lives and have been in service since 1980 and require replacement. Due to corrosion and deterioration of the existing ductile iron pipe the distribution supply is experiencing pressure loss within the system due to leakage. The lack of pressure poses a significant risk to Amtrak employees and assets in the event of fire. In addition, the existing supply is not sufficiently sized to support the new facilities that are being constructed in the yard. The water mains must be replaced in order to commission the new facilities and adequately supply fire hydrants within the yard. This work includes design of a new layout of the water mains and transfer points to each Sunnyside Yard building to minimize pressure drops, maintain a constant water flow loop, avoid dead legs, and water stagnation; replacement of old water mains; and construction of new water main service.
Schedule	Oct 2020-Mar 2023

FY22 Plan

Planned Expenditure in FY22	\$6,728,838
Scope of FY22 work	The scope of work for FY22 is to award the contract for the construction of the new water main service in Sunnyside Yard and begin construction. FY work will include submittal review, material procurement, and start the replacement process of the water mains

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>Sunnyside Yard Watermain Upgrades</i>				<i>Oct 2020</i>	<i>Mar 2023</i>	<i>\$6,728,838</i>
9	B&B Construction	N	N/A	Apr 2021	Sep 2022	\$290,968
9	Construction Contractor	N	N/A	Apr 2021	Sep 2022	\$4,545,027
9	Construction Design	N	N/A	Apr 2021	Mar 2023	\$96,516
9	Construction Management	N	N/A	Apr 2021	Mar 2023	\$750,680
9	Final Design	N	N/A	Mar 2021	Dec 2021	\$148,200
9	Project Management	N	N/A	Oct 2020	Mar 2023	\$128,688
9	Project Management Support	N	N/A	Oct 2020	Mar 2023	\$21,448
9	RWP Protection	N	N/A	Apr 2021	Sep 2022	\$350,864
9	Track Construction	N	N/A	Apr 2021	Sep 2022	\$396,447
Grand Total				Oct 2020	Mar 2023	\$6,728,838

CAPITAL RENEWAL PROGRAM

TLS Concrete Tie Replacement Program

Owner: Amtrak

Type: Capital Renewal Program

ID Number: C.EN.101652

PMO Level 1: PG00057

General Project Information

Scope	The scope of this program is to establish and maintain a State of Good Repair (SOGR), efficient and safe operation for track assets to maintain compliance with current regulations and standards. This work includes using the Track Laying System (TLS) which is a mechanized out-of-face rail and concrete tie replacement unit utilizing the Track Laying Machine (TLM). TLS Blue is a 129 person team made up of five gangs (Head-End, TLM, Clipping, Surfacing and Material Handling). In addition, TLS is typically supported by C&S, ET, B&B, Division Track, T&E and Holland Welders. This work will be performed on a routine or annual basis.
Schedule	Oct 2016-Sep 2022

FY22 Plan

Planned Expenditure in FY22	\$41,856,259
Scope of FY22 work	FY22 the following work will be consist of performing complete renewal of concrete tie and continuous welded rail for aging infrastructure that is at end of life between Bacon to Prince (Track 3) AP Line 51 to AP Line 57.1 and Oak to Bush (Track 4) AP Line 63.1 to AP Line 71.5

CAPITAL RENEWAL PROGRAM

TLS Concrete Tie Replacement Program (continued)

Owner: Amtrak

Type: Capital Renewal Program

ID Number: C.EN.101652

PMO Level 1: PG00057

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>TLS Concrete Tie Replacement Program</i>				Oct 2016	Sep 2022	\$41,856,258
21	Bacon to Prince Track 3 TLS AP Line - BB Support	Y	N/A	Oct 2021	Sep 2022	\$433,355
21	Bacon to Prince Track 3 TLS AP Line - C&S Support	Y	N/A	Oct 2021	Sep 2022	\$1,323,759
21	Bacon to Prince Track 3 TLS AP Line - ET Support	Y	N/A	Oct 2021	Sep 2022	\$370,966
21	Bacon to Prince Track 3 TLS AP Line - Install	Y	Install Ties, Concrete, 16130 EA / Install Rail, CWR (Includes OTM), 64522 FT	Oct 2021	Sep 2022	\$13,305,252
21	Bacon to Prince Track 3 TLS AP Line - T&E Support	Y	N/A	Oct 2021	Jun 2022	\$375,174
22	Oak to Bush Track 4 TLS AP Line - BB Support	Y	N/A	Oct 2021	Sep 2022	\$630,335
22	Oak to Bush Track 4 TLS AP Line - C&S Support	Y	N/A	Oct 2021	Sep 2022	\$1,663,889
22	Oak to Bush Track 4 TLS AP Line - ET Support	Y	N/A	Oct 2021	Sep 2022	\$539,586
22	Oak to Bush Track 4 TLS AP Line - Install	Y	Install Ties, Concrete, 22044 EA / Install Rail, CWR (Includes OTM), 88176 FT	Oct 2021	Sep 2022	\$17,773,592
22	Oak to Bush Track 4 TLS AP Line - T&E Support	Y	N/A	Oct 2021	Sep 2022	\$545,707
31	CWR Distribution	Y	N/A	Oct 2021	Sep 2022	\$3,988,760
31	Project Control Support	Y	N/A	Oct 2021	Sep 2022	\$21,448
31	Project Management	Y	N/A	Oct 2021	Sep 2022	\$176,947
31	Survey & Design	Y	N/A	Oct 2021	Sep 2022	\$162,775
31	TLS Equipment Maintenance	Y	N/A	Oct 2016	Sep 2022	\$272,357
31	TLS Equipment Rental	Y	N/A	Mar 2020	Sep 2022	\$272,357
Grand Total				Oct 2016	Sep 2022	\$41,856,258

CAPITAL RENEWAL PROGRAM

Total Track Renewal Program

Owner: Amtrak

Type: Capital Renewal Program

ID Number: C.EN.101871

PMO Level 1: PG00061

General Project Information

Scope	The scope of this program is to establish and maintain a State of Good Repair (SOGR), efficient and safe operation for the systemwide Track assets to maintain compliance with current regulations and standards. Under this program all old infrastructure is removed and replaced with all new trackwork to bring the specific location back to a state of good repair. This work includes targeting specific locations of the right of way and replacing the entirety of the track infrastructure down to the subgrade or concrete slab. This work will be performed on a routine or annual basis.
Schedule	Aug 2020-Sep 2022

FY22 Plan

Planned Expenditure in FY22	\$10,398,887
Scope of FY22 work	The full replacement of concrete embedded block tie track, include rail, fastening at 30th Street Station on tracks 5 and 6.

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>Total Track Renewal Program</i>				<i>Aug 2020</i>	<i>Sep 2022</i>	<i>\$10,398,887</i>
17	30th Street Station Block Tie Replacement Track 10	Y	Install Block Ties, Wood, 1526 EA	May 2021	Oct 2021	\$214,480
17	30th Street Station Block Tie Replacement Track 5	Y	Install Block Ties, Concrete, 1526 EA	Oct 2021	Sep 2022	\$5,086,284
17	30th Street Station Block Tie Replacement Track 6	Y	Install Block Ties, Concrete, 1526 EA	Oct 2021	Sep 2022	\$5,049,866
31	Program Management	Y	N/A	Aug 2020	Sep 2022	\$16,085
31	Project Control Support	Y	N/A	Aug 2020	Sep 2022	\$32,172
Grand Total				Aug 2020	Sep 2022	\$10,398,887

CAPITAL RENEWAL PROGRAM

Track Rehabilitation Program

Owner: Amtrak

Type: Capital Renewal Program

ID Number: C.EN.101859

PMO Level 1: PG00063

General Project Information

Scope	The scope of this program is to establish and maintain a State of Good Repair (SOGR), efficient and safe operation for Amtrak System Track assets to maintain compliance with current regulations and standards. This track work performed under this program includes the replacement of various types of assets within the track infrastructure at specified stations and yard locations. This work includes but is not limited to replacing; ties, rail, crossings, ballast, and special trackwork to maintain a state of good repair. This work will be performed on a routine or annual basis.
Schedule	Apr 2021-Jun 2023

FY22 Plan

Planned Expenditure in FY22	\$4,625,399
Scope of FY22 work	<p>In FY22 track rehabilitation is being done at a various locations across the North East Corridor (NEC) and Central Divisions. Rehabilitation work is being performed at the following locations:</p> <ul style="list-style-type: none"> • At Brighton Park, we are rehabbing the Run Around track (ties and rail) and the DF on the Car Wash track. • In Chicago, we are replacing switches at CP Roosevelt and the DF on the Car Wash track. • In Tampa Bay, we are completely replacing both Station tracks. In Sanford, we are replacing the DF on the Wheel Storage and Drop Table tracks and installing a new Car Wash Runaround and three storage tracks. • On the MI line, we are replacing three sidings with new ties and fit rail and replacing switches in MI City Yard. On the NEC, we are replacing switches at Bear, Race Street and Wilmington Yards and completing the design for the future TLS staging area in Groton Yard.

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>Track Rehabilitation Program</i>				<i>Apr 2021</i>	<i>Jun 2023</i>	<i>\$4,625,400</i>
4	Groton Yard Track Improvements	N	N/A	Apr 2021	May 2022	\$160,860
12	Newark, NJ Hunter Yard Lead Track Improvement	N	Install Wood Turnout, 2 EA	Oct 2021	Nov 2021	\$720,523
20	Wilmington Shops North Switch Install	N	Install Wood Turnout, 4 EA	Nov 2021	Feb 2022	\$3,204,864
20	Wilmington Yard Track Rehabilitation	N	Install Wood Turnout, 2 EA	Jun 2021	Jun 2023	\$426,549
31	Program Management	N	N/A	Oct 2021	Sep 2022	\$85,794
31	Project Control Support	N	N/A	Oct 2021	Sep 2022	\$26,809
Grand Total				Apr 2021	Jun 2023	\$4,625,400

CAPITAL RENEWAL PROGRAM

Track Undercutting Program

Owner: Amtrak

Type: Capital Renewal Program

ID Number: C.EN.100269

PMO Level 1: PG00062

General Project Information

Scope	This program will move the railroad toward a state of good repair (SOG) by eliminating component failures and reducing maintenance costs. Undercutting will reduce slow orders occurring where the track geometry has a rapid degradation, thereby decreasing service delays. In addition, the life of the rail and ties will be preserved, reducing costly spot replacements. This work will be performed on a routine or annual basis to ensure compliance.
Schedule	Oct 2016-Oct 2022

FY22 Plan

Planned Expenditure in FY22	\$23,148,176
Scope of FY22 work	Out-of-face Undercutting between Bacon to Prince (Tk 3) and Oak to Bush (Tk 4). In total, approximately 75,500' of track will be undercut in FY'22.

CAPITAL RENEWAL PROGRAM

**Track Undercutting Program
(continued)**

Owner: Amtrak

Type: Capital Renewal Program

ID Number: C.EN.100269

PMO Level 1: PG00062

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>Track Undercutting Program</i>				Oct 2016	Oct 2022	\$23,148,177
21	Bacon to Prince Track 3 Undercutter AP Line - B&B Support	Y	N/A	Oct 2021	Sep 2022	\$242,999
21	Bacon to Prince Track 3 Undercutter AP Line - C&S Support	Y	N/A	Oct 2021	Sep 2022	\$402,149
21	Bacon to Prince Track 3 Undercutter AP Line - ET Support	Y	N/A	Oct 2021	Sep 2022	\$78,936
21	Bacon to Prince Track 3 Undercutter AP Line - Install	Y	Undercut Track, Out of Face, 31574 FT	Oct 2021	Sep 2022	\$10,152,792
21	Bacon to Prince Track 3 Undercutter AP Line - T&E Support	Y	N/A	Oct 2021	Sep 2022	\$210,376
22	Oak to Bush Track 4 Undercutter AP Line - B&B Support	Y	N/A	Oct 2021	Sep 2022	\$294,405
22	Oak to Bush Track 4 Undercutter AP Line - C&S Support	Y	N/A	Oct 2021	Sep 2022	\$294,910
22	Oak to Bush Track 4 Undercutter AP Line - ET Support	Y	N/A	Oct 2021	Sep 2022	\$95,633
22	Oak to Bush Track 4 Undercutter AP Line - Install	Y	Undercut Track, Out of Face, 44088 FT	Oct 2021	Sep 2022	\$7,378,743
22	Oak to Bush Track 4 Undercutter AP Line - T&E Support	Y	N/A	Oct 2021	Sep 2022	\$254,878
31	Contingency	Y	N/A	Oct 2016	Sep 2022	\$1,505,651
31	Equipment Maintenance	Y	N/A	Oct 2021	Oct 2022	\$353,213
31	Equipment Rentals	Y	N/A	Oct 2021	Oct 2022	\$1,059,634
31	Future Contracted Services	Y	N/A	Sep 2019	Sep 2022	\$689,635
31	Program Management	Y	N/A	Oct 2021	Oct 2022	\$98,901
31	Project Control Support	Y	N/A	Oct 2021	Sep 2022	\$35,322
Grand Total				Oct 2016	Oct 2022	\$23,148,177

CAPITAL RENEWAL PROJECT

Trenton NJ, - Commuter Yard remediation

Owner: Amtrak

Type: Capital Renewal Project

ID Number: C.EV.100003

PMO Level 1:

General Project Information

Scope	This is a property in Trenton, NJ owned by Amtrak. It was previously used for commuter services, and only recently has Amtrak begun using the yard as an Engineering staging area. New Jersey Department of Environmental Protection (NJDEP) regulations require that East Barracks Yard be investigated and remediated as previous spills have been reported to NJDEP. Unless funded, this facility will remain out of compliance with clean up regulations. The State of New Jersey has been notified of the PCB contamination that's been identified at the site, and Amtrak has an affirmative obligation to investigate and remediate the site. WOOD consulting has been retained as the Licensed Site Remediation Professional (LSRP) for this site on behalf of Amtrak.
Schedule	Oct 2021-Sep 2022

FY22 Plan

Planned Expenditure in FY22	\$2,681,000
Scope of FY22 work	The scope will be cleanup of Amtrak property north of Cook Ave. access road. This work is follow up on other work in area performed in FY 21. This is a recurring annual maintenance project. Milestones will only be tracked for fiscal year 2022. Out-year funding planned.

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>Trenton NJ, - Commuter Yard remediation</i>				<i>Oct 2021</i>	<i>Sep 2022</i>	<i>\$2,681,000</i>
12	(blank)	Y	N/A	Oct 2021	Sep 2022	\$2,681,000
Grand Total				Oct 2021	Sep 2022	\$2,681,000

CAPITAL RENEWAL PROGRAM

Turnout Renewal Program

Owner: Amtrak

Type: Capital Renewal Program

ID Number: C.EN.101860

PMO Level 1: PG00065

General Project Information

Scope	The scope of this program is to establish and maintain a State of Good Repair (SOGR), efficient and safe operation for turnout and crossover assets to maintain compliance with current regulations and standards. This work includes replacement of turnouts and crossovers that are approaching the end of their useful life and are susceptible to failures. This program for the renewal of turnouts and crossovers will take place on the AP, AH, AN, AR, AZ, and AB lines.
Schedule	Nov 2020-Oct 2022

FY22 Plan

Planned Expenditure in FY22	\$73,990,170
Scope of FY22 work	In FY22, our Switch Exchange System production group will replace the #34 crossover at Lehigh Interlocking, the #32, #23, and #E21 crossovers at Mantua Interlocking, the #17 and #9 crossovers at Overbrook Interlocking, the #12, #21, and #W32 crossovers at Girard interlocking, the #127 and #125 crossovers and #123 turnout at Dock Interlocking, and the #W43 crossover at Elmora Interlocking. Our Independent Track South Production group will finish the replacements and associated trackwork at Thorn Interlocking and replace the #12, #23, and #34 crossovers at Baldwin Interlocking, the #12 crossover at Biddle Interlocking, and the #61, #67, and #76 crossovers and #43, and #87 turnouts at Paul Interlocking. In addition, the New England division forces will replace the #21 crossover at Branford Interlocking, the #21 crossover at Lawn Interlocking, the #21 crossover at Orms Interlocking, and the #12 and #21 crossovers on the Empire Line at CP124.

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>Turnout Renewal Program</i>				<i>Nov 2020</i>	<i>Oct 2022</i>	<i>\$73,990,166</i>
2	Lawn Interlocking #21 XO - B&B Support	Y	N/A	Nov 2020	Aug 2022	\$17,013
2	Lawn Interlocking #21 XO - C&S Support	Y	N/A	Nov 2020	Aug 2022	\$292,855
2	Lawn Interlocking #21 XO - Install	Y	Install Concrete Turnout, 2 EA	Nov 2020	Aug 2022	\$1,089,969
2	Lawn Interlocking #21 XO - T&E Support	Y	N/A	Nov 2020	Aug 2022	\$33,662
2	Orms Interlocking 21 XO - B&B Support	Y	N/A	Aug 2021	Oct 2022	\$10,437
2	Orms Interlocking 21 XO - C&S Support	Y	N/A	Aug 2021	Oct 2022	\$161,759
2	Orms Interlocking 21 XO - ET Support	Y	N/A	Aug 2021	Oct 2022	\$22,151
2	Orms Interlocking 21 XO - Install	Y	Install Wood Turnout, 2 EA	Aug 2021	Oct 2022	\$1,385,209
2	Orms Interlocking 21 XO - T&E Support	Y	N/A	Aug 2021	Oct 2022	\$48,249
5	Branford Interlocking 21 XO - B&B Support	Y	N/A	Oct 2021	Sep 2022	\$15,655

CAPITAL RENEWAL PROGRAM

**Turnout Renewal Program
(continued)**

Owner: Amtrak

Type: Capital Renewal Program

ID Number: C.EN.101860

PMO Level 1: PG00065

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
5	Branford Interlocking 21 XO - C&S Support	Y	N/A	Oct 2021	Sep 2022	\$198,640
5	Branford Interlocking 21 XO - ET Support	Y	N/A	Oct 2021	Sep 2022	\$27,689
5	Branford Interlocking 21 XO - Install	Y	Install Wood Turnout, 2 EA	Oct 2021	Sep 2022	\$1,359,544
5	Branford Interlocking 21 XO - T&E Support	Y	N/A	Oct 2021	Sep 2022	\$60,312
12	Dock Drainage Improvements	Y	N/A	Oct 2021	Sep 2022	\$307,551
12	Dock Interlocking 123 TO - B&B Support	Y	N/A	Oct 2021	Sep 2022	\$31,311
12	Dock Interlocking 123 TO - C&S Support	Y	N/A	Oct 2021	Sep 2022	\$476,352
12	Dock Interlocking 123 TO - ET Support	Y	N/A	Oct 2021	Sep 2022	\$20,983
12	Dock Interlocking 123 TO - Install	Y	Install Wood Turnout, 1 EA	Oct 2021	Sep 2022	\$1,020,543
12	Dock Interlocking 123 TO - T&E Support	Y	N/A	Oct 2021	Sep 2022	\$36,187
12	Dock Interlocking 127B TO - B&B Support	Y	N/A	Oct 2021	Sep 2022	\$31,311
12	Dock Interlocking 127B TO - C&S Support	Y	N/A	Oct 2021	Sep 2022	\$281,115
12	Dock Interlocking 127B TO - ET Support	Y	N/A	Oct 2021	Sep 2022	\$20,983
12	Dock Interlocking 127B TO - Install	Y	Install Wood Turnout, 1 EA	Oct 2021	Sep 2022	\$951,613
12	Dock Interlocking 127B TO - T&E Support	Y	N/A	Oct 2021	Sep 2022	\$48,249
12	Dock Interlocking 125 XO - B&B Support	Y	N/A	Oct 2021	Sep 2022	\$37,573
12	Dock Interlocking 125 XO - C&S Support	Y	N/A	Oct 2021	Sep 2022	\$554,447
12	Dock Interlocking 125 XO - ET Support	Y	N/A	Oct 2021	Sep 2022	\$20,983
12	Dock Interlocking 125 XO - Install	Y	Install Wood Turnout, 2 EA	Oct 2021	Sep 2022	\$1,674,349
12	Dock Interlocking 125 XO - T&E Support	Y	N/A	Oct 2021	Sep 2022	\$48,249
12	Dock Interlocking 127A TO - B&B Support	Y	N/A	Oct 2021	Sep 2022	\$15,655
12	Dock Interlocking 127A TO - C&S Support	Y	N/A	Oct 2021	Sep 2022	\$281,115
12	Dock Interlocking 127A TO - ET Support	Y	N/A	Oct 2021	Sep 2022	\$15,736
12	Dock Interlocking 127A TO - Install	Y	Install Wood Turnout, 1 EA	Oct 2021	Sep 2022	\$989,964

CAPITAL RENEWAL PROGRAM

**Turnout Renewal Program
(continued)**

Owner: Amtrak

Type: Capital Renewal Program

ID Number: C.EN.101860

PMO Level 1: PG00065

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
12	Dock Interlocking 127A TO - T&E Support	Y	N/A	Oct 2021	Sep 2022	\$36,187
12	Elmora Interlocking W43 XO - B&B Support	Y	N/A	Oct 2021	Sep 2022	\$5,964
12	Elmora Interlocking W43 XO - C&S Support	Y	N/A	Oct 2021	Sep 2022	\$74,315
12	Elmora Interlocking W43 XO - ET Support	Y	N/A	Oct 2021	Sep 2022	\$2,997
12	Elmora Interlocking W43 XO - Install	Y	Install Wood Turnout, 2 EA	Oct 2021	Sep 2022	\$502,268
12	Elmora Interlocking W43 XO - T&E Support	Y	N/A	Oct 2021	Sep 2022	\$6,892
12	Lack Interlocking #26A TO Install	Y	N/A	Nov 2020	Nov 2021	\$85,675
12	Lane Interlocking #23 XO Install	Y	N/A	Mar 2021	Nov 2021	\$171,351
12	Lane Interlocking #34 XO Install	Y	N/A	Mar 2021	Nov 2021	\$171,351
12	Lincoln Drainage Improvements	Y	N/A	Oct 2021	Sep 2022	\$486,412
14	Grundy Interlocking Air to Electric Conversion	Y	Install Switch House, 1 EA	Oct 2021	Sep 2022	\$1,800,971
16	Girard Interlocking 12 XO - B&B Support	Y	N/A	Oct 2021	Sep 2022	\$37,573
16	Girard Interlocking 12 XO - C&S Support	Y	N/A	Oct 2021	Sep 2022	\$495,876
16	Girard Interlocking 12 XO - ET Support	Y	N/A	Oct 2021	Sep 2022	\$20,983
16	Girard Interlocking 12 XO - Install	Y	Install Wood Turnout, 2 EA	Oct 2021	Sep 2022	\$1,754,883
16	Girard Interlocking 12 XO - T&E Support	Y	N/A	Oct 2021	Sep 2022	\$48,249
16	Girard Interlocking 21 XO - B&B Support	Y	N/A	Oct 2021	Sep 2022	\$37,573
16	Girard Interlocking 21 XO - C&S Support	Y	N/A	Oct 2021	Sep 2022	\$495,876
16	Girard Interlocking 21 XO - ET Support	Y	N/A	Oct 2021	Sep 2022	\$20,982
16	Girard Interlocking 21 XO - Install	Y	Install Wood Turnout, 2 EA	Oct 2021	Sep 2022	\$1,604,281
16	Girard Interlocking 21 XO - T&E Support	Y	N/A	Oct 2021	Sep 2022	\$48,248
16	Girard Interlocking W32 XO - B&B Support	Y	N/A	Oct 2021	Sep 2022	\$37,573
16	Girard Interlocking W32 XO - C&S Support	Y	N/A	Oct 2021	Sep 2022	\$495,876
16	Girard Interlocking W32 XO - ET Support	Y	N/A	Oct 2021	Sep 2022	\$20,983
16	Girard Interlocking W32 XO - Install	Y	Install Wood Turnout, 2 EA	Oct 2021	Sep 2022	\$1,548,584

CAPITAL RENEWAL PROGRAM

**Turnout Renewal Program
(continued)**

Owner: Amtrak

Type: Capital Renewal Program

ID Number: C.EN.101860

PMO Level 1: PG00065

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
16	Girard Interlocking W32 XO - T&E Support	Y	N/A	Oct 2021	Sep 2022	\$48,249
16	Lehigh Interlocking #12 XO - Install	Y	Install Wood Turnout, 2 EA	May 2021	Nov 2021	\$85,675
16	Lehigh Interlocking #23 XO - Install	Y	Install Wood Turnout, 2 EA	May 2021	Nov 2021	\$85,675
16	Lehigh Interlocking #34 XO - B&B Support	Y	N/A	Jun 2021	Nov 2021	\$9,951
16	Lehigh Interlocking #34 XO - ET Support	Y	N/A	Jun 2021	Nov 2021	\$19,761
16	Lehigh Interlocking #34 XO - Install	Y	Install Wood Turnout, 2 EA	May 2021	Nov 2021	\$943,597
16	Lehigh Interlocking #34 XO - T&E Support	Y	N/A	Jun 2021	Nov 2021	\$25,968
16	Lehigh Interlocking #34 XO - C&S Support	Y	N/A	Jun 2021	Nov 2021	\$73,122
16	Mantua Interlocking 21E XO - B&B Support	Y	N/A	Sep 2021	Nov 2021	\$37,573
16	Mantua Interlocking 21E XO - C&S Support	Y	N/A	Sep 2021	Nov 2021	\$468,569
16	Mantua Interlocking 21E XO - ET Support	Y	N/A	Sep 2021	Nov 2021	\$20,983
16	Mantua Interlocking 21E XO - Install	Y	Install Wood Turnout, 2 EA	Sep 2021	Oct 2022	\$1,522,550
16	Mantua Interlocking 21E XO - T&E Support	Y	N/A	Sep 2021	Oct 2022	\$48,249
16	Mantua Interlocking 23 XO - B&B Support	Y	N/A	Sep 2021	Nov 2021	\$37,573
16	Mantua Interlocking 23 XO - C&S Support	Y	N/A	Sep 2021	Nov 2021	\$468,569
16	Mantua Interlocking 23 XO - ET Support	Y	N/A	Sep 2021	Nov 2021	\$20,983
16	Mantua Interlocking 23 XO - Install	Y	Install Wood Turnout, 2 EA	Sep 2021	Oct 2022	\$1,381,987
16	Mantua Interlocking 23 XO - T&E Support	Y	N/A	Sep 2021	Nov 2021	\$48,249
16	Mantua Interlocking 32 XO - B&B Support	Y	N/A	Sep 2021	Nov 2021	\$37,573
16	Mantua Interlocking 32 XO - C&S Support	Y	N/A	Sep 2021	Nov 2021	\$468,569
16	Mantua Interlocking 32 XO - ET Support	Y	N/A	Sep 2021	Nov 2021	\$20,983
16	Mantua Interlocking 32 XO - Install	Y	Install Wood Turnout, 2 EA	Sep 2021	Oct 2022	\$1,381,987
16	Mantua Interlocking 32 XO - T&E Support	Y	N/A	Sep 2021	Nov 2021	\$48,249
19	Baldwin 12 XO - B&B Support	Y	N/A	Oct 2021	Sep 2022	\$37,573
19	Baldwin 12 XO - C&S Support	Y	N/A	Oct 2021	Sep 2022	\$446,879

CAPITAL RENEWAL PROGRAM

**Turnout Renewal Program
(continued)**

Owner: Amtrak

Type: Capital Renewal Program

ID Number: C.EN.101860

PMO Level 1: PG00065

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
19	Baldwin 12 XO - ET Support	Y	N/A	Oct 2021	Sep 2022	\$20,983
19	Baldwin 12 XO - Install	Y	Install Wood Turnout, 2 EA	Oct 2021	Sep 2022	\$1,602,983
19	Baldwin 12 XO - T&E Support	Y	N/A	Oct 2021	Sep 2022	\$48,249
19	Baldwin 23 XO - B&B Support	Y	N/A	Oct 2021	Sep 2022	\$37,573
19	Baldwin 23 XO - C&S Support	Y	N/A	Oct 2021	Sep 2022	\$446,879
19	Baldwin 23 XO - ET Support	Y	N/A	Oct 2021	Sep 2022	\$20,983
19	Baldwin 23 XO - Install	Y	Install Wood Turnout, 2 EA	Oct 2021	Sep 2022	\$1,452,380
19	Baldwin 23 XO - T&E Support	Y	N/A	Oct 2021	Sep 2022	\$48,249
19	Baldwin 34 XO - B&B Support	Y	N/A	Oct 2021	Sep 2022	\$37,573
19	Baldwin 34 XO - C&S Support	Y	N/A	Oct 2021	Sep 2022	\$446,879
19	Baldwin 34 XO - ET Support	Y	N/A	Oct 2021	Sep 2022	\$20,983
19	Baldwin 34 XO - Install	Y	Install Wood Turnout, 2 EA	Oct 2021	Sep 2022	\$1,602,983
19	Baldwin 34 XO - T&E Support	Y	N/A	Oct 2021	Sep 2022	\$48,249
19	Baldwin Interlocking - C&S Support	Y	N/A	Oct 2021	Sep 2022	\$458,114
22	Biddle Interlocking 12 XO - B&B Support	Y	N/A	Oct 2021	Sep 2022	\$37,573
22	Biddle Interlocking 12 XO - C&S Support	Y	N/A	Oct 2021	Sep 2022	\$446,879
22	Biddle Interlocking 12 XO - ET Support	Y	N/A	Oct 2021	Sep 2022	\$20,983
22	Biddle Interlocking 12 XO - Install	Y	Install Wood Turnout, 2 EA	Oct 2021	Sep 2022	\$1,452,380
22	Biddle Interlocking 12 XO - T&E Support	Y	N/A	Oct 2021	Sep 2022	\$68,784
22	Bridge Interlocking 19TO - B&B Support	Y	N/A	Oct 2021	Sep 2022	\$15,655
22	Bridge Interlocking 19TO - C&S Support	Y	N/A	Oct 2021	Sep 2022	\$318,293
22	Bridge Interlocking 19TO - ET Support	Y	N/A	Oct 2021	Sep 2022	\$18,359
22	Bridge Interlocking 19TO - Install	Y	Install Wood Turnout, 1 EA	Oct 2021	Sep 2022	\$635,361
22	Bridge Interlocking 19TO - T&E Support	Y	N/A	Oct 2021	Sep 2022	\$27,521
22	Bridge Interlocking 92TO - B&B Support	Y	N/A	Oct 2021	Sep 2022	\$15,655
22	Bridge Interlocking 92TO - C&S Support	Y	N/A	Oct 2021	Sep 2022	\$318,293
22	Bridge Interlocking 92TO - ET Support	Y	N/A	Oct 2021	Sep 2022	\$18,359
22	Bridge Interlocking 92TO - Install	Y	Install Wood Turnout, 1 EA	Oct 2021	Sep 2022	\$635,361

CAPITAL RENEWAL PROGRAM

**Turnout Renewal Program
(continued)**

Owner: Amtrak

Type: Capital Renewal Program

ID Number: C.EN.101860

PMO Level 1: PG00065

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
22	Bridge Interlocking 92TO - T&E Support	Y	N/A	Oct 2021	Sep 2022	\$27,521
22	Odenton Yard Track 1 TO - B&B Support	Y	N/A	May 2021	Sep 2022	\$9,950
22	Odenton Yard Track 1 TO - C&S Support	Y	N/A	May 2021	Sep 2022	\$67,201
22	Odenton Yard Track 1 TO - ET Support	Y	N/A	May 2021	Sep 2022	\$19,761
22	Odenton Yard Track 1 TO - Install	Y	Install Concrete Turnout, 1 EA	May 2021	Oct 2022	\$583,770
22	Odenton Yard Track 1 TO - T&E Support	Y	N/A	May 2021	Sep 2022	\$47,721
22	Paul Interlocking 36 TO - B&B Support	Y	N/A	Oct 2021	Sep 2022	\$15,655
22	Paul Interlocking 36 TO - C&S Support	Y	N/A	Oct 2021	Sep 2022	\$318,293
22	Paul Interlocking 36 TO - ET Support	Y	N/A	Oct 2021	Sep 2022	\$18,359
22	Paul Interlocking 36 TO - Install	Y	Install Wood Turnout, 1 EA	Oct 2021	Sep 2022	\$635,359
22	Paul Interlocking 36 TO - T&E Support	Y	N/A	Oct 2021	Sep 2022	\$48,055
22	Paul Interlocking 43 TO - B&B Support	Y	N/A	Oct 2021	Sep 2022	\$7,827
22	Paul Interlocking 43 TO - C&S Support	Y	N/A	Oct 2021	Sep 2022	\$159,146
22	Paul Interlocking 43 TO - ET Support	Y	N/A	Oct 2021	Sep 2022	\$9,180
22	Paul Interlocking 43 TO - Install	Y	Install Wood Turnout, 1 EA	Oct 2021	Sep 2022	\$228,966
22	Paul Interlocking 43 TO - T&E Support	Y	N/A	Oct 2021	Sep 2022	\$24,028
22	Paul Interlocking 61A TO - B&B Support	Y	N/A	May 2021	Oct 2022	\$10,437
22	Paul Interlocking 61A TO - C&S Support	Y	N/A	May 2021	Oct 2022	\$274,990
22	Paul Interlocking 61A TO - ET Support	Y	N/A	May 2021	Oct 2022	\$18,359
22	Paul Interlocking 61A TO - Install	Y	Install Wood Turnout, 1 EA	Dec 2020	Oct 2022	\$649,676
22	Paul Interlocking 61A TO - T&E Support	Y	N/A	May 2021	Oct 2022	\$27,521
22	Paul Interlocking 61B TO - B&B Support	Y	N/A	May 2021	Oct 2022	\$10,437
22	Paul Interlocking 61B TO - C&S Support	Y	N/A	May 2021	Oct 2022	\$112,564
22	Paul Interlocking 61B TO - ET Support	Y	N/A	May 2021	Oct 2022	\$18,359

CAPITAL RENEWAL PROGRAM

**Turnout Renewal Program
(continued)**

Owner: Amtrak

Type: Capital Renewal Program

ID Number: C.EN.101860

PMO Level 1: PG00065

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
22	Paul Interlocking 61B TO - Install	Y	Install Wood Turnout, 1 EA	Dec 2020	Oct 2022	\$827,452
22	Paul Interlocking 61B TO - T&E Support	Y	N/A	May 2021	Oct 2022	\$27,521
22	Paul Interlocking 67 XO - B&B Support	Y	N/A	Oct 2021	Sep 2022	\$37,573
22	Paul Interlocking 67 XO - C&S Support	Y	N/A	Oct 2021	Sep 2022	\$446,879
22	Paul Interlocking 67 XO - ET Support	Y	N/A	Oct 2021	Sep 2022	\$20,983
22	Paul Interlocking 67 XO - Install	Y	Install Wood Turnout, 2 EA	Oct 2021	Sep 2022	\$1,452,380
22	Paul Interlocking 67 XO - T&E Support	Y	N/A	Oct 2021	Sep 2022	\$68,784
22	Paul Interlocking 76 XO - B&B Support	Y	N/A	Oct 2021	Sep 2022	\$37,573
22	Paul Interlocking 76 XO - C&S Support	Y	N/A	Oct 2021	Sep 2022	\$446,879
22	Paul Interlocking 76 XO - ET Support	Y	N/A	Oct 2021	Sep 2022	\$20,983
22	Paul Interlocking 76 XO - T&E Support	Y	N/A	Oct 2021	Sep 2022	\$68,784
22	Paul Interlocking 76 XO Install	Y	Install Wood Turnout, 2 EA	Oct 2021	Sep 2022	\$1,362,491
22	Paul Interlocking 87 TO - B&B Support	Y	N/A	Oct 2021	Sep 2022	\$15,655
22	Paul Interlocking 87 TO - C&S Support	Y	N/A	Oct 2021	Sep 2022	\$318,293
22	Paul Interlocking 87 TO - ET Support	Y	N/A	Oct 2021	Sep 2022	\$18,359
22	Paul Interlocking 87 TO - Install	Y	Install Wood Turnout, 1 EA	Oct 2021	Sep 2022	\$635,359
22	Paul Interlocking 87 TO - T&E Support	Y	N/A	Oct 2021	Sep 2022	\$48,055
22	Wayside switch at MP 108.2 (Baltimore Commons)	Y	Install Wood Turnout, 1 EA	Oct 2021	Sep 2022	\$1,303,506
23	A Interlocking #13 TO - Install	Y	Install Wood Turnout, 1 EA	Oct 2021	Sep 2022	\$735,315
23	A Interlocking #23 TO - Install	Y	Install Wood Turnout, 1 EA	Oct 2021	Sep 2022	\$691,660
23	A Tower Air to Electric Conversion - C&S Support	Y	N/A	Oct 2021	Sep 2022	\$1,800,971
23	K Interlocking 232/234 DSS - Install	Y	Install Slip Switch, 1 EA	Oct 2021	Sep 2022	\$691,660
23	K Interlocking 250/252 DSS - Install	Y	Install Slip Switch, 1 EA	Oct 2021	Sep 2022	\$691,660
23	K Interlocking 252/254 DSS - Install	Y	Install Slip Switch, 1 EA	Oct 2021	Sep 2022	\$691,660
23	K Interlocking 260/258 DSS - Install	Y	Install Slip Switch, 1 EA	Oct 2021	Sep 2022	\$691,660
23	K Interlocking Crossing Diamond - Install	Y	Install Wood Turnout, 1 EA	Oct 2021	Sep 2022	\$691,660
24	A Interlocking #17 TO - Install	Y	Install Wood Turnout, 1 EA	Dec 2020	Oct 2022	\$735,315

CAPITAL RENEWAL PROGRAM

**Turnout Renewal Program
(continued)**

Owner: Amtrak

Type: Capital Renewal Program

ID Number: C.EN.101860

PMO Level 1: PG00065

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
24	A Interlocking #19 TO - Install	Y	Install Wood Turnout, 1 EA	Nov 2020	Oct 2022	\$735,315
28	Zoo Air to Electric Conversion	Y	Install Switch House, 1 EA	Oct 2021	Sep 2022	\$2,412,899
28	Zoo Transformer Upgrade	Y	Install Batteries / Transformers, 1 EA	Oct 2021	Sep 2022	\$155,944
29	JO Transformer Upgrade	Y	Install Batteries / Transformers, 1 EA	Oct 2021	Sep 2022	\$166,665
29	Overbrook Interlocking 17 XO - B&B Support	Y	N/A	Oct 2021	Sep 2022	\$37,573
29	Overbrook Interlocking 17 XO - C&S Support	Y	N/A	Oct 2021	Sep 2022	\$522,686
29	Overbrook Interlocking 17 XO - ET Support	Y	N/A	Oct 2021	Sep 2022	\$20,983
29	Overbrook Interlocking 17 XO - Install	Y	Install Wood Turnout, 2 EA	Oct 2021	Sep 2022	\$1,865,390
29	Overbrook Interlocking 17 XO - T&E Support	Y	N/A	Oct 2021	Sep 2022	\$48,249
29	Overbrook Interlocking 9 XO - B&B Support	Y	N/A	Oct 2021	Sep 2022	\$37,573
29	Overbrook Interlocking 9 XO - C&S Support	Y	N/A	Oct 2021	Sep 2022	\$409,998
29	Overbrook Interlocking 9 XO - ET Support	Y	N/A	Oct 2021	Sep 2022	\$20,983
29	Overbrook Interlocking 9 XO - Install	Y	Install Wood Turnout, 2 EA	Oct 2021	Sep 2022	\$1,754,490
29	Overbrook Interlocking 9 XO - T&E Support	Y	N/A	Oct 2021	Sep 2022	\$48,249
29	Overbrook Transformer Upgrade	Y	Install Batteries / Transformers, 1 EA	Oct 2021	Sep 2022	\$166,666
29	Thorn Interlocking #45A TO Removal	Y	N/A	Oct 2021	Sep 2022	\$308,194
29	Thorn Interlocking #45B TO - B&B Support	Y	N/A	Sep 2021	Oct 2021	\$9,950
29	Thorn Interlocking #45B TO - C&S Support	Y	N/A	Sep 2021	Oct 2021	\$109,036
29	Thorn Interlocking #45B TO - ET Support	Y	N/A	Sep 2021	Oct 2021	\$17,291
29	Thorn Interlocking #45B TO - Install	Y	Install Wood Turnout, 1 EA	Sep 2021	Oct 2021	\$326,107
29	Thorn Interlocking #45B TO - T&E Support	Y	N/A	Sep 2021	Oct 2021	\$27,598
29	Thorn Interlocking #49A TO Removal	Y	N/A	Oct 2021	Sep 2022	\$308,194
29	Thorn Interlocking #49B TO - B&B Support	Y	N/A	Sep 2021	Oct 2021	\$29,850
29	Thorn Interlocking #49B TO - C&S Support	Y	N/A	Sep 2021	Oct 2021	\$371,338

CAPITAL RENEWAL PROGRAM

**Turnout Renewal Program
(continued)**

Owner: Amtrak

Type: Capital Renewal Program

ID Number: C.EN.101860

PMO Level 1: PG00065

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
29	Thorn Interlocking #49B TO - ET Support	Y	N/A	Sep 2021	Oct 2021	\$14,821
29	Thorn Interlocking #49B TO - Install	Y	Install Wood Turnout, 1 EA	Sep 2021	Oct 2021	\$847,689
29	Thorn Interlocking #49B TO - T&E Support	Y	N/A	Sep 2021	Oct 2021	\$35,790
29	Thorn Interlocking #51A TO - B&B Support	Y	N/A	Sep 2021	Nov 2021	\$29,850
29	Thorn Interlocking #51A TO - C&S Support	Y	N/A	Sep 2021	Nov 2021	\$371,338
29	Thorn Interlocking #51A TO - ET Support	Y	N/A	Sep 2021	Nov 2021	\$14,821
29	Thorn Interlocking #51A TO - Install	Y	Install Wood Turnout, 1 EA	Sep 2021	Nov 2021	\$847,689
29	Thorn Interlocking #51A TO - T&E Support	Y	N/A	Sep 2021	Nov 2021	\$35,790
29	Thorn Interlocking #51B Removal	Y	N/A	Oct 2021	Sep 2022	\$308,194
29	Thorn Interlocking #53 TO Removal	Y	N/A	Oct 2021	Sep 2022	\$308,194
29	Thorn Interlocking #55A Removal	Y	N/A	Oct 2021	Sep 2022	\$308,194
29	Thorn Interlocking #55B TO Removal	Y	N/A	Oct 2021	Sep 2022	\$308,194
29	Thorn Interlocking #57A TO Removal	Y	N/A	Oct 2021	Sep 2022	\$126,723
29	Thorn Interlocking #61B TO Removal	Y	N/A	Oct 2021	Sep 2022	\$126,723
29	Thorn Interlocking ET Wire Work	Y	Align / Shift Catenary, 1 FT	Oct 2021	Sep 2022	\$1,072,399
29	Thorn Interlocking Panel Install	Y	Install Track Panels, 1300 FT	Oct 2021	Sep 2022	\$126,723
29	Thorn Interlocking Switch Heater Install	Y	N/A	Oct 2021	Sep 2022	\$229,237
29	Thorn Interlocking Track #3 Removal	Y	N/A	Oct 2021	Sep 2022	\$126,722
29	Thorn Interlocking Track #5 Removal	Y	N/A	Oct 2021	Sep 2022	\$126,723
29	Thorn Interlocking Track #6 Removal	Y	N/A	Oct 2021	Sep 2022	\$126,722
31	Equipment Maintenance	N	N/A	Oct 2021	Sep 2022	\$107,240
31	Equipment Rentals	Y	N/A	Oct 2021	Sep 2022	\$214,481
31	Long Lead Materials	Y	N/A	Oct 2021	Sep 2022	\$26,809
31	Project Control Support	Y	N/A	Oct 2021	Sep 2022	\$42,896
31	Project Management	Y	N/A	Oct 2021	Sep 2022	\$183,276
31	Turnout Renewal Survey and Design	Y	N/A	Oct 2021	Sep 2022	\$378,558
Grand Total				Nov 2020	Oct 2022	\$73,990,166

CAPITAL RENEWAL PROJECT

UV Sanitization - Elevator Cab

Owner: Amtrak

Type: Capital Renewal Project

ID Number: C.RE.100226

PMO Level 1:

General Project Information

Scope	Replace cartop fan with UV sterilization type to mitigate airborne pathogens system wide including but not limited to: NYP, PHL, WIL, Harrisburg line, Rte 128, Rochester etc.
Schedule	Oct 2021-Sep 2022

FY22 Plan

Planned Expenditure in FY22	\$750,680
Scope of FY22 work	Replace cartop fan with UV sterilization type to mitigate airborne pathogens system wide including but not limited to: NYP, PHL, WIL, Harrisburg line, Rte 128, Rochester etc.

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
UV Sanitization - Elevator Cab				Oct 2021	Sep 2022	\$750,680
31	(blank)	Y	N/A	Oct 2021	Sep 2022	\$750,680
Grand Total				Oct 2021	Sep 2022	\$750,680

CAPITAL RENEWAL PROJECT

WAS DC Handrail and Stair Improvements

Owner: Amtrak

Type: Capital Renewal Project

ID Number: C.RE.100232

PMO Level 1:

General Project Information

Scope	Geotechnical investigation of the concrete retaining wall adjacent to track 20. Design and construction of the following: a guardrail along the full length of the retaining wall adjacent to Track 20, structural improvements to the concrete and masonry retaining wall, code compliant railings for the North Hangar stairs, and structural improvements to the same stairs.
Schedule	Jan 2022-Apr 2023

FY22 Plan

Planned Expenditure in FY22	\$321,720
Scope of FY22 work	Design documentation and begin construction

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>WAS DC Handrail and Stair Improvements</i>				<i>Jan 2022</i>	<i>Apr 2023</i>	<i>\$321,720</i>
23	(blank)	N	N/A	Jan 2022	Apr 2023	\$321,720
Grand Total				Jan 2022	Apr 2023	\$321,720

CAPITAL RENEWAL PROJECT

Washington Ave. Bridge Replacement Project

Owner: Amtrak

Type: Capital Renewal Project

ID Number: C.EN.101586

PMO Level 1: P000132

General Project Information

Scope	The scope of this project includes the full replacement of Washington Street and S Pennsylvania Ave bridges and all associated interlocking work such as track, signal and catenary. The completion of this work will ensure efficient and safe operation of the bridges infrastructure, to maintain compliance with current regulations and standards.
Schedule	Oct 2021-Jan 2026

FY22 Plan

Planned Expenditure in FY22	\$931,593
Scope of FY22 work	The FY scope includes advertising for design, awarding a design contract, completing the Preliminary Engineering and starting the 60% design for the two bridges.

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>Washington Ave. Bridge Replacement Project</i>				<i>Oct 2021</i>	<i>Jan 2026</i>	<i>\$931,593</i>
13	Concept Design	Y	N/A	Feb 2022	May 2022	\$107,241
13	Preliminary Design	Y	N/A	Mar 2022	Aug 2022	\$624,299
13	Preliminary Design Review	Y	N/A	Aug 2022	Sep 2022	\$21,448
13	Preliminary Design RWP	Y	N/A	Mar 2022	Sep 2022	\$16,088
13	Project Management	Y	N/A	Oct 2021	Jan 2026	\$117,477
13	Project Support	Y	N/A	Oct 2021	Jan 2026	\$45,040
Grand Total				Oct 2021	Jan 2026	\$931,593

CAPITAL RENEWAL PROJECT

Washington Terminal & Ivy City Facility Electrical Upgrades Project

Owner: Amtrak

Type: Capital Renewal Project

ID Number: C.EN.100850

PMO Level 1: P000074

General Project Information

Scope	The scope of this project is to Improve the condition of our transportation facilities throughout the Mid Atlantic Division, making them safer, more secure and more efficient facilities by making the electrical power more reliable. The work performed under this project includes upgrades to power equipment where necessary throughout various Washington DC and Ivy City facilities.
Schedule	Apr 2021-Sep 2023

FY22 Plan

Planned Expenditure in FY22	\$2,999,869
Scope of FY22 work	Complete the construction for the Tractor Shop generator connections, Smith Building substation upgrades, and Main substation upgrades.

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>Washington Terminal & Ivy City Facility Electrical Upgrades Project</i>				<i>Apr 2021</i>	<i>Sep 2023</i>	<i>\$2,999,870</i>
23	Construction - B&B	N	N/A	Oct 2021	Sep 2022	\$1,490,649
23	Final Design	N	N/A	Oct 2021	Sep 2022	\$169,867
23	Project Management	N	N/A	Oct 2021	Sep 2022	\$42,895
23	Project Support	N	N/A	Apr 2021	Sep 2023	\$15,248
23	Smith Building Substation Upgrades	N	N/A	Oct 2021	Sep 2022	\$1,022,573
23	Tractor Shop Construction	N	N/A	Oct 2021	Sep 2022	\$258,637
Grand Total				Apr 2021	Sep 2023	\$2,999,870

CAPITAL RENEWAL PROJECT

Washington Union Station Hi-Level Platform Refresh

Owner: Amtrak

Type: Capital Renewal Project

ID Number: C.RE.100084

PMO Level 1:

General Project Information

Scope	Upgrade Platforms 17/18 and 19/20 at Washington Union Station. The upgrades will include an ADA complaint detectable warning surface along both sides of each platform; trip hazard mitigation to both platforms and the gate entry area, restoring the historic architectural features to the platform canopies, and making necessary improvements to the canopy roof on Platform 19/20.
Schedule	Apr 2020-Dec 2022

FY22 Plan

Planned Expenditure in FY22	\$375,340
Scope of FY22 work	Remove and replace canopy roof and upgrade roof drainage as required on Canopy 19/20. Complete historical canopy restoration for all remaining features.

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
Washington Union Station Hi-Level Platform Refresh				Apr 2020	Dec 2022	\$375,340
23	(blank)	Y	N/A	Apr 2020	Dec 2022	\$375,340
Grand Total				Apr 2020	Dec 2022	\$375,340

CAPITAL RENEWAL PROJECT

Washington Union Station Platform 16/17 Refresh

Owner: Amtrak

Type: Capital Renewal Project

ID Number: C.RE.100180

PMO Level 1:

General Project Information

Scope	Provide ADA compliant tactile for the entire length of both sides of the platform (approx. 1150ft platform length). Remove the steel plate and rehabilitate the platform hole area that was identified over the H-Street Tunnel. Perform trip hazard mitigation and apply the high traffic coating to entire platform surface. Provide a new paint system to the steel canopy structure.
Schedule	Jan 2022-Aug 2022

FY22 Plan

Planned Expenditure in FY22	\$1,533,532
Scope of FY22 work	Remove and replace tactile for the entire length of both sides of the platform (approx. 1150ft platform length), replacement tactile will be the strongwarn product. Rehabilitate the concrete edge of the platform, where applicable. Paint corresponding warning stripe and text that accompanies tactile edge. Remove the steel plate and rehabilitate the platform hole area that was identified over the H-Street Tunnel. Perform trip hazard mitigation and apply the high traffic coating to entire platform surface. Refresh historic steel canopy structure.

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>Washington Union Station Platform 16/17 Refresh</i>				<i>Jan 2022</i>	<i>Aug 2022</i>	<i>\$1,533,532</i>
23	(blank)	N	N/A	Jan 2022	Aug 2022	\$1,533,532
Grand Total				Jan 2022	Aug 2022	\$1,533,532

CAPITAL RENEWAL PROJECT

Washington Union Station Platform Emergency Lighting (Design and Construction)

Owner: Amtrak**Type:** Capital Renewal Project**ID Number:** C.RE.100178**PMO Level 1:**

General Project Information

Scope	The platforms at WAS Union Station have inadequate emergency lighting. A schematic design including assessment, cost estimate and schedule, needs to be performed to see what equipment exists and what condition it's in. An engineering firm perform a design in FY21 for construction in FY22.
Schedule	Nov 2021-Sep 2022

FY22 Plan

Planned Expenditure in FY22	\$160,860
Scope of FY22 work	Schematic design, and construction documentation.

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>Washington Union Station Platform Emergency Lighting (Design and Construction)</i>				<i>Nov 2021</i>	<i>Sep 2022</i>	<i>\$160,860</i>
23	(blank)	Y	N/A	Nov 2021	Sep 2022	\$160,860
Grand Total				Nov 2021	Sep 2022	\$160,860

CAPITAL RENEWAL PROJECT

Wilmington DE Customer Now Station Refresh Program FY22

Owner: Amtrak

Type: Capital Renewal Project

ID Number: C.SP.100070

PMO Level 1:

General Project Information

Scope	This project at Wilmington Station is part of the Company-wide Station Refresh Program that will implement customer-facing improvements at Amtrak's Top 25 stations. The customer-facing improvements comprise of circulation elements, customer waiting area upgrades, customer service area improvements, lighting, restrooms, platform improvements, site improvements, and/or wayfinding.
Schedule	Oct 2021-Sep 2022

FY22 Plan

Planned Expenditure in FY22	\$321,720
Scope of FY22 work	This year will focus on the delivery of the following projects: HVAC Upgrades; Walking Surfaces Upgrades (slip-resistive flooring measures); Historic Wood Entry Doors Upgrades (refinishing and automatic safety sensor controls); Platform Furnishings Upgrades (benches and pedestrian gate). The Area Roof Upgrades project will continue in order to quickly address any unforeseen water infiltration issues in the Station.

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>Wilmington DE Customer Now Station Refresh Program FY22</i>				<i>Oct 2021</i>	<i>Sep 2022</i>	<i>\$321,720</i>
20	(blank)	Y	N/A	Oct 2021	Sep 2022	\$321,720
Grand Total				Oct 2021	Sep 2022	\$321,720

CAPITAL RENEWAL PROJECT

Wilmington DE Platform Lighting Upgrades FY22

Owner: Amtrak

Type: Capital Renewal Project

ID Number: C.RE.100091

PMO Level 1:

General Project Information

Scope	In order to ensure the safety of our passengers, employees and the public, this project will assess and repair/upgrade emergency power systems as required to achieve a fully coordinated state of good repair. This project will focus on the emergency platform lighting for compliance with FRA and Emergency Management standards.
Schedule	Oct 2021-Sep 2022

FY22 Plan

Planned Expenditure in FY22	\$375,340
Scope of FY22 work	A generator test will be conducted; known UPS transfer issues will be resolved. The lighting control system, consisting of a computer, software and light panel programming will be assessed and upgraded as required to conform to current standards. A task order Electrical Engineering firm will be contracted, if needed, to review previous assessments and field conditions, and make recommendations for a fully coordinated emergency power system.

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
Wilmington DE Platform Lighting Upgrades FY22				Oct 2021	Sep 2022	\$375,340
20	(blank)	Y	N/A	Oct 2021	Sep 2022	\$375,340
Grand Total				Oct 2021	Sep 2022	\$375,340

CAPITAL RENEWAL PROJECT

Wilmington High Speed Rail Training Center Roof Upgrades

Owner: Amtrak

Type: Capital Renewal Project

ID Number: C.RE.100113

PMO Level 1:

General Project Information

Scope	The design and construction of roofing, building envelope improvements and new permanent emergency generator to the Training Center. This project will also bring the building into code compliance and address required improvements in the Offices, Training rooms and South Stair Tower.
Schedule	Oct 2020-Sep 2022

FY22 Plan

Planned Expenditure in FY22	\$53,621
Scope of FY22 work	Scope will include the review of previously identified roof deficiencies and the procurement of design services and design in preparation for roofing replacement permanent emergency generator and improvements.

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>Wilmington High Speed Rail Training Center Roof Upgrades</i>				<i>Oct 2020</i>	<i>Sep 2022</i>	<i>\$53,621</i>
20	(blank)	N	N/A	Oct 2020	Sep 2022	\$53,621
Grand Total				Oct 2020	Sep 2022	\$53,621

CAPITAL RENEWAL PROJECT

Wilmington Maintenance Facility Stormwater Upgrades

Owner: Amtrak

Type: Capital Renewal Project

ID Number: C.EV.201069

PMO Level 1:

General Project Information

Scope	The project involves tasks associated with the separation of stormwater and groundwater from the Wilmington facility industrial wastewater (IW) pretreatment system to minimize non-industrial flow volume from the treatment system. Tasks include rerouting of stormwater from several locations where drains are currently tied to the IW system. Other tasks involve repairs to the IW conveyance system lines and sump(s), as well as reconfiguration of drainage features at the Powerhouse.
Schedule	Oct 2021-Sep 2022

FY22 Plan

Planned Expenditure in FY22	\$375,340
Scope of FY22 work	A number of tasks will be solicited and constructed including some drain re-routing, Powerhouse drainage configuration, and conveyance system repairs.

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>Wilmington Maintenance Facility Stormwater Upgrades</i>				<i>Oct 2021</i>	<i>Sep 2022</i>	<i>\$375,340</i>
20	(blank)	Y	N/A	Oct 2021	Sep 2022	\$375,340
Grand Total				Oct 2021	Sep 2022	\$375,340

CAPITAL RENEWAL PROJECT

Wilmington Training Center Parking Access Improvements Project

Owner: Amtrak

Type: Capital Renewal Project

ID Number: C.EN.101879

PMO Level 1: P000119

General Project Information

Scope	The scope and objective for the Wilmington Training Center Parking Access Improvements project will be to design and construct approximately 800 feet of newly improved roadway to access Amtrak's Wilmington, DE Training Center and West Yard Substation during inclement weather events. Currently this access road becomes impassable during heavy rainfall events. The completion of this work will ensure efficient and safe access to the training center and yard substation. The completion of this project will support the Amtrak commitment to maintain compliance with current regulations and standards.
Schedule	Sep 2020-Sep 2022

FY22 Plan

Planned Expenditure in FY22	\$1,117,372
Scope of FY22 work	The scope and object for FY22 is to perform Preliminary and Final Design services and to procure a 3rd party contractor to execute the Construction phase of the project scope. The completion of this project will ensure safe accessibility to Amtrak's facilities in Wilmington, DE.

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>Wilmington Training Center Parking Access Improvements Project</i>				<i>Sep 2020</i>	<i>Sep 2022</i>	<i>\$1,117,372</i>
20	60% Design	N	N/A	Oct 2020	Apr 2022	\$53,084
20	90% Design	N	N/A	Feb 2021	Jul 2022	\$37,534
20	Construction	N	N/A	Jun 2021	Jan 2022	\$654,164
20	Construction Management	N	N/A	Nov 2020	Jan 2022	\$67,209
20	Design Review	N	N/A	Apr 2021	Aug 2022	\$34,853
20	Environmental/NEPA	N	N/A	Sep 2020	Feb 2022	\$34,853
20	Final Design	N	N/A	Apr 2021	Aug 2022	\$32,171
20	Preliminary Design	N	N/A	Sep 2020	Feb 2022	\$42,360
20	Project Management	N	N/A	Oct 2021	Sep 2022	\$126,290
20	Utilities	N	N/A	Apr 2022	Aug 2022	\$34,854
Grand Total				Sep 2020	Sep 2022	\$1,117,372

CAPITAL RENEWAL PROJECT

Wilmington, DE - MOFE Facility PCB/O Remediation

Owner: Amtrak

Type: Capital Renewal Project

ID Number: C.EV.100633

PMO Level 1:

General Project Information

Scope	This project is mandatory as Amtrak must complete this remediation as a part of a signed cleanup agreement with the State of Delaware's Department of Natural Resources and Environmental Conservation (DNREC) . As required in the agreement, PCB and other historic contaminants at the Wilmington, DE Maintenance facility must be remediated. These elements include: remediation of the South Yard Former Fueling Area, preliminary investigation of the North Yard and ongoing erosion control measures. Current South Yard remediation activities include ongoing recovery of PCB contaminated organic materials (sediments) from the water table. A proposed Remediation Plan has been submitted to DNREC and EPA for review and approval. The North Yard investigation plan has been submitted to DNREC. Ongoing erosion control measures to prevent discharge of PCBs will continue to be implemented as required under the facility Pollution Minimization Plan (PMP).
Schedule	Oct 2021-Sep 2022

FY22 Plan

Planned Expenditure in FY22	\$2,600,629
Scope of FY22 work	This is a recurring annual maintenance project. Milestones will only be tracked for fiscal year 2022. Out-year funding planned. Scope includes: continued work on interim measures (LNAPL, TCE, etc), continued work on final remedial design and permitting, Regulator interface, stakeholder meetings, PCB contaminated soil and crosstie disposal as needed, and continued PMP activities including ongoing erosion and sediment control improvements, sampling and reporting.

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
Wilmington, DE - MOFE Facility PCB/O Remediation				Oct 2021	Sep 2022	\$2,600,629
20	(blank)	N	N/A	Oct 2021	Sep 2022	\$2,600,629
Grand Total				Oct 2021	Sep 2022	\$2,600,629

CAPITAL RENEWAL PROJECT

Wilmington, DE - West Yard Remediation

Owner: Amtrak

Type: Capital Renewal Project

ID Number: C.EV.201240

PMO Level 1:

General Project Information

Scope	Historic electric train operations prior to the creation of Amtrak and through subsequent operations led to PCB and heavy metals contamination in and around the yard. Remedial investigation performed and RI report submitted to DNREC under Voluntary Cleanup Program (VCP). Currently working through comment process. Clean up plan for both wetland areas and upland soils to be developed once remedial plan for Wilmington Maintenance facility is finalized as cleanup standards will be established.
Schedule	Oct 2021-Sep 2022

FY22 Plan

Planned Expenditure in FY22	\$268,100
Scope of FY22 work	This is a recurring annual maintenance project. Milestones will only be tracked for fiscal year 2022. Out-year funding planned. Current FY scope to include submission of Focused Feasibility Study, initiate remedial design, maintenance of existing erosion and sediment controls, and disposal of limited PCB contaminated crossties and soils as needed.

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>Wilmington, DE - West Yard Remediation</i>				<i>Oct 2021</i>	<i>Sep 2022</i>	<i>\$268,100</i>
20	(blank)	N	N/A	Oct 2021	Sep 2022	\$268,100
Grand Total				Oct 2021	Sep 2022	\$268,100

CAPITAL RENEWAL PROJECT

Zoo to Paoli Catenary Structure Upgrade Project

Owner: Amtrak

Type: Capital Renewal Project

ID Number: C.EN.201264

PMO Level 1: P000090

General Project Information

Scope	The scope of this project is the design, permit, construct, test, commission, startup, accept and closeout the relocation the 138kV transmission line currently located off Amtrak's right-of-way to Amtrak's right-of-way between Zoo and Paoli. Construction will include the new transmission line with approximately 620 new catenary structures, static wire and associated insulators, upgrading the existing Bryn Mawr switching station for 138kv service, SCADA modifications for the new transmission line and decommissioning the existing transmission line. Design and Construction will be contracted to outside companies. Amtrak force account support will perform C&S and ET work for electrical tie ins. The completion of this work will ensure efficient and safe operation of Amtrak's assets and infrastructure, to maintain compliance with current regulations and standards.
Schedule	Oct 2020-Jan 2028

FY22 Plan

Planned Expenditure in FY22	\$1,419,148
Scope of FY22 work	Complete procurement of third party general contractor for frequency converter and initiate construction in the Bryn Mawr substation.

BCC Segment	Investment	BCC Eligible	Units	Start Date	End Date	FY22 Planned Expenditure
<i>Zoo to Paoli Catenary Structure Upgrade Project</i>				<i>Oct 2020</i>	<i>Jan 2028</i>	<i>\$1,419,148</i>
29	C&S Construction	Y	N/A	Apr 2022	Oct 2027	\$160,860
29	Construction Contractor	Y	N/A	Feb 2022	Sep 2027	\$268,102
29	Construction Management	Y	N/A	Dec 2021	Jan 2028	\$93,299
29	ET Construction	Y	N/A	Oct 2020	Oct 2027	\$773,532
29	ET Design Review	Y	N/A	Oct 2021	Sep 2022	\$69,589
29	Project Management	Y	N/A	Oct 2020	Oct 2026	\$53,766
Grand Total				Oct 2020	Jan 2028	\$1,419,148

Appendix 3:

Special Projects

A. C35 Delivery Analysis and Special Project Groups

The FY22-26 CIP provides detail on the projects in C35 with activity planned in the next five years. This project-level detail, as found in the following special project pages, demonstrates the next steps required to follow the sequencing laid out in C35.

C35 sequenced capital renewal and special project groups to gain efficiencies in project delivery and optimize the use of available track outages and other railroad resources. Geographically proximate and interrelated special projects were grouped into special project groups as part of C35. Capital renewal was also examined and planned in an integrated fashion with special projects (as seen in Figure A3-1 below from C35). Effects of capital renewal on available workforce resources were taken into account while creating project schedules and special project groups.

Appendix Figure A3-1. C35 delivery analysis approach

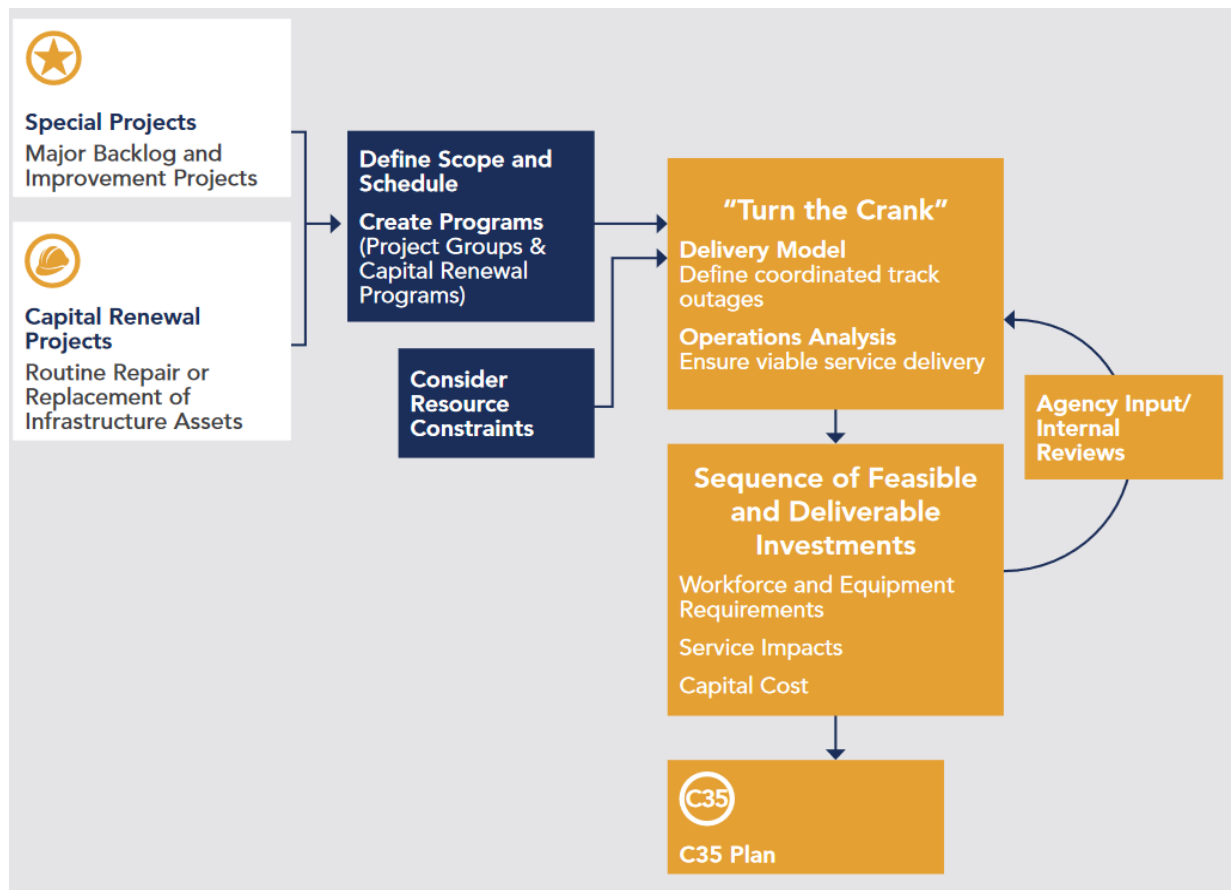
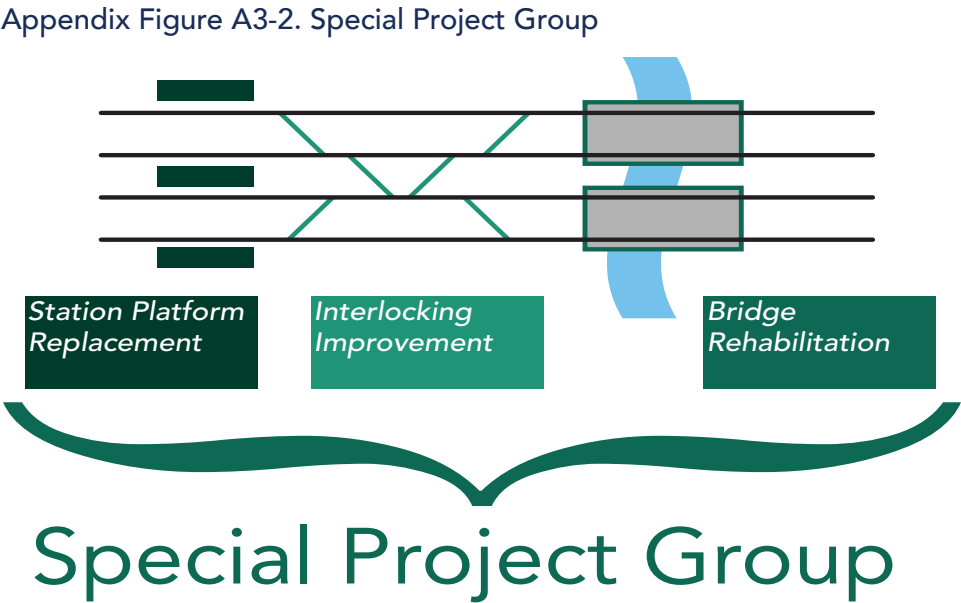


Figure 2-2, CONNECT NEC 2035

The schematic below (Figure A3-2) demonstrates how three hypothetical projects would have been placed into a special project group as part of C35. CONNECT NEC 2035 grouped geographically-adjacent projects, agnostic of project sponsor, to maximize efficiency. The delivery analysis would also have grouped these example projects temporally, aligning construction schedules and timelines so that work is planned congruently. Projects within a project group may take advantage of shared work crews, outage scheduling, and a variety of overlapping construction resources.



B. Special Project Groups in the FY22-26 CIP

Special projects in this plan are organized by their associated C35 special project group. Some special project groups span many years. Some C35 project groups may not begin in the next five years, or may begin but not reach completion within the CIP timeframe. Projects within a project group that begin after FY26 are not included in the FY22-26 CIP. Please refer to the C35 plan for additional information on these projects.

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SPECIAL PROJECT KEY

Example Project Page

Project Sponsor: NEC stakeholder agency that provides capital project data for the development of this plan.

Partners: NEC stakeholder agencies or other non-NEC organizations that are contributing to or affected by this project.

Type: Major Backlog or Improvement Project

Benefit: Sole or Shared Benefit

General Project Information

Full Project Scope	Complete scope for the entire project, including previously completed work and work to be completed beyond fiscal year 2026.
Project Justification	Justification for the complete project scope stated above.

Financial Plan

Project Cost	Total Project Cost	Total project cost estimate to complete the full scope as described.	
	Pre-Construction	Total cost estimate to complete pre-construction activities.	
	Property Acquisition	Total cost estimate to complete property acquisition (if applicable).	
	Construction	Total cost estimate to complete construction activities.	
	Cost Derivation Methodology: Qualitative description of how the total project cost was estimated.		
Funding Sources	Total Project Funding Committed	All reasonable funding sources (past, present, and future) committed to the entire history of the project from both federal and non-federal agencies.	
	Funding Source	Amount	Clarifying information
	Additional Project Funding Required	Additional funding needed to complete the full scope of the project, if applicable. This includes possible sources identified by the project sponsor that are not yet committed, including any pending federal discretionary grant applications.	
Project Based Cost Allocation (PBCA)	PBCA Candidate	Yes/No (Sole Benefit)	Notes: Clarifying information to explain the current status of a project-based cost allocation agreement (if applicable).
	Agreement Status	Not applicable/Not yet started/In Progress/Completed	
	For more information on Project-Based Cost Allocation, see the main report body.		

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
This section contains the most recent project schedule estimate to complete the full project scope as stated above, outlining all phases and activities of the project including those already completed and those occurring until fiscal year 2035. Additional context on the schedule may be provided here.							

One Year Plan (FY22) - Funding Constrained

The One Year Information outlines a specific plan for progressing this project according to the schedule above, for the upcoming fiscal year 2022, detailing the specific activities anticipated to be undertaken over the next 12 months. The three metrics below will be used as a baseline for tracking a project's progress each quarter, over the next fiscal year.

Planned Expenditure in FY22: Planned fiscal year 2022 expenditure.

Scope of FY22 Work: Planned fiscal year 2022 scope associated with the planned expenditure in fiscal year 2022.

Anticipated Milestones in FY22: Schedule of milestones to be achieved in fiscal year 2022.

One Year Plan Notes: Clarifying information regarding the planned budget, scope, and schedule for planned activities in fiscal year 2022.

Not all projects will have work to be completed in fiscal year 2022 because the project is either slated to begin after fiscal year 2022 or funding is not available to complete work in fiscal year 2022.

Five Year Plan (FY22-26) - Funding Unconstrained

Five Year Information describes capital investments to be made in FY22-26 based on available funding and capital investments that could occur in FY22-26 with additional funding, given available resources.

Target Spend in FY22-26: The total expenditure over the next five years necessary to progress the project along the schedule outlined above.

At this spend level, the following activities could be completed or continue during FY22-26: The scope of work that could be completed per the project schedule and FY22-26 Target Spend, stated above. This scope assumes funding is available for the entire FY22-26 Target Spend amount.

Total additional funding needed to progress the project at the schedule stated above: The amount of additional project funding required to continue advancing this project during fiscal years 2022 to 2026, given known resource constraints.

Five Year Plan Notes: Clarifying information regarding the planned budget, scope, and schedule for planned activities in fiscal year 2022 to 2026.

SPECIAL PROJECT

Back Bay Station: Platform Ventilation (Phases 1, 2, and 3)

Project Sponsor: MBTA

Partners: Amtrak, Massachusetts DOT

Type: Improvement

Benefit: Shared

General Project Information

Full Project Scope	Back Bay Station serves passengers from four MBTA commuter rail lines and Amtrak’s Regional, Acela, and Lake Shore Limited trains. There will be a two phase upgrade to the ventilation system inside the facility. The first phase of the ventilation improvements involved the design and construction of stair pressurization systems for stairs 5 and 6. The first phase went into operation in 2019 and immediately resulted in improved air-quality at the concourse level. The next phase involves improving air-quality at platform level and upgrading the emergency ventilation system to current standards. The Project also involves upgrades to the Station’s electrical power system needed to support the ventilation improvements and concourse renovation, as well as ancillary work on building systems to bring the Station back to a state of good repair.
Project Justification	This project addresses environmental, safety, power and state of good repair.

Financial Plan

Project Cost	Total Project Cost	\$43.1M	
	Pre-Construction	\$5.0M	
	Property Acquisition	\$0	
	Construction	\$38.2M	
	Cost Derivation Methodology: The project cost estimate was calculated during the conceptual design phase.		
Funding Sources	Total Project Funding Committed:	\$43.1M	
	Federal Sources:	\$0	
	Amtrak and Non-Federal Sources:	\$43.1M	
	Massachusetts	\$37.1M	Funds from original ductwork project potentially available
	Private Source	\$6.0M	Private commercial contribution toward upgrades
Project Based Cost Allocation (PBCA)	Additional Project Funding Required:	\$0	
	PBCA Candidate:	Yes	Notes: N/A
	Agreement Status:	Unknown	

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	Pre-construction activities	Jun 2017 - Nov 2021					
Construction	Platform Ventilation Work	Oct 2021 - Jul 2022	■				

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$4.0M

Scope of FY22 Work: Mott McDonald to bring design from 15% to 100%

Anticipated Milestones in FY22:

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding constrained

Target Spend in FY22-26: \$43.1M

At this spend level, the following activities could be completed or continue during FY22-26: Pre-construction activities, Platform Ventilation Work

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

SPECIAL PROJECT

Boston South Station: Tower 1 Interlocking

Project Sponsor: MBTA

Partners: Amtrak, Massachusetts DOT

Type: Improvement

Benefit: Shared

General Project Information

Full Project Scope	The Tower 1 Interlocking project is a track and signal upgrade project that will provide immediate operational, reliability and resiliency benefits to MBTA's South Side Commuter Rail system and Amtrak's Northeast Corridor and Lakeshore limited services. Tower 1 Early Action Project (EAP) was identified as an early action project under the original South Station Expansion (SSX) HSIPR (High Speed Intercity Passenger Rail) that was funded under Federal Railroad Administration (FRA) High Speed Intercity Passenger Rail (HSIPR) grant. The design and construction of the Tower 1 Interlocking has been funded under this grant, and now is under the management of MBTA Capital Delivery. The goal of the Tower 1 Early Action Project is to upgrade existing infrastructure and add new systems to address current reliability and resiliency issues that occur within this critical interlocking immediately south of South Station. This Project will upgrade the existing relay-based signal system to a state-of-the-art microprocessor system, add a redundant communications system, upgrade existing power generators to accept power loads required by today's equipment, and replace-in-kind track work that is nearing the end of its useful life. Included in the signal system upgrade will be a new Signal Instrument House (SIH) that would be elevated to avoid any potential flooding that may impact the area in the future. The reliability of Tower 1 Interlocking is vital for Amtrak's intercity passenger service as well as MBTA commuter rail.
Project Justification	Tower 1 Interlocking is a critical piece of railroad infrastructure providing operational flexibility for MBTA Commuter Rail trains and Amtrak intercity passenger rail trains converging on South Station and distributing trains to and from the platform tracks at the station. The existing Tower 1 signal system is outdated and hinders service with recurring breakdowns. Due to the volume of trains moving through the interlocking, a 5-minute shutdown in service during peak periods can create residual delays that affect thousands of passengers daily. Upgrades to the Tower 1 Interlocking are necessary to maintain current services, as well as to support future growth anticipated by both the MBTA and Amtrak.

Financial Plan

Project Cost	Total Project Cost		\$85.3M
	Pre-Construction		\$3.9M
	Property Acquisition		\$0
	Construction		\$81.4M
Funding Sources	Cost Derivation Methodology: The project cost estimate is based on the latest financial plan for this project, provided by MBTA.		
	Total Project Funding Committed:		\$85.3M
	Federal Sources:		\$41.2M
	Federal-State Partnership for SOGR	\$41.2M	FY17-18 Award for South Station Expansion - Tower 1 Early Action Project
	Amtrak and Non-Federal Sources:		\$44.1M
	MBTA BCCs	\$32.6M	MassDOT/MBTA match for FY17-18 SOGR Award
	Amtrak BCCs	\$8.6M	Amtrak match for FY17-18 SOGR Award
	Massachusetts	\$2.9M	Funding source TBD to cover cost overruns
	Additional Project Funding Required:		\$0
	Project Based Cost Allocation (PBCA)	PBCA Candidate:	Yes
Agreement Status:		Unknown	

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	Pre-construction activities	Mar 2018 - Dec 2019					
Pre-construction	PE/NEPA	Jan 2021 - Aug 2021					
Pre-construction	Final Design	Jan 2021 - Dec 2021					
Construction	Tower 1 Interlocking Modifications	Jan 2022 - Aug 2025					

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$13.1M

Scope of FY22 Work: Begin the replacement of slip switches and turnouts at Tower 1 as well as the signal upgrades.

Anticipated Milestones in FY22:

- PS&E Complete Final Design (Dec 2021)

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$72.0M

At this spend level, the following activities could be completed or continue during FY22-26: Complete Tower 1 Interlocking Modifications

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

SPECIAL PROJECT

Boston South Station Expansion

Project Sponsor: MBTA

Partners: Amtrak, Massachusetts DOT

Type: Major Station

Benefit: Shared

General Project Information

Full Project Scope	The purpose of the South Station Expansion project is to expand South Station Rail Terminal capacity and related layover capacity to meet current and anticipated future (2035) high-speed, intercity, and commuter rail service. State funding and a HSIPR grant are funding preliminary engineering and environmental review. The Federal Railroad Administration and MassDOT issued the Final Environmental Assessment and Section 4(f) Determination and the Finding of No Significant Impact (FONSI) for the South Station Expansion project on October 27, 2017. Additional funding is required for final design and construction.
Project Justification	The project will enable growth in passenger rail transportation; improve service reliability through updates to rail infrastructure and related layover capacity; improve the passenger capacity and experience of using South Station; promote city-building in a key area of Boston; and allow for Dorchester Avenue to be reopened for public use and enjoyment.

Financial Plan

Project Cost	Total Project Cost	\$2.3B
	Pre-Construction	\$306.1M
	Property Acquisition	\$0
	Construction	\$1.9B
	Cost Derivation Methodology: The project cost estimate is based on the latest financial plan for this project, provided by Massachusetts DOT.	
Funding Sources	Total Project Funding Committed:	\$36.5M
	Federal Sources:	\$27.6M
	HSIPR	\$27.6M FY10 award for Boston South Station Expansion
	Amtrak and Non-Federal Sources:	\$8.9M
	MassDOT	\$8.9M
Project Based Cost Allocation (PBCA)	Additional Project Funding Required:	\$2.2B
	PBCA Candidate:	Yes Notes: N/A
	Agreement Status:	Unknown

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	Pre-construction activities	Jan 2026 - Jan2030					
Construction	Boston South Station Expansion	Jan 2030 - Mar 2033					
Construction	Upgrading Layover Facilities	Mar 2033 - Dec 2034					

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$0

Scope of FY22 Work: No activity planned for FY22

Anticipated Milestones in FY22:

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$50.0M

At this spend level, the following activities could be completed or continue during FY22-26: Begin pre-construction activities

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

SPECIAL PROJECT

Massachusetts Third Track:
Readville to Canton

Project Sponsor: MBTA

Partners: Amtrak

Type: Improvement

Benefit: Shared

General Project Information	
Full Project Scope	To support existing services and proposed expansions, this project would construct an additional three-track territory through Massachusetts for five miles from Readville (Transfer Interlocking MP AB 218.6) to Canton Junction (Canton Interlocking MP AB 214.0). Phase 1 consists of extending Track 3 from Transfer Interlocking to Route 128 West. Phase 2 consists of extending Track 3 from Route 128 West to Junction Interlocking.
Project Justification	In Massachusetts, the NEC comprises three tracks near Boston, but constricts down to just two tracks near Route 128 Station. This two-track configuration for the remainder of Massachusetts creates a significant capacity bottleneck for Amtrak and MBTA's Providence Line, which together run 61 trains daily between Boston and Providence.

Financial Plan		
Project Cost	Total Project Cost	\$137.6M
	Pre-Construction	\$27.3M
	Property Acquisition	\$0
	Construction	\$110.4M
	Cost Derivation Methodology: The total project cost estimate was calculated during the CONNECT NEC 2035 delivery analysis.	
Funding Sources	Total Project Funding Committed:	\$60.7M
	Federal Sources:	\$0
	Amtrak and Non-Federal Sources:	\$60.7M
	MBTA	\$60.7M
	Additional Project Funding Required:	\$77.0M
Project Based Cost Allocation (PBCA)	PBCA Candidate:	Yes Notes: N/A
	Agreement Status:	Unknown

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	Pre-construction activities	Jan 2022 - Jan 2026					
Construction	Bridge Reconstruction	Jan 2026 - Jan 2027					
Construction	Install crossover	Jan 2027 - Mar 2027					
Construction	Install Track 3 Part 1	Mar 2027 - Oct 2027					
Construction	Install Track 3 Part 2	Oct 2027 - Mar 2028					
Construction	Install Track 3 Part 3	Mar 2028 - Oct 2028					

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$2.0M

Scope of FY22 Work: Continue the design and permitting for phase one of Track 3 extension.

Anticipated Milestones in FY22:

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$52.0M

At this spend level, the following activities could be completed or continue during FY22-26: Complete pre-construction activities and begin construction.

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

SPECIAL PROJECT

Attleboro Line Track 3 OCS Installation

Project Sponsor: MBTA

Partners: Amtrak, Massachusetts DOT

Type: Improvement

Benefit: Shared


General Project Information

Full Project Scope	This project is for the completion of the design and construction of a new Overhead Catenary System including the installation of all appurtenances and structural supports required for the electrification of track 3 between Thatcher and Holden Interlockings.
Project Justification	This project is required to enable the electrification of MBTA service on the Providence Line and provide additional electrified capacity to this section of the NEC Main Line.

Financial Plan

Project Cost	Total Project Cost	\$3.1M
	Pre-Construction	\$0
	Property Acquisition	\$0
	Construction	\$3.1M
	Cost Derivation Methodology: The project cost estimate is based on the latest financial plan for this project, provided by MBTA.	
Funding Sources	Total Project Funding Committed:	\$3.1M
	Federal Sources:	\$0
	Amtrak and Non-Federal Sources:	\$3.1M
	MBTA	\$3.1M
	Additional Project Funding Required:	\$0
Project Based Cost Allocation (PBCA)	PBCA Candidate:	Yes Notes: N/A
	Agreement Status:	Unknown

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Construction	Design and construction	Oct 2020 - Sep 2022					

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$2.6M

Scope of FY22 Work: Complete the design and construction of a new Overhead Catenary System including the installation of all appurtenances and structural supports required for the electrification of track 3 between Thatcher and Holden Interlockings.

Anticipated Milestones in FY22:

- Complete design (Sep 2022)
- Complete construction (Sep 2022)

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$2.6M

At this spend level, the following activities could be completed or continue during FY22-26: Complete electrification of Attleboro Line Track 3 between Thatcher and Holden interlockings.

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

SPECIAL PROJECT

Attleboro Station Improvements

Project Sponsor: MBTA

Partners:

Type: Improvement

Benefit: Sole Commuter

General Project Information

Full Project Scope	This project will upgrade Attleboro Station accessibility.
Project Justification	This project is to ensure the safety of customers.

Financial Plan

Project Cost	Total Project Cost	\$57.4M	
	Pre-Construction	\$11.4M	
	Property Acquisition	\$0	
	Construction	\$46.1M	
	Cost Derivation Methodology: The total project cost estimate was calculated during the CONNECT NEC 2035 delivery analysis.		
Funding Sources	Total Project Funding Committed:	\$0	
	Additional Project Funding Required:	\$57.4M	
Project Based Cost Allocation (PBCA)	PBCA Candidate:	No (Sole benefit)	Notes: N/A
	Agreement Status:	Not applicable	

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	Pre-construction activities	TBD					
Construction	Station Improvements	Jun 2024 - Jun 2025					

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$0

Scope of FY22 Work: No activity planned for FY22

Anticipated Milestones in FY22:

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$57.4M

At this spend level, the following activities could be completed or continue during FY22-26: Complete pre-construction activities, complete construction of station improvements.

For more details on the near-term plan, see project schedule above.

.4M

Five Year Plan Notes: N/A

SPECIAL PROJECT

New England OTP/Capacity Improvements: Attleboro Area Part 2

Project Sponsor: Amtrak

Partners: MBTA

Type: Improvement

Benefit: Shared

General Project Information	
Full Project Scope	<p>This project will install new #20 crossovers from Track 2 to Track 1 at Hebronville (AB Line MP 193.5) and Holden (AB Line MP198.2) interlockings, creating full universal interlockings near Attleboro Station. This will increase the flexibility of train movements through these two interlockings.</p> <p><i>This project was developed through the C35 project delivery analysis. The project scope, schedule, and budget details are currently under review by Amtrak and will be revisited during C37.</i></p>
Project Justification	<p>In territories with double track experiencing capacity issues, Amtrak prefers adding commuter station sidings to correct such capacity issues rather than adding a third main track, which forces diverging moves on Amtrak's intercity service and undermining on-time performance.</p>

Financial Plan	
Project Cost	Total Project Cost \$16.0M
	Pre-Construction \$3.3M
	Property Acquisition \$0
	Construction \$12.7M
	Cost Derivation Methodology: The total project cost estimate was calculated during the CONNECT NEC 2035 delivery analysis.
Funding Sources	Total Project Funding Committed: \$0
	Additional Project Funding Required: \$16.0M
Project Based Cost Allocation (PBCA)	PBCA Candidate: Yes Notes: N/A
	Agreement Status: Unknown

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
This project was developed through the C35 project delivery analysis and identified as a need in the early years of the plan (i.e., FY21 or FY22). The project will be reanalyzed during C37.							

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$0

Scope of FY22 Work: No activity planned for FY22

Anticipated Milestones in FY22:

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$16.0M

At this spend level, the following activities could be completed or continue during FY22-26: Complete construction of crossovers

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

SPECIAL PROJECT

South Attleboro Station Accessibility Improvements

Project Sponsor: MBTA

Partners: Massachusetts DOT, GATRA, RIPTA, City of Attleboro

Type: Improvement

Benefit: Sole Commuter

General Project Information	
Full Project Scope	South Attleboro Station will undergo a full reconstruction. The scope in includes (2) 800 Foot High Level Platforms, ADA Compliant Ramps, an new pedestrian bridge above the tracks, connectivity to Newport Avenue from the station, new station canopies, reconstruction of the MBTA parking lot, 2 203 Bus Bays for RIPTA and GATRA, a pick up area for drop-offs, modernized traffic signals, and a backup generator.
Project Justification	This project is to provide a modernized and fully accessible station to our customers as part of a bigger initiative to have all MBTA Stations ADA Accessible.

Financial Plan		
Project Cost	Total Project Cost	\$50.0M
	Pre-Construction	\$5.0M
	Property Acquisition	\$0
	Construction	\$45.0M
	Cost Derivation Methodology: The project cost estimate from the 30% Design Submission was used as a basis of the cost estimate.	
Funding Sources	Total Project Funding Committed:	\$7.0M
	Federal Sources:	\$0
	Amtrak and Non-Federal Sources:	\$7.0M
	MBTA	\$6.4M R17A09 MBTA Future Federal
	LXXBOR MBTA Lockbox Grant	\$0.6M
	Additional Project Funding Required:	\$43.0M
	Proposed Federal Sources:	\$43.0M
Project Based Cost Allocation (PBCA)	FTA Section 5337 Funds	\$43.0M Changed to proposed in FY22 submission
	PBCA Candidate:	No (Sole benefit) Notes: N/A
	Agreement Status:	Not applicable

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	Pre-construction activities	Apr 2020 - Dec 2021	<div style="width: 10px; height: 10px; background-color: black;"></div>				
Construction	Construction	Mar 2022 - Mar 2024	<div style="width: 30px; height: 10px; background-color: black;"></div>				

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$2.0M

Scope of FY22 Work: The South Attleboro Station FY22 Scope is listed below- Complete Final Design of the South Attleboro Station - Acquire additional funding for construction of the South Attleboro Station- Prepare construction contract for construction bidding.

Anticipated Milestones in FY22:

- NTP for Construction (Jan 2022)

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$48.0M

At this spend level, the following activities could be completed or continue during FY22-26: At the target spend level indicated above, the South Attleboro Station Design will be completed and the South Attleboro Station Construction will be completed.

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: The South Attleboro Station Construction will be accelerated due to the temporary suspension of train service to the station. MBTA will reopen the station once it is fully reconstructed.

SPECIAL PROJECT

MBTA Pawtucket Layover Facility

Project Sponsor: MBTA

Partners: Massachusetts DOT, Rhode Island DOT, Keolis

Type: Improvement

Benefit: Sole Commuter

General Project Information

Full Project Scope

This project will implement improvements to the existing Pawtucket Layover Facility, where the MBTA stores and services trains for the Providence/Stoughton Line. Pawtucket Layover Improvements Phase 1, completed in 2013, includes a 700 feet inspection pit for FRA Class 1 Brake Inspections and a conduit bridge to support future phases. Pawtucket Layover Improvements Phase II was completed in 2020. Phase 2 includes the installation of fluid handling equipment which consists of an island dispenser platform, tank farm, and electrical communication room at Pawtucket Layover Facility. The island dispenser platform provides diesel, main engine lube oil, and sand to locomotives on tracks 2 and/or 3 of the layover. The tank farm consists of the various pumps, storage tanks, piping, and conduits to route fluids to the island dispensing platform. The electrical communication room provides power and fuel management to the site. Pawtucket Layover Improvements Phase III includes the construction of a maintenance facility covering 2 to 3 tracks of the layover which will house trainsets. The maintenance facility will be used to perform year-round light maintenance on trainsets and protect the labor force from the weather elements while they perform FRA Class 1 Brake Inspections.




Project Justification

Phase I enhancements to the Pawtucket Layover Facility will allow MBTA/Keolis to perform Class I Braking Inspections which relieves the burden on other facilities along the Providence Line. Phase II enhancements allows the MBTA to save 600-1000 gallons fuel when trains are filled up in the Pawtucket Layover Facility Yard instead of traveling from Providence, RI to Boston, MA . Phase III enhancements will allow provide a train maintenance facility for additional maintenance on the locomotives to occur along with enabling the potential electrification of certain tracks in the Pawtucket Layover.

Financial Plan

Project Cost	Total Project Cost	\$60.0M	
	Pre-Construction	\$10.0M	
	Property Acquisition	\$0	
	Construction	\$50.0M	
	Cost Derivation Methodology: This project estimate is based on an order of magnitude for the Pawtucket Layover Improvements Phase III Maintenance Facility. It was created by the designer of record in June 2021.		
Funding Sources	Total Project Funding Committed:	\$19.0M	
	Federal Sources:	\$15.0M	
	FTA Formula Grants	\$9.0M	RIDOT FTA Grants
	FTA Formula Grants	\$3.0M	
	ARRA	\$2.5M	Phase 1
	FTA Formula Grants	\$0.5M	RIDOT FTA Grants - Phase 1
	Amtrak and Non-Federal Sources:	\$4.0M	
	MBTA/RIDOT	\$4.0M	MBTA partially funded/Reimbursed by RIDOT
	Additional Project Funding Required:	\$41.0M	
	Proposed Amtrak and Non-Federal Sources	\$24.0M	
	MBTA	\$24.0M	
Project Based Cost Allocation (PBCA)	PBCA Candidate:	No (Sole benefit)	Notes: N/A
	Agreement Status:	Not applicable	

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	Pre-construction activities	Jan 2011 - Jun 2022					
Pre-construction	Final Design	Sep 2019 - Jun 2022					
Construction	Pawtucket Layover Facility Phase 1 Track Pit and Conduit Bridge	Aug 2012 - Mar 2016					
Construction	Pawtucket Layover Phase II Fluid Handling Improvements	Jun 2017 - Jul 2020					
Construction	Pawtucket Layover Phase III Train Maintenance Facility	Sep 2022 - Sep 2024					

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$3.0M

Scope of FY22 Work: Pawtucket Layover Improvements Phase III for FY22 will include the following scope of work- Final Design Completion of Pawtucket Layover Improvements Phase III Train Maintenance Facility.- Preparation of Construction Contract for bidding- Acquire Construction Funding for Pawtucket Layover Phase III

Anticipated Milestones in FY22:

- Phase III Final Design (Jun 2022)
- Phase III Construction NTP to be Issued (Sep 2022)

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$50.0M

At this spend level, the following activities could be completed or continue during FY22-26: The completion of Pawtucket Layover Improvements Phase III which will complete the planned phases of the Pawtucket Layover Program.

For more details on the near-term plan, see project schedule above.

.0M

Five Year Plan Notes: The schedule and funding will be tied to the post COVID-19 Pandemic needs especially for construction. Design will be completed during this timeframe.

SPECIAL PROJECT

Providence Station Improvements

Project Sponsor: Rhode Island DOT

Partners: Amtrak

Type: Major Station

Benefit: Shared

General Project Information

Full Project Scope	The Providence Station State of Good Repair and Capacity Project will complete a major renovation and redesign of the station to adequately prepare it for continued, future use. Proposed improvements are grouped into three primary categories: within the station building, within the station site, and connectivity to Providence. Project funds will be used for final design by building off of the 30% plans developed by RIDOT and Amtrak and approved by FRA in 2017. Upon completion of final design, Project funds will be used to construct the proposed improvements.
Project Justification	Providence Station was relocated in downtown Providence in the 1980s. The current station is in need of reprogramming of interior space to better reflect the needs of today's travelers. The relocation also created a need for new intermodal connections to ensure that passengers can seamlessly travel to Providence Station for destinations along the Corridor, including Boston, MA. Numerous companies in Boston have also decided to locate additional offices in Providence, thereby increasing the importance for service between the two cities.

Financial Plan

Project Cost	Total Project Cost	\$28.8M	
	Pre-Construction	\$6.3M	
	Property Acquisition	\$0	
	Construction	\$22.5M	
	Cost Derivation Methodology: The project cost estimate was calculated as part of the 30% design milestone.		
Funding Sources	Total Project Funding Committed:	\$28.8M	
	Federal Sources:	\$15.5M	
	Federal-State Partnership for SOGR	\$12.5M	FY17-18 Award for Providence Station State of Good Repair and Capacity Project
	ARRA	\$3.0M	ARRA Award for Providence Station Improvement Project (PE/NEPA)
	Amtrak and Non-Federal Sources:	\$13.3M	
	Other Amtrak Sources	\$7.3M	Match for FY17-18 SOGR Award
	Rhode Island DOT	\$5.3M	Match for FY17-18 SOGR Award
	Rhode Island DOT	\$0.8M	Match for ARRA Award
	Additional Project Funding Required:	\$0	
Project Based Cost Allocation (PBCA)	PBCA Candidate:	Yes	Notes: Cost allocation decided before NECC policy changes
	Agreement Status:	Not started	

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	Pre-construction activities	Sep 2011 - Dec 2020					
Construction	Providence Station Improvements	Jun 2022 - Nov 2023					

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$7.3M

Scope of FY22 Work: Complete final design, begin construction

Anticipated Milestones in FY22:

- Advance Design to 90% (Nov 2021)
- Complete Final Design (Jan 2022)
- Procure contractor (Feb 2022)
- Begin Construction (Apr 2022)
- Procure long lead items (Apr 2022)

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$25.0M

At this spend level, the following activities could be completed or continue during FY22-26: Providence Station Improvements

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: Cost reduced to eliminate inflation. Contract of final design is already signed and construction should be within limits.

SPECIAL PROJECT

Pawtucket/Central Falls Station

Project Sponsor: Rhode Island DOT

Partners: MBTA

Type: Improvement

Benefit: Sole Commuter

General Project Information	
Full Project Scope	This project will build a new infill commuter rail station along MBTA's Providence Line in Pawtucket, RI with an anticipated opening in 2022. The scope includes station platforms, a pedestrian overpass, and associated pedestrian access points. The project was the recipient of a 2016 USDOT TIGER Award.
Project Justification	The new Pawtucket/Central Falls Station will provide Rhode Island's densest urban communities located between Providence and Attleboro with access to commuter rail service. This station will provide relief to overcrowded stations in Providence and South Attleboro, while attracting new riders from adjacent residential redevelopment areas that would take advantage of proximity to transit for access to jobs, educational opportunities, and medical options in Boston and Providence.

Financial Plan		
Project Cost	Total Project Cost	\$50.9M
	Pre-Construction	\$6.0M
	Property Acquisition	\$0
	Construction	\$44.9M
	Cost Derivation Methodology: The total project cost estimate was calculated during the CONNECT NEC 2035 delivery analysis.	
Funding Sources	Total Project Funding Committed:	\$50.9M
	Federal Sources:	\$36.7M
	FTA Section 5307 Funds	\$18.0M
	TIGER	\$13.1M FY16 Award for Pawtucket/Central Falls Commuter Rail Station
	CMAQ	\$5.6M
	Amtrak and Non-Federal Sources:	\$14.2M
	Rhode Island	\$11.2M
	Local funding	\$3.0M Municipal
	Additional Project Funding Required:	\$0
Project Based Cost Allocation (PBCA)	PBCA Candidate:	No (Sole benefit) Notes: N/A
	Agreement Status:	Not applicable

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	Feasibility/ Conceptual Design	Oct 2019 - Apr 2020					
Pre-construction	Final Design	Apr 2020 - Sep 2020					
Pre-construction	PE/NEPA	Complete Jan 2017					
Construction	Construction activities	May 2019 - Mar 2022	■				
Construction	Construct Pawtucket Platform SB	Jan 2021 - Jan 2022	■				
Construction	Construct Pawtucket Platform NB	Feb 2021 - Dec 2021	■				
Construction	Set Pedestrian Bridge	Dec 2021 - Feb 2022	■				
Construction	Install Elevator	Jan 2022 - Mar 2022	■				

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$17.8M

Scope of FY22 Work: Complete construction of NB and SB platform; continue pedestrian access via ramps, stairs, elevator and pedestrian bridge; install mechanical, electrical and plumbing items; install signage, landscaping, and conduct commissioning for anticipated summer revenue start.

Anticipated Milestones in FY22:

- Complete northbound platform foundation (Oct 2021)
- Complete Retaining Wall Construction (Oct 2021)
- Complete southbound platform foundation (Oct 2021)
- Set Pedestrian Bridge (Dec 2021)
- Complete mechanical, electrical, and plumbing (Mar 2022)
- Install elevator (Mar 2022)
- Install southbound platform decking (Mar 2022)
- Relocate overhead catenary system (Mar 2022)

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$17.8M

At this spend level, the following activities could be completed or continue during FY22-26: Open station to MBTA revenue service in summer 2022 (FY22 Q3)

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

SPECIAL PROJECT

New England OTP/Capacity Improvements: Providence Station

Project Sponsor: Amtrak

Partners: MBTA





Type: Improvement

Benefit: Shared

General Project Information	
Full Project Scope	Reconfigure Providence Station Interlockings (including Atwells, Brayton, Orms, and Ash to improve capacity and on-time performance of Amtrak and MBTA turns as well as Rhode Island extensions. <i>This project was developed through the C35 project delivery analysis. The project scope, schedule, and budget details are currently under review by Amtrak and will be revisited during C37.</i>
Project Justification	Half of MBTA trains turnback at Providence Station, while the other half continue to Wickford Junction mostly via the FRIP track. Amtrak and MBTA trains overtake each other here as well, which were not initially configured for this type of operation. This project will align the infrastructure with the service offered by Amtrak and MBTA.

Financial Plan		
Project Cost	Total Project Cost	\$117.9M
	Pre-Construction	\$23.3M
	Property Acquisition	\$0
	Construction	\$94.5M
	Cost Derivation Methodology: The total project cost estimate was calculated during the CONNECT NEC 2035 delivery analysis.	
Funding Sources	Total Project Funding Committed:	\$0
	Additional Project Funding Required:	\$117.9M
Project Based Cost Allocation (PBCA)	PBCA Candidate:	Yes Notes: N/A
	Agreement Status:	Unknown

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	Pre-construction activities	Nov 2022 - Nov 2024					
Construction	Realign Track 7 at Providence	Nov 2024 - Feb 2026					
Construction	Realign Track 3 at Providence	Feb 2026 - Jul 2026					
Construction	Realign Track 1 at Providence	Jul 2026 - Aug 2026					
Construction	Realign Track 2 at Providence	Aug 2026 - Oct 2026					
Construction	Install Pocket Track	Oct 2026 - May 2027					

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$0

Scope of FY22 Work: No activity planned for FY22

Anticipated Milestones in FY22:

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$93.5M

At this spend level, the following activities could be completed or continue during FY22-26: Complete pre-construction activities and begin track realignment

For more details on the near-term plan, see project schedule above.

7.9M

Five Year Plan Notes: N/A

SPECIAL PROJECT

Veltri Interlocking

Project Sponsor: Amtrak

Partners:





Type: Improvement

Benefit: Sole Amtrak

General Project Information	
Full Project Scope	This project would design and install a new universal interlocking VELTRI at MP133 in Mystic, CT. Construction would include the installation of turn-outs, rail, ties, sub-grade, ballast, overhead catenary, signal transformers, signals cables, signal bridges, switch heater, switch machines, switch houses, instrument houses, and interlocking lighting. This new interlocking will be an Amtrak sole use asset.
Project Justification	This new interlocking will provide operating flexibility, improve reliability, allow for future maintenance outages and track possessions, and subdivide an 18-mile interlocking-to-interlocking segment into two shorter segments, allowing single track operation over a shorter distance during maintenance with less operational disruption. This will improve reliability.

Financial Plan	
Project Cost	Total Project Cost \$29.4M
	Pre-Construction \$2.8M
	Property Acquisition \$0
	Construction \$26.7M
	Cost Derivation Methodology: The project cost estimate is based on the latest financial plan for this project updated upon completion of the 90% design milestone.
Funding Sources	Total Project Funding Committed: \$13.3M
	Federal Sources: \$0
	Amtrak and Non-Federal Sources: \$13.3M
	Amtrak GCAP \$13.3M FY19 2021
	Additional Project Funding Required: \$16.1M
Project Based Cost Allocation (PBCA)	PBCA Candidate: No (Sole benefit) Notes: N/A
	Agreement Status: Not applicable

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	Pre-construction activities	Jan 2019 - Dec 2021					
Construction	Preparation and Initial Works	Mar 2021 - Sep 2022					
Construction	Realign Track 1	Sep 2022 - Mar 2023					
Construction	Realign Track 2	Mar 2023 - Sep 2023					

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$1.7M

Scope of FY22 Work: FY22 scope includes completion of Lancaster Shop construction for CIH, A & B locations and related cases. Completion of environmental permitting and beginning of onboarding the civil/foundation contractor.

Anticipated Milestones in FY22:

- FINAL design submission (Dec 2021)
- RFP for general contractor for civil construction, culvert installation, catenary pole foundations and steel, elevated platforms, ET wire, etc. (Jan 2022)
- Obtain all required NEPA/SHPO permits for construction to start. (Mar 2022)
- Lancaster Shop CIH, A & B Loc completion (Apr 2022)

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$25.9M

At this spend level, the following activities could be completed or continue during FY22-26: Complete design and environmental permitting, install Track 1 turnouts, install Track 2 turnouts, complete all civil, catenary and signalization work and cut over interlocking.

For more details on the near-term plan, see project schedule above.

.1M

Five Year Plan Notes: Complete design, perform all construction and cut over interlocking

SPECIAL PROJECT

New England Grade Crossing Elimination Program: Wamphassuc Point Rd.

Project Sponsor: Amtrak

Partners: Connecticut DOT

Type: Improvement

Benefit: Shared

General Project Information	
Full Project Scope	<p>This project will close Wamphassuc Rd. Grade Crossing by building a connection to Joy Avenue or a Locally Preferred Alternative (MP AB 134.9). This is part of the New England Grade Crossing Elimination Program, which includes Elihu Island Rd. Grade Crossing Closure, the Wamphassuc Rd. Grade Crossing Closure, Latimer Point Rd. Grade Crossing Closure, New London Station Safety Improvements, and Miner Lane Grade Crossing Closure. The intent of this program is to prioritize and eliminate these grade crossings to improve safety.</p> <p><i>This project was developed through the C35 project delivery analysis. The project scope, schedule, and budget details are currently under review by Amtrak and will be revisited during C37.</i></p>
Project Justification	<p>This project will permanently remove one of the last highway-rail at-grade crossings on the NEC, improving safety and reliability by eliminating the possibility of train-vehicle collisions and train delays caused by grade crossing warning device malfunctions.</p>

Financial Plan	
Project Cost	Total Project Cost \$20.5M
	Pre-Construction \$4.2M
	Property Acquisition \$0
	Construction \$16.3M
	Cost Derivation Methodology: The total project cost estimate was calculated during the CONNECT NEC 2035 delivery analysis.
Funding Sources	Total Project Funding Committed: \$0
	Additional Project Funding Required: \$20.5M
Project Based Cost Allocation (PBCA)	PBCA Candidate: Yes Notes: N/A
	Agreement Status: Unknown

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	Pre-construction activities	Jan 2024 - Jan 2026					
Construction	Remove Grade Crossings	Jan 2026 - May 2028					

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$0

Scope of FY22 Work: No activity planned for FY22

Anticipated Milestones in FY22:

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$9.1M

At this spend level, the following activities could be completed or continue during FY22-26: Complete pre-construction activities and begin grade crossing removal

For more details on the near-term plan, see project schedule above.

.5M

Five Year Plan Notes: N/A

SPECIAL PROJECT

New England Grade Crossing Elimination Program: Elihue Island Rd.

Project Sponsor: Amtrak

Partners: Connecticut DOT

Type: Improvement

Benefit: Shared

General Project Information	
Full Project Scope	<p>This project will close Elihu (Freeman's) Island Road Grade Crossing by building a connection to an upgraded Walker's Dock Grade Crossing or a Locally Preferred Alternative (MP AB 136.7). This is part of the New England Grade Crossing Elimination Program, which includes Elihu Island Rd. Grade Crossing Closure, Wamphassuc Rd. Grade Crossing Closure, Latimer Point Rd. Grade Crossing Closure, New London Station Safety Improvements, and Miner Lane Grade Crossing Closure. The intent of this program is to prioritize and eliminate these grade crossings to improve safety.</p> <p><i>This project was developed through the C35 project delivery analysis. The project scope, schedule, and budget details are currently under review by Amtrak and will be revisited during C37.</i></p>
Project Justification	<p>This project will permanently remove one of the last highway-rail at-grade crossings on the NEC, improving safety and reliability by eliminating the possibility of train-vehicle collisions and train delays caused by grade crossing warning device malfunctions. It would also allow Amtrak to increase speed in the area from 80 mph to up to 110 mph.</p>

Financial Plan		
Project Cost	Total Project Cost	\$15.0M
	Pre-Construction	\$3.1M
	Property Acquisition	\$0
	Construction	\$11.9M
	Cost Derivation Methodology: The total project cost estimate was calculated during the CONNECT NEC 2035 delivery analysis.	
Funding Sources	Total Project Funding Committed:	\$0
	Additional Project Funding Required:	\$15.0M
Project Based Cost Allocation (PBCA)	PBCA Candidate:	Yes Notes: N/A
	Agreement Status:	Unknown

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	Pre-construction activities	Jul 2024 - Jan 2026					
Construction	Remove Grade Crossings	Jan 2026 - May 2028					

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$0

Scope of FY22 Work: No activity planned for FY22

Anticipated Milestones in FY22:

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$6.6M

At this spend level, the following activities could be completed or continue during FY22-26: Complete pre-construction activities and begin grade crossing removal

For more details on the near-term plan, see project schedule above.

.0M

Five Year Plan Notes: N/A

SPECIAL PROJECT

New England Grade Crossing Elimination Program: Latimer Point Rd.

Project Sponsor: Amtrak

Partners: Connecticut DOT

Type: Improvement

Benefit: Shared

General Project Information	
Full Project Scope	<p>This project will build a bridge to close Latimer Point Rd. Grade Crossing or the Locally Preferred Alternative (MP AB 133.4). This is part of the New England Grade Crossing Elimination Program, which includes Elihu Island Rd. Grade Crossing Closure, Wamphassuc Rd. Grade Crossing Closure, Latimer Point Rd. Grade Crossing Closure, New London Station Safety Improvements, and Miner Lane Grade Crossing Closure. The intent of this program is to prioritize and eliminate these grade crossings to improve safety.</p> <p><i>This project was developed through the C35 project delivery analysis. The project scope, schedule, and budget details are currently under review by Amtrak and will be revisited during C37.</i></p>
Project Justification	<p>This project will permanently remove one of the last highway-rail at-grade crossings on the NEC, improving safety and reliability by eliminating the possibility of train-vehicle collisions and train delays caused by grade crossing warning device malfunctions.</p>

Financial Plan		
Project Cost	Total Project Cost	\$82.0M
	Pre-Construction	\$16.2M
	Property Acquisition	\$0
	Construction	\$65.8M
Cost Derivation Methodology: The total project cost estimate was calculated during the CONNECT NEC 2035 delivery analysis.		
Funding Sources	Total Project Funding Committed:	\$0
	Additional Project Funding Required:	\$82.0M
Project Based Cost Allocation (PBCA)	PBCA Candidate:	Yes Notes: N/A
	Agreement Status:	Unknown

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	Pre-construction activities	Jul 2024 - Jan 2026					
Construction	Remove Grade Crossings	Jan 2026 - May 2028					

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$0

Scope of FY22 Work: No activity planned for FY22

Anticipated Milestones in FY22:

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$36.0M

At this spend level, the following activities could be completed or continue during FY22-26: Complete pre-construction activities and begin grade crossing removal

For more details on the near-term plan, see project schedule above.

.0M

Five Year Plan Notes: N/A

SPECIAL PROJECT

Shore Line East Track & Catenary Improvements (FY22)

Project Sponsor: Connecticut DOT

Partners: Amtrak

Type: Improvement

Benefit: Shared

General Project Information	
Full Project Scope	This project will install electric catenary over the platform track at New London station to support future Shore Line East electric service.
Project Justification	This project, by allowing the use of electric powered equipment on Shore Line East, is critical to Connecticut's statewide fleet management plan. The use of electric powered equipment on Shore Line East will also provide benefits to users of the NEC main line.

Financial Plan		
Project Cost	Total Project Cost	\$10.0M
	Pre-Construction	\$0
	Property Acquisition	\$0
	Construction	\$10.0M
	Cost Derivation Methodology: The project cost estimate was calculated during the final design phase.	
Funding Sources	Total Project Funding Committed:	\$10.0M
	Federal Sources:	\$0
	Amtrak and Non-Federal Sources:	\$10.0M
	Connecticut	\$10.0M
	Additional Project Funding Required:	\$0
Project Based Cost Allocation (PBCA)	PBCA Candidate:	Yes Notes: N/A
	Agreement Status:	Unknown

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Construction	Construction	Nov 2021 - Nov 2022					

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$4.0M

Scope of FY22 Work: Begin construction of track and catenary improvements at New London station.

Anticipated Milestones in FY22:

- Begin construction (Nov 2021)
- Complete Construction New London Track 6 (Apr 2022)

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$10.0M

At this spend level, the following activities could be completed or continue during FY22-26: Complete construction

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

SPECIAL PROJECT

Connecticut River Bridge Replacement

Project Sponsor: Amtrak

Partners: Connecticut DOT

Type: Major Backlog

Benefit: Shared






General Project Information

Full Project Scope	This project would replace the Connecticut River Bridge between Old Saybrook and Old Lyme, CT that carries Amtrak and Shore Line East trains. Completed in 1907, it is the oldest movable bridge between New Haven, CT and Boston, MA. The bridge has a movable span that is raised up to allow boats to pass. By law, the bridge must remain open from May through September for recreational boats to pass and closes only when trains approach. A full replacement of the existing bridge, will have two-track, electrified railroad movable bridge, steel through-truss trunnion bascule span; a ballasted, reinforced concrete deck on steel girder approach spans, and at grade approaches that tie into the existing railroad. The new bridge will be built along a new southern alignment, with an offset of 52 feet from the centerline of the existing bridge to the centerline of the new bridge. The new design improves reliability and offers higher speeds for Amtrak and Shore Line East trains. This project is currently undergoing a re-evaluation of NEPA to address impacts to significant prehistoric archaeological sites. Consultation is on-going among FRA, CT SHPO, interested tribes, and other Section 106 consulting parties pursuant to Section 106 MOA executed in August 2016.
Project Justification	A century of operation in a marine environment, coupled with the age of the structure, has taken its toll and speeds are restricted to 45 mph. Many key elements of the bridge have reached the end of their design life and require extensive maintenance to remain in operable condition. The frequent opening and closing of the bridge – over 3,000 times per year – puts high demands on its aging components, increasing maintenance costs for Amtrak and reducing reliability for both railway and marine traffic.

Financial Plan

Project Cost	<div>Total Project Cost\$556.7M</div> <div>Pre-Construction\$71.6M</div> <div>Property Acquisition\$0</div> <div>Construction\$485.1M</div> <div>Cost Derivation Methodology: The project cost estimate is based on the 60% design documents. The construction cost estimate includes a 30% contingency.</div>
Funding Sources	<div>Total Project Funding Committed:\$72.5M</div> <div>Federal Sources:\$65.2M</div> <div>Federal-State Partnership for SOGR\$65.2M FY20 Award for Connecticut River Bridge Replacement</div> <div>Amtrak and Non-Federal Sources:\$7.3M</div> <div>Amtrak GCAP\$7.3M FY19 & prior</div> <div>Additional Project Funding Required:\$485.0M</div>
Project Based Cost Allocation (PBCA)	<div>PBCA Candidate:Yes Notes: Pre-Construction (PE/NEPA)</div> <div>Agreement Status:Unknown</div>

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	Pre-construction activities	Jan 2018 - Dec 2021					
Construction	Construct Bridge	Feb 2023 - May 2025					
Construction	Realign Track 2	Dec 2024 - Aug 2025					
Construction	Realign Track 1	Jan 2025 - Sep 2025					
Construction	Demolish Old Bridge	Sep 2025 - Sep 2026					

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$8.2M

Scope of FY22 Work: Submission of 100% design documents sealed and stamped. Project is undergoing NEPA re-evaluation.

Anticipated Milestones in FY22:

- Commence RFP Procurement Process (Oct 2021)
- Final Stamped and Sealed 100% Design Documents Issued (Dec 2021)
- Advertise RFP for 3rd Party Contractor (Jan 2022)
- Issue NTP 3rd Party Contractor (Aug 2022)

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$545.5M

At this spend level, the following activities could be completed or continue during FY22-26: Construct bridge

For more details on the near-term plan, see project schedule above.

0M

Five Year Plan Notes: N/A

SPECIAL PROJECT

Brook Interlocking Improvements

Project Sponsor: Amtrak

Partners: Connecticut DOT

Type: Improvement

Benefit: Shared

General Project Information

Full Project Scope	<p>This project will add a westbound Track 2 to Track 1 right-hand crossover at Brook Interlocking that, when combined with the existing Saybrook Interlocking, will provide full universal interlocking functionality (Brook Interlocking "12" crossover).</p> <p><i>This project was developed through the C35 project delivery analysis. The project scope, schedule, and budget details are currently under review by Amtrak and will be revisited during C37.</i></p>
Project Justification	<p>This project will improve on-time performance for all users traveling between New Haven to New London by improving reliability and supporting operational flexibility during maintenance-related track outages. When combined with an additional platform edge at Old Saybrook Station, this will allow originating westbound SLE trains to advance west to Brook Interlocking while being overtaken by westbound Amtrak trains between Saybrook and Brook Interlockings.</p>

Financial Plan

Project Cost	<div>Total Project Cost\$8.8M</div> <div>Pre-Construction\$1.8M</div> <div>Property Acquisition\$0</div> <div>Construction\$7.0M</div> <div>Cost Derivation Methodology: The total project cost estimate was calculated during the CONNECT NEC 2035 delivery analysis.</div>
Funding Sources	<div>Total Project Funding Committed:\$0</div> <div>Additional Project Funding Required:\$8.8M</div>
Project Based Cost Allocation (PBCA)	<div>PBCA Candidate:YesNotes: N/A</div> <div>Agreement Status:Unknown</div>

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
This project was developed through the C35 project delivery analysis and identified as a need in the early years of the plan (i.e., FY21 or FY22). The project will be reanalyzed during C37.							

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$0

Scope of FY22 Work: No activity planned for FY22

Anticipated Milestones in FY22:

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$8.8M

At this spend level, the following activities could be completed or continue during FY22-26: Completion of Brook Interlocking improvements

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

SPECIAL PROJECT

Fitter Interlocking

Project Sponsor: Amtrak

Partners: Connecticut DOT

Type: Improvement

Benefit: Shared

General Project Information

Full Project Scope	This project would include the construction of a new, wired universal interlocking in Clinton, CT that would subdivide a 16-mile interlocking-to-interlocking segment (Guilford and View Interlockings) into two shorter segments, allowing single track operation over a shorter distance during maintenance with less operational disruption. This will improve reliability. Construction would include the installation of #24 conventional turn-outs, rail, switch ties, sub-grade, ballast, components of the overhead catenary system, signal transformers, signal cables, signal masts, switch heaters, switch machines, switch houses, instrument houses, and interlocking lighting.
Project Justification	A new interlocking in Clinton would increase the flexibility of Shore Line East and Amtrak operations. This new interlocking would enable SLE trains to flexibly service the existing and future platforms at Clinton and Madison stations and make greater use of the Clinton siding, a short stretch of third track along the south side of the NEC. By enabling SLE trains to use all platforms and tracks in the area, the interlocking would enable Amtrak and SLE to expand services while reducing train conflicts and their resulting delays.

Financial Plan

Project Cost	Total Project Cost	\$34.8M	
	Pre-Construction	\$2.3M	
	Property Acquisition	\$0	
	Construction	\$32.5M	
	Cost Derivation Methodology: The project cost estimate was calculated during the final design phase.		
Funding Sources	Total Project Funding Committed:	\$14.6M	
	Federal Sources:	\$0	
	Amtrak and Non-Federal Sources:	\$14.6M	
	Connecticut DOT	\$11.2M	Contributing 35% of construction, as per PO DOTM1-0000209329
	Amtrak GCAP & Connecticut DOT	\$2.0M	Revised post-COVID figures (Amtrak FY20)
	Amtrak GCAP	\$1.4M	FY19 & prior
	Additional Project Funding Required:	\$20.2M	
Project Based Cost Allocation (PBCA)	PBCA Candidate:	Yes	Notes: N/A
	Agreement Status:	Completed	

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	Final Design	Nov 2018 - Mar 2020					
Construction	Contractor Construction (Civil/ET)	Oct 2021 - Feb 2023					
Construction	Install Track 1 turnouts	May 2023 - Jun 2023					
Construction	Install Track 2 turnouts	Jun 2023 - Jul 2023					
Construction	Signal Cutover	Jul 2023 - Sep 2023					

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$12.7M

Scope of FY22 Work: On-boarding of GC for construction, perform civil work and re-align tracks, install catenary structures and elevated platforms for signal houses.

Anticipated Milestones in FY22:

- Issue Notice to Proceed to General Contractor (Oct 2021)
- Lancaster Shop to complete construction and delivery of Location 'A' and related cases (Nov 2021)
- Complete steel platforms for signal facilities (Jul 2022)
- Remove Track 2 from service for track shift and civil work (Jul 2022)
- Complete catenary foundation installation and begin pole erection (Sep 2022)

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$31.2M

At this spend level, the following activities could be completed or continue during FY22-26: Install Track 1 turnouts, Install Track 2 turnouts, complete all civil, catenary, and signalization work and cut over interlocking.

For more details on the near-term plan, see project schedule above.

M

Five Year Plan Notes: N/A

SPECIAL PROJECT

New England OTP/Capacity Improvements: Madison Station

Project Sponsor: Connecticut DOT

Partners: Amtrak

Type: Improvement

Benefit: Shared

General Project Information	
Full Project Scope	This project will construct a new Track 1 platform at the Madison Station in Connecticut.
Project Justification	Madison Station currently has only one platform and is subject to the “Intervening Tracks at Station Platforms” rule that creates a single-track bottleneck because passengers must walk across one “live” track to access their train on the other track. The new Track 1 platform will eliminate this operating requirement, effectively allowing two trains to always pass unimpeded. The project will also improve passenger accessibility, safety, station capacity, and on-time performance for trains.

Financial Plan		
Project Cost	Total Project Cost	\$16.0M
	Pre-Construction	\$3.3M
	Property Acquisition	\$0
	Construction	\$12.7M
	Cost Derivation Methodology: The total project cost estimate was calculated during the CONNECT NEC 2035 delivery analysis.	
Funding Sources	Total Project Funding Committed:	\$0
	Additional Project Funding Required:	\$16.0M
	Proposed Amtrak and Non-Federal Sources	\$16.0M
	Connecticut	\$16.0M
Project Based Cost Allocation (PBCA)	PBCA Candidate:	Yes Notes: N/A
	Agreement Status:	Unknown

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	Pre-construction activities	Aug 2021 - Feb 2023	<div style="width: 100px; height: 15px; background-color: black;"></div>				
Construction	Construct Madison Platform 1	Feb 2023 - Feb 2025		<div style="width: 100px; height: 15px; background-color: black;"></div>			

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$0

Scope of FY22 Work: No activity planned for FY22

Anticipated Milestones in FY22:

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$15.7M

At this spend level, the following activities could be completed or continue during FY22-26: Pre-construction activities, construction Madison platform 1, complete construction.

For more details on the near-term plan, see project schedule above.

M

Five Year Plan Notes: N/A

SPECIAL PROJECT

Windsor Locks Station and Interlocking Improvements

Project Sponsor: Connecticut DOT

Partners: Amtrak

Type: Improvement

Benefit: Shared

General Project Information

Full Project Scope	This project is focused on a new station and interlocking at Windsor Locks as part of the program to rebuild and upgrade infrastructure between New Haven, CT and Springfield, MA.
Project Justification	These investments will improve reliability and allow for increased service of up to 25 round trips per day between New Haven and Springfield on the CTrail Hartford Line service, which launched in June 2018. This project will increase ridership for the NEC and enhance regional rail travel in New England.

Financial Plan

Project Cost	Total Project Cost	\$93.5M
	Pre-Construction	\$18.5M
	Property Acquisition	\$0
	Construction	\$75.0M
	Cost Derivation Methodology: The total project cost estimate was calculated during the CONNECT NEC 2035 delivery analysis.	
Funding Sources	Total Project Funding Committed:	\$20.0M
	Federal Sources:	\$0
	Amtrak and Non-Federal Sources:	\$20.0M
	Connecticut DOT	\$20.0M FY22 Expenditure
	Additional Project Funding Required:	\$73.5M
Project Based Cost Allocation (PBCA)	PBCA Candidate:	Yes Notes: N/A
	Agreement Status:	Unknown

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	Pre-construction activities	Jan 2020 - Mar 2020					
Construction	Construct new track 2 at new Windsor Locks Station	Jan 2020 - Sep 2020					
Construction	Shift track 1 at new Windsor Locks Station	Sep 2020 - Dec 2020					
Construction	Construct Relocated Windsor Locks platform	Dec 2020 - Feb 2023					

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$20.0M

Scope of FY22 Work: Start construction

Anticipated Milestones in FY22:

- Begin construction (Sep 2022)

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$84.0M

At this spend level, the following activities could be completed or continue during FY22-26: Construct relocated Windsor Locks platform

For more details on the near-term plan, see project schedule above.

M

Five Year Plan Notes: N/A

SPECIAL PROJECT

Hartford Station Relocation

Project Sponsor: Connecticut DOT

Partners: Amtrak

Type: Improvement

Benefit: Shared

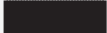




General Project Information

Full Project Scope	This project will relocate Hartford Station, as per CTDOT’s proposed project, with 4 platform edges and increasing speeds from 20 to 45 mph. This project will be coordinated with the relocation of I-84 through Hartford.
Project Justification	The current station significantly slows both commuter and intercity trains, and creates a capacity bottleneck impacting service growth and on-time performance.

Financial Plan

Project Cost	Total Project Cost	\$510.2M
	Pre-Construction	\$95.9M
	Property Acquisition	\$0
	Construction	\$414.3M
	Cost Derivation Methodology: The project cost estimate is based on the latest financial plan for this project, provided by Connecticut DOT.	
Funding Sources	Total Project Funding Committed:	\$0
	Additional Project Funding Required:	\$510.2M
Project Based Cost Allocation (PBCA)	PBCA Candidate:	Yes Notes: N/A
	Agreement Status:	Unknown

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	Pre-construction activities	Jan 2025 - Jan 2028					
Construction	Construct new Structure for Platform 1 at Hartford	Jan 2028 - May 2029					
Construction	Connect new platform tracks to existing track 1	May 2029 - Sep 2029					
Construction	Connection to new Track 2	Sep 2029 - Jan 2030					
Construction	Complete Hartford Station works	Jan 2030 - Mar 2030					

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$0

Scope of FY22 Work: No activity planned for FY22

Anticipated Milestones in FY22:

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$52.8M

At this spend level, the following activities could be completed or continue during FY22-26: Pre-construction activities, ROW, permitting

For more details on the near-term plan, see project schedule above.

2M

Five Year Plan Notes: Project on hold pending the outcome of a Project Environmental Linkage study related to the I-84 highway alignment.

SPECIAL PROJECT

Boston - Providence Capacity Study & Implementation: NEC & Fairmount Line

Project Sponsor: MBTA

Partners: Amtrak

Type: Planning

Benefit: Shared

General Project Information	
Full Project Scope	This project studies the capacity improvement value of upgrading the Fairmount Line with electric traction, interlocking and track improvements, and additional power supply to the NEC. The findings of the study will be implemented.
Project Justification	The capacity of the NEC between Providence and Boston is significantly constrained without an opportunity for capacity expansion through installation of a 4th main track between those points. The NEC and Fairmount Line upgrades may be needed to provide resiliency by moving local service off the main line.

Financial Plan		
Project Cost	Total Project Cost	\$3.3M
	Pre-Construction	\$0
	Planning and Program Management	\$3.3M
	Property Acquisition	\$0
	Construction	\$0
Cost Derivation Methodology: The total project cost estimate was calculated during the CONNECT NEC 2035 delivery analysis. The current total project cost estimate does not include environmental or implementation costs.		
Funding Sources	Total Project Funding Committed:	\$3.3M
	Federal Sources:	\$0
	Amtrak and Non-Federal Sources:	\$3.3M
	MBTA	\$3.3M
	Additional Project Funding Required:	\$0
Project Based Cost Allocation (PBCA)	PBCA Candidate:	Yes Notes: N/A
	Agreement Status:	Unknown

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	Planning Study	Oct 2021 - TBD					
Pre-construction	Environmental Study	Jan 2023 - Jul 2025					
Construction	Recommendations Implementation	TBD					

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$3.0M

Scope of FY22 Work: Planning activities

Anticipated Milestones in FY22:

- Start planning activities (Oct 2021)

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$3.3M

At this spend level, the following activities could be completed or continue during FY22-26: Complete planning study

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: The FY22-26 Target Spend and funding needed figures do not include the costs related to the environmental study or implementation of recommendations.

SPECIAL PROJECT

Regional Rail Plan (RI-MA)

Project Sponsor: Rhode Island DOT

Partners: Amtrak, Massachusetts DOT

Type: Planning

Benefit: Shared

General Project Information	
Full Project Scope	This project will study the capital investments required to increase capacity and reduce travel times along the NEC between Wickford Junction, RI and Boston, MA. Capital investments considered will include the electrification of the MBTA Providence Line as envisioned in Phase 1 of MBTA's Rail Vision.
Project Justification	Capacity constraints currently limit the expansion of both commuter rail and intercity services between Rhode Island and Boston. Enhancing rail access between Rhode Island and Massachusetts is a priority for both state's governors.

Financial Plan		
Project Cost	Total Project Cost	\$3.8M
	Pre-Construction	\$0
	Planning and Program Management	\$3.8M
	Property Acquisition	\$0
	Construction	\$0
Cost Derivation Methodology: The project cost estimate is based on the latest financial CRISI grant application for this project.		
Funding Sources	Total Project Funding Committed:	\$0
	Additional Project Funding Required:	\$3.8M
Project Based Cost Allocation (PBCA)	PBCA Candidate:	Yes Notes: N/A
	Agreement Status:	Unknown

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Preparation Activities	Preparation Activities	Jul 2024 - Jan 2026					
Project Execution	NEC Regional Rail Plan (RI-MA)	Jan 2026 - Jul 2027					

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$0

Scope of FY22 Work: No activity planned for FY22

Anticipated Milestones in FY22:

One Year Plan Notes: Scoping activities taking place, but not associated with FY22 expenditure or milestones.

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$3.8M

At this spend level, the following activities could be completed or continue during FY22-26: NEC Regional Rail Plan (RI-MA)

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

SPECIAL PROJECT

Warwick/T.F. Green Airport
Station Expansion

Project Sponsor: Rhode Island DOT

Partners: Amtrak





Type: Improvement

Benefit: Shared

General Project Information	
Full Project Scope	This project would expand Warwick/T.F. Green Airport rail station which opened in 2010. In that project, the Rhode Island Airport Corporation constructed a station house and a single high-level platform to support the introduction of MBTA commuter rail services to the Airport and to new communities south of Providence. For this project, RIDOT and Amtrak have proposed expanding the station with additional track and platform capacity to accommodate intercity rail and commuter rail turnback operations. Additionally, this project will include a control point type interlocking to support turning trains on Track 3 at T.F. Green. The scope of this project is partly dependent on the outcome of the NEC Regional Rail Plan (RI-MA).
Project Justification	This project would enable the introduction of Amtrak service at Warwick/T.F. Green Airport rail station.

Financial Plan		
Project Cost	Total Project Cost	\$184.4M
	Pre-Construction	\$44.4M
	Property Acquisition	\$0
	Construction	\$140.0M
	Cost Derivation Methodology: This cost was taken from the 10% Design Concept Report prepared by AECOM Alternative 4. 35% contingency, year 2024 dollars (mid point of construction).	
Funding Sources	Total Project Funding Committed:	\$4.4M
	Federal Sources:	\$3.5M
	CRISI	\$2.8M
	FHWA	\$0.7M FHWA section 5303/5304 and SPR
	Amtrak and Non-Federal Sources:	\$0.9M
	Rhode Island	\$0.9M 20% match to federal funds
Project Based Cost Allocation (PBCA)	Additional Project Funding Required:	\$180.0M
	PBCA Candidate:	Yes Notes: N/A
	Agreement Status:	Not started

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	Pre-construction activities	Sep 2016 - Mar 2024					
Pre-construction	Feasibility/Conceptual Design	Aug 2018 - Jun 2019					
Pre-construction	PE/NEPA	Sep 2021 - Dec 2022					
Pre-construction	Final Design	Jun 2023 - Oct 2024					
Construction	Construction	Jul 2025 - Sep 2027					

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$3.0M

Scope of FY22 Work: Survey/site investigation and 30% design of station, track and catenary and civil components. Stakeholders outreach and documentation of NEPA environmental assessment for Categorical Exclusion.

Anticipated Milestones in FY22:

- NTP to be issued (Nov 2021)
- Complete NEPA (Jun 2022)

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$103.5M

At this spend level, the following activities could be completed or continue during FY22-26: Pre-construction activities, Enabling Work, Track 1 at Route 37, Cranston & Packward, Track 3, Cranston, Track 4, New Platform at T.F. Green, Shift Track 2, Complete Track 4

For more details on the near-term plan, see project schedule above.

0M

Five Year Plan Notes: N/A

SPECIAL PROJECT

High Capacity Signaling: Boston to Canton Junction

Project Sponsor: MBTA

Partners: Amtrak

Type: Improvement

Benefit: Shared

General Project Information

Full Project Scope	This project will upgrade the existing wayside/cab signal system between “Cove” (Back Bay, Boston) and “Junction” (Canton Junction) Interlockings to provide a higher-capacity cab/no wayside (Rule 562) signal system. This system will be installed on existing Tracks 1, 2 and 3 in both directions, as well as on the planned Track 3 between “Read” (Readville) and “Junction” (Canton Junction), a separate project that includes a third platform edge at Route 128 Station. Existing signal blocks will be subdivided and respaced to provide greater capacity. Additional cab signal aspects may also need to be added to provide greater capacity, subject to freight locomotive compatibility resolution.
Project Justification	This project will upgrade the existing wayside/cab signal system between “Cove” (Back Bay, Boston) and “Junction” (Canton Junction) Interlockings to provide a higher-capacity cab/no wayside (Rule 562) signal system. This system will be installed on existing Tracks 1, 2 and 3 in both directions, as well as on the planned Track 3 between “Read” (Readville) and “Junction” (Canton Junction), a separate project that includes a third platform edge at Route 128 Station. Existing signal blocks will be subdivided and respaced to provide greater capacity. Additional cab signal aspects may also need to be added to provide greater capacity, subject to freight locomotive compatibility resolution.

Financial Plan

Project Cost	Total Project Cost	\$11.4M
	Pre-Construction	\$2.3M
	Property Acquisition	\$0
	Construction	\$9.1M
	Cost Derivation Methodology: The total project cost estimate was calculated during the CONNECT NEC 2035 delivery analysis.	
Funding Sources	Total Project Funding Committed:	\$0
	Additional Project Funding Required:	\$11.4M
Project Based Cost Allocation (PBCA)	PBCA Candidate:	Yes Notes: N/A
	Agreement Status:	Unknown

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	Pre-construction activities	Jul 2024 - Jan 2026					
Construction	Signaling Upgrades	Jan 2026 - Jul 2027					

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$0

Scope of FY22 Work: No activity planned for FY22

Anticipated Milestones in FY22:

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$6.4M

At this spend level, the following activities could be completed or continue during FY22-26: Complete pre-construction activities and begin signaling upgrades.

For more details on the near-term plan, see project schedule above.

M

Five Year Plan Notes: N/A

SPECIAL PROJECT

Providence-Boston Traction Power Upgrades

Project Sponsor: MBTA

Partners: Amtrak

Type: Improvement

Benefit: Shared

General Project Information

Full Project Scope	This project includes additional substation capacity, additional substations, and additional paralleling stations between Providence and Boston to accommodate increased future train volumes.
Project Justification	The current North End 25 kV 60 Hz traction power system is adequate for Amtrak to operate one to two trains per hour per direction; however, this may not be adequate for more intense electric train operation. At present, the only Massachusetts substation is in Sharon, MA. The northernmost 16 miles of the NEC, including the Southampton Street Yard facility are "stub end fed", which results in lower train voltages and poorer reliability than a primarily "both ends fed" traction power system. In contrast, the south end of the 25 kV 60 Hz system has only 6 miles of "stub end fed" network (and no yard or maintenance facility supplied) approaching New Haven.

Financial Plan

Project Cost	Total Project Cost	\$456.5M
	Pre-Construction	\$90.4M
	Property Acquisition	\$0
	Construction	\$366.2M
	Cost Derivation Methodology: The total project cost estimate was calculated during the CONNECT NEC 2035 delivery analysis.	
Funding Sources	Total Project Funding Committed:	\$0
	Additional Project Funding Required:	\$456.5M
Project Based Cost Allocation (PBCA)	PBCA Candidate:	Yes Notes: N/A
	Agreement Status:	Unknown

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	Pre-construction activities	Jul 2025 - Jul 2027					
Construction	Providence-Boston Traction Power Upgrades	Jul 2027 - Sep 2029					

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$0

Scope of FY22 Work: No activity planned for FY22

Anticipated Milestones in FY22:

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$49.7M

At this spend level, the following activities could be completed or continue during FY22-26: Begin pre-construction activities

For more details on the near-term plan, see project schedule above.

5M

Five Year Plan Notes: N/A

SPECIAL PROJECT

Ruggles Street Station
Accessibility Improvements:
Phase 1

Project Sponsor: MBTA

Partners: Massachusetts DOT

Type: Improvement

Benefit: Sole Commuter

General Project Information

Full Project Scope	This project will construct a new platform and make other improvements at Ruggles Station to enable all inbound and outbound MBTA trains to serve the station and to increase system capacity along this segment of the NEC. The project will improve accessibility by upgrading the existing elevators and adding one new elevator in the lower busway, and make interior and exterior repairs to bring the station to code. A TIGER grant partially funds this project, which is part of a larger initiative to modernize the Ruggles Station which requires additional funding for full construction.
Project Justification	Today, more than 30 percent of inbound trains bypass Ruggles Station, requiring more than 500 inbound passengers to transfer from MBTA Commuter Rail to the MBTA Orange Line at Back Bay then backtracking to Ruggles, commonly known as the "Back Bay Detour." The new platform will provide service improvements for the MBTA Commuter Rail passengers and add operational flexibility for MBTA Commuter Rail and Amtrak. With full service to Ruggles Station, Commuter Rail ridership to the area surrounding the station will grow as station area employment and Boston region population grows.

Financial Plan

Project Cost	Total Project Cost	\$39.0M	
	Pre-Construction	\$3.8M	
	Property Acquisition	\$0	
	Construction	\$35.2M	
	Cost Derivation Methodology: The project cost estimate is based on the latest financial plan for this project, provided by MBTA.		
Funding Sources	Total Project Funding Committed:	\$39.0M	
	Federal Sources:	\$38.6M	
	TIGER	\$20.0M	FY14 Award for Ruggles Station Modernization
	Other Federal Discretionary	\$18.6M	Grants 540016 & 790002
	Amtrak and Non-Federal Sources:	\$0.4M	
	Massachusetts	\$0.4M	State/Bond fund R20A06
	Additional Project Funding Required:	\$0	
Project Based Cost Allocation (PBCA)	PBCA Candidate:	No (Sole benefit)	Notes: N/A
	Agreement Status:	Not applicable	

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	Final Design	Mar 2012 - Jan 2017					
Construction	Construction	Jun 2017 - Dec 2021					

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$1.0M

Scope of FY22 Work: Complete project closeout, pay contractor retainage and remaining PS invoices

Anticipated Milestones in FY22:

- Substantial Completion (Oct 2021)
- Final Completion (Nov 2021)
- Closeout Completion (Dec 2021)

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$1.0M

At this spend level, the following activities could be completed or continue during FY22-26: Complete project closeout

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

SPECIAL PROJECT

Windsor Station Improvements

Project Sponsor: Connecticut DOT

Partners:

Type: Improvement

Benefit: Sole Commuter

General Project Information	
Full Project Scope	The existing historic station in Windsor, CT at 41 Central Street is being relocated to a new site approximately 500 feet south of the existing station. Planned amenities at this proposed station will include high-level platforms on both sides of the tracks, as well as the installation of elevators, stairways, an overhead pedestrian bridge to cross the tracks, canopies covering approximately 200 feet of platform length, and surface parking vehicles on the east and west side of the tracks. Additional enhancements will include platform snow melting systems, passenger information display system (PIDS), security cameras, and ticket vending machines.
Project Justification	A new, modern station in Windsor will support expanded CTrail Hartford Line service between Springfield, MA and New Haven, CT.

Financial Plan	
Project Cost	Total Project Cost \$121.7M
	Pre-Construction \$42.1M
	Property Acquisition TBD
	Construction \$79.6M
	Cost Derivation Methodology: The total project cost estimate was calculated during the CONNECT NEC 2035 delivery analysis.
Funding Sources	Total Project Funding Committed: \$121.7M
	Federal Sources: \$0
	Amtrak and Non-Federal Sources: \$121.7M
	Connecticut \$121.7M
	Additional Project Funding Required: \$0
Project Based Cost Allocation (PBCA)	PBCA Candidate: No (Sole benefit) Notes: N/A
	Agreement Status: Not applicable

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	Final Design	Complete Feb 2020					
Construction	Construction	Jan 2020 - Mar 2024					

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: TBD

Scope of FY22 Work: Continue construction of high-level platforms at Windsor

Anticipated Milestones in FY22:

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: TBD

At this spend level, the following activities could be completed or continue during FY22-26: Complete construction of improvements at Windsor Station

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

SPECIAL PROJECT

Ruggles Street Station Accessibility Improvements: Phase 2

Project Sponsor: MBTA

Partners: Massachusetts DOT

Type: Improvement

Benefit: Sole Commuter

General Project Information

Full Project Scope

The scope of this project is the design and engineering of various upgrades and improvements to the existing MBTA Ruggles Station. A MAAB Decision was issued that gave the station two years from the completion of Phase 1 to bring the entire station up to code. As such, the primary driver for the scope described in this report is the code and accessibility improvements to make the station 100% compliant. COVID-19 has impacted MBTA operations causing financial restraints. As a result, AECOM has proposed a two-pronged approach to the project that will continuously be evaluated throughout the duration of design. The intent is that the design team will design and document all aspects of the project: accessibility, code, and life safety improvements, as well as state of good repair items. Each scope item will be separately cost-estimated, so that once the project reaches 100% design, the MBTA can assess its financial situation, and together with various regulatory agencies, all parties can come to an agreed upon path forward to either construct the entire project at once, or divide it into two separate phases. If the financial constraints on the MBTA mean that only part of the project can be constructed initially, the team and regulatory agencies will identify the scope items that are in most serious need of repair and address those first, without precluding the opportunity to address the rest of the scope in a later construction phase. The general station improvements are anticipated to include reconstruction of the existing center island Commuter Rail platform, construction of a new elevator serving the Orange Line platform, reconstruction of an existing staircase serving the Orange Line platform from Ruggles Street, repairs to the existing Orange Line platform, as well as the addition of second emergency egress staircases for both the Orange Line and Commuter Rail platforms. It will also include the construction of an accessible ramp at the Columbus Avenue station entrance. Other interior improvements include station-wide lighting upgrades, repairing trip hazards, and the installation of accessible bathrooms, handrails, stairs, signage, platform seating, visual displays, entrances, pull stations, and sound systems. Lastly, the function and code compliancy of all station systems will be evaluated to determine the work needed to bring these up to standard.

Project Justification

Ruggles Station is an intermodal transfer hub in Boston, Massachusetts. It is located at the intersection of Ruggles and Tremont Streets, adjacent to Northeastern University, Roxbury, Fenway-Kenmore, and Mission Hill. It services the MBTA Rapid Transit Orange Line, Bus, and Commuter Rail Services, and is also situated along the Northeast Corridor Route for Amtrak. This project was triggered by the previous Phase 1 project that was large enough in value to initiate the need for full station code and accessibility upgrades.

Financial Plan

Project Cost

Total Project Cost **\$100.0M**

Pre-Construction \$4.0M

Property Acquisition \$0

Construction \$96.0M

Cost Derivation Methodology: The project cost estimate is based on the latest financial plan for this project, provided by MBTA.

Funding Sources

Total Project Funding Committed: **\$4.0M**

Federal Sources: \$0

Amtrak and Non-Federal Sources: \$4.0M

Massachusetts \$4.0M

Additional Project Funding Required: **\$96.0M**

Project Based Cost Allocation (PBCA)

PBCA Candidate: No (Sole benefit) **Notes:** N/A

Agreement Status: Not applicable

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	Feasibility/ Conceptual Design	Jun 2020 - Dec 2020					
Pre-construction	Final Design	Dec 2020 - Sep 2021					
Construction	Construction	Dec 2021 - Jun 2023					Construction, CPS, MBTA Admin, Force Account, and contingency

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$0.4M

Scope of FY22 Work: Complete final design and begin construction activities

Anticipated Milestones in FY22:

- Complete 100% Design (Jan 2022)

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$100.0M

At this spend level, the following activities could be completed or continue during FY22-26: Complete construction

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

SPECIAL PROJECT

Enfield Station

Project Sponsor: Connecticut DOT

Partners:

Type: Improvement

Benefit: Sole Commuter

General Project Information

Full Project Scope	This project will add an additional station stop in Enfield between New Haven, CT to Springfield, MA. The project includes a single high-level platform, transit connections, parking, and adjacent bridge improvements.
Project Justification	A new and upgraded station in Enfield is needed to support the CTrail Hartford Line service, which launched in June 2018. This project will increase ridership for the NEC and enhance regional rail travel in New England.

Financial Plan

Project Cost	Total Project Cost	\$33.0M	
	Pre-Construction	\$3.0M	
	Property Acquisition	\$0	
	Construction	\$30.0M	
	Cost Derivation Methodology: The project cost estimate was calculated during the conceptual design phase.		
Funding Sources	Total Project Funding Committed:	\$15.0M	
	Federal Sources:	\$0	
	Amtrak and Non-Federal Sources:	\$15.0M	
	Connecticut	\$15.0M	
	Additional Project Funding Required:	\$18.0M	
Project Based Cost Allocation (PBCA)	PBCA Candidate:	No (Sole benefit)	Notes: N/A
	Agreement Status:	Not applicable	

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	PE/NEPA	Mar 2021 - Oct 2021					
Pre-construction	Final Design	Oct 2021 - Mar 2022	■				
Construction	Construction	Nov 2023 - Jun 2025		■			

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$2.0M

Scope of FY22 Work: Start Final Design

Anticipated Milestones in FY22:

- Complete Final Design (Sep 2022)

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$33.0M

At this spend level, the following activities could be completed or continue during FY22-26: Complete construction

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

SPECIAL PROJECT

North Haven Station

Project Sponsor: Connecticut DOT

Partners: Amtrak

Type: Improvement

Benefit: Sole Commuter



General Project Information

Full Project Scope	This project will add an additional station stop in North Haven between New Haven, CT to Springfield, MA.
Project Justification	A new and upgraded station in North Haven is needed to support the CTrail Hartford Line service, which launched in June 2018. This project will increase ridership for the NEC and enhance regional rail travel in New England.

Financial Plan

Project Cost	Total Project Cost	\$52.0M	
	Pre-Construction	\$7.0M	
	Property Acquisition	\$0	
	Construction	\$45.0M	
	Cost Derivation Methodology: The project cost estimate was calculated during the preliminary engineering phase.		
Funding Sources	Total Project Funding Committed:	\$0	
	Additional Project Funding Required:	\$52.0M	
	Proposed Amtrak and Non-Federal Sources	\$52.0M	
	Connecticut	\$52.0M	
Project Based Cost Allocation (PBCA)	PBCA Candidate:	No (Sole benefit)	Notes: N/A
	Agreement Status:	Not applicable	

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	Pre-construction activities	May 2021 - Aug 2022					
Construction	Construction	Apr 2023 - Dec 2024					

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$2.0M

Scope of FY22 Work: Final Design

Anticipated Milestones in FY22:

- Complete Final Design (Sep 2022)

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$52.0M

At this spend level, the following activities could be completed or continue during FY22-26: Complete construction

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

SPECIAL PROJECT

Newington Station

Project Sponsor: Connecticut DOT

Partners: Amtrak

Type: Improvement

Benefit: Sole Commuter

General Project Information

Full Project Scope	This project will add an additional station stop in Newington between New Haven, CT to Springfield, MA.
Project Justification	A new and upgraded station in Newington is needed to support the CTrail Hartford Line service, which launched in June 2018. This project will increase ridership for the NEC and enhance regional rail travel in New England.

Financial Plan

Project Cost	Total Project Cost	\$52.0M
	Pre-Construction	\$7.0M
	Property Acquisition	\$0
	Construction	\$45.0M
	Cost Derivation Methodology: The project cost estimate was calculated during the conceptual design phase.	
Funding Sources	Total Project Funding Committed:	\$0
	Additional Project Funding Required:	\$52.0M
	Proposed Amtrak and Non-Federal Sources	\$52.0M
	Connecticut	\$52.0M
Project Based Cost Allocation (PBCA)	PBCA Candidate:	No (Sole benefit) Notes: N/A
	Agreement Status:	Not applicable

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
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Project schedule TBD.

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$0

Scope of FY22 Work: No activity planned for FY22

Anticipated Milestones in FY22:

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: TBD

At this spend level, the following activities could be completed or continue during FY22-26: TBD

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

SPECIAL PROJECT

West Hartford Station

Project Sponsor: Connecticut DOT

Partners: Amtrak

Type: Improvement

Benefit: Sole Commuter

General Project Information

Full Project Scope	This project will add an additional station stop in West Hartford between New Haven, CT to Springfield, MA.
Project Justification	A new and upgraded station in West Hartford is needed to support the CTrail Hartford Line service, which launched in June 2018. This project will increase ridership for the NEC and enhance regional rail travel in New England.

Financial Plan

Project Cost	Total Project Cost	\$70.0M
	Pre-Construction	\$10.0M
	Property Acquisition	\$0
	Construction	\$60.0M
	Cost Derivation Methodology: The project cost estimate was calculated during the conceptual design phase.	
Funding Sources	Total Project Funding Committed:	\$0
	Additional Project Funding Required:	\$70.0M
	Proposed Amtrak and Non-Federal Sources	\$70.0M
	Connecticut	\$70.0M
Project Based Cost Allocation (PBCA)	PBCA Candidate:	No (Sole benefit) Notes: N/A
	Agreement Status:	Not applicable

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Project schedule TBD.							

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$0

Scope of FY22 Work: No activity planned for FY22

Anticipated Milestones in FY22:

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$70.0M

At this spend level, the following activities could be completed or continue during FY22-26: Complete construction

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

SPECIAL PROJECT

New Haven Line Yard and Facility Program

Project Sponsor: Connecticut DOT

Partners: MTA






Type: Improvement

Benefit: Sole Commuter

General Project Information	
Full Project Scope	This project is a multi-year initiative that receives funding on an annual basis to store and maintain the rail fleet and spare parts. Connecticut received \$9 million in FTA Emergency Relief funds to install a backup feeder as an alternative power source at New Haven Yard, as well as the addition of other potential yard facilities in places such as East Bridgeport. Additional funding would design and construct other modernization elements, including new facilities to improve efficiency and allow for growth.
Project Justification	Continued funding for this project is vital to the ability of both the State of Connecticut and Amtrak to effectively store and maintain its passenger rail fleet. The upgrade of the Connecticut commuter fleet requires new facilities to maintain the vehicles and store parts. This is a project is critical to CTDOT's fleet strategy. Lack of funding will jeopardize the significant investment that Connecticut has made in a state of the art rail passenger fleet.

Financial Plan	
Project Cost	Total Project Cost \$736.8M
	Pre-Construction \$94.4M
	Property Acquisition \$0
	Construction \$3.4B
	Cost Derivation Methodology: The project cost estimate was calculated during the preliminary engineering phase.
Funding Sources	Total Project Funding Committed: \$477.0M
	Federal Sources: \$0
	Amtrak and Non-Federal Sources: \$477.0M
	Connecticut \$477.0M
	Additional Project Funding Required: \$259.8M
Project Based Cost Allocation (PBCA)	PBCA Candidate: No (Sole benefit) Notes: N/A
	Agreement Status: Not applicable

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	Pre-construction activities	Oct 2020 - Oct 2024					
Construction	Rehab Wheel Mill Shop	Jun 2021 - Jun 2024					
Construction	Rehab of Car and Diesel Shop	Sep 2021 - Sep 2024					
Construction	NHL Yard and Facility Program - S&I Shop	Oct 2021 - Oct 2023					
Construction	NHL Yard and Facility Program - Yard Expansion and Additional Facilities	Oct 2023 - Jul 2027					

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$10.0M

Scope of FY22 Work: Complete 60% design for Wheel Mill Shop and Car and Diesel Shop

Anticipated Milestones in FY22:

- East End Connector Construction Complete (Nov 2021)
- West End Yard Construction Complete (Feb 2022)
- Car and Diesel Design Complete (Apr 2022)
- Wheel Mill Rehab Design Complete (Apr 2022)
- Complete 60% design for Wheel Mill Shop and Car and Diesel Shop (Sep 2022)

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$394.1M

At this spend level, the following activities could be completed or continue during FY22-26: Pre-construction activities, NHL Yard and Facility Program - S&I Shop, NHL Yard and Facility Program - Yard Expansion and Additional Facilities

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

SPECIAL PROJECT

New Haven Line Signal System Replacement: Stratford to New Haven

Project Sponsor: Connecticut DOT

Partners: Amtrak, MTA

Type: Improvement

Benefit: Shared

General Project Information

Full Project Scope	This project is focused on the NEC from CP261 (Stratford) – CP274 (New Haven). It will redesign the NHL cab/no wayside signal system with shorter blocks and an additional 60 MPH cab signal speed command (compatible with Metro-North, Amtrak and SLE cab signal packages) to support higher capacity.
Project Justification	The higher capacity supported by this work will reduce the minimum supportable headway between trains, enhancing reliability especially when recovering from service disruptions.

Financial Plan

Project Cost	Total Project Cost	\$78.4M
	Pre-Construction	\$15.5M
	Property Acquisition	\$0
	Construction	\$62.9M
	Cost Derivation Methodology: The total project cost estimate was calculated during the CONNECT NEC 2035 delivery analysis.	
Funding Sources	Total Project Funding Committed:	\$0
	Additional Project Funding Required:	\$78.4M
	Proposed Federal Sources:	\$62.8M
	FTA Formula Grants	\$62.8M
Project Based Cost Allocation (PBCA)	PBCA Candidate:	Yes Notes: N/A
	Agreement Status:	Unknown

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	Pre-construction activities	Oct 2021 - Oct 2026					
Construction	NHL Signal System Replacement	Oct 2026 - Oct 2028					

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$0.5M

Scope of FY22 Work: Preconstruction activities

Anticipated Milestones in FY22:

- Begin preconstruction activities (Sep 2022)

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$78.4M

At this spend level, the following activities could be completed or continue during FY22-26: Pre-construction activities, NHL Signal System Replacement

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

SPECIAL PROJECT

Devon Bridge Replacement

Project Sponsor: Connecticut DOT

Partners: Amtrak, MTA

Type: Major Backlog

Benefit: Shared

General Project Information	
Full Project Scope	This project would replace the functionally obsolete 111-year-old Devon Bridge. The bridge, which carries four New Haven Line tracks over the Housatonic River, has experienced serious deterioration, and is the next most critical movable bridge for replacement on the New Haven Line portion of the NEC after the Walk Bridge Program. Additional funding is required for design and construction of a replacement bridge.
Project Justification	Aging movable bridges pose a big risk of long-term major disruption of service along the NEC. These structures require constant maintenance, are functionally obsolete, and well beyond their useful life.

Financial Plan		
Project Cost	Total Project Cost	\$958.6M
	Pre-Construction	\$180.2M
	Property Acquisition	\$0
	Construction	\$778.4M
	Cost Derivation Methodology: The total project cost estimate was calculated during the CONNECT NEC 2035 delivery analysis.	
Funding Sources	Total Project Funding Committed:	\$15.0M
	Federal Sources:	\$12.0M
	FTA Formula Grants	\$12.0M
	Amtrak and Non-Federal Sources:	\$3.0M
	Connecticut	\$3.0M
Project Based Cost Allocation (PBCA)	Additional Project Funding Required:	\$943.6M
	Final design and construction will be funded with a mix of federal formula, federal discretionary, Amtrak partnership, and State Transportation Bonds.	
	PBCA Candidate:	Yes Notes: N/A
	Agreement Status:	Not started

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	Pre-construction activities	Jun 2016 - Jun 2026					
Construction	Construct Temporary "Devon Transfer" Station	Oct 2026 - Jan 2028					
Construction	Replace North section of Devon Bridge	Jan 2028 - Apr 2029					
Construction	Replace South Section of Devon Bridge	Apr 2029 - Jul 2030					
Construction	Remove Temporary Crossovers	Jul 2030 - Aug 2030					

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$0.5M

Scope of FY22 Work: Continue feasibility and concept design

Anticipated Milestones in FY22:

- Complete alternative analysis study to determine level of replacement and rehab that will become the scope of the final project. (Sep 2022)

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$174.8M

At this spend level, the following activities could be completed or continue during FY22-26: Pre-construction activities

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

SPECIAL PROJECT

Saugatuck River Bridge Replacement

Project Sponsor: Connecticut DOT

Partners: Amtrak, MTA

Type: Major Backlog

Benefit: Shared

General Project Information

Full Project Scope	The Saugatuck River Bridge is a 458-foot-long bascule bridge constructed in 1904. The bridge is actually not one, but two parallel bridges, each carrying two tracks. Like the Norwalk River Bridge, its age and deferred maintenance have caused deterioration encompassing both its electrical and mechanical components. CTDOT is aiming to fully replace major components of the bridges, including the movable spans and the approach tracks. This work would also include the replacement of mechanical and electrical systems, new signal equipment, and a new operator’s house. This new bridge would greatly improve reliability for Amtrak and Metro-North riders, as well as maritime traffic.
Project Justification	Aging movable bridges pose a big risk of long-term major disruption of service along the NEC. These structures require constant maintenance, are functionally obsolete, and well beyond their useful life.

Financial Plan

Project Cost	Total Project Cost	\$362.3M
	Pre-Construction	\$71.7M
	Property Acquisition	\$0
	Construction	\$290.5M
	Cost Derivation Methodology: The project cost estimate was calculated during the conceptual design phase.	
Funding Sources	Total Project Funding Committed:	\$18.3M
	Federal Sources:	\$12.6M
	FTA Formula Grants	\$12.6M
	Amtrak and Non-Federal Sources:	\$5.7M
	Connecticut	\$5.7M
Project Based Cost Allocation (PBCA)	Additional Project Funding Required:	\$344.0M
	PBCA Candidate:	Yes Notes: N/A
	Agreement Status:	Unknown

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	Pre-construction activities	Sep 2005 - Jan 2030					
Construction	Crossover Replacement/New Interlockings	Jan 2030 - Aug 2030					
Construction	Temporary Eastbound Platform	Aug 2030 - Jan 2031					
Construction	South Half of Bridge	Jan 2031 - Mar 2032					
Construction	Temporary Westbound Platform	Mar 2032 - Aug 2032					
Construction	North Half of Bridge	Aug 2032 - Oct 2033					

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$0.2M

Scope of FY22 Work: Pre-NEPA study

Anticipated Milestones in FY22:

- Begin Project Environmental Linkage Study (Sep 2022)

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$14.0M

At this spend level, the following activities could be completed or continue during FY22-26: Pre-NEPA planning, conceptual design

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

SPECIAL PROJECT

Walk Bridge Program

Project Sponsor: Connecticut DOT

Partners: Amtrak, MTA

Type: Major Backlog

Benefit: Shared

General Project Information

Full Project Scope

This project will replace the functionally obsolete 120-year-old Walk Bridge which has experienced increasing deterioration of electrical and mechanical components. CTDOT has committed to replace this asset with a combination of federal and state funds. Construction will require an extended continuous outage of two tracks where normally four are operational. This change in track availability could cause changes in schedule, decreases in reliability, or even reductions in service. Two additional capital projects in the vicinity of Walk Bridge will help address these concerns. The construction of CP243 interlocking will shorten the block length between Westport and Norwalk while increasing operational flexibility. Additionally, improvements at Dock Yard including the electrification of the lower Danbury Branch will allow for Metro-North trains to turn at Norwalk without increasing congestion on the main line of the NEC. FTA completed NEPA and issued a Finding of No Significant Impact (FONSI) for this project in July 2017. Additionally, the Norwalk Fixed Bridge is included in the package of bridges part of the Walk Bridge Program.

Project Justification

Aging movable bridges pose a big risk of long-term major disruption of service along the NEC. These structures require constant maintenance, are functionally obsolete, and well beyond their useful life. The situation at Walk Bridge is made worse by the fact that all four tracks reside on one movable span. A failure of the span severs the entire NEC.

Financial Plan

Project Cost

Total Project Cost **\$1.3B**

Pre-Construction \$237.4M

Property Acquisition \$0

Construction \$1.1B

Cost Derivation Methodology: The project cost estimate was calculated during the final design phase.

Funding Sources

Total Project Funding Committed: **\$1.3B**

Federal Sources: \$573.6M

FTA Formula Grants \$303.0M Programmed

Federal Emergency Relief Award \$161.0M

Federal-State Partnership for SOGR \$79.7M FY20 Award for Walk Bridge Replacement

Federal-State Partnership for SOGR \$29.9M FY19 Award for Walk Bridge Replacement

Amtrak and Non-Federal Sources: \$753.8M

Connecticut DOT \$663.8M Programmed (includes match for FY19 SOGR Award)

Other Amtrak Sources \$90.0M Match for FY19 SOGR Award

Additional Project Funding Required: **\$0**

Project Based Cost Allocation (PBCA)

PBCA Candidate: Yes **Notes:** N/A

Agreement Status: In progress

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	Pre-construction activities	Jan 2015 - Dec 2020					
Construction	CP243 Interlocking	Jan 2021 - May 2023					
Construction	Walk Bridge Construction	Jun 2022 - Oct 2028					Start date subject to permitting

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$222.0M

Scope of FY22 Work: Start construction

Anticipated Milestones in FY22:

- Complete interlocking construction (Sep 2022)
- Begin utility relocation (Sep 2022)
- Begin demolition of south half of bridge (Sep 2022)

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$683.1M

At this spend level, the following activities could be completed or continue during FY22-26: Crossover Replacement/ New Interlockings, South Half Bridge Removal/ Signal Modifications, South Half of Bridge Construction, North Half of Bridge Removal/ Signal Modifications, North Half of Bridge Construction

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

SPECIAL PROJECT

Stamford Station Improvements

Project Sponsor: Connecticut DOT

Partners: Amtrak, MTA

Type: Improvement

Benefit: Shared

General Project Information	
Full Project Scope	This program will upgrade and repair the Stamford Station to ensure continued safe operation and improve the passenger experience. Work will increase canopy and windscreen coverage, provide additional pedestrian paths, repair and replace platform sections that are failing due to their age, and ensure ADA compliance. The future program also includes the construction of a pedestrian bridge at Stamford Station as well as a new parking garage.
Project Justification	This program is critical not only to address passenger demands for enhancements at the stations, but also to provide repairs for aging platforms that are beginning to fail due to years of exposure salt and de-icing chemicals. This program allows for the continued safe operation of the stations.

Financial Plan		
Project Cost	Total Project Cost	\$105.3M
	Pre-Construction	\$20.8M
	Property Acquisition	\$0
	Construction	\$84.4M
	Cost Derivation Methodology: The project cost estimate was calculated during the conceptual design phase.	
Funding Sources	Total Project Funding Committed:	\$105.3M
	Federal Sources:	\$62.2M
	FTA Formula Grants	\$53.0M
	BUILD	\$9.2M FY18 Award for Stamford Transportation Center Escalator and Elevator Improvement
	Amtrak and Non-Federal Sources:	\$43.1M
	Connecticut	\$43.1M
Project Based Cost Allocation (PBCA)	Additional Project Funding Required:	\$0
	PBCA Candidate:	Yes Notes: N/A
	Agreement Status:	Unknown

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	Pre-construction activities	Nov 2020 - Mar 2021					
Construction	NHL Stations Improvements: Stamford Station	Oct 2020 - Jan 2022					

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$20.0M

Scope of FY22 Work: Complete Stamford Transportation Center study

Anticipated Milestones in FY22:

- Complete Stamford Transportation Study (Sep 2022)

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$84.3M

At this spend level, the following activities could be completed or continue during FY22-26: NHL Station Improvements, Stamford Station

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

SPECIAL PROJECT

Cos Cob Bridge Replacement

Project Sponsor: Connecticut DOT

Partners: Amtrak, MTA

Type: Major Backlog

Benefit: Shared

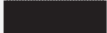






General Project Information

Full Project Scope	This project would replace the existing Cos Cob Bridge that carries four tracks over the Mianus River in Greenwich, CT. Constructed in 1904, it is the busiest movable bridge on the New Haven Line. The bridge is comprised of twelve steel spans with a movable segment at its center that lifts to allow boats to pass below. The bridge received some rehabilitation in 1989. However, this bridge now requires substantial investment to address challenges caused by aging components and deferred maintenance. Recently, an engineering feasibility study was performed that identified near-term repairs to address service reliability and maintenance issues, as well as long-term alternatives for replacement or rehabilitation. Interim repairs will be conducted in the next few years that include replacing the miter rails and deck timber. These investments are included in the BCC Program. This project covers the design for a full replacement of the structure which should begin within the next 5 years
Project Justification	Aging movable bridges pose a big risk of long-term major disruption of service along the NEC. These structures require constant maintenance, are functionally obsolete, and well beyond their useful life.

Financial Plan

Project Cost	Total Project Cost	\$1.0B
	Pre-Construction	\$188.0M
	Property Acquisition	\$0
	Construction	\$812.0M
	Cost Derivation Methodology: The total project cost estimate was calculated during the CONNECT NEC 2035 delivery analysis.	
Funding Sources	Total Project Funding Committed:	\$0
	Additional Project Funding Required:	\$1.0B
	<i>Project will be funded with a mix of federal formula, federal discretionary, Amtrak partnership, and State Transportation bonds.</i>	
Project Based Cost Allocation (PBCA)	PBCA Candidate:	Yes Notes: N/A
	Agreement Status:	Not started

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	Pre-construction activities	Jan 2025 - Jan 2028					
Construction	Temporary Crossovers Installation	Jan 2028 - Aug 2028					
Construction	Temporary Westbound Platforms	Aug 2028 - Aug 2028					
Construction	Cos Cob North Half Bridge Demolition	Aug 2028 - Jun 2029					
Construction	Cos Cob New North Half Bridge	Jun 2029 - Jun 2030					
Construction	Temporary Modifications and Removals	Jun 2030 - Jul 2030					
Construction	Temporary Eastbound Platforms	Jul 2030 - Jul 2030					
Construction	Cos Cob South Half Bridge Demolition	Jul 2030 - Apr 2031					
Construction	Cos Cob New South Half Bridge	Apr 2031 - Jun 2032					

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$0

Scope of FY22 Work: No activity planned for FY22

Anticipated Milestones in FY22:

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$103.4M

At this spend level, the following activities could be completed or continue during FY22-26: Pre-construction activities

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

SPECIAL PROJECT

New Haven to New Rochelle Capacity & Trip Time Planning Study

Project Sponsor: Amtrak

Partners: Connecticut DOT, MTA

Type: Planning

Benefit: Shared

General Project Information	
Full Project Scope	<p>This project will study investment options from New Haven, CT to New Rochelle, NY to accommodate future segment capacity and performance (on-time performance and speed) requirements. In addition, the project will investigate on-NEC vs off-NEC alignment options for feasibility and highest value for NEC stakeholders.</p> <p><i>This project was developed through the C35 project delivery analysis. The project scope, schedule, and budget details are currently under review by Amtrak and will be revisited during C37.</i></p>
Project Justification	<p>The current NEC does not support a high level of on-time performance for all users. Adding additional train services in the future will further detract from improving on-time performance. Additionally, the NEC does not allow for scheduled run times that would attract increased intercity ridership.</p>

Financial Plan		
Project Cost	Total Project Cost	\$1.0M
	Pre-Construction	\$1.0M
	Property Acquisition	\$0
	Construction	\$0
	Cost Derivation Methodology: The total project cost estimate was calculated during the CONNECT NEC 2035 delivery analysis.	
Funding Sources	Total Project Funding Committed:	\$0
	Additional Project Funding Required:	\$1.0M
Project Based Cost Allocation (PBCA)	PBCA Candidate:	Yes Notes: N/A
	Agreement Status:	Unknown

Project Schedule - Funding Unconstrained							
Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Preparation Activities	Preparation Activities	Jul 2023 - Jan 2025					
Project Execution	New Haven to New Rochelle Study	Jan 2025 - Jul 2026					

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$0

Scope of FY22 Work: No activity planned for FY22

Anticipated Milestones in FY22:

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$1.0M

At this spend level, the following activities could be completed or continue during FY22-26: Begin planning study

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

SPECIAL PROJECT

New Haven Line Track and Speed Improvements

Project Sponsor: Connecticut DOT

Partners: Amtrak, MTA

Type: Improvement

Benefit: Shared

General Project Information	
Full Project Scope	This project will implement improvements on the New Haven Line including new electrified tracks, interlockings, and freight sidings. The project will improve the maximum speed profile for passenger trains, reduce trip times, enhance mobility, and promote economic growth for Connecticut’s urban centers.
Project Justification	This project would result in an improved passenger train maximum speed profile on each track/segment of the NHL. This would reduce trip times, especially for limited stops trains. The project complies with the Governor’s initiative to decrease travel time between New Haven and New York City, enhancing mobility and promoting economic growth for Connecticut’s urban centers. Not only does this project increase track speed in the area but it also addresses backlog state of good repair bridge replacements and sets the stage for a future Devon Bridge replacement by aligning the track for a new interlocking.

Financial Plan		
Project Cost	Total Project Cost	\$347.0M
	Pre-Construction	\$7.0M
	Property Acquisition	\$0
	Construction	\$340.0M
	Cost Derivation Methodology: The project cost estimate is based on the latest financial plan for this project, provided by Connecticut DOT.	
Funding Sources	Total Project Funding Committed:	\$0
	Additional Project Funding Required:	\$347.0M
	Proposed Amtrak and Non-federal Sources	\$69.4M
	Connecticut	\$69.4M
Project Based Cost Allocation (PBCA)	PBCA Candidate:	Yes Notes: N/A
	Agreement Status:	Unknown

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	Pre-construction activities	Sep 2025 - Mar 2027					
Construction	NHL Curve Speed Improvements	Mar 2027 - May 2027					
Construction	Install Freight Siding	May 2027 - Jul 2027					

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$0

Scope of FY22 Work: No activity planned for FY22

Anticipated Milestones in FY22:

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$7.0M

At this spend level, the following activities could be completed or continue during FY22-26: Complete design

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

SPECIAL PROJECT

New Haven Union Station Improvements

Project Sponsor: Connecticut DOT

Partners: MTA

Type: Improvement

Benefit: Shared



General Project Information

Full Project Scope	This project will construct a new parking garage for New Haven Station.
Project Justification	This program is critical to address passenger demands for enhancements at the station and allows for the continued safe operation of the station.

Financial Plan

Project Cost	Total Project Cost	\$65.0M	
	Pre-Construction	\$5.0M	
	Property Acquisition	\$0	
	Construction	\$60.0M	
	Cost Derivation Methodology: The project cost estimate was calculated during the preliminary engineering phase.		
Funding Sources	Total Project Funding Committed:	\$0	
	Additional Project Funding Required:	\$65.0M	
	Proposed Amtrak and Non-Federal Sources	\$65.0M	
	Connecticut	\$65.0M	
	Possible PPP with developer		Amount TBD
Project Based Cost Allocation (PBCA)	PBCA Candidate:	Yes	Notes: N/A
	Agreement Status:	Not started	

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	Feasibility/ Conceptual Design	Jun 2021 - Jun 2022					
Construction	Construction	Apr 2023 - Apr 2025					

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$1.0M

Scope of FY22 Work: Continue planning with City of New Haven

Anticipated Milestones in FY22:

- Complete conceptual design and release RFP (Sep 2022)

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$65.0M

At this spend level, the following activities could be completed or continue during FY22-26: Complete construction

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: Project is on hold pending finalization of a plan to release an RFP for a public private partnership to redevelop the area around New Haven Union Station. Parking and other needs around the station will be included in the proposal. This is part of the New Have Partnership arrangement with the City of New Haven.

SPECIAL PROJECT

New Haven Line Station Platform Replacement Program (New Haven, Darien)

Project Sponsor: Connecticut DOT

Partners: Amtrak, MTA

Type: Improvement

Benefit: Sole Commuter



General Project Information

Full Project Scope	This project will replace platforms at both New Haven and Darien Stations.
Project Justification	Platform replacements at Darien and New Haven is necessary due to their deteriorated condition.

Financial Plan

Project Cost	Total Project Cost	\$176.3M	
	Pre-Construction	\$12.7M	
	Property Acquisition	\$0	
	Construction	\$163.6M	
	Cost Derivation Methodology: The project cost estimate was calculated during the preliminary engineering phase.		
Funding Sources	Total Project Funding Committed:	\$35.0M	
	Federal Sources:	\$28.0M	
	FTA Formula Grants	\$28.0M	
	Amtrak and Non-Federal Sources:	\$7.0M	
	Connecticut	\$7.0M	
	Additional Project Funding Required:	\$141.3M	
	Proposed Federal Sources:	\$102.9M	
	FTA Formula Grants	\$102.9M	
	Proposed Amtrak and Non-Federal Sources	\$25.7M	
	Connecticut	\$25.7M	
Project Based Cost Allocation (PBCA)	PBCA Candidate:	No (Sole benefit)	Notes: N/A
	Agreement Status:	Not applicable	

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	Pre-construction activities	Oct 2021 - Apr 2023					Darien Design complete
Construction	Darien Station Construction	Apr 2022 - Apr 2024					
Construction	New Haven Station Construction	TBD					

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$20.0M

Scope of FY22 Work: Start Construction Darien

Anticipated Milestones in FY22:

- Begin Darien construction (Sep 2022)
- Start New Haven design (Sep 2022)

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$163.6M

At this spend level, the following activities could be completed or continue during FY22-26: complete construction both station

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

SPECIAL PROJECT

Pelham Bay Bridge Replacement

Project Sponsor: Amtrak

Partners: MTA

Type: Major Backlog

Benefit: Sole Amtrak

General Project Information

Full Project Scope	This project would replace the century-old movable Pelham Bay Bridge, which crosses the Hutchinson River in the Bronx, with either a new, low-level movable, mid-level movable, or a high-level fixed bridge with clearance for marine traffic. Additional funding is required for evaluation of these alternatives and to commence Preliminary Engineering. -Option 1: Two 2-track 70 mph mid-level movable bridges -Option 2: Retain the 2-track 45 mph low-level movable bridge for trains stopping at Co-op City Station and construct two 1-track 100 mph high-level fixed bridges on each side for express trains. This project also includes an 80 mph improved Pelham Lane Interlocking replacing Pelham Bay Interlocking.
Project Justification	The Pelham Bay Bridge was built in 1907, and the existing Pelham Bay Bridge is a speed restriction on the fastest part of the Hell Gate Line. The movable span consists of a two-track 82-foot long through truss. This bridge creates a bottleneck by constricting traffic down to speeds of 45 mph. The aging bridge still opens frequently for marine traffic and occasionally fails to properly close, creating delays for Amtrak service between Boston and New York as well as delays in freight and commuter service, which use the line. This asset will not provide the reliability needed for future expansion of train operations until the movable span is upgraded. With added MNR PSA trains it will become even more of a capacity bottleneck on the east side of the proposed Co-op City Station.

Financial Plan

Project Cost	Total Project Cost	\$589.2M
	Pre-Construction	\$110.8M
	Property Acquisition	\$0
	Construction	\$478.5M
	Cost Derivation Methodology: The total project cost estimate was calculated during the CONNECT NEC 2035 delivery analysis.	
Funding Sources	Total Project Funding Committed:	\$2.1M
	Federal Sources:	\$0
	Amtrak and Non-Federal Sources:	\$2.1M
	Amtrak GCAP	\$2.1M FY18 & prior
	Additional Project Funding Required:	\$587.1M
Project Based Cost Allocation (PBCA)	PBCA Candidate:	No (Sole benefit) Notes: N/A
	Agreement Status:	Not applicable

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	Feasibility/ Conceptual Design	Oct 2014 - Nov 2019					
Pre-construction	PE/NEPA	Nov 2019 - Jul 2025					
Pre-construction	Final Design	Jan 2026 - Jan 2029					
Construction	New PBB	Jan 2029 - Dec 2030					
Construction	Tk 2 extension	Dec 2030 - Dec 2030					
Construction	Turnout Removal	Dec 2030 - May 2031					
Construction	Tk 4 extension	May 2031 - May 2031					
Construction	PBB Removal	May 2031 - Nov 2031					
Construction	New PBB 2	Nov 2031 - Apr 2033					
Construction	Tk 1 extension	Apr 2033 - Dec 2033					
Construction	Tk 3 extension	Dec 2033 - Jun 2034					

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$0.6M

Scope of FY22 Work: Recommence NEPA documentation for the project, coordinate with FRA on environmental assessment, continue documentation.

Anticipated Milestones in FY22:

- Recommence NEPA with consultant WSP (Oct 2021)
- Perform out reach to impacted parties (Mar 2022)
- Perform environmental assessment with WSP (Sep 2022)

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$48.0M

At this spend level, the following activities could be completed or continue during FY22-26: Complete PE/NEPA and initiate Final Design

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

SPECIAL PROJECT

Penn Station Access

Project Sponsor: MTA

Partners: Amtrak

Type: Improvement

Benefit: Shared

General Project Information

Full Project Scope	This project will provide new Metro-North New Haven Line service to Penn Station NY and construct four new stations in the Bronx – near Co-op City, Morris Park, Parkchester/Van Nest, and Hunts Point. The project will bring Amtrak’s Hell Gate Line to a state of good repair, including upgrades to the power and signal systems, new interlockings and tracks, and other improvements that will improve reliability and on-time performance for Amtrak while enabling the new Metro-North service.
Project Justification	Residents of the East Bronx currently have limited transit options to reach jobs, education and other opportunities in midtown Manhattan, Westchester, and Connecticut. Ninety percent of East Bronx residents are minority and 25% are below the poverty level, and many spend up to 1½ hours each way on their daily commutes. The project will provide a new one-seat ride between East Bronx and Penn Station, saving riders up to approximately 50 minutes. East Bronx passengers traveling to Connecticut could save up to approximately 75 minutes. All Metro-North trains currently terminate at Grand Central Terminal, so the new connection to Penn Station will add redundancy and resiliency to the Metro-North network. By bringing Amtrak’s Hell Gate Line to a state of good repair, the project will improve intercity reliability and on time performance while accommodating new Metro-North commuter service.

Financial Plan

Project Cost	Total Project Cost	\$1.6B	
	Pre-Construction	\$287.6M	
	Property Acquisition	\$0	
	Construction	\$1.3B	
	Cost Derivation Methodology: The total project cost estimate was calculated during the CONNECT NEC 2035 delivery analysis.		
Funding Sources	Total Project Funding Committed:	\$1.6B	
	Federal Sources:	\$30.0M	
	Federal-State Partnership for SOGR	\$30.0M	FY19 Award for Penn Station Access - Hell Gate Line Catenary
	Amtrak and Non-Federal Sources:	\$1.6B	
	MTA	\$1.6B	Includes MTA match for FY19 SOGR Award
	Additional Project Funding Required:	\$0	
	Proposed Amtrak and Non-Federal Sources		
Project Based Cost Allocation (PBCA)	Other Amtrak Sources		Amount TBD
	PBCA Candidate:	Yes	Notes: N/A
	Agreement Status:	In progress	

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	PE/NEPA	Apr 2019 - Aug 2021					FONSI recieved Sep 2021
Pre-construction	Real Estate Acquisition	Aug 2021 - Mar 2024					
Pre-construction	Final Design	Jan 2022 - Dec 2022					
Construction	Signal	Mar 2022 - Sep 2025					
Construction	Track/Civil	Jun 2022 - Sep 2025					
Construction	OCS	Oct 2022 - Mar 2024					
Construction	Bridges	Oct 2022 - Jun 2024					
Construction	AC/DC Traction Power	Jul 2023 - Sep 2025					
Construction	Stations	Apr 2024 - Sep 2025					
Construction	Testing and commissioning	Sep 2025 - Dec 2025					

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$400.0M

Scope of FY22 Work: Commence design/build work

Anticipated Milestones in FY22:

- Execute Design/Build Agreement with Amtrak (Oct 2021)
- Issue Notice to Proceed for Design/Build Contract (Dec 2021)
- Obtain USACE Wetlands Permit (Mar 2022)
- Complete manufacturing of Leggett crossovers (Aug 2022)

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$1.6B

At this spend level, the following activities could be completed or continue during FY22-26: Full project is anticipated for completion in this timeframe.

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: Note construction schedule to be finalized in coordination with Design/Build Team after contract award. This sheet shows current funding in MTA Capital Plan. The project cost will be restated after construction bids are received. Additionally, rolling stock and yard costs may be added to the scope but have not yet been determined.

SPECIAL PROJECT

Harold Interlocking

Project Sponsor: MTA

Partners: Amtrak

Type: Improvement

Benefit: Shared

General Project Information

Full Project Scope	The Harold Interlocking Project will improve reliability and travel time for existing Amtrak service between New York and Boston and will provide a direct path through Harold Interlocking needed to make high-speed rail possible on the NEC in the future. This project will construct new conflict-free train routes through Harold Interlocking, Located in Queens, NY, the busiest switch point on the NEC. The project scope includes construction of the Westbound Bypass and the Eastbound Reroute, which will create grade-separated routes for Amtrak trains traveling between PSNY and the Hell Gate and New Haven Lines along the NEC. The project will also modify and reconstruct the Loop Track Interlocking, demolish and replace the existing Amtrak car washer, and will demolish certain existing Amtrak buildings to make way for future construction (not included in this project) of additional storage tracks. Work will be accomplished through third party contracts and Amtrak and LIRR Force Accounts.
Project Justification	The project, which utilized HSIPR funds, will greatly improve reliability, on-time performance, and travel time for all rail services operating through the Harold Interlocking.

Financial Plan

Project Cost	Total Project Cost	\$1.4B	
	Pre-Construction	\$0	
	Property Acquisition	\$0	
	Construction	\$1.4B	
	Cost Derivation Methodology: The total project cost estimate was calculated during the CONNECT NEC 2035 delivery analysis.		
Funding Sources	Total Project Funding Committed:	\$1.4B	
	Federal Sources:	\$294.8M	
	ARRA	\$294.8M	ARRA Award for Harold Interlocking - Northeast Corridor Congestion Relief Project
	Amtrak and Non-Federal Sources:	\$1.1B	
	Local funding	\$1.1B	Local match
Project Based Cost Allocation (PBCA)	Additional Project Funding Required:	\$0	
	PBCA Candidate:	Yes	Notes: N/A
	Agreement Status:	Unknown	

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	Pre-construction activities	Jun 2005 - Aug 2011					Designs for project elements separately approved by FRA in advance of element construction.
Construction	Administration	Aug 2011 - Jan 2028					
Construction	Force Account Scope	Oct 2012 - Jun 2028					
Construction	W/B Bypass	Dec 2013 - Jan 2026					
Construction	Loop Interlocking	Jan 2014 - Jan 2028					
Construction	Amtrak Building Demolition	May 2017 - Mar 2021					
Construction	E/B Reroute	Jan 2020 - Jan 2024					
Construction	Amtrak Car Washer	Oct 2026 - Jun 2028					

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$164.0M

Scope of FY22 Work: Reach near substantial completion of Harold Catenary Contract, achieve outage and construction of EBRR cut/cover, and initiate westbound bypass procurement.

Anticipated Milestones in FY22:

- Near Substantial Completion of Harold Catenary Contract (Sep 2022)
- Achieve outage and construction of EBRR Cut/Cover (Sep 2022)
- Initiate Westbound Bypass Procurement (Sep 2022)
- Complete Line 1 track and catenary work (Sep 2022)

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$742.0M

At this spend level, the following activities could be completed or continue during FY22-26: Eastbound Reroute, Westbound Bypass, Certain Loop Interlocking and Force Account work. Pre-construction and procurement activities for unconstructed elements, including Westbound Bypass and Amtrak Car Washer.

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

SPECIAL PROJECT

East River Tunnel Rehabilitation:
Tunnel Proper

Project Sponsor: Amtrak

Partners: MTA, NJ TRANSIT

Type: Major Backlog

Benefit: Shared




General Project Information

Full Project Scope	This project would rehabilitate East River Tunnel tubes 1 and 2 which connect Penn Station, NY to Queens, NY. Each tunnel is approximately 13,000 feet in length. As currently designed, both tunnel tubes would be demolished down to the concrete liner and entirely rebuilt with new bench walls, track, communication systems, and electrical and signaling systems. In parallel to this effort, multi-railroad conversations are ongoing to determine if and how the outages can be minimized or avoided by investigating alternative implementation approaches. Replacement of the track and drainage systems will require removal of existing track, ties and ballast, construction of new continuous welded rail on a modern direct fixation track system, enlarged and enclosed drainage system, and the removal and replacement of the third rail and overhead catenary system for the entire length of each tubes. The tunnel renovations will also be designed to improve the safety and security (to the greatest extent practicable) in the tunnels. All signal and communication systems will be removed and replaced and this project would implement High Density Signaling to the extent recommended by a joint Amtrak/ LIRR "East River Tunnel High Density Signaling" study. To support ERT Rehabilitation project and facilitate the ability to take each line out of service during construction, several enabling projects have been identified to prepare for the tunnel outages by either moving/installing utilities to provide the required redundancy / tunnel isolation or increasing reliability and throughput on other aspects of the system to mitigate train cancellations. Available funding from FRA Superstorm Sandy recovery grants has been utilized, but a significant funding gap remains.
Project Justification	The East River Tunnel tubes are in desperate need of rehabilitation and improvement, due to continually worsening conditions of the tunnel structure given both its age and damage related to Superstorm Sandy, to ensure continuation of operations for LIRR, NJ TRANSIT, and Amtrak.

Financial Plan

Project Cost	<div>Total Project Cost\$1.2B</div> <div>Pre-Construction\$224.5M</div> <div>Property Acquisition\$0</div> <div>Construction\$969.5M</div> <div>Cost Derivation Methodology: The total project cost estimate was calculated during the CONNECT NEC 2035 delivery analysis.</div>
Funding Sources	<div>Total Project Funding Committed:\$27.2M</div> <div>Federal Sources:\$3.6M</div> <div>Other Federal Discretionary\$3.6M Superstorm Sandy FRA Relief Funds and Insurance Claims</div> <div>Amtrak and Non-Federal Sources:\$23.6M</div> <div>Amtrak Annual Federal Grants\$23.6M</div> <div>Additional Project Funding Required:\$1.2B</div>
Project Based Cost Allocation (PBCA)	<div>PBCA Candidate:Yes Notes: N/A</div> <div>Agreement Status:Unknown</div>

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	Pre-construction activities	Apr 2015 - Dec 2021					
Construction	Construction Work - East River Tunnel 2	Jan 2024 - Mar 2025					
Construction	Construction Work - East River Tunnel 1	Mar 2026 - Sep 2027					

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$5.0M

Scope of FY22 Work: Complete 100% design for the ERT Base scope, progress to 60% design for outside of portal scope expansion, complete S 203 Phase I construction, complete 100% signal design for SSYD Sub3/Sub 4.

Anticipated Milestones in FY22:

- Compete 100% base design (Dec 2021)
- SSYD Sub 3 /Sub 4 signal design (Jan 2022)
- Complete 60% design for outside of portal scope expansion (Feb 2022)
- Complete construction of S 203 cable , Phase I (Tunnel Line 1) (Sep 2022)

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$1.2B

At this spend level, the following activities could be completed or continue during FY22-26: Pre-construction activities, Tunnel 1 Rehab, Tunnel 2 Rehab

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

SPECIAL PROJECT

River-to-River Rail (R4) Resiliency Projects

Project Sponsor: MTA

Partners: Amtrak

Type: Improvement

Benefit: Shared

General Project Information	
Full Project Scope	This program will protect the East River Tunnels and the West Side Yard against flood hazards to ensure connectivity at NY Penn Station for Amtrak, LIRR, and NJT. The program consists of multiple elements, including West Side Yard perimeter protection and drainage improvements, hardening the Queens Portals of the East River Tunnels, resiliency improvements within the East River Tunnels, including the installation of permanent emergency generators, and waterproofing of the entrances and manhole/conduit points of entry to two ventilation facilities.
Project Justification	This project will enhance weather resiliency.

Financial Plan		
Project Cost	Total Project Cost	\$108.0M
	Pre-Construction	\$5.0M
	Property Acquisition	\$0
	Construction	\$103.1M
	Cost Derivation Methodology: The total project cost estimate was calculated during the CONNECT NEC 2035 delivery analysis.	
Funding Sources	Total Project Funding Committed:	\$108.0M
	Federal Sources:	\$80.0M
	FTA Superstorm Sandy Grant	\$80.0M FTA Sandy Grant for West Side Yard; FTA Sandy Grant for LIC Queens Portals; FTA Sandy Grant for ERT System Protection. Note: \$13,478,978 was flexed from the FTA to the FRA on 4/26/18.
	Amtrak and Non-Federal Sources:	\$28.0M
	MTA/Amtrak	\$28.0M For West Side Yard. MTA expects the 25% match will be shared by MTA & Amtrak = \$10.6M For LIC Queens Portals. MTA expects the 25% match will be shared by MTA & Amtrak. = \$5.4M For ERT System Protection. MTA expects the 25% match will be shared by MTA & Amtrak. = \$6.4 M
Project Based Cost Allocation (PBCA)	Additional Project Funding Required:	\$0
	PBCA Candidate:	Yes Notes: N/A
	Agreement Status:	Unknown

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	Pre-construction activities	Sep 2016 - Dec 2023					
Construction	WSY Flood Mitigation Measures	Sep 2022 - Dec 2024					
Construction	ERT Queens Portal Flood Mitigation Measures	Jan 2023 - Jun 2025					

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$25.0M

Scope of FY22 Work: WSY flood mitigation measures (i.e., flood gates and flood walls), and WSY drainage improvements (i.e., tide gates, corrective drainage grade, concrete re-grading, and sump pumps).

Anticipated Milestones in FY22:

- Commence WSY flood mitigation measures (Sep 2022)

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$97.0M

At this spend level, the following activities could be completed or continue during FY22-26: The project is expected to be completed within the timeframe.

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

SPECIAL PROJECT

East River Tunnel Rehabilitation:
Enabling Components

Project Sponsor: Amtrak

Partners: MTA, NJ TRANSIT

Type: Major Backlog

Benefit: Shared

General Project Information

Full Project Scope	<p>This work supports the Rehabilitation of the East River Tunnel (ERT). Detailed information on that project can be found in that project's description. Enabling work will both improve resiliency to the system in preparation for the added stress of 3-tube operations as well as augment the system to mitigate the transportation impacts from 3-tube operations.</p> <ul style="list-style-type: none">Traction Power: This enabling component project will replace an aging and vulnerable section of traction power cable that currently lies in Line 2 of the ERT and install new cable in Line 1.Sunnyside Yard Connection Sub4-Line2: The project includes Signal System design and installations including track, switches, and catenary in the vicinity of F-Interlocking. Benefits to Amtrak includes a high-speed bi-directional connection between Sunnyside Yard and East River Tunnel Line 2.Sub 3 to Line 4 upgrades: All west bound departures from Sunnyside Yard will be funneled through Switch 715; making this a critical piece of infrastructure and a possible single point of failure.Sub 1 and Sub 2 upgrades: Sub 1 and Sub 2 will accommodate the continued operation while ERT Line 1 is out of service.Redundant Fiber Installation in ERT-3: New fiber would be installed from the Penn Station Retail Room to the Sunnyside Yard Communication Hut at the Eastern portal.Hardening / Tune-Up of Lines 1, 3 and 4: Each of the remaining tunnels should receive assessment and tune-up of all systems associated with using that route in order to minimize the risk of one of the three in-service tunnel routes from unexpectedly failing and temporarily disrupting rail traffic.
Project Justification	<p>The East River Tunnel tubes are in desperate need of rehabilitation and improvement, due to continually worsening conditions of the tunnel given both their age and damage related to Superstorm Sandy, to ensure continuation of operations for LIRR, NJ TRANSIT, and Amtrak. This project would both enable maximum redundancy and operational continuity by mitigating the transportation impacts from the extended outages required to completely rehabilitate East River Tunnel tubes 1 and 2 which connect Penn Station, NY to Queens, NY.</p>

Financial Plan

Project Cost	Total Project Cost	\$31.5M
	Pre-Construction	\$3.0M
	Property Acquisition	\$0
	Construction	\$28.5M
	Cost Derivation Methodology: The project cost estimate is based on the latest financial plan for this project, provided by Amtrak.	
Funding Sources	Total Project Funding Committed:	\$1.6M
	Federal Sources:	\$0
	Amtrak and Non-Federal Sources:	\$1.6M
	Amtrak GCAP	\$1.6M
	Additional Project Funding Required:	\$29.9M

**Project
Based Cost
Allocation
(PBCA)**











PBCA Candidate:

Yes **Notes:** N/A

Agreement Status:

In progress

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	NEPA	Oct 2017 - Dec 2021					
Pre-construction	Final Design	Jun 2020 - Dec 2023					
Construction	ERT/ Line 1 S 203 cable relocation	Oct 2021 - Jan 2024					
Construction	SSYD Sub3/Line4 & Sub4 /Line2 signal construction	May 2022 - Apr 2023					
Construction	SSYD Sub4/Line2 Catenary	May 2022 - Apr 2023					
Construction	SSYD Sub 4/Line 2 track and 709 turnout	Oct 2022 - Apr 2023					
Construction	SSYD Construction - Loop Reversal Signaling	Oct 2022 - May 2023					
Construction	Redundant Fiber Installation in Line 3	Oct 2022 - Jan 2024					
Construction	ERT Line1,3 & 4 Hardening	Oct 2022 - Oct 2024					
Construction	Upgrades of SSYD Sub 1 and Sub 2	Oct 2022 - Oct 2024					

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$1.6M

Scope of FY22 Work: Complete 100% design for the ERT Base scope, progress to 60% design for outside of portal scope expansion, complete S 203 Phase I construction, complete 100% signal design for SSYD Sub3/Sub 4.

Anticipated Milestones in FY22:

- Compete 100% base design (Dec 2021)
- SSYD Sub 3 /Sub 4 signal design (Jan 2022)
- Complete 60% design for outside of portal scope expansion (Feb 2022)
- S3 Relocation Phase A - Construction 90% (Sep 2022)
- Sub 3 to Line 4 Upgrade 90% Design (Sep 2022)
- Sub 4to Line 2 Upgrade 30% Design (Sep 2022)
- Complete construction of S 203 cable , Phase I (Tunnel Line 1) (Sep 2022)

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$31.5M

At this spend level, the following activities could be completed or continue during FY22-26: Complete construction of all enabling components

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

SPECIAL PROJECT

Sunnyside Yard/Loop Track Capacity Improvements

Project Sponsor: Amtrak

Partners: MTA, NJ TRANSIT

Type: Improvement

Benefit: Shared

General Project Information

Full Project Scope	Conduct capacity improvements at Sunnyside Yard, including upgrades to loop tracks, improvements to signaling, and the conversion of principle turnouts from hand-thrown to power. <i>This project was developed through the C35 project delivery analysis. The project scope, schedule, and budget details are currently under review by Amtrak and will be revisited during C37.</i>
Project Justification	These improvements will increase average speeds and reduce travel times for Amtrak and NJ TRANSIT trains using Sunnyside Yard. This will increase equipment utilization, efficiency, and improve reliability when recovering from service disruptions. The bi-directional signaling will allow trains to better operate from Sunnyside Yard to Penn Station via ERT Lines 1 and 3, mitigating service reductions when East River Tunnel Rehabilitation is in construction and increasing capacity eastbound out of the East River Tunnels. Signal clearing times are reduced for Amtrak and NJ TRANSIT trains not traveling to the carwash or Boston.

Financial Plan

Project Cost	Total Project Cost	\$348.6M
	Pre-Construction	\$69.0M
	Property Acquisition	\$0
	Construction	\$279.6M
	Cost Derivation Methodology: The total project cost estimate was calculated during the CONNECT NEC 2035 delivery analysis.	
Funding Sources	Total Project Funding Committed:	\$0
	Additional Project Funding Required:	\$348.6M
Project Based Cost Allocation (PBCA)	PBCA Candidate:	Yes Notes: N/A
	Agreement Status:	Unknown

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
This project was developed through the C35 project delivery analysis and identified as a need in the early years of the plan (i.e., FY21 or FY22). The project will be reanalyzed during C37.							

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$0

Scope of FY22 Work: No activity planned for FY22

Anticipated Milestones in FY22:

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$348.6M

At this spend level, the following activities could be completed or continue during FY22-26: Complete pre-construction activities and construction of eastbound re-route.

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

SPECIAL PROJECT

New York Penn Station LIRR Concourse: Reconstruction (Near Term)

Project Sponsor: MTA

Partners: Amtrak, NJ TRANSIT

Type: Major Station

Benefit: Sole Commuter

General Project Information	
Full Project Scope	This project will repair and improve various assets at Penn Station New York. This includes widening and raising the ceiling of the 33rd Street Concourse including construction of a new station entrance at 7th Avenue and 33rd Street, a new ADA elevator from the street, staircase renewal/replacement, rehabilitation of elevators and escalators, upgrading customer service facilities, installing new HVAC equipment, improving lighting, and rehabilitating platforms. Elevators and escalators have reached the end of their useful life, stairways are in poor condition, and rehabilitation or upgrades are needed to HVAC, platforms, and lighting. In addition, there are state of good repair needs focusing on the replacement and rehabilitation of customer facilities utilized by Long Island Rail Road and Amtrak, and includes elements to address staircase risers, deficient lighting and signage, remediation of lead and asbestos as well as other platform elements. Some funding for these improvements is available. Additional funding is required for some.
Project Justification	The LIRR-leased areas of Penn Station was last rehabilitated over 25 years ago. HVAC equipment, fire alarm, passenger information systems, stairs, ceiling, wall and floor finishes, general environment and infrastructure have reached the end of their useful lives. Stairways have been repaired but need more permanent upgrades. The lighting has become dull over the years and this station requires better lighting to comply with modern lighting standards. The widening of the 33rd Street Concourse will reduce congestion and overcrowding. The new East End Gateway entrance and ADA elevator increases entry and egress capacity, improving safety and day-to-day operation.

Financial Plan		
Project Cost	Total Project Cost	\$691.3M
	Pre-Construction	\$26.8M
	Property Acquisition	\$0
	Construction	\$664.5M
	Cost Derivation Methodology: The project cost estimate is based on the latest financial plan for this project, provided by MTA.	
Funding Sources	Total Project Funding Committed:	\$691.3M
	Federal Sources:	\$0
	Amtrak and Non-Federal Sources:	\$691.3M
	New York	\$691.3M
	Additional Project Funding Required:	\$0
Project Based Cost Allocation (PBCA)	PBCA Candidate:	No (Sole benefit) Notes: N/A
	Agreement Status:	Not applicable

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	PE/NEPA	Nov-15 - Aug 2020					
Construction	East End Gateway	Jun-19 - Dec 2020					
Construction	LIRR Concourse	Dec 2020 - Mar 2023					

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$250.0M

Scope of FY22 Work: Continue construction of the LIRR Concourse Project

Anticipated Milestones in FY22:

- New boiler plant for LIRR leased space (Dec 2021)
- PSNY 33rd St Corridor Construction, Phase 1 D/B Contract (Jun 2022)

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$441.3M

At this spend level, the following activities could be completed or continue during FY22-26: Construction on Phase 2 of the LIRR Concourse project should be complete in FY 23.

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: This project was previously listed as Special Projects: Long Island Rail Road (Improvement) in the NEC Capital Investment Plan: FY21 2025

SPECIAL PROJECT

New York Penn Station Master Plan: Reconstruction

Project Sponsor: MTA

Partners: Amtrak, NJ TRANSIT


Type: Major Station

Benefit: Shared

General Project Information	
Full Project Scope	This project will undertake a major reconstruction of Penn Station to relieve overcrowding, improve passenger flow, safety and security, rationalize station configuration and operation, increase revenue generation, improve the general passenger experience, unify the existing Penn Station with the Moynihan Train Hall and a future expansion of the station, and address deficiencies of building systems, platform and building egress, vertical circulation, lighting, finishes and amenities. The project may include expansion of existing platforms 1 and 2 to allow longer trains to use the platforms. Note: This is an enabling project for Gateway: Penn Station Expansion.
Project Justification	Penn Station is currently serving three times the number of users it served in the 1960s when it was converted from a world-class station in a grand neo-classical building widely regarded as a civic treasure into two unimaginative basement levels under an office building and Madison Square Garden. Despite improvements over the years, it is outdated and poorly configured, portions of it are highly congested, its finishes are worn, space planning is constrained by a forest of legacy and new structural members and many building systems are nearing the end of their useful lives. The station is badly in need of major investment to maintain and expand operations, renew its infrastructure, improve its revenue stream to support itself and re-establish itself as the premier rail transportation center in the New York Metropolitan region.

Financial Plan		
Project Cost	Total Project Cost	\$7.1B
	Pre-Construction	\$100.0M
	Property Acquisition	\$500.0M
	Construction	\$6.5B
	Cost Derivation Methodology: The project cost estimate is based on the latest financial plan for this project, provided by MTA.	
Funding Sources	Total Project Funding Committed:	\$9.5M
	Federal Sources:	\$0
	Amtrak and Non-Federal Sources:	\$9.5M
	MTA	\$3.2M <i>Funding for study with equal split among Amtrak, MTA, and NJ TRANSIT.</i>
	Other Amtrak Sources	\$3.2M <i>Funding for study with equal split among Amtrak, MTA, and NJ TRANSIT.</i>
	NJ TRANSIT	\$3.2M <i>Funding for study with equal split among Amtrak, MTA, and NJ TRANSIT.</i>
	Additional Project Funding Required:	\$7.1B
Project Based Cost Allocation (PBCA)	PBCA Candidate:	Yes Notes: N/A
	Agreement Status:	In progress

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	Penn Station Master Plan development	Jun 2017 - Jun 2023					Agreed 33% split each Amtrak, NJT, MTA
Construction	Reconstruction	Jun 2023 - Aug 2029					

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$5.0M

Scope of FY22 Work: Advance preliminary engineering of selected alternative.

Anticipated Milestones in FY22:

- Select Preferred Alternative (Sep 2022)
- Award Preliminary Engineering Design Contract (Sep 2022)
- Begin NEPA Environmental Review (Sep 2022)

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$7.1B

At this spend level, the following activities could be completed or continue during FY22-26: Pre-construction activities, construction

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

SPECIAL PROJECT

New York Penn Station:
NJ TRANSIT Near-Term
Improvements

Project Sponsor: NJ TRANSIT

Partners: Amtrak, MTA




Type: Major Station

Benefit: Shared

General Project Information	
Full Project Scope	This project would make much needed improvements to Penn Station NY. Among the projects being advanced are extending the existing Central Concourse to allow for more vertical access to existing train platforms, improving the existing Hilton Corridor so it better connects between vertical access points to platforms, and improving signage and wayfinding to facilitate the safe and efficient movement of passengers and visitors. While some funding is programmed for this work, additional funding is needed to make all the necessary improvements. This is an enabling project for Major Backlog project Gateway: Penn Station Expansion. NJ Transit will also be Removing the art installation located in the 2 Glass Enclosures to provide enough space to expand the restrooms and waiting area in the concourse space with are dated and undersized for our riders and station users. Their will also be HVAC improvements and a Video Wall to this space will also be made.
Project Justification	Construction of the multiple planned improvement projects at Penn Station New York will primarily be targeted on improving commuter safety and convenience. These projects will address serious vertical access and egress issues that currently exist between platforms and the various other levels of the station in an effort to increase capacity and improve the passenger experience. This project creates the connection between existing Penn Station and Penn Station Expansion.

Financial Plan		
Project Cost	Total Project Cost	\$80.3M
	Pre-Construction	\$15.9M
	Property Acquisition	\$0
	Construction	\$64.4M
	Cost Derivation Methodology: The total project cost estimate was calculated during the CONNECT NEC 2035 delivery analysis.	
Funding Sources	Total Project Funding Committed:	\$11.0M
	Federal Sources:	\$11.0M
	FTA Formula Grants	\$11.0M
	Amtrak and Non-Federal Sources:	\$0
	Additional Project Funding Required:	\$69.3M
Project Based Cost Allocation (PBCA)	PBCA Candidate:	Yes Notes: N/A
	Agreement Status:	Unknown

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	PE/NEPA	Nov 2019 - May 2022					
Pre-construction	Final Design	Jun 2022 - Dec 2022					Restroom, Waiting Area, HVAC
Construction	NJT+PSE	Jun 2023 - Jun 2024					

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$1.5M

Scope of FY22 Work: Continue with the design of the waiting room and restroom expansion project, media wall, and HVAC design. NJ Transit to coordinate PI agreements with Amtrak.

Anticipated Milestones in FY22:

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$68.5M

At this spend level, the following activities could be completed or continue during FY22-26: NJT+PSE

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

SPECIAL PROJECT

New York Penn Station: Platforms 7 & 8 Refurbishment

Project Sponsor: MTA

Partners: Amtrak, NJ TRANSIT

Type: Major Station

Benefit: Shared

General Project Information	
Full Project Scope	This Project will complete replacement of six (6) staircases and installation of new line of sight ceilings for Platform 7 & 8. The Project will address SOGR needs in Penn Station on both Platforms 7 and 8, which will include lead paint and asbestos abatement; utility relocation above and below the platform (mechanical, electrical, plumbing, etc.); adjustments to linear heat detectors, CCTV cameras, public address speakers, and customer information signage; install new line of sight ceiling system; fabrication or restoration of stair and historic railings to mimic original 1910 elements; address structural framing and deficiencies around staircases; and modify staircase landings.
Project Justification	The Project will improve the overall Penn Station environment. It will become much safer for the thousands of passengers that travel through the terminal each day. The Penn Station platforms, stairs, ceiling and floors, general environment and infrastructure have been in service for more than 25 years and have reached the end of their useful life. The Project will also bring the staircases on Penn Station Platforms 7 and 8 in compliance with the current codes and construction standards, including ADA. Furthermore, the new ceiling system will provide a clear line of sight, organize exposed utility pipes and cable trays, and provide a better aesthetic view.

Financial Plan		
Project Cost	Total Project Cost	\$30.0M
	Pre-Construction	\$1.6M
	Property Acquisition	\$0
	Construction	\$28.4M
	Cost Derivation Methodology: The project cost estimate is based on the latest financial plan for this project, provided by MTA.	
Funding Sources	Total Project Funding Committed:	\$30.0M
	Federal Sources:	\$15.0M
	Federal-State Partnership for SOGR	\$15.0M FY19 Award for Platforms 7 & 8
	Amtrak and Non-Federal Sources:	\$15.0M
	MTA	\$12.4M Match for FY19 SOGR Award
	Other Amtrak Sources	\$2.6M Match for FY19 SOGR Award
Project Based Cost Allocation (PBCA)	Additional Project Funding Required:	\$0
	PBCA Candidate:	Yes Notes: N/A
	Agreement Status:	In progress

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	Preliminary Engineering	Sep 2021 - Nov 2021	I				End Date TBD
Pre-construction	Sep 2021						
Construction	Penn Station New York: Platform 7 & 8 Refurbishment	Jan 2022 - Aug 2024					

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$15.2M

Scope of FY22 Work: Begin replacement of six (6) staircases.

Anticipated Milestones in FY22:

- Start staircase construction (Jan 2022)

One Year Plan Notes: 48% complete - 4 of 6 staircases by EOY 22

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$29.4M

At this spend level, the following activities could be completed or continue during FY22-26: Complete replacement of six (6) staircases and installation of new line of sight ceiling for Platform 7&8

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: 100% construction complete expected EOY 2024.

SPECIAL PROJECT

Gateway: New York Penn Station Expansion

Project Sponsor: MTA

Partners: Amtrak, NJ TRANSIT

Type: Major Station

Benefit: Shared

General Project Information	
Full Project Scope	This project would expand Penn Station New York to add new tracks, platforms, railroad systems, passenger concourses and underground connections, substation, station services, and “back-of-house”, i.e., non-customer facing support activities, to enable additional service capacity between New York and New Jersey upon completion of the Hudson Tunnel Project and the elements on the Gateway Program in New Jersey.
Project Justification	Penn Station New York is a pinch point at the center of the NEC, with 21 tracks accommodating some 1,300 average weekday train movements. The expansion of Penn Station tracks, platforms, and concourses is necessary to address growth in trans-Hudson demand and rail service that will be accommodated by additional elements of the Gateway Program.

Financial Plan		
Project Cost	Total Project Cost	\$10.9B
	Pre-Construction	\$1.1B
	Property Acquisition	\$2.6B
	Construction	\$7.2B
	Cost Derivation Methodology: The project cost estimate is based on the latest financial plan for this project, provided by MTA.	
Funding Sources	Total Project Funding Committed:	\$9.8M
	Federal Sources:	\$0
	Amtrak and Non-Federal Sources:	\$9.8M
	MTA	\$9.8M
	Additional Project Funding Required:	\$10.9B
	Proposed Federal Sources:	
	Proposed Amtrak and Non-Federal Sources	
Project Based Cost Allocation (PBCA)	NJ Transit, Amtrak, and MTA	Amount TBD
	PBCA Candidate:	Yes Notes: N/A
	Agreement Status:	Unknown

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	Pre-construction activities	Mar 2021 - Mar 2025					
Construction	Penn Station Expansion	Mar 2023 - Dec 2029					

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$20.0M

Scope of FY22 Work: Advance NEPA activities. Begin preliminary engineering of station design.

Anticipated Milestones in FY22:

- Issue notice of intent to prepare EIS. (Sep 2022)
- Issue notice to proceed to A/E Services Consultant to perform preliminary engineering..
- Complete alternatives analysis.

One Year Plan Notes: Amtrak planned expenditure of \$18.0M, MTA planned expenditure of \$2.0M

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$6.3B

At this spend level, the following activities could be completed or continue during FY22-26: Pre-construction activities, PS Expansion

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

SPECIAL PROJECT

Gateway: Portal North Bridge

Project Sponsor: NJ TRANSIT

Partners: Amtrak, Port Authority of NY & NJ, Gateway Program Development Commission, NJ Economic Development Authority

Type: Major Backlog

Benefit: Shared

General Project Information

Full Project Scope	This project is approximately 2.44-miles long and includes the construction of a new, two-track fixed-structure railroad bridge and approaches across the Hackensack to replace the existing, century-old swing-span Portal Bridge, and includes the purchase of 25 multilevel commuter railcars for NJT. Amtrak and NJT have completed final design and environmental review. The project has been awarded a full-funding grant agreement by the FTA through its Capital Investment Grant - Core Capacity grant program. Once complete, the new bridge will save upwards of \$1.3 million annually in reduced maintenance and operating costs and will increase capacity along the NEC by over 14%.
Project Justification	The existing swing-span Portal Bridge is a major bottleneck and source of delay of train traffic. It has limited vertical clearance, is functionally obsolete, and is increasingly prone to mechanical failures when it opens for maritime traffic, resulting in a single point-of-failure on the NEC and substantial delays. The risk of continued and increasing unplanned outages due to malfunctioning of the obsolete bridge cannot be mitigated by maintenance.

Financial Plan

Project Cost	<table><tr><td>Total Project Cost</td><td>\$1.9B</td></tr><tr><td>Pre-Construction</td><td>\$158.3M</td></tr><tr><td>Property Acquisition</td><td>\$0</td></tr><tr><td>Construction</td><td>\$1.7B</td></tr></table>	Total Project Cost	\$1.9B	Pre-Construction	\$158.3M	Property Acquisition	\$0	Construction	\$1.7B
Total Project Cost	\$1.9B								
Pre-Construction	\$158.3M								
Property Acquisition	\$0								
Construction	\$1.7B								
Cost Derivation Methodology: The total project cost estimate was calculated during the CONNECT NEC 2035 delivery analysis. The cost of the railcar purchase, which is included in the total project cost above, is \$71M.									

Funding Sources	Total Project Funding Committed:	\$1.9B
	Federal Sources:	\$878.7M
	FTA CIG Core Capacity Grant	\$766.5M
	CMAQ	\$57.1M Construction Phase 2
	Federal-State Partnership for SOGR	\$55.1M FY19 Award for Portal North Bridge Project
	Amtrak and Non-Federal Sources:	\$1.0B
	NJ Economic Development Authority Bonds	\$590.7M
	NJ Turnpike Authority	\$176.2M
	Amtrak Escrow Account Contribution	\$97.0M
	Amtrak Gateway Program Reserves	\$55.1M
Project Based Cost Allocation (PBCA)	Amtrak Revenues	\$52.8M Match for FY19 SOGR Award
	NJ Transportation Trust Fund	\$44.7M Includes match for CMAQ Funds
	Other Amtrak Sources	\$1.5M Amtrak Escrow Account - Intercity Rail
	Additional Project Funding Required:	\$0
	PBCA Candidate:	Yes Notes: N/A
	Agreement Status:	Completed

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	Feasibility/ Conceptual Design	May 2006 - Jun 2008					
Pre-construction	PE/NEPA	Jul 2008 - Jun 2013					
Pre-construction	Final Design	Jul 2013 - Dec 2020					
Construction	Procurement Phase	Jan 2021 - Dec 2021					
Construction	Construction Phase	Jan 2022 - Jul 2028					

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$150.0M

Scope of FY22 Work: Contractor will begin to mobilize on-site; start preparing shop drawings for review and approval; begin utility relocation work; begin retaining wall and some foundation work

Anticipated Milestones in FY22:

- Contract Award (Oct 2021)
- NTP Issued (Dec 2021)

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$1.7B

At this spend level, the following activities could be completed or continue during FY22-26: Construction of the new bridge is anticipated to be winding down, and the new tracks will be connected to the existing tracks.

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

SPECIAL PROJECT

Gateway: Hudson Tunnel Project

Project Sponsor: PANYNJ, submitted by Amtrak

Partners: NJ TRANSIT, Gateway Program Development Commission

Type: Major Backlog

Benefit: Shared

General Project Information

Full Project Scope	This project will construct a new two-track rail tunnel beneath the Hudson River, rehabilitate and modernize the existing two-track North River Tunnel, and construct the third and final rail right-of-way preservation section beneath the extensive overbuild project that is planned to be constructed on a platform above the rail complex in Manhattan (immediately west of PSNY) known as "Hudson Yards." When complete, the project will provide increased reliability and operational flexibility for Amtrak and NJT on the NEC. The project has been accepted by the FTA into the Project Development phase of the Capital Investment Grant program.
Project Justification	Service reliability in the North River Tunnel has been compromised because of the damage to tunnel components caused by Superstorm Sandy, which inundated both tubes with seawater in October 2012. Chlorides from the seawater remain in the tunnel's concrete liner and bench walls, causing ongoing damage to the bench walls, embedded steel, track, and signaling and electrical components, requiring an extended outage of the tunnel in order to completely replace damaged systems and rehabilitate the tunnel. These improvements must be achieved while maintaining uninterrupted commuter and intercity rail service. Existing service can only be maintained by the construction of a new, two-track tunnel connecting to the existing Penn Station that would carry existing rail traffic during the rehabilitation of the North River Tunnel. Taking one track out of service at a time without the new tunnel would reduce total capacity for Amtrak and NJ TRANSIT by as much as 75%, impacting roughly 200,000 passenger trips on 450 trains each weekday.

Financial Plan

Project Cost	Total Project Cost	\$12.273 B	
	Pre-Construction	\$2.806 B	
	Property Acquisition	\$0.719 B	
	Construction	\$7.639 B	
	Cost Derivation Methodology: The total project cost estimate reflects the August 2021 financial plan provided by the project sponsor. The remaining difference between the total project cost estimate and the sum of the component costs represents unallocated contingency. Costs reflect all construction packages, including the new Hudson Tunnel, Hudson Yards Concrete Casing Sec. 3, and the North River Tunnel rehabilitation.		
Funding Sources	Total Project Funding Planned:	\$12.273 B	This represents the August 2021 financial plan for this project. The funding sources listed do not include \$1.64 billion in financing charges.
	Federal Support:	\$6.137 B	
	FTA CIG New Starts Grant	\$4.763 B	
	Amtrak Contribution/FRA Grant	\$1.374 B	
	Local Support:	\$6.137 B	
	RRIF Loan A1 (PANYNJ)	\$2.157 B	
	RRIF Loan A2 (State of New York)	\$2.317 B	
	RRIF Loan B (State of New Jersey)	\$1.628 B	
	PANYNJ Design Contribution	\$0.035 B	
Project Based Cost Allocation (PBCA)	PBCA Candidate:	Yes	Notes: N/A
	Agreement Status:	In progress	

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	PE/NEPA	Jan 2016 – May 2021					
Pre-construction	FTA CIG Engineering Phase	2Q 2022 – 4Q 2022					
Construction	New Tunnel and Concrete Casing (Major Construction)	Aug 2023 - Mar 2032					
Construction	Rehab of North River Tunnel	Mar 2032 – Apr 2035					

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$20.4M

Scope of FY22 Work: Manhattan and New Jersey property acquisition, contract packaging and pre-procurement complete Hudson Yards Concrete Casing Section 3 Early Work

Anticipated Milestones in FY22:

- Completion of Supplemental Geotechnical Borings
- Entry into FTA CIG Engineering Phase
- Start of Lease Payments Block 675 Lot 12
- HYCC-3 Early Work Substantial Completion
- HYCC-3 Early Work Final Completion

One Year Plan Notes:

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$4.7B

At this spend level, the following activities could be completed or continue during FY22-26: Begin construction of new tunnel and concrete casing.

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

SPECIAL PROJECT

Gateway: Portal South Bridge

Project Sponsor: NJ TRANSIT

Partners: Amtrak, Port Authority of NY & NJ, Gateway Development Commission

Type: Improvement

Benefit: Shared

General Project Information	
Full Project Scope	This project would construct new Northeast Corridor tracks and systems, including a two-track Portal South Bridge, over the Hackensack River. This would complete the addition of two new tracks to the Northeast Corridor, building out the Gateway Program new capacity in this territory.
Project Justification	This project is another increment in completing a modern, four-track right-of-way on the NEC between Newark, NJ and Penn Station, NY. It is necessary to accommodate the ongoing and forecasted growth of services into Penn Station, NY.

Financial Plan		
Project Cost	Total Project Cost	\$3.8B
	Pre-Construction	\$512.0M
	Property Acquisition	\$0
	Construction	\$3.3B
	Cost Derivation Methodology: The project cost estimate is based on the latest financial plan for this project, provided by Amtrak.	
Funding Sources	Total Project Funding Committed:	\$0
	Additional Project Funding Required:	\$3.8B
Project Based Cost Allocation (PBCA)	PBCA Candidate:	Yes Notes: N/A
	Agreement Status:	Unknown

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	Pre-construction activities	Aug 2024 - Aug 2028					
Construction	Portal South Bridge	Aug 2026 - Dec 2028					
Construction	Tk 6 Work	Dec 2028 - Mar 2030					
Construction	Tk 5 Work	Mar 2030 - Jun 2031					
Construction	Portal and Loop	Nov 2033 - Mar 2035					

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$0

Scope of FY22 Work: No activity planned for FY22

Anticipated Milestones in FY22:

One Year Plan Notes: NJT is now performing a northern New Jersey rail network and infrastructure needs analysis. The outcome of this analysis will help inform various details of the Gateway Program capacity projects located in New Jersey. The pending outcome of this analysis will likely result in refined Portal South costs and assumptions for the FY23 2027 Plan and C37.

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$280.0M

At this spend level, the following activities could be completed or continue during FY22-26: Begin pre-construction activities and construction of Portal South Bridge.

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

SPECIAL PROJECT

Newark Penn Station: Station Rehabilitation

Project Sponsor: NJ TRANSIT

Partners: Amtrak

Type: Major Station

Benefit: Shared




General Project Information

Full Project Scope	Newark (NJ) Penn Station was constructed in various stages during 1929-1937. This aging, historic station requires replacement and/or upgrades of numerous infrastructure components throughout the facility. These components include, but are not limited to: the rehabilitation of Platform D; new vertical circulation units (elevators, escalators, and staircases); roof replacement; restrooms upgrades; HVAC system improvements; replacement of Terrazzo flooring throughout the station; painting; LED lighting installations; waiting room bench repairs/refurbishment; bus passenger facilities refurbishment; and display board upgrades throughout the facility; as well as potential structural improvements to the facility. A FRA grant was awarded for a portion of these improvements centered on Platform D. The grant funds cover Platform D deck repair replacement; repairs to the canopy roofing, electrical and communication systems; and repair of the platform waiting area.
Project Justification	Newark Penn Station is the most heavily utilized NJ TRANSIT owned facility. This multi-modal station is northern New Jersey's primary access point to Amtrak intercity services and the national rail network, while also serving as a critical hub for numerous NJ TRANSIT modes/routes and the PATH rapid transit system. A series of recent studies and analyses has resulted in a comprehensive program of proposed Newark Penn Station improvements. These improvements would provide an enhanced experience for customers and would allow the overall station facility to be brought up to a state of good repair. Among the improvements, the upgraded PA system, signage, Departure Vision boards, rail platforms, streetscape improvements, and bus passenger facilities areas would all benefit the majority of Newark Penn Station customers who transfer between multiple transportation services.

Financial Plan

Project Cost	Total Project Cost	\$454.0M	
	Pre-Construction	\$28.6M	
	Property Acquisition	\$0	
	Construction	\$425.4M	
	Cost Derivation Methodology: The project cost estimate is based on the latest financial plan for this project, provided by NJ TRANSIT.		
Funding Sources	Total Project Funding Committed:	\$26.4M	
	Federal Sources:	\$18.4M	
	Federal-State Partnership for SOGR	\$18.4M	FY17-18 Award for Newark Penn Station Platform D Improvements
	Amtrak and Non-Federal Sources:	\$7.9M	
	NJ TRANSIT	\$5.9M	Match for FY17-18 SOGR Award
	Other Amtrak Sources	\$2.0M	Match for FY17-18 SOGR Award
Project Based Cost Allocation (PBCA)	Additional Project Funding Required:	\$427.7M	
	PBCA Candidate:	Yes	Notes: N/A
	Agreement Status:	Unknown	

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	Pre-construction activities	Dec 2020 - Jan 2024					
Pre-construction	Platform D elements design	Oct 2021 - Sep 2023					
Construction	Platform D elements	Jun 2024 - Jun 2027					

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: TBD

Scope of FY22 Work: Final design work for the Platform D components of the project will begin and progress. Planning and conceptual design efforts for other station improvements are also expected to occur.

Anticipated Milestones in FY22:

- The design for Platform D elements will commence (Nov 2021)

One Year Plan Notes: FRA grant funds for the Platform D improvements are expected to be obligated in January 2022.

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$208.2M

At this spend level, the following activities could be completed or continue during FY22-26: Complete design phase and begin construction on Platform D

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

SPECIAL PROJECT

Hunter Flyover

Project Sponsor: NJ TRANSIT

Partners: Amtrak

Type: Improvement

Benefit: Shared

General Project Information	
Full Project Scope	This project would construct an elevated viaduct structure to allow for NJT's Newark-bound Raritan Valley Line trains to cross over and above the NEC tracks to merge with the NEC's eastbound local track in order to continue their movement towards Newark. Additional funding is required for design and construction.
Project Justification	Currently, Newark-bound Raritan Valley Line trains must travel along the westbound local track or cross the NEC at grade to reach the eastbound local track. NJ TRANSIT identified the need for a flyover that would eliminate at-grade crossings, thereby reducing conflict between trains, increasing capacity for NJ TRANSIT and Amtrak, and enabling NJ TRANSIT to improve Raritan Line service.

Financial Plan		
Project Cost	Total Project Cost	\$300.0M
	Pre-Construction	\$60.0M
	Property Acquisition	\$0
	Construction	\$240.0M
	Cost Derivation Methodology: The total project cost estimate was calculated during the CONNECT NEC 2035 delivery analysis.	
Funding Sources	Total Project Funding Committed:	\$0.5M
	Federal Sources:	\$0
	Amtrak and Non-Federal Sources:	\$0.5M
	NJ Transportation Trust Fund	\$0.5M
	Additional Project Funding Required:	\$299.5M
Project Based Cost Allocation (PBCA)	PBCA Candidate:	Yes Notes: N/A
	Agreement Status:	Unknown

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	Pre-construction activities	Feb 2024 - Feb 2026					
Construction	Enabling Bridges	Feb 2026 - Jul 2026					
Construction	Realign Tk A&1	Jul 2026 - Apr 2027					
Construction	Tk A Crosses	Apr 2027 - Aug 2027					
Construction	RVL Connection 1	Aug 2027 - Jun 2028					
Construction	RVL Pocket 1	Jun 2028 - Nov 2028					
Construction	Construct Flyover	Nov 2028 - Aug 2029					
Construction	Flyover Track	Aug 2029 - Dec 2029					
Construction	Flyover connection	Dec 2029 - Jan 2030					

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: TBD

Scope of FY22 Work: Update the 2011 Hunter Flyover Concept to incorporate the PATH EWR extension

Anticipated Milestones in FY22:

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$105.1M

At this spend level, the following activities could be completed or continue during FY22-26: Pre-construction activities, Enabling Bridges, Realign Tk A&1

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

SPECIAL PROJECT

Newark Penn Station to EWR Station NEC Section Capacity Improvement: Short-term

Project Sponsor: Amtrak

Partners: NJ TRANSIT




Type: Improvement

Benefit: Shared

General Project Information	
Full Project Scope	<p>This project will implement capacity improvements from Newark Penn Station to Newark Liberty International Airport Station (EWR), including a parallel move (westbound Track 4 to Track 3 at Haynes Interlocking), and the addition of crossovers at EWR.</p> <p><i>This project was developed through the C35 project delivery analysis. The project scope, schedule, and budget details are currently under review by Amtrak and will be revisited during C37.</i></p>
Project Justification	<p>Increased capacity from Newark Penn Station to EWR supports westbound trains stopping at EWR.</p>

Financial Plan		
Project Cost	Total Project Cost	\$32.1M
	Pre-Construction	\$6.6M
	Property Acquisition	\$0
	Construction	\$25.6M
	Cost Derivation Methodology: The total project cost estimate was calculated during the CONNECT NEC 2035 delivery analysis.	
Funding Sources	Total Project Funding Committed:	\$0
	Additional Project Funding Required:	\$32.1M
Project Based Cost Allocation (PBCA)	PBCA Candidate:	Yes Notes: N/A
	Agreement Status:	Unknown

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	Pre-construction activities	Oct 2025 - Apr 2027					
Construction	Tk A Crosses	Apr 2027 - Aug 2027					
Construction	RVL Pocket 1	Jun 2028 - Nov 2028					

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$0

Scope of FY22 Work: No activity planned for FY22

Anticipated Milestones in FY22:

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$3.3M

At this spend level, the following activities could be completed or continue during FY22-26: Begin pre-construction activities

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

SPECIAL PROJECT

Gateway: Harrison Fourth Track

Project Sponsor: Amtrak

Partners: NJ TRANSIT, Port Authority of NY & NJ, Gateway Program Development Commission

Type: Improvement

Benefit: Shared

General Project Information

Full Project Scope

This project includes the design, contract packaging, and construction of approximately 2,000 ft. of additional main track along the Northeast Corridor through the city of Harrison, NJ on the western side of the corridor with new embankment and/or retaining structures, track, signals (both Amtrak and PATH), 3rd rail, catenary system modifications for Amtrak power to allow shifting of the westbound PATH track to this new alignment. The project will identify and design changes necessary to connect the new track with the existing infrastructure and also be coordinated with PATH's Harrison Station project. The intention of this project is to construct a new PATH track conforming to PANYNJ (PATH) standards north of the existing alignment and then convert the area of the existing PATH track to a 4th NEC Track in accordance with Amtrak standards.

Project Justification

This project would allow construction of a new fourth main track through Harrison, NJ using the former PATH track alignment. Currently, the NEC through Harrison consists of three shared commuter/ intercity rail tracks and two additional tracks operated on exclusively by PATH trains between Newark, NJ and Jersey City, NJ and other points east. Through the project site, the two PATH tracks straddle the three NEC tracks and the PATH westbound track must be relocated to allow the addition of NEC tracks due to this configuration. This is another increment in creating the full four-track Gateway Program alignment between Newark, NJ and Penn Station, NY. If the project is not advanced, it will hinder the Gateway Program's goal of providing a complete four-track right-of-way and doubling rail service between New York and New Jersey.

Financial Plan

Project Cost

Total Project Cost

\$75.0M

Pre-Construction

\$14.9M

Property Acquisition

\$0

Construction

\$60.2M

Cost Derivation Methodology: The project cost estimate is based on the latest financial plan for this project, provided by Amtrak.

Funding Sources

Total Project Funding Committed:

\$2.2M

Federal Sources:

\$0

Amtrak and Non-Federal Sources:

\$2.2M

Amtrak FRA Grant

\$2.2M FY20-FY21

Additional Project Funding Required:

\$72.8M

Project Based Cost Allocation (PBCA)

PBCA Candidate:

Yes **Notes:** N/A

Agreement Status:

In progress

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	Design	Feb 2018 - Jul 2023					
Pre-construction	NEPA	Mar 2022 - Feb 2023					
Construction	Early Work - Utility Relocations	Jun 2022 - Dec 2022					
Construction	Harrison Fourth Track	Oct 2023 - May 2026					

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$1.4M

Scope of FY22 Work: FY22 Scope will include completion of Preliminary Engineering 30 percent design in Q1. Following the 30 percent design deliverable, a contract mod will be issued for final design and contract packaging, to include relocation of PATH signal system elements and information database to support the relocation of Track G.

Anticipated Milestones in FY22:

- Submit Final 30% Design (Oct 2021)
- Issue contract mod for final design (Dec 2021)
- Issue NTP for PATH signal design (Jan 2022)
- Issue Final Design NTP (Feb 2022)

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$75.0M

At this spend level, the following activities could be completed or continue during FY22-26: Complete pre-construction activities and construction

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

SPECIAL PROJECT

Gateway: NJ TRANSIT Gateway Storage Yard

Project Sponsor: NJ TRANSIT

Partners: Amtrak, Port Authority of NY & NJ, Gateway Program Development Commission

Type: Improvement

Benefit: Shared

General Project Information

Full Project Scope	This project would locate a new rail yard in New Jersey to support the capacity and service increase goals of the Gateway Program. Additional funding is needed for NEPA/PE, design and construction.
Project Justification	A rail yard in New Jersey would provide the layover storage and maintenance facilities necessary to optimize the new capacity enabled by track and station expansion projects associated with the Gateway Program. Many of the existing NJ TRANSIT train storage or maintenance facilities have constraints that preclude further expansion and/or are located in outlying areas. However, the greatest need for increased train storage and maintenance capacity is in close proximity to terminal stations and major hubs such as Penn Station New York (PSNY), Hoboken, Secaucus, and Newark Penn Station.

Financial Plan

Project Cost	Total Project Cost	\$1.9B
	Pre-Construction	\$354.2M
	Property Acquisition	\$0
	Construction	\$1.5B
	Cost Derivation Methodology: The total project cost estimate was calculated during the CONNECT NEC 2035 delivery analysis.	
Funding Sources	Total Project Funding Committed:	\$0.4M
	Federal Sources:	\$0
	Amtrak and Non-Federal Sources:	\$0.4M
	NJ Transportation Trust Fund	\$0.4M
	Additional Project Funding Required:	\$1.9B
Project Based Cost Allocation (PBCA)	PBCA Candidate:	Yes Notes: N/A
	Agreement Status:	Unknown

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	Pre-construction activities	Jan 2019 - Jun 2026					
Construction	NJT Yard	Jun 2026 - Oct 2028					

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: TBD

Scope of FY22 Work: TBD

Anticipated Milestones in FY22:

-

One Year Plan Notes: NJT's planning study for the Gateway Yard was completed in FY21. NJT is now performing due diligence for the top recommended sites, in conjunction with a broader northern New Jersey rail network and infrastructure needs analysis. The pending outcome of this analysis may result in conceptual design and/or advance right of way acquisition efforts in FY22.

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$558.4M

At this spend level, the following activities could be completed or continue during FY22-26: Complete pre-construction activities and begin construction of NJT Yard

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

SPECIAL PROJECT

Gateway: Sawtooth Bridges Replacement

Project Sponsor: Amtrak

Partners: NJ TRANSIT, Port Authority of NY & NJ, Gateway Program Development Commission

Type: Major Backlog

Benefit: Shared

General Project Information

Full Project Scope

This project would replace Amtrak Bridges No. 7.80 and No. 7.96, collectively referred to as the "Sawtooth Bridges." The existing bridges are located in the Town of Kearny, Hudson County, New Jersey between Newark Penn Station and Secaucus Junction, and are directly above or in close proximity to several important rail lines, including the NJT Morris and Essex Line, the former Conrail Center Street Branch, and the PATH WTC rail line. The proposed project would replace an approximately 1.1-mile long segment of existing transportation right-of-way along Amtrak's Northeast Corridor with new structures that would result in a four-track segment of the NEC with improved design speeds.

Project Justification

The increasing age of the Sawtooth Bridges, their structural condition, and their two speed-restricted tracks (60 miles per hour) limit the efficiency and reliability of rail operations along this critical segment of the NEC. The Sawtooth Bridges were constructed in 1907 and are nearing the end of their functional life. Amtrak rehabilitated the bridges in the early 1980s yet despite this rehabilitation effort, recent inspections indicate that the Sawtooth Bridges continue to deteriorate. Amtrak conducted an inspection and condition survey in 2013 that found the Sawtooth Bridges to be in poor to very poor condition. Not progressing the design of Sawtooth Bridges Replacement Project at this time would prevent individual elements of the Gateway Program to progress as an integrated component part of the larger transit system, with cost and schedule ramifications for the full Gateway Program.

Financial Plan

Project Cost

Total Project Cost

\$1.6B

Pre-Construction

\$271.3M

Property Acquisition

\$0

Construction

\$1.3B

Cost Derivation Methodology: The project cost estimate is based on the latest financial plan for this project, provided by Amtrak.

Funding Sources

Total Project Funding Committed:

\$14.3M

Federal Sources:

\$0

Amtrak and Non-Federal Sources:

\$14.3M

Amtrak FRA Grant

\$14.3M FY12-FY22

Additional Project Funding Required:

\$1.6B

Project Based Cost Allocation (PBCA)

PBCA Candidate:

Yes **Notes:** N/A

Agreement Status:

Unknown

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	NEPA	Jan 2018 - Aug 2020					FONSI issued Aug 2020
Pre-construction	Design/Contract Packaging	Nov 2021 - Dec 2023					
Construction	Construction	Jan 2024 - Dec 2031					

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$12.9M

Scope of FY22 Work: FY22 scope will include progression of Preliminary Engineering contract with Portal Partners and submission of 15% track and bridge concept design package.

Anticipated Milestones in FY22:

- Complete Field Investigations (Dec 2021)
- Receive 15% Track and Bridge Concept Design Submittal (May 2022)
- Receive 15% Project Cost Estimate (Jun 2022)

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$680.1M

At this spend level, the following activities could be completed or continue during FY22-26: Complete pre-construction activities and begin construction

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

SPECIAL PROJECT

Gateway: Dock Bridge Rehabilitation

Project Sponsor: Amtrak

Partners: NJ TRANSIT, Port Authority of NY & NJ, Gateway Program Development Commission

Type: Improvement

Benefit: Shared

General Project Information

Full Project Scope	Dock Bridge is a complex of three vertical lift structures located along one the busiest sections of the Northeast Corridor (Milepost 8.5), crossing the Passaic River in Newark, NJ. The bridge carries six tracks utilized by Amtrak, NJ Transit and PATH trains. Considerable repairs are needed to this critical asset to restore the bridge to a state of good repair, to maintain reliable operation of the structure, and to preserve safe passage for the more than 720 trains per day that utilize the structure. Required repairs include structural steel painting, pier repairs, mechanical and electrical upgrades, and fender replacement. The Dock Bridge Rehabilitation Project will bring the bridge to a state of good repair through several enhancements: structural steel painting (the largest portion of the proposed scope; will remove original, failed lead paint that is contributing to corrosion of the bridge), steel repairs, installation of straight rail to replace movable miter rails, as well as concrete pier repair and fender replacement and the associated installation of a targeted cathodic protection system designed to slow or stop the corrosion process of the bridge's concrete supports. This work will prolong the life of the bridge and minimize the risk of more costly rehabilitation in the future.
Project Justification	The project would perform critical maintenance and rehabilitation work to bring an intensely used infrastructure asset in the busiest section of the Northeast Corridor to a state of good repair, avoiding service disruption and maintaining its useful life. The Bridge Rehabilitation project will provide significant benefits in the form of reduced travel times, enhanced safety for workers, as well as the aesthetic restoration of a marquee infrastructure asset that will bestow a sense of dignity and pride to two communities that have faced decades of disinvestment. Failure to repair the concrete piers would leave structural degradation of the bridge unaddressed. If bridge remains unpainted and existing steel members remain, these features will cause further corrosion to the bridge, resulting in expensive and disruptive repairs in the future. Failure to replace railings, missing handrails, and other safety features exposes Amtrak workers to increased risk of slip and falls.

Financial Plan

Project Cost	Total Project Cost	\$63.6M	
	Pre-Construction	\$1.9M	
	Property Acquisition	\$0	
	Construction	\$61.7M	
	Cost Derivation Methodology: The project cost estimate is based on the latest financial plan for this project, provided by Amtrak.		
Funding Sources	Total Project Funding Committed:	\$1.0M	
	Federal Sources:	\$0	
	Amtrak and Non-Federal Sources:	\$1.0M	
	Amtrak FRA Grant	\$1.0M	
	Additional Project Funding Required:	\$62.6M	
Project Based Cost Allocation (PBCA)	PBCA Candidate:	Yes	Notes: A cost-sharing agreement for Dock Bridge was executed with PATH/PANYNJ in Aug 2016.
	Agreement Status:	Completed	

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	Design	Mar 2022 - Jun 2023					NEPA Categorical Exclusion - Jun 2020
Construction	Early Work	Jun 2022 - Aug 2022					
Construction	Dock Bridge Rehabilitation	Oct 2023 - Sep 2025					

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$1.0M

Scope of FY22 Work: The scope of work includes the final design and installation of straight rails in place of movable rails and counterweight adjustment for a permanently fixed bridge. In addition to these measures, preliminary engineering of the entire Dock Bridge rehabilitation project would be advanced to 15%.

Anticipated Milestones in FY22:

- USCG Approves Permit modification request for permanently fixed bridge (Dec 2021)
- Complete Final Design of Straight Rail and Counterweight adjustment (Feb 2022)
- Install Straight Rail and Complete Counterweight adjustment (Aug 2022)
- Receive 15% Design Submittal for Rehabilitation project (Aug 2022)

One Year Plan Notes: FY22 scope assumes the approval of the permit modification request with the U.S. Coast Guard for transitioning the bridge from a movable span to a fixed span.

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$63.6M

At this spend level, the following activities could be completed or continue during FY22-26: Complete pre-construction activities and construction

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: Project to be completed within the 5 years

SPECIAL PROJECT

Delco Lead

Project Sponsor: NJ TRANSIT

Partners: Amtrak

Type: Improvement

Benefit: Sole Commuter

General Project Information	
Full Project Scope	This project will construct a safe haven storage facility on the NEC south of the New Brunswick station to protect rail rolling stock against damage resulting from a storm surge. A service and inspection facility that is part of the project will facilitate the rapid return of equipment to service following a storm event. This project is supported by FTA Emergency Relief Program funds. Phase I of the overall Delco Lead Project is the "GC01" contract, which will provide site preparation/ related cleanup activities. Phase II will be the Delco Lead work. Phase III will be the County Yard project (non-Federally funded) which will expand the existing County Storage Yard from its current footprint to include an unused part of an adjacent rail freight yard. Phase IV will be the S&I building. The overall Delco Lead project, with County Yard improvements, will provide safe storage capacity for up to 444 rail cars in the event of flooding at other locations. Federal funding involvement is limited to the Delco Lead and S&I phases.
Project Justification	The project will provide resilient storage for rail cars and service and inspection (S&I) capabilities to facilitate the rapid return to service of stored rolling stock equipment following an extreme weather event. The S&I Facility will be utilized for daily inspections and required equipment service at County Yard. Furthermore, the Delco Lead tracks would potentially be used in the future in conjunction with the proposed Mid-Line Loop and North Brunswick Station projects.

Financial Plan		
Project Cost	Total Project Cost	\$282.3M
	Pre-Construction	\$55.9M
	Property Acquisition	\$0
	Construction	\$226.4M
	Cost Derivation Methodology: The total project cost estimate was calculated during the CONNECT NEC 2035 delivery analysis.	
Funding Sources	Total Project Funding Committed:	\$248.0M
	Federal Sources:	\$184.5M
	FTA Formula Grants	\$184.5M Multiple FTA Grants (7)
	Amtrak and Non-Federal Sources:	\$63.6M
	NJ Transportation Trust Fund	\$63.6M
Project Based Cost Allocation (PBCA)	Additional Project Funding Required:	\$34.2M
	PBCA Candidate:	No (Sole benefit) Notes: N/A
	Agreement Status:	Not applicable

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	Pre-construction activities	Oct 2014 - Sep 2020					Note that work will occur in phases.
Construction	Delco Yard	Sep 2021 - May 2026					Note that work will occur in phases.

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: TBD

Scope of FY22 Work: Begin construction of GC01.

Anticipated Milestones in FY22:

- Contract Award (Phase 1 GC01) (Jul 2022)
- Notice to Proceed (Phase 1 GC01) (Jul 2022)

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$252.4M

At this spend level, the following activities could be completed or continue during FY22-26: Phase 2 - Delco, Phase 3 - County Yard, Phase 4 - S&I Facility

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

SPECIAL PROJECT

Jersey Avenue Station Improvements

Project Sponsor: NJ TRANSIT

Partners:

Type: Improvement

Benefit: Sole Commuter

General Project Information	
Full Project Scope	This project would reconstruct the existing station including new eastbound and westbound platforms. These improvements would be complemented by the addition of a new commuter parking lot that would be connected to the station via a pedestrian overpass. This project is being coordinated with the construction of NJT's Delco Lead Project. Additional funding is required for design and construction.
Project Justification	The purpose of the Jersey Avenue Station improvements is to make this station ADA accessible by installing new high-level platforms and elevators.

Financial Plan		
Project Cost	Total Project Cost	\$98.8M
	Pre-Construction	\$19.6M
	Property Acquisition	\$0
	Construction	\$79.2M
	Cost Derivation Methodology: The total project cost estimate was calculated during the CONNECT NEC 2035 delivery analysis.	
Funding Sources	Total Project Funding Committed:	\$0
	Additional Project Funding Required:	\$98.8M
Project Based Cost Allocation (PBCA)	PBCA Candidate:	No (Sole benefit) Notes: N/A
	Agreement Status:	Not applicable

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	Pre-construction activities	Jan 2023 - Jan 2025					
Construction	Jersey Avenue Station	May 2026 - May 2028					

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$0

Scope of FY22 Work: No activity planned for FY22

Anticipated Milestones in FY22:

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$98.8M

At this spend level, the following activities could be completed or continue during FY22-26: Pre-construction activities; Jersey Avenue Station

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

SPECIAL PROJECT

Midline Loop

Project Sponsor: NJ TRANSIT

Partners: Amtrak

Type: Improvement

Benefit: Shared

General Project Information	
Full Project Scope	This project would construct a new above-grade connection between existing and planned train storage facilities and the NY-bound local track of the NEC. The crossover would eliminate at-grade movements that create conflicts between commuter and intercity trains. Preliminary engineering is currently underway. Additional funding is required for final design and construction.
Project Justification	The Mid-line Loop will eliminate at-grade movements that create conflicts between commuter and intercity trains. In doing so, this new infrastructure will open up capacity for all users while improving reliability for NJ TRANSIT services that today must wait for a slot to open before they can cross tracks to begin New York-bound service. The capacity created will help enable the New Jersey High-Speed Rail Program's goal of 160-mph speeds on Acela, as well as support future express service patterns planned by NJ TRANSIT.

Financial Plan		
Project Cost	Total Project Cost	\$460.9M
	Pre-Construction	\$91.3M
	Property Acquisition	\$0
	Construction	\$369.6M
	Cost Derivation Methodology: The total project cost estimate was calculated during the CONNECT NEC 2035 delivery analysis.	
Funding Sources	Total Project Funding Committed:	\$5.6M
	Federal Sources:	\$0
	Amtrak and Non-Federal Sources:	\$5.6M
	NJ Transportation Trust Fund	\$5.6M
	Additional Project Funding Required:	\$455.2M
Project Based Cost Allocation (PBCA)	PBCA Candidate:	Yes Notes: N/A
	Agreement Status:	Not started

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	Pre-construction activities	May 2024 - May 2026					
Construction	Bridge and Loop Tracks: Flyover Piers, Mid-line loop tracks	May 2026 - May 2027					
Construction	Bridge completion	Sep 2026 - Jun 2027					
Construction	Bridge and Loop Tracks: Connect Tracks, Flyover Catenary	Jun 2027 - Sep 2027					

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$0

Scope of FY22 Work: No activity planned for FY22

Anticipated Milestones in FY22:

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$50.0M

At this spend level, the following activities could be completed or continue during FY22-26: If funding is made available during this period, construction activities could be underway on the Bridge and Loop Tracks, the Flyover Piers, Mid-line loop tracks, Bridge completion.

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

SPECIAL PROJECT

Adams Substation

Project Sponsor: NJ TRANSIT

Partners: Amtrak

Type: Improvement

Benefit: Shared

General Project Information	
Full Project Scope	This project would construct a new substation in Adams, NJ. The project would address the need for additional transformation capacity to properly operate electric trains in this area, given increased train traffic and plans for a new NJT station in New Brunswick. Additional funding is required for design and construction.
Project Justification	Due to increased rail traffic in the Adams / New Brunswick area, there is an increasing need for additional transformation capacity to properly operate electric trains in this area. Failure to complete this project could subject Amtrak to an inability to provide sufficient levels of traction power to both Amtrak and NJ Transit trains in this area.

Financial Plan		
Project Cost	Total Project Cost	\$36.0M
	Pre-Construction	\$7.3M
	Property Acquisition	\$0
	Construction	\$28.7M
	Cost Derivation Methodology: The total project cost estimate was calculated during the CONNECT NEC 2035 delivery analysis.	
Funding Sources	Total Project Funding Committed:	\$0
	Additional Project Funding Required:	\$36.0M
Project Based Cost Allocation (PBCA)	PBCA Candidate:	Yes Notes: N/A
	Agreement Status:	Unknown

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	Pre-construction activities	Mar 2026 - Sep 2027					
Construction	Substation	Sep 2027 - Mar 2028					

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$0

Scope of FY22 Work: No activity planned for FY22

Anticipated Milestones in FY22:

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$2.1M

At this spend level, the following activities could be completed or continue during FY22-26: Pre-construction activities

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

SPECIAL PROJECT

Elizabeth Station Improvements

Project Sponsor: NJ TRANSIT

Partners:

Type: Improvement

Benefit: Sole Commuter

General Project Information	
Full Project Scope	This project would reconstruct two side high-level concrete passenger platforms and two station buildings including new elevators, stairs, ticketing offices, operational office spaces, and retail spaces. Additional funding is required for design and construction.
Project Justification	NJ TRANSIT plans to reconstruct the Elizabeth, NJ commuter rail station in its entirety with needed upgrades to bring the station up to current ADA compliance standards. The station activities will also accommodate a proposed future fifth track along the NEC planned to be built by Amtrak. The upgraded rail station will also provide longer platforms for NJ TRANSIT trains.

Financial Plan	
Project Cost	Total Project Cost \$84.3M
	Pre-Construction \$16.7M
	Property Acquisition \$0
	Construction \$67.6M
	Cost Derivation Methodology: The total project cost estimate was calculated during the CONNECT NEC 2035 delivery analysis.
Funding Sources	Total Project Funding Committed: \$34.4M
	Federal Sources: \$30.0M
	FTA Formula Grants \$30.0M FTA Grant Nos. NJ-90-0023 and NJ 202017-020-00
	Amtrak and Non-Federal Sources: \$4.5M
	NJ Transportation Trust Fund \$4.5M
Project Based Cost Allocation (PBCA)	Additional Project Funding Required: \$49.9M
	PBCA Candidate: No (Sole benefit) Notes: N/A
	Agreement Status: Not applicable

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	Pre-construction activities	Jun 2011 - Dec 2020					
Construction	Station Work	Oct 2018 - Jul 2023					

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: TBD

Scope of FY22 Work: TBD

Anticipated Milestones in FY22:

- Achieve 50% Completion (Dec 2021)

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$44.1M

At this spend level, the following activities could be completed or continue during FY22-26: Platform Work 2, Station Work

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

SPECIAL PROJECT

New Jersey HSR Improvement Program: New Brunswick to Newark

Project Sponsor: Amtrak

Partners: NJ TRANSIT

Type: Improvement

Benefit: Shared

General Project Information	
Full Project Scope	<div>The project will upgrade electrical power, signal systems, tracks, and overhead catenary wires.</div> <div><i>This project was developed through the C35 project delivery analysis. The project scope, schedule, and budget details are currently under review by Amtrak and will be revisited during C37.</i></div>
Project Justification	<div>This project will increase capacity, enhance safety, upgrade passenger service, improve connectivity, reduce environmental impact, and increase reliability.</div>

Financial Plan		
Project Cost	Total Project Cost	\$9.5M
	Pre-Construction	\$1.9M
	Property Acquisition	\$0
	Construction	\$7.5M
	Cost Derivation Methodology: The total project cost estimate was calculated during the CONNECT NEC 2035 delivery analysis.	
Funding Sources	Total Project Funding Committed:	\$0
	Additional Project Funding Required:	\$9.5M
Project Based Cost Allocation (PBCA)	PBCA Candidate:	Yes Notes: N/A
	Agreement Status:	Unknown

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	Pre-construction activities	Jul 2025 - Jan 2027					
Construction	HSR Improvement	Jan 2027 - Jul 2029					

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$0

Scope of FY22 Work: No activity planned for FY22

Anticipated Milestones in FY22:

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$1.4M

At this spend level, the following activities could be completed or continue during FY22-26: Begin pre-construction activities

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

SPECIAL PROJECT

NJ TRANSITGRID

Project Sponsor: NJ TRANSIT

Partners: Amtrak

Type: Improvement

Benefit: Shared

General Project Information	
Full Project Scope	This project will create a microgrid power generation and distribution system as a backup to the regional power network, allowing transit systems to function during storms or other times when the centralized power grid is compromised. NJTGRID will incorporate renewable energy, distribution generation, and other technologies to provide resilient power to key NJT stations, maintenance facilities, bus garages, and other buildings. The project will also provide resilient electric traction power to NJT trains on critical corridors, including portions of the NEC, to continue to operate even when the traditional power grid fails.
Project Justification	Superstorm Sandy highlighted the need for infrastructure improvements to increase the resilience of the region's transit system to withstand another major climatological event. NJ TRANSIT partnered with the U.S. Department of Energy and other agencies to evaluate opportunities to develop an independent power generating system to permit the operation of core train services in the event of power outages. This collaboration resulted in the NJ TRANSITGRID Project with the intent on constructing a "Microgrid Electric Power Generating System" that will provide a resilient power source to energize portions of the NEC, NJ TRANSIT's Morris & Essex rail line, and the Hudson-Bergen Light Rail. The completion of this project will also provide resilient power at selected rail stations and bus maintenance facilities.

Financial Plan	
Project Cost	Total Project Cost \$662.5M
	Pre-Construction \$124.6M
	Property Acquisition \$0
	Construction \$538.0M
	Cost Derivation Methodology: The total project cost estimate was calculated during the CONNECT NEC 2035 delivery analysis.
Funding Sources	Total Project Funding Committed: \$650.4M
	Federal Sources: \$467.2M
	FTA Section 5324 Funds \$409.8M (2) Grants
	Federal-State Partnership for SOGR \$36.4M FY19 Award for Reconstruction of Substation 41
	Other Federal Discretionary \$21.0M Sandy Recovery Funds for Substation 41
	Amtrak and Non-Federal Sources: \$183.2M
	NJ Transportation Trust Fund \$100.3M
	Other \$67.3M
	New Jersey \$15.6M Match for FY19 SOGR Award
	Additional Project Funding Required: \$12.2M
Project Based Cost Allocation (PBCA)	PBCA Candidate: Yes Notes: N/A
	Agreement Status: In progress

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	Pre-construction activities	Jan 2016 - Dec 2022					
Construction	Microgrid	Nov 2020 - Mar 2025					
Construction	Substation 41	Nov 2023 - May 2025					

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: TBD

Scope of FY22 Work: TBD

Anticipated Milestones in FY22:

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$543.2M

At this spend level, the following activities could be completed or continue during FY22-26: Pre-construction activities, Microgrid, Substation 41

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

SPECIAL PROJECT

Edison Station Improvements

Project Sponsor: NJ TRANSIT

Partners:

Type: Improvement

Benefit: Sole Commuter

General Project Information

Full Project Scope	This project would relocate an existing freight turn-out switch to a location north of Plainfield Avenue by Edison Station and then extend the existing outbound high-level platform by 425 feet for a total platform length of approximately 1,020 feet. Additional funding is required for design and construction.
Project Justification	The extended platform will result in smoother passenger boarding and deboarding as well as shorter dwell times.

Financial Plan

Project Cost	Total Project Cost	\$22.2M	
	Pre-Construction	\$4.7M	
	Property Acquisition	\$0	
	Construction	\$17.6M	
	Cost Derivation Methodology: The project cost estimate was calculated during the conceptual design phase.		
Funding Sources	Total Project Funding Committed:	\$0.4M	
	Federal Sources:	\$0	
	Amtrak and Non-Federal Sources:	\$0.4M	
	NJ Transportation Trust Fund	\$0.4M	
	Additional Project Funding Required:	\$21.8M	
Project Based Cost Allocation (PBCA)	PBCA Candidate:	No (Sole benefit)	Notes: N/A
	Agreement Status:	Not applicable	

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	Feasibility/ Conceptual Design	Apr 2006 - Jun 2008					
Pre-construction	PE/NEPA	Jan 2022 - Dec 2022	■				
Pre-construction	Final Design	Jan 2023 - Jun 2024		■			
Construction	Construction activities	Jul 2024 - Jul 2026		■			

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$0

Scope of FY22 Work: No activity planned for FY22

Anticipated Milestones in FY22:

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$5.0M

At this spend level, the following activities could be completed or continue during FY22-26: If funding is made available over this 5 year period, then the NEPA Environmental Phase, the Preliminary Engineering Phase and Final Engineering Phase could be completed.

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

SPECIAL PROJECT

Metuchen Station Improvements

Project Sponsor: NJ TRANSIT

Partners:

Type: Improvement

Benefit: Sole Commuter

General Project Information

Full Project Scope	This project would extend the existing outbound high-level platform at Metuchen Station by 360 feet. Additional funding is required for design and construction.
Project Justification	The extended platform will result in smoother passenger boarding and deboarding as well as shorter dwell times.

Financial Plan

Project Cost	Total Project Cost	\$31.0M	
	Pre-Construction	\$6.6M	
	Property Acquisition	\$0	
	Construction	\$24.4M	
	Cost Derivation Methodology: The project cost estimate was calculated during the conceptual design phase.		
Funding Sources	Total Project Funding Committed:	\$0.2M	
	Federal Sources:	\$0	
	Amtrak and Non-Federal Sources:	\$0.2M	
	NJ Transportation Trust Fund	\$0.2M	
	Additional Project Funding Required:	\$30.8M	
Project Based Cost Allocation (PBCA)	PBCA Candidate:	No (Sole benefit)	Notes: N/A
	Agreement Status:	Not applicable	

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	Feasibility/ Conceptual Design	Nov 2013 - Nov 2014					2014
Construction	Construction	-					

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$0

Scope of FY22 Work: No activity planned for FY22

Anticipated Milestones in FY22:

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$0

At this spend level, the following activities could be completed or continue during FY22-26: Due to the lack of dedicated funding to date, no planning, design or construction activities are anticipated to occur over this 5-year period.

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

SPECIAL PROJECT

Next Generation High Speed Fleet Infrastructure: Sunnyside Yard Facility Improvements

Project Sponsor: Amtrak

Partners:

Type: Improvement

Benefit: Sole Amtrak

General Project Information

Full Project Scope

This project will satisfy the anticipated facility and infrastructure improvements and maintenance requirements of a new Tier III High Speed Rail (HSR) fleet, the existing Acela fleet and accommodate an increase in service operations. The Tier III train sets are configured differently from the current Acela trainsets and will require modifications to the existing HSR S&I facilities to adequately service both the existing Acela fleet and the Tier III train sets. Scope of Work for Modifications to Existing HSR S&I includes design and Construction Phase Services (CPS) related to: upper level platforms, 480 VAC wayside power, center platform, potable/wastewater water, Inspection pit, split rail system, Alstom office and material storage, nose access platform, monorail crane and sanding system. Yard improvements associated with the project have been added including: Package 'A' - demolition of existing constraints (honeywell street ramp and Queens Blvd. staircase) and installing new Honeywell staircase with time clock/shed; install new retaining wall; Package 'B' - install 3 new electrified storage tracks, realignment of existing yard tracks (EWE and hump tracks); installation of an exterior (covered), elevated service yard platform; and associated utility improvements (lighting, water, communication/electrical duct banks), wayside power, & other related elements; and Package 'C' - operational improvements needed to existing yard tracks 1 through 6, including a new lead track 6 to facilitate trainset movement.

Project Justification

A new and expanded high-speed rail facility is necessary for commissioning, inspection, service, and maintenance of new Next Generation High-Speed Rail equipment, which is expected to be delivered between 2020 and 2023. The facility will improve equipment and operational reliability in New York and throughout the Northeast Corridor.

Financial Plan

Project Cost

Total Project Cost	\$153.4M
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Pre-Construction	\$26.7M
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Property Acquisition	\$0
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Construction	\$126.8M
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Cost Derivation Methodology: S&I modifications based on actual contracted costs. Ready Track costs for demolition activities are based on Final Design cost estimate while track installation, retaining wall, utility installation, platform costs are based on 30% design. Project cost estimate includes: Design, Construction, Project/Construction management, and RWP.

Funding Sources

Total Project Funding Committed:	\$153.4M
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Federal Sources:	\$0
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Amtrak and Non-Federal Sources:	\$153.4M
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RRIF Loan - Amtrak	\$153.4M
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Additional Project Funding Required:	\$0
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Project Based Cost Allocation (PBCA)

PBCA Candidate:	No (Sole benefit)	Notes: N/A
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Agreement Status:	Not applicable
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Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	Preliminary Design	Oct 2016 - Oct 2018					
Pre-construction	Final Design S&I Modifications	Oct 2018 - Oct 2019					
Pre-construction	Final Design Ready Tracks - Package 'A' & 'B'	Jan 2020 - Nov 2020					
Pre-construction	Final Design Ready Tracks Package 'C'	Sep 2021 - May 2022	■				Start & end dates are tentative
Construction	S&I facility improvements	Mar 2020 - Feb 2021					
Construction	Ready Tracks - Package 'A' & 'B'	Sep 2021 - Dec 2022	■				Inclusive of project contingency
Construction	Ready Tracks - Package 'C'	May 2022 - Apr 2023	■				Inclusive of project contingency; all construction scope completed by Amtrak forces

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$69.9M

Scope of FY22 Work: Continue construction of Ready Tracks (Package 'A' & 'B'), complete design for Ready Tracks Package 'C' and begin construction of Package 'C'.

Anticipated Milestones in FY22:

- Contractor mobilization for Ready Tracks Package 'A' & 'B' (Oct 2021)
- Begin demolition of Honeywell Street vehicular ramp (Jan 2022)
- Complete Ready Tracks Package 'C' Final Design (May 2022)

One Year Plan Notes: Labor Clearance needed to Award Ready Track Construction for Packages 'A' & 'B'

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$112.3M

At this spend level, the following activities could be completed or continue during FY22-26: Complete ready tracks construction within FY23

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

SPECIAL PROJECT

Newark Penn Station: Platform Rehabilitation (A, B, C)

Project Sponsor: Amtrak

Partners: NJ TRANSIT, Port Authority of NY & NJ

Type: Major Station

Benefit: Shared

General Project Information	
Full Project Scope	This project involves improvements to the condition, appearance and functionality on Platforms A, B, and C at Newark Penn Station. Both Amtrak and NJ TRANSIT have responsibility to maintain to a state of good repair. To date, work on Platform E has been completed. This scope of this project includes the design and rehabilitation of Platforms A, B, and C; their roof/ canopy structures; and any other repairs deemed necessary by the initial structure assessment. Amtrak has completed a structural assessment and will prepare a “Make Safe Plan” for platform repairs and soil stabilization. The near-term effort will consist of designing the rehabilitation components. Work on Platform D is being undertaken by a separate NJ TRANSIT-led special project in addition to other station improvements.
Project Justification	The project would create a safer platform environment and boarding conditions for passengers by bringing station areas to a state of good repair and into compliance with USDOT regulations. Due to expansion issues that have occurred over time, the joints at level-boarding platforms are buckling. In many cases, the expansion joints correspond to skewed bearing locations on the viaduct below, complicating the issues at the expansion joints. This project would improve safety and accessibility for all commuters, including physically challenged customers that board and deboard both Amtrak and NJ TRANSIT trains.

Financial Plan		
Project Cost	Total Project Cost	\$91.5M
	Pre-Construction	\$1.5M
	Property Acquisition	\$0
	Construction	\$90.0M
	Cost Derivation Methodology: The project cost estimate is based on the latest financial plan for this project, provided by NJ TRANSIT.	
Funding Sources	Total Project Funding Committed:	\$1.1M
	Federal Sources:	\$0
	Amtrak and Non-Federal Sources:	\$1.1M
	Amtrak GCAP	\$0.8M FY20 & prior
	Amtrak BCCs	\$0.3M BCCs used for initial structural assessment of the platforms.
Project Based Cost Allocation (PBCA)	Additional Project Funding Required:	\$90.4M
	PBCA Candidate:	Yes Notes: N/A
	Agreement Status:	Not started

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	Structural Assessment	Sep 2019 - Sep 2021					
Pre-construction	Design	Oct 2021 - Sep 2023					
Construction	Construction	Oct 2023 - Sep 2026					

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$0.7M

Scope of FY22 Work: Design of Platform rehab for platforms A,B & C , Soil Stabilization program , Structural repair Design

Anticipated Milestones in FY22:

- Complete Design Procurement (Oct 2021)
- Issue Design NTP (Dec 2021)
- Complete 30% Construction Documents (May 2022)
- Complete 60% Construction Documents (Sep 2022)

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$91.1M

At this spend level, the following activities could be completed or continue during FY22-26: Design and Construction of rehabilitated platforms A, B & C

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

SPECIAL PROJECT

Newark Penn Station: State of Good Repair Program (Phase 1)

Project Sponsor: NJ TRANSIT

Partners: Amtrak

Type: Improvement

Benefit: Shared

General Project Information	
Full Project Scope	The needed investments to bring Newark Penn Station to a state-of-good-repair will be carried out in multiple phases. Phase 1.1 will include benches restoration in passenger waiting areas inside the station building and on the upper platforms; restoring stairwell, ceiling, hallway, and restroom finishes; and station lighting and plumbing upgrades. Phase 1.2 will include new pedestrian walkway lighting, more resilient multimodal connections, chillers replacement, doors replacement and wayfinidng improvements. Additionally, 2 freight elevators will be converted for passenger use to expand accessibility within the station. Many of the station's historic elements will also be restored. A scope of work for Phase 2.0 is still being determined.
Project Justification	Newark (NJ) Penn Station was constructed in various stages during 1929-1937. This aging, historic station requires replacement and/or upgrades of numerous infrastructure components throughout the facility. The station is served by NJ TRANSIT and Amtrak.

Financial Plan		
Project Cost	Total Project Cost	\$8.8M
	Pre-Construction	\$0
	Property Acquisition	\$0
	Construction	\$8.8M
	Cost Derivation Methodology: The project cost estimate is based on the latest financial plan for this project, provided by NJ TRANSIT.	
Funding Sources	Total Project Funding Committed:	\$8.8M
	Federal Sources:	\$0
	Amtrak and Non-Federal Sources:	\$8.8M
	NJ Transportation Trust Fund	\$8.8M Phases 1.1 and 1.2
	Additional Project Funding Required:	\$0
Project Based Cost Allocation (PBCA)	PBCA Candidate:	Yes Notes: N/A
	Agreement Status:	Unknown

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Construction	Phase 1.1 Construction	Oct 2020 - TBD					
Construction	Phase 1.2 Construction	Jun 2021 - TBD					

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: TBD

Scope of FY22 Work: Continue construction of Phases 1.1 and 1.2

Anticipated Milestones in FY22:

-

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$8.8M

At this spend level, the following activities could be completed or continue during FY22-26: Complete construction of phases 1.1 and 1.2

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

SPECIAL PROJECT

North Elizabeth Station Improvements

Project Sponsor: NJ TRANSIT

Partners:

Type: Improvement

Benefit: Sole Commuter

General Project Information

Full Project Scope	This project would rehabilitate the existing high-level concrete platform and replace the tactile warning edge material on both the eastbound and westbound platforms at North Elizabeth Station. Additional funding is required for construction.
Project Justification	An inspection indicated that there is advanced deterioration of the expansion joints, rub rail, and the concrete deck on both the eastbound and westbound high-level platforms.

Financial Plan

Project Cost	Total Project Cost	\$1.0M
	Pre-Construction	\$0.3M
	Property Acquisition	TBD
	Construction	\$0.7M
	Cost Derivation Methodology: The project cost estimate was calculated during the final design phase.	
Funding Sources	Total Project Funding Committed:	\$0.3M
	Federal Sources:	\$0
	Amtrak and Non-Federal Sources:	\$0.3M
	Transit agency funding	\$0.3M
	Additional Project Funding Required:	\$0.7M
Project Based Cost Allocation (PBCA)	PBCA Candidate:	No (Sole benefit) Notes: N/A
	Agreement Status:	Not applicable

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
TBD							

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$0

Scope of FY22 Work: No activity planned for FY22

Anticipated Milestones in FY22:

-

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$0.7M

At this spend level, the following activities could be completed or continue during FY22-26: Complete rehabilitation of station platforms

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

SPECIAL PROJECT

North Brunswick Station

Project Sponsor: NJ TRANSIT

Partners: Amtrak

Type: Improvement

Benefit: Sole Commuter

General Project Information	
Full Project Scope	This project would build a new rail station along the NEC in the town of North Brunswick, NJ. The scope includes the construction of two center island platforms, each approximately 1,020 feet in length to support the NEC's 12-car trains. Also included is a new station building, parking facilities, and all related building systems including public address, security, conveyance, and passenger information systems. Due to its location on the NEC, the construction work will need to be divided over 2 phases. Funding is required for design and construction.
Project Justification	The goal of the project is the construction of a Train Station Platform at the North Brunswick Transit Village in North Brunswick, currently in development, along the Northeast Corridor (NEC). NJ TRANSIT, Middlesex County (County) and the Middlesex County Improvement Authority (MCIA) partnered on this endeavor to address ridership options, NEC congestion and to support the North Brunswick Transit Village.

Financial Plan	
Project Cost	Total Project Cost \$50.0M
	Pre-Construction \$0
	Property Acquisition \$0
	Construction \$50.0M
	Cost Derivation Methodology: The project cost estimate is based on the latest financial plan for this project, provided by NJ TRANSIT.
Funding Sources	Total Project Funding Committed: \$0.1M
	Federal Sources: \$0
	Amtrak and Non-Federal Sources: \$.1M
	New Jersey \$0.1M
	Additional Project Funding Required: \$49.9M
Project Based Cost Allocation (PBCA)	PBCA Candidate: No (Sole benefit) Notes: N/A
	Agreement Status: Not applicable

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Construction	Construction	TBD					

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$0

Scope of FY22 Work: No activity planned for FY22

Anticipated Milestones in FY22:

-

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$0

At this spend level, the following activities could be completed or continue during FY22-26: Over this 5 year period the Conceptual, NEPA / Environmental and Design Phases are anticipated to begin.

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

SPECIAL PROJECT

Trenton Transit Center: State of Good Repair Program

Project Sponsor: NJ TRANSIT

Partners: Amtrak, SEPTA

Type: Improvement

Benefit: Shared

General Project Information

Full Project Scope	With support from the Federal Railroad Administration, NJ TRANSIT (NJT) will implement multiple station improvements at the intermodal Trenton Transit Center in Trenton, NJ which is located along the Northeast Corridor (NEC). This is an FRA grant funded project with matching amounts from other sources (including state TTF and Amtrak). To improve the state of good repair, ADA accessibility and customer facing amenities at Trenton Station. Scope of Work includes replacement and repairs to Island Platforms' canopies and platforms, overhaul of station elevators and escalators, construction of new high-level platform for Track 3 and construction of a new elevator connecting the Track 3 platform to the station pedestrian bridge. The aforementioned station elements are approaching, or in some instances, surpassing the end of their useful life. Since acquiring the station in 1983, NJT has undertaken numerous projects to help ensure that the station and its elements remain in a state of good repair given of the scarcity of available replacements parts and ongoing constraints on the capital budget.
Project Justification	Trenton Transit Center is a high traffic and high-profile station in New Jersey's capital city that is utilized by Amtrak, NJ TRANSIT and SEPTA customers. Platform and canopy improvements would reduce maintenance frequency and allow for more efficient and safe boarding for station customers. Modernized escalators and elevators will result in improved vertical circulation and lower maintenance costs. Enhanced communication systems and lighting will bring added comfort to the customer experience and improved passenger safety throughout the station.

Financial Plan

Project Cost	Total Project Cost	\$29.1M	
	Pre-Construction	\$3.1M	
	Property Acquisition	\$0	
	Construction	\$26.0M	
	Cost Derivation Methodology: The project cost estimate is based on the latest financial plan for this project, provided by NJ TRANSIT.		
Funding Sources	Total Project Funding Committed:	\$29.1M	
	Federal Sources:	\$18.3M	
	<i>Federal-State Partnership for SOGR</i>	\$18.3M	<i>FY20 Award for Trenton Transit Center Station Improvements</i>
	Amtrak and Non-Federal Sources:	\$10.8M	
	<i>NJ TRANSIT</i>	\$7.1M	<i>Match for FY20 SOGR Award. NJ Transportation Trust Fund</i>
	<i>New Jersey</i>	\$2.1M	
	<i>Other Amtrak Sources</i>	\$1.6M	<i>Match for FY20 SOGR Award</i>
	Additional Project Funding Required:	\$0	
Project Based Cost Allocation (PBCA)	PBCA Candidate:	Yes	Notes: N/A
	Agreement Status:	Unknown	

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	Pre-construction activities	TBD					Dates TBD
Construction	Construction	TBD					Dates TBD

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$1.9M

Scope of FY22 Work: Issue NTP for Design and start design

Anticipated Milestones in FY22:

-

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$26.1M

At this spend level, the following activities could be completed or continue during FY22-26: Initiate and complete Design Phase. Initiate Construction Phase.

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

Mid-Atlantic North
Bristol Special Project Group (MAN-P02): New Interlocking between Cornwells Heights and Eddington

SPECIAL PROJECT

New Interlocking between
Cornwells Heights and Eddington

Project Sponsor: SEPTA

Partners: Amtrak

Type: Improvement

Benefit: Shared

General Project Information	
Full Project Scope	This project requires 4-track RH universal crossovers, allowing northward/eastward SEPTA trains terminating at Cornwells Heights to reverse direction and cross from Track 1 to Track 4 southward/westward. Project also requires, if feasible, a tail/side/pocket track off of Track 1 (east of the interlocking) to allow trains to clear the NEC mainline before engineer walks train length and train crosses from Track 1 to Track 4.
Project Justification	This project would allow northward/eastward SEPTA trains to reverse direction and cross from Track 1 to Track 4 at Cornwells Heights in order to head southward/westward.

Financial Plan		
Project Cost	Total Project Cost	\$25.4M
	Pre-Construction	\$5.2M
	Property Acquisition	\$0
	Construction	\$20.2M
	Cost Derivation Methodology: The total project cost estimate was calculated during the CONNECT NEC 2035 delivery analysis.	
Funding Sources	Total Project Funding Committed:	\$0
	Additional Project Funding Required:	\$25.4M
Project Based Cost Allocation (PBCA)	PBCA Candidate:	Yes Notes: N/A
	Agreement Status:	Not started

Project Schedule - Funding Unconstrained							
Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	Pre-construction activities	Dec 2024 - Jun 2026					
Construction	Pocket Track	Sep 2026 - Dec 2026					
Construction	First Crossover	Dec 2026 - Jan2027					
Construction	Second Crossover	Jan 2027 - Feb 2027					
Construction	Third Crossover	Feb 2027 - Mar 2027					
Construction	Fourth Crossover	Mar 2027 - Apr 2027					
This project is not currently programmed in SEPTA's 12-year Capital Budget or the regional Transportation Improvement Program (TIP). If funding and resources were identified then the project could be advanced in accordance with the C35 Project Delivery Sequencing.							

One Year Plan (FY22)

- Funding Constrained

Planned Expenditure in FY22: \$0

Scope of FY22 Work: No activity planned for FY22

Anticipated Milestones in FY22:

-

One Year Plan Notes: N/A

Five Year Plan (FY22-26)

- Funding Unconstrained

Target Spend in FY22-26: \$13.3M

At this spend level, the following activities could be completed or continue during FY22-26: Complete pre-construction and construction activities (see General Project Phase Notes)

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

SPECIAL PROJECT

Southwest Connection Improvement Project

Project Sponsor: SEPTA

Partners: Amtrak

Type: Improvement

Benefit: Sole Commuter

General Project Information

Full Project Scope

This project includes the reconfiguration and rebuilding of Regional Rail signals, track, catenary, and interlockings from 30th Street Station to Phil Interlocking (in University City). Work includes new track special work, Overhead Contact Systems (OCS), and switch and lock mechanisms, as well as the addition of new Positive Train Control (PTC) systems. The existing signal block layout will be modified. Design and construction will progress in phases with construction outages scheduled for the summer of 2018-2022. As part of the project, SEPTA will assume maintenance responsibility for Amtrak's tracks on a segment where SEPTA is the sole operator. This project includes Civic Interlocking.

Project Justification

The project will repair assets that are beyond their useful life and improve system reliability.

Financial Plan

Project Cost

Total Project Cost **\$58.0M**

Pre-Construction \$0

Property Acquisition \$0

Construction \$58.0M

Cost Derivation Methodology: The project cost estimate is based on the latest financial plan for this project, provided by SEPTA.

Funding Sources

Total Project Funding Committed: **\$58.0M**

Federal Sources: \$0

Amtrak and Non-Federal Sources: \$58.0M

Pennsylvania \$56.1M

Local funding \$1.9M


Additional Project Funding Required: **\$0**

Project Based Cost Allocation (PBCA)

PBCA Candidate: No (Sole benefit) **Notes:** N/A

Agreement Status: Not applicable

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Construction	Design & Construction	Oct 2014 - Dec 2022					

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$9.2M

Scope of FY22 Work: Complete Construction

Anticipated Milestones in FY22:

-

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$11.9M

At this spend level, the following activities could be completed or continue during FY22-26: Complete construction and closeout project.

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

SPECIAL PROJECT

30th Street West Catenary Replacement

Project Sponsor: SEPTA

Partners:

Type: Improvement

Benefit: Sole Commuter



General Project Information

Full Project Scope	This project will replace and modernize the SEPTA overhead catenary system from 30th Street Station westbound to K and Zoo Interlockings, an area that includes SEPTA's Powelton Yard. Work also includes repairs to aging catenary support structures, foundations, retaining walls, tunnels, and site drainage.
Project Justification	The project will rehabilitate assets beyond their useful life and improve system reliability.

Financial Plan

Project Cost	Total Project Cost	\$77.0M
	Pre-Construction	\$6.8M
	Property Acquisition	\$0
	Construction	\$70.2M
	Cost Derivation Methodology: The project cost estimate was calculated during the conceptual design phase.	
Funding Sources	Total Project Funding Committed:	\$77.0M
	Federal Sources:	\$0
	Amtrak and Non-Federal Sources:	\$77.0M
	Pennsylvania	\$74.5M
	Local funding	\$2.5M
	Additional Project Funding Required:	\$0
Project Based Cost Allocation (PBCA)	PBCA Candidate:	No (Sole benefit) Notes: N/A
	Agreement Status:	Not applicable

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	Design activities	Feb 2015 - Jan 2022					
Construction	Construction	Jul 2022 - Aug 2023					

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$1.4M

Scope of FY22 Work: Complete design and issue notice to proceed

Anticipated Milestones in FY22:

- Complete Final Design (Jan 2022)
- Issue NTP to begin construction (Jul 2022)

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$70.8M

At this spend level, the following activities could be completed or continue during FY22-26: Complete construction and closeout project.

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

SPECIAL PROJECT

Hook Interlocking Improvements

Project Sponsor: Amtrak

Partners: SEPTA, Delaware DOT

Type: Improvement

Benefit: Shared

General Project Information

Full Project Scope	<p>This project will replace the "23" & "32" #15 crossovers with #20s at Hook Interlocking, add a turnback pocket on Track 5 to Hook Interlocking west/south of Marcus Hook Platform, and move the Hook northbound home signal for Tracks 3 & 4 south of the Marcus Hook Station.</p> <p><i>This project was developed through the C35 project delivery analysis. The project scope, schedule, and budget details are currently under review by Amtrak and will be revisited during C37.</i></p>
Project Justification	<p>Move the SEPTA Marcus Hook turnbacks off the main line to improve on-time performance and scheduling flexibility. This includes the replacement of the "23" & "32" #15 crossovers with #20s, the addition of a Track 5 turnback pocket to Hook west/south of Marcus Hook Platform, and the repositioning of Hook NB Home signal for Tracks 3 & 4 south of the Marcus Hook Station.</p>

Financial Plan

Project Cost	<div>Total Project Cost\$46.0M</div> <div>Pre-Construction\$9.4M</div> <div>Property Acquisition\$0</div> <div>Construction\$36.6M</div> <div>Cost Derivation Methodology: The total project cost estimate was calculated during the CONNECT NEC 2035 delivery analysis.</div>
Funding Sources	<div>Total Project Funding Committed:\$0</div> <div>Additional Project Funding Required:\$46.0M</div>
Project Based Cost Allocation (PBCA)	<div>PBCA Candidate:YesNotes: N/A</div> <div>Agreement Status:Unknown</div>

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	Pre-construction activities	Apr 2025 - Oct 2026					
Construction	Hook Interlocking	Oct 2026 - May 2027					
Construction	Turnback Track	May 2027 - Jul 2027					

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$0

Scope of FY22 Work: No activity planned for FY22

Anticipated Milestones in FY22:

-

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$9.4M

At this spend level, the following activities could be completed or continue during FY22-26: Complete pre-construction activities

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

SPECIAL PROJECT

Claymont Regional Transportation Center

Project Sponsor: Delaware DOT

Partners: Amtrak, SEPTA

Type: Improvement

Benefit: Sole Commuter

General Project Information

Full Project Scope	This project replaces the existing Claymont, DE train station. The new station will be located north of the current site to the former Evraz Steel Site in Claymont, Delaware. It will meet all current ADA standards, with two high-level platforms and a pedestrian overpass over the NEC. The new station will be a multi-modal transportation center with improved access for bus transit, bicycles, and pedestrians. The project includes the construction of a parking garage and provide rail and bus riders with state-of-the-art amenities.
Project Justification	The current Claymont Station does not meet current accessibility standards although it is ADA compliant in the form of wheel chair lifts to a tunnel under the NEC and mini-high platforms. The tunnel has a flooding risk because of the high water table. The station is also located on a curve of the NEC causing trains to sit at an angle which is not an optimal situation for loading and unloading trains. In addition, the 504 parking spaces were at capacity and vehicular and transit access to the station was congested prior to COVID-19. This situation is expected to return in FY23 pursuant to SEPTA ridership post-pandemic recovery projections. The project is also coordinated with redevelopment of the former industrial site and will spark economic activity. The project will increase passenger safety, greater accessibility to the station and trains, passenger convenience and regional rail service.

Financial Plan

Project Cost	Total Project Cost	\$71.4M	
	Pre-Construction	\$14.1M	
	Property Acquisition	\$0	
	Construction	\$57.3M	
	Cost Derivation Methodology: The total project cost estimate was calculated during the CONNECT NEC 2035 delivery analysis.		
Funding Sources	Total Project Funding Committed:	\$71.4M	
	Federal Sources:	\$42.4M	
	FTA Formula Grants	\$32.4M	
	TIGER	\$10.0M	FY16 Award for Claymont Regional Transportation Center
	Amtrak and Non-Federal Sources:	\$29.0M	
	Delaware	\$29.0M	
	Other Non-federal	\$0.0M	
	Additional Project Funding Required:	\$0	
Project Based Cost Allocation (PBCA)	PBCA Candidate:	No (Sole benefit)	Notes: N/A
	Agreement Status:	Not applicable	

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	PE/NEPA	Jan 2016 - Dec 2020					
Construction	Construct Parking Garage	Aug 2021 - Oct 2021					
Construction	Station Construction	Mar 2022 - May 2023	■				
Construction	Construct Pedestrian Overpass	Mar 2022 - Sep 2023	■				
Construction	Construct Platform 2	Jul 2022 - Jun 2023	■				
Construction	Construct Platform 1	Aug 2022 - Jun 2023	■				

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$22.0M

Scope of FY22 Work: Erect pre-cast parking garage. Commence construction of station building.

Anticipated Milestones in FY22:

- Commence Station Construction (Mar 2022)

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$42.7M

At this spend level, the following activities could be completed or continue during FY22-26: Erect precast concrete garage, construct station building, construct platforms and construct pedestrian bridge and complete catenary work.

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: \$71,425,236 project budget - \$28,737,968 expended to date. It is anticipated that the budget may increase due to unanticipated project changes and delays. DelDOT is working to identify if any increase the budget will be necessary.

SPECIAL PROJECT

Landlith Interlocking - Wine Interlocking NEC Section Improvement Project

Project Sponsor: Amtrak

Partners: SEPTA, Delaware DOT

Type: Improvement

Benefit: Shared

General Project Information	
Full Project Scope	<p>This project will add a 3rd main track from Landlith to Wine, complete Landlith Interlocking as a universal interlocking, retire Wine Interlocking, and restore Track 1 from Landlith to Wine.</p> <p><i>This project was developed through the C35 project delivery analysis. The project scope, schedule, and budget details are currently under review by Amtrak and will be revisited during C37.</i></p>
Project Justification	<p>This project will eliminate the last section where Amtrak and SEPTA share a two-track bottleneck, thus reducing delays, improving on-time performance, and increasing scheduling flexibility.</p>

Financial Plan		
Project Cost	Total Project Cost	\$727.3M
	Pre-Construction	\$136.7M
	Property Acquisition	\$0
	Construction	\$590.6M
	Cost Derivation Methodology: The total project cost estimate was calculated during the CONNECT NEC 2035 delivery analysis.	
Funding Sources	Total Project Funding Committed:	\$0
	Additional Project Funding Required:	\$727.3M
Project Based Cost Allocation (PBCA)	PBCA Candidate:	Yes Notes: N/A
	Agreement Status:	Unknown

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	Pre-construction activities	Jun 2024 - Jun 2027					
Construction	Enabling Projects	Jun 2027 - Jul2028					
Construction	Wine/Landlith: Rm Crossovers, Realign TK3	Dec 2027 - Apr 2028					
Construction	Wine/Landlith: Realign TK2	Apr 2028 - Jul 2028					
Construction	Wine/Landlith: New Crossovers, Catenary	Jul 2028 - Dec 2028					
Construction	Wine/Landlith: New Crossovers, Complete Landlith I/L	Dec 2028 - Jan 2029					
Construction	Wine/Landlith: Remove Wine, Realign TK2	Jan 2029 - Aug 2029					

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$0

Scope of FY22 Work: No activity planned for FY22

Anticipated Milestones in FY22:

-

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$103.9M

At this spend level, the following activities could be completed or continue during FY22-26: Begin pre-construction activities

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

SPECIAL PROJECT

Wilmington Station: Track Geometry Work

Project Sponsor: Amtrak

Partners: SEPTA, Delaware DOT

Type: Improvement

Benefit: Shared

General Project Information

Full Project Scope	<p>This project will extend Wilmington Center Island Platform between Tacks 2 and 3 to 1,050 feet, remove Brandy Interlocking and relocate crossover to Yard Interlocking, widen the bridge over Market Street, and replace bridges over Shipley Street, Orange Street, and Avenue of the Arts to extend platforms and correct track geometry.</p> <p><i>This project was developed through the C35 project delivery analysis. The project scope, schedule, and budget details are currently under review by Amtrak and will be revisited during C37.</i></p>
Project Justification	<p>This project will bring all platforms at Wilmington Station to standard lengths, thus improving flexibility and supporting maintenance outages. Improvements to track geometry will enhance ride quality and reduce maintenance.</p>

Financial Plan

Project Cost	<div>Total Project Cost</div> <div>\$142.0M</div> <div>Pre-Construction</div> <div>\$28.1M</div> <div>Property Acquisition</div> <div>\$0</div> <div>Construction</div> <div>\$113.9M</div> <div>Cost Derivation Methodology: The total project cost estimate was calculated during the CONNECT NEC 2035 delivery analysis.</div>
Funding Sources	<div>Total Project Funding Committed:</div> <div>\$0</div> <div>Additional Project Funding Required:</div> <div>\$142.0M</div>
Project Based Cost Allocation (PBCA)	<div>PBCA Candidate:</div> <div>Yes</div> <div>Notes: N/A</div> <div>Agreement Status:</div> <div>Unknown</div>

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	Pre-construction activities	Jun 2025 - Jun 2027					
Construction	Enabling Projects	Jun 2027 - Jul 2028					
Construction	Extend Wilmington Center Platform	Aug 2029 - Jan 2030					

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$0

Scope of FY22 Work: No activity planned for FY22

Anticipated Milestones in FY22:

-

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$16.9M

At this spend level, the following activities could be completed or continue during FY22-26: Begin pre-construction activities

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

SPECIAL PROJECT

Newark (DE) Regional Transportation Center

Project Sponsor: Delaware DOT

Partners: Amtrak, SEPTA

Type: Improvement

Benefit: Shared

General Project Information

Full Project Scope	This project will construct an updated Regional Transportation Center in Newark, DE that will increase capacity and support additional SEPTA service between Newark and Wilmington, DE. The project includes construction of a new station house, a new platform, a new freight track connection, a new pedestrian bridge so passengers are not forced to cross an active track, the replacement of Davis Interlocking, and the new College Interlocking. The project will make the station ADA-compliant, eliminate conflicts with freight operations, and permit expansion of regional and commuter service. This project is funded by a combination of federal, state, and local sources.
Project Justification	Improve passenger safety by improving ADA access to the platforms and trains and eliminating Amtrak passengers current requirement to board and disembark from active tracks. Increase the number of regional rail and Amtrak trains that can service the stations. Provide rail and bus passengers with state-of-the-art amenities and more convenient access to the station. The project will also eliminate passenger and freight operations at the station thereby increasing passenger convenience.

Financial Plan

Project Cost	Total Project Cost	\$88.9M
	Pre-Construction	\$17.6M
	Property Acquisition	\$0
	Construction	\$71.3M
	Cost Derivation Methodology: The project cost estimate is based on the latest financial plan for this project, provided by Delaware DOT.	
Funding Sources	Total Project Funding Committed:	\$88.9M
	Federal Sources:	\$20.0M
	FTA Formula Grants	\$10.0M
	TIGER	\$10.0M
		FY12 Award for Newark Regional Transportation Center
	Amtrak and Non-Federal Sources:	\$68.9M
	Delaware	\$65.6M
	University of Delaware	\$3.0M
	City of Newark, WILMAPCO, New Castle County	\$0.3M
	Additional Project Funding Required:	\$0
Project Based Cost Allocation (PBCA)	PBCA Candidate:	Yes Notes: N/A
	Agreement Status:	Unknown

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	PE/NEPA	Jul 2013 - Dec 2015					
Pre-construction	Final Design	Nov 2015 - Mar 2021					
Construction	Parking, Station Access and Building	May 2017 - Aug 2020					
Construction	Station Platform Work	Apr 2022 - Jul 2023					
Construction	Pedestrian Bridge	Jul 2022 - Jan 2023					
Construction	Davis Interlocking Part 1	Jan 2023 - Jul 2024					
Construction	College Interlocking Part 1	Feb 2023 - Jun 2025					
Construction	College Interlocking Part 2	Jun 2023 - Sep 2025					
Construction	Davis Interlocking Part 2	Jul 2023 - Feb 2025					

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$32.0M

Scope of FY22 Work: Receive Amtrak approval of 100% design plan for platform and pedestrian overpass design, begin construction of platform and overpass and commence track work.

Anticipated Milestones in FY22:

- Bid Advanced Grading contract for Track A relocation (Oct 2021)
- Bid Contract 3B (Platform/Pedestrian Bridge) (Nov 2021)
- Award Contract (Feb 2022)
- Issue NTP for Contract 3B (Platform/Pedestrian Bridge) construction work) (Mar 2022)
- Commencement of platform/pedestrian bridge work (Apr 2022)

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$37.1M

At this spend level, the following activities could be completed or continue during FY22-26: Pedestrian Bridge, Davis Interlocking Part 1, Davis Interlocking Part 2, College Interlocking Part 1, College Interlocking Part 2

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: \$88,879,328 project budget - \$51,818,225 expended to date

SPECIAL PROJECT

Ragan Turnback Track

Project Sponsor: SEPTA

Partners: Delaware DOT

Type: Improvement

Benefit: Shared

General Project Information	
Full Project Scope	This project will add a #15 or #20 RH turnout to NEC Track 3 at the southern limits of Ragan Interlocking (MP 29.7) and at least 1200 feet of turnback track to the west of the existing NEC Track 3, ending with a bumping block at the south end. The turnout will be interlocked and the track provided with catenary.
Project Justification	The purpose of this project is to allow select SEPTA Wilmington Line trains (partly funded by DelDOT) to use Track 3 at Wilmington Station, rather than Track 1. Track 1 is often occupied by northbound or southbound SEPTA trains operating to/from Newark DE. The turnback track will allow more reliable and more frequent SEPTA service and will save an estimated 4 to 7 minutes for southbound trips versus the sequential crossover moves needed to access Track 1. SEPTA will be able to use Track 3 only at times when Amtrak trains are not this track. SEPTA turnback trains will be able to cross northbound from the turnback track to Track 3 to Track 2 to Track 1 using the enhanced Ragan Interlocking now in the final stages of construction as part of the Delaware Third Track project.

Financial Plan		
Project Cost	Total Project Cost	\$10.8M
	Pre-Construction	\$2.2M
	Property Acquisition	\$0
	Construction	\$8.6M
	Cost Derivation Methodology: The total project cost estimate was calculated during the CONNECT NEC 2035 delivery analysis.	
Funding Sources	Total Project Funding Committed:	\$0
	Additional Project Funding Required:	\$10.8M
Project Based Cost Allocation (PBCA)	PBCA Candidate:	Yes Notes: N/A
	Agreement Status:	Not started

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	Pre-construction activities	Mar 2024 - Sep 2025					
Construction	Ragan Turnback Track	Sep 2025 - Jan 2026					

This project is not currently programmed in SEPTA's 12-year Capital Budget or the regional Transportation Improvement Program (TIP). If funding and resources were identified then the project could be advanced in accordance with the C35 Project Delivery Sequencing.

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$0

Scope of FY22 Work: No activity planned for FY22

Anticipated Milestones in FY22:

-

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$10.8M

At this spend level, the following activities could be completed or continue during FY22-26: Complete pre-construction activities and start construction

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

SPECIAL PROJECT

Harrisburg Line: West of Exton
Commuter Service and Infrastructure
Alignment (Park Interlocking)

Project Sponsor: Amtrak

Partners: SEPTA, Pennsylvania DOT

Type: Improvement

Benefit: Shared

General Project Information

Full Project Scope	Align the infrastructure on the western end of the Paoli Thorndale Commuter Zone with future planned service. This includes the construction of a turnback track at Park Interlocking, the completion of Coatesville Station, the rationalization of Thorn and Caln Interlockings, and potential alterations at Parkesburg/Park Interlocking. <i>This project was developed through the C35 project delivery analysis. The project scope, schedule, and budget details are currently under review by Amtrak and will be revisited during C37.</i>
Project Justification	This project aligns the infrastructure on the western end of the Paoli Thorndale Commuter Zone with the service that is currently operating or will operate in the future.

Financial Plan

Project Cost	Total Project Cost	\$25.0M
	Pre-Construction	\$5.1M
	Property Acquisition	\$0
	Construction	\$19.9M
	Cost Derivation Methodology: The total project cost estimate was calculated during the CONNECT NEC 2035 delivery analysis.	
Funding Sources	Total Project Funding Committed:	\$0
	Additional Project Funding Required:	\$25.0M
Project Based Cost Allocation (PBCA)	PBCA Candidate:	Yes Notes: N/A
	Agreement Status:	Unknown

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	Pre-construction activities	Jan 2025 - Jul 2026					
Construction	Enabling Projects	Jul 2026 - Mar 2027					

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$0

Scope of FY22 Work: No activity planned for FY22

Anticipated Milestones in FY22:

-

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$12.6M

At this spend level, the following activities could be completed or continue during FY22-26: Complete pre-construction activities and begin construction of enabling projects

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

SPECIAL PROJECT

Harrisburg Line: Atglen Turnback

Project Sponsor: SEPTA

Partners: Amtrak

Type: Improvement

Benefit: Shared

General Project Information	
Full Project Scope	Atglen siding is required for the turnback of SEPTA Commuter trains when service is provided to Coatesville. Presently SEPTA westbound commuter service runs to Thorndale, and trains are turned to head back east at "Thorn" Interlocking. In order for SEPTA to extend commuter service beyond Thorndale, Atglen Turnback siding must be constructed so commuter trains have a location to turn trains back eastward.
Project Justification	This work is needed to accommodate freight if SEPTA runs service to Coatesville.

Financial Plan		
Project Cost	Total Project Cost	\$11.5M
	Pre-Construction	\$2.3M
	Property Acquisition	\$0
	Construction	\$9.2M
	Cost Derivation Methodology: The total project cost estimate was calculated during the CONNECT NEC 2035 delivery analysis.	
Funding Sources	Total Project Funding Committed:	\$0
	Additional Project Funding Required:	\$11.5M
Project Based Cost Allocation (PBCA)	PBCA Candidate:	Yes Notes: N/A
	Agreement Status:	Not started

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	Pre-construction activities	Jan 2025 - Jul 2026					
Construction	Enabling Projects	Jul 2026 - Mar 2027					
Construction	Complete Atglen Turnback	Mar 2027 - Apr 2027					

If funding and Amtrak resources were identified, this project could be advanced within the FY 2022-2026 CIP timeframe.

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$0

Scope of FY22 Work: No activity planned for FY22

Anticipated Milestones in FY22:

-

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$3.5M

At this spend level, the following activities could be completed or continue during FY22-26: Pre-construction activities, Enabling Projects

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

SPECIAL PROJECT

Coatesville Station Improvements

Project Sponsor: Pennsylvania DOT

Partners: Amtrak, Federal Transit Administration

Type: Improvement

Benefit: Shared

General Project Information	
Full Project Scope	This project will eventually modernize the Amtrak station at Coatesville, along the Harrisburg Line. PennDOT is leading construction. The new station will provide ADA access with high-level boarding platforms, improved/expanded parking, and multimodal connections. This project will improve the passenger experience and lead to community and economic development. A tunnel liner is being added to the under-grade road/pedestrian walkway at 4th Ave. A freight bypass will be constructed to facilitate freight movement clearances through the station when high-level platforms are installed along the existing mains, with connections by electric lock switch at MP 39.2 and a #20 turnout at CALN (MP 36.4).
Project Justification	These improvements will provide ADA access with high-level boarding platforms and improved parking.

Financial Plan		
Project Cost	Total Project Cost	\$67.7M
	Pre-Construction	\$13.4M
	Property Acquisition	\$0
	Construction	\$54.3M
	Cost Derivation Methodology: The project cost estimate is based on the latest financial plan for this project, provided by Pennsylvania DOT.	
Funding Sources	Total Project Funding Committed:	\$67.7M
	Federal Sources:	\$51.6M
	FTA Formula Grants	\$51.6M Section 5307 and 5337 funds
	Amtrak and Non-Federal Sources:	\$16.0M
	Pennsylvania	\$16.0M
Project Based Cost Allocation (PBCA)	Additional Project Funding Required:	\$0
	PBCA Candidate:	Yes Notes: N/A
	Agreement Status:	Unknown

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	PE/NEPA	Oct 2010 - Mar 2012					
Pre-construction	Final Design	Jan 2013 - Jun 2021					
Construction	New South Platform & Tower	Mar 2022 - Aug 2023	■				
Construction	Fright Bypass Track	Mar 2023 - Mar 2024	■				
Construction	New North Platform & Tower	Nov 2023 - Feb 2025		■			
Construction	Install Track Switches	Mar 2024 - Mar 2025		■			
Construction	Parking Improvements	Dec 2024 - Feb 2025		■			

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$8.4M

Scope of FY22 Work: Bid, award, and begin construction on south tower and platform

Anticipated Milestones in FY22:

- Notice to Proceed (Construction contract awarded to contractor) (Oct 2021)
- Begin Construction on New South Platform & Tower (Mar 2022)

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$57.0M

At this spend level, the following activities could be completed or continue during FY22-26: Complete all phases

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

SPECIAL PROJECT

Middletown Station Improvements

Project Sponsor: Pennsylvania DOT

Partners: Amtrak, Federal Transit Administration

Type: Improvement

Benefit: Shared

General Project Information	
Full Project Scope	This project will eventually modernize the Amtrak station at Middletown, along the Harrisburg Line. PennDOT is leading construction. The new station will provide ADA access with a high-level boarding platform, improved/expanded parking, and multimodal connections. This project will improve the passenger experience and lead to community and economic development. A section of stormwater drain pipe is being replaced to handle additional volumes from runoff.
Project Justification	These improvements will provide ADA access with high-level boarding platforms and improved parking.

Financial Plan		
Project Cost	Total Project Cost	\$41.0M
	Pre-Construction	\$11.5M
	Property Acquisition	\$0
	Construction	\$29.5M
	Cost Derivation Methodology: The total project cost estimate was calculated during the CONNECT NEC 2035 delivery analysis.	
Funding Sources	Total Project Funding Committed:	\$41.0M
	Federal Sources:	\$32.8M
	FTA Formula Grants	\$32.8M Section 5307 and 5337 funds
	Amtrak and Non-Federal Sources:	\$8.2M
	Pennsylvania	\$8.2M State match to FTA Grant
	Additional Project Funding Required:	\$0
Project Based Cost Allocation (PBCA)	PBCA Candidate:	Yes Notes: N/A
	Agreement Status:	Unknown

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	Pre-construction activities	Jan 2014 - Dec 2019					
Construction	Parking Improvements	Sep 2018 - Aug 2019					
Construction	Construct new station	Aug 2019 - Oct 2021					

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: TBD

Scope of FY22 Work: Complete construction of station and project closeout

Anticipated Milestones in FY22:

- Complete station construction (Oct 2021)

One Year Plan Notes: Station completion expected in Sept-Oct 2021, project closeout may extend into FY22. Closeout expenditures may be accounted in FY22 if project closeout extends into FY22.

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$0

At this spend level, the following activities could be completed or continue during FY22-26: Project closeout

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

SPECIAL PROJECT

Parkesburg Station Improvements

Project Sponsor: Pennsylvania DOT

Partners: Amtrak, Federal Transit Administration



Type: Improvement

Benefit: Shared

General Project Information	
Full Project Scope	This project will eventually modernize the Amtrak station at Parkesburg, along the Harrisburg Line. PennDOT is leading construction. The new station will provide ADA access with high-level boarding platforms, improved/expanded parking, and multimodal connections. This project will improve the passenger experience and lead to community and economic development. Early action phase will improve ADA accessibility, parking, and stormwater management at existing station.
Project Justification	These improvements will provide ADA access with high-level boarding platforms and improved parking.

Financial Plan		
Project Cost	Total Project Cost	\$49.0M
	Pre-Construction	\$3.5M
	Property Acquisition	\$0
	Construction	\$45.5M
	Cost Derivation Methodology: The project cost estimate is based on the latest financial plan for this project, provided by Pennsylvania DOT.	
Funding Sources	Total Project Funding Committed:	\$3.5M
	Federal Sources:	\$2.8M
	FTA Formula Grants	\$2.8M
	Amtrak and Non-Federal Sources:	\$0.7M
	Pennsylvania	\$0.7M
	Additional Project Funding Required:	\$45.5M
	Proposed Federal Sources:	\$36.4M
	FTA Formula Grants	\$36.4M
	Proposed Amtrak and Non-Federal Sources	\$9.1M
	Pennsylvania	\$9.1M
Project Based Cost Allocation (PBCA)	PBCA Candidate:	Yes Notes: N/A
	Agreement Status:	Unknown

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	Final Design (Early Action)	Jan 2019 - Sep 2022					
Pre-construction	Final Design (New Station)	TBD					Dates TBD
Construction	Early Action	Feb 2023 - Dec 2023					
Construction	New Station	TBD					Dates TBD

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$0.3M

Scope of FY22 Work: Progress Final Design of Early Action Scope

Anticipated Milestones in FY22:

- Complete Early Action Final Design (Sep 2022)

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$3.1M

At this spend level, the following activities could be completed or continue during FY22-26: Complete early action final design and construction scope

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

SPECIAL PROJECT

Downingtownt Station Improvements

Project Sponsor: Pennsylvania DOT

Partners: Amtrak, SEPTA, Federal Transit Administration

Type: Improvement

Benefit: Shared

General Project Information	
Full Project Scope	This project will eventually modernize the Amtrak station at Downingtown, along the Harrisburg Line. PennDOT is leading construction. The new station will provide ADA access with high-level boarding platforms, improved/expanded parking, and multimodal connections. This project will improve the passenger experience and lead to community and economic development. To facilitate the construction of the new station with high level platforms, a new Amtrak overhead bridge over US 322 will need to be built prior to constructing the station facility. The new bridge will allow pedestrian access between east bound and west bound rail travel. DOWNS Interlocking is also being retired.
Project Justification	These improvements will provide ADA access with high-level boarding platforms and improved parking.

Financial Plan		
Project Cost	Total Project Cost	\$120.2M
	Pre-Construction	\$23.8M
	Property Acquisition	\$0
	Construction	\$96.4M
	Cost Derivation Methodology: The project cost estimate is based on the latest financial plan for this project, provided by Pennsylvania DOT.	
Funding Sources	Total Project Funding Committed:	\$20.4M
	Federal Sources:	\$16.3M
	FTA Formula Grants	\$16.3M
	Amtrak and Non-Federal Sources:	\$4.1M
	Pennsylvania	\$4.1M State match to FTA Grant
	Additional Project Funding Required:	\$99.8M
	Proposed Federal Sources:	\$79.8M
	FTA Formula Grants	\$79.8M
	Proposed Amtrak and Non-Federal Sources	\$20.0M
	Pennsylvania	\$20.0M
Project Based Cost Allocation (PBCA)	PBCA Candidate:	Yes Notes: N/A
	Agreement Status:	Unknown

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	Pre-construction activities	Feb 2019 - Jun 2026					
Construction	Retirement of DOWNS Interlocking	Jul 2022 - Jun 2024					
Construction	Undergrade Bridge Replacement and Parking Improvements	Jul 2024 - Jun 2026					
Construction	Construct new platforms	Jan 2027 - Dec 2028					
Construction	Construct new station	Jan 2027 - Dec 2028					

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$1.8M

Scope of FY22 Work: Continue Design of DOWNS Retirement, UG Bridge replacement, parking, and station

Anticipated Milestones in FY22:

- Initiate Retirement of DOWNS Interlocking (Jul 2022)
- 100% Building Demo (Sep 2022)

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$30.8M

At this spend level, the following activities could be completed or continue during FY22-26: Pre-construction activities, Undergrade Bridge Replacement and Parking Improvements, retirement of DOWNS interlocking

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

SPECIAL PROJECT

Lancaster Station Improvements

Project Sponsor: Pennsylvania DOT

Partners: Amtrak, Federal Transit Administration





Type: Improvement

Benefit: Shared

General Project Information	
Full Project Scope	Lancaster is the second busiest station on the Keystone Corridor. The biggest constraint to additional rail travel is the lack of parking at the station. This project will add approximately 250 additional parking stalls on the north side of the tracks. Station access will be provided by an elevator and stair tower along with a concourse extension.
Project Justification	Lancaster is the second busiest station on the Keystone Corridor. The lack of available parking restricts people from using rail travel. The additional parking will generate more rail travelers.

Financial Plan		
Project Cost	Total Project Cost	\$25.4M
	Pre-Construction	\$3.2M
	Property Acquisition	\$0
	Construction	\$22.2M
	Cost Derivation Methodology: The total project cost estimate was calculated during the CONNECT NEC 2035 delivery analysis.	
Funding Sources	Total Project Funding Committed:	\$2.0M
	Federal Sources:	\$1.6M
	FTA Formula Grants	\$1.6M Section 5307 and 5337 funds
	Amtrak and Non-Federal Sources:	\$0.4M
	Pennsylvania	\$0.4M
	Additional Project Funding Required:	\$23.4M
	Proposed Federal Sources:	\$18.7M
	FTA Formula Grants	\$18.7M
	Proposed Amtrak and Non-Federal Sources	\$4.7M
	Pennsylvania	\$4.7M
Project Based Cost Allocation (PBCA)	PBCA Candidate:	Yes Notes: N/A
	Agreement Status:	Unknown

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	Final Design (Parking Lot)	Jan 2020 - Dec 2021					
Pre-construction	Final Design (Tower and Pedestrian Bridge)	Apr 2020 - Jul 2022					
Construction	Parking Lot	Jul 2022 - Jul 2023					
Construction	Tower and Pedestrian Bridge	Dec 2022 - Jul 2024					

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$2.0M

Scope of FY22 Work: Complete final design of lot and tower/ped bridge

Anticipated Milestones in FY22:

- Complete Parking Lot Final Design (Dec 2021)
- Complete Tower and Pedestrian Bridge Final Design (Jul 2022)
- Begin Parking Lot Construction (Jul 2022)

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$25.4M

At this spend level, the following activities could be completed or continue during FY22-26: Complete pre-construction activities, construct parking lot, construct new tower and pedestrian bridge connection

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

SPECIAL PROJECT

Harrisburg Line Track 2 Upgrade:
Glen to Thorn (MP 25.3 to 35.0)

Project Sponsor: SEPTA

Partners: Amtrak, Pennsylvania DOT

Type: Improvement

Benefit: Shared

General Project Information

Full Project Scope	This project will rehabilitate and upgrade Track 2 from Glen to Thorn Interlocking in Chester County, PA, on the Amtrak-owned Harrisburg Line. The project will upgrade 10 miles of track to FRA Class 3 standards (45 mph) and upgrade the signal system to Rule 562. The corridor services Amtrak’s Keystone and Pennsylvanian services, SEPTA’s Paoli-Thorndale service, and freight operations. The project will eliminate a choke point, enhancing rail capacity and reliability while also improving operational safety and flexibility.
Project Justification	The upgrade of Track 2 will reduce congestion on the corridor. SEPTA is in the process of expanding its Frazer Yard to accommodate additional trains, which will increase rail traffic on the heavily used corridor. Upgrading the track will return it to a state of good repair and allow for faster deadhead moves between Frazer and Thorndale thereby reducing the number of trains using Track 4.

Financial Plan

Project Cost	Total Project Cost	\$16.7M	
	Pre-Construction	\$3.5M	
	Property Acquisition	\$0	
	Construction	\$13.2M	
	Cost Derivation Methodology: The project cost estimate is based on the latest financial plan for this project, provided by SEPTA.		
Funding Sources	Total Project Funding Committed:	\$16.7M	
	Federal Sources:	\$8.3M	
	Federal-State Partnership for SOGR	\$8.3M	FY19 Award for Harrisburg Line Capacity Improvements
	Amtrak and Non-Federal Sources:	\$8.3M	
	SEPTA	\$5.9M	Match for FY19 SOGR Award
	Pennsylvania DOT	\$2.0M	Match for FY19 SOGR Award
	Other Amtrak Sources	\$0.4M	Match for FY19 SOGR Award
	Additional Project Funding Required:	\$0	
Project Based Cost Allocation (PBCA)	PBCA Candidate:	Yes	Notes: N/A
	Agreement Status:	Completed	

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	Pre-construction activities	End Jan 2021					
Construction	Track Upgrades	Jan 2021 - Apr 2022					
Construction	Communication & Signal Systems Upgrade to Rule 562	Aug 2021 - Mar 2023					

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$12,425,175

Scope of FY22 Work: Complete track upgrades construction, continue communication & signal system upgrades construction

Anticipated Milestones in FY22:

- Complete Track Upgrades construction (Apr 2022)

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$12.4M

At this spend level, the following activities could be completed or continue during FY22-26: Complete construction of track and C&S upgrades

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

SPECIAL PROJECT

Ardmore Transportation Center:
Phase 1 ADA Improvements

Project Sponsor: SEPTA

Partners: Amtrak, Pennsylvania DOT

Type: Improvement

Benefit: Shared

General Project Information	
Full Project Scope	This project will make ADA improvements to Ardmore Station on SEPTA's Paoli-Thorndale Regional Rail Line and Amtrak's Keystone Corridor to make the station fully ADA compliant. The project includes a new station building, high-level platforms, modifications to the existing pedestrian tunnel, elevators and accessible pathways, new canopies and passenger shelters, site and circulation improvements, and installing foundations for a future parking garage.
Project Justification	The project will make the station fully accessible as well as improve the customer experience and bring the station into a state of good repair.

Financial Plan		
Project Cost	Total Project Cost	\$53.6M
	Pre-Construction	\$4.7M
	Property Acquisition	\$0
	Construction	\$48.9M
	Cost Derivation Methodology: The project cost estimate is based on the latest financial plan for this project, provided by SEPTA.	
Funding Sources	Total Project Funding Committed:	\$53.6M
	Federal Sources:	\$37.6M
	FTA Formula Grants	\$31.8M
	FTA	\$5.8M FTA Earmark
	Amtrak and Non-Federal Sources:	\$15.9M
	Other Amtrak Sources	\$7.3M
	Pennsylvania	\$4.9M
	RCAP	\$3.5M RCAP
	Local funding	\$0.2M
	Additional Project Funding Required:	\$0
Project Based Cost Allocation (PBCA)	PBCA Candidate:	Yes Notes: N/A
	Agreement Status:	Completed

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	Final Design	Apr 2009 - Dec 2016					
Construction	Construction	Aug 2019 - Jul 2023					

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$5.1M

Scope of FY22 Work: Continue construction

Anticipated Milestones in FY22:

- 25% Construction (Jan 2022)

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$43.7M

At this spend level, the following activities could be completed or continue during FY22-26: Complete construction and closeout project.

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

SPECIAL PROJECT

Wynnewood Station Improvements

Project Sponsor: SEPTA

Partners:

Type: Improvement

Benefit: Sole Commuter

General Project Information	
Full Project Scope	Design and construction of high-level platforms and accessibility improvements at Wynnewood Station on SEPTA's Paoli-Thorndale Regional Rail Line. This station may receive upgrades such as new full length high-level platforms; new passenger shelters; accessible pathways, bike facilities; additional new signage and lighting; stormwater management systems and landscaping. A full scope of work will be determined as project development continues.
Project Justification	The addition of high-level platforms will improve accessibility at Wynnewood Station.

Financial Plan		
Project Cost	Total Project Cost	\$19.5M
	Pre-Construction	\$4.0M
	Property Acquisition	\$0
	Construction	\$15.5M
	Cost Derivation Methodology: The project cost estimate is based on the latest financial plan for this project, provided by SEPTA.	
Funding Sources	Total Project Funding Committed:	\$0
	Additional Project Funding Required:	\$19.5M
Project Based Cost Allocation (PBCA)	PBCA Candidate:	No (Sole benefit) Notes: N/A
	Agreement Status:	Not applicable

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	Pre-construction activities	TBD					Dates TBD
Construction	Accessibility upgrades to all SEPTA-led station projects	Mar 2023 - Mar 2027					From C35

Funding for this project is identified in SEPTA's 12-year Capital Program and the regional Transportation Improvement Program outside of the NECC FFY 2022-2026 time horizon. If funding and resources were available, this project could be advanced in the next five years.

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$0

Scope of FY22 Work: No activity planned for FY22

Anticipated Milestones in FY22:

-

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$14.5M

At this spend level, the following activities could be completed or continue during FY22-26: Pre-construction and construction activities (see General Project Phase Notes).

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

SPECIAL PROJECT

Devon Station Improvements

Project Sponsor: SEPTA

Partners:

Type: Improvement

Benefit: Sole Commuter

General Project Information	
Full Project Scope	Design and construction of high-level platforms and accessibility improvements at Devon Station on SEPTA's Paoli-Thorndale Regional Rail Line. This station may receive upgrades such as new full length high-level platforms; new passenger shelters; accessible pathways, bike facilities; additional new signage and lighting; stormwater management systems and landscaping. A full scope of work will be determined as project development continues.
Project Justification	The addition of high-level platforms will improve accessibility at Devon Station.

Financial Plan		
Project Cost	Total Project Cost	\$20.0M
	Pre-Construction	\$4.1M
	Property Acquisition	\$0
	Construction	\$15.9M
	Cost Derivation Methodology: The project cost estimate is based on the latest financial plan for this project, provided by SEPTA.	
Funding Sources	Total Project Funding Committed:	\$0
	Additional Project Funding Required:	\$20.0M
Project Based Cost Allocation (PBCA)	PBCA Candidate:	No (Sole benefit) Notes: N/A
	Agreement Status:	Not applicable

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	Pre-construction activities at all SEPTA-led station projects	TBD					
Construction	Accessibility upgrades to all SEPTA-led station projects	Mar 2023 - Mar 2027					From C35

Funding for this project is identified in SEPTA's 12-year Capital Program and the regional Transportation Improvement Program outside of the NECC FFY 2022-2026 time horizon. If funding and resources were available, this project could be advanced in the next five years.

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$0

Scope of FY22 Work: No activity planned for FY22

Anticipated Milestones in FY22:

-

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$14.5M

At this spend level, the following activities could be completed or continue during FY22-26: Pre-construction and construction activities (see General Project Phase Notes).

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

SPECIAL PROJECT

Harrisburg Line Track 2
Restoration: Paoli to Frazer

Project Sponsor: SEPTA

Partners: Amtrak, Pennsylvania DOT

Type: Improvement

Benefit: Shared

General Project Information

Full Project Scope	This project would reinstall a third track on the 4-mile segment from Paoli to Frazer. In addition to the track work, the project will include overhead contact system (OCS), signal, interlocking modifications, and right-of-way work all of which is needed to operate on the new track. All work will occur in the existing right-of-way.
Project Justification	The project will improve operational efficiency.

Financial Plan

Project Cost	Total Project Cost	\$55.4M
	Pre-Construction	\$11.0M
	Property Acquisition	\$0
	Construction	\$44.5M
	Cost Derivation Methodology: The total project cost estimate was calculated during the CONNECT NEC 2035 delivery analysis.	
Funding Sources	Total Project Funding Committed:	\$0
	Additional Project Funding Required:	\$55.4M
Project Based Cost Allocation (PBCA)	PBCA Candidate:	Yes Notes: N/A
	Agreement Status:	Not started

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	Pre-construction activities	TBD					Dates TBD
Construction	Reinstall Track 2	Mar 2023 - Oct 2024					

This project is not currently programmed in SEPTA's 12-year Capital Budget or the regional Transportation Improvement Program (TIP). If funding and resources were identified then the project could be advanced in accordance with the C35 Project Delivery Sequencing.

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$0

Scope of FY22 Work: No activity planned for FY22

Anticipated Milestones in FY22:

-

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$53.2M

At this spend level, the following activities could be completed or continue during FY22-26: Pre-construction activities, Reinstall Track 2

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

SPECIAL PROJECT

Malvern Station Improvements

Project Sponsor: SEPTA

Partners:

Type: Improvement

Benefit: Sole Commuter

General Project Information	
Full Project Scope	Design and construction of high-level platforms and accessibility improvements at Malvern Station on SEPTA's 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.
Project Justification	The addition of high-level platforms will improve accessibility at Malvern Station.

Financial Plan		
Project Cost	Total Project Cost	\$15.3M
	Pre-Construction	\$3.1M
	Property Acquisition	\$0
	Construction	\$12.1M
	Cost Derivation Methodology: The project cost estimate is based on the latest financial plan for this project, provided by SEPTA.	
Funding Sources	Total Project Funding Committed:	\$0
	Additional Project Funding Required:	\$15.3M
Project Based Cost Allocation (PBCA)	PBCA Candidate:	No (Sole benefit) Notes: N/A
	Agreement Status:	Not applicable

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	Pre-construction activities at all SEPTA-led station projects	TBD					Dates TBD
Construction	Accessibility upgrades to all SEPTA-led station projects	Mar 2023 - Mar 2027					From C35

Funding for this project is identified in SEPTA's 12-year Capital Program and the regional Transportation Improvement Program outside of the NECC FFY 2022-2026 time horizon. If funding and resources were available, this project could be advanced in the next five years.

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$0

Scope of FY22 Work: No activity planned for FY22

Anticipated Milestones in FY22:

-

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$14.5M

At this spend level, the following activities could be completed or continue during FY22-26: Pre-construction and construction activities (see General Project Phase Notes).

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

SPECIAL PROJECT

Villanova Station: Phase 2 ADA Improvements

Project Sponsor: SEPTA

Partners:

Type: Improvement

Benefit: Sole Commuter

General Project Information

Full Project Scope	This project will modernize Villanova Station on SEPTA's Paoli-Thorndale Regional Rail Line. Work includes high-level platforms, canopies, and an improved station building. SEPTA currently leases this station from Amtrak.
Project Justification	The project will make the station fully accessible as well as improve the customer experience and bring the station into a state of good repair.

Financial Plan

Project Cost	Total Project Cost	\$10.5M
	Pre-Construction	\$0
	Property Acquisition	\$0
	Construction	\$10.5M
	Cost Derivation Methodology: The project cost estimate is based on the latest financial plan for this project, provided by SEPTA.	
Funding Sources	Total Project Funding Committed:	\$10.5M
	Federal Sources:	\$0
	Amtrak and Non-Federal Sources:	\$10.4M
	<i>Pennsylvania</i>	\$10.1M
	<i>Local funding</i>	\$0.3M
	Additional Project Funding Required:	\$0
Project Based Cost Allocation (PBCA)	PBCA Candidate:	No (Sole benefit) Notes: N/A
	Agreement Status:	Not applicable

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Construction	Construction	Mar 2024 - Mar 2025					

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$0

Scope of FY22 Work: No activity planned for FY22

Anticipated Milestones in FY22:

-

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$10.5M

At this spend level, the following activities could be completed or continue during FY22-26: Complete construction and closeout project.

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

SPECIAL PROJECT

Harrisburg Line Interlocking Improvements: Paoli

Project Sponsor: Pennsylvania DOT

Partners: Amtrak, SEPTA, Federal Railroad Administration

Type: Improvement

Benefit: Shared

General Project Information

Full Project Scope	Recognizing that the interlockings on Amtrak’s Keystone Corridor and SEPTA’s Paoli-Thorndale Regional Rail Line have far exceeded their useful life and are functionally obsolete, PennDOT, in coordination with SEPTA and Amtrak, advanced a comprehensive conceptual design effort to evaluate and reconfigure the system of interlockings along the Line. The purpose of the conceptual design was to determine how to address the infrastructure condition and functionality to achieve both a state of good repair and optimal service performance on the highly utilized segment of the Keystone Corridor. Through an advanced conceptual design effort, which was last updated in 2015, PennDOT, Amtrak and SEPTA agreed that the following infrastructure replacements or reconfiguration would best support current and future growth along the corridor, as described below. Following the conceptual design phase, PennDOT led preliminary engineering of all interlockings in coordination with Amtrak and SEPTA. Additional funding is needed to advance these critical infrastructure projects to construction. Paoli Interlocking: Modernize and reconfigure. Preliminary engineering complete.
Project Justification	This project is a state of good repair initiative that will improve operational efficiencies by replacing or reconfiguring the functionally obsolete interlockings on Amtrak’s Keystone Corridor and SEPTA’s Paoli-Thorndale Line. Having far exceeded their useful, the interlockings currently in operation are outdated, which prohibits the most efficient and timely use of the interlocking and challenges reliability. The current interlocking configuration is no longer able to effectively support the ridership demands on the Line. SEPTA’s Paoli-Thorndale Line is the highest ridership line on SEPTA’s Regional Rail Network and provides over 7.9 million trips annually. Ridership has continually increased and trains are frequently operating at capacity or over capacity. To support existing and future ridership growth, SEPTA must enhance service. SEPTA’s ability to enhance or alter service is stymied by the limitations of the existing interlockings. In order to address the ridership demand faced by both SEPTA and Amtrak, new interlockings are needed

Financial Plan

Project Cost	Total Project Cost	\$103.5M	
	Pre-Construction	\$20.5M	
	Property Acquisition	\$0	
	Construction	\$83.0M	
	Cost Derivation Methodology: The total project cost estimate was calculated during the CONNECT NEC 2035 delivery analysis.		
Funding Sources	Total Project Funding Committed:	\$1.3M	
	Federal Sources:	\$1.2M	
	ARRA	\$1.2M	ARRA Award for Keystone Corridor Interlockings Program
	Amtrak and Non-Federal Sources:	\$0.1M	
	Pennsylvania	\$0.1M	Match for ARRA Award
	Additional Project Funding Required:	\$102.2M	

Project Based Cost Allocation (PBCA)	PBCA Candidate:	Yes	Notes: N/A
	Agreement Status:	Unknown	

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	Pre-construction activities	Mar 2025 - Mar 2027					
Construction	Construction	Jul 2027 - TBD					Phase End Date TBD

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$0

Scope of FY22 Work: No activity planned for FY22

Anticipated Milestones in FY22:

-

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$8.0M

At this spend level, the following activities could be completed or continue during FY22-26: Pre-construction activities

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

SPECIAL PROJECT

Harrisburg Line: Villa - Nova - Bryn Mawr Project (Phase 1)

Project Sponsor: Amtrak

Partners: SEPTA, Pennsylvania DOT

Type: Improvement

Benefit: Shared

General Project Information	
Full Project Scope	<p>This project will construct a new Villa Interlocking based on an updated plan with turnback Track 5. In addition, Bryn Mawr Interlocking will be reconfigured with one left-hand #20 crossover between Tracks 2 and 3 to replace the two existing #10 crossovers. This is Phase 1 of the two-phase Harrisburg Line: Villa - Nova - Bryn Mawr Project.</p> <p><i>This project was developed through the C35 project delivery analysis. The project scope, schedule, and budget details are currently under review by Amtrak and will be revisited during C37.</i></p>
Project Justification	<p>This updated project fulfills the original objectives of the Villa/Nova Interlocking project in a more economical way, while increasing on-time performance and maintaining Keystone Line service.</p>

Financial Plan	
Project Cost	Total Project Cost \$121.2M
	Pre-Construction \$24.0M
	Property Acquisition \$0
	Construction \$97.2M
	Cost Derivation Methodology: The total project cost estimate was calculated during the CONNECT NEC 2035 delivery analysis.
Funding Sources	Total Project Funding Committed: \$1.0M
	Federal Sources: \$0.9M
	ARRA \$0.9M <i>ARRA Award for Keystone Corridor Interlockings Program</i>
	Amtrak and Non-Federal Sources: \$0.1M
	Pennsylvania \$0.1M <i>Match for ARRA Award</i>
	Additional Project Funding Required: \$120.2M
Project Based Cost Allocation (PBCA)	PBCA Candidate: Yes Notes: N/A
	Agreement Status: Unknown

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	Pre-construction activities	Sep 2025 - Sep 2027					
Construction	New Villa Interlocking Part 1	Sep 2027 - Oct 2027					
Construction	New Villa Interlocking Part 2	Oct 2027 - Nov 2027					
Construction	New Villa Interlocking Part 3	Nov 2027 - Apr 2028					
Construction	Update Bryn Mawr Interlocking	Apr 2028 - May 2028					

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$0

Scope of FY22 Work: No activity planned for FY22

Anticipated Milestones in FY22:

-

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$10.8M

At this spend level, the following activities could be completed or continue during FY22-26: Begin pre-construction activities

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

SPECIAL PROJECT

Harrisburg Line: Paoli to Thorndale OCS Replacement & RoW Clearing

Project Sponsor: Amtrak

Partners: SEPTA, Pennsylvania DOT

Type: Improvement

Benefit: Shared

General Project Information	
Full Project Scope	<p>This project would replace and upgrade the overhead contact system (OCS) along SEPTA's Paoli-Thorndale Regional Rail Line and Amtrak's Keystone Corridor from Paoli to Thorndale. This project has an estimated \$200 million unfunded need.</p> <p><i>This project was developed through the C35 project delivery analysis. The project scope, schedule, and budget details are currently under review by Amtrak and will be revisited during C37.</i></p>
Project Justification	<p>The project will rehabilitate assets beyond their useful life and improve system reliability.</p>

Financial Plan	
Project Cost	Total Project Cost \$200.0M
	Pre-Construction \$39.6M
	Property Acquisition \$0
	Construction \$160.4M
	Cost Derivation Methodology: The total project cost estimate was calculated during the CONNECT NEC 2035 delivery analysis.
Funding Sources	Total Project Funding Committed: \$0
	Additional Project Funding Required: \$200.0M
Project Based Cost Allocation (PBCA)	PBCA Candidate: Yes Notes: N/A
	Agreement Status: Not started

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	Pre-construction activities	May 2026 - May 2028					
Construction	Paoli to Thorndale OCS Replacement	May 2028 - Mar 2030					

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$0

Scope of FY22 Work: No activity planned for FY22

Anticipated Milestones in FY22:

-

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$6.6M

At this spend level, the following activities could be completed or continue during FY22-26: Initiate pre-construction activities in FY26

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

SPECIAL PROJECT

Harrisburg Line Signal Upgrade:
Overbrook to Zoo

Project Sponsor: SEPTA

Partners: Amtrak, Pennsylvania DOT

Type: Improvement

Benefit: Shared

General Project Information	
Full Project Scope	This project will replace the outdated and functionally obsolete, single-direction, signal system on Amtrak’s Keystone Line through a coordinated, multi-phased improvement program. Ultimately, this project will provide for implementation of bi-directional signaling (Rule 261 or 562 depending on the location) from Zoo Interlocking to State Interlocking. Amtrak is in the final states of completing the installation of bi-directional signaling from Park Interlocking to Paoli Interlocking. The Overbrook to Zoo portion of the project is the final segment.
Project Justification	The project will rehabilitate infrastructure that is beyond its useful life and functionally obsolete. In addition, the project will provide significant enhancements to operations by allowing for bi-directional train movements.

Financial Plan		
Project Cost	Total Project Cost	\$20.0M
	Pre-Construction	TBD
	Property Acquisition	TBD
	Construction	TBD
	Cost Derivation Methodology: The project cost estimate is based on the latest financial plan for this project, provided by SEPTA.	
Funding Sources	Total Project Funding Committed:	\$0
	Additional Project Funding Required:	\$20.0M
Project Based Cost Allocation (PBCA)	PBCA Candidate:	Yes Notes: N/A
	Agreement Status:	Not started

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	Pre-construction activities	TBD					
Construction	Enabling Projects	TBD - Oct 2026					From C35

If funding and Amtrak resources were identified, this project could be advanced within the FY 2022-2026 CIP timeframe.

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$0

Scope of FY22 Work: No activity planned for FY22

Anticipated Milestones in FY22:

-

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$20.0M

At this spend level, the following activities could be completed or continue during FY22-26: Pre-construction activities, enabling projects (see General Project Phase Notes).

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

SPECIAL PROJECT

Harrisburg Line Interlocking Improvements: Zoo

Project Sponsor: Pennsylvania DOT

Partners: Amtrak, SEPTA, Federal Transit Administration, Federal Railroad Administration

Type: Improvement

Benefit: Shared

General Project Information

Full Project Scope	Given the importance of this project, PennDOT has worked with Amtrak and SEPTA to identify an early action scope of work for completing the Zoo Interlocking state of good repair improvements. The Project will first include the replacement of two stone masonry retaining walls, totaling 1,400 feet of new infrastructure. The current retaining walls are listing or leaning significantly and at risk of failure that could cause damage to track, signal, and electrification infrastructure and destabilize the slope. The first phase of track work will modernize the Track 2 through track, including the replacement of wooden ties with concrete ties and continuous welded rail. The second phase of the Project will require track reconfiguration and state of good repair updates on the western end of the ZOO Interlocking, including the construction of new concrete tie tracks, the removal of one turnout and 500 feet of existing track, and various signal and OCS improvements to create a through movement for westbound trains. The retaining wall construction and first and second phase of track work can begin in the early calendar year 2022 and can be fully completed by 2024. These projects have the potential to save 45 – 70 seconds per train. The cost of this early action scope of work is \$55.2M. The total project cost for Zoo Interlocking is an estimated \$121M.
Project Justification	This project is a state of good repair initiative that will improve operational efficiencies, increase train speed and capacity, and decrease travel time, by replacing or reconfiguring the functionally obsolete interlockings on Amtrak’s Keystone Corridor and SEPTA’s Paoli-Thorndale Line. Having far exceeded their useful, the interlockings currently in operation are outdated, which prohibits the most efficient and timely use of the interlocking and challenges reliability. The current interlocking configuration is no longer able to effectively support the ridership demands on the Line. Including SEPTA and Amtrak service, over 8 million passenger pass through Zoo Interlocking annually. Ridership has continually increased and trains are frequently operating at capacity or over capacity. SEPTA and Amtrak have limited ability to enhance or alter service because of the limitations of Zoo Interlocking.

Financial Plan

Project Cost	Total Project Cost	\$120.8M	
	Pre-Construction	\$23.9M	
	Property Acquisition	\$0	
	Construction	\$96.9M	
	Cost Derivation Methodology: The total project cost estimate was calculated during the CONNECT NEC 2035 delivery analysis.		
Funding Sources	Total Project Funding Committed:	\$56.4M	
	Federal Sources:	\$45.3M	
	FTA Formula Grants	\$29.0M	Section 5337 funds
	Federal-State Partnership for SOGR	\$15.1M	FY17-18 Award for Keystone Corridor Zoo Interlocking State of Good Repair Improvements Project
	ARRA	\$1.2M	ARRA Award for Keystone Corridor Interlockings Program
	Amtrak and Non-Federal Sources:	\$11.0M	
	Pennsylvania DOT	\$11.0M	Match for FY17-18 SOGR Award

Project Based Cost Allocation (PBCA)	Additional Project Funding Required:	\$64.4M
	Proposed Federal Sources:	\$51.5M
	FTA & FRA	\$51.5M
	Proposed Amtrak and Non-Federal Sources	\$12.9M
	Pennsylvania	\$12.9M
	PBCA Candidate:	Yes Notes: N/A
	Agreement Status:	Unknown

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	Pre-construction activities (final design)	Jan 2020 - Aug 2021					
Construction	Zoo Interlocking Phase 1.3: West End Stage 1	Feb 2022 - Jun 2023	■				
Construction	Zoo Interlocking Phase 1.1 - 2 Thru Freight Improvements	Jun 2023 - Aug 2023					
Construction	Zoo Interlocking Phase 1.4: West End Stage 2	Aug 2023 - Sep 2023					
Construction	Zoo Interlocking Phase 1.2: Retaining Wall	Sep 2023 - Jul 2024	■				
Construction	Future Phases	TBD					

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$3.2M

Scope of FY22 Work: Start construction Phase 1.3 West End Stage 1

Anticipated Milestones in FY22:

- Bid, Award, and Initiate Pre-Construction activity of Phase 1.3 (Feb 2022)

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$55.2M

At this spend level, the following activities could be completed or continue during FY22-26: Pre-construction activities, all 4 parts of Zoo Interlocking Early Action (phase 1)

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

SPECIAL PROJECT

Harrisburg Line Signal Upgrade:
Paoli to Overbrook

Project Sponsor: SEPTA

Partners: Amtrak, Pennsylvania DOT

Type: Improvement

Benefit: Shared

General Project Information	
Full Project Scope	This project will replace the outdated and functionally obsolete, single-direction, signal system on Amtrak’s Keystone Line The Paoli to Overbrook Signal Upgrade project will continue the installation of bi-directional signals east from Paoli and provides benefits to SEPTA’s Paoli-Thorndale Regional Rail service as well as Amtrak’s Keystone Service.
Project Justification	The project will rehabilitate infrastructure that is beyond its useful life and functionally obsolete. In addition, the project will provide significant enhancements to operations by allowing for bi-directional train movements.

Financial Plan	
Project Cost	Total Project Cost \$21.9M
	Pre-Construction \$1.4M
	Property Acquisition \$0
	Construction \$20.5M
	Cost Derivation Methodology: The project cost estimate is based on the latest financial plan for this project, provided by SEPTA.
Funding Sources	Total Project Funding Committed: \$21.9M
	Federal Sources: \$15.9M
	Federal-State Partnership for SOGR \$15.9M <i>FY20 Award for Harrisburg Line Signal System Renewal: Paoli to Overbrook</i>
	Amtrak and Non-Federal Sources: \$6.0M
	SEPTA \$2.9M <i>(State)</i>
	Other Amtrak Sources \$2.0M
	Pennsylvania DOT \$1.0M <i>Direct to project</i>
	SEPTA \$0.1M <i>(Local)</i>
	Additional Project Funding Required: \$0
Project Based Cost Allocation (PBCA)	PBCA Candidate: Yes Notes: N/A
	Agreement Status: In progress

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	Pre-construction activities	Oct 2020 - Sep 2024					Start signal system design in FY22 (2 years)
Construction	Construction	Oct 2024 - Dec 2026					

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$0.7M

Scope of FY22 Work: Initiate final signal system design

Anticipated Milestones in FY22:

- Complete Agreements (Mar 2022)

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$21.9M

At this spend level, the following activities could be completed or continue during FY22-26: Complete pre-construction activities, advance construction for completion in early FY27

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: Schedule dependent on Amtrak availability

SPECIAL PROJECT

Harrisburg Line Automatic Block System: Park to Paoli

Project Sponsor: Amtrak

Partners: SEPTA, Pennsylvania DOT



Type: Improvement

Benefit: Shared

General Project Information	
Full Project Scope	<p>Recognizing that the signal system on Amtrak’s Keystone Corridor and SEPTA’s Paoli-Thorndale Regional Rail Line is functionally obsolete, PennDOT, in coordination with FRA, SEPTA and Amtrak, are proposing to upgrade the signal system. Currently, the Keystone Corridor has ABS signals between Harrisburg and Park interlocking. Between Park Interlocking and Philadelphia, train traffic is controlled with single direction wayside signals. This project is to design, construct, and install new automatic Block Signal System between Park Interlocking and Paoli Interlocking. The ABS signal system is already designed between Paoli Interlocking and Philadelphia. PennDOT and Amtrak are coordinating the installation of the signals between Paoli and Philadelphia.</p> <p><i>This project was developed through the C35 project delivery analysis. The project scope, schedule, and budget details are currently under review by Amtrak and will be revisited during C37.</i></p>
Project Justification	<p>This project targets state of good repair and safety of the system. Trains traveling in the opposite direction must have manual written orders for the movement. The automatic block control will enhance the safety on the corridor.</p>

Financial Plan	
Project Cost	Total Project Cost \$10.4M
	Pre-Construction \$2.1M
	Property Acquisition \$0
	Construction \$8.2M
	Cost Derivation Methodology: The total project cost estimate was calculated during the CONNECT NEC 2035 delivery analysis.
Funding Sources	Total Project Funding Committed: \$2.1M
	Federal Sources: \$1.8M
	ARRA \$1.1M <i>ARRA Award for Keystone Corridor ABS/ Centralized Control Project</i>
	FTA Formula Grants \$0.6M
	Amtrak and Non-Federal Sources: \$0.3M
	Pennsylvania \$0.3M <i>Match for ARRA Award</i>
	Additional Project Funding Required: \$8.3M
Project Based Cost Allocation (PBCA)	PBCA Candidate: Yes Notes: N/A
	Agreement Status: Unknown

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	Pre-construction activities	Jan 2021 - Jul 2022					
Construction	Enabling Projects	Oct 2021 - Oct 2024					

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$0.8M

Scope of FY22 Work: Designs for Downs to Frazer 562 Upgrades and Paoli ICS Renewal

Anticipated Milestones in FY22:

- Final Design for Downs to Frazer 562 Upgrades (Sep 2022)
- Final Design for Paoli ICS Renewal (Sep 2022)
- Project management (Sep 2022)

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$10.4M

At this spend level, the following activities could be completed or continue during FY22-26: Pre-construction activities, Enabling Projects

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

SPECIAL PROJECT

Harrisburg Line Interlocking Improvements: Wynnefield

Project Sponsor: Pennsylvania DOT

Partners: Amtrak, SEPTA, Federal Railroad Administration

Type: Improvement

Benefit: Shared

General Project Information

Full Project Scope	Recognizing that the interlockings on Amtrak’s Keystone Corridor and SEPTA’s Paoli-Thorndale Regional Rail Line have far exceeded their useful life and are functionally obsolete, PennDOT, in coordination with SEPTA and Amtrak, advanced a comprehensive conceptual design effort to evaluate and reconfigure the system of interlockings along the Line. The purpose of the conceptual design was to determine how to address the infrastructure condition and functionality to achieve both a state of good repair and optimal service performance on the highly utilized segment of the Keystone Corridor. Through an advanced conceptual design effort, which was last updated in 2015, PennDOT, Amtrak and SEPTA agreed that the following infrastructure replacements or reconfiguration would best support current and future growth along the corridor, as described below. Following the conceptual design phase, PennDOT led preliminary engineering of all interlockings in coordination with Amtrak and SEPTA. Additional funding is needed to advance these critical infrastructure projects to construction. Wynnefield Interlocking: Build new interlocking to replace the existing Overbook Interlocking. Preliminary engineering complete.
Project Justification	This project is a state of good repair initiative that will improve operational efficiencies by replacing or reconfiguring the functionally obsolete interlockings on Amtrak’s Keystone Corridor and SEPTA’s Paoli-Thorndale Line. Having far exceeded their useful, the interlockings currently in operation are outdated, which prohibits the most efficient and timely use of the interlocking and challenges reliability. The current interlocking configuration is no longer able to effectively support the ridership demands on the Line. SEPTA’s Paoli-Thorndale Line is the highest ridership line on SEPTA’s Regional Rail Network and provides over 7.9 million trips annually. Ridership has continually increased and trains are frequently operating at capacity or over capacity. To support existing and future ridership growth, SEPTA must enhance service. SEPTA’s ability to enhance or alter service is stymied by the limitations of the existing interlockings. In order to address the ridership demand faced by both SEPTA and Amtrak, new interlockings are needed.

Financial Plan

Project Cost	Total Project Cost	\$115.1M	
	Pre-Construction	\$22.8M	
	Property Acquisition	\$0	
	Construction	\$92.3M	
	Cost Derivation Methodology: The total project cost estimate was calculated during the CONNECT NEC 2035 delivery analysis.		
Funding Sources	Total Project Funding Committed:	\$1.4M	
	Federal Sources:	\$1.3M	
	ARRA	\$1.3M	ARRA Award for Keystone Corridor Interlockings Program
	Amtrak and Non-Federal Sources:	\$0.1M	
	Pennsylvania	\$0.1M	Match for ARRA Award
	Additional Project Funding Required:	\$113.6M	

**Project
Based Cost
Allocation
(PBCA)**

PBCA Candidate: Yes **Notes:** N/A
Agreement Status: Unknown

Project Schedule - *Funding Unconstrained*

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	Pre-construction activities	Aug 2025 - Nov 2026					
Construction	Wynnefield Interlocking: Realign TK4	Aug 2025 - Oct 2025					
Construction	Wynnefield Interlocking: Realign TK3	Oct 2025 - Jan 2026					
Construction	Wynnefield Interlocking: Realign TK2	Jan 2026 - Apr 2026					
Construction	Wynnefield Interlocking: Realign TK1	Apr 2026 - Sep 2026					
Construction	Remove Overbrook: Part 1	Sep 2026 - Oct 2026					
Construction	Remove Overbrook: Part 2	Oct 2026 - Nov 2026					

One Year Plan (FY22) - *Funding Constrained*

Planned Expenditure in FY22: \$0

Scope of FY22 Work: No activity planned for FY22

Anticipated Milestones in FY22:

-

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - *Funding Unconstrained*

Target Spend in FY22-26: \$102.7M

At this spend level, the following activities could be completed or continue during FY22-26: Pre-construction activities, Wynnefield Interlocking: Realign TK4, Wynnefield Interlocking: Realign TK3, Wynnefield Interlocking: Realign TK2, Wynnefield Interlocking: Realign TK1, Remove Overbrook: Part 1

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

SPECIAL PROJECT

Frazer Rail Shop and Yard Upgrade

Project Sponsor: SEPTA

Partners:

Type: Improvement

Benefit: Sole Commuter

General Project Information	
Full Project Scope	Phased upgrade of the Frazer Maintenance Facility to accommodate the expansion of SEPTA's Regional Rail railcar and locomotive fleets including multi-level railcars. 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 and mechanical equipment will be replaced. Phases 1 and 2 of this project have been completed.
Project Justification	The project will allow for the storage and maintenance of SEPTA's new rolling stock to accommodate Southeastern Pennsylvania's increasing demand for regional rail service, which has been consistently growing over the last decade.

Financial Plan	
Project Cost	Total Project Cost \$139.0M
	Pre-Construction \$13.9M
	Property Acquisition \$0
	Construction \$125.1M
	Cost Derivation Methodology: The project cost estimate is based on the latest financial plan for this project, provided by SEPTA.
Funding Sources	Total Project Funding Committed: \$139.0M
	Federal Sources: \$0
	Amtrak and Non-Federal Sources: \$139.0M
	<i>Pennsylvania</i> \$134.5M
	<i>Local funding</i> \$4.5M
	Additional Project Funding Required: \$0
Project Based Cost Allocation (PBCA)	PBCA Candidate: No (Sole benefit) Notes: N/A
	Agreement Status: Not applicable

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	Final Design	Jan 2015 - Mar 2021					
Construction	Phases 1 & 2 Construction	May 2016 - Jun 2021					
Construction	Phase 3 Construction	Dec 2022 - Sep 2024					

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$2.0M

Scope of FY22 Work: Continue construction

Anticipated Milestones in FY22:

-

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$60.0M

At this spend level, the following activities could be completed or continue during FY22-26: Complete construction and closeout project.

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

SPECIAL PROJECT

Philadelphia 30th Street Station District Plan Implementation

Project Sponsor: Amtrak

Partners: NJ TRANSIT, SEPTA

Type: Major Station

Benefit: Shared

General Project Information

Full Project Scope

As established in the Philadelphia 30th Street Station District Plan, the plan for the station is multi-phased and incremental strategy designed to enable sustainable operational growth of 30th Street Station, while unlocking the development potential of the real estate assets over the course of a 35-year+ horizon. This program includes immediate and long-term improvements to passenger and rail facilities, with work currently underway to bring the historic station into a state of good repair, focusing on design and construction projects that enhance the customer experience and expand capacity to accommodate anticipated growth in Amtrak ridership. Conceptual design of key station improvement projects has now been completed, with the next phases of design and construction to be implemented through Amtrak's Master Developer Partnership.

Project Justification

Philadelphia 30th Street Station is Amtrak's third busiest station in the nation and Pennsylvania's busiest intermodal station serving Amtrak, Southeastern Pennsylvania Transportation Authority (SEPTA) and NJ TRANSIT. Heavy utilization of the station coupled with deferred maintenance has left 30th Street Station in a state of disrepair. An estimated growth of 3.5 percent in annual ridership will stress state of good repair issues and push the station beyond its operating capacity unless the station is adapted to accommodate this growth.

Financial Plan

Project Cost

Total Project Cost **\$431.1M**

Pre-Construction \$100.0M

Property Acquisition \$0

Construction \$331.1M

Cost Derivation Methodology: This Cost Estimate was derived from the program's financial model as part of the Lease and Development Agreement (LDA) between Amtrak and Plenary Infrastructure Philadelphia (PIP), Amtrak's master developer implementing the program as well as Program Management and project delivery forecasts. The costs represent the scope of Design and Construction (D&C) costs associated with the contract.

Funding Sources

Total Project Funding Committed: **\$431.1M**

Federal Sources: \$0

Amtrak and Non-Federal Sources: \$431.1M

Amtrak Annual Federal Grants \$431.1M

Additional Project Funding Required: **\$0**

Project Based Cost Allocation (PBCA)

PBCA Candidate: Yes **Notes:** N/A

Agreement Status: Not started

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	Pre-construction activities	Jan 2021 - May 2025					
Construction	Station Redevelopment	Oct 2022 - May 2025					

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$23.5M

Scope of FY22 Work: Advance designs for station redevelopment, including Amtrak office stacking and swing space preparation for construction.

Anticipated Milestones in FY22:

- Finalize 60% Design Documentation (Mar 2022)
- Finalize 100% Design Documentation (Aug 2022)

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$350.6M

At this spend level, the following activities could be completed or continue during FY22-26: Pre-construction activities through design, permitting, and construction substantial completion.

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

SPECIAL PROJECT

Paoli Transportation Center:
Phase 2 Station & Intermodal
Improvements

Project Sponsor: SEPTA

Partners: Amtrak, Pennsylvania DOT

Type: Improvement

Benefit: Shared

General Project Information

Full Project Scope	This project provides for the engineering and construction of a new multimodal transportation center in Paoli, Chester County. The project will be advanced in two phases: Phase 1, completed in September 2019, made the existing station ADA accessible. This phase included 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 were reconfigured and pedestrian sidewalks and crosswalks, provided throughout the station area. Phase 2 (this phase) includes construction of an additional high-level platform on the outbound side, passenger amenities, enhanced bus facilities, and improved station access. 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 the advancement of Phase 2.
Project Justification	The project will repair assets that are beyond their useful life and improve system reliability. Phase 2 builds on the investment undertaken by SEPTA and its partners in Phase 1. The Paoli Transportation Center is served by SEPTA's Paoli-Thorndale Line regional rail service and Amtrak's Keystone Service (Harrisburg-Philadelphia/NY) and Pennsylvanian (Pittsburgh-New York) trains.

Financial Plan

Project Cost	Total Project Cost	\$50.3M
	Pre-Construction	\$5.0M
	Property Acquisition	\$0
	Construction	\$45.3M
	Cost Derivation Methodology: The project cost estimate is based on the latest financial plan for this project, provided by SEPTA.	
Funding Sources	Total Project Funding Committed:	\$0
	Additional Project Funding Required:	\$50.3M
Project Based Cost Allocation (PBCA)	PBCA Candidate:	Yes Notes: N/A
	Agreement Status:	Unknown

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	Pre-construction activities	Jan 2024 - Dec 2025					From C35
Construction	Construction	Jun 2026 - Dec 2028					From C35

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$0

Scope of FY22 Work: No activity planned for FY22

Anticipated Milestones in FY22:

-

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$10.0M

At this spend level, the following activities could be completed or continue during FY22-26: Complete design and initiate Phase 2 construction

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

SPECIAL PROJECT

Susquehanna River Bridge Replacement: Phase 1

Project Sponsor: Amtrak

Partners: Maryland DOT










Type: Major Backlog

Benefit: Shared

General Project Information	
Full Project Scope	This project would replace the existing two-track movable Susquehanna River Bridge with a modern high-level, fixed structure, with two tracks. The project would benefit commuter and intercity rail as well as Norfolk Southern, which uses the segment to access the Port of Baltimore. Using a \$22 million High-Speed Intercity Passenger Rail (HSIPR) grant, preliminary engineering and environmental review were completed in FY17. Additional funding is required for final design and construction.
Project Justification	Built in 1906, the existing two-track bridge is nearing the end of its useful life. The current bridge requires trains to reduce speeds for almost a mile due to its condition. A new asset is required in order to maintain operations through this section of Maryland and additional tracks are needed to meet future demand.

Financial Plan		
Project Cost	Total Project Cost	\$2.1B
	Pre-Construction	\$284.2M
	Property Acquisition	\$0
	Construction	\$1.8B
	Cost Derivation Methodology: The total project cost estimate was calculated during the CONNECT NEC 2035 delivery analysis.	
Funding Sources	Total Project Funding Committed:	\$23.6M
	Federal Sources:	\$12.6M
	ARRA	\$12.6M <i>ARRA Award for Susquehanna Bridge Reconstruction and Expansion Project</i>
	Amtrak and Non-Federal Sources:	\$11.0M
	Amtrak GCAP	\$11.0M <i>FY19 & prior</i>
	Additional Project Funding Required:	\$2.1B
Project Based Cost Allocation (PBCA)	PBCA Candidate:	Yes Notes: N/A
	Agreement Status:	Unknown

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	PE	May 2012 - Apr 2017					
Pre-construction	NEPA	Sep 2013 - May 2017					Received FONSI
Pre-construction	Remaining pre-construction activities	May 2017 - Jan 2022					
Construction	Enabling Projects	Jan 2020 - Sep 2024					
Construction	West Bridge Construction	Jul 2022 - Sep 2025					
Construction	Tk 4 Realignment	Sep 2024 - Sep 2025					
Construction	Tk 1 Construction	Sep 2025 - Dec 2026					
Construction	West Bridge Cutover	Mar 2026 - Jan 2028					
Construction	Tk 2 Construction	Dec 2026 - Jul 2027					
Construction	Tk 4 Completion	Jul 2027 - Nov 2027					
Construction	Old bridge demolition	Jan 2028 - Sep 2028					

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$11.5M

Scope of FY22 Work: Advance design to 60%

Anticipated Milestones in FY22:

- Design Submission - Approach Structures (Sep 2022)
- Design Submission - Main Structure (Sep 2022)
- Design Submission - Track and Rail Systems (Signals, OCS, Comm) (Sep 2022)
- Grace Interlocking Design (Precursor Activity) (Sep 2022)

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$1.7B

At this spend level, the following activities could be completed or continue during FY22-26: Pre-construction activities, Enabling Projects, West Bridge Construction, Tk 4 Realignment, Tk 1 Construction, West Bridge Cutover

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

SPECIAL PROJECT

Susquehanna River Bridge Replacement: Phase 2

Project Sponsor: Amtrak

Partners: Maryland DOT

Type: Improvement

Benefit: Shared

General Project Information	
Full Project Scope	<p>Phase 2 of the Susquehanna River Bridge Replacement Project will construct the 160 mph "East" bridge. In addition, Grace Interlocking work will be completed; Track 1 will be extended north to Oak Interlocking and south to Bush Interlocking with 80-mph turnouts on each end; and the Oak Interlocking 43 crossover will be upgraded to 80 mph.</p> <p><i>This project was developed through the C35 project delivery analysis. The project scope, schedule, and budget details are currently under review by Amtrak and will be revisited during C37.</i></p>
Project Justification	<p>The second phase of this project will support high-speed rail capability, provide capacity for MARC, and improve on-time performance.</p>

Financial Plan		
Project Cost	Total Project Cost	\$558.7M
	Pre-Construction	\$105.0M
	Property Acquisition	\$0
	Construction	\$453.7M
	Cost Derivation Methodology: The total project cost estimate was calculated during the CONNECT NEC 2035 delivery analysis.	
Funding Sources	Total Project Funding Committed:	\$0
	Additional Project Funding Required:	\$558.7M
Project Based Cost Allocation (PBCA)	PBCA Candidate:	Yes Notes: N/A
	Agreement Status:	Unknown

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	Pre-construction activities	Oct 2023 - Oct 2026					
Construction	East Bridge Construction	Oct 2026 - Dec 2029					
Construction	Old bridge demolition	Jan 2028 - Sep 2028					
Construction	Tk 2 Cutover	Dec 2029 - Aug 2030					

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$0

Scope of FY22 Work: No activity planned for FY22

Anticipated Milestones in FY22:

-

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$105.0M

At this spend level, the following activities could be completed or continue during FY22-26: Complete pre-construction activities

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

SPECIAL PROJECT

Aberdeen, MD High Level Platforms Project

Project Sponsor: Amtrak

Partners: Maryland DOT

Type: Improvement

Benefit: Shared

General Project Information	
Full Project Scope	<p>This project will construct the high-level side of platforms on Tracks 1 and 4 at the Aberdeen, MD Station. In addition, the project will construct Track 1 siding and associated interlocking work.</p> <p><i>This project was developed through the C35 project delivery analysis. The project scope, schedule, and budget details are currently under review by Amtrak and will be revisited during C37.</i></p>
Project Justification	<p>This project provides high level platforms to the station. Aberdeen, MD Station is currently ADA-accessible using a lift.</p>

Financial Plan		
Project Cost	Total Project Cost	\$136.7M
	Pre-Construction	\$27.1M
	Property Acquisition	\$0
	Construction	\$109.6M
	Cost Derivation Methodology: The total project cost estimate was calculated during the CONNECT NEC 2035 delivery analysis.	
Funding Sources	Total Project Funding Committed:	\$0
	Additional Project Funding Required:	\$136.7M
Project Based Cost Allocation (PBCA)	PBCA Candidate:	Yes Notes: N/A
	Agreement Status:	Unknown

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
TBD							
This project was developed through the C35 project delivery analysis and identified as a need in the early years of the plan (i.e., FY21 or FY22). The project will be reanalyzed during C37.							

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$0

Scope of FY22 Work: No activity planned for FY22

Anticipated Milestones in FY22:

-

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$117.8M

At this spend level, the following activities could be completed or continue during FY22-26: Complete construction of high level platform for Track 1 and initiate construction for Track 4. Complete realignment of Track 2 and Track 3.

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

SPECIAL PROJECT

Edgewood Capacity Expansion:
Four Track Extension

Project Sponsor: Amtrak

Partners: Maryland DOT

Type: Improvement

Benefit: Shared

General Project Information

Full Project Scope	<p>This project would add 3 miles of four-track corridor north of Wood Interlocking in Edgewood, MD, extending to a new Beach Interlocking, just south of the Bush River Bridge. The new Beach Interlocking would allow for efficient movement of Amtrak and MARC trains through the area. Magnolia interlocking would be upgraded to increase capacity at the southern end of this four-track section. This project would be constructed in conjunction with the companion special project "Edgewood Capacity Expansion: Infrastructure Realignment".</p> <p><i>This project was developed through the C35 project delivery analysis. The project scope, schedule, and budget details are currently under review by Amtrak and will be revisited during C37.</i></p>
Project Justification	<p>Both Edgewood Capacity Expansion projects will enable greater train volumes in this area by effectively separating Amtrak and MARC trains. This increased capacity will reduce delays and support future service increases to Perryville, MD. Edgewood Station is currently served by MARC's Penn Line trains.</p>

Financial Plan

Project Cost	Total Project Cost	\$122.8M
	Pre-Construction	\$24.3M
	Property Acquisition	\$0
	Construction	\$98.5M
	Cost Derivation Methodology: The total project cost estimate was calculated during the CONNECT NEC 2035 delivery analysis.	
Funding Sources	Total Project Funding Committed:	\$0
	Additional Project Funding Required:	\$122.8M
Project Based Cost Allocation (PBCA)	PBCA Candidate:	Yes Notes: N/A
	Agreement Status:	Unknown

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	Pre-construction activities	Aug 2023 - Aug 2025					
Construction	Construction	Aug 2025 - Nov 2029					

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$0

Scope of FY22 Work: No activity planned for FY22

Anticipated Milestones in FY22:

-

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$44.2M

At this spend level, the following activities could be completed or continue during FY22-26: Complete pre-construction activities and start construction

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

SPECIAL PROJECT

Edgewood Capacity Expansion:
Infrastructure Realignment

Project Sponsor: Amtrak

Partners: Maryland DOT

Type: Improvement

Benefit: Shared

General Project Information

Full Project Scope	<p>This project would construct new catenary poles and signal bridges at Magnolia and Wood Interlockings near Edgewood, MD. This work is being conducted in conjunction with the companion special project "Edgewood Capacity Expansion: Four Track Extension". As part of the Four Track Extension project, the impacted platforms at Edgewood Station will also be replaced. This project includes constructing new side platforms at MARC's Edgewood Station to accommodate the Four Track Extension, which will increase track capacity in this area for Amtrak and MARC trains.</p>
Project Justification	<p><i>This project was developed through the C35 project delivery analysis. The project scope, schedule, and budget details are currently under review by Amtrak and will be revisited during C37.</i></p> <p>Both Edgewood Capacity Expansion projects will enable greater train volumes in this area by effectively separating Amtrak and MARC trains. This increased capacity will reduce delays and support future service increases to Perryville, MD. Edgewood Station is currently served by MARC's Penn Line trains.</p>

Financial Plan

Project Cost	Total Project Cost	\$285.6M	
	Pre-Construction	\$56.5M	
	Property Acquisition	\$0	
	Construction	\$229.1M	
	Cost Derivation Methodology: The total project cost estimate was calculated during the CONNECT NEC 2035 delivery analysis.		
Funding Sources	Total Project Funding Committed:	\$0	
	Additional Project Funding Required:	\$285.6M	
Project Based Cost Allocation (PBCA)	PBCA Candidate:	Yes	Notes: Station Plans, Cost Estimates & Scheduled Milestones to be reviewed and approved by Agencies Six (6) Months in advance of Construction
	Agreement Status:	Not started	

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	Pre-construction activities	Aug 2023 - Aug 2025					
Construction	Construction	Aug 2025 - Nov 2029					

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$0

Scope of FY22 Work: No activity planned for FY22

Anticipated Milestones in FY22:

-

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$102.9M

At this spend level, the following activities could be completed or continue during FY22-26: Complete pre-construction activities and start construction

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

SPECIAL PROJECT

MARC Martin's Yard: Storage Improvements

Project Sponsor: Maryland DOT

Partners:

Type: Improvement

Benefit: Sole Commuter

General Project Information

Full Project Scope	1. The Martin Maintenance Storage Yard Project includes the purchase of private property, electrification of the Martin Yard Lead Track, and the construction of two additional storage tracks. The project will also provide utilities and new storm water management facilities, as detached building for new air compressors and distribution system to the storage tracks, as well as a water distribution system to the yard and shop and new yard standby power cabinets for service to rail vehicles.
Project Justification	1. Martin’s Yard is located directly off the Northeast Corridor in Middle River and is made accessible by an aging manually thrown switch which facilitates up to 16 train movements per day. Increasing MARC trainset capacity from 2 to 4 and will serve as start and end location for Perryville Service, requiring non-revenue operation between Martin State Airport and Perryville.2. MDOT MTA’s completion of the expanded storage facility activity at the yard is expected to double from 16 to 32 train movements per day with the additional two train sets, doubling the capacity of the yard to accommodate midday and overnight storage.3. Electrification of Martin’s Yard will extend the NEC mainline catenary system into Martin’s Yard, enabling MARC to store trains powered by both Electric and Diesel Motors. This improvement will further increase flexibility in storing train sets in Martin’s Yard. 4. Improvements at Martin’s Yard in Middle River Maryland will accommodate displaced overnight train storage at Baltimore Penn Station. This will also enable Amtrak to begin construction of a new platform at Penn Station, and opens an additional through track for revenue train service, increasing through capacity at Penn Station.

Financial Plan

Project Cost	Total Project Cost	\$17.4M	
	Pre-Construction	\$2.9M	
	Property Acquisition	\$2.0M	
	Construction	\$12.4M	
	Cost Derivation Methodology: The project cost estimate is based on the MARC Cornerstone Plan.		
Funding Sources	Total Project Funding Committed:	\$17.4M	
	Federal Sources:	\$13.3M	
	Federal-State Partnership for SOGR	\$9.4M	FY20 Award for MARC Northeast Corridor Train Storage Preservation Project
	FTA Formula Grants	\$3.9M	Additional funding spent in prior fiscal years. Formerly 7832000
	Amtrak and Non-Federal Sources:	\$4.1M	
	Maryland	\$3.1M	Additional funding spent in prior fiscal years. Formerly 8633000
	Amtrak	\$1.0M	Needs to be validated by Amtrak
	Additional Project Funding Required:	\$0	
	Proposed Federal Sources:		
Project Based Cost Allocation (PBCA)	PBCA Candidate:	No (Sole benefit)	Notes: Bi-lateral Agreements to commence Six (6) Months in advance of Construction
	Agreement Status:	Not applicable	

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	Planning	Jan 2021 - Mar 2021					
Pre-construction	Purchase property	Jan 2021 - May 2021					
Pre-construction	Engineering & design	Jan 2021 - Dec 2021					
Pre-construction	Negotiate Amtrak-MDOT Bilateral Agreement	Oct 2021 - Sep 2022					
Construction	Martin's Yard Upgrade	Jun 2022 - Mar 2023					

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$6.9M

Scope of FY22 Work: Complete BGE Utility Relocation; Mobilization and Grading

Anticipated Milestones in FY22:

- Complete PE design and deliver Contract Document package to MTA Procurement (Dec 2021)
- Complete BGE Utility Relocation (May 2022)
- Mobilize Construction (Jun 2022)
- Contractor's Notice to Proceed (NTP) to a contractor (Jul 2022)
- Grading (Sep 2022)
- **One Year Plan Notes:** N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$13.0M

At this spend level, the following activities could be completed or continue during FY22-26: Complete construction scope of work

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

SPECIAL PROJECT

Martin Airport Station Accessibility Improvements

Project Sponsor: Maryland DOT

Partners: Amtrak

Type: Improvement

Benefit: Shared






General Project Information

Full Project Scope	Construct two high level platforms at Martin State Airport Station (ADA Improvement)
Project Justification	Provides ADA access to Martin's Airport MARC Station.

Financial Plan

Project Cost	Total Project Cost	\$80.0M	
	Pre-Construction	\$15.8M	
	Property Acquisition	\$0	
	Construction	\$64.2M	
	Cost Derivation Methodology: The total project cost estimate was calculated during the CONNECT NEC 2035 delivery analysis.		
Funding Sources	Total Project Funding Committed:	\$0	
	Additional Project Funding Required:	\$80.0M	
Project Based Cost Allocation (PBCA)	PBCA Candidate:	Yes	Notes: Track Diagrams, Cost Estimates & Scheduled Milestones to be reviewed and approved by Agencies Six (6) Months in advance of Construction
	Agreement Status:	Not started	

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	Pre-construction activities	Jan 2021 - Jul 2022					
Pre-construction	Negotiate Amtrak-MDOT Bilateral Agreement	Jan 2025 - Mar 2025					Bi-lateral Agreements to commence Six (6) Months in advance of Construction
Construction	TK A Platform	Jul 2025 - Dec 2025					
Construction	New Tk 3 realignment	Dec 2025 - May 2026					
Construction	Tk 1 Platform	May 2026 - Nov 2027					

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$0

Scope of FY22 Work: No activity planned for FY22

Anticipated Milestones in FY22:

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$80.0M

At this spend level, the following activities could be completed or continue during FY22-26: Pre-construction activities, TK A Platform New Tk 3 realignment, Tk 1 Platform

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	Pre-construction activities	Sep 2021 - Mar 2023					
Pre-construction	Final Design	Mar 2022 -					Phase End Date TBD
Pre-construction	Negotiate Amtrak-MDOT Bilateral Agreement	Sep 2022 - Oct 2022					Bi-lateral Agreements to commence Six (6) Months in advance of Construction
Construction	Power the existing yard switch, and install new left-hand switch of proposed future crossover (TK A to TK1)	Mar 2023 - Apr 2023					

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$0.8M

Scope of FY22 Work: Complete engineering & design; bi-lateral agreement

Anticipated Milestones in FY22:

- Complete Engineering (Sep 2022)
- Complete Design (Sep 2022)
- Complete Bi-Lateral Agreement (Sep 2022)

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$3.7M

At this spend level, the following activities could be completed or continue during FY22-26: Complete all pre-construction activities and construction activities

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

SPECIAL PROJECT

**B&P Tunnel Replacement
Program: Planning, Program
Management, Design**

Project Sponsor: Amtrak

Partners: Maryland DOT

Type: Major Backlog

Benefit: Shared

General Project Information

Full Project Scope	<p>The Baltimore & Potomac (B&P) Tunnel Replacement Program includes Phase 1 of the new Frederick Douglass Tunnel, which replaces the existing B&P Tunnel, track improvements, and improvement of the northern and southern approaches to the Frederick Douglass Tunnel on new and existing alignments between Winans interlocking and Baltimore Penn Station on the Philadelphia Line, Mid-Atlantic Division in Baltimore City and County.</p> <p>Program elements include the following: Planning and Program Management, Design; Property Acquisitions; Construction – Approaches; Construction – Tunnels; Construction – Track A; Construction – Wilkens. The new Frederick Douglass Tunnel will reduce trip-time by permitting speeds up to 100 mph, minimize operational conflicts among high-speed, intercity, and commuter passengers, and increase throughput capacity.</p> <p>Phase 1 of the Frederick Douglass Tunnel will be constructed as two single track bores to provide an inherent resiliency and will provide robust Fire & Life Safety measures that meet contemporary standards. While Phase 1 final design and construction will only include the inner two tubes and related ventilation and egress, the Phase 1 approaches, municipal structures and utility relocations will be constructed to accommodate the Phase 2 tubes as well.</p> <p>Phase 2 is beyond the current scope of the B&P Tunnel Replacement Program and would occur beyond this plan’s FY22-26 timeframe, but its ultimate construction will include the two remaining tubes and conversion of the track (including interlockings) to the final condition. Increased throughput will allow for greater frequency as envisioned by NEC FUTURE to accommodate growing demand across all types of service.</p> <p>Planning and Program Management Scope includes program management, stakeholder engagement, regulatory approval, development of agreements, and program reporting for the B&P Tunnel Replacement Program. Program management components include development and management of the program budget, scope and integrated master schedule. It also includes development and execution of the program implementation strategy, change control, risk management, and any refinements of the business case. Secondary components include coordination of program design, constructability, and feasibility reviews, value engineering, project delivery strategy and work breakdown structure. Stakeholder engagement components include the identification and development of key partnerships, including FRA, MDOT/MTA, Baltimore City, impacted utilities, freight railroads, officials, and the media. It also includes community outreach, and the development of community investments and mitigations required by the Record of Decision and third-party approvals.</p> <p>Regulatory approval components include coordination of necessary permits and approvals, including the program’s Section 106 Programmatic Agreement (PA), NEPA approvals (as necessary), and any regulatory approvals by the FRA and relevant parties. Development of projects agreements includes the identification, coordination, and implementation of all necessary third-party agreements including those that may be necessary with Baltimore City, impacted utilities and host railroads. Program reporting components include necessary internal Amtrak reporting, FRA and NECC reporting.</p> <p>Design scope includes core activities such as geotechnical investigation, cut and cover, bored tunnels, and ventilation facilities. The scope also includes tunnel fit out design, including track, drainage, benchwalls, ventilation, train control system, OCS, lighting systems, communications systems, ET and facility power distribution, SCADA, security, life safety and fire detection and suppression. This scope also includes design for the Program on the southern and northern approaches, including interlockings, integration into the existing railroad, and structures. Design includes civil, track systems, train control system, OCS, communications systems, ET systems and SCADA. Design will also address the impacted bridges, the West Baltimore MARC Station, along with utility design, relocation, stormwater facilities, and roadway work as required pursuant to design along with construction cost estimate, construction staging and preliminary construction schedule and network configuration change approval.</p>
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**Project
Justification**

By utilizing discrete components, the Project does not need to be funded all at once from a single source, but rather can be funded through numerous smaller investments that are more compatible with existing funding streams. Also, a project the size of the B&P Tunnel Replacement, located in a dense urban environment must coordinate with numerous infrastructure owners and stakeholders. Discrete components allow the Project to focus attention to individual stakeholder's requirements wherever the Project intersects with a third party. By coordinating, but not combining, the discrete components, large dollar contracts are not exposed to the multitude of competing stakeholders' interests, which reduce Project risks and allow the Project to proceed on a more predictable Delivery Schedule.

Financial Plan

Project Cost

Total Project Cost **\$319.6M**

Pre-Construction \$290.3M

Property Acquisition \$0

Planning and Program Management \$29.3M

Construction \$0

Cost Derivation Methodology: The program cost estimate was preliminarily revised to reflect project phasing; this revision was based on the cost estimate established for the ROD.

**Funding
Sources**

Total Project Funding Committed: **\$32.5M**

Federal Sources: \$0

Amtrak and Non-Federal Sources: \$32.5M

Amtrak GCAP \$24.5M *FY21 & prior*

Other Amtrak Sources \$6.5M

Maryland DOT \$1.5M

Additional Project Funding Required: **\$287.1M**

**Project
Based Cost
Allocation
(PBCA)**

PBCA Candidate: Yes **Notes:** N/A

Agreement Status: Not started

SPECIAL PROJECT

B&P Tunnel Replacement Program: Planning, Program Management, Design (continued)

Project Sponsor: Amtrak

Partners: Maryland DOT

Type: Major Backlog

Benefit: Shared

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	Feasibility/Conceptual Design	Oct 2013 - Sep 2015					
Pre-construction	PE/NEPA	Sep 2015 - Oct 2017					
Pre-construction	ROD Re-evaluation	Jan 2020 - Oct 2021					
Pre-construction	Final Design	Jan 2021 - Sep 2032					
Planning and Program Management	Planning and Program Management	Oct 2013 - Sep 2035					

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$26.6M

Scope of FY22 Work: The FY22 Planning and Program Management scope includes updating the program management components (including updates to the baseline scope, integrated master schedule, and budget), continuing stakeholder engagement components, drafting and advancing negotiations on critical third-party agreements, obtaining necessary regulatory approvals and continuing the coordination of program reporting. The FY22 Design scope is the continuing advancement of Program final design. This includes select revisions to preliminary engineering as required by project phasing and advancement of final design pursuant to the ongoing definition of program elements, work packages and staging along with project delivery strategy, early action and critical path activities.

Anticipated Milestones in FY22:

- Complete first draft Salvage Plan (Feb 2022)
- Finish Historic Properties Construction Protection Plan (Mar 2022)
- Finish project budget baseline (May 2022)
- Project schedule baseline approve finish (May 2022)

- Finish 60% design - intermediate ventilation facility (Sep 2022)
- Finish 60% design - Lafayette Bridge Approach (Sep 2022)
- Finish 60% design - South Open Cut (Sep 2022)

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$137.1M

At this spend level, the following activities could be completed or continue during FY22-26: Continue final design and manage construction activities

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

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SPECIAL PROJECT

Baltimore Penn Station:
Infrastructure Improvements

Project Sponsor: Amtrak

Partners: Maryland DOT

Type: Improvement

Benefit: Sole Amtrak

General Project Information	
Full Project Scope	This project will construct two additional platforms to support scheduled Acela overtakes of Northeast Regional and MARC trains. The scope includes a new Track 8 (F) platform, including new vertical access and canopy. The Track 3 existing low-level platform will be rebuilt as an accessible high-level facility, including repairs to the existing elevator and stairs. Additional track, signal, and electric traction improvements are also included to support the platform addition and improvement.
Project Justification	The reconstruction of the existing platform and the construction of a new platform are required to support scheduled increases to the high-speed rail service, specifically overtakes of Northeast Regional and MARC trains in both the southbound and northbound directions.

Financial Plan		
Project Cost	Total Project Cost	\$71.3M
	Pre-Construction	\$3.0M
	Property Acquisition	\$0
	Construction	\$68.3M
	Cost Derivation Methodology: The project cost estimate is based on the latest financial plan for this project, provided by Amtrak.	
Funding Sources	Total Project Funding Committed:	\$50.0M
	Federal Sources:	\$0
	Amtrak and Non-Federal Sources:	\$50.0M
	RRIF Loan - Amtrak	\$3.5M FY21 & prior
	Amtrak GCAP	\$46.5M FY22
	Additional Project Funding Required:	\$21.3M
	Proposed Amtrak and Non-Federal Sources	\$21.3M
Project Based Cost Allocation (PBCA)	Amtrak GCAP	\$21.3M Future years
	PBCA Candidate:	No (Sole benefit) Notes: N/A
	Agreement Status:	Not applicable

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	Feasibility, Design	Oct 2017 - Sep 2020					
Pre-construction	PE/NEPA	Oct 2017 - Oct 2018					
Construction	Platform Ventilation Work	Oct 2020 - Jul 2021					
Construction	BPS Track Reconfiguration	Jul 2021 - Jan 2023	■				
Construction	Platform 2 Construction	Aug 2021 - Nov 2022	■				
Construction	Platform 5 Construction	Aug 2021 - May 2023	■				
Construction	Platform 4 Rehab	May 2023 - Aug 2023		■			
Construction	Platform 3 Rehab	Aug 2023 - Nov 2023		■			
Construction	Platform 1 Rehab	Nov 2023 - Jan 2024		■			

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$46.5M

Scope of FY22 Work: Continue BPS Track Reconfiguration, platforms 2 and 5 construction

Anticipated Milestones in FY22:

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$67.8M

At this spend level, the following activities could be completed or continue during FY22-26: Completion of Platform Ventilation Work, track reconfiguration, platforms 2 and 5 construction, platforms 1, 3, and 4 rehab.

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

SPECIAL PROJECT

Penn-Camden Connector

Project Sponsor: Maryland DOT

Partners: Amtrak

Type: Improvement

Benefit: Shared




General Project Information

Full Project Scope	1. The Penn-Camden Connector is a new rail link that will enable efficiencies through the consolidation of vehicle maintenance and repair for both the Penn and Camden lines. The rail link will also leverage the capital investment in the Riverside Heavy Maintenance Building and Riverside Yard. The new rail link will also facilitate access to a new storage and maintenance facility for Penn Line MARC trains. It is important to note that Wilkens Interlocking is a predecessor project. 2. Phase 1 is the primary focus and will evaluate Mt. Clare Yard improvements and the restoration of the Claremont Branch and its associated structures. 3. Phase 2 will consist of the double tracking the Mt. Clare Branch from the Mt. Clare Yard to the junction with the CSXT mainline southeast of Washington Blvd. It is assumed that CSXT will retain ownership of the Right-of-Way within the limits of PCC Phase 2 and that CSXT will be responsible for the design, permitting and double track construction of this Section.
Project Justification	1. This new rail link will both enable efficiencies through the consolidation of vehicle maintenance and repair for both the Penn and Camden lines, as well as facilitate access to a new storage and maintenance facility for Penn Line MARC trains. 2. MDOT MTA currently stores six of its eight MARC train sets at Baltimore’s Penn Station overnight and on weekends. In response to Amtrak’s future plans for the redevelopment of the Station, MDOT MTA has been actively exploring alternative locations to store trains for Penn Line service including the proposed construction of a Northeast Storage and Maintenance Facility in Cecil County, the expansion of the existing Martin Airport facility, and CSX’s existing Mount Clare Yard via the proposed Penn Camden Connector. Mount Clare Yard has the potential to absorb all six train sets currently stored at Penn Station with additional capacity to lengthen train sets to meet existing demand.

Financial Plan

Project Cost	Total Project Cost	\$80.0M	
	Pre-Construction	\$15.8M	
	Property Acquisition	\$0	
	Construction	\$64.2M	
	Cost Derivation Methodology: The project cost estimate is based on the MARC Cornerstone Plan.		
Funding Sources	Total Project Funding Committed:	\$2.0M	
	Federal Sources:	\$0	
	Amtrak and Non-Federal Sources:	\$2.0M	
	MARC	\$2.0M	
	Additional Project Funding Required:	\$78.0M	
Project Based Cost Allocation (PBCA)	PBCA Candidate:	Yes	Notes: Track Diagrams, Cost Estimates & Scheduled Milestones to be reviewed and approved by Agencies Six (6) Months in advance of Construction
	Agreement Status:	Not started	

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	Pre-construction activities	Aug 2019 - Jan 2025					
Pre-construction	NTP - Gannett Fleming	Apr 2021 -					
Pre-construction	Penn-Camden Connector Study / Work Plan	Jul 2021 - Sep 2024					
Construction	Penn-Camden Connector	Jan 2025 - Jun 2028					

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$0.6M

Scope of FY22 Work: Environmental Legal Counsel

Anticipated Milestones in FY22:

- Complete Environmental Legal Counsel (Aug 2022)

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$80.0M

At this spend level, the following activities could be completed or continue during FY22-26: Pre-construction activities, Penn-Camden Connector

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

SPECIAL PROJECT

Baltimore Penn Station: Master Plan

Project Sponsor: Amtrak

Partners: Maryland DOT

Type: Major Station

Benefit: Shared

General Project Information	
Full Project Scope	This project would provide a comprehensive and integrated approach for Baltimore Penn Station to advance key near-term state-of-good-repair projects while establishing a development framework to leverage under utilized assets and accommodate future growth and redevelopment, potentially through a public private partnership. Additional funding is required for design and construction of improvements.
Project Justification	Baltimore Penn Station is Amtrak’s 8th busiest station serving nearly one million riders and an additional two million commuter passengers each year. The Station is challenged by aging infrastructure that is not conducive modern train operations. Both passenger and employee facilities are in need of improvement, and multimodal connectivity is strained by the station’s current configuration. Efforts to advance state-of-good-repair programs, improve rail operations to accommodate additional Acela service, and the pursuit of a private-public partnership for large-scale redevelopment will set the future course to realize Baltimore Penn Station as a vibrant transportation hub interwoven within an integrated mixed-use urban district.

Financial Plan		
Project Cost	Total Project Cost	\$185.3M
	Pre-Construction	\$22.8M
	Property Acquisition	\$0
	Construction	\$162.6M
	Cost Derivation Methodology: The project cost estimate is based on the latest financial plan for this project, provided by Amtrak.	
Funding Sources	Total Project Funding Committed:	\$185.3M
	Federal Sources:	\$0
	Amtrak and Non-Federal Sources:	\$185.3M
	Amtrak Annual Federal Grants	\$143.5M
	Other	\$37.5M Additional funding for intermodal connection, plaza and streetscape improvements.
	Maryland	\$4.0M Contributed through 2022 MD Annual Budget
	Maryland DOT	\$0.3M Contributed to SOGR 1a 1b Design
	Additional Project Funding Required:	\$0
Project Based Cost Allocation (PBCA)	PBCA Candidate:	Yes Notes: N/A
	Agreement Status:	In progress

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	Feasibility/ Conceptual Design	Oct 2019 - Feb 2021					
Pre-construction	PE/NEPA	Oct 2019 - TBD					
Pre-construction	Final Design	Mar 2021 - TBD					
Construction	SOGH Exterior Envelope + Core & Shell Construction	Nov 2021 - TBD					
Construction	Concourse Expansion	Nov 2022 - TBD					
Construction	Station Fit Out	Nov 2023 - TBD					
Construction	Intermodal & Streetscape Improvements	May 2024 - TBD					

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$18.4M

Scope of FY22 Work: Continued design and construction for the Baltimore Penn Station Historic Headhouse Exterior Envelope work, moving into Core & Shell Construction and continued design development for the Station Expansion and Fit Out. Continued execution of enabling projects, program management support and lease executions.

Anticipated Milestones in FY22:

- 60% Design Documentation for Station Expansion (Oct 2021)
- NTP for SOGH Exterior Envelope Construction (Oct 2021)
- Complete Exterior Envelope Construction (Sep 2022)
- Notice to Proceed for Station Expansion Construction (Sep 2022)

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$95.6M

At this spend level, the following activities could be completed or continue during FY22-26: Pre-construction and construction activities, Baltimore Penn Station Master Plan implementation and program close-out.

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

SPECIAL PROJECT

B&P Tunnel Replacement Program: Property Acquisition

Project Sponsor: Amtrak

Partners: Maryland DOT

Type: Major Backlog

Benefit: Shared

General Project Information

Full Project Scope	This is a project in the B&P Tunnel Replacement Program; refer to 'B&P Tunnel Replacement Program: Planning, Program Management, Design' for the full program scope. This project scope is public and private property acquisition for approximately 850 property acquisitions necessary for construction of the Program, comprising planning, completion, and compliance with applicable federal, state, and local requirements. Work includes key activities such as title research, plat preparation, appraisals, offers/negotiations/condemnation filings, relocation assistance, settlements, deeds and other relevant real estate activities along with budget estimates and management for acquisitions.
Project Justification	By utilizing discrete components, the Project does not need to be funded all at once from a single source, but rather can be funded through numerous smaller investments that are more compatible with existing funding streams. Also, a project the size of the B&P Tunnel Replacement, located in a dense urban environment must coordinate with numerous infrastructure owners and stakeholders. Discrete components allow the Project to focus attention to individual stakeholder's requirements wherever the Project intersects with a third party. By coordinating, but not combining, the discrete components, large dollar contracts are not exposed to the multitude of competing stakeholders' interests, which reduce Project risks and allow the Project to proceed on a more predictable Delivery Schedule.

Financial Plan

Project Cost	Total Project Cost	\$80.0M
	Pre-Construction	\$0
	Property Acquisition	\$80.0M
	Construction	\$0
	Cost Derivation Methodology: The program cost estimate was preliminarily revised to reflect project phasing; this revision was based on the cost estimate established for the ROD.	
Funding Sources	Total Project Funding Committed:	\$0
	Additional Project Funding Required:	\$80.0M
Project Based Cost Allocation (PBCA)	PBCA Candidate:	Yes Notes: N/A
	Agreement Status:	Not started

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Property Acquisition	Property Acquisition	Jan 2021 - Sep 2026					

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$15.0M

Scope of FY22 Work: This year's scope includes the completion of approximately 30 property acquisitions and the initiation of the acquisition and relocation processes for additional properties that are necessary for the B&P Tunnel Replacement Program. It also includes property acquisition planning, property research, initiation of plats and appraisals for future year acquisitions, and updates to the estimated cost of property acquisition. This work during FY22 is critical to enabling the timely acquisition of properties in future years.

Anticipated Milestones in FY22:

- Complete 30th appraisal (Dec 2021)
- Complete first FY22 acquisition (Jan 2022)
- Complete first relocation (May 2022)

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$76.7M

At this spend level, the following activities could be completed or continue during FY22-26: Complete all necessary property acquisitions for construction of B&P Tunnel Replacement Program components

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

SPECIAL PROJECT

B&P Tunnel Replacement Program: Construction - Track A Winans to Bridge

Project Sponsor: Amtrak

Partners: Maryland DOT

Type: Major Backlog

Benefit: Shared

General Project Information

Full Project Scope

This is a project in the B&P Tunnel Replacement Program; refer to 'B&P Tunnel Replacement Program: Planning, Program Management, Design' for the full program scope. The project scope is the replacement and upgrade of five miles of mainline track along the NEC from Winans Interlocking (at Milepost 103.4 near the Halethorpe MARC station in Baltimore County, MD) to Bridge Interlocking (at Milepost 98.2 near the West Baltimore MARC station in Baltimore City, MD), from class 3 to class 5 by replacing timber ties with concrete ties and existing rail with heavier rail, and laying new ballast. This section of the NEC has four tracks, three of which have already been upgraded to concrete ties. The Project would upgrade the ties on the fourth track, increasing the carrying and speed capacity of the track, which will increase the maximum authorized track speed to 90 MPH from the current 60 MPH limit. The proposed improvements will also install a new high-speed turnout to support the higher operating speeds of the upgraded track. This work will improve ride quality for Amtrak and MARC Penn Line trains, as well as increase travel times and service capacity.

Project Justification

By utilizing discrete components, the Project does not need to be funded all at once from a single source, but rather can be funded through numerous smaller investments that are more compatible with existing funding streams. Also, a project the size of the B&P Tunnel Replacement, located in a dense urban environment must coordinate with numerous infrastructure owners and stakeholders. Discrete components allow the Project to focus attention to individual stakeholder's requirements wherever the Project intersects with a third party. By coordinating, but not combining, the discrete components, large dollar contracts are not exposed to the multitude of competing stakeholders' interests, which reduce Project risks and allow the Project to proceed on a more predictable Delivery Schedule.

Financial Plan

Project Cost

Total Project Cost	\$16.0M
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Pre-Construction	\$0.7M
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Property Acquisition	\$0
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Construction	\$15.3M
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Cost Derivation Methodology: The program cost estimate was preliminarily revised to reflect project phasing; this revision was based on the cost estimate established for the ROD.

Funding Sources

Total Project Funding Committed:	\$8.0M
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Federal Sources:	\$8.0M
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<i>Federal-State Partnership for SOGR</i>	\$8.0M	<i>FY19 Award for Track A Upgrade from Winans to Bridge Improvement</i>
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Amtrak and Non-Federal Sources:	\$0
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Additional Project Funding Required:	\$8.0M
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Project Based Cost Allocation (PBCA)

PBCA Candidate:	Yes	Notes: N/A
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Agreement Status:	Not started
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Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Construction	Track A Upgrade (Winans to Bridge) Construction	Oct 2021 - Apr 2023					

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$0.1M

Scope of FY22 Work: The FY22 scope is completion of final design and network configuration change approval and the start of long lead special trackwork procurement for the replacement and upgrade of five miles of track on Track A between MP 103.4 to MP 98.2 on the Philadelphia Line, Mid-Atlantic Division in Baltimore County.

Anticipated Milestones in FY22:

- Finish 60% design (Feb 2022)
- Finish 90% design (Jun 2022)
- Finish major/long lead item purchase requisition (Sep 2022)

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$16.0M

At this spend level, the following activities could be completed or continue during FY22-26: Complete Track A Upgrade (Winans to Bridge) construction

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

SPECIAL PROJECT

B&P Tunnel Replacement Program: Construction - Approaches

Project Sponsor: Amtrak

Partners: Maryland DOT

Type: Major Backlog

Benefit: Shared

General Project Information	
Full Project Scope	This is a project in the B&P Tunnel Replacement Program; refer to 'B&P Tunnel Replacement Program: Planning, Program Management, Design' for the full program scope. The project scope is the construction and commissioning of the northern and southern approaches to the new Frederick Douglass Tunnel, incorporating new and existing alignments between Gwynn's Falls Bridge and Baltimore Penn Station on the Philadelphia Line, Mid-Atlantic Division in Baltimore City and County. Construction includes new interlockings, integration into the existing railroad, and the structures. Construction components include civil, track systems, train control system, OCS, communications systems, ET systems and SCADA. Construction will also include replacement of the impacted bridges, the West Baltimore MARC Station, utility relocations and new facilities, stormwater facilities, and roadway work as required pursuant to final design.
Project Justification	By utilizing discrete components, the Project does not need to be funded all at once from a single source, but rather can be funded through numerous smaller investments that are more compatible with existing funding streams. Also, a project the size of the B&P Tunnel Replacement, located in a dense urban environment must coordinate with numerous infrastructure owners and stakeholders. Discrete components allow the Project to focus attention to individual stakeholder's requirements wherever the Project intersects with a third party. By coordinating, but not combining, the discrete components, large dollar contracts are not exposed to the multitude of competing stakeholders' interests, which reduce Project risks and allow the Project to proceed on a more predictable Delivery Schedule.

Financial Plan	
Project Cost	Total Project Cost \$1.1B
	Pre-Construction \$0
	Property Acquisition \$0
	Construction \$1.1B
	Cost Derivation Methodology: The program cost estimate was preliminarily revised to reflect project phasing; this revision was based on the cost estimate established for the ROD.
Funding Sources	Total Project Funding Committed: \$0
	Additional Project Funding Required: \$1.1B
Project Based Cost Allocation (PBCA)	PBCA Candidate: Yes Notes: N/A
	Agreement Status: Not started

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Construction	Approaches Construction	Apr 2022 - Sep 2035					

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$5.0M

Scope of FY22 Work: The FY22 scope is the ongoing development of general procurement strategies, construction procurement of the Warwick Avenue Bridge replacement and select relocation of Amtrak utilities.

Anticipated Milestones in FY22:

- Start project (Apr 2022)
- Start procurement - Warwick Ave Bridge (Apr 2022)
- Start Utility Relocation - Select Amtrak Utilities (Apr 2022)
- Finish Procurement - Warwick Ave Bridge (Aug 2022)

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$355.0M

At this spend level, the following activities could be completed or continue during FY22-26: Begin construction on new tunnel approaches

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

SPECIAL PROJECT

B&P Tunnel Replacement Program: Construction - Phase 1 Tunnel

Project Sponsor: Amtrak

Partners: Maryland DOT

Type: Major Backlog

Benefit: Shared

General Project Information

Full Project Scope	This is a project in the B&P Tunnel Replacement Program; refer to 'B&P Tunnel Replacement Program: Planning, Program Management, Design' for the full program scope. The project scope is the construction and commissioning of the cut and cover and bored tunnels comprising the Frederick Douglass Tunnel, and associated ventilation facilities on new alignments and property between Gwynn's Falls Bridge and Baltimore Penn Station on the Philadelphia Line, Mid-Atlantic Division in Baltimore City. Tunnel construction, fit out and cross passages includes necessary infrastructure and systems including: track, drainage, benchwalls, ventilation, train control system, OCS, lighting systems, communications systems, ET and facility power distribution, SCADA, security, life safety and fire detection and suppression. Ventilation facilities construction includes the intermediate ventilation cavern, plenum tunnel and shaft and the North, Intermediate, and South Ventilation facilities. Components include the ventilation plenum, emergency egress, utility corridor structures, egress, sump structures, drainage systems, emergency ventilation dampers, lighting systems, communications systems, security systems, fire detection and suppression systems, architectural treatments and systems, roof-mounted solar panels, loading docks, parking areas, perimeter fencing, and landscaping.
Project Justification	By utilizing discrete components, the Project does not need to be funded all at once from a single source, but rather can be funded through numerous smaller investments that are more compatible with existing funding streams. Also, a project the size of the B&P Tunnel Replacement, located in a dense urban environment must coordinate with numerous infrastructure owners and stakeholders. Discrete components allow the Project to focus attention to individual stakeholder's requirements wherever the Project intersects with a third party. By coordinating, but not combining, the discrete components, large dollar contracts are not exposed to the multitude of competing stakeholders' interests, which reduce Project risks and allow the Project to proceed on a more predictable Delivery Schedule.

Financial Plan

Project Cost	<div>Total Project Cost\$2.7B</div> <div>Pre-Construction\$0</div> <div>Property Acquisition\$0</div> <div>Construction\$2.7B</div> <div>Cost Derivation Methodology: The program cost estimate was preliminarily revised to reflect project phasing; this revision was based on the cost estimate established for the ROD.</div>
Funding Sources	<div>Total Project Funding Committed:\$0</div> <div>Additional Project Funding Required:\$2.7B</div>
Project Based Cost Allocation (PBCA)	<div>PBCA Candidate:YesNotes: N/A</div> <div>Agreement Status:Not started</div>

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Construction	Tunnel Construction	Jul 2022 - Sep 2035					

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$0.1M

Scope of FY22 Work: The FY22 scope includes the commencement of historic salvage of materials in accordance with the requirements of the Section 106 Programmatic Agreement and early demolition work in support of the Intermediate Ventilation building.

Anticipated Milestones in FY22:

- Project Start (Jul 2022)
- Procurement Finish - Demolition for Intermediate Ventilation Facility (Aug 2022)
- Historic Salvage Kickoff (Sep 2022)

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$465.6M

At this spend level, the following activities could be completed or continue during FY22-26: Initiate and progress new tunnel construction

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

SPECIAL PROJECT

B&P Tunnel Replacement Program: Wilkens

Project Sponsor: Amtrak

Partners: Maryland DOT

Type: Major Backlog

Benefit: Shared

General Project Information

Full Project Scope

This is a project in the B&P Tunnel Replacement Program; refer to 'B&P Tunnel Replacement Program: Planning, Program Management, Design' for the full program scope. The project scope is the replacement and upgrade of five miles of mainline track along the NEC from Winans Interlocking (at Milepost 103.4 near the Halethorpe MARC station in Baltimore County, MD) to Bridge Interlocking (at Milepost 98.2 near the West Baltimore MARC station in Baltimore City, MD), from class 3 to class 5 by replacing timber ties with concrete ties and existing rail with heavier rail, and laying new ballast. This section of the NEC has four tracks, three of which have already been upgraded to concrete ties. The Project would upgrade the ties on the fourth track, increasing the carrying and speed capacity of the track, which will increase the maximum authorized track speed to 90 MPH from the current 60 MPH limit. The proposed improvements will also install a new high-speed turnout to support the higher operating speeds of the upgraded track. This work will improve ride quality for Amtrak and MARC Penn Line trains, as well as increase travel times and service capacity.

Project Justification

By utilizing discrete components, the Project does not need to be funded all at once from a single source, but rather can be funded through numerous smaller investments that are more compatible with existing funding streams. Also, a project the size of the B&P Tunnel Replacement, located in a dense urban environment must coordinate with numerous infrastructure owners and stakeholders. Discrete components allow the Project to focus attention to individual stakeholder's requirements wherever the Project intersects with a third party. By coordinating, but not combining, the discrete components, large dollar contracts are not exposed to the multitude of competing stakeholders' interests, which reduce Project risks and allow the Project to proceed on a more predictable Delivery Schedule.

Financial Plan

Project Cost

Total Project Cost	\$120.0M
Pre-Construction	\$0
Property Acquisition	\$0
Construction	\$120.0M

Cost Derivation Methodology: The program cost estimate was preliminarily revised to reflect project phasing; this revision was based on the cost estimate established for the ROD.

Funding Sources

Total Project Funding Committed:	\$0
Additional Project Funding Required:	\$120.0M

Project Based Cost Allocation (PBCA)

PBCA Candidate:	Yes	Notes: N/A
Agreement Status:	Not started	

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Construction	Wilkens Interlocking	Aug 2022 - Sep 2025					

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$0.0M

Scope of FY22 Work: The FY22 scope is the start of long lead special trackwork procurement for Wilkens Interlocking, a new universal interlocking on four tracks between curves 384 and 385 on the Philadelphia Line, Mid-Atlantic Division in Baltimore County. The scope also includes select work fulfilling the requirements of the Section 106 Programmatic Agreement, coordination of force account labor resources and outage requirements along with commencement of long lead C&S fabrication activities self-performed by Amtrak.

Anticipated Milestones in FY22:

- Start project (Aug 2022)
- Project schedule baseline approve finish (Aug 2022)
- Finish major/long lead item purchase requisition (Sep 2022)

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$120.0M

At this spend level, the following activities could be completed or continue during FY22-26: Complete construction of Wilkens Interlocking

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

SPECIAL PROJECT

Hanson Interlocking

Project Sponsor: Amtrak

Partners: Maryland DOT

Type: Improvement

Benefit: Shared

General Project Information	
Full Project Scope	This project would improve operational flexibility at New Carrollton station and reduce delays for Amtrak and MARC service. A new interlocking would allow universal moves and reduce conflicts that occur when trains must pass other trains stopped at New Carrollton. Construction of Hanson Interlocking would also advance a state of good repair by allowing for the retirement of aging Landover Interlocking.
Project Justification	This project will expand capacity and reduce congestion by enabling express and local trains to operate simultaneously in both directions. This project is needed to utilize new third (side) platform at New Carrollton Station.

Financial Plan	
Project Cost	Total Project Cost \$91.7M
	Pre-Construction \$3.0M
	Property Acquisition \$0
	Construction \$88.8M
	Cost Derivation Methodology: The total project cost estimate was calculated during the CONNECT NEC 2035 delivery analysis.
Funding Sources	Total Project Funding Committed: \$91.7M
	Federal Sources: \$8.0M
	FTA Formula Grants \$8.0M Additional funding spent in prior fiscal years.
	Amtrak and Non-Federal Sources: \$83.7M
	Other Amtrak Sources \$73.7M Balance of funding required is funded by Amtrak through written agreement for the cost sharing.
	Maryland \$10.0M Additional funding spent in prior fiscal years.
	Additional Project Funding Required: \$0
Project Based Cost Allocation (PBCA)	PBCA Candidate: Yes Notes: N/A
	Agreement Status: Unknown

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	Final Design	Jun 2003 - Sep 2021					
Pre-construction	PE/NEPA	Jul 2014 - Aug 2021					
Construction	Hanson Track Construction	Jan 2004 - Sep 2021					
Construction	Hanson C&S Construction	Apr 2007 - Jun 2023					
Construction	Hanson Catenary Construction	Mar 2011 - Jun 2023					
Construction	Access Road	Mar 2016 - Dec 2022					
Construction	Contractor RWP/ET Protection	Nov 2017 - Dec 2022					
Construction	PM/CM/Contingency	Nov 2017 - Jun 2023					
Construction	Landover C&S	Feb 2019 - Jun 2023					
Construction	CPS	Feb 2020 - Jun 2023					
Construction	Landover ET	Aug 2021 - Jun 2023					
Construction	Landover Tower	Jul 2022 - Jun 2023					
Construction	Landover Track	Oct 2022 - Jun 2023					

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$10.6M

Scope of FY22 Work: Design, permitting, property easement, utility coordination, construction, testing/commissioning, and closeout of a new electrified interlocking including an access road, four new crossovers with snow melters, CIH and A&B signal houses, RTU House, PTC wayside interface units, power distribution equipment and panels, interlocking lighting, duct bank/cable trough, communication and signal wiring, two new signal bridges, 44 catenary foundations and associated catenary structures, catenary wiring including sectionalizing, with ACSES, SCADA and CETC modifications to provide higher diverging speeds, operational flexibility, and improve reliability. Demolition of Landover Tower and removal of three existing crossovers at Landover Interlocking and modifications to the 91 switch.

Anticipated Milestones in FY22:

- Complete Catenary Pole Installation (Oct 2021)
- Complete installation of signal bridge structures (not including signals and signal cabling) (Nov 2021)
- Complete install of all catenary structures (poles and K beams) (May 2022)
- Remove existing catenary structures (May 2022)

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$21.7M

At this spend level, the following activities could be completed or continue during FY22-26: Hanson - Tk 1 to Tk 2, Hanson - Tk 2 to Tk 3, Complete Hanson & Modify Landover

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

SPECIAL PROJECT

New Carrollton Station: Next-Generation Acela Upgrades

Project Sponsor: Amtrak

Partners: Maryland DOT, WMATA

Type: Improvement

Benefit: Sole Amtrak

General Project Information	
Full Project Scope	The scope of work of the New Carrollton Station (NCR) Acela 2021 project includes: -New 1,050-foot side platform adjacent to an upgraded Track 1 -New vertical access (escalators, elevator and stairs) and required station modifications to access NCR at ground level below the elevated track. Reinstallation of a freight gauntlet along Track 2 to preserve wide load service through NCR, per Amtrak’s statutory freight railroad access requirements
Project Justification	The New Carrollton Station (NCR) project is an integral component of required infrastructure investments to support the Acela 2021 Program and the 2020 NEC Service Plan, and will improve overall train performance, resulting in reduced trip times, as well as improve operational reliability of all rail services on the south end of Amtrak’s NEC. As a result, there would be an enhanced passenger experience.

Financial Plan	
Project Cost	Total Project Cost \$52.9M
	Pre-Construction \$3.5M
	Property Acquisition \$0
	Construction \$49.3M
	Cost Derivation Methodology: The project cost estimate is based on the latest financial plan for this project, provided by Amtrak.
Funding Sources	Total Project Funding Committed: \$1.7M
	Federal Sources: \$0
	Amtrak and Non-Federal Sources: \$1.7M
	Amtrak \$1.7M FY22 Expenditure
	Additional Project Funding Required: \$51.1M
	Proposed Federal Sources: \$49.8M
	Federal \$49.8M Future Expenditures
Project Based Cost Allocation (PBCA)	Proposed Amtrak and Non-Federal Sources: \$3.0M
	Amtrak RRIF Loan \$3.0M Past Expenditures
	PBCA Candidate: No (Sole benefit) Notes: N/A
	Agreement Status: Not applicable

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	Pre-construction activities	Jun 2009 - Jan 2021					
Construction	Amtrak PM and CM	Jun 2009 - Sep 2023					Amtrak Project and Construction Management
Construction	Tk 1 Gauntlet Track	May 2021 - May 2022					Amtrak Engineering is planning to de-scope the Gauntlet Track.
Construction	B&B Install Inter-Track Fencing	Sep 2021 - Nov 2021					
Construction	Project Contingency	Sep 2021 - Nov 2021					
Construction	New Carrollton Track 1 Platform	Sep 2021 - Sep 2023					Based on the current Design Estimate.
Construction	Construction Management Contractor	Sep 2021 - Sep 2023					CM Contract with WSP
Construction	Engineer of Record Design Phase Services	Sep 2021 - Sep 2023					
Construction	Amtrak RWP Support	Sep 2021 - Sep 2023					
Construction	Amtrak ET Catenary Modifications	Mar 2022 - Sep 2022					

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$1.7M

Scope of FY22 Work: The FY22 plan is to start construction Phase 1, Phase 2, and start Phase 3 construction. Please see the phases listed below: Phase 1: Advance Foundation Construction will install foundations for the new Overhead Catenary System (OCS) for Tracks 1 and 3. During this phase, the contractor will place the new foundations for the proposed platform, provide the temporary shoring and bracing over the existing station, construct the platform cap beams, and install the new platform planks. The contractor will also install track sub-grade drainage. Phase 2 - Overhead Catenary System. During 2 weeks of scheduled outages, Amtrak forces will install new OCS poles, OCS cross beams, and system along Tracks 1 and 3. The work will also include bonding and grounding the system as well demolishing of the existing catenary system. Phase 3 – Exterior Construction. Involves site, platform and station construction. During this 8-month phase, the contractor will build temporary access to the platform and station. Site work including erosion and sediment control, drainage, inlets, and station excavation. Platform work will continue completion of the platform over the existing station, erection of the canopy, and installation of platform fixtures. The contractor will start and complete

work on the new station headhouse, vertical circulation, exterior walls, cladding, and roofing elements.

Anticipated Milestones in FY22:

- Construction NTP (Oct 2021)
- General Contractor to start Submittal Process (Nov 2021)
- General Contractor to start construction (Dec 2021)

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$48.8M

At this spend level, the following activities could be completed or continue during FY22-26: Tk 2 Gauntlet Track and SOGR at Carrollton, New Carrollton Tk 1 Platform

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

SPECIAL PROJECT

New Carrollton Station: State of Good Repair Improvements

Project Sponsor: Amtrak

Partners: Maryland DOT, WMATA

Type: Improvement

Benefit: Shared

General Project Information	
Full Project Scope	This project consists of several activities to bring the New Carrollton Station to a state of good (SOGR) repair. To take advantage of financial and logistical efficiencies, the design and construction work for the SOGR activities are being conducted concurrently with the Amtrak-led 'New Carrollton Station: Next-Generation Acela Upgrades' special project. The state of good repair work will include the replacement of tactile and concrete platform surfaces, construction joints, escalator and stair enclosures, and canopy roofing.
Project Justification	New Carrollton Station (NCR) is served by Amtrak Northeast Regional intercity trains and MARC Penn Line commuter trains. The station also provides direct transfers to WMATA's Metrorail Blue and Orange lines. Ongoing transit-oriented development (TOD) occurring in the vicinity of this station is expected to increase ridership at New Carrollton, which will put additional stress on the platform infrastructure. By bringing the existing platforms to a state of good repair, the station can continue to support Amtrak and MARC operations and welcome new passengers in the coming years.

Financial Plan		
Project Cost	Total Project Cost	\$4.5M
	Pre-Construction	\$0.5M
	Property Acquisition	\$0
	Construction	\$4.0M
	Cost Derivation Methodology: The project cost estimate is based on the latest financial plan for this project, provided by Amtrak.	
Funding Sources	Total Project Funding Committed:	\$1.0M
	Federal Sources:	\$1.0M
	Federal State Partnership for SOGR	\$1.0M For FRA Stations Design, FY20 applied
	Amtrak and Non-Federal Sources:	\$0
	Additional Project Funding Required:	\$3.5M
Project Based Cost Allocation (PBCA)	PBCA Candidate:	Yes Notes: N/A
	Agreement Status:	Unknown

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	Pre-construction activities	Apr 2020 - Apr 2021					
Construction	SOGR Work at New Carrollton	Oct 2021 - Sep 2023					

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$0.8M

Scope of FY22 Work: Start construction

Anticipated Milestones in FY22:

- Start construction (Nov 2021)

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$4.0M

At this spend level, the following activities could be completed or continue during FY22-26: Complete construction of state-of-good-repair work at New Carrollton Station.

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

SPECIAL PROJECT

Washington Union Station: Long Term Station Expansion

Project Sponsor: Amtrak

Partners: Maryland DOT, VRE, Union Station Redevelopment Corporation, Federal Railroad Administration, District DOT

Type: Major Station

Benefit: Shared

General Project Information


Full Project Scope	The Long Term Program builds on the 2012 Washington Union Terminal Master Plan which outlined a long-term vision to redevelop the station to address capacity constraints and aging infrastructure as well as coordinate with the air rights project known as Burnham Place. The Long Term Program consists of a large-scale station expansion including a complete redesign and reconstruction of the rail terminal. This will also include the construction of Burnham Place, which is Akridge’s air rights project over the tracks and platforms. This program has begun and is undergoing an Environmental Impact Statement (EIS), a process being led by the Federal Railroad Administration (FRA) and targeted to be complete in FY20. Once that process has concluded, the Long Term Program will require funding for advanced design and program management to begin implementation of the finalized concept followed by full construction. Currently specific projects within this program include: Terminal Infrastructure (concept design of reconstruction of tracks, platforms and related rail infrastructure at Washington Union Station), Cost and Constructability reviews, geotechnical investigations, and overall execution of the current concept planning and EIS documentation.
Project Justification	The Washington Union Station complex, including passenger, operational, and train handling facilities and infrastructure, is not in a state of good repair. Long-term, the Washington Union Station Expansion Project is evaluating alternatives for station redevelopment to meet growing demand for commuter and intercity rail.

Financial Plan

Project Cost	<table><tr><td>Total Project Cost</td><td>\$10.7B</td></tr><tr><td>Pre-Construction</td><td>\$1.4B</td></tr><tr><td>Property Acquisition</td><td>\$450.0M</td></tr><tr><td>Construction</td><td>\$8.8B</td></tr></table>	Total Project Cost	\$10.7B	Pre-Construction	\$1.4B	Property Acquisition	\$450.0M	Construction	\$8.8B
Total Project Cost	\$10.7B								
Pre-Construction	\$1.4B								
Property Acquisition	\$450.0M								
Construction	\$8.8B								
	Cost Derivation Methodology: The project cost estimate is based on the latest financial plan for this project, provided by Amtrak.								

Funding Sources	Total Project Funding Committed:	\$142.7M	
	Federal Sources:	\$0	
	Amtrak and Non-Federal Sources:	\$142,709,915	
	Other	\$115.9M	Amtrak and expansion project partners exact contribution TBD
	Amtrak GCAP	\$11.1M	FY19 & prior
	Union Station Redevelopment Corporation	\$9.0M	
	Akridge	\$4.4M	
	Amtrak GCAP	\$1.0M	FY20
	Maryland MTA	\$0.7M	
	VRE	\$0.6M	
Project Based Cost Allocation (PBCA)	Additional Project Funding Required:	\$10.6B	
	PBCA Candidate:	Yes	Notes: N/A
	Agreement Status:	Unknown	

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	Feasibility/Conceptual Design	Nov 2013 - Sep 2022					
Pre-construction	PE/NEPA	Apr 2014 - Mar 2022					
Pre-construction	Preliminary/Final Design	Apr 2022 - Dec 2027					
Construction	Long Term Station Expansion	Jan 2028 - Jun 2040					

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$11.9M

Scope of FY22 Work: EIS Finalization with successful Record of Decision. Advance overall program management and governance strategy for the Station Expansion Project. H Street Bridge utility relocation work. Geotech and SEP early works design.

Anticipated Milestones in FY22:

- Roadmap to Station Expansion (Nov 2021)
- H Street Utility Relocation work begins (Nov 2021)
- Record of Decision (Mar 2022)
- SEP Program Management Office (Apr 2022)

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$2.1B

At this spend level, the following activities could be completed or continue during FY22-26: Establishment of SEP program office; SEP design completion; precedent project design completion and construction underway.

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

SPECIAL PROJECT

Washington Union Station: Near Term Rail Program

Project Sponsor: Amtrak

Partners: Maryland DOT, VRE, Union Station Redevelopment Corporation, Federal Railroad Administration

Type: Major Station

Benefit: Shared

General Project Information	
Full Project Scope	The Near Term Rail program provides design and construction of critical rail and infrastructure projects needed to enhance current operational flexibility of the Washington Union Station rail terminal and to provide for the phasing and capacity expansion of the Long Term Program. Projects within the Near Term Rail Program include: (1) Substation 25A Relocation; (2) Crew Base Renovation; and (3) Satellite Commissary Relocation.
Project Justification	These projects are needed to bring operational infrastructure up to a State of Good Repair, fix safety and security deficits and allow for better and more efficient current and future rail operations at Washington Union Station.

Financial Plan		
Project Cost	Total Project Cost	\$63.1M
	Pre-Construction	\$12.5M
	Property Acquisition	\$0
	Construction	\$50.6M
	Cost Derivation Methodology: The total project cost estimate was calculated during the CONNECT NEC 2035 delivery analysis.	
Funding Sources	Total Project Funding Committed:	\$36.4M
	Federal Sources:	\$0
	Amtrak and Non-Federal Sources:	\$36.4M
	Amtrak Annual Federal Grants	\$36.4M
	Additional Project Funding Required:	\$26.8M
Project Based Cost Allocation (PBCA)	PBCA Candidate:	Yes Notes: N/A
	Agreement Status:	Unknown

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	Pre-construction activities	Oct 2015 - Oct 2021					
Construction	Near Term Rail Program	Nov 2021 - Aug 2028					

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$5.8M

Scope of FY22 Work: Design completion of Crew Base, Substation 25A, and Satellite Commissary. Undertake constructability review of Substation 25A and Satellite Commissary. Commence procurement for Satellite Commissary construction.

Anticipated Milestones in FY22:

- Satellite Commissary Bid Document Submission (Oct 2021)
- Sub 25A Constructability Review Submission (Oct 2021)
- Start West Terminal Facilities Construction Procurement (Oct 2021)
- Sub 25A 100% Design Submission (Jan 2022)
- Award West Terminal Facilities Construction Contract (Apr 2022)

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$28.1M

At this spend level, the following activities could be completed or continue during FY22-26: Complete all design and construction activities associated with the program.

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: Information shown includes Substation 25A Relocation Project, Crew Base Renovation Project and Satellite Commissary Relocation Project.

SPECIAL PROJECT

Washington Union Station:
Claytor Concourse Modernization
Program

Project Sponsor: Amtrak

Partners: Maryland DOT, VRE, Union Station Redevelopment Corporation, Federal Railroad Administration, WMATA

Type: Major Station

Benefit: Shared

General Project Information	
Full Project Scope	<p>This program provides design and construction of immediate operational, safety, and passenger experience improvements to the existing passenger concourse at Washington Union Station, known as the Claytor Concourse. Prior to realizing the full Concourse Modernization Project, there are two predicate projects that need to be implemented: the Heating, Ventilation, and Air Conditioning (HVAC) Relocation Project and the Amtrak Police Department Relocation (APD) Project. In FY18, Amtrak completed the first predicate project the relocation and replacement of critical (HVAC) infrastructure. The APD requires relocation from their current location in the station to a new, improved facility outside the Claytor Concourse. Design of the new APD 10,000 sf facility was completed in FY18 and construction began in FY19 but was canceled due to new direction from Amtrak leadership. In FY20 and FY21 a design alternative for the APD relocation was progressed. The full Claytor Concourse Modernization will include the renovation of critical passenger areas, the installation of the new glass curtain wall as an entrance to the station from the platforms and the footprint for a new, expanded Metropolitan Lounge (formerly known as the ClubAcela lounge). The modernization will also include constructing back of the house uses on the First Street Level so as to relocate the existing support space from the concourse floor. It will also support the improvement of critical building infrastructure needed to enable the concourse expansion. This infrastructure includes a new emergency generator for the building as well as a new, expanded electrical substation. In FY20, FRA requested that Amtrak consider having USRC deliver the project given the complex ownership issues at the station and In FY21, Amtrak resumed leading the project.</p>
Project Justification	<p>These improvements are needed to correct safety egress issues as well as capacity limitations and to improve the overall passenger experience for Amtrak and commuter riders.</p>

Financial Plan



Project Cost	Total Project Cost	\$166.9M
	Pre-Construction	\$33.0M
	Property Acquisition	\$0
	Construction	\$133.9M
	Cost Derivation Methodology: The total project cost estimate was calculated during the CONNECT NEC 2035 delivery analysis.	
Funding Sources	Total Project Funding Committed:	\$166.9M
	Federal Sources:	\$2.4M
	<i>FRA Rail Safety Grant</i>	\$2.4M
	Amtrak and Non-Federal Sources:	\$164.6M
	<i>Amtrak Annual Federal Grants</i>	\$96.0M
	<i>RRIF Loan - Amtrak</i>	\$65.0M
	<i>Union Station Redevelopment Corporation</i>	\$1.4M HVAC Construction
	<i>Union Station Redevelopment Corporation</i>	\$0.9M Concourse Planning/Design
	<i>Maryland MTA</i>	\$0.5M HVAC Construction
	<i>Maryland MTA</i>	\$0.5M Concourse Planning/Design
	<i>Akridge</i>	\$0.2M Concourse Planning/Design pre FY19
	<i>VRE</i>	\$0.1M Concourse Planning/Design
	Additional Project Funding Required:	\$0
Project Based Cost Allocation (PBCA)	PBCA Candidate:	Yes Notes: N/A
	Agreement Status:	Not started

SPECIAL PROJECT

Washington Union Station: Claytor Concourse Modernization Program (continued)

Project Sponsor: Amtrak**Partners:** Maryland DOT, VRE, Union Station Redevelopment Corporation, Federal Railroad Administration, WMATA**Type:** Major Station**Benefit:** Shared

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	Pre-construction activities	Nov 2015 - Sep 2022					
Construction	Claytor Concourse Modernization Program	Oct 2022 - Oct 2025					

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$8.7M

Scope of FY22 Work: The Amtrak Police Department Relocation Project will complete design on the APD Patrol Building and will begin and complete construction on the fit out of several suites in the REA Building. The APD program will be relocated and final occupation of the REA Building suite will take place. For the Concourse Modernization Project Amtrak will continue advancement of the project through final design and preconstruction activities. Amtrak will engage with stakeholders on formulation and execution of necessary agreements to successfully execute and deliver the Project. Amtrak will engage with WMATA on partnership to repair the structural slab on the west side of the Station Complex.

Anticipated Milestones in FY22:

- Concourse: Execute Stakeholder Project Agreement (Oct 2021)
- APD Relocation: Complete Patrol Building Design (Oct 2021)
- Concourse: Resume Final Design Activities (Nov 2021)
- APD Relocation: REA Fit Out Construction Complete (Jan 2022)
- Concourse: Execute WMATA Agreement for Slab Repairs (Jul 2022)
- Concourse: Complete Final Design (Sep 2022)

One Year Plan Notes: Stakeholder Project: Sign Agreement between USRC, FRA, USI and Amtrak outlining roles, responsibilities, funding, etc.

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$155.2M

At this spend level, the following activities could be completed or continue during FY22-26: Complete all design and construction associated with the program

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: Information shown includes HVAC Relocation Project, APD Relocation Project and Concourse Modernization Project.

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SPECIAL PROJECT

Washington Union Station:
Subbasement Program

Project Sponsor: Amtrak

Partners: Maryland DOT, VRE, Union Station Redevelopment Corporation, Federal Railroad Administration

Type: Major Station

Benefit: Shared


General Project Information

Full Project Scope	This program includes two projects: Track 22 and the Subbasement Reconstruction. The Track 22 project will not only provide Amtrak and VRE with an additional revenue track by which to board and alight trains, it is a necessary precursor to the Subbasement Structural Replacement project so as to provide an additional run-through track to remain open during the Subbasement project. The Subbasement Reconstruction project will replace the bridging structure at the north portal of the First Street Tunnel spans rail tracks over a back of house station area (known as the Subbasement). The structure is in a state of disrepair and requires replacement. The critical SOGR Project will replace the structurally deficient beams, girders and columns with a new structural support system. The track slab will be replaced and railroad infrastructure will be replaced in kind.
Project Justification	The Subbasement Reconstruction program is a necessary State of Good Repair project, as the Subbasement currently has temporary shoring to keep the track bed for the run-through tracks intact. Collapse of the Subbasement would have significant impacts to not only the NEC but the entire eastern rail network. Track 22 will allow the Subbasement Reconstruction to proceed without major cuts to current service levels.

Financial Plan

Project Cost	Total Project Cost	\$125.6M
	Pre-Construction	\$24.9M
	Property Acquisition	\$0
	Construction	\$100.7M
	Cost Derivation Methodology: The total project cost estimate was calculated during the CONNECT NEC 2035 delivery analysis.	
Funding Sources	Total Project Funding Committed:	\$38.0M
	Federal Sources:	\$19.0M
	FRA THUD Grant	\$19.0M Track 22
	Amtrak and Non-Federal Sources:	\$19.0M
	Other Amtrak Sources	\$12.7M
	VRE	\$6.3M Matching funds for FRA THUD Grant for Track 22
	Additional Project Funding Required:	\$87.6M
	Proposed Federal Sources:	
Project Based Cost Allocation (PBCA)	Proposed Amtrak and Non-Federal Sources	\$87.6M
	Amtrak GCAP	\$87.6M
	PBCA Candidate:	Yes Notes: N/A
	Agreement Status:	Unknown

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	Pre-construction activities	Nov 2015 - Jun 2023					
Construction	Track 22 Reconstruction	Mar 2020 - Jan 2023					
Construction	Subbasement Utility Infrastructure	Oct 2022 - Jun 2023					
Construction	Subbasement Structural Replacement	Jun 2023 - Dec 2027					

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$29.8M

Scope of FY22 Work: The Track 22 Reconstruction project contractor will install the new platform, walkway and canopy, and early track/ballast work. Contractor will prep work needed for elevator and escalator to be installed in early FY22. Amtrak Force account team to begin to reconstruct OCS, Track, and Signals towards the end of the FY22. The Subbasement Structural Replacement project will continue to progress through final design and preconstruction activities. Stakeholder coordination will be ongoing during FY22 as precedent projects continue to develop in support of enabling construction. The Subbasement Utility Relocation Project will mitigate existing storage impacts by enabling Union Station Invesco (USI) to relocate back of house program to other areas in the Station. Union Station Redevelopment Corporation (USRC) will progress the design of substation and generator relocations to final design. USRC and USI will begin construction activities associated with the relocation of existing hydraulic pumps.

Anticipated Milestones in FY22:

- Subbasement Utility: Agreement with USI (Oct 2021)
- Subbasement Utility: Agreement with USRC/USI on Pumps (Nov 2021)
- Subbasement Utility: Agreement with USRC/USI on Sub/Gen (Nov 2021)
- Subbasement Structural: Construction Submission (Dec 2021)
- Track 22: Amtrak Temporary Catenary Removal (Mar 2022)
- Subbasement Structural: Final Rail Ops Plan (Apr 2022)
- Track 22: Remove Protective Barrier Track 22/23 (May 2022)
- Subbasement Structural: Bid Submission (Jul 2022)

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$102.0M

At this spend level, the following activities could be completed or continue during FY22-26: Complete all design and construction activities associated with the program.

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: Information shown includes Track 22 Reconstruction Project, Subbasement Structural Replacement Project and the Subbasement Utility Relocation Project.

SPECIAL PROJECT

VRE Midday Storage Facility

Project Sponsor: VRE

Partners: Amtrak, District DOT

Type: Improvement

Benefit: Sole Commuter

General Project Information

Full Project Scope	The Midday Storage Facility project will replace the current storage space leased from Amtrak at the Ivy City Coach Yard in the District of Columbia. The project will include planning, designing, and constructing a permanent midday storage facility for VRE trains that travel to the District. The proposed facility will be used to store commuter trains on weekdays between the inbound morning commute and the outbound afternoon commute.
Project Justification	Midday train storage in the Washington, DC metropolitan region is critical to VRE’s continued operations and growth. VRE operates trains providing daily commuter rail service from as far as Manassas and Fredericksburg, Virginia, into Union Station. During the weekday midday, those trains need to be parked near Union Station and off the main line tracks. Currently, VRE stores trains in Amtrak’s Ivy City rail complex in the District of Columbia. The current and future demand for train storage and maintenance functions within the existing Ivy City rail complex exceeds available space. To accommodate growth of intercity passenger rail service, Amtrak needs the tracks that VRE is using for maintenance and storage.

Financial Plan

Project Cost	Total Project Cost	\$99.4M	
	Pre-Construction	\$18.4M	
	Property Acquisition	\$6.6M	
	Construction	\$74.4M	
	Cost Derivation Methodology: The total project cost estimate was calculated during the CONNECT NEC 2035 delivery analysis.		
Funding Sources	Total Project Funding Committed:	\$99.4M	
	Federal Sources:	\$61.6M	
	FTA Formula Grants	\$61.6M	Section 5307 and 5337 funds
	Amtrak and Non-Federal Sources:	\$37.8M	
	Virginia	\$33.8M	State match to federal funds
	VRE	\$4.0M	VRE/local match to federal funds
Project Based Cost Allocation (PBCA)	Additional Project Funding Required:	\$0	
	PBCA Candidate:	No (Sole benefit)	Notes: N/A
	Agreement Status:	Not applicable	

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	PE/NEPA	Aug 2016 - Sep 2021					
Pre-construction	Final Design	Oct 2022 - Jan 2023					
Construction	VRE Midday Storage Facility	Mar 2023 - Nov 2025					

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$0.5M

Scope of FY22 Work: Finalize project agreement and continue design.

Anticipated Milestones in FY22:

- Begin Final Design (Dec 2021)

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$90.1M

At this spend level, the following activities could be completed or continue during FY22-26: Design, permitting, procurement, pre-construction and construction activities for VRE Midday Storage Facility

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

SPECIAL PROJECT

WAS First Street Tunnel Improvement Project

Project Sponsor: Amtrak

Partners: VRE

Type: Improvement

Benefit: Shared

General Project Information	
Full Project Scope	<p>Install cab/no wayside Amtrak Rule 562 signaling between "A" Interlocking and CP Virginia, with two intermediate block points. The system will use software-based signaling instead of relay-based so "timers" can be used to maximize capacity.</p> <p><i>This project was developed through the C35 project delivery analysis. The project scope, schedule, and budget details are currently under review by Amtrak and will be revisited during C37.</i></p>
Project Justification	<p>This project will improve safety of trains in the tunnel by adding signal enforcement, as well as increasing capacity and train speed to facilitate WAS rebuilding and daily operations.</p>

Financial Plan	
Project Cost	Total Project Cost \$4.0M
	Pre-Construction \$0.8M
	Property Acquisition \$0
	Construction \$3.2M
	Cost Derivation Methodology: The total project cost estimate was calculated during the CONNECT NEC 2035 delivery analysis.
Funding Sources	Total Project Funding Committed: \$0
	Additional Project Funding Required: \$4.0M
Project Based Cost Allocation (PBCA)	PBCA Candidate: Yes Notes: N/A
	Agreement Status: Unknown

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	Pre-construction activities	Sep 2023 - Mar 2025					
Construction	WAS First Street Tunnel Improvement Project	Mar 2025 - Jun 2026					

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$0

Scope of FY22 Work: No activity planned for FY22

Anticipated Milestones in FY22:

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$0.4M

At this spend level, the following activities could be completed or continue during FY22-26: Pre-construction activities, WAS First Street Tunnel Improvement Project

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

SPECIAL PROJECT

High Capacity Signaling:
Washington to Baltimore

Project Sponsor: Amtrak

Partners: Maryland DOT

Type: Improvement

Benefit: Shared

General Project Information

Full Project Scope	<p>This project will implement new higher capacity using the Amtrak Rule 562 cab/no wayside signal system on all tracks between the northern limits of "C" Interlocking (MP 134.7) and the southern limits of Bridge Interlocking (MP 98.3), just south of the B&P Tunnel. This system would replace the existing cab/wayside signal system, which has signal block lengths of about 7,000 to 11,000 feet with the newer cab/no wayside architecture and signal block lengths of about 2,000 to 2,500 feet.</p> <p><i>This project was developed through the C35 project delivery analysis. The project scope, schedule, and budget details are currently under review by Amtrak and will be revisited during C37.</i></p>
Project Justification	<p>This project is needed to significantly improve minimum intervals between trains from the current signal system headway of about 7 minutes to about 3 minutes, in order to accommodate increased Amtrak and MARC train frequencies. Because of limited tracks and dissimilar stopping patterns, the CONNECT NEC 2035 Integrated Operating Plan often dispatches trains 3 minutes apart northbound from Washington Union Station and southbound from Baltimore Penn Station. All MARC trains and almost all Amtrak trains serve BWI Airport Rail Station, which continues to have only 2 platform edges (Tracks 1 and 3 only) in 2035. This means required close train spacing between Grove and Bridge Interlockings, necessitating a higher capacity signaling system.</p>

Financial Plan

Project Cost	Total Project Cost	\$337.3M	
	Pre-Construction	\$66.8M	
	Property Acquisition	\$0	
	Construction	\$270.5M	
	Cost Derivation Methodology: The total project cost estimate was calculated during the CONNECT NEC 2035 delivery analysis.		
Funding Sources	Total Project Funding Committed:	\$0	
	Additional Project Funding Required:	\$337.3M	
Project Based Cost Allocation (PBCA)	PBCA Candidate:	Yes	Notes: Signal 90% Diagrams, Cost Estimates & Scheduled Milestones to be reviewed and approved by Agencies Six (6) Months in advance of Construction
	Agreement Status:	Not started	

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	Pre-construction activities	Jun 2024 - Jun 2026					Bilateral agreements to commence six months in advance of construction
Pre-construction	Negotiate Amtrak-MDOT Bilateral Agreement	Dec 2025 - Jan 2026					
Construction	WAS-BAL High Capacity Signal Project	Jun 2026 - Aug 2033					

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$0

Scope of FY22 Work: No activity planned for FY22

Anticipated Milestones in FY22:

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained



Target Spend in FY22-26: \$74.4M

At this spend level, the following activities could be completed or continue during FY22-26: Complete pre-construction activities and begin construction

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Preparation Activities	Preparation Activities	Jul 2024 - Jan 2026					
Project Execution	Bayview to Perryville, MD NEC Section Capacity & Performance Planning Study	Jan 2026 - Jul 2027					

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$0

Scope of FY22 Work: No activity planned for FY22

Anticipated Milestones in FY22:

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$2.5M

At this spend level, the following activities could be completed or continue during FY22-26: Begin planning study

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

SPECIAL PROJECT

Anacostia Interlocking

Project Sponsor: Amtrak

Partners: Maryland DOT

Type: Improvement

Benefit: Shared

General Project Information	
Full Project Scope	<p>This project includes a new universal Interlocking located north of Anacostia River (MP AP-132), which would divide the 7-mile double track segment between Washington Union Station and New Carrollton. Additionally, #32.75 crossovers (80 mph) are proposed.</p> <p><i>This project was developed through the C35 project delivery analysis. The project scope, schedule, and budget details are currently under review by Amtrak and will be revisited during C37.</i></p>
Project Justification	<p>This project provides additional operational flexibility to reduce service impacts.</p>

Financial Plan		
Project Cost	Total Project Cost	\$26.9M
	Pre-Construction	\$5.5M
	Property Acquisition	\$0
	Construction	\$21.4M
	Cost Derivation Methodology: The total project cost estimate was calculated during the CONNECT NEC 2035 delivery analysis.	
Funding Sources	Total Project Funding Committed:	\$0
	Additional Project Funding Required:	\$26.9M
Project Based Cost Allocation (PBCA)	PBCA Candidate:	Yes Notes: N/A
	Agreement Status:	Unknown

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	Pre-construction activities	Jul 2023 - Jan 2025					
Construction	Construct first half of crossovers	Jan 2025 - Mar 2025					
Construction	Construct second half of crossovers	Mar 2025 - May 2025					

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$0

Scope of FY22 Work: No activity planned for FY22

Anticipated Milestones in FY22:

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$26.9M

At this spend level, the following activities could be completed or continue during FY22-26: Complete construction of new interlocking

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

SPECIAL PROJECT

Riverside Yard Heavy Maintenance Building

Project Sponsor: Maryland DOT

Partners:

Type: Improvement

Benefit: Sole Commuter

General Project Information

Full Project Scope	With the recent addition of new locomotives requiring an overhead crane with significant vertical clearance, and the need to significantly reduce reliance on third-party contractor maintenance facilities; MDOT MTA has identified the need for a new Heavy Maintenance Building to be installed at its Riverside Rail Yard with new capabilities and additional maintenance bays to free the existing main shop building and streamline running maintenance and federally required periodic inspections performed on MDOT MARC locomotives and coaches, including the recently purchased SC-44 locomotives. The proposed Riverside Heavy Maintenance Building (RHMB) will supplement the existing main shop building, and will include a 30-ton overhead crane, wheel truing machine, drop table system, a retractable fall protection system, fluid distribution system and other shop equipment along with four new maintenance bays to perform heavy maintenance on locomotives and coaches. The new capabilities and additional maintenance bays will free the existing main shop building to streamline running maintenance and federally required periodic inspections performed on MDOT MTA MARC locomotives and coaches. The expanded facility would also be made accessible to Penn Line trains via the Penn-Camden Connector.
Project Justification	More facilities are needed for MDOT MTA to adequately maintain and inspect these locomotives. The acquisition of Riverside Yard allows MDOT MTA the ability to construct the required facilities.

Financial Plan

Project Cost	Total Project Cost	\$64.2M
	Pre-Construction	\$4.9M
	Property Acquisition	TBD
	Construction	\$59.3M
	Cost Derivation Methodology: The project cost estimate is based on the MARC Cornerstone Plan.	
Funding Sources	Total Project Funding Committed:	\$57.2M
	Federal Sources:	\$51.0M
	M53-	\$51.0M
	Amtrak and Non-Federal Sources:	\$6.2M
	State Grant Match	\$5.3M
	Non-grant	\$0.9M
Project Based Cost Allocation (PBCA)	Additional Project Funding Required:	\$7.0M
	PBCA Candidate:	No (Sole benefit) Notes: N/A
	Agreement Status:	Not applicable

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	Design & Engineering	Jun 2019 - Nov 2020					
Construction	Construction	Feb 2021 - Aug 2023					
Construction	Equipment, Drop Table & Wheel Truing Machine	Feb 2021 - Aug 2023					

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$36.6M

Scope of FY22 Work: Construction will perform 65% of the work in FY22

Anticipated Milestones in FY22:

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$46.9M

At this spend level, the following activities could be completed or continue during FY22-26: Complete construction of heavy maintenance building

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

SPECIAL PROJECT

Next Generation High Speed Fleet Infrastructure: Ride Quality Investment

Project Sponsor: Amtrak

Partners: NEC Operators

Type: Improvement










Benefit: Shared

General Project Information

Full Project Scope	This project, which consists of two parts, will establish the means and methodology for performing reference surfacing on the NEC main line with the potential for expansion to other lines and maintenance and construction operations. The first project element is the establishment of the positioning network and data management system. This will include a survey of all tracks on the NEC. The second element is the acquisition of three sets of equipment for the ongoing surfacing of the NEC. The purpose of this project is to improve current surfacing practices, which will result in more efficient maintenance operations and better ride quality.
Project Justification	This project is necessary in order to run trains at maximum authorized speeds of 160mph. Amtrak’s current surfacing methods are inconsistent throughout the NEC and do not put the track back to a designed position. These methods are outdated and cannot be sustained on a true high speed railroad. The expected result of this project is that all components of surfacing (survey, design, and solutions) will be connected by GPS positioning on the track. By tamping track to a design at a known location, maintenance practices will be reliable and repeatable. The time between tamping maintenance will increase and the wear and tear on track and vehicle components will decrease. This will result in desired track geometry and therefore higher ride quality and passenger comfort.

Financial Plan

Project Cost	Total Project Cost	\$67.0M
	Pre-Construction	\$5.3M
	Property Acquisition	\$0
	Construction	\$61.7M
	Cost Derivation Methodology: The project cost estimate was calculated during the conceptual design phase.	
Funding Sources	Total Project Funding Committed:	\$67.0M
	Federal Sources:	\$0
	Amtrak and Non-Federal Sources:	\$67.0M
	RRIF Loan - Amtrak	\$67.0M
	Additional Project Funding Required:	\$0
Project Based Cost Allocation (PBCA)	PBCA Candidate:	Yes Notes: N/A
	Agreement Status:	Unknown

Project Schedule - Funding Unconstrained							
Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Pre-construction	Final Design	Jul 2017 - May 2023					HNTB and Plasser Design Work
Pre-construction	Amtrak Labor for Survey Support	Jul 2017 - Jul 2021					RWP support for field survey work
Pre-construction	Project Management for Design	Jul 2017 - May 2023					Project Management for Design
Pre-construction	NEC Baseline Survey	Oct 2019 - Jul 2021					NEC LiDAR Survey
Pre-construction	LiDAR Data Extraction	Oct 2021 - May 2023					Contractor Services
Pre-construction	Amtrak IT Support	Oct 2021 - May 2023					Design Review, LiDAR Data check
Construction	Additional CORs Network Densification	Jul 2018 - Dec 2020					Additional Nodes where required to fill in gaps along the NEC.
Construction	Purchase (3) Amberg Survey Trolleys	Sep 2021 - Oct 2021					Absolute position of the track centerline and both rails
Construction	Reference Surfacing System Addon for Tampers	Oct 2021 -					RWP support for Amberg Trolley Survey work
Construction	RTS Track Design 15 Miles 3 Pilot Locations	Oct 2021 - Mar 2022					Estimate based on planned equipment addons.
Construction	Engineering Support	Oct 2021 - May 2023					Engineering support includes survey and systems support.
Construction	RWP Labor Amberg Trolley Survey work	Oct 2021 - May 2023					Engineering support includes survey and systems support.
Construction	Contingency	Oct 2021 - May 2023					High Speed Surfacing Gang
Construction	RTS Surfacing 15 Miles with New Tampers	Mar 2022 - Sep 2022					Amtrak In House Design

SPECIAL PROJECT

Next Generation High Speed Fleet Infrastructure: Ride Quality Investment (continued)

Project Sponsor: Amtrak

Partners: NEC Operators

Type: Improvement

Benefit: Shared

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$4.5M

Scope of FY22 Work: 1. Complete the extraction 3D points Track Assets from LiDAR point cloud data collected with a mobile terrestrial system. The extraction 3D points Track Assets data will be stored in the in the Reference Surfacing Database.2. This project plans to purchase (3) new Ambreg Trolley track measuring systems. These trolleys will be used to measure track alignment and absolute track positions along the right of way. The Trolleys measurements will be stored in the Track Reference Surfacing Database.3. Amtrak Engineering Track Reference Surfacing designs. The Track Design will provide 15 design miles of Track at 3 pilot locations to test Reference Surfacing. The plan is to select 5-mile locations in the New England, New York, and Philadelphia Division as pilot locations. The Ambreg Trolley we be used to provide the existing Track Alignment and Absolute Track Positions. Engineering Track Design will be uploaded to the new Trolleys via AGGS.4. Amtrak Track Production will test Reference Surfacing at the at the 3 pilot locations. The New High Speed to test Reference Surfacing.5. Amtrak IT provide drawings storage / file management system.

Anticipated Milestones in FY22:

- Complete the extraction 3D points Track Assets (Dec 2021)
- Complete Design for 15 Miles Track (Mar 2022)
- Complete Reference Surfacing for 15 Miles (Sep 2022)

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$7.4M

At this spend level, the following activities could be completed or continue during FY22-26: Completion of reference surfacing pilot locations

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A

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SPECIAL PROJECT

Next Generation High Speed Fleet Infrastructure: Safety Mitigation

Project Sponsor: Amtrak

Partners: NEC Operators

Type: Improvement

Benefit: Shared

General Project Information

Full Project Scope	<p>This project will make several investments to allow Amtrak to permit operation of Tier III Trainsets on the NEC at up to the maximum speed of FRA Tier III standards. Amtrak undertook a detailed and lengthy risk analysis that demonstrates that this standard can be met with a limited investment in infrastructure improvements designed to limit intrusions on to the right of way and/or high- speed tracks in designated high-speed zones expected to be used by Acela. These investments include the following 1. Fence: Install 20 miles of security fencing, 1/2 mile of guardrails, and other provisions associated with the Tier III FRA Waiver.2. PTSO: Develop the conceptual design and functionality of an Enhanced PTC positive Stop Release system that will be deployed throughout Amtrak’s locomotive and cab-car fleet.3. LCCAS: Limits Compliance and Collision Avoidance System. Explore technology-based solutions pertaining to engineering department maintenance-of-way (MOW) working limits compliance and collision avoidance along the right of way (“ROW”) involving rubber tired, tracked, high-rail, and rail borne vehicles or equipment (collectively “MOW Equipment”) that do not or do no reliably shunt the railroad signal system.4. ADJ TK: Adjacent Tracks. FRA-2014-0124 Amtrak NEC Train Speeds Decision Letter requires adjacent tracks that are within 25 feet (track centers) of high-speed tracks for one-half mile or more be upgraded to meet or exceed one track class above their rated class, but not less than class 2. Blaine Chemical Siding and Merckens Chocolate Lead have been identified as locations in MBTA territory which require upgrades under this program. The scope of work for the project will include replacing ties, joint bars, and other OTM as needed, along with surfacing to bring the track up to a minimum of FRA Class 2. 5. SAFE PROT: SAFE PROTECTION FOR UNINTENDED ENTRY ON HS TK. The Framingham Lead connection between the Framingham Secondary and Northeast Corridor in Mansfield, MA has been identified as a location in MBTA territory which require upgrades under this program. The scope of work for the project will include installation of a split point derail, approach track, and associated C&S equipment along with surfacing. This work is to be 100% funded by Amtrak and performed by Amtrak forces.</p>
Project Justification	<p>These investments will increase intercity travels speeds and reduce overall travel time.</p>

Financial Plan

Project Cost	<table><tr><td>Total Project Cost</td><td>\$61.1M</td></tr><tr><td>Pre-Construction</td><td>\$0</td></tr><tr><td>Property Acquisition</td><td>\$0</td></tr><tr><td>Construction</td><td>\$61.1M</td></tr></table>	Total Project Cost	\$61.1M	Pre-Construction	\$0	Property Acquisition	\$0	Construction	\$61.1M
Total Project Cost	\$61.1M								
Pre-Construction	\$0								
Property Acquisition	\$0								
Construction	\$61.1M								
	<p>Cost Derivation Methodology: The project cost estimate is based on the latest financial plan for this project, provided by Amtrak.</p>								

Funding Sources

Total Project Funding Committed:	\$61.1M
Federal Sources:	\$0
Amtrak and Non-Federal Sources:	\$61.1M
RRIF Loan - Amtrak	\$61.1M

Additional Project Funding Required: **\$0**

Project Based Cost Allocation (PBCA)

PBCA Candidate:	Yes	Notes: N/A
Agreement Status:	Unknown	

Project Schedule - Funding Unconstrained

Phase	Activity	Schedule	FY22	FY25	FY30	FY35	Notes
Construction	Fence: Install 20 miles of security fencing.	Sep 2017 - Oct 2020					Associated with the Tier III FRA Waiver.
Construction	Project Management	Sep 2017 - Jun 2023					Project Management
Construction	PTSO: Enhanced PTC positive Stop Release system	Sep 2017 - Jan 2022					Stop Release system for Amtrak's locomotive and cab-car fleet
Construction	Contingency	Sep 2017 - Jun 2023					Project Contingency
Construction	ADJ TK: Adjacent Tracks Upgrade	Sep 2019 - Jul 2021					Upgraded Sidings to meet or exceed one track class
Construction	LCCAS: Limits Compliance and Collision Avoidance Sys	Sep 2020 - Jun 2023					Collision avoidance along the right of way ("ROW").
Construction	SAFE PROT FOR UNINTENDED ENTRY ON HS TK	Apr 2021 - Dec 2021					Install Split Derail on the Framingham Lead in Mansfield

One Year Plan (FY22) - Funding Constrained

Planned Expenditure in FY22: \$27.7M

Scope of FY22 Work: The installation of fencing, and guard rails at select locations on the NEC, per Tier III FRA Waiver. Installation of intrusion mitigation fencing and guiderail installation at 18 locations on the NEC and other work required.

Anticipated Milestones in FY22:

- PTSO: NTP A/E Task Order to Create Technical Document (Nov 2021)
- PTSO: NTP Solution for PTSO Agreement (Nov 2021)
- SAFE PROT: Install Split Point Derail on Framingham Lead (Dec 2021)

One Year Plan Notes: N/A

Five Year Plan (FY22-26) - Funding Unconstrained

Target Spend in FY22-26: \$32.8M

At this spend level, the following activities could be completed or continue during FY22-26: Plan to complete the LCCAS: Limits Compliance and Collision Avoidance System design and installation. Plan to complete the PTSO: Enhanced PTC positive Stop Release System design and installation. Plan to install Split Derail on the on the Framingham Lead in Mansfield, MA.

For more details on the near-term plan, see project schedule above.

Five Year Plan Notes: N/A