NEW YORK STATE
RAIL PLAN

2009

APPENDIX B

New York State Department of Transportation | David A. Paterson, Governor | Astrid C. Glynn, Commissioner

APPENDIX B

LONG RANGE SERVICE AND INVESTMENT PROGRAM FOR PASSENGER RAIL (2009 – 2013)

Introduction

This Appendix describes the Long Range Service and Investment Program (LRSIP) required by the Federal Passenger Rail Investment and Improvement Act of 2008. These are the projects that the state expects to undertake or support, in whole or in part, to improve intercity passenger rail service in the future. The ultimate decisions on costs and funding of these projects are subject to future discussions with the involved rail partners. This investment program was developed from the comprehensive inventory of rail system needs described earlier in this report, specifically those projects that improve intercity rail passenger service.

This Appendix presents the list of projects contained in the LRSIP. These include projects that solely benefit passenger rail service, as well as projects that benefit passenger rail service and improve infrastructure of the owning railroads, which can be either commuter railroads or freight railroads. Improvements are presented on each New York's passenger rail corridors, including the Empire Corridor from Albany south to New York City, (Hudson line), Empire Corridor west from Albany to Niagara Falls (Empire Corridor West) and on the Adirondack line from Albany north to the Canadian border. The combination of projects on each segment of the corridor provide significant benefits to the passenger rail traveling public.

These projects will improve rail infrastructure including track, control signals and passenger stations across the state and will result in significant improvements to intercity passenger rail service. These investments address critical capacity and bottleneck constraints as well as operational improvements that will improve the fluidity of the multi-purpose rail network. The combination of these projects will reduce delays, improve reliability and will result in increased market demand for passenger rail service.

Project groupings on the Hudson and Empire Corridor West segments include capacity, signal improvement, and station enhancements. The addition of capacity and improved interlockings provides improved fluidity of the system for both passenger and freight trains. When operating freight trains with faster passenger trains, train capacity is at a premium due to the diverse operating speeds. Improved interlockings and universal crossovers (from one track to another) provide the dispatchers greater flexibility to move trains around one another, which benefits both freight and passenger trains. Enhanced or improved signaling reduces areas with restrictive speeds or, as in the case of replacing the existing pole lines on the Hudson Line, reduces significant delays due to signal failures, thus improving on-time-performance and reliability.

Station projects that add additional track capacity to serve more trains or provide for new or improved amenities are a distinct benefit for passengers, making rail travel

more enjoyable for the customer and inducing additional travel. High level platforms are also a key enhancement for station projects.

Projects along the Adirondack Route are primarily focused on track rehabilitation and additional capacity along this single track main line that will enhance operational reliability for both passenger and freight. These projects, along with congestion relief at the Border inspection facility, will provide Amtrak passengers with improved reliability and enhanced running times.

The Department views these combined projects as a systematic approach to improving passenger rail service. Improvements west of Albany enhance overall service reliability for trains travelling south of Albany. Trains making their scheduled on-time stops at Albany or Schenectady from the west will not delay other trains operating from New York City to Albany. System investments realize systemwide improvements, resulting in benefits to all intercity rail customers.

Investment Assumptions

The LRSIP presents the detailed information required by Federal law for each near-term project, including:

- project location, description and estimated cost;
- a description of public and private benefits; and,
- a proposed project funding plan.

Anticipated future LRSIP projects are also shown, but without the project and funding detail. These details will be added to projects as they move closer to implementation.

The projects presented in the LRSIP often have many benefits, not only to the users and the public, but also to the owning railroad. Following are the cost-sharing assumptions used for the projects contained in the passenger rail investment program:

Projects that exclusively benefit intercity passenger rail service:

- Federal: 80%
- State/Amtrak or alternative intercity service provider: 20%

Projects that improve intercity passenger rail service and also benefit the host railroad:

- Host railroad: 50%
- Federal: 40%, (80% of government share)
- State: 10%, (20% of government share)

Projects that improve intercity passenger rail and also benefit higher volume commuter rail service, with the cost-sharing based on the share of facility usage:

- Commuter railroad: up to 75%
- Federal: 20%, (80 % of non-commuter railroad share)
- State: 5%, (20% of non-commuter railroad share)

Passenger train rolling stock:

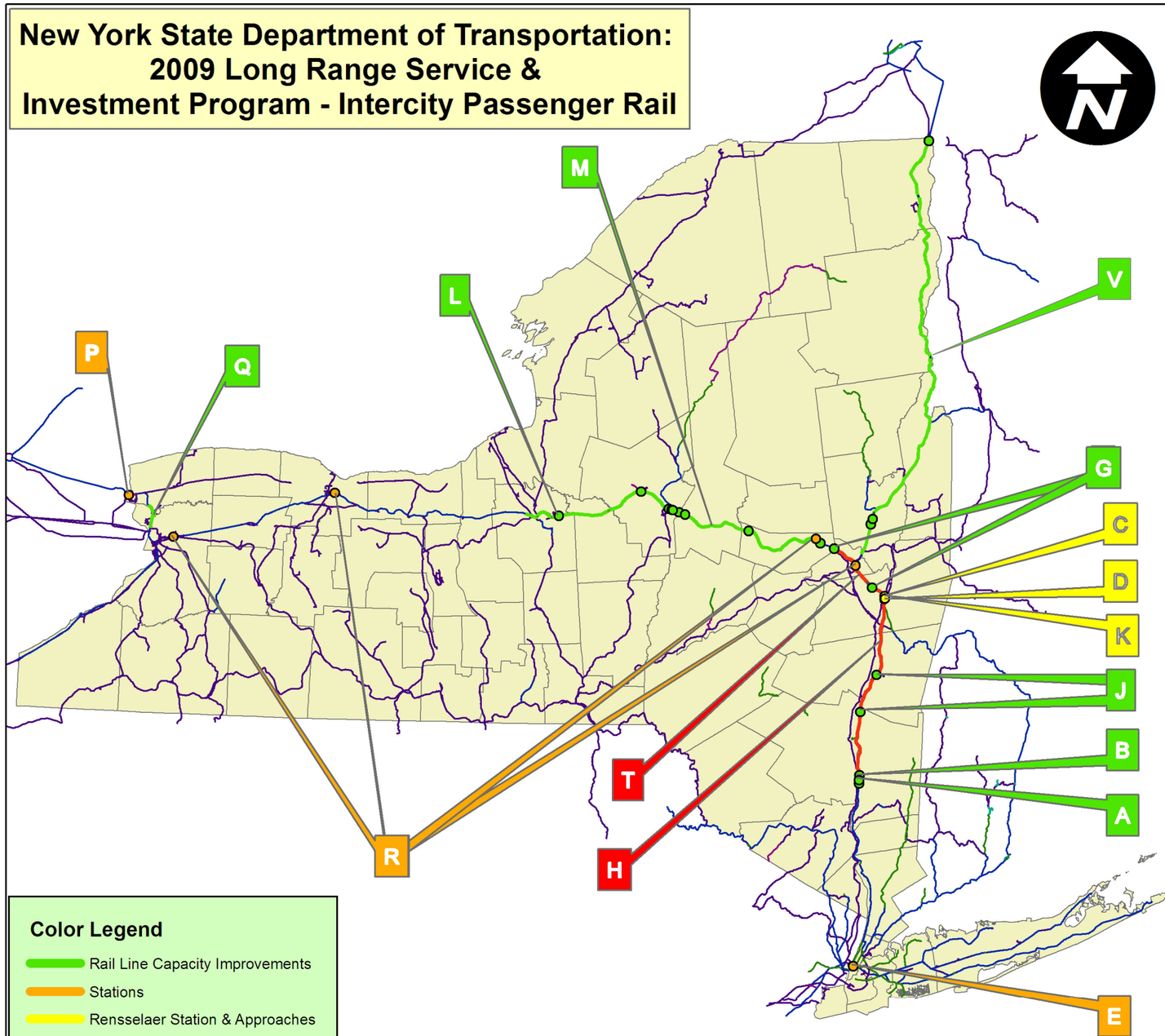
- Equipment replacement: Amtrak 100%
- Equipment expansion: Amtrak or alternative intercity service provider: 50%; Federal: 40%; State: 10%

The LRSIP should be considered a program of projects, in which the timing and allocation of state resources for individual projects may be revised from time to time in order to use available public and private funding efficiently and to implement critical projects as quickly as possible. Adjustments to this plan may be made in the future based on the results of on-going planning studies including the Empire Corridor West Railroad Transportation Planning Study and the Binghamton Rail Passenger Service Study. In addition to these and other planning studies, decisions on future project needs and implementation should result from a cooperative information and data sharing process between the state and its railroad partners. The LRSIP is contained as an appendix to the State Rail Plan in order to facilitate revision.

The LRSIP is also slightly over-programmed in terms of state and federal funding, similar to long range investment programs for other modes. This is done given traditional capital program uncertainties and in order to have sufficient projects identified to utilize available funding in case certain projects are delayed.

The LRSIP includes a near-term (2009 – 2013) project cost estimate for rail transportation infrastructure and related passenger access improvements as part of the Moynihan Station West project. As the overall project scale and scope become more fully developed, discussions among the various involved parties will determine the sharing of the non-federal costs.

The following map depicts the initial rail passenger investment program. The map shows the location of each proposed rail investment contained in the initial plan. A project description and total cost is also provided. A listing of each project including a complete project description, benefits and funding allocation is also provided.



	2009 Long Range Service & Investment Program Intercity Passenger Rail		
Project ID	**Capital Project Title**	**Total Cost $M**	**State Rail $M**
A	Empire Corridor Congestion Relief: Poughkeepsie Yard	$30.366	$3.037
B	Empire Corridor Capacity Improvement: Third Main Line Track - Poughkeepsie	$13.950	$0.698
C	Rensselaer Phase II : 4th Station Track	$12.000	$2.400
D	Rensselaer Phase III: CP-142 Track Realignment	$15.210	$3.042
E	Moynihan Station: Redevelopment of Farley Building	$280.000	TBD
F *	Empire Service Train Fleet Life-Cycle Replacement	$125.000	$0.000
G	Empire Corridor Congestion Relief: Capital District	$16.957	$1.248
H	Train Control System Communications Modernization: Hudson Subdivision	$10.000	$1.000
J	Empire Corridor Congestion Relief: Hudson - Tivoli	$20.027	$4.005
K	Livingston Avenue Bridge - Rehabilitation: Modernization and achieve State Of Good Repair	$28.935	$2.894
L	Empire Corridor Congestion Relief: Syracuse	$6.350	$0.765
M	Empire Corridor Congestion Relief: Mohawk Valley	$12.597	$1.428
P	Niagara Falls International Rail Station / Intermodal Transportation Center Development	$12.090	$0.924
Q	Niagara Branch Signal System Capacity Improvements	$3.800	$0.190
R	Rehabilitate / Replace Passenger Stations at Buffalo-Depew , Rochester, Amsterdam, and Schenectady	$40.000	$4.000
T	Highway-Rail Grade Crossings: HSR Safety Enhancements	$11.196	$2.239
U *	Empire Service Train Fleet Expansion - Phase I	$21.000	$2.100
V	Amtrak Adirondack Corridor Service Reliability Initiative	$11.500	$1.150
	Grand Total:	**$670.978**	**$31.119**

Note: 1) Project IDs with an asterisk(*) are not displayed on the map as they have no specific geographic location.
2) TBD: To Be Determined

0 15 30 60 90 120 Miles

New York State Department of Transportation
Intercity Passenger Rail
2009 - 2013
Long Range Service & Investment Program

PROJECT ID	HOST RAILROAD	PROJECT LOCATION	CAPITAL PROJECT	Project Description	PROJECT BENEFITS		PROPOSED PROJECT FUNDING $ Million						CORRELATION OF AMOUNT OF PUBLIC FUNDING TO PUBLIC BENEFITS	CONSIDERATIONS
					Public	Private	Total Cost	Federal	State Rail	Amtrak	Other Railroad	Other		
A	MNCR	Hudson Line, Poughkeepsie	Empire Corridor Congestion Relief: Poughkeepsie Yard	This work includes the consolidation of MNCR yard operations onto a contiguous site to the east of the two track Hudson Line. Work includes relocation of both main line tracks to the west and the conversion of all yard switches to remote control operation. Main line track realignment and new yard configuration will provide Metro-North with a single yard having interlocked access and capable of storing approximately 15 trainsets.	Consolidated Metro-North Poughkeepsie maintenance services at one location and the installation of remotely controlled yard access will have significant benefits for this shared use rail corridor. This project will eliminate the current need for the 52 daily Metro-North trains to be "turned" on the passenger station tracks. When combined with the realignment of the two main line tracks, the yard reconfiguration will eliminate Metro-North's conflicts with Amtrak and freight train through movements in the Poughkeepsie area. Main line and station track approach operating speeds will be improved by replacing all electric lock / hand-thrown switches with remotely controlled powered switches.	This project is a significant infrastructure improvement for the MTA Metro-North Commuter Railroad, **a public agency**, that runs over 300 trains each week through the Poughkeepsie Station area. The project will have substantial operational benefits for all through trains, including the 175 Amtrak and 30 freight trains that pass by Poughkeepsie station each week.	30.366	12.146	3.037		15.183		When completed this project should improve the flow of rail traffic at this location, which should provide a several key public benefits including enhanced mobility and reliability by removing this operational chokepoint, improved safety by decreasing the number train movement conflicts for Metro-North, Amtrak and CSX.	This project should increase rail capacity and reduce rail traffic congestion, which should improve the rail operations of Metro-North, Amtrak and CSX. This project is a significant initiative for the Hudson Valley rail network used by MNCR, Amtrak, CSX, and CPR.
B	MNCR	Hudson Line, CP-72 to CP-75, Poughkeepsie	Empire Corridor Capacity Improvement: Third Main Line Track - Poughkeepsie	The upgrade and extension of the existing Controlled Siding to create a Third Main Line track along south approach to Poughkeepsie Station. Work includes High-Capacity Signal Upgrade to Existing Tracks and high speed turnouts. This project will also enable direct interlocked access to the new and consolidated Metro-North Railroad yard immediately north of the station.	The creation of a third main line track will decrease train congestion at the Poughkeepsie Station. This congestion is caused by the staging of Metro North trains on the existing Main Tracks for "turning" back to NYC. This proposed Poughkeepsie Station Track 3 would be used primarily for most of the 52 daily Metro-North train originations and terminations at Poughkeepsie. This project would enable most MNCR trains to be "turned" in the newly configured yard via access from track #3. The result is that Amtrak and freight train movements would usually be free of interference on Main Line tracks #1 and #2.	This project is a significant infrastructure improvement for the MTA Metro-North Commuter Railroad, **a public agency,** that runs over 300 trains each week through the Poughkeepsie Station area. The project will have significant operational benefits for all through trains, including the 175 Amtrak and 30 freight trains that pass by Poughkeepsie station each week.	13.950	2.790	0.698		3.488	6.975	This project is intended to provide increased rail line capacity and improve operational flexibility, which should greatly improve mobility and reliably for passengers and commuters using the Hudson line. This project should also improve the environment by reducing rail traffic congestion and lowering emissions.	This project should increase rail capacity and reduce rail traffic congestion, which should improve the rail operations of Metro-North, Amtrak and CSX. This project is a significant initiative for the Hudson Valley rail network used by MNCR, Amtrak, CSX, and CPR.
C	CSX	Hudson SD: Rensselaer Station	Rensselaer Phase II: 4th Station Track.	Project would complete the 4th station loading track at the Albany-Rensselaer Rail Station, including required modifications to train control signal system. This work will complete the build out of the station tracks.	The addition of a 4th station track will eliminate frequent conflicts with Amtrak's 175 weekly trains which stop at the Rensselaer Rail Station.	The addition of a 4th station track will eliminate frequent conflicts between Amtrak's 175 weekly trains and the 12 freight trains which pass by the Rensselaer Rail Station each week.	12.000	9.600	2.400				This project is intended to provide increased train capacity and improve operational flexibility at the Albany-Rensselaer Station. This improvement should greatly improve mobility and reliably for passengers using the Empire Corridor. With reduce rail traffic congestion this should also lower emissions resulting in improved air quality.	This project should increase rail capacity and reduce rail traffic congestion, which should improve the rail operations of Metro-North, Amtrak and CSX. This improvement is a strategic initiative that will improve Amtrak operations within the Capital District and along the east of Hudson rail network.
D	CSX	Hudson SD: Rensselaer Station	Rensselaer Phase III: CP-142 Track Realignment.	Project would realign main line tracks at CP 142 to allow Amtrak trains using the Hudson Line to approach the Rensselaer Rail Station on a Clear train control signal indication.	Shortens northbound running time by approx. 2 minutes for each of the 87 northbound weekly Amtrak trains. This in-turn will create additional capacity for Amtrak's 88 weekly southbound trains from the Rensselaer Rail Station.	No significant benefit for freight train movements.	15.210	12.168	3.042				This project is intended to improve passenger rail operations by decreasing train delays and enhance rail station train capacity.	This project is intended to reduce rail traffic congestion at the Albany-Rensselaer Station. This improvement is a strategic initiative that will improve Amtrak operations within the Capital District and along the east of Hudson rail network.
E	Amtrak	Penn Station, NYC	Moynihan Station: Redevelopment of Farley Building.	Rail Passenger Access Infrastructure required for expansion into Farley Post Office Building includes: 1) Reactivation of Diagonal Loading Platform, 2) Extend West End Passenger Concourse south to 31st Street, 3) Connection of West End Passenger Concourse to Platforms 1 and 2, 4) Passenger Concourse connector from 31st Street to Penn Station.	This project will provide passenger access between the Farley Building (Moynihan West) train loading platforms and Penn Station (Moynihan East). These transportation access infrastructure additions will enable a significant expansion of existing Penn Station space for passenger ticketing, waiting areas, passenger services, and train platform access.	The current and anticipated rail transportation service providers Amtrak, LIRR, and NJ Transit are public agencies or public authorities. Private rail transportation service providers are not involved in this proposed work.	280.000	140.000				140.000	These improvements should make rail travel more attractive and efficient to both the passengers and the passenger rail carriers using Penn Station.	This should attract more passengers, reduce train delays at the station by decreasing station dwell time. Provide travelers with an improved rail option, which should improved the New York City region's modal balance for moving people.
F	Amtrak	Empire Service	Empire Service Train Fleet Life-Cycle Replacement.	Life cycle replacement of 30+ year old rolling stock with approximately 18 Locomotives, 53 Coaches, and 16 Business Class / Food Service cars. Maintains Empire Service fleet up to current operating condition	Maintains Empire Service fleet up to current operating condition	None.	125.000			125.000			The acquisition of new locomotives and coaches should improve operating efficiency and reliability , lower emissions, and attract additional passengers.	The new locomotives and coaches should provide travelers with more reliable ride thus increasing ridership, improved air quality by reducing emissions and improve the modal balance across the State via Amtrak's Empire Service Corridor.
G	CSX	Hudson SD: Capital District	Empire Corridor Congestion Relief: Capital District	This project is a set of track and signal improvements along the Empire Service Corridor in the Capital District of New York. Work includes the reconfiguration of the CP-169 junction of CSX's Selkirk Hudson subdivisions at Hoffmans, Schenectady County. Work also includes the construction of a 10,000 foot long controlled siding along the 110 mph section of the Hudson Subdivision in Colonie, Albany County.	Completion of these work elements will significantly reduce Amtrak's daily conflicts with both freight and passenger trains within the Capital District. These track improvements and requisite signal system modifications will significantly improve schedule reliability and reduce scheduled trip durations for Amtrak.	Reconfiguration of CP-169 will minimize the interference between the 56 weekly Amtrak trains and the more than 350 weekly CSX freight trains at Hoffmans. The 10,000' controlled siding at Colonie should greatly reduce the conflicts between Amtrak trains and CSX local freight trains operating between Albany and Schenectady.	16.957	13.566	1.248	1.248	0.896	0.000	These projects should improve passenger and freight rail operations at this critical points by reducing train movement conflicts. This should benefit both travelers and local rail freight shippers.	Reduction in delays between freight and passenger trains at these critical points should provide improved service and a more reliable schedule making rail travel in the Empire Corridor more attractive. Decreased train delays should result in decreased emissions and better fuel economy. The Capital Region is a rail hub for the Hudson Line, the Adirondack Corridor, and the Empire Corridor West to Niagara Falls.
H	CSX	Hudson SD: CP-75 to CP-169	Train Control System Communications Modernization: Hudson Subdivision.	CSX Hudson Subdivision train control system communications line modernization. Work includes the removal of existing CSX pole line cable communications between Poughkeepsie CP-75 and Hoffmans CP-162, spanning approximately 87 miles of Amtrak's Empire Service corridor. Signal control system communications replacement medium would consist of either buried cable or secured wireless radio technologies, depending on engineering and cost evaluations. Work would also include the installation of new signal control cabinets, as appropriate.	Improve signal reliability, improve on-time performance, enhance operating safety, decrease maintenance and signal outages.	This project would greatly increase communication and signal reliably for CSX freight operating between Poughkeepsie and Hoffmans. This should improve the efficiency of freight operations and enhance the quality of rail freight service, while reducing freight train delays and operational conflicts with Amtrak trains operating over CSX's Hudson Subdivision.	10.000	8.000	1.000	0.500	0.500		With improved communications and signal system, this should increase operating reliability for both Amtrak and CSX trains operating over the Hudson Line by decreasing communication and signal failures that disrupt and greatly slow rails operations.	Improved communications and an enhanced signal system should greatly increase safety of passenger and freight train operations, lower emissions by decreasing train delays and increase ridership through better on-time-performance. This project would cover up to 75 miles of the Hudson Line Corridor from New York City to Poughkeepsie.
J	CSX		Empire Corridor Congestion Relief: Hudson - Tivoli	This project consists of two work elements that improve the functional capacity and operational reliability of the CSX Hudson Line between Rensselaer and Poughkeepsie. Improvements include station platform reconfiguration and signal system modifications at Amtrak's Hudson, NY passenger station and the construction of a two-way crossover south of the Hudson area near Tivoli.	The addition of high level platforms and the installation of crossovers should decrease station dwell time for Amtrak trains and increase routing options to minimize Amtrak and freight train conflicts resulting in decreased delay time.	This would provide operational flexibility for CSX freight trains operating on this segment of the Hudson Line, which would result in greater freight train operating efficiency and improve the quality of freight service.	20.027	16.022	4.005				These projects should improve both passenger and freight trains operations on the Hudson Line by providing routing flexibility and decreasing train delays.	In addition these projects should increase train capacity on the Hudson Line and increase train operating efficiency by decreasing station dwell time. With improved rail service reliability, ridership should increase. These infrastructure modifications and additions will improve the train operational flexibility along the upper portion of the Hudson Line Corridor north of Poughkeepsie to the Capital District.
K	CSX	Hudson SD: Albany-Rensselaer	Livingston Avenue Bridge - Rehabilitation: Modernize and achieve State Of Good Repair.	The proposed repair requires a minimum of substructure work and concentrates on the superstructure. Some bridge steel repair will be accomplished, however, the main focus of the rehabilitation will be on the electrical and mechanical operating systems of the bridge. NOTE: Amtrak estimates cost of LAB Rehabilitation at $46 million.	This work will increase reliability of bridge operations and reduce Amtrak train delays related to bridge operation malfunctions. Minimal environmental impacts would be expected as this work is classified as rehabilitation. Modernization of swing bridge mechanism will improve safety and reliability of river vessel navigation and waterborne traffic.	CSX and Canadian Pacific freight trains would benefit from reliable bridge operations (opening and closing), which would contribute to increase freight service performance for the freight railroads and better service to local rail shippers.	28.935	23.148	2.894	1.447	1.447		Improved reliability of bridge operations should greatly contribute to increasing rail service reliability for both passenger and freight.	In addition to improving rail service reliability, water borne carriers too would benefit from more reliable bridge operations thus reducing delays to waterborne cargo. Also improved bridge operations should improved rail freight service to local rail freight shippers.

Long Range Service & Investment Program

PROJECT ID	HOST RAILROAD	PROJECT LOCATION	CAPITAL PROJECT	Project Description	PROJECT BENEFITS		PROPOSED PROJECT FUNDING $ Million						CORRELATION OF AMOUNT OF PUBLIC FUNDING TO PUBLIC BENEFITS	CONSIDERATIONS
					Public	Private	Total Cost	Federal	State Rail	Amtrak	Other Railroad	Other		
L	CSX	Mohawk SD, Syracuse	Empire Corridor Congestion Relief: Syracuse	This project is a set of track and signal improvements along the CSX Mohawk Subdivision in the Syracuse area. Work includes improvements at De Witt Yard to remove train classification and other yard movements from the main line tracks utilized by Amtrak and through freight trains. Work also includes upgrades to track serving Syracuse passenger station platform.	This project is a set of track and signal improvements along the CSX Mohawk Subdivision in the Syracuse area. The resultant change in operations will make both existing main line tracks (#1, #2) regularly available for through train movements by CSX and Amtrak. Additional work elements will upgrade the passenger station approach track. When combined, these work elements will result in significant improvements in schedule reliability and On Time Performance for Amtrak's Empire Service and contributing to a schedule time reduction for most though trains.	This project would separate CSX yard switching from Amtrak and freight mainline operations, which would increase overall yard operations and greatly reduce conflicts among Amtrak and CSX trains and CSX yard operations. Both yard and mainline freight train operations would greatly benefit in terms of increased efficiency and reduced delays to trains.	6.350	3.580	0.765	0.130	1.875		This combination of projects should improve both passenger and freight rail service reliability , provide operational flexibility and reducing delays to both main line and yard operations in the Syracuse terminal district.	These projects should provide additional rail capacity by separating main line and yard rail operations and reduce rail congestion for both passenger and freight trains in the Syracuse rail terminal. With reduced train delays, locomotive emissions should decrease as well. This initiative is a strategic set of improvements in central New York State that will benefit the east-west main line as well as the north-south freight routes of CSX and regional freight railroads.
M	CSX	Mohawk SD: Utica - Amsterdam	Empire Corridor Congestion Relief: Mohawk Valley	This project includes improved and additional crossovers for greater operational flexibility and fluidity. It also provides for improved signaling which provides increased capacity and operational performance for both Amtrak and CSX freight trains.	Improve Amtrak train performance, Chicago-New York by creating additonal train dispatcher operating flexibility, which reduces passenger and freight train delays, as well as delays caused by track outages due to maintenance and construction activities. The project's signal work will The addition of these signals will increase capacity by allowing Amtrak trains, after station stops, to accelerate to maximum authorized speed.	Improve CSXT train performance, Chicago-New York by creating additonal train dispatcher operating flexibility, which reduces passenger and freight train delays, as well as delays caused by track outages due to maintenance and construction activities.	12.597	10.078	1.428		1.092		This series of projects should increase rail service reliability and provide for operational flexibility for both passenger and freight trains.	This series of projects should increase rail line capacity and reduce main line rail congestion for both passenger and freight trains. Also there should be a reduction in trains delays should improve air quality by decreasing locomotive emissions. This initiative is a set of strategic infrastructure modifications and additions to the east-west main line between central New York and the Capital District.
P	CSX & CN	Niagara SD: QDN 28.2 to QDN 22.0	Niagara Falls International Rail Station / Intermodal Transportation Center Development	A set of rail infrastructure (i.e. undergrade bridges, retaining walls, track, switches, and signals) required to relocate existing Amtrak passenger station operations to a redeveloped 1863 Customs House. Work includes track realignment and automatic switch installation to significantly improve train movements along approach to the new station location.	These improvements will enhance Amtrak service to Niagara Falls and improve cross border operations, which reduce train and passenger delays.	None.	12.090	7.392	0.924			3.774	The proposed Niagara Falls station improvements should improve station operations, support cross border clearance functions and encourage intermodal connectivity.	This should attract more riders by providing improved station facilities and making this more attractive gateway for travelers to the Niagara Falls Region..
Q	CSX	Niagara SD, Tonawanda, CP 9 & CP 8 to CP 17	Niagara Branch Signal System Capacity Improvements.	Implementation of Train Signal Control System improvements to accommodate two-way (TCS 261) operational routing of main line tracks. Work includes installation of Remote Control switch heaters for operational reliability.	Improve Amtrak passenger train performance and operational flexibility along this portion of the Amtrak Empire Service corridor, which should result in better on on-time-performance.	Improve CSX freight train performance and operational flexibility along this portion of the Amtrak Empire Service corridor. This should result in fewer train delays.	3.800	3.040	0.190		0.570		The proposed project should reduce delays to both passenger and freight trains and improved operational flexibility.	This project should increase rail line capacity and decrease rail congestion for both passenger and freight trains operating in this international railroad corridor in the Buffalo - Niagara Frontier of western New York.
R	Amtrak	Empire Corridor West	Rehabilitate / Replace Passenger Stations at Buffalo-Depew, Rochester, Amsterdam, and Schenectady	Improving or replacing the existing Empire Corridor West stations would provide Amtrak passengers with improved or new facilities with upgraded amenities that would greatly improve the travel by train experience.	Improving or replacing these four Amtrak owned stations would provide Amtrak passengers with an improved or a new facility with better amenities that would make travel by train both convenient and attractive.	None.	40.000	16.000	4.000	20.000			The proposed program would re-develop Empire Corridor West stations that would be attractive to travelers and provide improved intermodal connectivity providing nearly seamless connections for passengers.	The improved station facilities should attract more riders and assist in promoting a regional balance among the transportation modes in their respective communities across upstate New York. This work could be expected to improve intermodal connections.
T	CSX	Hudson SD, Mohawk SD, Rochester SD, Buffalo Terminal SD, Niagara SD	Highway-Rail Grade Crossings: HSR Safety Enhancements	Upgrade existing grade crossing warning devices at selected crossings along the higher speed (90 - 110 mph) segments of Empire Service Corridor. Work to consider reconfiguration to enhance safety, including standard entrance gates with a center island median, closure, or grade separation. This effort would be coordinated with NYSDOT and CSX.	Upgrade existing grade crossing warning devices at selected crossings. This project greatly improves the safety of the motoring public by reducing interference between trains and motor vehicles.	Upgrade existing grade crossing warning devices at selected crossings. This project greatly improves the safety of the motoring public by reducing interference between trains and motor vehicles.	11.196	8.957	2.239				The use of High Speed Rail grade crossing safety funds for these locations will improve these location which may otherwise not be improved under the constrained funds of the Section 130 highway at- grade crossing safety program.	This series of grade crossing projects should greatly enhance safety between trains and motor vehicles by reducing the risk of accidents.
U	Amtrak	Empire Service	Empire Service Train Fleet Expansion - Phase I.	Acquisition of three trainsets totaling 3 Locomotives, 9 Coaches, and 3 Business Class / Food Service cars to accommodate Amtrak service expansion between Niagara Falls, Albany-Rensselaer, and New York City.	Represents an three additional trainsets serving the Empire Corridor in New York State. A market-based expansion between Niagara Falls, Albany-Rensselaer, and New York City for additional daily trains in both directions along Empire Corridor.	None.	21.000	8.400	2.100	10.500			With the new equipment service reliability should increase, while the cost of repairs should decrease.	With the acquisition of new locomotives and coaches, this should lower locomotive emissions and provide environmental friendly coaches that are attractive to rail travelers.
V	CPR & CN	CPR Canadian Main Line and CN Rouses Point SD	Amtrak Adirondack Corridor Service Reliability Initiative.	This work consists of several distinct infrastructure improvements Work elements include main line congestion relief in Rouses Point due to U.S. Customs border inspections, the additional of a second main line track on the busy south approach to the Saratoga Springs yard and passenger station, and completion of a multi-year corridor track rehabilitation intended to increase allowable train operating speeds and schedule reliability.	This proposed work when combined would significantly improve the operational reliability and functional capacity of this shared-used railroad corridor. This work would also increase track capacity and allowable operating speeds, and would also provide for routing flexibility utilizing new and/or improved controlled sidings. As a result, these rail corridor improvements would shorten the scheduled trip durations and improve overall the reliability of Amtrak's Adirondack service to-from Montreal.	Canadian Pacific's rail freight operations would be greatly enhanced by these infrastructure improvements in terms of reducing train delays to other CPR freight trains. The various infrastructure improvements would also increase track capacity, provide for routing flexibility, and would increase the allowable operating speeds of CPR's freight trains. These rail corridor improvements would in turn improve overall the reliability of freight train operations further reducing their direct impact on Amtrak's Adirondack service to-from Montreal. These freight rail corridor improvements benefit CPR's customers, as well as CN and NS shippers through existing, cooperative rail car haulage agreements, thus reducing dependency on the parallel I-87 Interstate highway between Canada, New York State, and the metropolitan New York City region.	11.500	4.600	1.150		5.750		The proposed projects should improve passenger and freight rail operations by reducing train delays and increasing operating efficiency. The reduction in train delays should result lower locomotive emissions thus contributing better air quality.	The proposed projects should increase rail capacity and decrease congestion for both passenger and freight trains in northeastern New York. In addition, cross border inspections should be greatly improved by the construction of a new border facility location.
						LRSIP 2009 - 2013: TOTAL	670.978	299.486	31.119	158.825	30.800	150.749		

Long Range Service & Investment Program
2014 - 2028

U-a	Amtrak	Empire Corridor South (Hudson Line)	Acquire 10 Cab Control Cars for Push-Pull Service: Albany-Rensselaer to NYC	Ten passenger coach cars with Cab Control would permit Empire Service trains to operate in a push-pull mode, thus allowing the trains to "turn" in Penn Station and not be required to run to Sunnyside Yard and back. This will improve the reliability of train service and may permit added frequencies on the Empire Corridor. This will also reduce congestion in the East River Tunnels.			33.037	√	√	√				
U-b	Amtrak	Empire Corridor South (Hudson Line)	New Operations Plan and acquire 6 new tilting trainsets: Albany-Rensselaer to NYC	With the implementation of further incremental rail improvements, a new rail operations plan will be developed for the south corridor covering intercity, commuter, and freight service. Most importantly, six new tilting trainsets will be acquired. These New York Cars will permit higher speed operations with additional amenities. Service reliability and frequency will increase while travel times will be reduced.			481.022	√	√	√				

Long Range Service & Investment Program

PROJECT ID	HOST RAILROAD	PROJECT LOCATION	CAPITAL PROJECT	Project Description	PROJECT BENEFITS		PROPOSED PROJECT FUNDING $ Million						CORRELATION OF AMOUNT OF PUBLIC FUNDING TO PUBLIC BENEFITS	CONSIDERATIONS
					Public	Private	Total Cost	Federal	State Rail	Amtrak	Other Railroad	Other		
U-c	Amtrak	Empire Corridor South (Hudson Line)	Acquire 20 Tilting Trainsets for 110 MPH Operation: Albany-Rensselaer to NYC	This project acquires 20 new 110 MPH high speed tilting trains dedicated to the Empire Corridor, powered by fossil fuel locomotives and equipped for electric operation in and out of New York, with active tilting, radial steering, and high performance acceleration and braking. These characteristics will allow the trains to take maximum advantage of the infrastructure improvements described herein.			1,069.552	√	√	√				
U-d	Amtrak	Empire Corridor South (Hudson Line)	Added Express Service & 110 mph Rail Infrastructure: Albany-Rensselaer to NYC	The addition of two non-stop round trips will between New York City and Albany, with incremental infrastructure improvements, to upgrade the track between New York City and Albany to exceed FRA Class 4, will increase the maximum speed to 110 mph, improve time performance and reduce travel time.			565.598	√	√	√				
U-e	Amtrak	Empire Corridor South (Hudson Line)	New Railcars: Albany-Rensselaer to NYC	Empire Corridor West: Amtrak service expansion Niagara Falls to Albany-Rensselaer.			266.941	√	√	√				
U-f	Amtrak	Empire Corridor West	New Railcars: Albany-Rensselaer to Niagara Falls	Empire Corridor West: Amtrak service expansion Niagara Falls to Albany-Rensselaer.			229.520	√	√	√				
U-g	Amtrak	Empire Service	Purchase train equipment to replace and increase operating fleet to operate Empire Service in order to support increased ridership demand.	Greater operating flexibility, increase reliability of service and increased customer satisfaction.			200.000	√	√	√				
Y	Amtrak	Sunnyside Yard, Rensselaer, Buffalo, Niagara Falls	Train Watering Cabinets: Identify and replace existing watering cabinets at Amtrak train servicing facilities.	Rehabilitates Train servicing facilities to improve fleet reliability and reduction in train maintenance.			5.000			√				
Y	Amtrak	Various Owners and Locations	Passenger Station: State Of Good Repair and ADA compliance improvements or replacement of the current eleven (11) Amtrak non- owned or non-operated facilities.	Non-Owned / Non-Operated Stations: Includes but is not limited to parking, access, platform upgrades and repairs, lighting and building infrastructure.	Improve functionality and user-friendliness of passenger facilities, reduction in maintenance issues.		45.000	√	√	√		√		
Y	Amtrak	All Stations served by Amtrak	Purchase and Installation of real-time train operating status display and audio information system at all locations served by Amtrak trains.	Enhance communication to public and passengers on train operating status.			4.000	√	√	√				
Y	Amtrak	Niagara Falls Maintenance Facility	Design and build an indoor train shed for servicing trains in Niagara Falls, NY	Enhances train servicing capabilities and eliminates current outdoor operation. Increases fleet maintenance and reliability			8.000			√				
Y	Amtrak	Rensselaer Maintenance Facility	Design and Build a separate Painting facility for train equipment.	Enhances train servicing capabilities.			5.000			√				
Y	Amtrak	Rensselaer Maintenance Facility	Purchase crane to move train equipment at the Rensselaer maintenance facility.	Eliminates current contracting to perform this function, enhances train servicing capabilities.			1.500			√				
Y	Amtrak	Rensselaer Maintenance Facility	Train Maintenance Facility Expansion	Extend existing building in order to close doors and maintain / repair equipment during the winter. Project includes track reconfiguration and wash rack overhaul in order to complete project.	Enables train servicing inside the facility in order to accommodate existing current fleet.		10.000			√				
Y	Amtrak	Rensselaer Maintenance Facility	Upgrades and Improvements	This recommendation includes upgrades and improvements to the existing Rensselaer Maintenance Facility building and yard to support maintenance of the new 110 MPH high speed train fleet discussed elsewhere.			33.588			√				
Y	Amtrak	Buffalo, Erie Co.	Buffalo-Exchange Street Station: Construct New Station with Hi-Level Platforms, Elevator and Pedestrian Bridge	Construct new downtown Buffalo Station with high-level platform on a site to be determined in coordination with the City of Buffalo, Niagara Frontier Transportation Authority, New York State, CSX, and Amtrak. The high-level platform will cut station dwell time by approximately half.			22.392	√	√			√		
Y	Amtrak	Depew, Erie Co.	Buffalo-Depew Station: Construct High-Level Platforms, Elevator and Pedestrian Bridge	This first phase of this project installs a new westbound low-level platform with overhead passenger concourse and elevator. The second phase installs either new high-level side platforms at the current location or realign the tracks and construct a new center island high-level platform with overhead passenger concourse and elevator.	The immediate benefit is that this will allow westbound Amtrak trains to stop on track 1 and avoid the current operating requirement to cross from track 1 onto track 2 to make the station stop and then cross back to track 1. This "weaving" can cause significant delays due to eastbound freight train conflicts and the proximity to CSX yard operations. Even if no freight train conflicts occur, eliminating the diversion will allow the trains to maintain maximum authorized speed for a longer period, thus improving reliability and performance. This also re-routes the freight trains on station bypass tracks on the existing right-of-way north of the existing alignment. In addition to the immediate benefit above, the high-level platform will cut station dwell time by approximately half.	See Public Benefits	7.837	√	√	√				
Y	Amtrak	Rhinecliff, Dutchess Co.	Rhinecliff Station: Increase Station Parking	This project provides increased parking facilities for those who use passenger vehicles to access the station facilities.			6.607	√	√	√				

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Y	Amtrak	Rhinecliff, Dutchess Co.	Study, design and build a parking garage over current parking lot at Rhinecliff station.	Public - alleviate current parking congestion and allow for future ridership increase.			5.000	√	√	√		√		
Y	Amtrak	Syracuse, Onondaga Co.	Syracuse Station: Increase Station Parking	This project provides increased parking facilities for those who use passenger vehicles to access the station facilities.			5.598	√	√					
Y	Amtrak	Westchester County	Croton & Yonkers: Increase Station Parking	This project provides increased parking facilities for those who use passenger vehicles to access the station facilities.			13.200	√	√			√		
Y	Amtrak	Albany-Rensselaer	Rensselaer Rail Station: Increase Station Parking	This project provides increased parking facilities for those who use passenger vehicles to access the station facilities.			11.196	√	√			√		
Y	Amtrak	Empire Corridor South (Hudson Line)	Upgrade Passenger Information Systems: Albany-Rensselaer to NYC	Modernize the passenger reservation and information systems to expedite determination of correct fare, purchase of tickets, and determination of train status.			5.286	√	√	√				
Y	Amtrak	Empire Corridor West	Upgrade Passenger Information Systems: Albany-Rensselaer to Niagara Falls	Modernize the passenger reservation and information systems to expedite determination of correct fare, purchase of tickets, and determination of train status.			10.076	√	√	√				
Y	Amtrak	Albany-Rensselaer	Rensselaer: Station Facility Access & Connections	This project provides improved access and intermodal connection to station facilities for airport, transit, intercity bus, taxi, bicycles and pedestrian as well as signage and roadway improvements to improve connectivity.			5.598	√	√			√		
Y	Amtrak	Depew, Erie Co.	Buffalo-Depew: Station Facility Access & Connections	This project provides improved access and intermodal connection to station facilities for airport, transit, intercity bus, taxi, bicycles and pedestrian as well as signage and roadway improvements to improve connectivity.			3.359	√	√	√				
Y	Amtrak	Buffalo, Erie Co.	Buffalo-Exchange Street: Station Facility Access & Connections	This project provides improved access and intermodal connection to station facilities for airport, transit, intercity bus, taxi, bicycles and pedestrian as well as signage and roadway improvements to improve connectivity.			5.598	√	√			√		
Y	Amtrak	Syracuse, Onondaga Co.	Syracuse: Station Facility Access/Connections	This project provides improved access and intermodal connection to station facilities for airport, transit, intercity bus, taxi, bicycles and pedestrian as well as signage and roadway improvements to improve connectivity.			5.598	√	√			√		
Y	Amtrak	Westchester County	Croton & Yonkers: Station Facility Access/Connections	This project provides improved access and intermodal connection to station facilities for airport, transit, intercity bus, taxi, bicycles and pedestrian as well as signage and roadway improvements to improve connectivity.			6.600	√	√			√		
Y	Amtrak	Depew, Erie Co.	Buffalo-Depew: Increase Station Parking	This project provides increased parking facilities for those who use passenger vehicles to access the station facilities.			5.598	√	√	√				
Y	Amtrak	Hudson, Columbia Co.	Hudson Station: Increase Station Parking	This project provides increased parking facilities for those who use passenger vehicles to access the station facilities.			4.000	√	√	√				
Y	Amtrak	Rochester, Monroe Co.	Rochester: Station Facility Access/Connections	This project provides improved access and intermodal connection to station facilities for airport, transit, intercity bus, taxi, bicycles and pedestrian as well as signage and roadway improvements to improve connectivity.			5.598	√	√	√				
Y	Amtrak	Amsterdam, Montgomery Co.	Amsterdam Station: Construct Hi-Level Center Platform, Elevator and Pedestrian Bridge	This first phase of this project installs a new eastbound low-level platform with overhead passenger access and elevator. The second phase installs a new center island high-level platform with overhead passenger concourse and elevator, and configures the platform to allow a freight bypass track.	The immediate benefit is that this will allow eastbound Amtrak trains to stop on track 2 and avoid the current operating requirement to cross from track 2 onto track 1 to make the station stop and then cross back to track 2. This "weaving" can cause delays due to westbound freight train conflicts, thus impacting reliability and performance. The elimination of the diversion will also allow trains to maintain maximum authorized speed for longer periods to/from stations, thus reducing running time. In addition to the immediate benefit above,	See Public Benefits	7.837	√	√	√				
Y	Amtrak	Rhinecliff, Dutchess Co.	Rhinecliff Station: Construct High Level Platforms	Replace existing low--level passenger platforms with high-level. Work includes new canopies, stairs, ADA compliant access to overhead station.	The high-level platform will cut station dwell time by approximately half.		6.000	√	√	√				
Y	Amtrak	Rome, Oneida Co.	Rome Station: Construct Hi-Level Center Platform with freight by-pass	Construct new center island high-level platform at the current location with an elevator using the existing (subsurface) pedestrian concourse. In addition, re-route the freight trains to the north on the existing right of way on a new alignment. The addition of the high-level platform will cut the station dwell time by approximately half.			5.598	√	√			√		

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					Public	Private	Total Cost	Federal	State Rail	Amtrak	Other Railroad	Other		
Y	Amtrak	Syracuse, Onondaga Co.	Syracuse Station: Construct Hi-Level Platform Tk #1, Elevator and Pedestrian Bridge	This first phase of this project installs a new westbound low-level platform with overhead passenger concourse and elevators. The second phase installs a new high-level platform with overhead passenger concourse and elevator, and configures the platform to allow a freight bypass track.	The immediate benefit is that this will allow westbound Amtrak trains to stop on track 1 and avoid the current operating requirement to cross from track 1 onto track 7 to make the station stop and then cross back to track 1. This "weaving" can cause delays due to eastbound freight train conflicts and the proximity to CSX yard operations. Even if no freight train conflicts occur, eliminating diversion will allow the trains to maintain maximum authorized speed for a longer periods, thus improving reliability and performance. In addition to the immediate benefit above, the high-level platform will cut station dwell time by approximately half.	See Public Benefits	12.316	√	√			√		
Y	Amtrak	Utica, Oneida Co.	Utica Station: Construct Hi-Level Platforms Tk #1 and Tk #2 with freight by-pass	Construct new high-level side platforms at the current location or realign the tracks and construct a new center island high-level platform. Either of these improvements includes use of the present overhead passenger concourse and elevators. In addition, re-route the freight trains onto the old Utica Station bypass track north of the existing alignment. Adding high-level platforms will cut station dwell time by approximately half.			8.957	√	√			√		
Y	Amtrak	Empire Corridor South (Hudson Line)	Upgrade Passenger Ticket Vending Machines: Albany-Rensselaer to NYC	Update the passenger ticket kiosks at each station to interface with and access the features of the upgraded passenger information system.			2.643	√	√	√				
Y	Amtrak	Empire Corridor West	Upgrade Passenger Ticket Vending Machines: Albany-Rensselaer to Niagara Falls	Update the passenger ticket kiosks at each station to interface with and access the features of the upgraded passenger information system.			5.038	√	√	√				
Y	Amtrak	Empire Corridor South (Hudson Line)	Expanded Upstate Service: Albany-Rensselaer to NYC	Hudson Line (Empire Corridor South): Amtrak service expansion.			229.939	√	√	√				
Y	Amtrak	Empire Corridor West	Added Express Service: Albany-Rensselaer to Niagara Falls	Empire Corridor West: Amtrak service expansion Niagara Falls to Albany-Rensselaer.			98.526	√	√	√				
Y	Amtrak	Empire Corridor West	Expanded Upstate Service: Albany-Rensselaer to Niagara Falls	Empire Corridor West: Amtrak service expansion Niagara Falls to Albany-Rensselaer.			302.295	√	√	√				
Y	Amtrak	Empire Corridor West	New Operations Plan: Albany-Rensselaer to Niagara Falls	Empire Corridor West: Amtrak service expansion Niagara Falls to Albany-Rensselaer.			53.741	√	√	√				
Y	Amtrak	Mechanicville, Saratoga Co.	Construct new Mechanicville Station to serve rerouted Ethan Allen Vermont subsidized Amtrak service in Pam Am Southern Railways territory.				8.000	√	√	√				
Y	Amtrak	Various	Passenger Station: State Of Good Repair and ADA compliance improvements or replacement of the current eleven (11) Amtrak owned or operated facilities.	Owned / Operated Stations: Work includes but is not limited to parking, access, platform upgrades and repairs, lighting and building infrastructure.	Improve functionality and user-friendliness of passenger facilities, reduction in maintenance issues.		80.000	√	√	√				
Y	Amtrak	Bronx - Manhattan	Double track Spuyten Duyvil crossing of Harlem River: MNCR Hudson Line - Amtrak Empire Connection.	Increase capacity and schedule reliability of Amtrak service to/from Penn Station.			62.538	√	√	√				
Y	Amtrak	Rensselaer Yard	Amtrak Rensselaer Yard: Expanded Yard Capacity	Provides additional yard capacity for the additional trainsets, to reduce congestion in the Albany-Rensselaer Station territory.			30.000	√	√	√				
Y	Amtrak	Rochester, Monroe Co.	Rochester Station: Increase Station Parking	This project provides increased parking facilities for those who use passenger vehicles to access the station facilities.			5.598	√	√	√				
CML-SQ	**CPR**	**Canadian Main Line**	**Maintain existing conditions. Status Quo total is $111.102 million**				0.000				√			
CML-SQ1	CPR	Canadian Main Line	Maintain existing conditions. Status Quo				2.088				√			
CML-SQ2	CPR	Canadian Main Line	Maintain existing conditions. Status Quo				13.011				√			
CML-SQ3	CPR	Canadian Main Line	Maintain existing conditions. Status Quo				3.846				√			
CML-SQ4	CPR	Canadian Main Line	Maintain existing conditions. Status Quo				69.118				√			
CML-SQ5	CPR	Canadian Main Line	Maintain existing conditions. Status Quo				8.109				√			
CML-SQ6	CPR	Canadian Main Line	Maintain existing conditions. Status Quo				14.931				√			
CML-SOGR	**CPR**	**Canadian Main Line**	**Develop State Of Good Repair: SOGR total is $154.232 million.**				0.000	√	√					
CML-SOGR1	CPR	Canadian Main Line	Develop State Of Good Repair: SOGR				3.213	√	√					
CML-SOGR2	CPR	Canadian Main Line	Develop State Of Good Repair: SOGR				20.022	√	√					
CML-SOGR3	CPR	Canadian Main Line	Develop State Of Good Repair: SOGR				5.918	√	√					

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CML-SOGR4	CPR	Canadian Main Line	Develop State Of Good Repair: SOGR				89.624	√	√					
CML-SOGR5	CPR	Canadian Main Line	Develop State Of Good Repair: SOGR				12.478	√	√					
CML-SOGR6	CPR	Canadian Main Line	Develop State Of Good Repair: SOGR				22.977	√	√					
CML-Enh1	CPR	Canadian Main Line	Upgrade signal System	Provides increased system fluidity and reliability			23.205	√	√		√			
CML-Enh2	CPR	Canadian Main Line	Deploy new Plastic or Concrete Cross Tie technology	Positive impact to the environment and tie life			50.204				√			
CML-Enh3	CPR	Canadian Main Line	Construct runaround track to bypass Customs VACIS Machine	Allows for more fluid movements of Northbound freight trains by allowing them to pass southbound VACIS activity. It will allow increased Passenger and Freight activity			5.000	√	√		√			
Y	CSX	Hudson SD: Albany-Rensselaer	Livingston Avenue Bridge - Replacement	Reconstruction to replace existing Hudson River railroad bridge, including the swing bridge portion.	Accommodate increase train and river traffic and enhance on-time performance and meet current engineering standards.		126.000	√	√	√	√			
Y	CSX	Rochester SD, QC 319.98	Replace the Savannah Bridge structure over the Seneca River; Eliminate 40 MPH speed restriction.	Built in 1924, UG bridge is 1781 feet in length. Maximum Allowable Speed restrictions for all train types due to pilings are in soft ground. Improve schedule reliability and trip durations for all trains.			25.000				√			
Y	CSX	Hudson SD: CP 75 to CP 169	Poughkeepsie to Hoffmans: Overhaul and replace existing signal system from CP 75 to CP 169	Project would eliminate pole lines, replace and bury cable, and install new signal boxes. Underground cables estimated at $47 million over the next five years periods: $17, 10, 10, 10 to replace with underground cables.	Improve signal reliability, improve on-time performance, enhance operating safety, decrease maintenance and signal outages.		0.000							
Y	CSX	Hudson SD	Construct New CP-136: vicinity of East Greenbush.	These high speed interlocking installations will support enhanced train frequency and schedules. CP-82, CP-99 and CP-136 can be installed independently of each other, based on operational requirements.			11.600	√	√					
Y	CSX	Hudson SD	Construct New CP-82: vicinity of Hyde Park.	These high speed interlocking installations will support enhanced train frequency and schedules. CP-82, CP-99 and CP-136 can be installed independently of each other, based on operational requirements.			11.600	√	√					
Y	CSX	Hudson SD: CP-123 to CP-125, Stuyvesant	Construct Third Track and Interlocking Improvements: Schodack SD junction with Hudson SD at Stuyvesant.	Extension of the existing freight track from CP 125 to a new CP 123 effectively creates a third main track in this segment.	See Private Benefits	This project will reduce congestion and train delays at the location (CP 125) where freight trains enter and leave the Empire Corridor to and from points west through Selkirk Yard. This eliminates the need for northbound freight trains to run "left-handed" from CP 124 to CP 125, effectively occupying both main tracks and thereby preventing any passenger train movements until the freight train is completely cleared onto the Schodack Subdivision.	46.200	√	√		√			
Y	CSX	Mohawk SD, Rochester SD, Buffalo Terminal SD: CP-169 to CP-437	Construct Three New 10,000 foot Controlled Sidings along CSX main line: Hoffmans - Buffalo.	The installation of three 10,000-foot passing/overtake sidings between Hoffman's and Buffalo. The specific locations are to be determined as part of full dispatch modeling effort. The locations may be combined and integrated with the station track or interlocking improvements.	Project will improve dispatcher flexibility, increase train capacity on the line and reduce interference between passenger and freight trains.		100.765	√	√		√			
Y	CSX	Niagara SD, Niagara Falls, QDN 26.2	Niagara Falls Passenger Rail Station Track Turnouts: Upgrade two station track turnouts to power operation along Bridge Branch in former Lehigh Valley Yard.	This project converts the hand thrown switches at the existing station (former Lehigh Railroad Freight House) to powered switches and signalizes the station lead track.	These improvements will eliminate chronic delays caused by the need for Amtrak crewmen to de-train and manually throw the switches leading into the station track. These improvements will reduce the running time between Albany-Rensselaer and Niagara Falls by approximately five minutes. This project has immediate and long term benefits to Amtrak and can be achieved independently of the local proposal to relocate the Niagara Falls station to the Old Customs House site. Existing Amtrak station would continued to be used for train servicing and crew offices following relocation of passenger services to the proposed International Railway Station at the 1863 Customs House.		2.239	√	√	√				
Y	CSX - Amtrak	Hudson SD: Rensselaer Station	Rensselaer Phase IV: Station North End interlocking improvements	Expand throughput capacity, improve travel time.			10.000	√	√					
Y	CSX - Amtrak	Syracuse	Syracuse Station Track: Completion of Park Street Bridge and modify interlockings for connection to Chicago Main Line. Involves CSX, NYSW, and Amtrak	Allows Amtrak trains to access 2 station tracks utilizing both sides of station platform, increases dispatching flexibility for movement of trains leading to reduction of train delays.			0.000	√	√	√				
Y	CSX - Amtrak	Hudson SD and Amtrak Post Road Branch	Acquire ROW and Infrastructure from CSX and AMTRAK and complete initial State of Good Repair: CP-75 Poughkeepsie to CP-169 Hoffmans; Post Road Branch CP-187 to Rensselaer Station CP-142; Rensselaer Station Property; Rensselaer Maintenance Facility.	This project includes costs to bring the current track, signals, grade crossings, and structures into a state of good repair.	Acquiring this property from CSX and AMTRAK opens up many options for New York State. With unity of control of this primarily passenger corridor, as compared to the existing bifurcated ownership, maintenance, trackage rights and leasing arrangements between AMTRAK and CSX, this will provide a firm base upon which New York State can efficiently invest in all follow-on enhancement and expansions.		198.200	√	√					
Y	CSX - Amtrak	Hudson SD: LAB to Hoffmans	CP-144 to CP-169: Install Second main line track for 110 MPH passenger train track speed.	This project includes signal system rehabilitation and bridge rehabilitation for three (3) undergrade bridges between these points, not including LAB.	This is the only single track section between New York City and Niagara Falls. Constructing a second main track will improve on time performance and reduce train delays. The proposed improvements will support a 110 mph maximum authorized speed. There should be no environmental or right-of-way impacts for this effort as the work will be performed within the existing railroad property.		86.806	√	√	√				

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Y	CSX - Amtrak	Empire Corridor: Third Track Initiative	CP-169 to CP-431: Install Third main line track for 110 mph passenger train track speed.	This initiative includes the construction of an express track where practical within existing railroad rights-of-way for intercity passenger rail service capable of reaching operating speeds up to 110 mph. Infrastructure includes track, signals, and structures necessary for operating speeds higher than existing 79 mph passenger service.	Benefits of this proposed Empire Corridor mainline third track initiative include: increased separation of freight and passenger train operations, passenger schedule time reductions, increased schedule reliability, increased capacity to accommodate additional train frequencies, and improved railroad and highway safety of corridor operations.	The separation of intercity passenger rail train movements where practical from the 50+ daily freight trains operating within the Empire Corridor will improve the overall fluidity of freight rail operations. Functional capacity of the existing two-track main line corridor will be increased.	TBD	√	√	√	√			
Y	CSX - Amtrak	Hudson SD: Poughkeepsie to Albany-Rensselaer	Upgrade Six (6) Highway/Rail Grade Crossings for 110 mph High Speed Rail.	Six crossings have been identified which should be upgraded to the appropriate configuration to enhance safety, including standard entrance gates with a center island median, closure, or grade separation.	As train speeds are increased, it is essential to invest in the upgrading of highway grade crossings.		17.800	√	√	√				
Y	CSX - Amtrak	Hudson SD: Hudson to Stuyvesant	CP-114 to CP-125: Track Improvements for 110 MPH Phase 2	This additional work will further increase reliability, increase train capacity, reduce travel time, and improve corridor safety.			222.800	√	√	√				
Y	CSX - Amtrak	Hudson SD: Poughkeepsie to Hudson	CP-75 to CP-114: Track Improvements for 110 MPH Phase 1	Increasing superelevation on curves and realignment of curves between Poughkeepsie and Stuyvesant to achieve the maximum passenger train speed possible, tie replacement with wood or concrete, replacement or transposition of rail, surface and re-gauge track to 110 MPH standards, signal upgrades to reduce block length, and upgrade of crossing warning devices will achieve 110 MPH operation in the corridor. Additional concrete ties will be added. Rehabilitation of bridges and structures will be completed. Curve re-alignments that require major track shifts will take place in this phase. Major structure repairs or replacement will be performed. Hudson Station tracks will be shifted to "lengthen" the curve through the station to provide for the highest possible passenger speed. Further signal upgrades, including signal block length reductions along with continued upgrades of grade crossing warning devices, will occur. A major program for grade separations, closures, or combining crossing access points will take place in this phase.	This additional work will further increase reliability, increase train capacity, reduce travel time, and improve corridor safety.		222.800	√	√	√				
Y	MNCR	Hudson Line	New High-Capacity Signal System from Croton-Harmon to Poughkeepsie		These improvements will increase train reliability and contribute to travel time reduction. The capacity of the line to carry additional trains will be improved. This project is in design but construction is not yet funded.		117.474	√	√			√		
Y	MNCR	Hudson Line, Bronx	CP-10 to CP-11: Construct third main line track between Marble Hill and Spuyten Duyvil stations.	This work eliminates the two-track bottleneck known as the "Marble Hill Rock Cut" along the MNCR Hudson Line.	The additional main line track will increase capacity of the lower Hudson Line. This bottleneck removal will eliminate freight train queuing in Croton and along the nearby Oak Point Link thereby resulting in more efficient shared use of the corridor with commuter and intercity passenger trains.		26.920		√			√		
Y	MNCR	Hudson Line, CP-24, Tarrytown	Tarrytown Station Pocket Track and New CP-24				63.177		√			√		
Y	MNCR	Hudson Line, CP-53 to CP-63	Construct Third Main Line Track: Cold Spring Bay to Chelsea	Work includes High-Capacity Signal Upgrade to Existing Tracks. This improvement extends an existing controlled siding southward from CP-58 to CP-53 and northward to a new CP-63, and installs several new high speed crossovers and turnouts at these Control Points. This track will become a third main track.	These improvements will permit trains to pass/meet, avoiding congestion and delays. This project is in design but construction is not yet funded.		111.900	√	√			√		
						LRSIP 2014 - 2028: TOTAL	5,750.951							