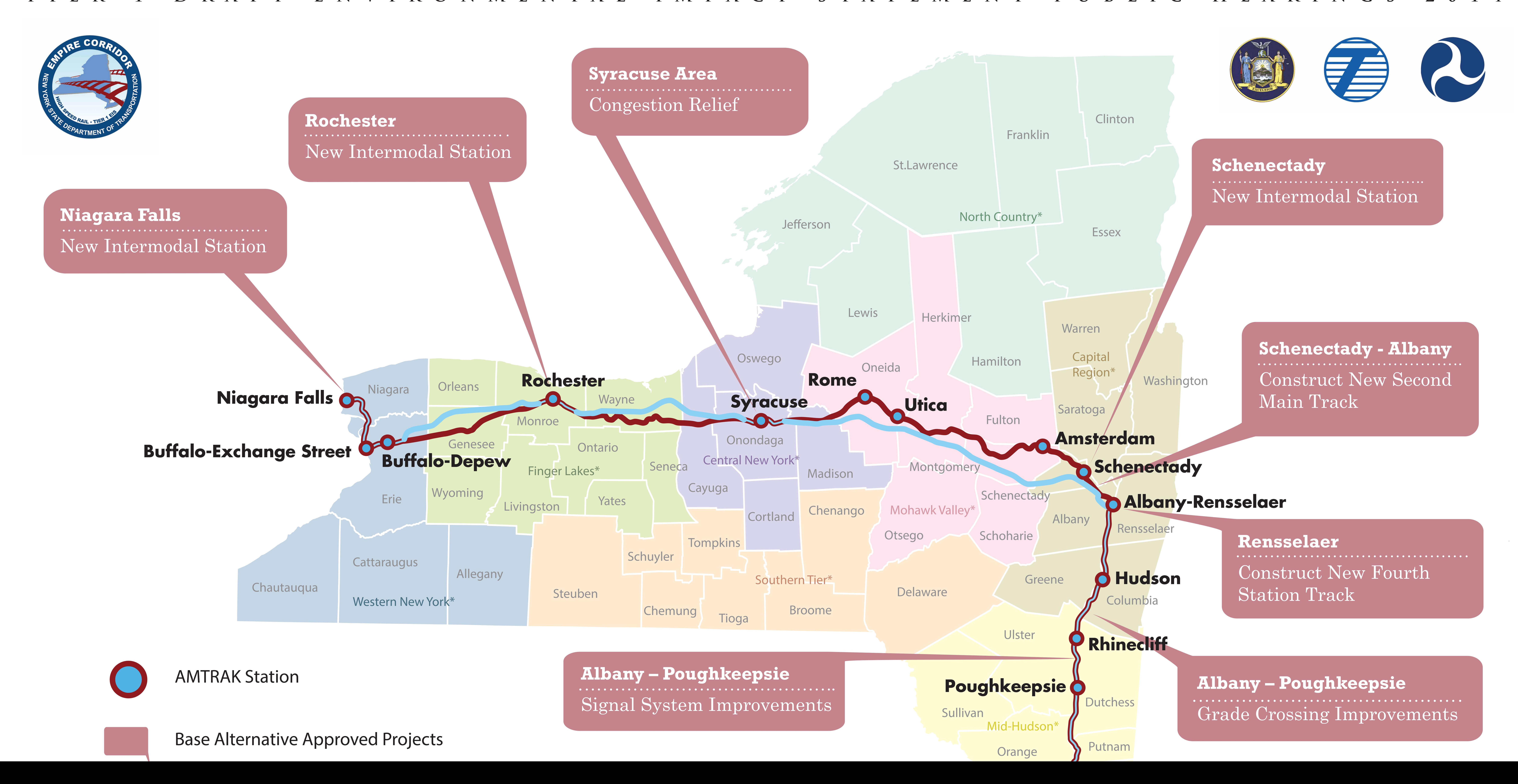
HIGH SPEED RAIL EMPIRE CORRIDOR PROGRAM



Alternative

PROJECTED ANNUAL RIDERSHIP Riders 1.6 million

TRIP

New York City

ON-TIME PERFORMANCE

DAILY TRAINS

4 trains East and West 13 trains North and South

COST ESTIMATE

in 2015 dollars

\$290 *Million*

SPEED

Average 51 MPH

Maximum









HIGH SPEED RAIL EMPIRE CORRIDOR PROGRAM



PROJECTED ANNUAL RIDERSHIP 2.3 million

Base Alternative: 1.6 Million

TRIP TIME

Base Alternative: 9:06 Hours

ON-TIME PERFORMANCE

Base Alternative: 83%

DAILY TRAINS

8 trains East and West 16 trains North and South

> **Base Alternative:** 4 trains East and West 13 trains North and South

COST ESTIMATE

in 2015 dollars

\$1.66 *Billion*

Base Alternative: \$290 Million

SPEED

Average 57 MPH

Maximum

Base Alternative: Average 51 MPH









SPEED RAIL EMPIRE CORRIDOR PROGRAM



PROJECTED ANNUAL RIDERSHIP 1 = 100,000 Riders 2.6 million

TRIP TIME

Niagara Falls 7:36 HRS New York City

Base Alternative: 9:06 Hours

Base Alternative: 1.6 Million

ON-TIME PERFORMANCE

Base Alternative: 83%

DAILY TRAINS

8 trains East and West 17 trains North and South

> **Base Alternative:** 4 trains East and West 13 trains North and South

COST **ESTIMATE**

in 2015 dollars

\$5.58 *Billion*

Base Alternative: \$290 Million

SPEED

Average 61 MPH

Maximum

Base Alternative: Average 51 MPH









Alternative

PROJECTED ANNUAL RIDERSHIP = 100,000 Riders 2.8 million

TRIP TIME

Niagara Falls 7:22 HRS **New York City**

Base Alternative: 9:06 Hours

Base Alternative: 1.6 Million

ON-TIME PERFORMANCE

Base Alternative: 83%

DAILY TRAINS

8 trains East and West 17 trains North and South

> **Base Alternative:** 4 trains East and West 13 trains North and South

COST **ESTIMATE**

in 2015 dollars

\$6.25 *Billion*

Base Alternative: \$290 Million

SPEED

Average 63 MPH

Maximum

Base Alternative: Average 51 MPH









SPEED RAIL EMPIRE CORRIDOR PROGRAM

Alternative

PROJECTED ANNUAL RIDERSHIP 1 = 100,000 Riders 4.3 million

Base Alternative: 1.6 Million

TRIP TIME

Regional Service: 8:40 Hours Base Alternative: 9:06 Hours

> ON-TIME PERFORMANCE

Express Service: 100% Regional Service: 83% **Base Alternative: 83%**

DAILY TRAINS

19 trains East and West 24 trains North and South

> **Base Alternative:** 4 trains East and West 13 trains North and South

COST **ESTIMATE**

in 2015 dollars

\$14.71 *Billion*

Base Alternative: \$290 Million

SPEED

Average 77 MPH

Maximum

Regional Service: Avg. 53, Max. 110 MPH Base Alternative: Average 51 MPH





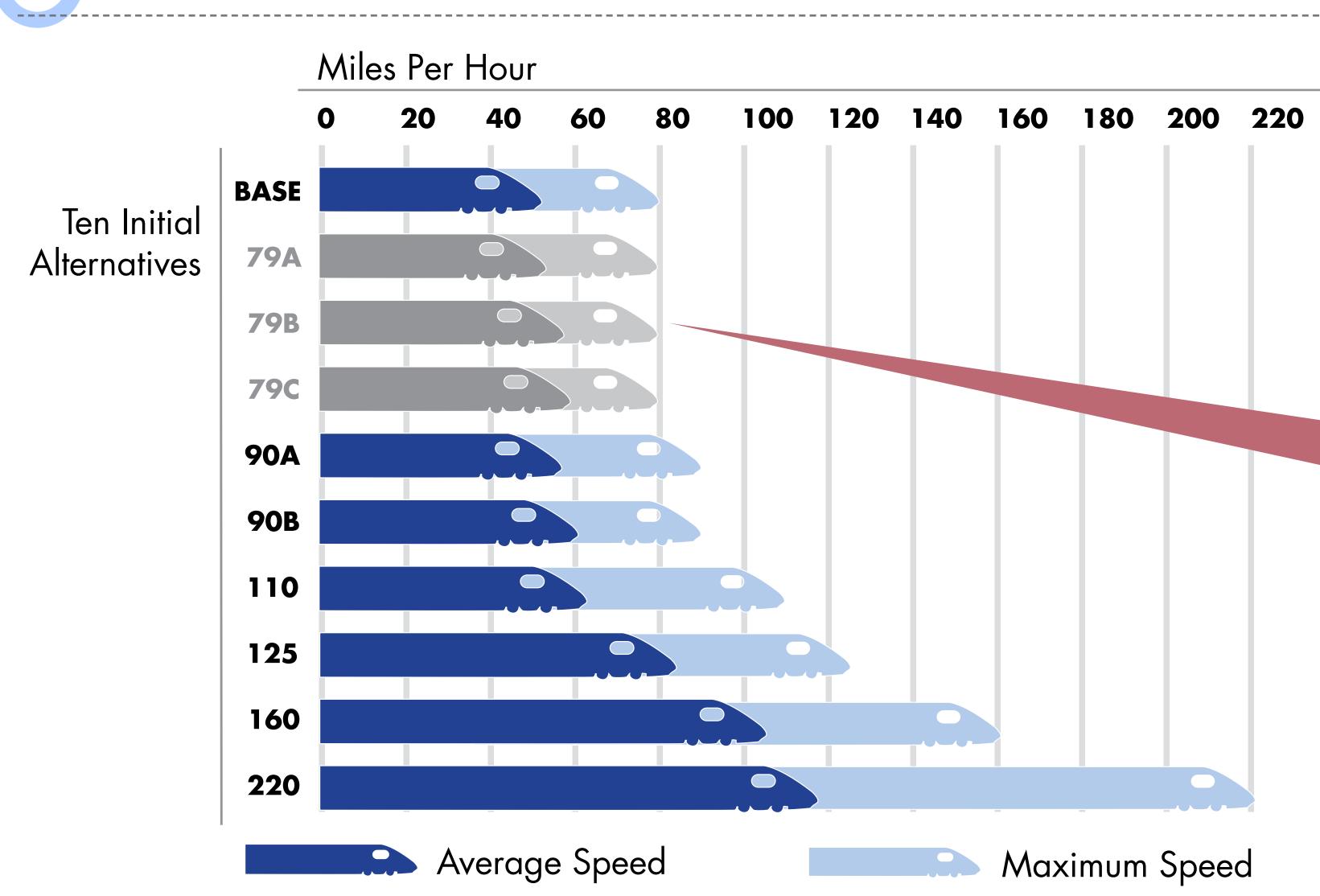




Considered Alternatives

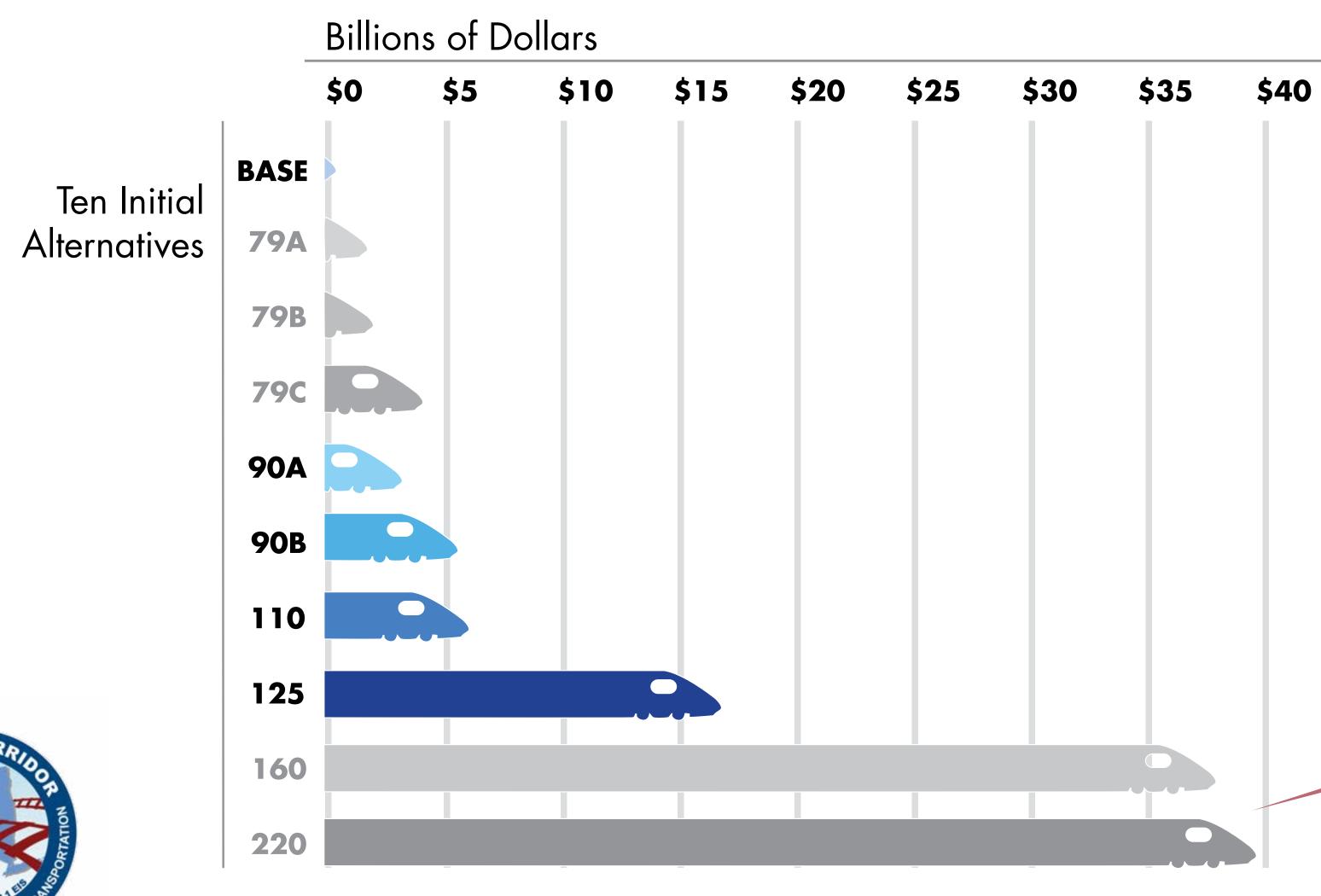
NYSDOT considered alternatives relative to maximum passenger train speeds, service frequencies, and physical improvement projects. Factors evaluated include the proposed alternatives ability to generate ridership, improve travel times and increase on-time performance while also taking into consideration the associated opportunities, risks, and costs. The ten alternatives were screened according to the program purpose and need, and performance goals and objectives.

AVERAGE AND MAXIMUM SPEED COMPARISON OF THE INITIAL ALTERNATIVES



Three 79 MPH alternatives were not advanced because they did not significantly improve speed or service, or reduce operational costs.

COST COMPARISON OF THE INITIAL ALTERNATIVES



Two very high speed alternatives were not advanced because of their significant environmental impacts and high costs, which ranged from over 35 billion to nearly 40 billion dollars.









HIGH SPEED RAIL EMPIRE CORRIDOR PROGRAM

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Alternative	Projected Annual Ridership (2035)	Trip Times New York City to Niagara Falls	Cost Estimate (2015 dollars)	Daily Trains		Speed	On-Time Performance
				Albany/ Niagara Falls	Albany/ NYC	Miles Per Hour (MPH)	
Base	1.6 million	9 hr 6 min	\$290 million	4	13	51 avg /79 max	83%
90A	2.3 million	8 hr 8 min	\$1.66 billion	8	16	57 avg /90 max	92.4%
90B	2.6 million	7 hr 36 min	\$5.58 billion	8	17	61 avg /90 max	95.4%
110	2.8 million	7 hr 22 min	\$6.25 billion	8	17	63 avg /110 max	94.9%
125	4.3 million	6 hr 2 min (Express) 8 hr 40 min (Regional)	\$14.71 billion	19	24	77 avg /125 max	100% (Express) 83% (Regional)









NYSDOT has examined each of the alternatives as they relate to the environment and our cultural resources. Below compares the potential impact of each alternative on those areas.

Alternative/ Impact Area	Base	90A	90B	110	125
Land Use	L	L	M	M	Н
Community	L	L	L	M	Н
Historic	L	M	Н	Н	M ¹
Parks	L	L	L	M	Н
Visual	L	L	M	M	Н
Farmland	L	L	M	M	H
Waterbodies	L	M	M	M	H
Floodplains	L	L	M	M	H
Wetlands	L	L	M	M	H
Wildlife	L	L	M	M	H
Air Quality	L	В	В	В	В
Energy/ Greenhouse Gas	L	B-L	B-L	B-M	B-H
Noise/Vibration	L	M	M	M	Н

- L Potential for adverse effect is lowest among the alternatives
- M Potential for adverse effect is moderate among the alternatives
- **H** Potential for adverse effect is highest among the alternatives
- B Long-term beneficial impact
- 1 The undeveloped nature of the 125 corridor may contribute to the lack of documented historic resources.

Further details of the environmental impacts of each alternative are discussed in the full DEIS report.









Buffalo-Niagara



Proposed Intermodal Station

Niagara Falls Maintenance and Inspection Facility

Preliminary Engineering & Environmental Review PE/NEPA for a new, modern, efficient inspection facility to serve as the anchor of Amtrak service in Western New York

Construction will include storage tracks and a maintenance building, providing power potable water, inspection, cleaning and light repair capabilities

Total Project Funding for PE/NEPA — \$2,500,000

Construction funds to be identified





Relocation of the existing Amtrak Station to the new downtown Intermodal Station

Construction includes:

- New passenger station
- Interior Customhouse for use by U.S. Homeland Security
- Construction of a 500 foot long passenger platform
- New parking lot
- New dedicated passenger rail siding
- Rehabilitation of the Whirlpool Street Bridge

Project will be re-let by the City of Niagara Falls in March 2014

Construction Cost - \$25.64M

Construction to begin 2014





Buffalo Depew Station

Construction Complete

General improvements

ADA upgrades/compliance for passenger platform, ramps, restrooms, parking, ticket counter, signage, and telephones

Repairs and upgrades to building and site include walkways, parking lot grading and drainage, door repairs/replacements and minor building repairs

• Total Project Cost — \$1.2M



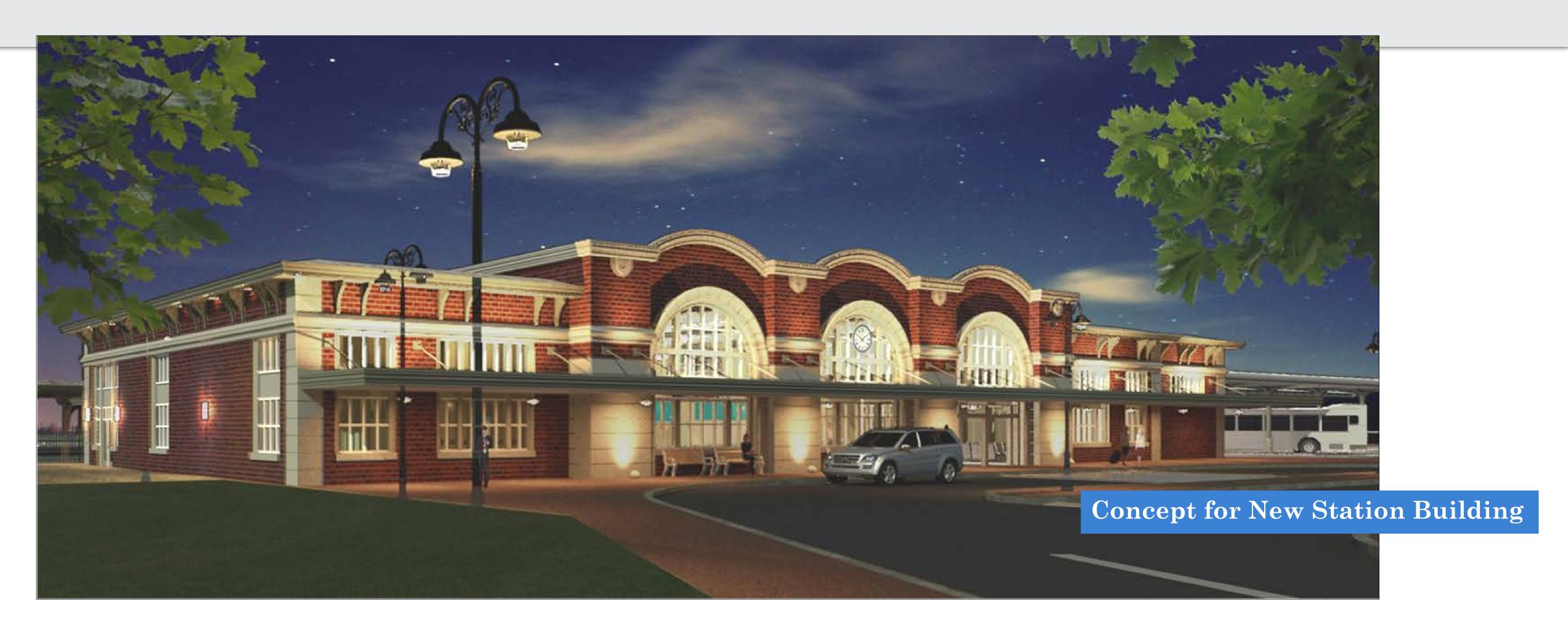


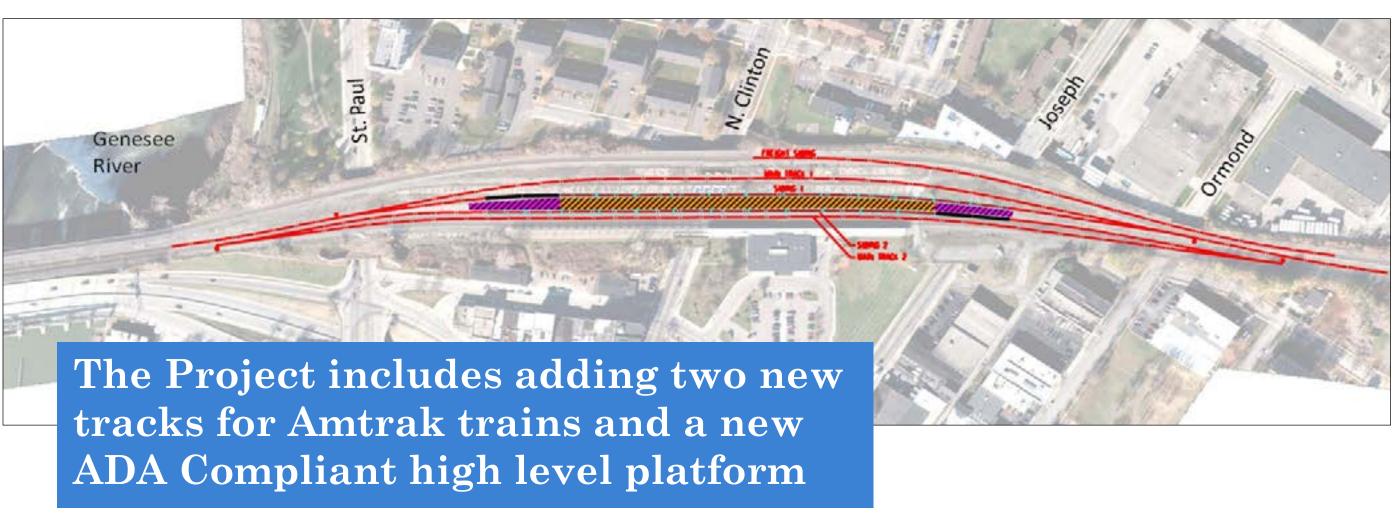


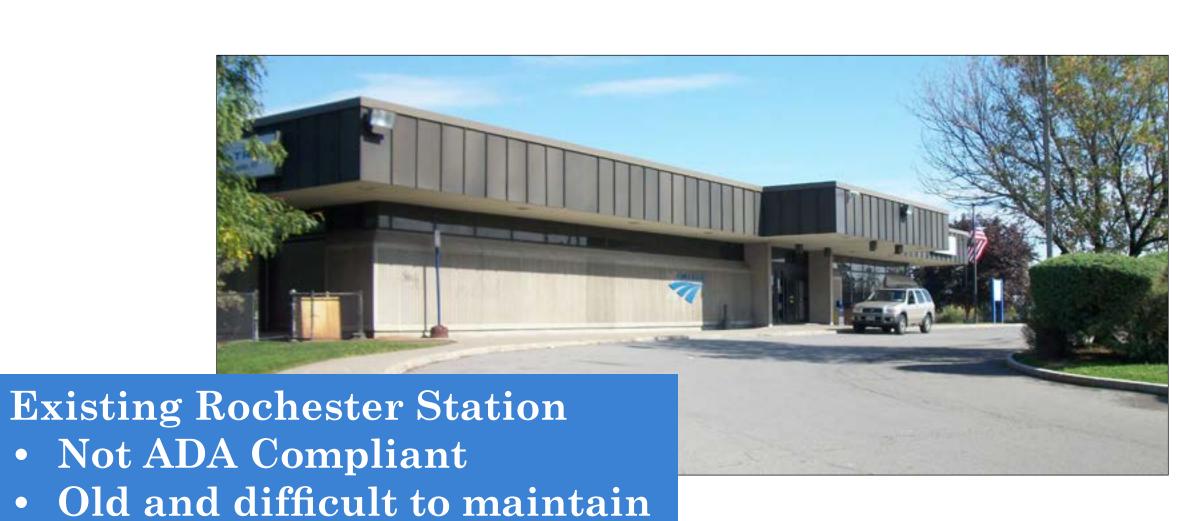




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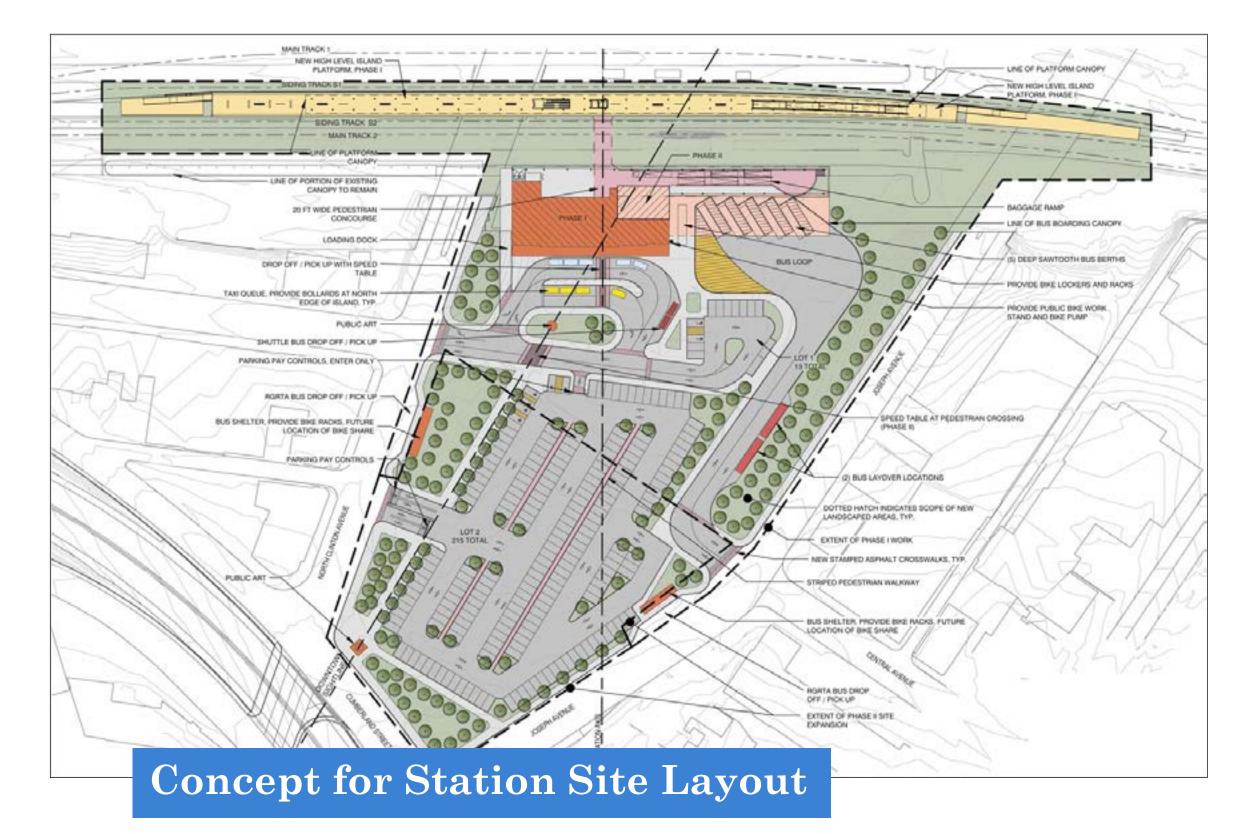


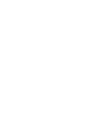
• Single sided—allows only 1 train in the station at a time



Design-Build Contract. Proposals to be accepted in March 2014. Construction will begin in 2014.

Transportation Investment Generating Economic Recovery (TIGER) Grant = \$23,000,000



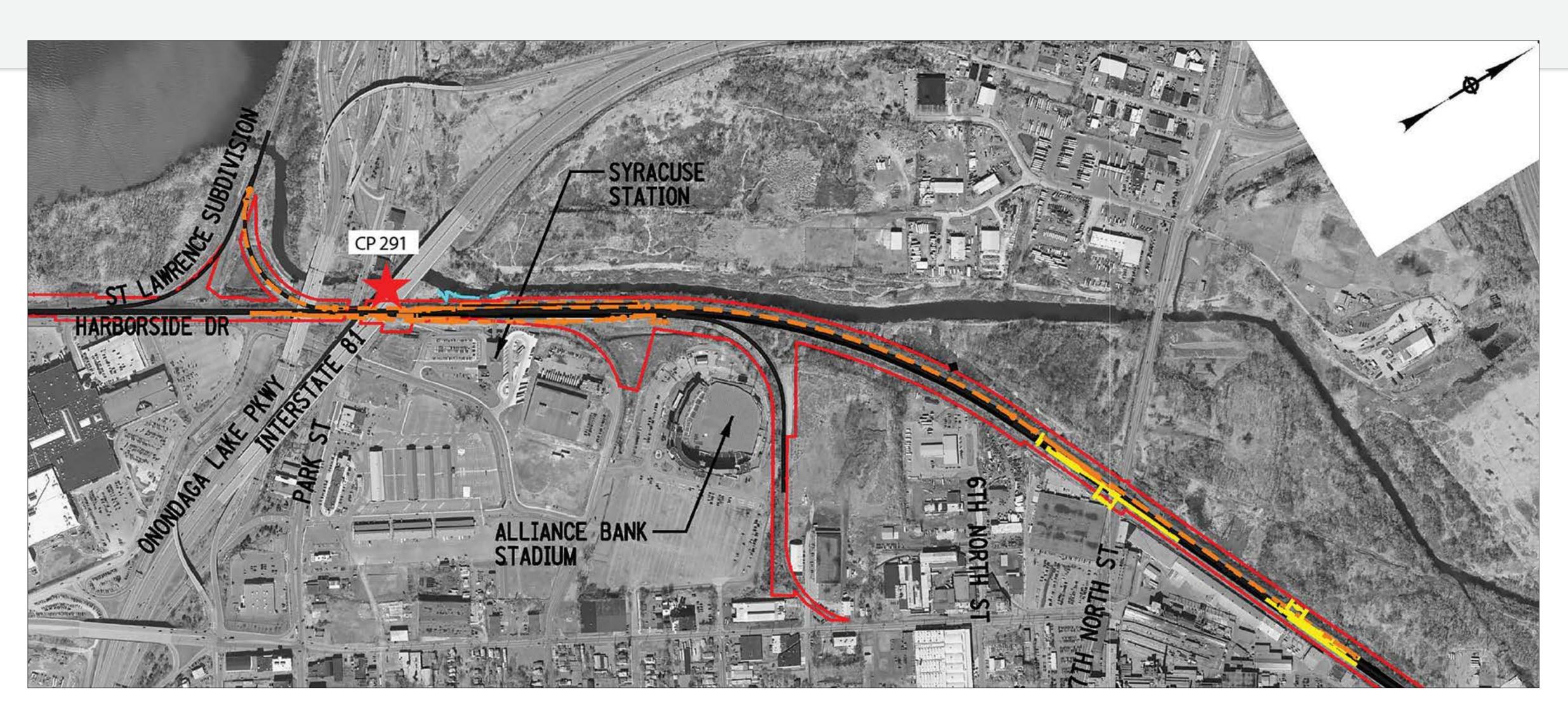








Improvements







\$23.2M Construction budget will include:

- Rehabilitate and upgrade the existing track structure and signal system between CP 286 and CP 291 on Tracks 7 and 8
- Upgrade turnouts to allow for continued higher speeds when switching tracks
- Upgrade hand thrown turnouts to electrically locked turnouts that are integrated with signal system
- Perform preliminary engineering analysis to determine future improvements in this corridor

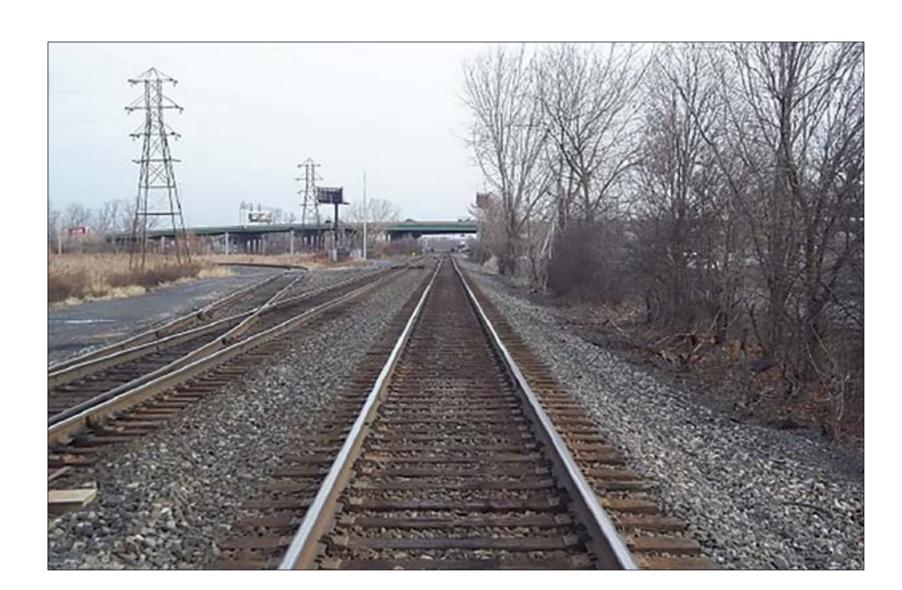
Design to be complete in 2014

Construction to begin late 2015 and continue through 2016



















Stein Englistetton

Construction includes:

- New intermodal station
- New platforms, canopies and platform access (elevator and stairwell)
- New pedestrian connector between station and Bus Rapid Transit (BRT) stop
- Site design and utilities improvements
- Enhancements to Liberty Street Parking Lot including a permanent platform egress ramp

Construction to begin 2014 and continue through 2017





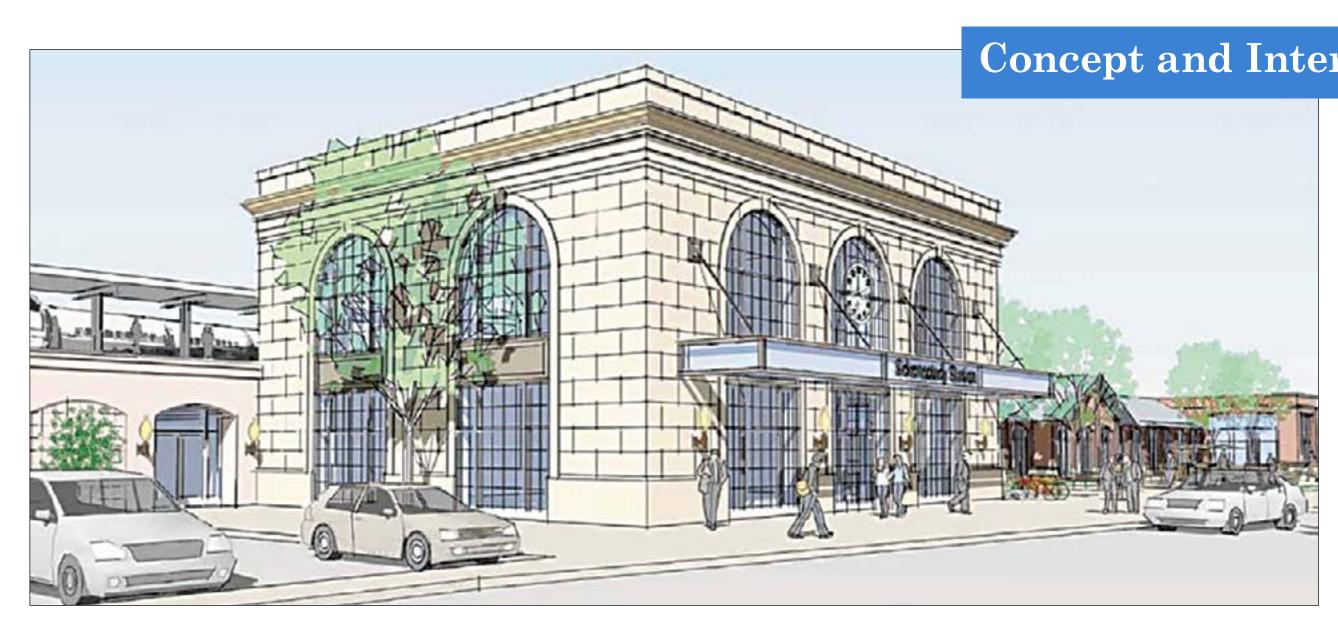




- Antiquated building struture providing minimal public facilities
- Modern appearance conflicts with surrounding historic architecture
- No integration with pedestrian oriented downtown Schenectady
- Limited accessibility with the neighboring communities



















Aprochenty-Schenectady



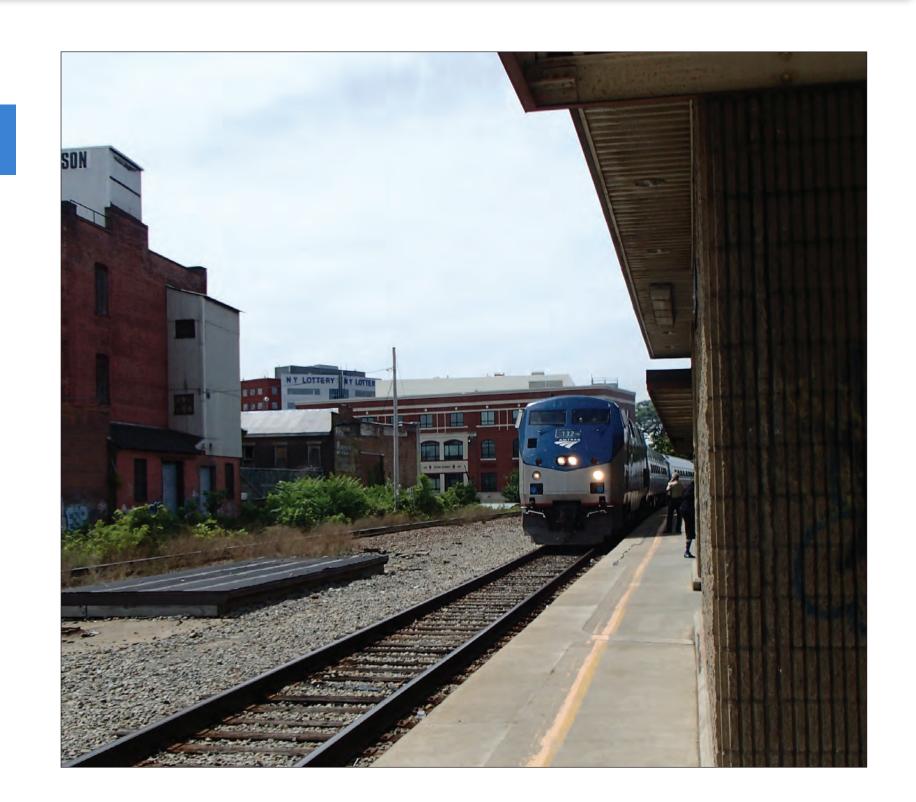
Schenectady Track and Platform

Work at the track and platforms will be combined with the Albany Schenectady Double Track and 4th Track at Rensselaer Station Projects.

Construction by Contractor earthwork and grading

Track to be installed by Amtrak Forces

Construction to begin 2014 and continue through 2017



Albany Schenectady Double Track



- Earthwork and Grading
- 19 bridge rehabilitations
- 22 culvert repairs
- New interlockings
- New signal system from Rensselaer to Schenectady
- New 4 quadrant gates at three grade crossings in Colonie, NY
- Includes gated access roads along the R.O.W.

17 miles of Double Track to be installed by Amtrak Forces

Construction to begin 2014 and continue through 2017





4th Track at Rensselaer Station

Construction by Contractor includes:

- New Signal System
- New Interlockings
- Platform extensions at Rensselaer Station
- Bridge rehabilitation Culvert repairs

4th Track to be installed by Amtrak Forces

Construction to begin 2014 and continue through 2017









Hydesen Line Signal

MP 110

MP 100

MP 90 Kingston

MP 80

Project Locations

Schenectady









IMPROVEMENTS AT 13 GRADE CROSSINGS

Improve safety at grade crossings with new larger, 12" LED flashers and new bells

New crossing gate arm motors improve reliability

Ice House Road Grade Crossing – pave roadway and install active warning devices i.e. flashers and gates.



Signal System Improvements

Install new power, signal and communication cables underground from Rensselaer to Poughkeepsie

Improve safety and reliability by eliminating overhead wires that cause frequent outages in bad weather











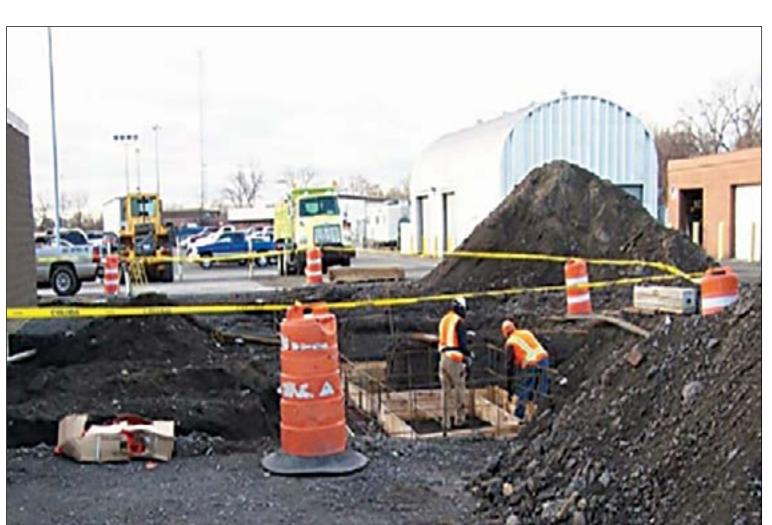






Mobilization Line







- Operated and maintained by Amtrak starting November 2012
- Dispatching transferred to Amtrak's Penn Station Control Center.

Mobilization Work includes:

Rensselaer Maintenance of Way Facility and New Material Control Facility

- Construction Began October 2013
- Construction Cost \$1.77M

Hudson Maintenance-of-Way Facility

- Construction Complete in 3 Months -June through September 2013
- Construction Cost \$0.9M













Long Lead Material

Purchased and Delivered:

- 16 new turnouts
- \$1.5M material cost

Also purchased and delivered to the site and ready to install:

- 31,000 railroad ties
- 9,000 tons of ballast
- 137,000 pounds of railroad spikes
- 1,000 tie plates and anchors

New Signal Cabinets/Houses for the entire Hudson Line

- Assembled by Amtrak's Lancaster, PA shop
- Assembly began July 2012
- Ready as needed for construction of new signal system in early 2014
- \$11.8M in labor and material costs

2013 Construction Contract Work

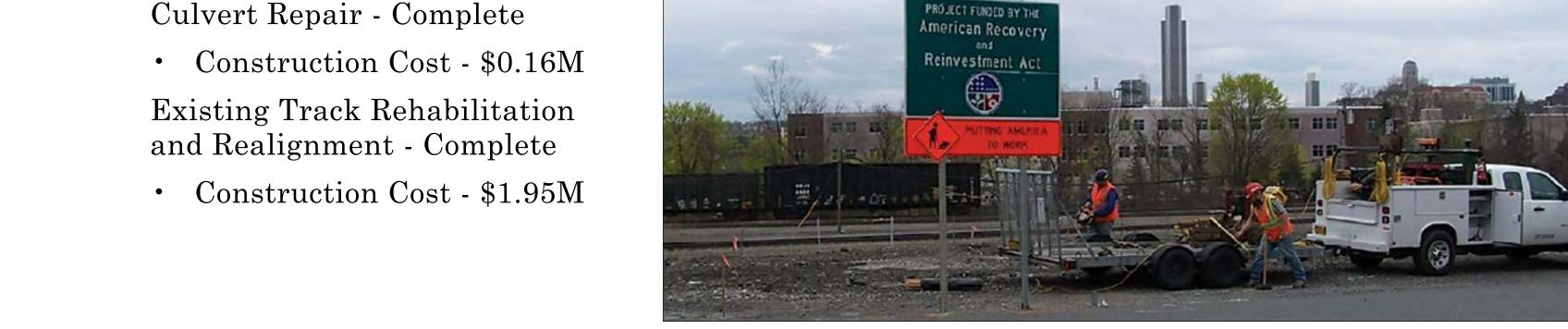
Albany Schenectady Double Track & 4th Track at Rensselaer Station Projects

Staging Area Construction and Culvert Repair - Complete



















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HOW TO SHARE YOUR COMMENTS

Your input is important to decisions about high-speed rail in New York State. Here's how to make sure your comments are recorded as part of the process:

- In oral testimony or privately to a stenographer at this public hearing
- In writing, using the program Comment Form
- By email: empirecorridor@dot.ny.gov
- By mail: David Chan, Project Manager, NYSDOT,
 50 Wolf Road, Albany, NY 12232
- Via the Public Comment page on our website www.dot.ny.gov/empire-corridor/contact



Comments are due by 3/24/2014







HIGH SPEED RAIL EMPIRE CORRIDOR PROGRAM