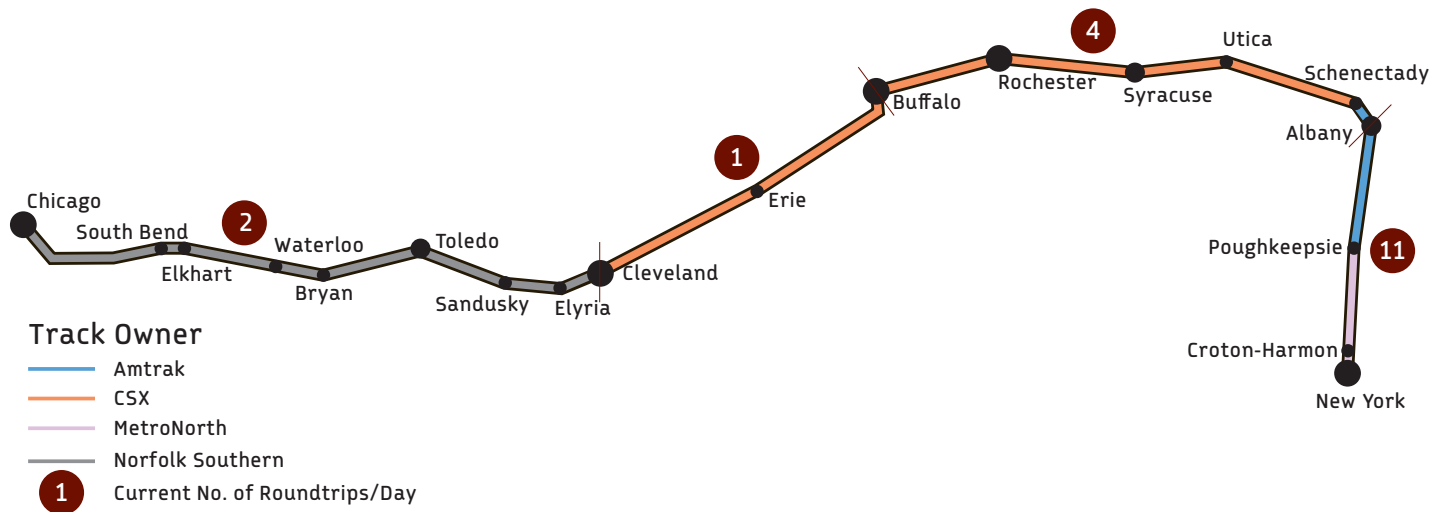


# New York–Buffalo–Cleveland–Chicago Corridor Improvement Proposal

Four Daily Round-Trips  
Faster and More Reliable Service  
Modern High-Performance Trains  
Enhanced Stations



Siemens is constructing a version of the above locomotive for operation on Amtrak’s NE Corridor and is proposing a diesel version for operation throughout the country. Siemens has proposed modifying the trailing coaches for service in North America and is constructing a sleeping car version for service linking France and Russia.

The New York–Buffalo–Cleveland–Chicago corridor is one of the nation’s most economically productive regions. New York and Chicago, two of the country’s largest cities and major international gateways, anchor this 960-mile rail corridor where nearly 30 million people live within 25 miles of one of its 19 rail stations.

Just one train—the *Lake Shore Limited*—travels the entire corridor. This train serves 171 city pair markets, gathering many low volume markets into large volumes served by a single, highly efficient vehicle.

Public usage of this train has grown more than 33% since 2000 to more than 400,000 travelers a year. Usage has also increased on the other trains serving portions of the corridor, demonstrating demand for additional service.

More frequent trains, scheduled to allow a productive business trip to each major city, are needed to create stronger economic ties in the region.



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## The Building Blocks

Improvements are already underway on the corridor. The State of New York and Amtrak are investing in improved tracks and signals between New York and Schenectady. New York State is now designing the next round of improvements from Schenectady to Buffalo. Michigan is leading a tri-state project to design new tracks dedicated to passenger trains for the last 50 miles into Chicago.

The following investments will need to be made across the entire corridor to allow for additional passenger trains and prepare for growing freight traffic. These improvements should also lead to faster and more reliable schedules.

## Track and Signals

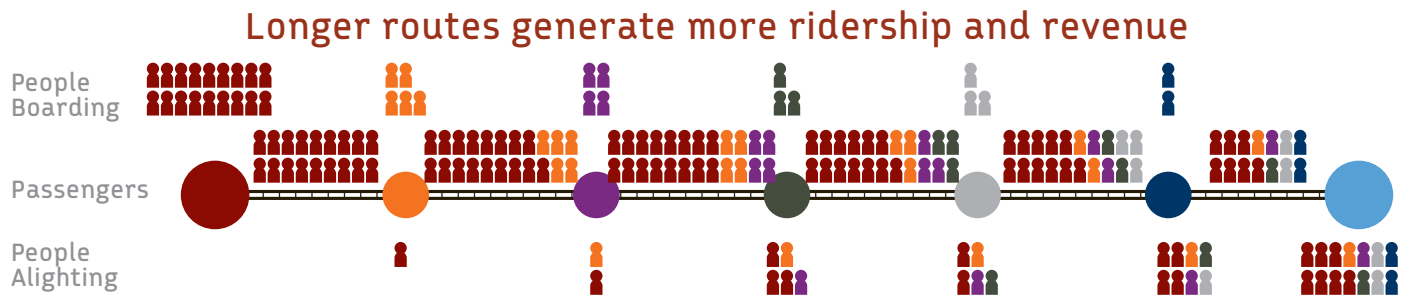
New passing sidings will need to be constructed, congestion points removed and signals enhanced.

## Station Enhancements

New platforms serving all mainline tracks and passenger safety improvements will need to be installed.

## Lightweight, High-Performance Trains

Modern trains that can operate faster on existing track while burning less fuel will need to be purchased.



This chart represents a very simplified description of the ridership pattern on the Lake Shore Limited.

By stopping at 19 stations this train serves 171 city pair markets. For clarity, we have shown just the largest cities and the ridership between those. Each peg represents a group of passengers boarding and alighting the train. The train is occupied by passengers taking a wide mix of trip lengths.

Adding additional frequencies that travel the entire distance will create attractive schedule choices for all the stations on the corridor.

## Next Steps

NARP & MHSRA ask Congress to direct Amtrak and the Federal Railroad Administration to:

- Develop detailed ridership and operating cost estimates.
- Work with CSX and Norfolk Southern to quantify the needed track and station investments.
- Create new incentives that will encourage the railroads to invest in faster and more reliable service.

## Sample Schedule

The following sample schedule illustrates the potential trip combinations that could occur if additional frequencies and reduced trip times were implemented. If implemented, a business traveler could use the train to visit any city on the corridor for a productive business day.

Sleeping compartments would serve as business class during the day, creating a private work environment with electrical outlets and other modern necessities.

Economy class seats would offer similar space and comfort as business class seats on airlines.



New	New	#30	#280	#284	#48	#64		Station		New	#63	#281	#283	#29	#49	New
7:00 AM	3:31 PM	7:00 PM	8:31 PM		11:00 PM		Dp	Chicago, IL (Central Time)	Ar	10:05 PM			5:22 AM	8:20 AM	8:32 AM	1:05 PM
8:17 AM	4:48 PM	8:17 PM	9:48 PM		12:17 AM		↓	South Bend, IN	↑	9:21 PM			4:38 AM	7:36 AM	7:48 AM	12:21 PM
8:34 AM	5:05 PM	8:34 PM	10:05 PM		12:34 AM		↓	Elkhart, IN	↑	9:00 PM			4:17 AM	7:15 AM	7:27 AM	12:00 PM
9:21 AM	5:52 PM	9:21 PM	10:52 PM		1:21 AM		↓	Waterloo, IN	↑	8:12 PM			3:29 AM	6:27 AM	6:39 AM	11:12 AM
9:44 AM	6:15 PM	—	11:15 PM		1:44 AM		↓	Bryan, OH	↑	7:47 PM			3:04 AM	—	6:14 AM	10:47 AM
10:30 AM	7:01 PM	10:30 PM	12:01 AM		2:30 AM		Ar	Toledo, OH	Dp	7:01 PM			2:18 AM	5:16 AM	5:28 AM	10:01 AM
10:40 AM	7:11 PM	10:40 PM	12:11 AM		2:40 AM		Dp	Sandusky, OH	Ar	6:41 PM			1:58 AM	4:56 AM	5:08 AM	9:41 AM
11:25 AM	7:56 PM	11:25 PM	12:56 AM		3:25 AM		↓	Elyria, OH	↑	5:47 PM			1:04 AM	4:02 AM	4:14 AM	8:47 AM
11:55 AM	8:26 PM	11:55 PM	1:26 AM		3:55 AM		Ar	Cleveland, OH	Dp	5:13 PM			12:30 AM	3:28 AM	3:40 AM	8:13 AM
12:22 PM	8:53 PM	12:22 AM	1:53 AM		4:22 AM		↓	Erie, PA	↑	4:44 PM			12:01 AM	2:59 AM	3:11 AM	7:44 AM
12:31 PM	9:02 PM	12:31 AM	2:02 AM		4:31 AM		Dp	Buffalo-Depew, NY	Ar	4:26 PM			11:43 PM	2:53 AM	2:53 AM	7:26 AM
1:56 PM	10:27 PM		3:27 AM		5:56 AM		↓	Rochester, NY	↑	2:45 PM			10:02 PM		1:12 AM	5:45 AM
3:24 PM	11:55 PM		4:55 AM		7:24 AM		Ar	Syracuse, NY	Dp	1:16 PM			8:33 PM		11:43 PM	4:16 AM
3:34 PM	12:05 AM		5:05 AM	7:05 AM	7:34 AM	1:31 PM	Dp	Rome, NY	Ar	1:12 PM	2:37 PM	5:34 PM	8:29 PM		11:39 PM	4:12 AM
4:27 PM	12:58 AM		5:58 AM	7:58 AM	8:27 AM	2:24 PM	↓	Utica, NY	↑	12:11 PM	1:36 PM	4:33 PM	7:28 PM		10:38 PM	3:11 AM
5:43 PM	2:14 AM		7:14 AM	9:14 AM	9:43 AM	3:40 PM	↓	Amsterdam, NY	↑	11:12 AM	12:37 PM	3:34 PM	6:29 PM		9:39 PM	2:12 AM
—	—		7:51 AM	9:51 AM	—	4:17 PM	↓	Schenectady, NY	↑	—	11:48 AM	2:45 PM	5:40 PM		—	—
6:38 PM	3:09 AM		8:09 AM	10:09 AM	10:38 AM	4:35 PM	↓	Albany-Rensselaer, NY	Ar	10:10 AM	11:35 AM	2:32 PM	5:27 PM		8:37 PM	1:10 AM
—	—		9:04 AM	11:04 AM	—	5:30 PM	↓	Hudson, NY	Dp	—	10:37 AM	1:34 PM	4:29 PM		—	—
7:51 PM	4:22 AM		9:22 AM	11:22 AM	11:51 AM	5:48 PM	Ar	Rhinecliff, NY	↑	8:57 AM	10:22 AM	1:19 PM	4:14 PM		7:24 PM	11:57 PM
8:19 PM	4:50 AM		9:50 AM	11:50 AM	12:19 PM	6:16 PM	Dp	Poughkeepsie, NY	Ar	8:38 AM	10:03 AM	1:00 PM	3:55 PM		7:05 PM	11:38 PM
8:34 PM	5:05 AM		10:05 AM	12:05 PM	12:34 PM	6:31 PM	↓	Croton-Harmon, NY	↑	8:28 AM	9:45 AM	12:50 PM	3:45 PM		6:25 PM	11:28 PM
8:59 PM	5:30 AM		10:30 AM	12:30 PM	12:59 PM	6:56 PM	↓	Yonkers, NY	↑	7:58 AM	9:15 AM	12:17 PM	3:15 PM		—	10:58 PM
9:20 PM	5:51 AM		10:51 AM	12:51 PM	1:20 PM	7:17 PM	↓	New York, NY	Dp	7:35 AM	8:52 AM	11:50 AM	2:52 PM		—	10:35 PM
9:34 PM	6:05 AM		11:05 AM	1:05 PM	1:34 PM	7:31 PM	↓			7:21 AM	8:38 AM	11:36 AM	2:38 PM		5:15 PM	10:21 PM
10:14 PM	6:45 AM		11:45 AM	1:45 PM	2:14 PM	8:11 PM	↓			6:41 AM	7:58 AM	10:56 AM	1:58 PM		4:29 PM	9:41 PM
—	—		—	2:04 PM	—	8:11 PM	↓			—	7:39 AM	—	1:39 PM		—	—
11:04 PM	7:35 AM		12:35 PM	2:35 PM	3:04 PM	9:01 PM	Ar			6:00 AM	7:15 AM	10:15 AM	1:15 PM		3:45 PM	9:00 PM

This schedule is purely illustrative. Actual station times, speeds and frequencies would need to be developed by Amtrak in partnership with the CSX and Norfolk Southern. It assumes that the track improvements and new, high-performance trainsets needed to add frequencies will allow all trains to operate 5-mph faster than the fastest train operating in that segment today without exceeding 90-mph maximum speed.

## The Ridership And Operating Cost Impacts

Based on a conservative estimate, ridership on the corridor would increase 258% from 314,679 to 1,127,220 annual passengers. Cleveland would see the greatest impact with passenger counts growing from 28,149 to 154,116 passengers boarding or alighting.

Revenue would nearly quadruple from \$25 million to \$96 million

The required operating support would increase only 3 times from \$33 million to \$96 million per year. We recommend that the new service be funded as an additional line item in Amtrak's annual appropriation.

### Conservative Ridership Estimate

Station	State	Actual FY11 on/off <sup>1</sup>	4-Frequency Pattern
		Annual	Annual Forecast
New York	NY	108,799	345,437
Poughkeepsie	NY	4,807	15,262
Albany	NY	37,420	118,809
Schenectady	NY	12,865	40,846
Utica	NY	18,280	58,039
Syracuse	NY	51,819	164,525
Rochester	NY	42,519	134,998
Buffalo-Depew	NY	40,701	129,226
Erie	PA	15,009	82,174
Cleveland	OH	28,149	154,116
Elyria	OH	3,134	17,159
Sandusky	OH	12,865	70,436
Toledo	OH	34,171	124,724
Bryan	OH	6,518	23,791
Waterloo	IN	11,706	42,727
Elkhart	IN	7,684	28,047
South Bend	IN	12,165	44,402
Chicago	IL	180,746	659,723
<b>Total Ons/Offs</b>		<b>629,357</b>	<b>2,254,440</b>
<b>Ridership</b>		<b>314,679</b>	<b>1,127,220</b>

### Estimated Capital Costs

Item	Range
Track upgrades (Schenectady–Buffalo)	\$700 million–1.2 billion <sup>2</sup>
Track upgrades (Buffalo–Porter IN)	\$600 million–1.7 billion <sup>2</sup>
Station upgrades	\$83 million–149 million <sup>2</sup>
New Trainsets	\$175 million <sup>3</sup>
<b>Total</b>	<b>\$858 million–2.024 billion</b>

1) Actual FY11 on/off<sup>1</sup> for trains 48, 49, 448 & 449 excluding trips to or from points on the Boston branch.

2) Chicago–Cleveland–Buffalo–New York Frequency Expansion Proposal Analysis of Options, ESH Consult, December 15, 2012.

3) Ballpark Estimate.

**Segment Notes:** New York, NY–Schenectady, NY segment is currently being upgraded. New York State is developing a master plan for the Schenectady–Buffalo segment. The State of Michigan is designing new tracks dedicated to passenger trains from Porter, IN to Chicago, IL as part of the Chicago–Detroit Corridor.