

NJTPA Freight Rail Industrial Opportunity Corridors Program

Amboy Corridor Profile

Amboy Corridor

The Amboy Corridor is made up of 55 miles of railroad lines in northern New Jersey. The corridor includes three rail lines owned and operated by Conrail, North Jersey's primary local freight railroad, which is jointly owned by the two large Eastern U.S. freight railroad companies, Norfolk Southern and CSX Transportation:

- Conrail's Perth Amboy Industrial Track between Perth Amboy and Woodbridge Township, 3.2 miles
- Conrail's Amboy Secondary between South Amboy and Monmouth Junction, 19.0 miles
- Conrail's Freehold Industrial Track between Jamesburg and Freehold, 14.3 miles

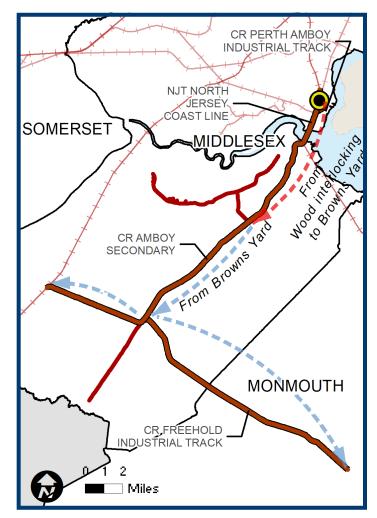
The Amboy Corridor also includes one NJ TRANSIT commuter line that hosts Conrail local freight service and contains the corridor's connection to the unrestricted national freight rail network:

• NJ TRANSIT's North Jersey Coast Line between Perth Amboy and South Amboy, 3.6 miles

The Amboy Corridor also includes several connecting freightonly tracks in Sayreville and Cranbury that depend on the Amboy Secondary for access to the national freight rail network. The Amboy Corridor is located in Middlesex County and Monmouth County. Through Perth Amboy, the corridor has a high-density passenger rail operation with approximately 85 NJ TRANSIT trains per day. This section of NJ TRANSIT is electrified with overhead catenary that provides power to the passenger trains. However, the Amboy Corridor was not built with clearances to accommodate the taller and heavier rail freight cars used today in many other locations. The NJTPA's Freight Rail Industrial Opportunity (FRIO) Corridors Program was created to evaluate the barriers to modern rail freight car access on these legacy lines, and the associated economic benefits of alleviating those restrictions. This profile presents the study's findings for the Amboy Corridor.

How Freight Moves

The Amboy Corridor's connection to the unrestricted rail network (where physical barriers no longer exist) is located at the Wood interlocking in Perth Amboy on NJ TRANSIT's



North Jersey Coast Line. From that location, local freight trains operate directly east and west to serve rail freight customers in Perth Amboy along the North Jersey Coast Line and the Perth Amboy Industrial Track. Other freight trains operate west from the Wood interlocking nonstop along the North Jersey Coast Line across the Raritan River to South Amboy, then use the Conrail Amboy Secondary to reach Browns Yard at Old Bridge. This is the base of operations for the local freight trains that will then make the final delivery of freight cars to rail customers along the Amboy Secondary, Freehold Industrial Track, and connecting freight tracks. The FRIO study's evaluation of physical restrictions and economic opportunities takes into consideration the rail operating patterns in place to deliver freight cars to customers.

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Weight Limitations and Clearance Restrictions

Two types of physical restrictions prevent the use of national standard rail freight cars on FRIO corridors: (1) weight restrictions that prevent the use of modern freight cars weighing 286,000 pounds fully loaded and (2) height restrictions that prevent the use of freight cars measuring 17 feet above the top of the running rails. Restrictions can include bridges, catenary clearances, culverts, and other

Modern Rail Car Access: Who Would Benefit?

Known Rail Customers

The existing freight rail customers identified by the FRIO study are involved in manufacturing and distribution activities that contribute to the economic vitality of northern New Jersey. They make and distribute products used by New Jersey residents every day, including food and beverages, home-building supplies, plasticware and household products, recyclable materials, shipping cartons and pizza boxes, and more. Common commodities transported on the Amboy Corridor include brick, chemicals, fertilizer, food products and ingredients, lumber, metals, paper, plastics, scrap metal, and steel. The Amboy Corridor has 44 identified rail freight customers that occupy approximately 803 acres of land.

Economic Impact of Modern Rail Car Access

Based on the calculations of land occupied by both existing and potential rail customers, the NJTPA used a Multi-Regional Input-Output model to develop an economic impact assessment of the corridor, considering direct, indirect, and induced benefits that could accrue to municipalities, counties, and the State if the sites were fully developed. These economic measurements include employment effects, physical elements on the rights of way. The Amboy Corridor has 10 of these types of physical restrictions. Estimated costs to alleviate these restrictions range from a low of \$9.6 million to a high of \$64.9 million. Under a separate project underway and not included in the FRIO analysis, NJ TRANSIT will replace its Raritan River bridge in Perth Amboy with a new structure capable of handling national standard rail freight cars.

Industrial Opportunities

Additional properties have been identified that offer significant potential for development or redevelopment as railserved industrial sites along the corridor. These sites include properties previously served by rail, industrial redevelopment areas, and properties that were already of interest to counties, municipal officials, or developers as favorable locations for industrial activity. It is estimated that properties in the Amboy Corridor with the potential for development or redevelopment after rail improvements were made total approximately 4,046 acres of land.

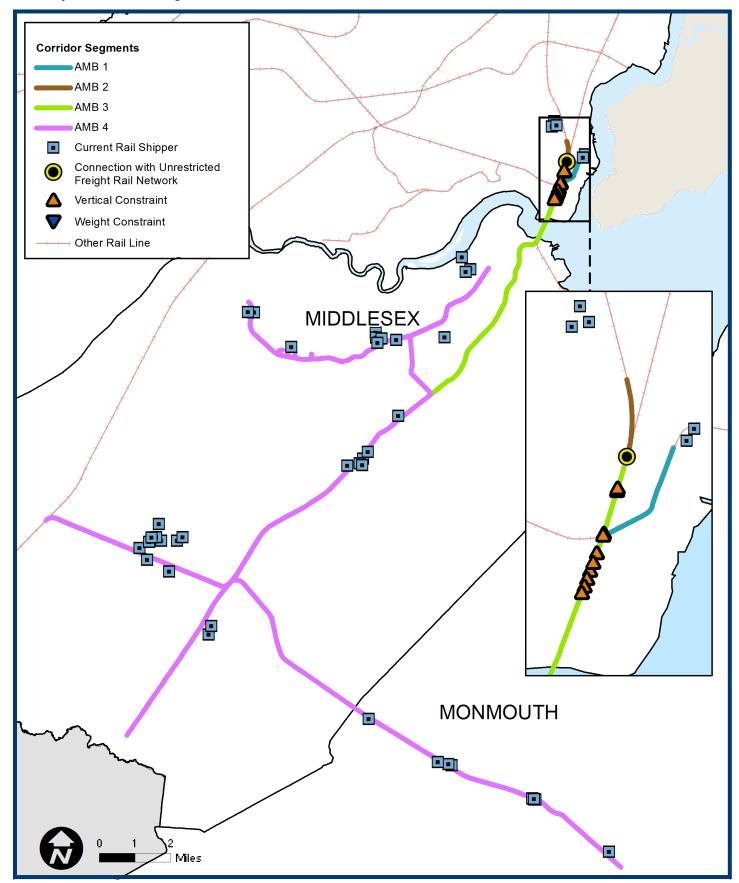
business output and revenue, personal income effects, and the effect of taxes, based on a mix of known industrial activities that occur in the corridor. The maximum potential economic value of new development attributable to alleviating the barriers to modern rail freight car access in the Amboy Corridor is estimated to be more than \$3.8 billion.

Amboy Corridor Potential Engineering Solutions and Economic Benefits

Corridor Segment	Restrictions in Corridor Segment	Range of Estimated Improvement Costs by Segment (\$2019 millions)	Cumulative Segment Cost Estimates (\$2019 millions)	Total Area (acres)	Estimated On-Site Jobs	Estimated Annual Tax Revenue (\$2019 millions)
AMB 1	0	\$0.0 - \$0.0	\$0.0 - \$0.0	94	995	\$108.0
AMB 2	0	\$0.0 - \$0.0	\$0.0 - \$0.0	306	3,235	\$321.1
AMB 3*	10	\$9.6 - \$64.9	\$9.6 - \$64.9	278	2,960	\$221.8
AMB 4	0	\$0.0 - \$0.0	\$9.6 - \$64.9	4,170	42,810	\$3,199.9
Total	10	\$9.6 - \$64.9		4,849	50,000	\$3,850.8

*Note: The segment of trackage identified as AMB 3, located between Wood interlocking in Perth Amboy and Browns Yard in Old Bridge, is shared by two FRIO corridors: the Amboy Corridor and the Coast Line Corridor. Improvements made to provide modern freight rail access for one corridor will also benefit the other corridor in that segment of shared trackage and, if made, can be deducted from the other corridor's improvement needs.

Amboy Corridor Map



About the NJTPA

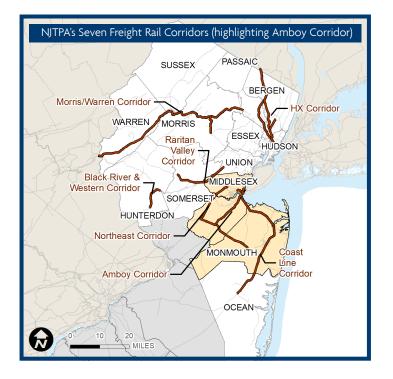
The North Jersey Transportation Planning Authority (NJTPA) is the federally authorized Metropolitan Planning Organization (MPO) for the 13-county northern New Jersey region, home to 6.7 million people. It evaluates and approves transportation improvement projects, provides a forum for cooperative transportation planning, sponsors and conducts studies, assists county and city planning agencies and monitors compliance with air quality goals. The NJTPA Board includes 15 local elected officials representing 13 counties—Bergen, Essex, Hudson, Hunterdon, Middlesex, Monmouth, Morris, Ocean, Passaic, Somerset, Sussex, Union and Warren—and the cities of Newark and Jersey City. The Board also includes a Governor's Representative, the Commissioner of the New Jersey Department of Transportation (NJDOT), the Executive Director of NJ TRANSIT, the Chairman of the Port Authority of New York & New Jersey and a Citizen's Representative appointed by the Governor.

About the Study

The NJTPA created the Freight Rail Industrial Opportunity (FRIO) Corridors Program to foster collaboration among public and private entities to address barriers to freight access to industrial properties. Industry and modern freight movement rely on heavier and taller rail cars. Current standards permit cars weighing 286,000 pounds loaded, and measuring 17 feet high. The legacy rail lines serving New Jersey's industrial areas cannot handle many modern rail freight cars, placing industries and sites along these lines at a competitive disadvantage. FRIO addresses this situation by evaluating the improvements needed to handle modern rail cars and the resulting economic potential for seven rail corridors in northern New Jersey. Two databases have been developed to advance decision-making and investments:

- *Industrial opportunity database:* Identifies potential properties along the affected rail lines that could benefit through improved access.
- *Restriction location database:* Inventory of physical height and weight restrictions on the rail lines.

This study will serve as an important roadmap in planning and funding improvements to enhance freight rail transportation and further economic development opportunities in



the region. FRIO advances the NJTPA's mission by linking transportation planning with economic growth, environmental protection and quality of life goals for the region. A final report for the study is available on the NJTPA website, NJTPA.org.



For further information on FRIO, please contact Anne Strauss-Wieder at strauss-wieder@njtpa.org The preparation of this document has been financed in part by the U.S. Department of Transportation, North Jersey Transportation Planning Authority, Inc., Federal Transit Administration, and the Federal Highway Administration. This document is disseminated under the sponsorship of the U.S. Department of Transportation in the interest of information exchange. The United States Government assumes no liability for its contents or its use thereof.