



# **IMMEDIATE NEEDS ASSESSMENT**

*Of railroad infrastructure in the Youngstown-Warren Mahoning Valley region*

For the



**May 31, 2012**

Conducted by



with

**Excelsior Transportation Management**

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## Executive Summary

In February 2012, the Board of Trustees of the Western Reserve Port Authority requested assistance in determining if it should build its organizational capacity to aid or otherwise develop railroad infrastructure projects in the Youngstown-Warren Mahoning Valley region. WRPA engaged RESTORE (Rail Enhancements = Sustainable Transportation, Opportunity, Revitalization & Employment), a rail freight infrastructure research arm of the nonprofit educational organization All Aboard Ohio, to help it determine what might be the best way to build its rail development capacity.

In its project scope, WRPA asked RESTORE to identify, evaluate and recommend up to five railroad infrastructure projects which represent “immediate needs” for the region. This report is the result of that request.

“Immediate needs” represent the low-hanging fruit among railroad infrastructure improvements – projects that are likely to be less complicated, less time-consuming and less expensive. WRPA stipulated in its contract with RESTORE that it wanted RESTORE to consider only those projects that could be implemented in two years or less. In all practicality, that means identifying projects that do not require property acquisitions and have little or no design and engineering remaining before construction can begin. These are infrastructure projects that have often been termed as “shovel ready” in recent years. These types of projects are a good way for developing WRPA’s organizational capacities of knowledge, finances and partnerships for improving rail infrastructure.

Many port authorities and regional development authorities in the U.S. engage in rail infrastructure improvement projects through planning, coordination, environmental assessments, financial assistance, organizational partnerships, data sharing or outright ownership of railroad facilities, structures and rights of way. The largest railroad-owning port authority in Ohio is the West Central Ohio Port Authority (WESTCO) based in Springfield, which owns 94 route-miles that were threatened with abandonment by the large “Class I” railroads. WESTCO was created in 1990 by county commissioners in three counties, but its rail lines reach into five counties.

Another structure is a regional development authority. One of the largest near the Mahoning Valley is the Susquehanna Economic Development Association-Joint Council of Governments (SEDA-COG) Joint Rail Authority (JRA). The JRA owns more than 150 route-miles of railroad that were threatened with abandonment starting in the early 1980s. It acquired rights of way, facilitates financing of infrastructure improvements, and administers operating agreements with private railroad companies to provide local and regional freight services.

However, most rail-supportive activities by other port authorities and development authorities are smaller. Large or small, nearly all of them started out modestly. Most built their capacities and activities over time and with hands-on experience aided by the knowledge of others. This report offers a way to move forward with rail infrastructure development by identifying, assessing and suggesting projects that would serve “immediate needs.” It is up to the WRPA board to decide next steps that serve their organization’s mission and goals.

Ken Prendergast  
Executive Director  
RESTORE  
May 31, 2012



Looking west at Leavitt Road, Leavittsburg, 1975



Looking west from Leavitt Road, Leavittsburg, 2012

*Both photos by Roger Durfee*

## Background

Over the past 35 years of deindustrialization in the Youngstown-Warren Mahoning Valley, the region has lost a significant amount of rail infrastructure. Since December 1979 when Conrail's Office of Chief Engineer published a map (see 1986 edition at end of report) of the Mahoning Valley's rail facilities, the region has lost 20 railroad yards serving industrial plants, classification and interchange operations. It also lost entire mainlines of the Erie-Lackawanna, Pittsburgh & Lake Erie, and the Lake Erie & Eastern – once proud railroads that each hosted dozens of daily trains. And it lost numerous branch lines and industrial tracks whose rights of way have since been scoured by salvaging operations or turned over to other uses.

As sad as it may be, much of this massive change is understandable considering that railroads needed to scale down their physical plant commensurate with the region's deindustrialization. But with the benefit of hindsight and especially in the context of present-day reindustrialization efforts locally, it is apparent that railroad infrastructure was cut too deeply. Much of this new viewpoint can be traced to the activities surrounding booming development of the shale gas industry, but not all of it.

Today, huge industrial tracts once left to rust into oblivion 30 years ago are rapidly expanding with advanced manufacturing techniques, productive labor-management relations, the support of local economic development efforts, and changes in the global economy. The region's railroads are also starting to see renewed activity with more operations and capital investments planned. But the loss of certain rail infrastructure is requiring railroad managers to make hard choices of what customers it can and can't serve. And shippers who want to use rail sometimes cannot. If the region is to capitalize on more job-producing opportunities, it may need to invest more funding into rail infrastructure.

Recognizing the scale of change that has come and is still coming to the Youngstown-Warren Mahoning Valley region is important for purposes of preparation. This report addresses rail infrastructure preparations that are being undertaken in the short term by railroads, shippers and community leaders in the Mahoning Valley.

The region can see into the future somewhat by looking east "up river" to energy developments in the region above the Marcellus Shale. Development of energy resources in that area is about five years ahead of developments in Eastern Ohio over the more deeply layered Utica Shale. The farther east someone travels, the nearer those energy-laden shales are to the surface, and thus those shales get tapped first.



The first Marcellus Shale well was drilled in Washington, Pa. in 2003. By 2007, geology.com reports that about 375 gas wells with suspected Marcellus intent had been permitted in Pennsylvania. Since then, between 1,000 and 2,000 drilling permits with suspected Marcellus intent were issued each year without two-thirds drilled, according to the commonwealth's Department of Environmental Protection.

In one gas-prolific region called the Northern Tier – the five counties north and west of the Scranton/Wilkes-Barre metro area – only four of 13 permitted Marcellus wells were drilled in 2007. Those numbers grew to 767 wells drilled in 2010, with 1,686 wells permitted, according to the Northern Tier Regional Planning & Development Commission (NTRPDC).

Railroads and track-owning port authorities in the Northern Tier and Susquehanna Valley regions report rail traffic is up about 25 percent – far above those in the rest of the nation, according to the Susquehanna Economic Development Association-Joint Council of Governments (SEDA-COG) Joint Rail Authority of Lewisburg, Pa. Much of that railroad carload traffic is due to well-drilling activity at this early stage of Marcellus Shale development.



**A train-to-truck sand transload facility at Williamsport, Pa. Each rail car has the same carrying capacity as 4-5 trucks.**

Well-drilling commodities handled by rail in the NTRPDC region include:

- Sand used in the fractionation process;
- Pipe for drilling, casing, and gathering of extracted gas;
- Cements and related materials for pad development and casing;
- Hydrochloric acid for the fracturing process;
- Used brine water for disposal after fractionation process;
- Miscellaneous equipment and supplies.

In total, more than 30 rail carloads of well-drilling commodities are needed per well. Of that, sand is the most significant commodity, according to a November 2011 report, “Marcellus Shale Freight Transportation Study” conducted by Gannett Fleming for NTRPDC. The report noted that:

“Sand for Marcellus shale gas production is almost exclusively delivered from the Midwest via rail and then trucked to the well site. An average rail car can carry 100 tons of sand which requires 4 or 5 trucks for offloading via a mobile conveyor. A single well may use up to 25 rail cars of sand.”

Forecasted estimates of Marcellus Shale drilling activities for the NTRPDC region were developed for the short-term (2015), mid-term (2020), and long-term (2035) time horizons. Forecasts for that region of Pennsylvania are based on:

- Well permit requests beginning to decline in the next 5 years;
- Well drilling leveling off in 5 years and will begin to decline in 10 years;
- Assumption that nearly all permitted wells will be drilled;
- Railroads will continue to maintain their current share of commodities moved for Marcellus Shale operations;
- The industry will begin to experience declines in drilling operations in approximately 15 years.

The report also projected that Marcellus Shale-related rail freight traffic in the five-county NTRPDC region is projected to grow to 20,000 annual carloads by the early 2020s and drop to near zero by the early 2030s.

The reason is that the Northern Tier of Pennsylvania produces “dry” methane natural gas and is typically shipped via pipeline. Also maintenance of well sites is by truck as it does not require high-volume, bulk shipments which favor rail.

As noted before, development of the Utica Shale is trailing that of the Marcellus Shale by about five years. Thus forecasts for Eastern Ohio could reasonably be:

- Well permit requests beginning to decline in the next 10 years;
- Well drilling leveling off in 10 years and may begin to decline in 15 years;
- The industry may begin to experience deeper declines in Eastern Ohio regional drilling operations in approximately 20 years.



**Reactivation of the Westland Branch, abandoned for 30 years, was underway in March 2012 near Southview, PA southwest of Pittsburgh. Wheeling & Lake Erie RR will ship up to 200 tank cars of propane and other gases daily from a new MarkWest processing plant in Houston, PA. While rail traffic from drilling for dry gas in the Marcellus Shale is not projected to last more than 20 years, the Utica Shale’s wet gas is creating rail traffic that likely to continue for a longer time.**

But the benefit of the Utica Shale is that it offers wet gas versus the dry gas in the Marcellus Shale precedent. Indeed, the industrial and transportation impacts from tapping the Utica Shale are likely to be longer lasting because of the wet gas byproducts of crude oil, butane, propane, ethane and pentanes. They often need vehicular shipment because much pipeline infrastructure does not exist for their movement.

In some cases, such as with ethane, their industrial uses preclude pipeline transport. An ethane cracker breaks up natural gas arriving by pipeline into the elements

that comprise plastic and polymers, such as ethane, ethylene and polyethylene. As unfinished raw materials (ie: polyethylene pellets), they are of a lower value and are often produced in such large quantities that their shipment in bulk makes rail an economical choice. Shell’s planned ethane cracker in Monaca, Pa. could produce 40 rail carloads of polyethylene pellets each day, according to media reports of predicted production levels.

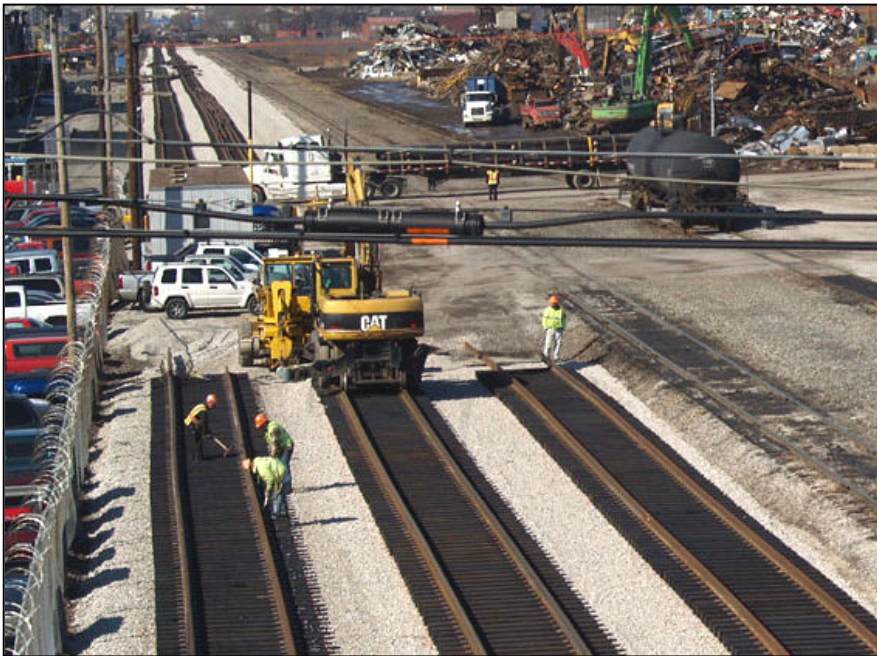
Another wet gas project that could be a harbinger for the Mahoning Valley is the new and expanding MarkWest Energy Partners LP processing plant in Houston, Pa., southwest of Pittsburgh. This cryogenic “fractionator” plant fed by more than a dozen compression stations separates natural gas, propane, butane and, eventually, ethane into products for shipment by train, truck and pipeline. Hundreds of trucks have poured in and out of the gas plant daily, prompting reactivation and extension of a nearby railroad spur built in the 1920s to serve a local coal mine.

The Westland Branch of the Montour Railroad from Southview, Pa. was abandoned in 1981 and later gained a hike-and-bike trail on part of its right of way. Construction of the new railroad line began in the fall of 2011. Reactivation of this three-mile-long railroad requires new bridges, tracks and



relocation of the trail. It also required newly graded roadbeds for a multi-track railroad yard at the gas plant and for a track connection to reach the Wheeling & Lake Erie Railroad's mainline instead of the Montour at Southview. In the first year of rail access in 2013, 400 million gallons of natural gas liquids will be produced and loaded into nearly 15,000 railroad tank cars, or 40 carloads per day. That production is forecast to grow five-fold in the coming years to 200 daily carloads.

Yet another railroad reactivation project in the heart of Marcellus country in Pennsylvania may set a precedent for Eastern Ohio. In May 2012 and after four years of environmental reviews, the Surface Transportation Board (STB) gave final approval to RJ Corman Railroad and Norfolk Southern Corp. to reactivate about 20 miles of the former Beech Creek Branch Line from Phillipsburg to Gorton northwest of State College, Pa. Half of this former Conrail right of way was railbanked and the other half abandoned 20 years ago. Railbanking is an alternative to abandonment created by Congress in 1983 in which a railroad retains rights to use a right of way again in the future. So even if interim uses such as a trail were built on the right of way, they have to remove their facilities (often at their own expense) to make way for the railroad.



**Railroad construction workers lay new tracks next to V&M Star Steel's growing Youngstown Works during the winter of 2012 so Genesee & Wyoming RR can handle thousands of new carloads of scrap steel for the mill's electric arc furnace and then deliver finished tubular goods for the oil and gas industry worldwide, plus other customers.**

Under abandonment, a railroad gives up its rights to use the right of way again, and would have to petition the STB to use the property as if a railroad had never existed there before. However, railroads are one of the nation's few private interests which have eminent domain powers and the STB's decision to vacate the earlier abandonment from Phillipsburg to Munson, Pa. shows the legal powers that railroads possess and which are enforced by federal regulators.

There are numerous other rail infrastructure improvements "up-river" in the Marcellus region and which are starting to make their way into the Utica region. Some are spin-off investments resulting from the availability of cheap and abundant natural gas

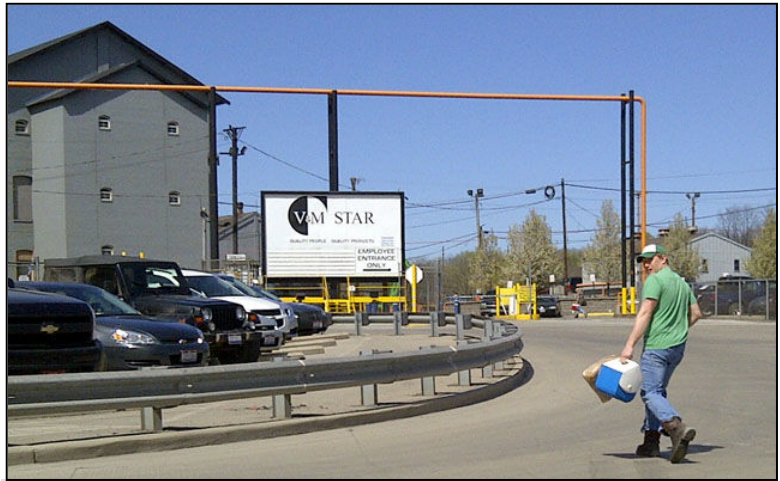
while others are totally unrelated to the natural gas drilling boom. One of those is the reactivation of six miles of railroad line abandoned 30 years ago in Allenwood, Pa. near Williamsport, for which SEDA-COG secured \$3 million in federal construction funds.

There are more two reasons why the natural gas boom in the region is likely to produce long-term and potentially significant economic activity in the Youngstown-Warren area. One is the region positioning itself as the manufacturing "toolbox" for the energy industry, including steel tubular products, processing equipment and components, construction and maintenance machinery and tools. Another is the availability of low-cost, abundant and nearby supplies of crude oil, natural gas, propane, butane, ethane and their manufactured byproducts that could draw employers to the region.

Many of those activities, plus others that are unrelated to the region's natural gas drilling boom, will require rail service. This is especially true for the bulk movement of raw materials and finished goods. The efficient shipment of these products demands a safely maintained, extensive, high-quality and connected network of railroads in response to shippers' identified needs.

## Study Process

On Feb. 16, 2012, the Western Reserve Port Authority (WRPA) Board of Trustees approved a proposal by RESTORE to conduct an "Immediate Needs Assessment" of railroad infrastructure in and near the Mahoning Valley. A contract was soon executed between WRPA and RESTORE to conduct the assessment over three months. RESTORE subcontracted with Michael Connor, Principal Railroad Consultant at Excelsior Transportation Management.



**Nearly 1,000 steelworkers arrive for their shifts each day at V&M Star's Youngstown Works – a railroad-fed mill complex that Youngstown Sheet & Tube shut down in 1979.**

Given the tight, three-month study timeline as required by the study contract, RESTORE kept the study process very simple. It would organize two public input meetings – one at the start of the study and the other at the end with two intervening coordination meetings attended by staff from WRPA, Eastgate and the Ohio Rail Development Commission. There was also participation in one meeting by the Mahoning Valley Economic Development Corp. as well as by Rep. Tim Ryan's staff in the other coordination meeting.

**Given the tight, three-month study timeline as required by the study contract, RESTORE kept the study process very simple.**

The public input meeting at the start of the study was held March 8, 2012 at the Youngstown Club and was attended by 20 persons representing businesses, village and municipal governments, regional planning organizations, industrial parks, real estate professionals, and average citizens. After a brief presentation by

RESTORE, the attendees provided suggestions and criteria on how to identify projects to meet various needs and how to score them to come up with a ranking of each project. Input suggested including only those projects located west of I-79, south of Lake Erie, east of I-77 and north of I-70.

Per RESTORE's contract with WRPA, the five rail infrastructure projects achieving the highest score would be recommended. More criteria were suggested than were ultimately used because some were similar to each other. Using feedback at the first coordination meeting held on March 29, the scoring criteria were refined to 10 and ultimately used for this assessment. Specific scores per measurement (ie: X points for Y carloads per year) were proposed for the second coordination meeting on April 26.

An important issue was resolved at that meeting – to fairly measure vacant land in the assessment. At the earlier public input meeting, the availability of vacant land along rail lines was deemed important for future economic development and to aid a rail project's financial sustainability. However, rail infrastructure projects that were longer in distance (and ultimately more complicated and expensive, thus potentially contrary to the "immediate needs" scope of the study) scored higher because they had more vacant land along them. So it was suggested at the second coordination meeting that the measurement of "vacant acreage per mile" of railroad be used instead. That resulted in smaller, simpler and less expensive projects receiving higher scores, which was more consistent with the "immediate needs" scope. This shows how feedback was used to refine the project scoring process.



Identification of projects for consideration came from sources among three basic categories:

**Railroads** – Ashtabula Carson & Jefferson (via COO Robert Callahan), Cleveland Commercial RR (via CFO Bill Brown), CSX (via ORDC), Genesee & Wyoming (via ORDC and Michael Connor), Norfolk Southern (via Contract Sales Agent and Rail Logistics Specialist Gary Landrio), and Youngstown & Southeastern (via President Powell Felix);

**Shippers** – CASTLO (via board Chairman Randy Partika and Executive Director Michael Hoza), Ohio Commerce Center (via Routh Hurlbert reps Dan Crouse and Chuck Joseph), and Trans-Rail America Corp. (via Howard Hanna rep James Pirkko);

**Community** – Citizens, Eastgate Regional Council of Governments (via Director of Comprehensive Planning Tim Yova), Mahoning Valley Economic Development Corp. (MVEDC Executive Director Michael Conway), Northeast Ohio Trade & Economic Consortium (via President/CEO Ron DeBarr), Ohio Rail Development Commission (via Chief Planner Lou Janazzo & Planner Don Damron), Rep. Tim Ryan (via District Director Rick Leonard & Economic Development Coordinator Chris Cupples), Western Reserve Port Authority (via WRPA Senior Director of Economic Development Sarah Lown), as well as Youngstown-Warren Regional Chamber of Commerce (via VPs Anthony Paglia & Eric Planey).

Each project site was visited by RESTORE's Ken Prendergast, Excelsior's Michael Connor, or both. Communication was made with at least one principal involved with each project, either in person, by phone, e-mail or by contact from their representative.

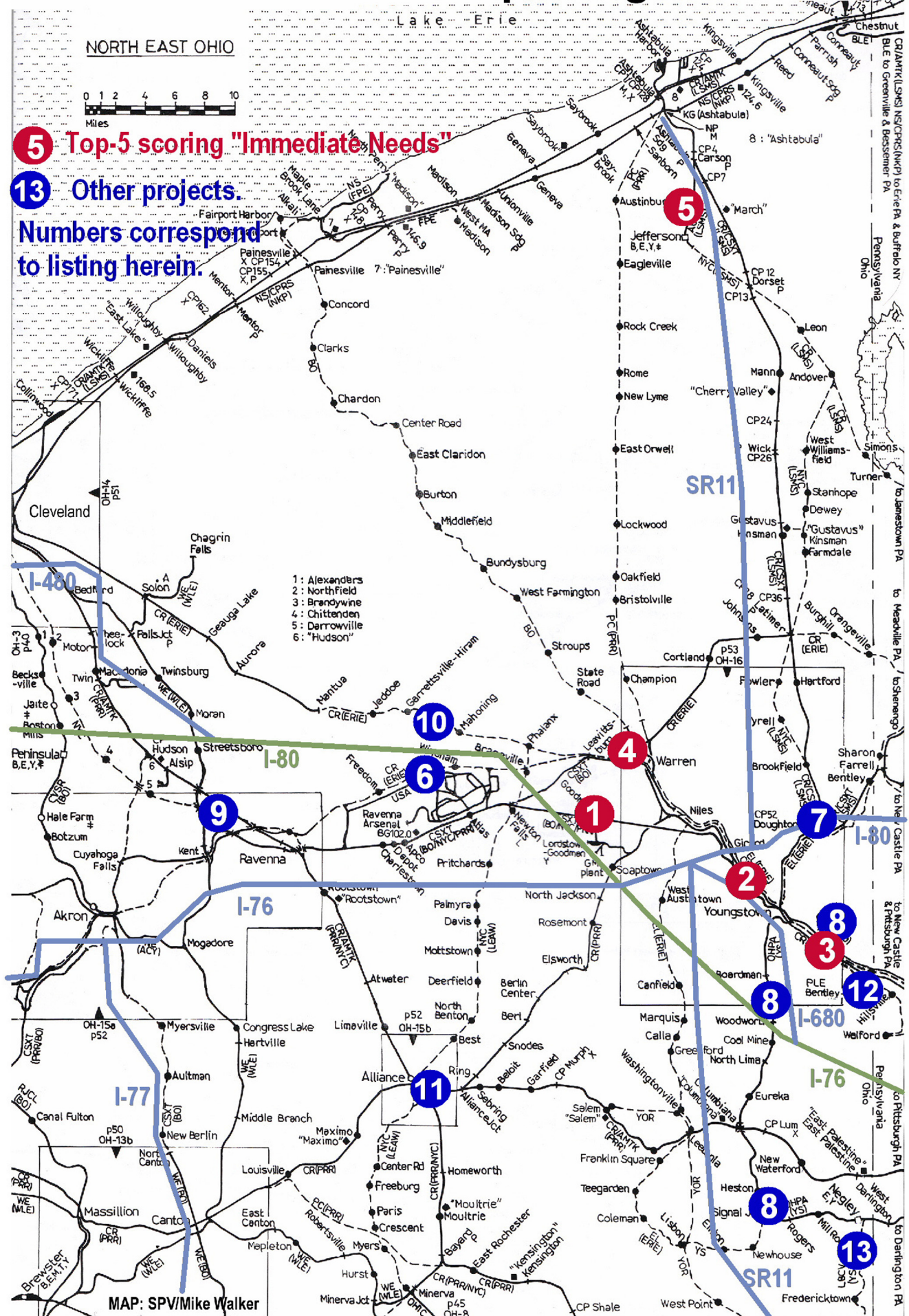
**Per RESTORE's contract with WRPA, the five rail infrastructure projects achieving the highest score will be recommended.**

At the second of two public input meetings, held May 10 at the Youngstown Club, the draft recommendations were presented to about a dozen attendees including two media representatives who shared the preliminary findings in their articles. The draft findings were also posted on All Aboard Ohio's website and shared with more than 300 members of the community by e-mail. WRPA staff also shared the findings with board members for their feedback.

As a result of that outreach, one project was dropped from consideration (an Airport Rail Link) and another was added (the Hubbard transload proposed by Trans-Rail America). This shows the importance of sharing the preliminary findings to gather as much as feedback as possible despite the study's tight timelines. Ultimately, a three-week public comment period on the preliminary findings was offered before the final report was submitted to WRPA on May 31, 2012.

**Construction cost estimates:** The construction cost projections contained in this report for each rail infrastructure project are conceptual-level estimates based on unit costs developed by others for various clients, including mainline, secondary track and railyard improvements. They include data developed by Quandel Consultants in 2011 for the Ohio Hub System and other uses; NETEX Rail District for its 2012 TIGER IV application; CASTLO, Ohio Rail Development Commission and reviewed by Michael Connor, Principal Railroad Consultant at Excelsior Transportation Management.

# Overview Rail Map - Regional







## Rail Project Scorecards

To develop criteria for the identification and recommendation of rail infrastructure development projects, a public meeting was held March 8, 2012 in downtown Youngstown. It was attended by citizens, urban planners, municipal officials, shippers, business owners and representatives, commercial real estate professionals and others. Separately, representatives of railroads, chamber of commerce and other business and logistics experts were contacted for their input to this assessment. Through that input, numerous criteria were suggested to help identify potential projects and, ultimately to evaluate the projects that were suggested by railroads, shippers and others.

A follow-up meeting was held May 10, 2012 at the same location in downtown Youngstown and attended by many of the same persons as the first meeting. There, they reviewed the projects and saw how the projects scored using a point system based on the suggested criteria. These are the suggested criteria and the points that were assigned to them.

### Scorecard criteria descriptions

**TIMELINE** – Since this report is an assessment of “immediate needs” then Timeline is one of the most crucial criteria. In fact, RESTORE’s contract with the Western Reserve Port Authority precludes it from recommending any projects whose implementation will likely require more than two years of planning, procurement of most of the funding package, property acquisition, permits and construction. So, for a project to be recommended, planning might have to be already completed or well-advanced at the time of this assessment for construction to be underway within two years of the issuance of this report.

*Therefore, if a project’s construction can be underway in one year, it is assigned ten (10) points; if a project’s construction can be underway in two years, it is assigned five (5) points. If construction is unlikely to begin until three years or more after the issuance of this report, then it is assigned zero (0) points.*

**UNFUNDED CAPITAL COST** – The ability to realize projects often depends on the cost. The larger the cost, the fewer potential funders there are with the capacity to pay for it. Capacity is not limited to finances, but also to experience with rail projects. If a rail project carries a relatively small price tag, it is also likely to be less complicated (ie: requires less environmental review, needs little or no property acquisition, involves little or no earthmoving, etc.). Or if there is significant funding already in place for a large project but the unfunded portion is relatively small, then much of the planning framework is probably already far advanced. New funding might simply be plugged in to implement the project.

*Therefore, a project having unfunded capital costs less than \$500,000 is assigned ten (10) points), a project needing \$500,000-\$999,999 is assigned eight (8) points), \$1 million-\$2,499,999 is assigned six (6) points, \$2,500,000-\$4,999,999 is assigned four (4) points), and a project needing \$5 million or more is assigned two (2) points.*

**ESTIMATED CARLOADS PER YEAR** – Input encouraged the pursuit of projects that are financially sustainable. A good way to measure the otherwise abstract notion of financial sustainability (ie: whether a project is a sound financial investment) is the existing and or potential use of it. In the railroad industry, use is typically measured in carloads (often for unfinished/bulk goods) or intermodal units (often for finished/manufactured goods). Since no freight rail-involved intermodal facilities are planned in the Mahoning Valley at this time, carloads are used to measure financial sustainability. Because mainline freight trains often measure more than 50 cars in length, and branchline freight trains are typically 50 cars or less, a shipper that can generate enough carloads to fill a significant portion of a train’s consist is very attractive to a railroad. Input encouraged measuring existing carload traffic on the right of way to be improved because its revenues can help sustain expanded capacity, in addition to potential carload traffic achieved as a result of the project.



*Therefore, total predicted traffic on the right of way to be improved or built measuring 10,000 or more carloads per year (equals 27.4 carloads per day) is assigned ten (10) points, 5,000-9,999 carloads per year is assigned eight (8) points, 2,500-4,999 carloads per year is assigned six (6) points, 1,000-2,499 per year is assigned four (4) points, 1-999 carloads per year is assigned two (2) points, and a project whose demand/user is not yet identified is assigned zero (0) points as the project does not represent an immediate need.*

**WATERWAY (NAVIGABLE) ACCESS** – Projects having existing rail access to nearby navigable waterways (Lake Erie and Ohio River), or projects that would create access to those waterways were considered important by public meeting attendees. However, waterway access needs to be quantified. When two or more railroads are needed to move a shipment, costs rise, delivery times may increase, reliability may diminish and the risk of damage or theft grows. Not only do shippers tend to prefer dealing with just one carrier, but so do railroads even if it means an indirect routing so that it can retain all the revenue from moving the shipment. It should also be noted that the major railroads like CSX and Norfolk Southern prefer to not ship the 50 miles or less to Lake Erie or Ohio River ports unless the shipment is very large, such as train-loads of iron ore brought from the Port of Ashtabula to RG Steel in Warren. Instead, they prefer to handle shipments over longer distances to salt-water ports, such as on the East Coast. Exceptions are the shortline railroads which generally would be happy to move as little as a few carloads per week to ports on Lake Erie or the Ohio River.

*Therefore, if the project's location today or as a result of proposed project provides rail access to both Lake Erie AND Ohio River ports without interchange between carriers, then the project is assigned four (4) points. If a lake OR river port can be reached by rail without interchange, the project is assigned two (2) points. If a port on neither waterway is accessible without interchange (0 points). If a regional (Class II) or shortline (Class III) railroad can be the only carrier involved, then multiply the point total by two (2).*

**NEAR MAJOR ASSETS** – Another way to measure financial sustainability is the project's proximity to major assets that can generate rail freight traffic. Physical closeness is only part of the equation however. If there is a physical obstruction (river, large embankment, cemetery, school, etc), between the project and the major asset that requires burdensome expense, legal complications or environmental issues to overcome, then the value of that proximity is reduced. A project can be assigned up to eight points based on the following criteria.

*Therefore, if a project is within 500 feet with some physical obstructions or within 1,000 ft with no physical obstructions of a site that can serve as drilling-related transload area within two weeks it is assigned two (2) points; an existing/willing rail shipper; two (2) points; and an existing/planned industrial park, two (2) points. And, if the project is within two miles of an interchange with a limited-access highway it is assigned two (2) points or within four miles of an interchange with a limited-access highway it is assigned one (1) point.*

**LARGE VACANT LAND** – Financial sustainability can be measured by proximity to large vacant land on which a shipper or shippers can establish facilities. Proximity to large tracts of vacant land was separated from "Near Major Assets" because it demonstrates a potential for long-term financial sustainability over many years, if not decades. Acres of vacant land per route-mile of railroad right of way were considered to be a fair measure by those giving input. Fewer points are assigned here than with existing/planned carloads because existing/planned use is considered more valuable than potential use resulting from future development of vacant land.

*Therefore, a project that is within 500 feet with some physical obstructions or 1,000 feet with no physical obstructions of 40+ acres of vacant, developable land per route-mile is assigned five (5) points, 30-39 acres per route-mile is assigned four (4) points, 20-29 acres is assigned three (3) points, 10-19 acres is assigned two (2) points, and 9 acres or less per route-mile is assigned one (1) point.*

**FOSTERS RAILROAD COMPETITION** – Railroad competition was desired to keep shipping rates low and to encourage improved customer service. The identity, performance and reputation of individual railroad carriers involved with a project/site were less important because these characteristics can change over time. In fact, their performance can and often does change when a competing carrier is present. This is important to keep, retain and expand shippers in the Mahoning Valley. The presence of one rail carrier was considered to be worth one point because the project could make a rail carrier available to a site where it was not available before. Having at least one rail carrier available was deemed more valuable than having none at all.

*Therefore, a project accessible to four or more railroad carriers is assigned four (4) points; three carriers, three (3) points; two carriers, two (2) points; and one carrier, one (1) point.*

**WIDE RAILROAD RIGHT OF WAY** – The presence of a wide railroad right of way associated with a project was deemed valuable for two reasons. First, the availability of a wide right of way could allow a pipeline, utility or some other non-rail longitudinal use to share the right of way with a rail use. It could potentially provide a funding mechanism to enable the acquisition of the right of way and/or the development of railroad infrastructure. Second, a wide right of way could allow the shipment of high-wide loads such as large machinery/presses, military assets to/from Camp Ravenna or the airport, and oversized finished goods such as blades for wind turbines.

*Therefore, a project associated with a right of way having a width no less than 110 feet is assigned four (4) points; 100-109 feet, three (3) points; 80-99 feet, two (2) points; and 60-79 feet, one (1) point.*

**CLASS OF RAILROAD** – For purposes of accounting and reporting, the Surface Transportation Board (STB, the federal body which regulates railroads) generally classifies railroads according to their carrier operating revenue from the base year of 1991 and then adjusting it for inflation. Class I carriers (called “major” railroads) have annual operating revenues of \$398.7 million or more. Class II carriers (called “regional” railroads) have annual operating revenues of less than \$398.7 million but more than \$31.9 million. Class III carriers (often called “shortlines”) include those with annual operating revenues of \$31.9 million or less, and all switching and terminal companies regardless of operating revenues. For this report, input provided at the March 8 public meeting considered it more important to support projects that benefit Class II/III carriers for two reasons. First, Class I carriers are found by the STB as generating sufficient revenues to achieve (or come close to achieving) their cost of capital. In contrast, regional/shortline railroads typically are far less revenue adequate and often need financial assistance to carry out capital projects. Second, Class I railroads’ marketing tends to focus on larger shippers (including interchange of large numbers of carloads from shortlines). By comparison, regional/shortline railroads aggressively market their services to smaller shippers and can aid in their development and expansion. Thus, support of projects that directly benefit regional/shortline railroads was deemed to be of a higher priority.

*Therefore, if a project is located on a right of way owned/leased or served by a major (Class I) railroad, it is assigned two (2) points. If it is on a right of way owned/leased or served by a regional/shortline (Class II or III) railroad, it is assigned four (4) points. And, if a proposed right of way ownership resulting from the project or an existing trackage rights agreement allows two or more classes of railroad to use/serve the same project, then the project is assigned six (6) points.*

**LONG TERM USE** – Input provided at the March 8 public meeting considered it important to emphasize that this report not be limited to the shale gas industry, even though many industrial shippers in the region are growing because of it. The input wanted to include criteria which placed value on projects that offered a clear, known use after the initial spike in traffic growth at the onset of shale drilling.

*Therefore, does the project serve an identified, long-term purpose after shale gas drilling ends in this region? If the answer is “Yes”, then the project is assigned four (4) points. If the answer is “No”, then no points are assigned.*

## 1. Project: On-site and site access track improvements

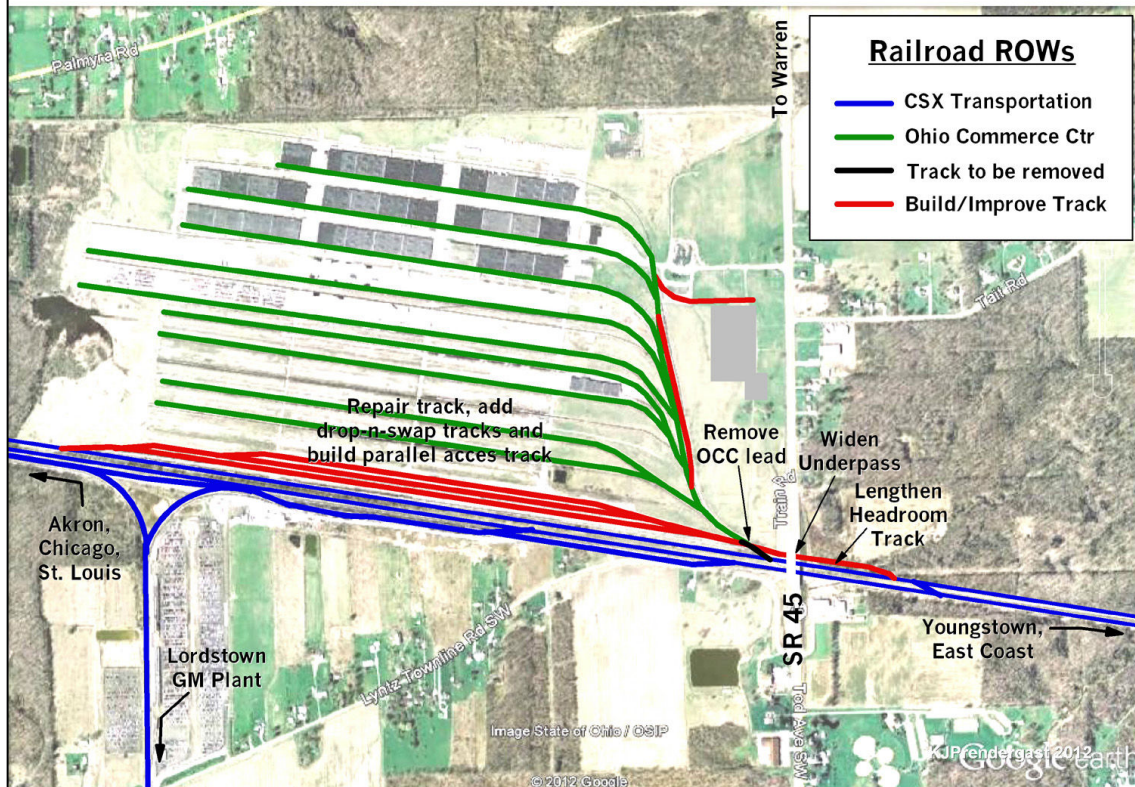
### Sponsor: Ohio Commerce Center

**Project Summary:** To accommodate growing manufacturing, storage and distribution use of its 476-acre facility, including as a transload site for energy-related companies, numerous rail infrastructure investments are planned. These include street resurfacing, railroad crossings, rehab of track and turnouts for drop-and-swap tracks, construction of new track including a parallel access track and headroom track extension, plus modification of the underside of the SR 45 overpass for the headroom track. A retaining wall will be built to support the embankment for the overpass bridge. About 200 acres of the Ohio Commerce Center are rail accessible. Rail traffic capacity needs to be enhanced to accommodate projected growth from shippers already on site, new shippers that are constructing facilities or those seeking to locate shipping activities at the OCC. The sum of rail traffic from current and potential shippers is projected to be significant – more than 35 carloads daily.

Criteria	Comments	Score
<b>TIMELINE</b>	Funded track and underpass work could begin within one year. No property needs to be acquired.	10
<b>UNFUNDED CAPITAL COST</b>	Up to \$2.173 million may be needed to complete rail improvements.	6
<b>EST. CARLOADS PER YEAR</b>	Existing and projected traffic within two years is estimated by OCC at more than 13,000 carloads per year.	10
<b>WATERWAY(S) ACCESS</b>	CSX, a Class I RR, provides rail access without interchange to the Lake Erie port of Ashtabula (via trackage rights on NS) and to transloading terminals on the Ohio River.	4
<b>NEAR MAJOR ASSETS</b>	Site can serve a drilling-related transload within 2 weeks, an existing/willing rail shipper, an existing/planned Industrial park, and is within 4 miles of a highway interchange.	7
<b>LARGE VACANT LAND</b>	OCC has 67 acres of rail-accessible, developable land per route-mile of track.	5
<b>FOSTERS RR COMPETITION</b>	The site is accessible by one railroad carrier.	1
<b>WIDE RR RIGHT OF WAY</b>	Parallel rights of way allow for lateral clearances of 200+ feet for pipelines, utilities or rail including for high/wide loads.	4
<b>CLASS OF RAILROAD</b>	Proposed improvements are to rights of way accessible by Class I RR.	2
<b>LONG TERM USE</b>	Rail capacity, unrelated to the shale gas business, is already cramped without the presence of rail/shale customers. Expanded capacity will likely continue to be used for many years by non-shale gas users.	4
<b>TOTAL</b>		<b>53</b>

See map and cost estimates for this project on the next page...

## Ohio Commerce Center



### OHIO COMMERCE CENTER

On-site and site-access track improvements and construction  
(FRA Class 1 track standards)

ITEM	QUANTITY	UNIT	2012 UNIT COST	ESTIMATED AMOUNT
Rehabilitate existing track	12,400	LinFt	\$ 10.00	\$ 124,000
New track on existing RR grades	11,300	LinFt	\$110.00	\$ 1,243,000
Replace/construct turnouts	Placeholder		\$600,000	\$ 600,000
Clearing of vegetation	6	Acre	\$ 6,000	\$ 36,000
Roadway crossings	1	Each	\$ 50,000	\$ 50,000
Retaining walls	4,400	SqFt	\$ 75.00	\$ 330,000
			SUBTOTAL	\$ 2,393,000
			30% CONT.	\$ 720,000
			<b>TOTAL</b>	<b>\$ 3,113,000</b>
TOTAL JRS-FUNDED RAIL COMPONENTS .....				<u>\$ 1,000,000</u>
<b>TOTAL NEEDED</b>				<b>\$ 2,113,000</b>



## 2. Project: Ohio Junction rail yard expansion

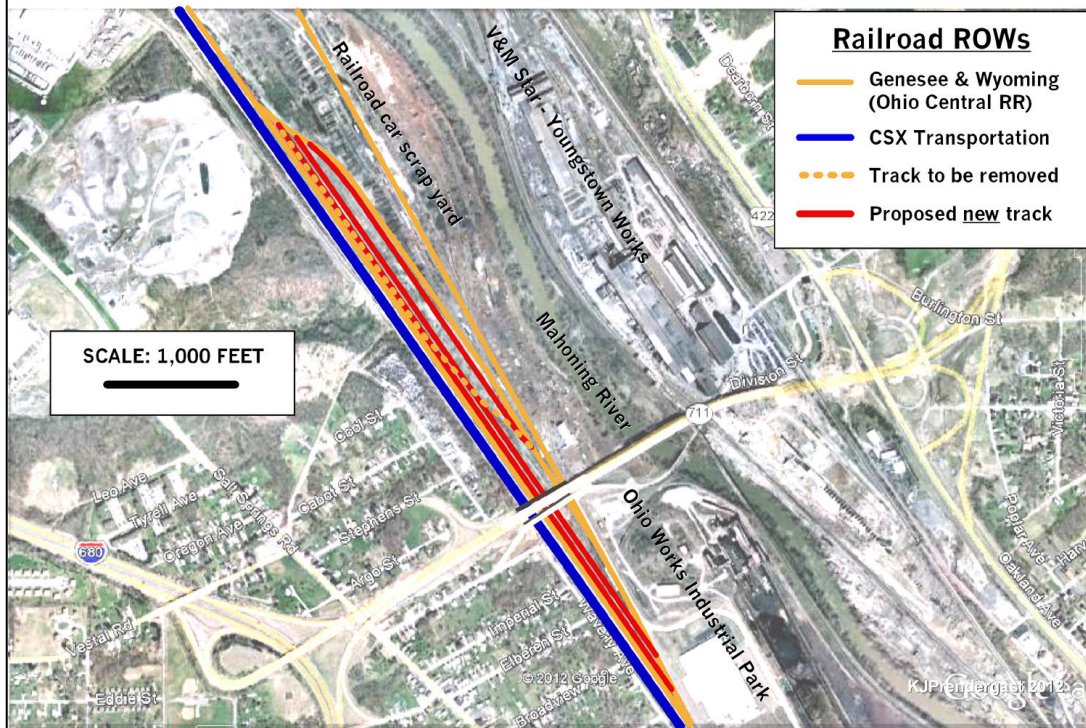
**Sponsor: CSX & Ohio Central RR (a Genesee & Wyoming Company)**

**Project Summary:** To accommodate growing steel pipe business at V&M Star's Youngstown Works, expansion of the interchange yard at Ohio Junction between CSX and Ohio Central (G&W) has been considered by Ohio Central. Prior to 2012, V&M's Youngstown Works produced about 500,000 tons of seamless steel pipe each year. With the \$707 million in total investment underway for expansion, this output is projected by V&M to grow by another 350,000 tons of seamless tubes in the near term, and potentially as much as 500,000 tons over the long term. Thus, it is assumed that capacity of the CSX/Ohio Central interchange yard may need to double to accommodate this growth, as well as to serve other growing industries and shippers nearby. Two design options for this expansion were considered – a long, two-track yard option and a short, four-track yard option. Both options offer similar capacity, may incur nearly identical costs and use the same CSX-owned parcel, so they do not need to be assessed on separate scorecards. Ultimately it will be up to the railroads to decide how to design the expanded yard to suit their own operating preferences. There is sufficient CSX-owned land for additional yard expansion as well as vacant land in the nearby Ohio Works Industrial Park for more industrial users.

Criteria	Comments	Score
<b>TIMELINE</b>	Project could be underway within one year of funding becoming available as no property needs to be acquired.	10
<b>UNFUNDED CAPITAL COST</b>	Estimated at \$2.3 million.	6
<b>EST. CARLOADS PER YEAR</b>	Actual carload data for the interchange yard was unavailable but is estimated at 5,000-10,000 per year currently, growing to 10,000 to 20,000 per year after V&M's expansion.	10
<b>WATERWAY(S) ACCESS</b>	CSX, a Class I RR, provides rail access without interchange to the Lake Erie port of Ashtabula (via trackage rights on NS) and to transloading terminals on the Ohio River.	4
<b>NEAR MAJOR ASSETS</b>	Site can serve a drilling-related transload within 2 weeks, an existing/willing rail shipper, an existing/planned Industrial park, and is within 2 miles of a highway interchange.	8
<b>LARGE VACANT LAND</b>	About 50 total acres of vacant land is adjacent to the project site, divided by about 13,000 feet of new track is 20 acres per track-mile.	3
<b>FOSTERS RR COMPETITION</b>	The project site is accessible by two railroad carriers.	2
<b>WIDE RR RIGHT OF WAY</b>	CSX rights of way to the site are at least 100 feet wide, and Ohio Central rights of way and/or clearances (including lateral/overhead bridge structures) to V&M are not constrained.	3
<b>CLASS OF RAILROAD</b>	CSX is a Class I carrier and Ohio Central is a Class III carrier.	6
<b>LONG TERM USE</b>	The existing Ohio Junction interchange rail yard serves non-V&M shippers in the area, but the expansion is clearly motivated by the expansion of V&M. If shale drilling activities were curtailed, the existing rail yard might be sufficient to serve the area's remaining shippers.	0
<b>TOTAL</b>		<b>52</b>

See map and cost estimates for this project on the next pages...

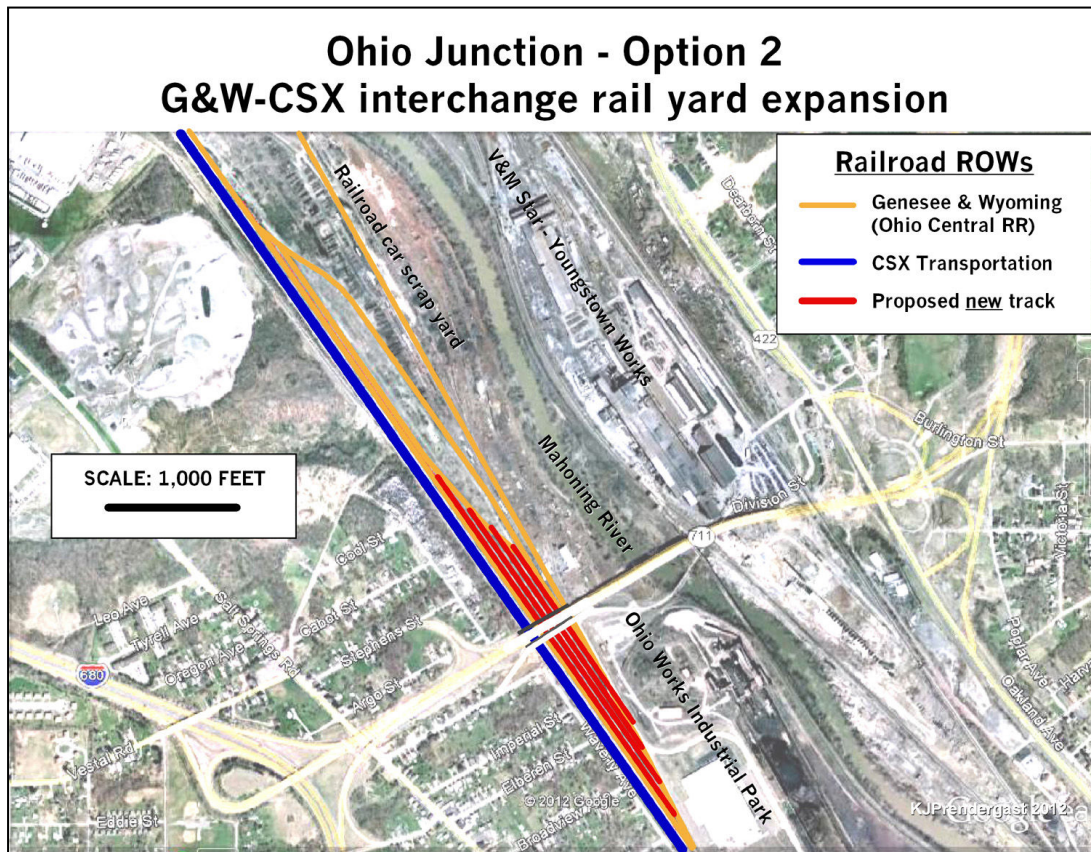
## Ohio Junction - Option 1 G&W-CSX interchange rail yard expansion



### OHIO JUNCTION RAIL YARD EXPANSION – OPTION ONE

Two new yard tracks 6,000 and 6,300 feet long, realigning 2,800 feet of track  
(FRA Class 1 track standards)

ITEM	QUANTITY	UNIT	2012 UNIT COST	ESTIMATED AMOUNT
Rehabilitate existing track with 110# CWR (less scrap value = \$23,000)	2,300	LinFt	\$ 110.00	\$ 230,000
Remove existing track (less the scrap or relay value = \$10,000)	850	LinFt	\$ 15.00	\$ 3,000
New track with 110# CWR	12,800	Line	\$ 110.00	\$ 1,408,000
Turnouts on new/realigned yard tracks	4	Each	\$ 35,000	<u>\$ 140,000</u>
			SUBTOTAL	\$ 1,781,000
			30% CONT.	<u>\$ 534,300</u>
			<b>TOTAL</b>	<b>\$ 2,315,300</b>



### OHIO JUNCTION RAIL YARD EXPANSION – OPTION TWO

Four new yard tracks 2,900, 3,300, 3,550, and 3,900 feet long  
(FRA Class 1 track standards)

ITEM	QUANTITY	UNIT	2012 UNIT COST	ESTIMATED AMOUNT
New track with 110# CWR	13,650	Line	\$ 110.00	\$ 1,501,500
Turnouts on new/realigned yard tracks	8	Each	\$ 35,000	\$ 280,000
			SUBTOTAL	\$ 1,781,500
			30% CONT.	\$ 534,450
			<b>TOTAL</b>	<b>\$ 2,315,950</b>



### 3. Project: CASTLO/Lally Rail Service Yard repairs/rehabilitation

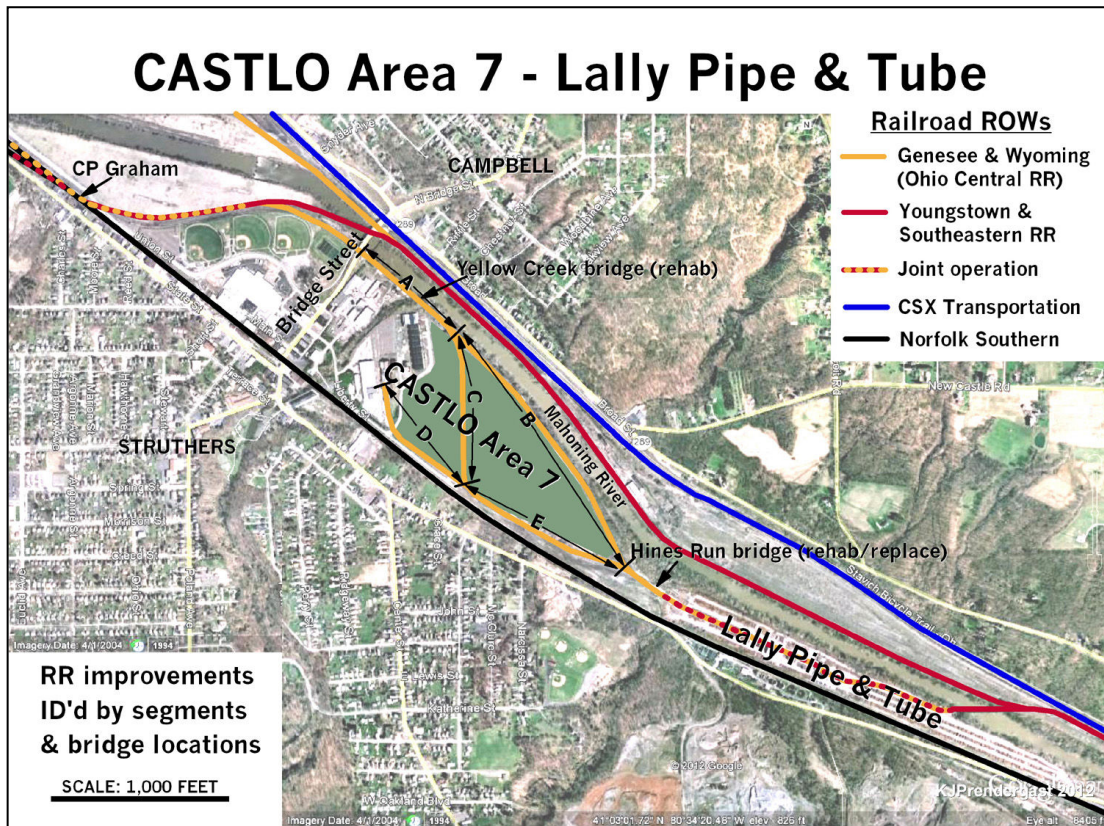
**Sponsor:** CASTLO Community Improvement Corp.

**Project Summary:** Track and railroad bridge repairs are needed for the ongoing redevelopment of CASTLO's Area 7 including its Rail Service Yard concept and to accommodate an increase in steel pipe business at Lally Pipe & Tube Corp. Lally receives pipe by rail from V&M's growing steel plant on the Northwest side of the city. Total track length measures about 13,000 lineal feet plus two steel girder bridges – one over Yellow Creek (about 90 feet long) and Hines Run (about 55 feet long). A Job Ready Sites grant was recently awarded to CASTLO to demolish and remediate a 300,000-square-foot building, construct a sanitary lift station, remediate soil, grade the 60-acre site, construct roadways and utilities, and repair track. Due to other priorities, only about \$100,000 of the \$5 million JRS grant will be used to repair track. Up to \$1.33 million is needed to carry out CASTLO's remaining Rail Service Yard plan and improve rail access to Lally Pipe & Tube Corp.

Criteria	Comments	Score
<b>TIMELINE</b>	Funded track/bridge repairs could begin within one year.	10
<b>UNFUNDED CAPITAL COST</b>	CASTLO estimates up to \$1.175 million to complete rail improvements; RESTORE estimates up to \$1.33 million is needed. Both estimates result in the same score.	6
<b>EST. CARLOADS PER YEAR</b>	Between CASTLO and Lally, existing rail traffic is perhaps 200 carloads per year. This could double with the development of CASTLO's Area 7 and with growth at V&M and Lally to 400 carloads or more per year.	2
<b>WATERWAY(S) ACCESS</b>	NS and CSX are both Class I RRs that provide rail access without interchange to the Lake Erie port of Ashtabula and to transloading terminals on the Ohio River.	4
<b>NEAR MAJOR ASSETS</b>	Site can serve a drilling-related transload within 2 weeks, an existing/willing rail shipper, an existing/planned Industrial park, and is within 2 miles of a highway interchange.	8
<b>LARGE VACANT LAND</b>	CASTLO's Area 7 has 24 acres of developable vacant land per route-mile of track.	3
<b>FOSTERS RR COMPETITION</b>	The site is accessible by four railroad carriers – CSX, G&W, NS and Y&S.	4
<b>WIDE RR RIGHT OF WAY</b>	The onsite right of way, owned by CASTLO, is in excess of 110 feet wide.	4
<b>CLASS OF RAILROAD</b>	Proposed improvements are to rights of way accessible by CSX, NS (Class I) and G&W, Y&S (Class III).	6
<b>LONG TERM USE</b>	Certain rail infrastructure is more than 100 years old and needs renewal so it can continue to serve non-shale gas users.	4
<b>TOTAL</b>		<b>51</b>

See map for this project on the next page...





CASTLO Area 7 Job Ready Site as seen from the direction of Lally Pipe & Tube.

See cost estimates for this project on the next page...

**CASTLO AREA 7 + LALLY PIPE & TUBE****Track and Bridge Improvements  
(FRA Class 1 track standards)**

TRACK SECTION	DESCRIPTION OF WORK	PROBABLE COSTS
7A	Minor joint tightening	\$ 20,000
7B	Timber replacement, joint tightening, ballast and surfacing, install switch timbers, brush and debris removal	\$ 200,000
7C	Minor surfacing, ballast, joint tightening and crossing renewed	\$ 55,000
7D	Minor surfacing, ballast and joint tightening	\$ 15,000
7E	Minor surfacing, ballast and joint tightening	\$ 100,000
Yellow Crk Bridge	<u>Short-Term Repair</u> : repair walkway, bearings, and reinforce beams to achieve legal load capacity	\$ 70,000
	<u>Long-Term Rehab</u> : short-term repairs, improve approach ballast, replace ties, paint all structural steel	\$ 300,000
Hines Run Bridge	<u>Short-Term Repair</u> : repair walkway, reinforce beams, encase footers, fill in washout cavity on approach	\$ 100,000
	<u>Long-Term Replacement</u> : install two side-by-side 10'-wide by 8'-high precast concrete box structures, two full height concrete head walls, fill in embankment material and reconstruct rail line above	\$ 350,000

**PRIORITY**

FUNDED	1	Yellow Creek Bridge, Short-Term Repair	\$ 70,000
BY JRS	2	Section 7A	\$ 20,000
	3	Section 7C	\$ 55,000
	4	Hines Run Bridge, Short-Term Repair	\$ 100,000
NO	5	Section 7E	\$ 100,000
FUNDING	6	Section 7D	\$ 15,000
PRO-	7	Section 7B	\$ 200,000
GRAMMED	8	Yellow Creek Bridge, Rehabilitation	\$ 300,000
	9	Hines Run Bridge, Replacement	\$ 350,000
		TOTAL JSR-FUNDED COMPONENTS. ....	\$ 90,000
		TOTAL <u>NO FUNDING</u> PROGRAMMED. ....	\$ 1,020,000
		30% CONT.	\$ 310,000
		<b>TOTAL NEEDED</b>	<b>\$ 1,330,000</b>

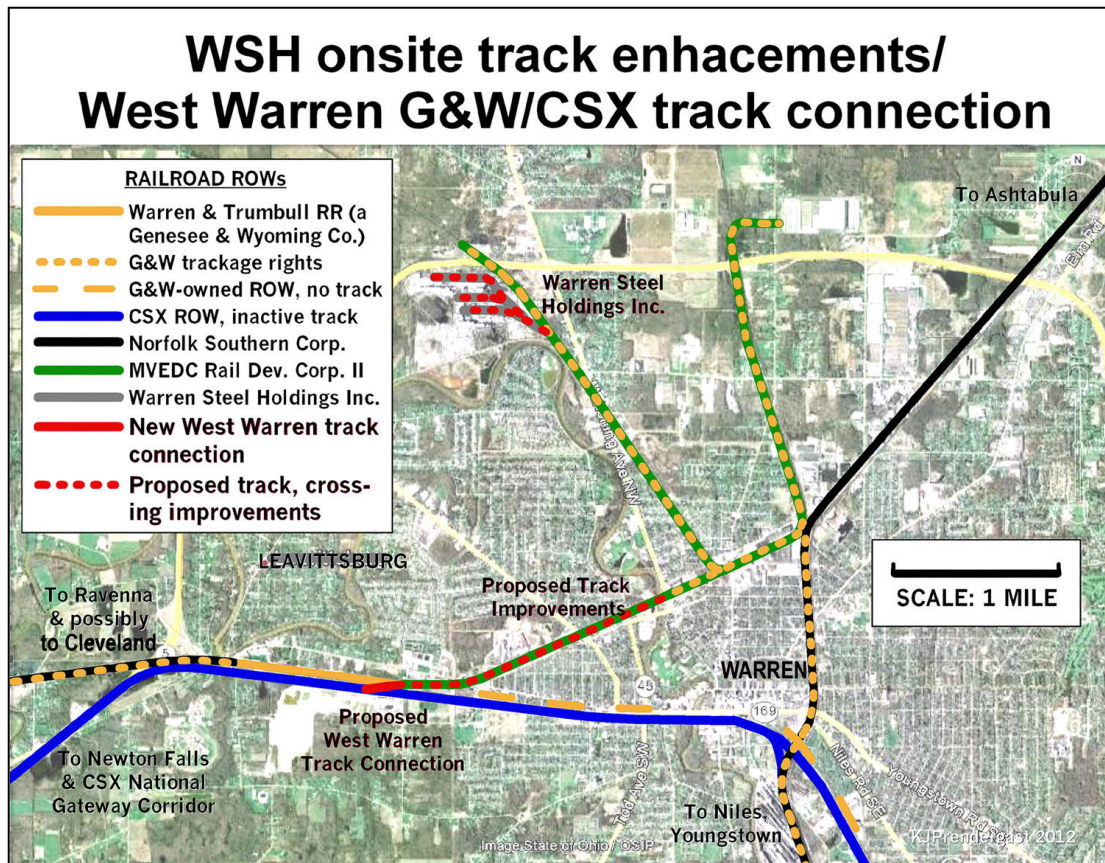
#### 4. Project: WSH onsite track & West Warren track connection Sponsor: Warren & Trumbull RR (a Genesee & Wyoming Company).

**Project Summary:** Warren Steel Holdings is producing steel but using trucks for transportation. The need for up to \$300,000 in onsite rail infrastructure improvements are a hurdle to using more rail service and keeping shipping costs down for long-distance moves. Enhanced rail infrastructure can improve effective rail service and open up development opportunities. Combined with track improvements to the former Freedom Secondary track and construction of a new West Warren track connection immediately west of Martin Luther King Boulevard allows Warren & Trumbull RR to reach CSX's Newton Falls Subdivision, an interchange with the CSX mainline at Newton Falls, as well as new industries resulting from the West Warren Industrial Partnership and the Warren Commerce Park. At minimum, W&T RR would use a mix of its own rails and those of the Mahoning Valley Economic Development Corp.'s "Rail II Corp."

Criteria	Comments	Score
<b>TIMELINE</b>	Project could be underway within one year of funding becoming available as no property needs to be acquired.	10
<b>UNFUNDED CAPITAL COST</b>	Estimated capital cost of \$1.9 million.	6
<b>EST. CARLOADS PER YEAR</b>	Actual carload data for the project area was unavailable but is estimated at 5,000-10,000 per year based on WSH's annual production capacity of 500,000 tons as well as other potential users.	8
<b>WATERWAY(S) ACCESS</b>	Requires interchange with NS or CSX unless Cleveland Commercial RR extends service to this area (see Cleveland Corridor).	0
<b>NEAR MAJOR ASSETS</b>	Site can serve a drilling-related transload within 2 weeks, an existing/willing rail shipper, an existing/planned Industrial park, and is within 2 miles of a highway interchange.	8
<b>LARGE VACANT LAND</b>	Along the total 8 miles Rail II Corp. and the new track connection are about 340 acres of developable properties for commercial purposes, or 42.5 acres per route-mile.	5
<b>FOSTERS RR COMPETITION</b>	The project area would offer W&T/G&W (Class III RR) carrier to provide access to CSX and NS, two Class I carriers.	3
<b>WIDE RR RIGHT OF WAY</b>	Some sections of right of way are flanked by obstructions narrowing it to as little as 30 feet.	0
<b>CLASS OF RAILROAD</b>	Proposed improvements are to rights of way accessible by CSX, NS (Class I) and W&T/G&W (Class III).	6
<b>LONG TERM USE</b>	Most of W&T's existing and future customers are unrelated to the shale gas business and will likely continue to want rail for many years.	4
<b>TOTAL</b>		<b>50</b>

See map and cost estimates for this project on the next page...





## WARREN STEEL HOLDINGS ONSITE TRACK ENHANCEMENTS + WEST WARREN CONNECTION

Warren & Trumbull RR (G&W) connection with CSX's Newton Falls Subdivision  
(FRA Class 2 track standards)

ITEM	QUANTITY	UNIT	2012 UNIT COST	ESTIMATED AMOUNT
WSH onsite track enhancements*	Placeholder			\$ 300,000
Rehabilitate inactive track	10,500	LinFt	\$ 10.00	\$ 105,000
Mahoning River bridge repairs	Placeholder		\$100,000	\$ 100,000
Construct new track on graded right of way	1,200	LinFt	\$110.00	\$ 132,000
Construct mainline, manual turnouts	2	Each	\$200,000	\$ 400,000
Clearing of vegetation	12.6	Acre	\$ 6,000	\$ 75,000
Repair active devices at grade crossings	5	Each	\$ 50,000	\$ 250,000
3 new crossing surfaces w/ full-depth rubber	260	LinFt	\$ 500	\$ 130,000
			SUBTOTAL	\$ 1,492,000
			30% CONT.	\$ 447,600
			<b>TOTAL</b>	<b>\$ 1,939,600</b>

\* Cost estimate provided by Warren Steel Holdings & Ohio Rail Development Commission.



## 5. Project: Carson, Jefferson transload expansions

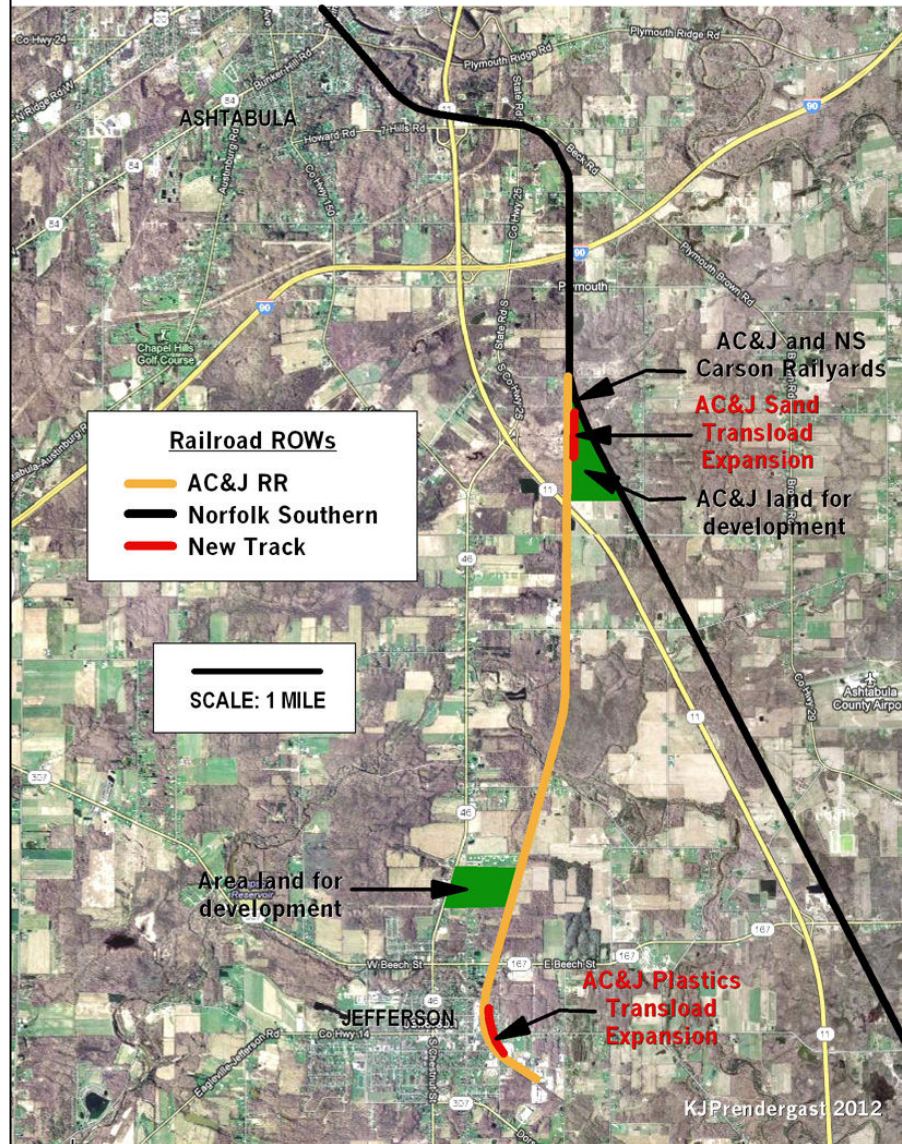
### Sponsor: Ashtabula, Carson & Jefferson Railroad Inc.

**Project Summary:** Robert Callahan, COO of AC&J Railroad Inc., reports that added sidings totaling 2,000 feet in length are needed now for railcar storage and to handle surges in traffic or unit trains at the railroad's aggregates transload at Carson and at its plastics transload in Jefferson. This includes a second pit at Carson for transloading more aggregates, including future sand transloading for drillers. The aggregates transload at Carson is 2,000 feet east of the SR46 interchange with SR11. Existing and proposed rail infrastructure could serve an adjacent, vacant 62-acre parcel owned by an AC&J-affiliated company at Carson. A vacant 170-acre site currently zoned for agriculture is located about 4,000 feet north of the northernmost track turnout in Jefferson, across both sides of the rail right of way and owned by two local businessmen.

Criteria	Comments	Score
<b>TIMELINE</b>	Aggregates transload capacity expansion at Carson and plastic transload capacity expansion at Jefferson could be underway within one year.	10
<b>UNFUNDED CAPITAL COST</b>	According to Ohio Rail Development Commission, total projected capital cost is estimated at about \$300,000. RESTORE's estimate is \$416,000. Both estimates result in the same score.	10
<b>EST. CARLOADS PER YEAR</b>	About 500 carloads currently and nearly 1,000 total projected in the near-term.	2
<b>WATERWAY(S) ACCESS</b>	Requires interchange with NS as AC&J does not have trackage rights over NS.	0
<b>NEAR MAJOR ASSETS</b>	Site can serve a drilling-related transload within 2 weeks, an existing/willing rail shipper, an existing/planned Industrial park, and is within 2 miles of a highway interchange.	8
<b>LARGE VACANT LAND</b>	About 20 acres of vacant, developable land per route-mile is accessible to AC&J's ROW.	3
<b>FOSTERS RR COMPETITION</b>	Although the Carson site is between AC&J and Norfolk Southern (over which CSX trackage rights), AC&J is captive to NS because CSX has overhead rights.	1
<b>WIDE RR RIGHT OF WAY</b>	Ashtabula County Auditor GIS shows the State of Ohio-owned right of way, leased by AC&J, is approximately 90-95 feet wide.	2
<b>CLASS OF RAILROAD</b>	The projects are on a right of way owned by the State of Ohio leased only by AC&J, a shortline (Class III) railroad.	4
<b>LONG TERM USE</b>	Rail capacity, unrelated to the shale gas business, is already cramped. Expanded capacity will likely continue to be used for many years by non-shale gas users.	4
<b>TOTAL</b>		<b>44</b>

See map and cost estimates for this project on the next page...

# Ashtabula Carson & Jefferson RR transload expansions



## Ashtabula, Carson & Jefferson Railroad Inc. Carson, Jefferson transload expansions (Exempted track standards)

ITEM	QUANTITY	UNIT	2012 UNIT COST	ESTIMATED AMOUNT
New track on existing RR grade	2000	LinFt	\$110.00	\$ 220,000
Construct new manual turnouts	4	Each	\$ 25,000	\$ 100,000
			SUBTOTAL	\$ 320,000
			30% CONT.	\$ 96,000
			<b>TOTAL</b>	<b>\$ 416,000</b>

## 6. Project: Cleveland direct rail corridor to Mahoning Valley (Option 2-via Kent)

### Sponsor: None

**Project Summary:** At this time, this is only a concept for linking Northeast Ohio industrial shippers by shortline railroad. Such shippers are producing or using finished steel, scrap steel, coke, aggregates, natural gas liquids, polyethylene and other products in Greater Cleveland and the Mahoning Valley. This concept represents the longest but probably least capital-intensive of three potential routing options for linking the two regions. It totals about 61 route-miles from Rockefeller Avenue in Cleveland east to South Leavitt Road in Leavittsburg. It is via:

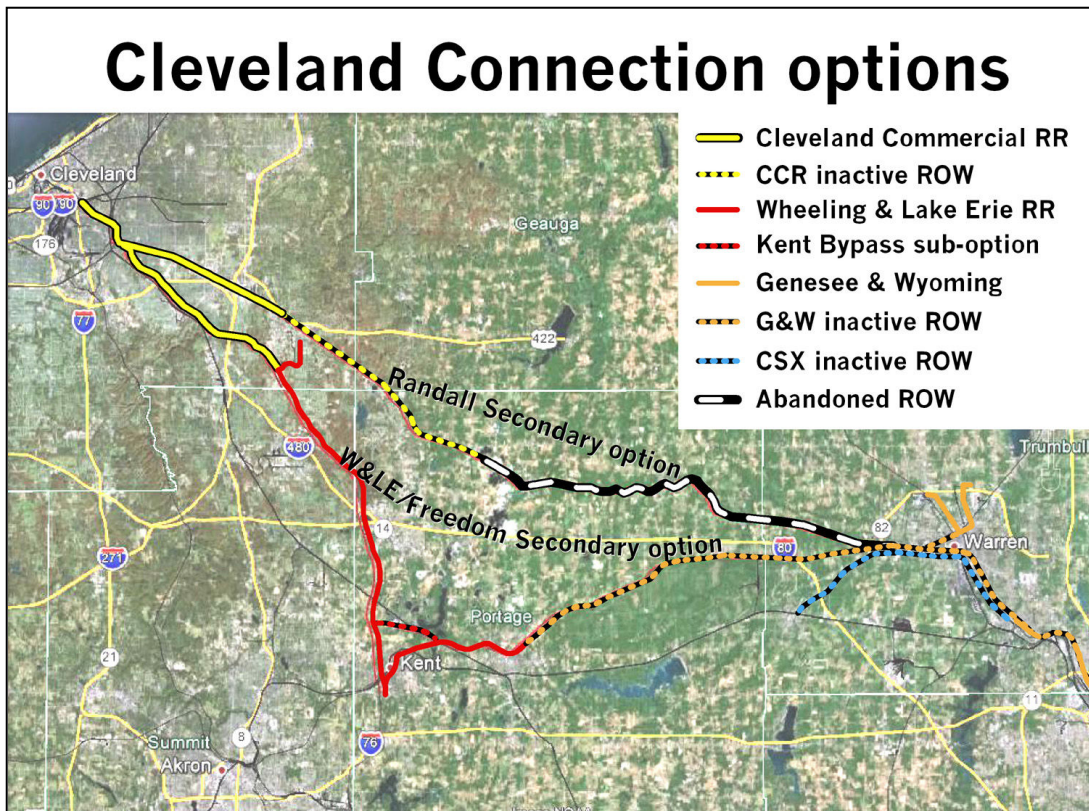
- Cleveland-Glenwillow (14.6 miles) – Cleveland Line owned by Wheeling & Lake Erie RR but leased to CCRL;
- Glenwillow-Kent (17.4 miles) – Cleveland Line owned and operated by W&LE;
- Kent-Ravenna (9 miles) – Freedom Secondary owned by Portage County and leased to W&LE subsidiary Akron Barberton Cluster Railway. Mileage includes reversing move required at Kent;
- Ravenna-Leavittsburg (20 miles) – Freedom Secondary owned by Norfolk Southern over which Warren & Trumbull RR (a Genesee & Wyoming Corp. subsidiary) has a lease for non-common carrier operations, and is self-renewing annually at \$1 per year until terminated.

This route option assumes that right-of-way access is granted by W&LE, Portage County and NS. It also requires reactivation of 20 miles of NS-owned Freedom Secondary between Ravenna-Leavittsburg railbanked since about 1998. The STB and/or the PUCO have typically approved the reactivation of railbanked rights of way in less than one year. No shortline has confirmed implementation plans so the following should be considered as speculative.

Criteria	Comments	Score
<b>TIMELINE</b>	A supportive STB review could allow inactive portions of the Freedom Secondary to see construction in less than two years of funding becoming available.	5
<b>UNFUNDED CAPITAL COST</b>	A rough estimate of capital costs is \$4.9 million.	4
<b>EST. CARLOADS PER YEAR</b>	An existing shortline handled 5,400 carloads in 2010. Estimated traffic on reactivated portions needs to be many times larger to sustain them. Future carloads are unknown.	8
<b>WATERWAY(S) ACCESS</b>	Westernmost end of NS-owned (Class I) and CCRL-leased (Class III) ROW of way in Cleveland is 700 feet from a navigable portion of the Cuyahoga River.	4
<b>NEAR MAJOR ASSETS</b>	Online sites can serve as a drilling-related transload within 2 weeks, an existing/willing rail shipper, an existing/planned Industrial park, and is within 2 miles of a highway interchange.	8
<b>LARGE VACANT LAND</b>	Along 43.6 miles of CCR leased + Freedom Secondary ROW are about 2,100 acres of developable properties for commercial purposes (including 1,500 acres unused by Camp Ravenna Joint Military Training Center), or 48 acres per route-mile.	5
<b>FOSTERS RR COMPETITION</b>	Provides a direct railroad link between Greater Cleveland and Youngstown-Warren in competition with less direct routes used by Class I RRs and would interchange with four rail carriers.	2
<b>WIDE RR RIGHT OF WAY</b>	Relevant portions of the Freedom Secondary are more than 75 ft wide.	1
<b>CLASS OF RAILROAD</b>	Rail segments are owned by NS, a Class I carrier, and W&LE, a Class II carrier, and portions are leased to CCRL, a Class III carrier.	6
<b>LONG TERM USE</b>	Most existing customers are unrelated to the shale gas business and will likely continue for many years. A much larger number of daily carloads are needed to sustain the Freedom Secondary if reactivated in its entirety. Although potential users have been identified, none have committed so it is premature to assign a score to this criterion.	NA
<b>TOTAL</b>		<b>43</b>

See map and cost estimates for this project on the next page...





### CLEVELAND CORRIDOR – OPTION TWO (via Kent)

Via Portage County/Norfolk Southern's Freedom Secondary  
(FRA Class 2 track standards)

ITEM	QUANTITY	UNIT	2012 UNIT COST	ESTIMATED AMOUNT
Rehabilitate active track Kent to Ravenna	42,000	LinFt	\$ 10.00	\$ 420,000
Vegetation removal	50	Acre	\$ 1,000	\$ 50,000
Rehabilitate inactive track	110,000	LinFt	\$ 20.00	\$ 2,200,000
Grade crossing signals/gates/circuits*	5	Each	\$ 75,000**	\$ 375,000
Leavittsburg track (connect to CSX)	2,700	LinFt	\$ 150.00	\$ 405,000
Leavittsburg turnouts (connect to CSX)	2	Each	\$ 35,000	\$ 70,000
Mahoning River bridge placeholder	NA	NA	\$ 250,000	\$ 250,000
			SUBTOTAL	\$ 3,770,000
			30% CONT.	\$ 1,131,000
			<b>TOTAL</b>	<b>\$ 4,901,000</b>

\* Crossbucks at seven other grade crossings.

\*\* Half-cost. Assumes the other half to be funded by state.

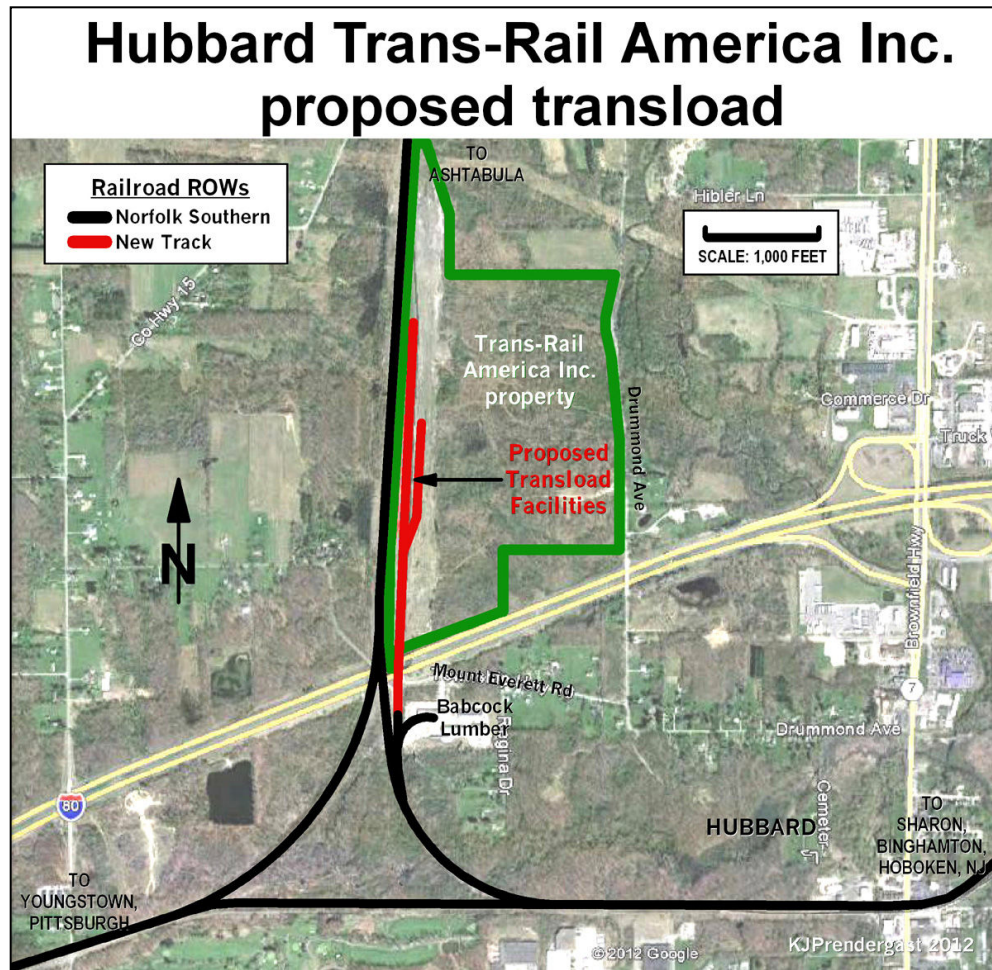
## 7. Project: Hubbard Transload Facilities

### Sponsor: Trans-Rail America Inc.

**Project Summary:** Trans-Rail America Inc., a company based in Capitol Heights, Maryland, a Washington D.C. suburb, seeks to build a transload facility on a portion of 170.73 acres of land bought in 2003 by the company near the Interstate 80 interchange with U.S. Route 62/State Route 7 in Hubbard. Trans-Rail America is an affiliate of Rodgers Brothers Service Inc., a 60-employee company which specializes in excavation, environmental and construction/demolition debris handling. Previously this site was proposed for a construction-debris landfill but local opposition has caused Trans-Rail America to reconsider the site for an energy-related transload, according to the company's real estate representative James Pirko of Howard Hanna. Such energy-related transload facilities typically handle rail-truck transfers of drilling sand, fracking water, pipe, chemicals and other materials for drill sites. Transload facilities are often placed near the intersection of rail lines and major highways. The proposed site is the former Coalburg Yard idled by Conrail in the 1980s. The former yard and land east to Drummond Avenue is owned by Trans-Rail America, with the property extending south to and under I-80, thereby providing vehicular access to the site from Mount Everett Road as well as Drummond Ave. Rail access would likely be restored by extending an existing spur for the Babcock Lumber Co. which also included the old yard lead. This would save paying Norfolk Southern's asking price of \$205,000 to add a mainline-standard switch off its Youngstown Line, but it would require laying about 1,000 feet of yard lead to reach a proposed two-track, 3,500-foot of track transload facility on the old Coalburg Yard. All yard tracks were removed about 2010. A 1,000 foot yard lead would provide sufficient headroom for railcar switching moves that do not block Mount Everett Road.

Criteria	Comments	Score
<b>TIMELINE</b>	Project could be underway within one year of funding becoming available as no property needs to be acquired.	10
<b>UNFUNDED CAPITAL COST</b>	Estimated capital cost of up to \$676,000.	8
<b>EST. CARLOADS PER YEAR</b>	There is no existing traffic and future carloads are unknown.	0
<b>WATERWAY(S) ACCESS</b>	NS, a Class I RR, provides rail access without interchange to the ports of Ashtabula and Cleveland on Lake Erie and to the Port of Wellsville and other terminals on the Ohio River.	4
<b>NEAR MAJOR ASSETS</b>	Online site can serve as a drilling-related transload within 2 weeks, has no existing/willing rail shipper, an existing/planned industrial park, and is less than 2 miles from a highway interchange.	6
<b>LARGE VACANT LAND</b>	There are 171 acres of vacant or undeveloped land owned by Trans-Rail America which is zoned for commercial/industrial uses. That is about 201 acres per track-mile.	5
<b>FOSTERS RR COMPETITION</b>	The project site is accessible by one railroad carrier. CSX has only overhead trackage rights on the NS Youngstown Line which prevents it from serving enroute shippers.	1
<b>WIDE RR RIGHT OF WAY</b>	NS ROW is more than 300 feet wide under the I-80 bridges with 60 feet between bridge supports. The NS ROW is 200 feet wide south of here into Youngstown as it includes two former parallel ROWs – that of the former New York Central RR and the former Erie RR. Both became part of Conrail and then part of NS.	4
<b>CLASS OF RAILROAD</b>	It is assumed that NS, a Class I RR, would provide switching services at Trans-Rail America's proposed transload.	2
<b>LONG TERM USE</b>	Trans-Rail America's new, purported focus on shale gas business could limit the site's long-term utility. Tracks in the former Coalburg Yard were removed and scrapped by Trans-Rail America in 2010.	0
<b>TOTAL</b>		<b>40</b>

See map and cost estimates for this project on the next page...



### TRANS-RAIL AMERICA INC. Hubbard transload facilities (Exempted track standards)

ITEM	QUANTITY	UNIT	2012 UNIT COST	ESTIMATED AMOUNT
New track on existing RR grade w/ truck access	4500	LinFt	\$ 110.00	\$ 495,000
Construct new manual yard turnout	1	Each	\$ 25,000	\$ 25,000
			SUBTOTAL	\$ 520,000
			30% CONT.	\$ 156,000
			<b>TOTAL</b>	<b>\$ 676,000</b>



## 8. Project: Campbell-Darlington track and capacity enhancements

### Sponsor: Y&SE/Tervita

**Project Summary:** Before the Youngstown & Southern right of way was sold to Tervita Corp., the Y&S sought repairs and improvements to its tracks from Youngstown to Darlington, as well as capacity expansion of the sand transload at Signal, OH near Rogers and construction of a second track connection with CSX at Campbell. An agreement to sell the 36-mile rail line to Tervita by the Columbiana County Port Authority was announced April 17, 2012. A Y&SE RR representative reported that the Class III carrier would continue to operate the rail line and that the previously sought improvements would still be needed. Track conditions limit trains to 10 mph and projected traffic volumes of 7,000 carloads per year would require the added track capacity at the south and north ends.

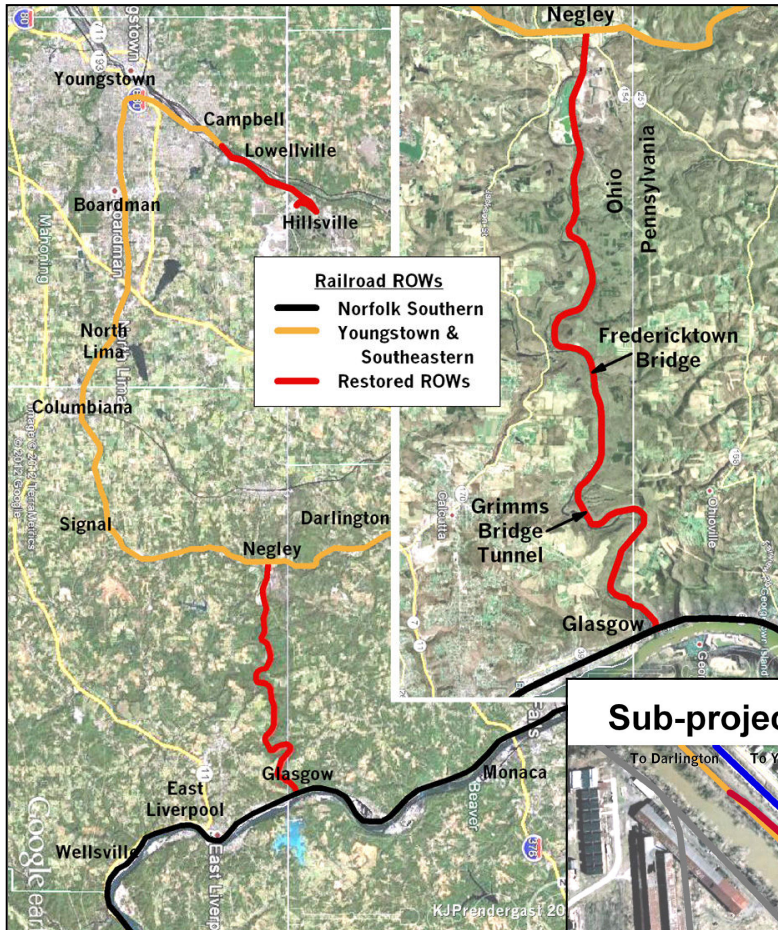
Criteria	Comments	Score
<b>TIMELINE</b>	Project could be underway within one year of funding becoming available as no property needs to be acquired.	10
<b>UNFUNDED CAPITAL COST</b>	Estimated capital cost of \$4.9 million.	2
<b>EST. CARLOADS PER YEAR</b>	Right of way buyer Tervita Corp. estimates traffic on the existing portion of the Y&SE could grow to 7,000 carloads per year in the next few years.	8
<b>WATERWAY(S) ACCESS</b>	Requires interchange with NS or CSX unless the abandoned Y&SE ROW from Negley OH to Glasgow PA is restored (see Y&SE restoration to Ohio River).	0
<b>NEAR MAJOR ASSETS</b>	Project can serve a drilling-related transload within 2 weeks, an existing/willing rail shipper, an existing/planned Industrial park, and is within 2 miles of a highway interchange.	8
<b>LARGE VACANT LAND</b>	Along the 39 miles of ROW used by Y&SE are about 360 acres of developable properties for commercial purposes, or 9 acres per route-mile.	1
<b>FOSTERS RR COMPETITION</b>	The project site is accessible by one railroad carrier.	1
<b>WIDE RR RIGHT OF WAY</b>	Some sections of right of way are flanked by obstructions narrowing it to as little as 20 feet.	0
<b>CLASS OF RAILROAD</b>	Proposed improvements are to rights of way accessible by CSX, NS (Class I) and Y&SE (Class III).	6
<b>LONG TERM USE</b>	Although most of the new traffic to the Y&SE/Tervita ROW is shale-related, the rail line has been used for non-shale shipments for years.	4
<b>TOTAL</b>		<b>40</b>

### Y&SE/TERVITA – CAMPBELL, OH TO DARLINGTON, PA

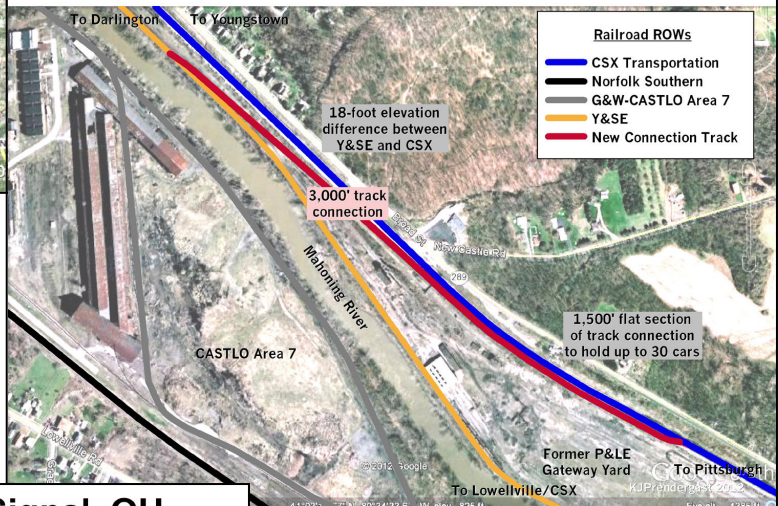
#### Track and capacity enhancements (FRA Class 2 track standards)

ITEM	QUANTITY	UNIT	2012 UNIT COST	ESTIMATED AMOUNT
Rehabilitate existing track	180,000	LinFt	\$ 10.00	\$ 1,800,000
New track on new RR grades	5500	LinFt	\$200.00	\$ 1,100,000
Construct mainline, manual turnouts	4	Each	\$200,000	\$ 800,000
Construct yard, manual turnouts	2	Each	\$ 35,000	\$ 70,000
			SUBTOTAL	\$ 3,770,000
			30% CONT.	\$ 1,131,000
			<b>TOTAL</b>	<b>\$ 4,901,000</b>

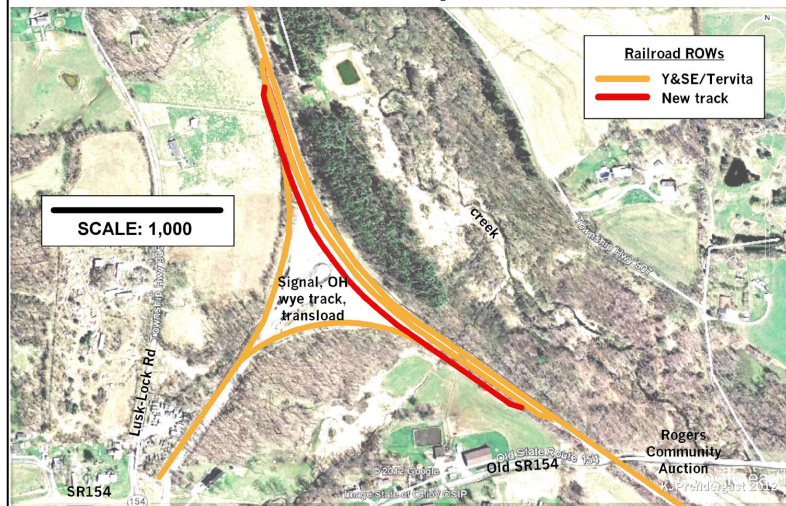
## Y&S/Tervita Rail Corridor Overview



### Sub-project: Y&SE Campbell Connection



### Subproject: Y&SE/Tervita Signal, OH transload expansion





## 9. Project: Cleveland direct rail corridor to Mahoning Vly (Option 3-via Kent Bypass)

### Sponsor: None

**Project Summary:** At this time, this is only a concept for linking Northeast Ohio industrial shippers by shortline railroad. Such shippers are producing or using finished steel, scrap steel, coke, aggregates, natural gas liquids, polyethylene and other products in Greater Cleveland and the Mahoning Valley. This concept represents the mid-range option in terms of capital costs and mileage among three routing choices. It totals about 56 route-miles from Rockefeller Avenue in Cleveland east to South Leavitt Road in Leavittsburg. It is via:

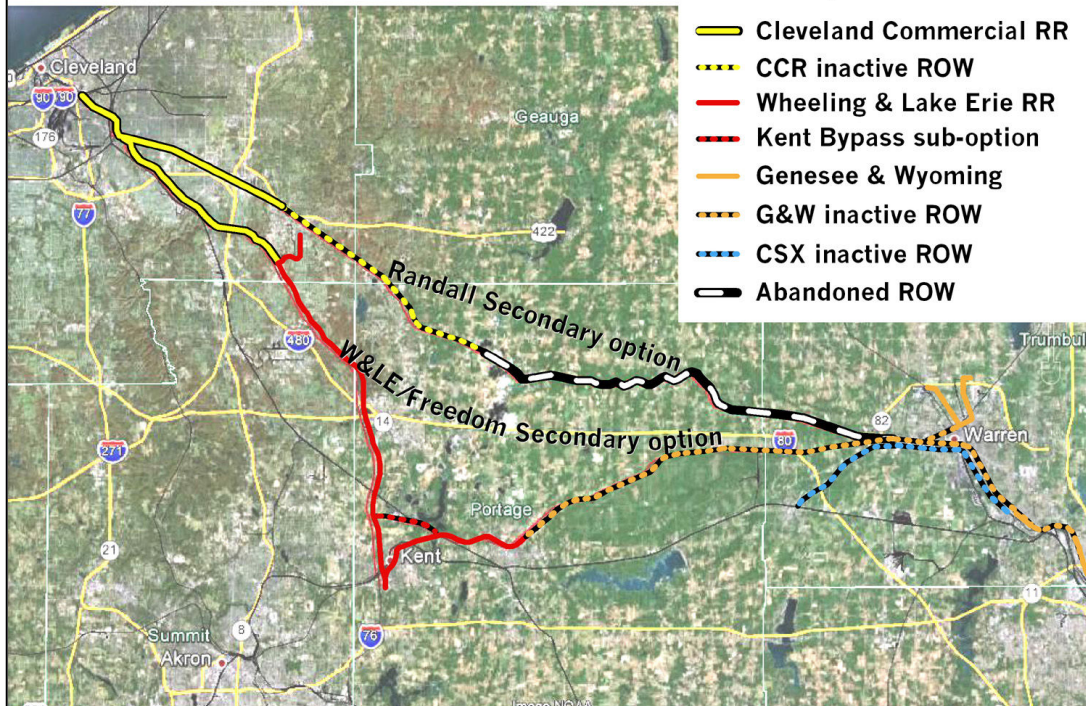
- Cleveland-Glenwillow (14.6 miles) – Cleveland Line owned by Wheeling & Lake Erie RR but leased to CCRL;
- Glenwillow-Raccoon Hill/North Kent (13.7 miles) – Cleveland Line owned and operated by W&LE;
- Raccoon Hill-Brady Lake (3.7 miles) – proposed “Kent Cutoff” to avoid 5 miles and 9 at-grade street crossings through Kent. This option requires reactivating the former Lake Erie & Pittsburgh RR ROW, abandoned west of Hugo Sand & Gravel at SR43 circa 1970. Properties belonging to four owners must be controlled;
- Brady Lake-Ravenna (4.3 miles) – Freedom Secondary owned by Portage County and leased to W&LE subsidiary Akron Barberton Cluster Railway;
- Ravenna-Leavittsburg (20 miles) – Freedom Secondary owned by Norfolk Southern over which Warren & Trumbull RR (a Genesee & Wyoming Corp. subsidiary) has a lease for non-common carrier operations, and is self-renewing annually at \$1 per year until terminated. Reactivation issues are the same as in Option 2.

No shortline has confirmed an implementation plan so the following should be considered as speculative.

Criteria	Comments	Score
<b>TIMELINE</b>	A supportive STB NEPA review of reactivating abandoned portions could allow property acquisition to begin in as little as three years. Construction would then follow.	0
<b>UNFUNDED CAPITAL COST</b>	A rough estimate of capital costs is \$16.5 million.	2
<b>EST. CARLOADS PER YEAR</b>	An existing shortline handled 5,400 carloads in 2010. Estimated traffic on reactivated portions needs to be many times larger to sustain them. Future carloads are unknown.	8
<b>WATERWAY(S) ACCESS</b>	Westernmost end of NS-owned (Class I) and CCRL-leased (Class III) ROW of way in Cleveland is 700 feet from a navigable portion of the Cuyahoga River.	4
<b>NEAR MAJOR ASSETS</b>	Online sites can serve as a drilling-related transload within 2 weeks, an existing/willing rail shipper, an existing/planned Industrial park, and is within 2 miles of a highway interchange.	8
<b>LARGE VACANT LAND</b>	Along 42.6 miles of CCR leased + Freedom Secondary + LE&E ROW are about 2,100 acres of developable properties for commercial purposes (including 1,500 acres unused by Camp Ravenna Joint Military Training Center), or 49 acres per route-mile.	5
<b>FOSTERS RR COMPETITION</b>	Provides a direct railroad link between Greater Cleveland and Youngstown-Warren in competition with less direct routes used by Class I RRs and would interchange with four rail carriers.	3
<b>WIDE RR RIGHT OF WAY</b>	Relevant portions of the Freedom Secondary are more than 75 feet wide. Relevant portions of the LE&E ROW are at least 150 feet wide.	1
<b>CLASS OF RAILROAD</b>	Rail segments are owned by NS, a Class I carrier, and W&LE, a Class II carrier, and portions are leased to CCRL, a Class III carrier.	6
<b>LONG TERM USE</b>	Most existing customers are unrelated to the shale gas business and will likely continue for many years. A much larger number of daily carloads are needed to sustain the Freedom Secondary if reactivated in its entirety. Although potential users have been identified, none have committed so it is premature to assign a score to this criterion.	NA
<b>TOTAL</b>		<b>37</b>



# Cleveland Connection options



## CLEVELAND CORRIDOR – OPTION THREE (via Kent Bypass) Via L&EP “Kent Bypass”-Portage County/Norfolk Southern’s Freedom Secondary (FRA Class 2 track standards)

ITEM	QUANTITY	UNIT	2012 UNIT COST	ESTIMATED AMOUNT
Rehabilitate inactive track	7,500	LinFt	\$ 20.00	\$ 150,000
New track, 110# CWR on existing RR grade	7,300	LinFt	\$110.00	\$ 803,000
Construct new right of way & new track	5,300	LinFt	\$400.00	\$ 2,120,000
Clearing of vegetation and grubbing	9	Acre	\$ 6,000	\$ 54,000
Railroad bridge over Judson Road	1	Each	\$5 million	\$ 5,000,000
Fence (wire, 3') between track and trail	1,400	LinFt	\$ 10.00	\$ 14,000
Right of way purchase	12	Acre	\$ 25,000	\$ 300,000
Embankment/drainage placeholder	NA	NA	\$250,000	\$ 250,000
Cuyahoga River bridge placeholder	NA	NA	\$250,000	\$ 250,000
			SUBTOTAL	\$ 8,941,000
			30% CONT.	\$ 2,682,300
			KENT BYPASS SUBTOTAL	\$11,623,300
			FREEDOM SECONDARY SUBTOTAL	\$ 4,901,000
			<b>TOTAL</b>	<b>\$16,524,300</b>

## 10. Project: Cleveland direct rail corridor to Mahoning Valley (Option 1-via Mantua)

### Sponsor: None

**Project Summary:** At this time, this is only a concept for linking Northeast Ohio industrial shippers by shortline railroad. Such shippers are producing or using finished steel, scrap steel, coke, aggregates, natural gas liquids, polyethylene and other products in Greater Cleveland and the Mahoning Valley. This concept, the shortest but potentially most expensive of three known route options for linking the two regions, measures 47 route-miles from Rockefeller Avenue in Cleveland east to South Leavitt Road in Leavittsburg. It is via the former Randall Secondary and requires reactivation of 23 miles of railroad abandoned in 1982 and 12 miles of railroad railbanked in 1993. At least one structure (an outlot gas station) would have to be relocated and numerous properties belonging to 27 individual owners would have to be controlled. Considering these issues and that the Surface Transportation Board typically takes at least two years to conduct a review pursuant to the National Environmental Policy Act of the proposed reactivation of an abandoned rail corridor, it is extremely unlikely this entire project could see construction within two years. However, 12 miles of railbanked corridor west of Mantua could see construction sooner, assuming funding availability. The STB and/or Public Utilities Commission of Ohio have typically approved reactivation of railbanked rights of way in less than one year. No shortline has confirmed a implementation plan, so reactivation of abandoned and railbanked segments should be considered as speculative.

Criteria	Comments	Score
<b>TIMELINE</b>	A supportive STB NEPA review of reactivating abandoned portions could allow property acquisition to begin in as little as three years. Construction would then follow.	0
<b>UNFUNDED CAPITAL COST</b>	A rough estimate of capital costs, including right of way acquisition and construction is about \$62 million.	2
<b>EST. CARLOADS PER YEAR</b>	Cleveland Commercial Rail Lines handled 5,400 carloads in 2010. Estimated traffic on reactivated portions needs to be many times larger to sustain them. Future carloads are unknown.	8
<b>WATERWAY(S) ACCESS</b>	Westernmost end of NS-owned (Class I) and CCRL-leased (Class III) ROW of way in Cleveland is 700 feet from a navigable portion of the Cuyahoga River.	4
<b>NEAR MAJOR ASSETS</b>	Online sites can serve as a drilling-related transload within 2 weeks, an existing/willing rail shipper, an existing/planned Industrial park, and is within 2 miles of a highway interchange.	8
<b>LARGE VACANT LAND</b>	Along the 47-mile right of way are about 800 acres of developable properties for commercial purposes, or 17 acres per route-mile.	2
<b>FOSTERS RR COMPETITION</b>	Provides a direct railroad link between Greater Cleveland and Youngstown-Warren in competition with less direct Class I RRs and would interchange with three rail carriers.	3
<b>WIDE RR RIGHT OF WAY</b>	Some sections of reactivated right of way may have to be less than 80 feet wide to fit past structures or other uses built on or along the abandoned right of way.	1
<b>CLASS OF RAILROAD</b>	NS, a Class I carrier, owns much of the right of way and is leased to CCRL is a Class III carrier.	6
<b>LONG TERM USE</b>	Most existing customers are unrelated to the shale gas business and will likely continue for many years. A much larger number of daily carloads are needed to sustain the Randall Secondary if reactivated in its entirety. Although potential users have been identified, none have committed so it is premature to assign a score to this criterion.	NA
<b>TOTAL</b>		<b>34</b>

See map on page 34...

**CLEVELAND CORRIDOR – OPTION ONE (via Mantua)**  
**Via Norfolk Southern/CCR's Randall Secondary and numerous other properties**  
**(FRA Class 2 track standards)**

ITEM	QUANTITY	UNIT	2012 UNIT COST	ESTIMATED AMOUNT
Rehabilitate active track	50,000	LinFt	\$ 10.00	\$ 500,000
Clearing of vegetation and grubbing	210	Acre	\$ 6,000	\$ 1,260,000
Rehabilitate inactive track	60,000	LinFt	\$ 20.00	\$ 1,200,000
New track, 110# rail on existing RR grade	118,000	LinFt	\$110.00	\$12,980,000
Construct new right of way & new track	1,900	LinFt	\$400.00	\$ 760,000
Fence (wire, 3') between track and trail	230,000	LinFt	\$ 10.00	\$ 2,300,000
Grade crossing signals/gates/circuits*	18	Each	\$ 75,000**	\$ 1,350,000
Grade crossing signal repairs	3	Each	\$ 50,000**	\$ 150,000
Regrade SR 306 at RR crossing	600	LinFt	\$ 1,500	\$ 900,000
Culvert (reinforced 36" concrete pipe)	400	LinFt	\$ 75.00	\$ 30,000
Railroad/trail bridge over road, river	3	Each	\$5 million	\$15,000,000
Road bridge over railroad/trail	2	Each	\$3 million	\$ 6,000,000
Right of way purchase	180	Acre	\$ 25,000	\$ 4,500,000
Leavittsburg CSX connection	2,700	LinFt	\$ 150.00	\$ 405,000
Leavittsburg turnouts	2	Each	\$ 35,000	\$ 70,000
Relocate 16 parking spaces at Mantua McDonald's	2000	SqFt	\$ 7.00	\$ 14,000
Relocate 7 parking spaces at Garretttsville IGA store	900	SqFt	\$ 7.00	\$ 6,300
Relocate gas station at IGA store	placeholder		\$500,000	\$ 500,000
			SUBTOTAL	\$47,925,300
			30% CONT.	\$14,377,590
			<b>TOTAL</b>	<b>\$62,302,890</b>

\* Crossbucks at seventeen other grade crossings.

\*\* Half-cost. Assumes the other half to be funded by PUCO.



Inactive Randall Secondary track in Mantua Township



## 11. Project: Ohio River NS Direct Track Connection at Alliance, OH

### Sponsor: None

**Project Summary:** At the March 8 public input meeting, there was a desire for improving rail access between the Youngstown-Warren area and a port on the Ohio River, especially the port at Wellsville, OH. There are two existing routing options, both involving Norfolk Southern Corp. rights of way, between the Mahoning Valley and Wellsville. Both options also require freight trains to make a back-up move in busy rail traffic conditions. One routing is via a back-up move at Alliance, OH. The other is via a back-up move at Rochester-Conway, PA. Track connections were considered at both locations. However, in discussion with an NS representative, the complications involved in bridging the Beaver River (a requirement to build a track connection) could be overcome by using rotated train crews dispatched from NS's existing crewbase at Conway Yard. This may, in fact be the best option for accommodating Youngstown-Warren rail traffic to the Wellsville port as it requires no rail capital investment and uses an NS route with less steep grades. The other option, via Alliance, could involve building a track connection in the southeast quadrant of the all-NS junction on NS-owned land. This would also require shortening/moving two existing sidings, moving an existing crossover track, altering NS's dispatching software, and adding a grade crossing at East Broadway Street. The NS representative indicated there could be a potential interest in this project if significant traffic developed someday between the Mahoning Valley shippers and the port of Wellsville. No direct rail traffic between these locations currently exists, however.

Criteria	Comments	Score
<b>TIMELINE</b>	Considering that no property may need to be acquired, the project could be under construction in one year or less of funding becoming available.	10
<b>UNFUNDED CAPITAL COST</b>	Estimated capital cost of \$4.97 million.	4
<b>EST. CARLOADS PER YEAR</b>	Unknown.	0
<b>WATERWAY(S) ACCESS</b>	NS, a Class I RR, provides rail access without interchange to the ports of Ashtabula and Cleveland on Lake Erie and to the Port of Wellsville and other terminals on the Ohio River.	4
<b>NEAR MAJOR ASSETS</b>	Site can serve a drilling-related transload within 2 weeks, an existing/willing rail shipper, an existing/planned Industrial park, and is within 4 miles of a highway interchange.	7
<b>LARGE VACANT LAND</b>	About 25 total acres of vacant land is adjacent to the project site, divided by about 1,600 feet of new track is 20 acres per track-mile.	5
<b>FOSTERS RR COMPETITION</b>	The project site is accessible by one railroad carrier.	1
<b>WIDE RR RIGHT OF WAY</b>	Width of right of way is not known due to lack of data. Widths of the Lordstown Secondary track north of Sebring and the Cleveland Line south of Alliance appear to be in the 60-79 foot range.	1
<b>CLASS OF RAILROAD</b>	Proposed improvements are to rights of way accessible by Class I RR.	2
<b>LONG TERM USE</b>	While there is a potential for future traffic between the Youngstown-Warren area and the Port of Wellsville, nearly all of this may be associated with shale-related traffic. This traffic volume cannot be quantified at this time.	NA
<b>TOTAL</b>		<b>34</b>

See map and cost estimates for this project on the next page...



## OHIO RIVER NS DIRECT TRACK CONNECTION AT ALLIANCE

Connection between Norfolk Southern rail lines allows a continuous train movement from the Mahoning Valley to the Port of Wellsville

(FRA Class 3 track standards)

ITEM	QUANTITY	UNIT	2012 UNIT COST	ESTIMATED AMOUNT
New track, 136# CWR on new RR grade	1,600	LinFt	\$200.00	\$ 320,000
Move Cleveland Line siding 1,200 feet south	1,200	LinFt	\$200.00	\$ 240,000
Shorten Lordstown Secondary track by 500' (less scrap value = \$5,500)	500	LinFt	\$ 15.00	\$ 2,000
Construct seven interlocked #20 turnouts	7	Each	\$300,000	\$ 2,100,000
Alter NS dispatching software	Placeholder		\$1 million	\$ 1,000,000
Add grade crossing at East Broadway	1	Each	\$150,000	\$ 150,000
Move Alliance Castings' driveway apron	Placeholder		\$ 10,000	\$ 10,000
			SUBTOTAL	\$ 3,822,000
			30% CONT.	\$ 1,146,600
			<b>TOTAL</b>	<b>\$ 4,968,600</b>

## 12. Project: Reactivate State Line ROW from Lowellville to Hillsville, PA

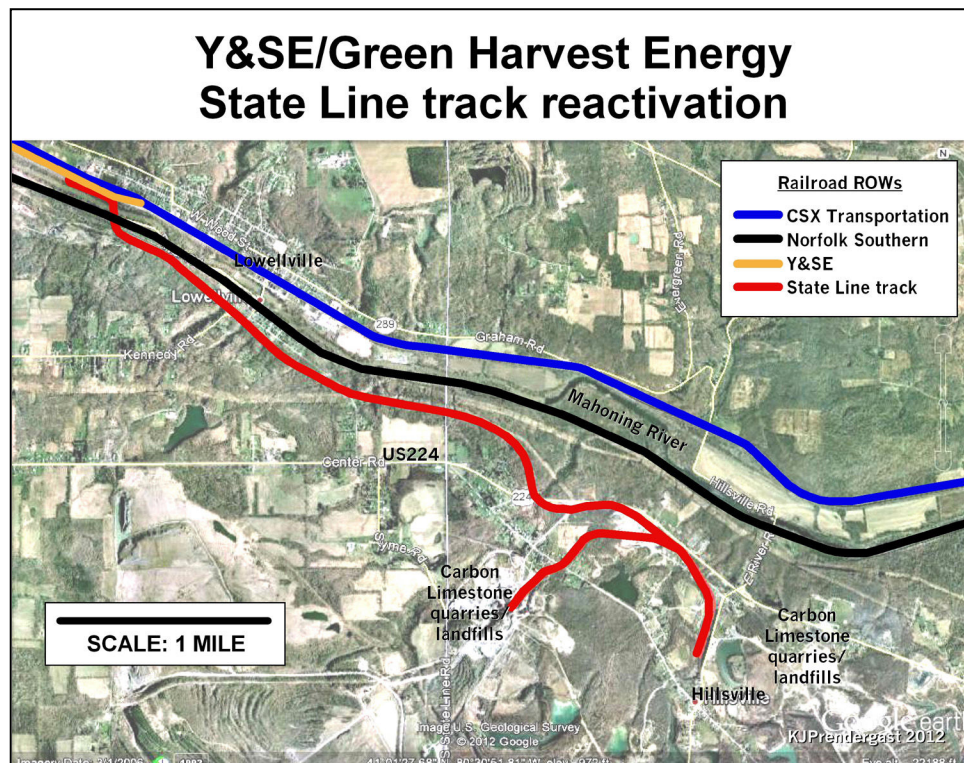
### Sponsor: Youngstown & Southeastern/Green Harvest Energy

**Project Summary:** Youngstown & Southeastern Railroad Co. and Green Harvest Energy LLC proposes to reactivate about 5 miles of railbanked ex-Pittsburgh & Lake Erie (CSX-owned) State Line right of way from Lowellville, Ohio up the hill to Green Harvest Energy-owned quarry and related properties in Hillsville, PA. The purpose is to develop a large expanse of land measuring about 3,000 acres with energy-related industrial activities. Previously these properties were owned by Carbon Limestone Inc. and dotted with quarries for mining limestone used by the steel industry. The quarries were later used as sanitary landfills by Browning Ferris Industries. The rail right of way accessing these lands was railbanked circa 1993 when P&LE was acquired by CSX. Tracks remain mostly in place, but crossings have been removed, including a leveling of the Washington Street crossing above Lowellville. Also, a turnout needs to be restored to link the State Line rail corridor with the former P&LE mainline next to the Lowellville High School football stadium.

Criteria	Comments	Score
<b>TIMELINE</b>	A supportive STB review could allow inactive portions of the State Line ROW to see construction in less than two years of funding becoming available.	5
<b>UNFUNDED CAPITAL COST</b>	Estimated capital cost of \$2.45 million.	6
<b>EST. CARLOADS PER YEAR</b>	There is no existing traffic and future carloads are unknown.	0
<b>WATERWAY(S) ACCESS</b>	Requires interchange with NS or CSX unless the abandoned Y&SE ROW from Negley OH to Glasgow PA is restored (see Y&SE restoration to Ohio River).	0
<b>NEAR MAJOR ASSETS</b>	Online sites can serve as a drilling-related transload within 2 weeks, has no existing/willing rail shipper, an existing/planned Industrial park, and is more than 4 miles from a highway interchange.	4
<b>LARGE VACANT LAND</b>	Along the 5 miles of ROW used by Y&SE are about 3000 acres of developable properties for commercial purposes, or 600 acres per route-mile.	5
<b>FOSTERS RR COMPETITION</b>	The project site is accessible by one railroad carrier.	1
<b>WIDE RR RIGHT OF WAY</b>	Some sections of right of way are flanked by obstructions narrowing it to as little as 20 feet.	0
<b>CLASS OF RAILROAD</b>	The right of way is owned by CSX, a Class I carrier. Y&SE is a Class III carrier.	6
<b>LONG TERM USE</b>	Most, if not all, of the projected Y&SE traffic to/from the Green Mountain Energy-owned quarries would be shale-related.	0
<b>TOTAL</b>		<b>27</b>

See map and cost estimates for this project on the next page...





### Y&SE/GREEN HARVEST ENERGY TO STATE LINE QUARRIES

Reactivation of ex-P&LE State Line track from Lowellville to Hillsville, PA  
(FRA Class 2 track standards)

ITEM	QUANTITY	UNIT	2012 UNIT COST	ESTIMATED AMOUNT
Rehab track on existing RR grade	29,200	LinFt	\$ 20.00	\$ 584,000
Construct mainline, manual turnouts	1	Each	\$200,000	\$ 200,000
Construct yard, manual turnouts	2	Each	\$ 35,000	\$ 70,000
Grade crossing signals/gates/circuits*	8	Each	\$ 75,000**	\$ 600,000
Regrade Washington St at RR crossing	200	LinFt	\$ 1,500	\$ 300,000
Vegetation removal	33	Acre	\$ 1,000	\$ 33,000
Mahoning River bridge	Placeholder		\$ 100,000	\$ 100,000
			<b>SUBTOTAL</b>	<b>\$ 1,887,000</b>
			<b>30% CONT.</b>	<b>\$ 566,100</b>
			<b>TOTAL</b>	<b>\$ 2,453,100</b>

\* Crossbucks at two other grade crossings.

\*\* Half-cost. Assumes the other half to be funded by state.

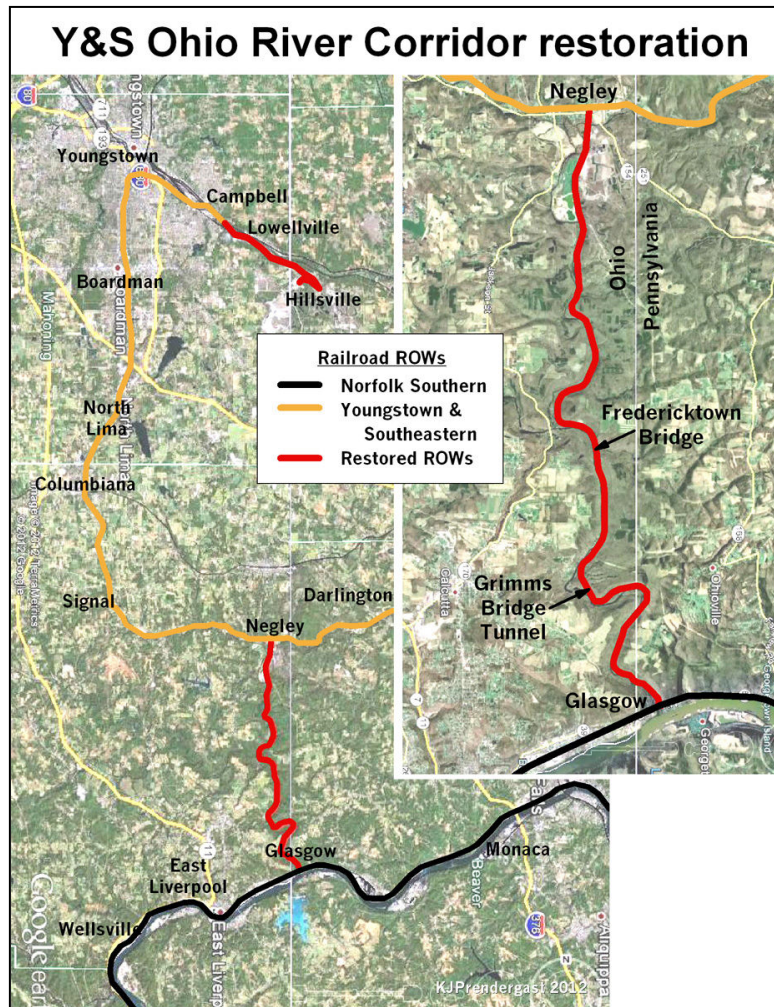
### 13. Project: Ohio River Y&S corridor restoration

**Sponsor: None**

**Project Summary:** At the March 8 public input meeting, there was a desire for improving rail access between the Youngstown-Warren area and a port on the Ohio River for moving aggregates, tubular steel products and other bulk goods manufactured in the Mahoning Valley. There was also interest expressed in using and investing in short-line railroads which would be more likely to handle such a short-distance move (nearly 50 miles). The combination of the two inputs pointed this study to review, for comparison purposes, the reactivation 13 miles of the abandoned Youngstown & Southern RR from Negley, Ohio south to Glasgow, PA. This former coal-hauling railroad was built in the 1930s to serve a barge dock at the mouth of the Little Beaver Creek, off the Ohio River. There was no track connection with the Pennsylvania RR (now Norfolk Southern Corp.) along the north bank of the Ohio River between Pittsburgh with Steubenville. Construction of a track connection was assessed as part of this study, as well as reactivation of the rail/barge transload dock. Youngstown & Southeastern Railroad operates the existing rail line north of Negley and is proposed to continue operating it despite the recently announced purchase by Tervita Corp. A representative of Y&S expressed no interest in extending its service south of Negley to the Ohio River nor did he see any value to the Mahoning Valley in reactivating this rail line.

Criteria	Comments	Score
<b>TIMELINE</b>	A supportive STB NEPA review of reactivating abandoned portions could allow property acquisition to begin in as little as three years. Construction would then follow.	0
<b>UNFUNDED CAPITAL COST</b>	A rough estimate of capital costs, including right of way acquisition and construction is about \$56 million.	2
<b>EST. CARLOADS PER YEAR</b>	Right of way buyer Tervita Corp. estimates traffic on the existing portion of the Y&SE could grow to 7,000 carloads per year in the next few years. But a traffic estimate for the line south of Negley has not been developed as there are no potential users.	8
<b>WATERWAY(S) ACCESS</b>	Y&SE, a Class III RR, is the current operator of the northern portion of the rail line. The southern part, if reactivated to the Ohio River dock, would also likely be served by a shortline railroad.	4
<b>NEAR MAJOR ASSETS</b>	Project site can serve an existing/planned Industrial park, and is within 2 miles of a highway interchange.	4
<b>LARGE VACANT LAND</b>	The abandoned Y&S ROW has 5 acres of developable vacant land per route-mile of track.	1
<b>FOSTERS RR COMPETITION</b>	A shortline like Y&SE (a Class III RR) would provide competition to CSX and NS (both Class I RRs) in accessing the Ohio River with a more direct route than the two Class I RRs.	3
<b>WIDE RR RIGHT OF WAY</b>	Much of the former Y&S ROW is less than 80 feet wide.	1
<b>CLASS OF RAILROAD</b>	The reactivated Y&S is proposed to be used by a Class III RR.	4
<b>LONG TERM USE</b>	While there is a potential for future traffic between the Youngstown-Warren area and the Glasgow, PA dock, nearly all of this may be associated with shale-related traffic. This traffic volume cannot be quantified at this time.	0
<b>TOTAL</b>		<b>27</b>

See map and cost estimates for this project on the next page...



## OHIO RIVER CORRIDOR VIA ABANDONED YOUNGSTOWN & SOUTHERN

Reactivation of 13 miles of Y&S right of way, river dock plus new NS RR connection  
(FRA Class 2 track standards)

DESCRIPTION OF WORK	POSSIBLE COSTS
Property acquisition placeholder (80 acres @ \$25,000/acre)	\$ 2,000,000
Clearing of vegetation and grubbing (60 acres @ \$6,000/acre)	\$ 360,000
New track on existing, graded roadbed (\$110/TF x 68,640 feet)	\$ 7,550,400
Regrade ROW next to East Palestine Country Club	\$ 1,000,000
Construct new ROW and track connection with NS at Glasgow, PA	\$ 3,000,000
Glasgow, PA dock facilities, dredging	\$ 1,000,000
Slope stabilization at Fredericktown (per recent stabilization of SR7 at Toronto)	\$ 5,000,000
Grimms Bridge Tunnel repairs, install drainage, south portal reopening	\$10,000,000
New Fredericktown Bridge (cast-in-place concrete)	\$10,000,000
Reinforce four river-over-road bridges	\$ 2,000,000
Reinforce bridge over North Fork Little Beaver Creek	\$ 1,000,000
<b>SUBTOTAL</b>	<b>\$42,910,400</b>
<b>30% CONT.</b>	<b>\$12,873,120</b>
<b>TOTAL</b>	<b>\$55,783,520</b>

Ex-Y&S from Negley, OH to Glasgow, PA (13 miles) was built in the 1930s to haul coal but was abandoned by the 1970s.



## Rail Project Assessment Table

### *Projects descending by highest score\**

PROJECT*	TIMELINE	UNFUNDED CAPITAL COST	EST CAR-LOADS /YEAR	WATER-WAY(S) ACCESS	NEAR MAJOR ASSETS	LARGE VACANT LAND	FOSTERS RR COM-PETITION	WIDE RR RIGHT OF WAY	CLASS II or III RR	LONG TERM USE	TOTAL POINTS
Ohio Commerce Center onsite track & access improvements	10	6	10	4	7	5	1	4	2	4	53
Ohio Jct CSX/G&W yard expand	10	6	10	4	8	3	2	3	6	0	52
CASTLO/Lally Rail Service Yard repairs/rehabilitation	10	6	2	4	8	3	4	4	6	4	51
Warren Steel Holdings onsite track enhancements / West Warren G&W/CSX track connection	10	6	8	0	8	5	3	0	6	4	50
AC&J Carson, Jefferson transload expansions	10	10	2	0	8	3	1	2	4	4	44
Cleveland direct rail corridor to Mahoning Valley (option 2-via Kent)	5	4	8	4	8	5	2	1	6	NA	43
Hubbard Trans-Rail America transload	10	8	0	4	6	5	1	4	2	0	40
Y&SE/Tervita Campbell-Darlington track and capacity enhancements	10	2	8	0	8	1	1	0	6	4	40
Cleveland direct rail corridor to Mahoning Valley (option 3-via Kent Bypass)	0	2	8	4	8	5	3	1	6	NA	37
Ohio River NS direct track connection at Alliance	10	4	0	4	7	5	1	1	2	NA	34
Cleveland direct rail corridor to Mahoning Valley (option 1-via Mantua)	0	2	8	4	8	2	3	1	6	NA	34
Y&SE/Green Harvest Energy State Line corridor reactivation	5	6	0	0	4	5	1	0	6	0	27
Ohio River Y&S Corridor restoration	0	2	8	4	4	1	3	1	4	NA	27

\* The five highest-scoring projects are recommended.

## Funding Options

Numerous fiscal resources are available to port authorities to support rail infrastructure development. These resources come in two basic forms: 1) organizational powers provided by statute to port authorities that they may choose to adopt so as to generate their own revenue streams; 2) grants and loans awarded by state and federal agencies following individual, successful applications by the port authority.

As always, there are many subcomponents to each basic form, and there are many positives and negatives to each option. For example, generating a revenue stream to finance a particular project can be simple if it is done on a per-project basis – ie: limited to the revenues generated by the project. But a per-project revenue stream may not be coordinated with other similar projects or be insufficient to achieve long-term economic development goals. In that respect, it is similar to a loan from a commercial lender.

A revenue stream can be more complex, coordinated and long-term. Here, a revenue framework by the port authority or the county or counties overseeing it is established to finance a series of projects to achieve the goals of a development masterplan. In this instance, a masterplan for the acquisition and development of a railroad corridor by the port authority can be implemented via the creation and levying of user fees (right of way leases, haulage agreements, exclusive and non-exclusive overhead trackage rights fees, rail spur installation fees, rail spur leases, etc) to a railroad carrier or carriers. Those user fees can be used to pay for direct maintenance, loans and bonds to pay the total cost of a project, or to fund the local share needed to leverage a state or federal grant or loan. This long-term approach represents a serious commitment that is usually taken by a port authority having recent experiences with smaller-scale, individualized rail development projects.

Grants and loans are available at the state and federal levels through several programs. State grants and loans do not require an environmental assessment as part of the application for project construction funds. On the downside, funding budgeted for these state programs are extremely small (average only about \$3 million annually) and are highly competitive. Project applications submitted well after the start of each state fiscal year (July 1) have a rapidly diminishing chance of success.

Federal funds are more abundant and can thus support larger, more expensive projects. But funds are also highly competitive and are subject to environmental assessments as part of the application process. The average time for a transportation project in pursuit of federal funds to go from idea to ribbon-cutting is 10 years. This includes the three general stages of the project development process (alternatives analysis, preliminary engineering, final engineering) of which there are many subcomponents. The sponsor of a small project in which little or no property needs to be acquired and few disruptions to natural and built environments are anticipated can prepare a categorical exclusion document and receive a finding of no significant impact from the relevant federal agency or agencies. The project's sponsor can then apply for a federal construction grant or loan.

### **Local/Regional/Port Authority funding options**

Existing WRPA business assistance programs (ie: fixed interest rate revenue bond funding, conduit revenue bonds, tax increment financing, structured leasing program, brownfield redevelopment assistance): these can be used to support railroad business development projects including railroad infrastructure improvements. Unlike other modes of transportation, railroads typically own, manage and finance the rights of way, tracks, bridges and yards they use. Therefore, financial assistance to a railroad company can also be used to directly improve a railroad's infrastructure just as any other business might need assistance to improve its physical plant.

Transportation Improvement District (TID): Under the Ohio Revised Code, a board of county commissioners may create a TID to facilitate and fund a transportation project or projects. These can include projects involving a street, highway, parking facility, freight rail tracks and necessarily related

freight rail facilities, or other transportation project. The county has discretion in whether to establish a board of trustees to oversee the TID, which is considered under law to be a body both corporate and politic.

The TID must:

- Register with the Ohio Department of Transportation and renew every two years (there are currently 13 TIDs registered with ODOT);
- Have a project that is eligible to receive ODOT funds (\$3.5 million is available for TIDs in 2012-2013);
- Apply to ODOT by September 1st of each year if funding is desired to pay up to 10 percent (maximum \$250,000) for preliminary engineering, detailed design, right-of-way acquisition, construction, or other eligible project costs under certain circumstances. TID funds cannot be used for administrative costs.

The TID can:

- Purchase, construct, maintain, repair, sell, exchange, police, operate, or lease projects;
- Establish and collect tolls or user charges for its projects;
- Issue TID revenue bonds or economic development bonds pursuant to Section 13 of Article VIII of the Ohio Constitution;
- Make and enter into all contracts and agreements necessary or incidental to the performance of its functions and the execution of its powers;
- Employ or retain or contract for the services of managers, engineers, accountants, legal counsel, and such other experts and advisers;
- Receive and accept federal, state or local government loans and grants;
- Acquire, hold, and dispose of property;
- Sue and be sued;
- Adopt its own bylaws;
- Adopt an official seal.

Joint Powers Authorities (JPA) & Joint Economic Development Districts (JEDD): Ohio counties and municipalities have extensive authority to enter into cooperative agreements under which they can engage in almost any kind of activity that they are authorized to engage in, including transportation projects or economic development initiatives. These activities must be limited in their function, and thus cannot combine apparently unrelated activities such as rail freight development and water pollution control.

The JPA or JEDD must:

- Have the policy-making board of prospective members pass identically worded inter-local agreements (such as a memorandum of understanding) in order to join the JPA or JEDD. Any amendments to the agreement must be approved by all members or prospective members;
- Have at least two members.

They can:

- Be comprised of disparate types of governmental bodies (ie: municipalities, counties, port authorities, development authorities, TIDs, etc);
- Create multi-county (and in some cases, multi-state) regional transportation or development authorities;
- Aggregate each member's existing financial tools and resources, share costs, share revenues, pay dues, and request grants and loans in the name of the JPA/JEDD;
- Designate a chair, co-chairs and board designees;
- Employ or retain or contract for the services of managers, engineers, accountants, legal counsel, and such other experts and advisers.



## State funding options

The Ohio Department of Transportation (ODOT), Ohio Rail Development Commission (ORDC) and the Public Utilities Commission of Ohio (PUCO) provide funding either individually or cooperatively through multiple programs addressing safety and economic development.

Rail Safety Programs: ODOT has allocated \$15 million per year in Hazard Elimination and Surface Transportation Program funds for highway-railroad grade crossing safety improvements or corrective activity designed to alleviate a highway-railroad safety problems.

Project priorities fall under 10 program categories:

- Statewide Priority Warning Device Improvements - Projects identified by federal ranking that take into consideration the number of trains, train speed, number of tracks, Average Daily Traffic, existing warning devices, and angle of crossing.
- Rail Corridor Program identified by crash and train data, sight distance, amount of railroad contribution per corridor.
- Program to eliminate flashing light signals on the state highway system
- Program to eliminate cross bucks on the state highway system
- Circuitry Upgrade Program which upgrades antiquated equipment
- Fatal Crash Upgrade Program
- Grade Crossing Consolidation Program which provides flexible funds as a local incentive for crossing closures.
- Surface Reconstruction and crossing Profile Program
- County Task Force Program
- Grade Separation Program

Under the Federal Crossing Upgrade Program, the PUCO in partnership with ORDC selects Ohio highway-railroad crossings for federally-funded upgrades based on a priority list that ranks the crossings in order of risk of accident. While the average cost of upgrading a crossing is \$180,000, the local community incurs no costs under this program. Crossings not eligible for the federal program may be submitted for the State Crossing Upgrade Program.

Under the State Crossing Upgrade Program, the cost of a project is shared between the local community, the state of Ohio, and the railroad involved. Depending upon a variety of factors including the amount of daily train and motor vehicle traffic at the crossing, communities can expect to pay from 30 to 70 percent of the cost of the project.

Rail Economic Development Programs: ORDC has three basic programs for grants and loans with about \$2 million to \$4 million total available per year among all programs. These programs include:

- Rail Spur Program – assistance to companies for new rail and rail-related infrastructure. The goal of this program is to promote the retention and development of Ohio companies through the use of effective rail transportation.
- Rail Line Acquisition / Preservation – assistance for the acquisition of rail lines to prevent cessation of service or preserve the line or right of way for future rail development.
- Rail Line Rehabilitation – assistance to public and private entities for the rehabilitation of rail lines in the state of Ohio to improve safety and efficiency.

Other Business Development Programs: the state of Ohio provides financial assistance to general business development. Foremost among these is the JobsOhio Network Program, funded at nearly \$30 million per year, to support and leverage the retention, expansion and recruitment of businesses and industries with high potential for job and wealth creation in Ohio.

## Federal funding options

A number of grant, loan and loan-guarantee programs provide financial assistance for freight rail, following the completion of environmental assessments as noted in the introduction of this section regarding funding options. The Federal Railroad Administration (FRA) administers most programs while the Federal Highway Administration oversees the Transportation Infrastructure Finance and Innovation Act (TIFIA) loan program which is available for some rail-related projects.

Railroad Rehabilitation & Improvement Financing (RRIF): Provides direct loans and loan guarantees of up to \$35 billion. Up to \$7 billion is reserved for projects benefiting freight railroads other than Class I carriers. However, out of 32 RRIF loans awarded since 2003, only six have been for amounts exceeding \$50 million.

The funding may be used to:

- Acquire, improve, or rehabilitate intermodal or rail equipment or facilities, including track, components of track, bridges, yards, buildings and shops;
- Refinance outstanding debt incurred for the purposes listed above;
- Develop or establish new intermodal or railroad facilities.

Direct loans can fund up to 100 percent of a railroad project with repayment periods of up to 35 years and interest rates equal to the cost of borrowing to the government. Eligible borrowers include railroads, state and local governments, government-sponsored authorities and corporations, joint ventures that include at least one railroad, and limited-option freight shippers who intend to construct a new rail connection.

Transportation Infrastructure Finance & Innovation Act (TIFIA): Provides three forms of credit assistance available – secured (direct) loans, loan guarantees and standby lines of credit – for surface transportation projects of national or regional significance. The TIFIA credit program's fundamental goal is to leverage federal funds by attracting substantial private and other non-federal investment in critical improvements to the nation's surface transportation system. Current budget authority can support about \$1.1 billion in annual lending capacity. The minimum size for TIFIA projects is \$50 million of eligible project costs.

Initially, highway, passenger rail, transit, intermodal projects, and intelligent transportation systems could receive credit assistance under TIFIA. This was expanded in 2003 to include private rail facilities providing public benefit to highway users, such as freight rail infrastructure investments that remove road/bridge-damaging trucks from the roadway system. The maximum amount of TIFIA credit assistance to a project is limited to 33 percent of eligible project costs. Projects seeking TIFIA assistance must meet certain statutory threshold requirements.

Rail Line Relocation and Improvement Capital Grant Program: Provides between \$8 million and \$17 million per year, depending on Congressional appropriations, to assist state and local governments (cities and counties) in mitigating the adverse effects created by the presence of rail infrastructure. Grants may only be awarded for construction projects that improve the route or structure of a rail line and mitigate the adverse effects of rail traffic on safety, motor vehicle traffic flow, community quality of life, or economic development. Pre-construction activities, such as preliminary engineering, design, and costs associated with project-level compliance with the National Environmental Policy Act (NEPA), are considered part of the overall construction project and are also eligible for funding. However, activities such as planning studies and feasibility analyses are not eligible for funding.

Railroad Rehabilitation and Repair (Disaster Assistance): Up to \$20 million in grants may be available by the Secretary of Transportation to repair and rehabilitate Class II/III railroad infrastructure damaged by hurricanes, floods, and other natural disasters in areas for which the President declared a major disaster. These funds are awarded competitively and on a case-by-case basis.

## Conclusion

After 35 years of deindustrialization in the Mahoning Valley, reindustrialization is causing renewed interest by the private and public sectors in constructing new and restoring old railroad infrastructure. The interest is being driven by industries, railroads, shippers and real estate professionals to provide efficient, low-cost, bulk transportation service necessary to serve customers, grow businesses and improve the bottom line. But it is also being driven by the need to serve broader public policy goals including regional economic development, reduction of truck traffic, improved road conditions and environmental conservation.

As we have seen in the development of the Marcellus Region to the east of Ohio, which is about five years ahead of Utica Shale developments, major railroad infrastructure developments are well underway after years of planning and environmental reviews. This is a likely future for the Utica Shale in general. Whether this scale of development occurs in the Youngstown-Warren Mahoning Valley remains to be seen. Among the variables is how aggressively a region promotes the development of its rail infrastructure.

The Western Reserve Port Authority has requested assistance to determine what should be its first steps if it decides to include railroad infrastructure improvements among its economic development initiatives. In contracting with RESTORE, WRPA sought guidance on how it could proceed. WRPA asked RESTORE to identify, evaluate and recommend up to five railroad infrastructure projects which represent “immediate needs” for the region and could help WRPA build its organizational capacity for possibly developing larger, more complex projects in the future.

After soliciting input from the community, businesses and citizens, RESTORE finalized a set of 10 criteria to use in “project scorecards” that could be applied to any rail infrastructure project either in this report or in future assessments. The project scorecards revealed that the top five highest-scoring projects are:

1. Ohio Commerce Center, on-site and site access track improvements;
2. Ohio Junction (CSX, G&W) rail yard expansion;
3. CASTLO/Lally Pipe & Tube. Rail Service Yard track/bridge repairs and rehabilitation;
4. Warren Steel Holdings’ onsite track improvements, G&W West Warren track connection;
5. AC&J Railroad transload expansions in Carson and Jefferson.

These are final recommendations after preliminary findings were subjected to a 3-week public comment period. WRPA board and staff may accept, reject or modify these recommendations.

If WRPA and others decide to pursue all, some or other projects, the next course of action is to engage the principals of each project, negotiate legal issues, identify other potential project and community partners, and determine the fiscal capabilities and contributions of each. WRPA will then be in a position to determine what internal and external financial resources and expertise to bring to the table.

Considering the “immediate needs” nature of these projects and an oft-stated goal during the study process to get projects underway in less than two years, it is RESTORE’s suggestion to avoid federal funds where possible. Some exceptions to this involve adding or improving road-rail at-grade crossing safety devices. Grade crossing improvements and new crossings, such as where a new rail line crosses an existing road, can be eligible for federal funds administered by the Ohio Rail Development Commission if those projects meet certain criteria such as the amount of rail and road traffic, the angle of the crossing, sightlines and other safety factors. State funding is available for crossings that do not meet federal thresholds.

Also, where a railroad investment does not require a substantial change to the surrounding natural and built environments, federal funding may be secured more quickly. This can be accomplished by



the project sponsor submitting a “Categorical Exclusion” document to the Federal Railroad Administration in order to receive a Finding Of No Significant Impact (FONSI). A FONSI is required prior to any project receiving federal funding. Examples of projects that could receive a FONSI by submitting a Categorical Exclusion document include those that cause a very small increase in rail traffic on an already active railroad right of way where little or no property needs to be acquired and few if any structural demolitions are needed.

All of the five highest-scoring projects in this study meet that description. Projects that cause more significant land use and environmental changes require more thorough analysis, such as an environmental assessment or an environmental impact statement. These documents describe project design alternatives, their extent of environmental impacts, and the proposed mitigation necessary to reduce those impacts. These steps are proscribed by the National Environmental Policy Act (NEPA). The average time it takes for a transportation project in pursuit of federal funding to go through NEPA-compliant planning is five years, according to the Federal Highway Administration.

If WRPA takes the next step and pursues railroad projects to develop, a community dialogue with key stakeholders in the public and private sectors is a logical next step on if, how and who may fund rail projects, including addressing their ownership, construction and ongoing maintenance. And most port authorities or other rail project sponsors which engage in railroad development activities started out small and built their rail-oriented organizational capacities over time. They did so with hands-on experience aided by the knowledge of others who have their own hands-on experiences to share.

This study will hopefully provide WRPA board and staff with an introductory level of information, context and guidance on what is involved in developing rail projects in general, and specific railroad projects in particular. RESTORE hopes this study also provides the necessary basis for taking the next step by reaching out to and coordinating private and public interests in furtherance of rail development goals.

Ken Prendergast  
Executive Director  
RESTORE  
May 31, 2012

# YOUNGSTOWN, OHIO

## RAILROADS & INDUSTRIES



OFFICE OF CHIEF ENGINEER  
DESIGN & CONSTRUCTION  
CONSOLIDATED RAIL CORPORATION

MARCH, 1986  
PHILADELPHIA, PA

### LEGEND

- CONRAIL LINES
- TRACKAGE RIGHTS
- OUT-OF-SERVICE LINES
- OTHER RAILROADS
- VALUATION SECTION MILEPOST
- OPERATIONS MILEPOST

