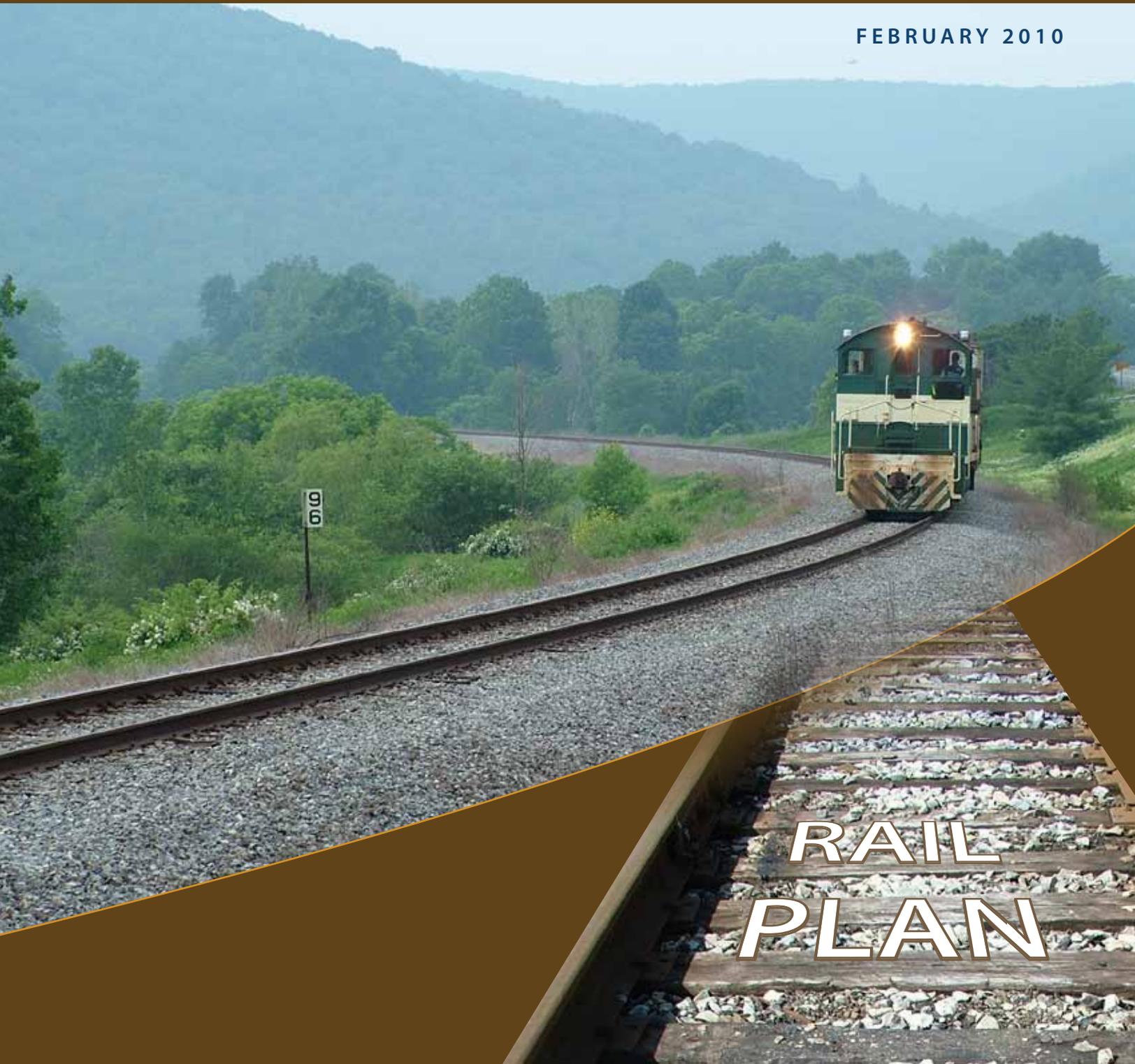




Pennsylvania Intercity Passenger and Freight Rail Plan

FEBRUARY 2010



**RAIL
PLAN**

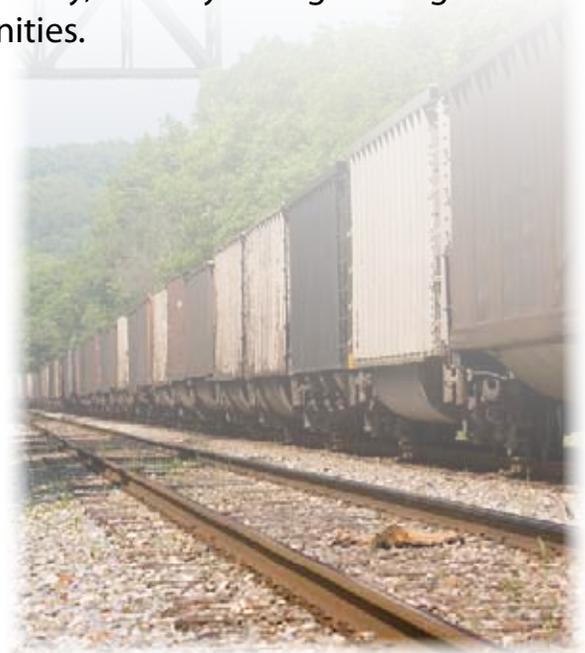
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What do we want rail to be like in 2035?



Vision

By 2035 Pennsylvania's rail system will provide safe, convenient, reliable, cost-effective connections for people and goods. As a viable alternative to other modes, it will support economic competitiveness, smart growth, and environmental sustainability, thereby strengthening Pennsylvania's communities.





What the vision could mean for everyday life...

"Connections used to be a hassle but now I can easily transfer from the train to a bus and get to the office on time for a meeting."

"This part of town used to be nothing but parking lots—and abandoned after 5:00. Since they put in a train station and then those new stores and apartment buildings, it's actually a place you'd want to be."

"With the improvements in intermodal rail service, our company now uses it to meet many of our transportation needs."

"We always wanted to ship more of our products by train but it just wasn't practical. Now with a new siding at our industrial park and better connections to the major rail lines, rail is a viable alternative that is making us more competitive."

"Taking the train saves me time and money—and I can catch up on my reading instead of wasting time sitting in traffic."

Pennsylvanians want a strong rail system to support everyday life and the economy.

Why does it matter?

Rail in Context

Efficient and effective transportation supports economic prosperity. Far-reaching transportation investments over the course of the nation's history unleashed economic forces that propelled the U.S. to a preeminent world-wide position.

We are now at a crossroads in our transportation history. A new national vision for intercity/high-speed rail is before our nation. New decisions must be made to ensure that the nation as a whole, and Pennsylvania in particular, are positioned to compete in a rapidly changing international marketplace.

During much of the 20th century, the U.S. focused on highways as the premier transportation option. From the good roads movement that started early in the century, working through Pennsylvania's own "Get the Farmers Out of the Mud" campaign, to the growing support for a nationwide network of multiple-lane freeways that culminated in the decision in 1956 to create the Interstate system, the U.S. has enthusiastically embraced "automation." "Beltways" sprang up around center cities, further facilitating suburban development. As congestion grew, additional highways were constructed to solve the gridlock.





Over the same stretch of time, however, the extensive network of rails that had been laid primarily in the 19th century started to unravel. Railroads carried the U.S. to the economic summit and commercial behemoths, such as the Pennsylvania Railroad, considered indestructible and immutable, became touchstones for all that was right about America. Hard lessons were to come. What started as a slow slide picked up speed and by the early 1970s, the nation witnessed the spectacular collapse of railroading in the northeastern United States. Government intervention created Conrail out of the wreckage and now as the 21st century unfolds, modern, well-run Class 1 railroads, assisted by a spirited and entrepreneurial assortment of short haul carriers, offer reborn opportunities to diversify our transportation approaches.

The need for a course adjustment and a strengthening of our passenger and freight rail system seems apparent.





Investing in rail is vital to Pennsylvania’s people, economy, and environment

- Highways are at or beyond capacity, and in most cases, building more highway capacity is not feasible or desirable. Although our rail system is also currently congested, rail improvements offer a significant opportunity to expand Pennsylvania’s capacity to move people and goods—which is essential for economic growth.
- A rail system that offers viable alternatives to the automobile or tractor-trailer is a critical part of improving air quality, reducing greenhouse gas generation, reducing fuel consumption, and supporting sound land use and related sustainability initiatives—all of which greatly influence the quality of life in Pennsylvania.
- Because of Pennsylvania’s location, heavy passenger and freight traffic passes through our state en route to other destinations. Pennsylvania’s capacity to handle this traffic through a well-developed multimodal and intermodal transportation system—in which rail plays a growing role—is directly linked to our local, state, and national economic competitiveness.



This plan complies with the Rail Safety Improvement Act of 2008 and the Passenger Rail Investment and Improvement Act of 2008.

Compliance ensures that Pennsylvania is eligible for the federal capital grant program.

The plan also complies with the requirements set forth in the Pennsylvania Rail Freight Preservation and Improvement Act of 1984, which requires the Department to undertake and regularly update a comprehensive study of rail freight in the Commonwealth.

The Need for this Plan

Maintaining this momentum and reaping important economic and environmental benefits—amid the myriad challenges facing passenger and freight rail—requires a cohesive statewide approach to improving Pennsylvania’s rail system. The aim of this plan is to provide a framework for federal and state rail investments within the Commonwealth, ultimately resulting in a system that supports sustainable, livable, thriving communities. This is consistent with the federal initiative to develop a national rail network to help reduce traffic congestion on highways, cut dependence on foreign oil, and improve the environment.

*A single intermodal train
can haul the equivalent
of 280 trucks.*

(Association of American Railroads, www.aar.org)

Where are we now?

Assessing the current state of rail in Pennsylvania requires an understanding of our rail inventory, how those components work together, and what the major problems are.

A rail system is an integrated network of rail lines. These lines, whether geared toward passenger or freight rail, generally fall into three categories: major lines, regional segments, and local connections. This is similar to our highway system, with interstate highways providing efficient long-distance travel, state routes making regional connections, and local roadways linking homes and businesses to the larger highway system.

For Pennsylvania's rail system to function effectively, improvements must be made in each category, with appropriate integration between categories.

Within each category, consideration must be made for the different—and sometimes competing—requirements of passenger rail and freight rail.





Major Lines for both freight and passenger rail carry the majority of traffic within Pennsylvania and are essentially the core systems. The major lines also provide the main connections with other cities/locations within the region and nation, such as Amtrak’s Northeast Corridor and the Keystone Corridor connecting Philadelphia and Harrisburg. High-speed rail initiatives are also considered major lines. From a freight perspective, these major lines, known as Class I railroads, facilitate movement of goods throughout the national network in the U.S. Within Pennsylvania there are four Class I railroads: CSX, Norfolk Southern, Canadian Pacific Railway, and the Bessemer and Lake Erie Railroad Company (owned by Canadian National).

Regional Segments provide connections to the major lines and help ensure connectivity to areas with lesser demands. These regional connections may be contained within Pennsylvania or pass into a nearby state, such as New Jersey or Maryland. Passenger rail includes commuter systems such as SEPTA and the NJ Transit service. There are two regional freight lines in Pennsylvania, known as Class II railroads: Buffalo and Pittsburgh Railroad and the Wheeling and Lake Erie.

Usually **Local Connections** are not as financially beneficial or efficient as the major lines or regional segments, but they feed the other classifications with riders or freight and help to foster economic development while providing communities with a transit alternative to the automobile. Local connections include other modes, such as a bus line that serves a train station or a multimodal center for the movement of goods. To facilitate the movement of goods there are 32 short line/local line haul (Class III) railroads that operate in Pennsylvania. In addition, there are 27 local switching and terminal railroads operating in the state.

Pennsylvania Rail today:

- 5th largest rail system in the U.S. (approximately 6,000 miles of track, operated by more than 60 railroads)
- Four Class I freight railroads (CSX, Norfolk Southern, Canadian Pacific, and the Bessemer and Lake Erie Railroad Company – owned by Canadian National)
- Greatest number of short line and regional rail lines in the U.S.
- In 2009, 439 million trips were taken using transit in Pennsylvania

Top Issues by Category

The table highlights some of the key issues facing passenger rail and freight rail in each category. This overview is intentionally broad and focused on common themes—each area of the state and each rail service provider faces unique circumstances and issues.

	Major Lines
Passenger	<ul style="list-style-type: none"> • Safety issues, delays, and high maintenance costs due to at-grade crossings. • Limited right-of-way forces passenger and freight trains to use shared track, delaying passenger service. Conflicts also arise between different passenger services that share lines, such as Amtrak and SEPTA. • Lack of sufficient track maintenance, signal system upgrades, and interlockings cause delays and inefficiencies.
Freight	<ul style="list-style-type: none"> • Capacity of tracks and terminals is insufficient to meet projected service demands, and is also limited because double-stack trains cannot be accommodated on all major lines due to low clearances at key points. • Newer, heavier train cars (286,000 pounds) cannot be accommodated on track that is not 286K compliant. • Limited right-of-way forces passenger and freight trains to use shared track, introducing conflicts and safety concerns. • Condition and type of track, bridge conditions, and signal systems reduce speeds and cause delays and inefficiencies.



	Regional Segments	Local Connections
Passenger	<ul style="list-style-type: none"> • Poorly timed connections provided by different operators cause delay and inconvenience. • Inadequate parking at stations deters ridership. • Limited right-of-way forces passenger and freight trains to use shared track, delaying passenger service. • Many stations, platforms, and pathways are in poor condition and non-ADA-compliant. 	<ul style="list-style-type: none"> • Inadequate connections—few modal options and poorly timed service—make it difficult and inconvenient for travelers to complete the local leg of their journey. • Lack of complementary land use near stations hinders the usability and appeal of rail.
Freight	<ul style="list-style-type: none"> • Newer, heavier train cars (286,000 pounds) cannot be accommodated on track that is not 286K compliant. • Condition and type of track, bridge conditions, and signal systems reduce speeds and cause delays and inefficiencies. • At-grade crossings introduce safety concerns, potential delays, and increased maintenance expense. 	<ul style="list-style-type: none"> • More sidings are needed to connect to more manufacturers. • Condition and type of track, bridge conditions, and signal systems reduce speeds and cause delays and inefficiencies.

Demonstrated Progress

Passenger and freight rail is a critical component of Pennsylvania's transportation system. However, Pennsylvania has a large rail network and a long list of complex issues. In an effort to begin addressing some of these issues, several projects and initiatives have been undertaken in recent years.

For example:

- Pennsylvania has two freight rail funding programs. Over the past five years, the Commonwealth has invested \$163 million in rail sidings, safety, state-of-good-repair improvements, and capacity enhancements.
- In November 2009, Governor Rendell and CSX announced a \$30 million public/private initiative to improve 16 bridges in southeastern Pennsylvania to accommodate double-stack trains.

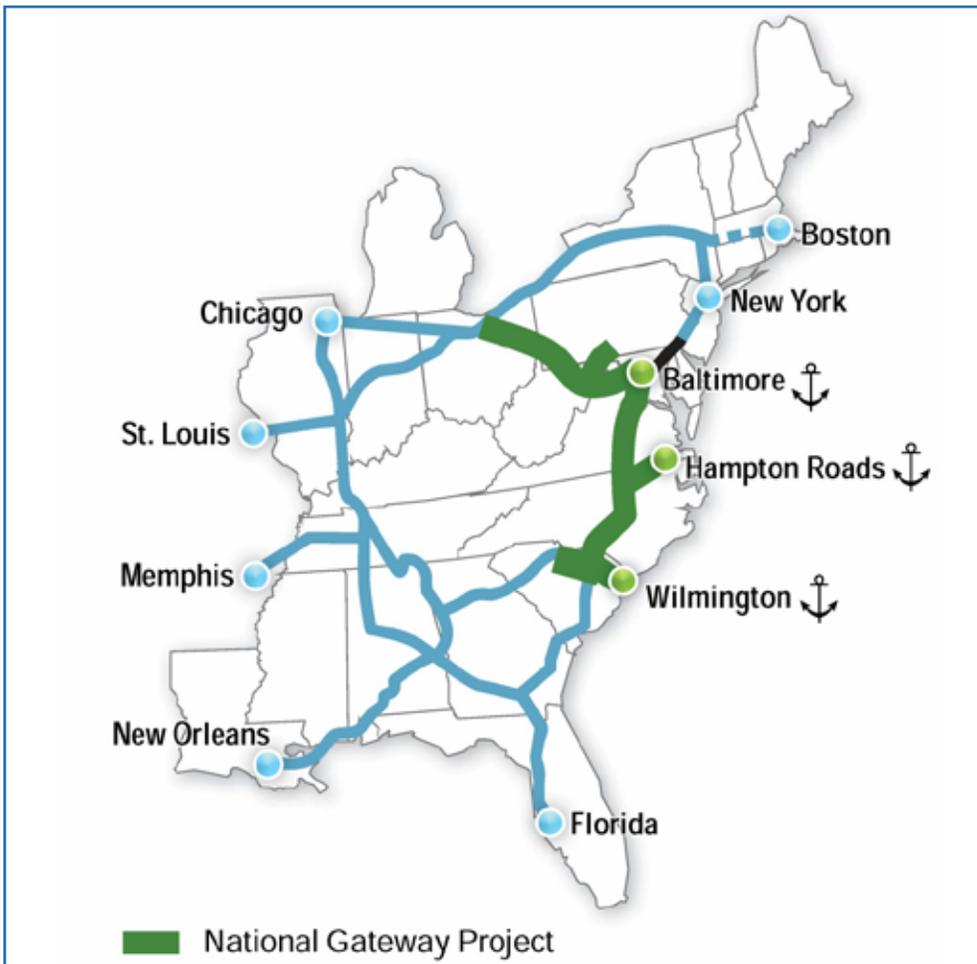


Mike Ward (CSX) and Governor Ed Rendell announce a public-private initiative to improve bridges to accommodate double-stack trains

- Two major freight corridors are under development by Class I railroads to add capacity to the freight rail network through Pennsylvania. Norfolk Southern is focused on developing the Crescent Corridor stretching from the Northeast to New Orleans, and CSX is exploring the National Gateway Project connecting the ports in Virginia and North Carolina with manufacturing centers in the Midwest.



CSX National Gateway Project



The National Gateway project is an \$842 million public-private partnership that will upgrade tracks, equipment, and facilities, and provide double-stack intermodal clearance.

CSX estimates the Gateway will provide more than \$650 million in public benefits to Pennsylvania by:

- Reducing CO₂ emissions by 250,000 tons;
- Expanding rail market access potential for the state;
- Enhancing rail transportation infrastructure, including new intermodal terminals in Chambersburg and Pittsburgh;
- Reducing the state's highway congestion by shifting freight from nearly one million trucks to the railway, saving more than \$40 million in highway maintenance costs; and
- Saving \$35 million in logistics costs for the state.

Norfolk Southern Crescent Corridor



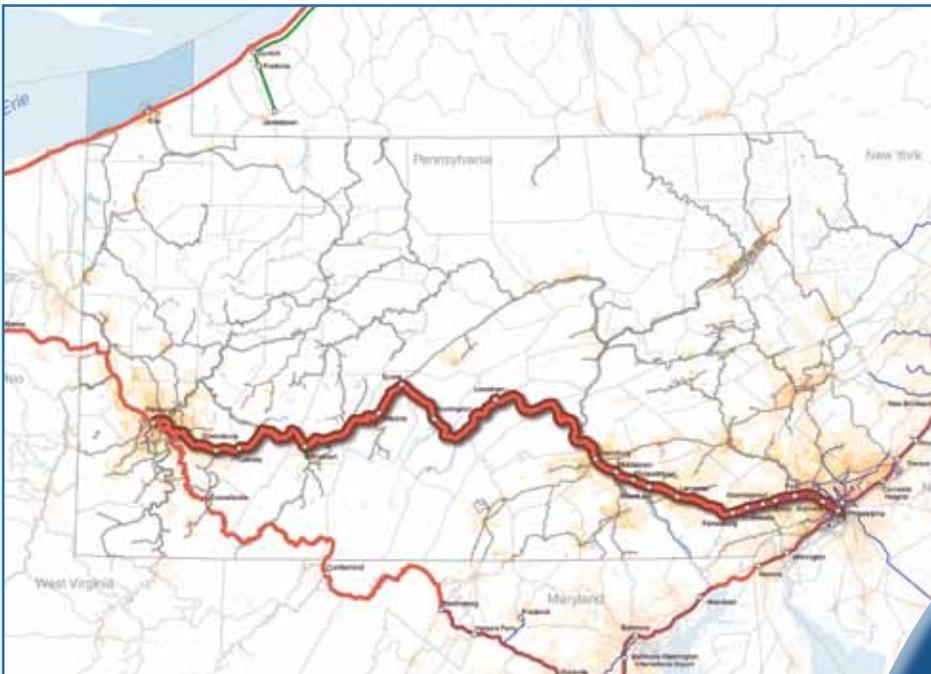
The Norfolk Southern Crescent Corridor will include a series of infrastructure improvements which include the straightening of curves, adding passing tracks, improving signal systems, and building new terminals. Norfolk Southern estimates that the annual benefits to Pennsylvania from the Crescent Corridor will include:

- 700,000 long-haul trucks diverted to rail,
- 10 million gallons of fuel saved,
- carbon dioxide reduction of 110,000 tons,
- more than \$9 million in traffic congestion savings,
- avoidance of an estimated \$8.5 million in accident costs, and
- 26,000 jobs created or enhanced over the next 10 years.



- In 2003, Amtrak initiated a very aggressive FY2004-FY2008 Strategic Plan with a focus on stabilizing the existing railroad and returning it to a state of good repair. Amtrak and PennDOT collaborated and shared the \$145 million cost of the Keystone Corridor Improvement Project between Philadelphia and Harrisburg, executed during fiscal years 2000 through 2006. The effect was an increase in service frequency and reduction of travel time resulting in a ridership increase of 74 percent.
- Pennsylvania subsidized the Keystone Corridor operations between Harrisburg and Philadelphia in 2008 at a cost of \$8.2 million.

Keystone Corridor



Now is the time to seize opportunities and address needs that can be uniquely met by rail.

What is our intended path?

To achieve the rail vision set forth for the year 2035, goals were developed through an extensive analysis of existing conditions and in consultation with railroad operators and agencies, stakeholders, elected officials, and the general public. Objectives were identified as a means of achieving each goal.

PennDOT acknowledges that many of these goals and objectives require partnerships and commitments of others in the rail community, however as an agency we are committed to working toward our identified vision.



Goal 1: Bring the priority rail system to a state of good repair and maintain it.

- Invest in rail system infrastructure to bring the system to a state of good repair.
- Upgrade the rail system infrastructure and equipment to meet current standards.
- Maintain Pennsylvania's rail system infrastructure in a state of good repair.
- Preserve rail rights-of-way for future railroad use.





Goal 2: Develop an integrated rail system.

- Develop core rail infrastructure.
- Balance passenger and freight rail needs in the same corridor.
- Improve coordination among freight, passenger, and commuter rail systems.
- Provide seamless connections between passenger modes.
- Provide seamless connections between freight modes.
- Increase intermodal freight traffic.
- Complete links to connect the state's major urban areas.
- Integrate Pennsylvania's rail system with the national rail system.
- Provide access to large cities and gateways in the U.S. and Canada.
- Improve access to the commuter and intercity rail system.



Goal 3: Support the future needs of residents and businesses.

- Increase the capacity of rail infrastructure to move passenger and freight traffic.
- Develop an equitable use of rail infrastructure by passenger and freight rail.
- Enhance rail access to increase the competitiveness of the state's ports and airports.



Goal 4: Enhance the quality of life in Pennsylvania.

- Mitigate highway congestion.
- Develop compatible land uses along rail lines that are consistent with smart growth and supportive of rail use.
- Increase economic development opportunities in communities by advancing investments in rail.
- Enhance the competitiveness of the rail system compared to other modes.





Goal 5: Assure personal safety and infrastructure security.

- Improve the safety of pedestrians and vehicles at at-grade crossings.
- Improve the security of rail passengers on rail vehicles and at stations, consistent with federal and state policy.
- Enhance the security of rail rights-of-way and rail infrastructure.



Goal 6: Support energy efficiency and environmental sustainability.

- Improve air quality through reduced emissions by investing in rail transportation.
- Reduce energy use.





Goal 7: Identify stable and predictable funding.

- Pursue funding for increased investments to the rail system.
- Create greater funding balance between rail and highway modes.
- Enact legislation that supports the development and financing of the state's rail system.



Goal 8: Build public support for rail system services and assets.

- Educate the public about the railroad system and operations.
- Garner support and cooperation for rail operations through metropolitan planning organizations, rural planning organizations, and regional/local governments.
- Demonstrate the benefits of moving people and goods by rail.
- Advocate for a national rail transportation policy and plan.



Needed improvements are larger than one entity. Collaboration and partnerships are essential between PennDOT and other federal and state agencies, private corporations, local governments, and the general public to yield a sustainable rail system.



What needs to happen?

Systematic improvements in priority corridors

Priority corridors were identified to solidify a core rail network, strategically focus limited funding, and strengthen rail relationships in Pennsylvania. These corridors already have some type of existing service or are moving forward to implement and/or improve service.

Intercity Passenger Rail Corridor Descriptions

Northeast Corridor

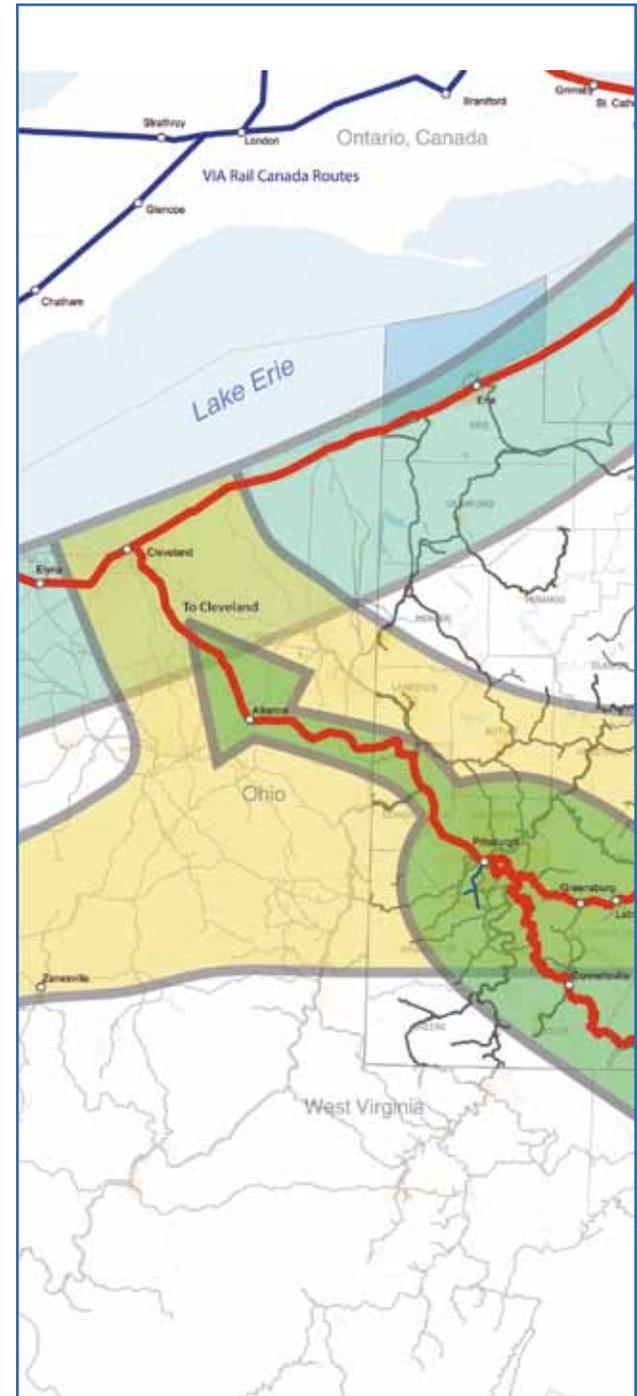
This corridor runs from Boston through New York City and Philadelphia to Washington, D.C. It is the busiest and fastest rail corridor in the U.S., with the heaviest traffic being between Philadelphia and New York City. Pennsylvania has an important stake in shaping the future of this national-level corridor.

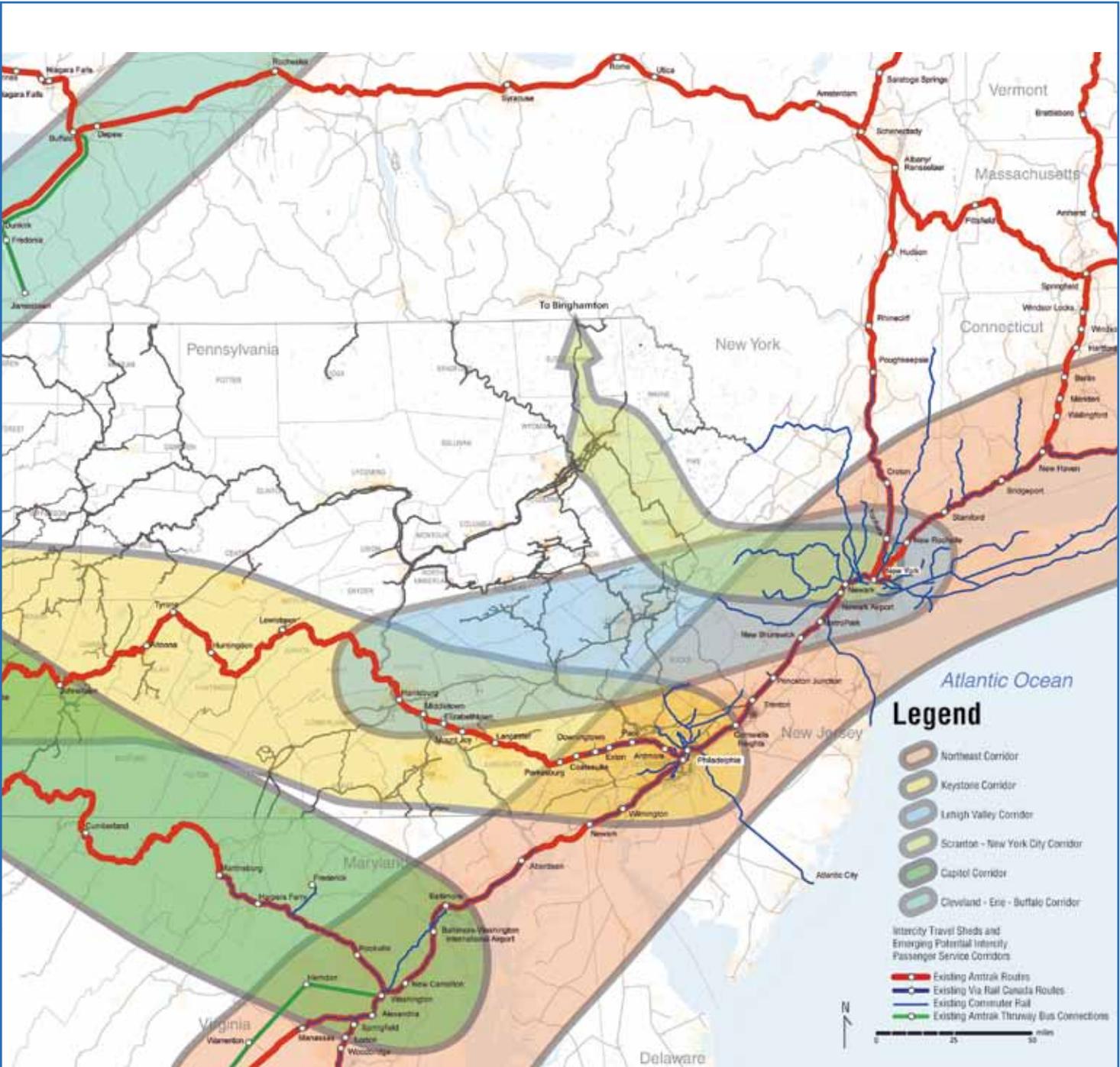
Keystone Corridor East

The Keystone Corridor East connects Philadelphia, Lancaster, Harrisburg, and points between. It is owned by Amtrak and serves Amtrak's Keystone and Pennsylvania service, SEPTA's R5 Paoli-Thorndale commuter rail line, and minor freight operations.

There are many connections to public transportation along the corridor, including bus service provided by SEPTA, Red Rose Transit Authority (RRTA), and Capital Area Transit (CAT). However, very few of the connecting bus routes are timed to meet Keystone trains.

Priority Passenger Rail Corridors







Intercity Passenger Rail Corridor Descriptions, cont'd.

The Commonwealth has submitted an application to fund substantial upgrades to allow future operation at 125 miles per hour, which will reduce trip times between Harrisburg and Philadelphia to one hour and 20 minutes.

Keystone Corridor West

The Keystone Corridor West is located between Pittsburgh and Harrisburg. It provides critical mobility to the communities and natural attractions of central Pennsylvania, such as Greensburg, Altoona, and Johnstown, as well as connections to Penn State University, the state parks, and other attractions in the Allegheny Mountains.

Norfolk Southern owns the Keystone West line and uses it as a critically important freight route between the Midwest and the East Coast. Although Norfolk Southern's predecessor, ConRail, pared down portions of the line from four-track to double- and triple-track segments, the right-of-way is available to accommodate significant capacity increases and frequent passenger service.

The Pittsburgh to Cleveland corridor could be considered as a future extension of the Keystone Corridor West. Currently, only one Amtrak train per day operates on this segment and its on-time performance is unreliable. A number of alternative routes could accommodate service increases in this corridor.



Intercity Passenger Rail Corridor Descriptions, cont'd.

Lehigh Valley Corridor (Harrisburg-Reading-Allentown-Bethlehem-New York City)

The Lehigh Valley Corridor runs from Harrisburg to New York City via Reading, Allentown, Bethlehem, and Easton. This corridor is a critical link that would tie together many of the individual corridors in the eastern Pennsylvania network and provide new service to the largest metropolitan area in the U.S.

The existing rail line in this corridor is strategically important for Norfolk Southern and forms one branch of the railroad’s Crescent Corridor. Much of the route is double-tracked and there are portions of right-of-way that could accommodate triple-track configurations.

Scranton-New York City Corridor

The Scranton to New York City corridor has been identified by PennDOT and New Jersey Transit as a priority corridor for implementing rail service in the near term. Some of the highest population growth rates in the state are found in this corridor, as housing prices in the New York City market have pushed development into peripheral areas in Monroe County and Stroudsburg.

Amtrak estimates its backlog of “good repair” investments nationwide at \$5 billion.



Intercity Passenger Rail Corridor Descriptions, cont'd.

The portion of the corridor proposed for rail service in Pennsylvania is an underutilized line owned by the Pennsylvania Northeast Regional Railroad Authority (PNRRA). The Commonwealth has submitted an application to fund upgrades to the corridor, which would enable reinstatement of passenger rail service to Hoboken, New Jersey, and New York City via transfers at Andover and Secaucus Junction, New Jersey. The service plan for the line envisions the eventual operation of nine round trips per day between Scranton and Hoboken.

Capitol Corridor (Chicago-Cleveland-Pittsburgh-Washington)

The Capitol Corridor runs from Washington, D.C., to Pittsburgh and extends to Cleveland and Chicago. The rail right-of-way presently exists with limited service along the corridor.

An alternative travel path exists for this corridor. Frequent Amtrak service is available from Harrisburg to Washington, D.C., but passengers must travel to Philadelphia and change trains. This indirect route takes more than five hours, despite both legs being on electrified lines with service speeds exceeding 100 mph.



Intercity Passenger Rail Corridor Descriptions, cont'd.

The right-of-way options for such a service are limited. Issues that must be resolved include creating a high-speed junction into the Northeast Corridor north of Baltimore and antiquated tunnels that can cause delays at Baltimore Penn Station. The high volume of travel and lack of alternative modes in this corridor indicate that there may be sufficient ridership to warrant passenger rail service even if it requires some new right-of-way acquisition.

Cleveland-Erie-Buffalo Corridor

Located on the shores of Lake Erie, the City of Erie is well-positioned in an important transportation corridor between Buffalo, New York, and Cleveland, Ohio. Geographically isolated from most major population centers in Pennsylvania, much of Erie's future success will depend upon its relationship to these other cities.

Both Norfolk Southern and CSX own rail lines in this corridor that serve Erie. Current Amtrak service operates on the CSX line, with a station in downtown Erie. As part of its Ohio Hub Plan to develop a 1,244-mile interstate rail network, the State of Ohio plans to support rail service to Erie with continuing service to Buffalo and connections to Toronto in the future. While Erie service would be the last phase of the Ohio Hub development program, Pennsylvania could begin coordination efforts with Ohio to hasten development of this service.

Freight Rail Corridor Descriptions

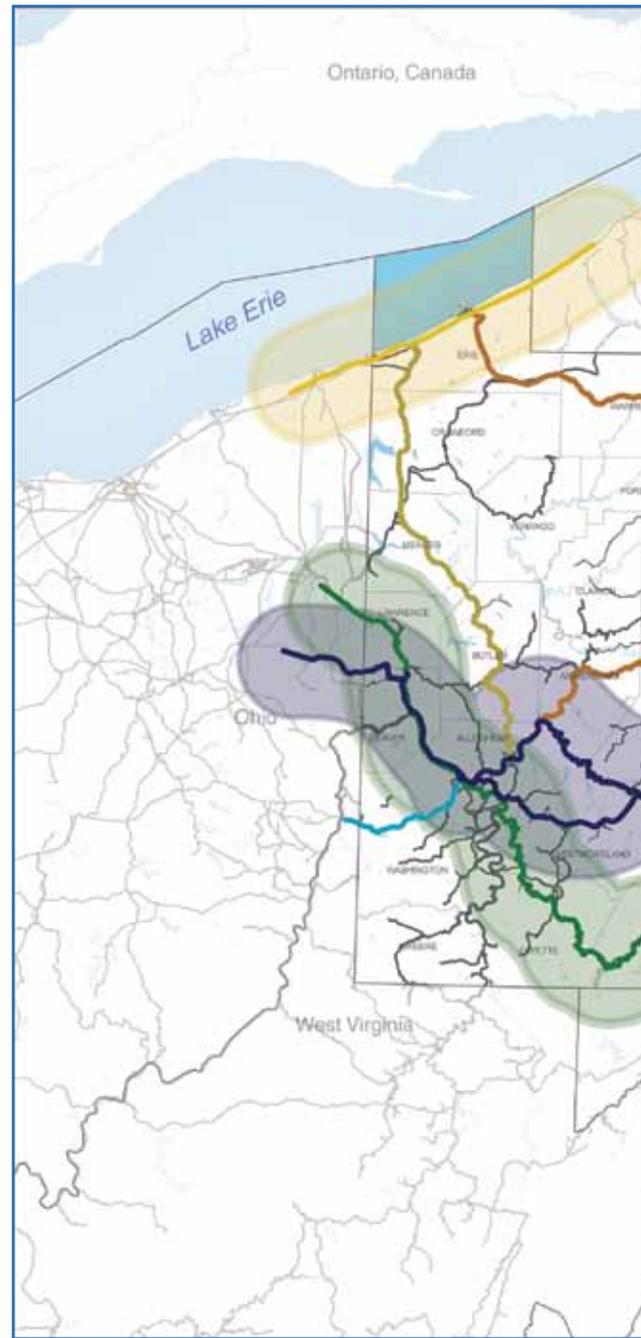
Each priority freight rail corridor is generally dominated by one or two Class I railroads, and supported by various regional/short line and local railroad companies.

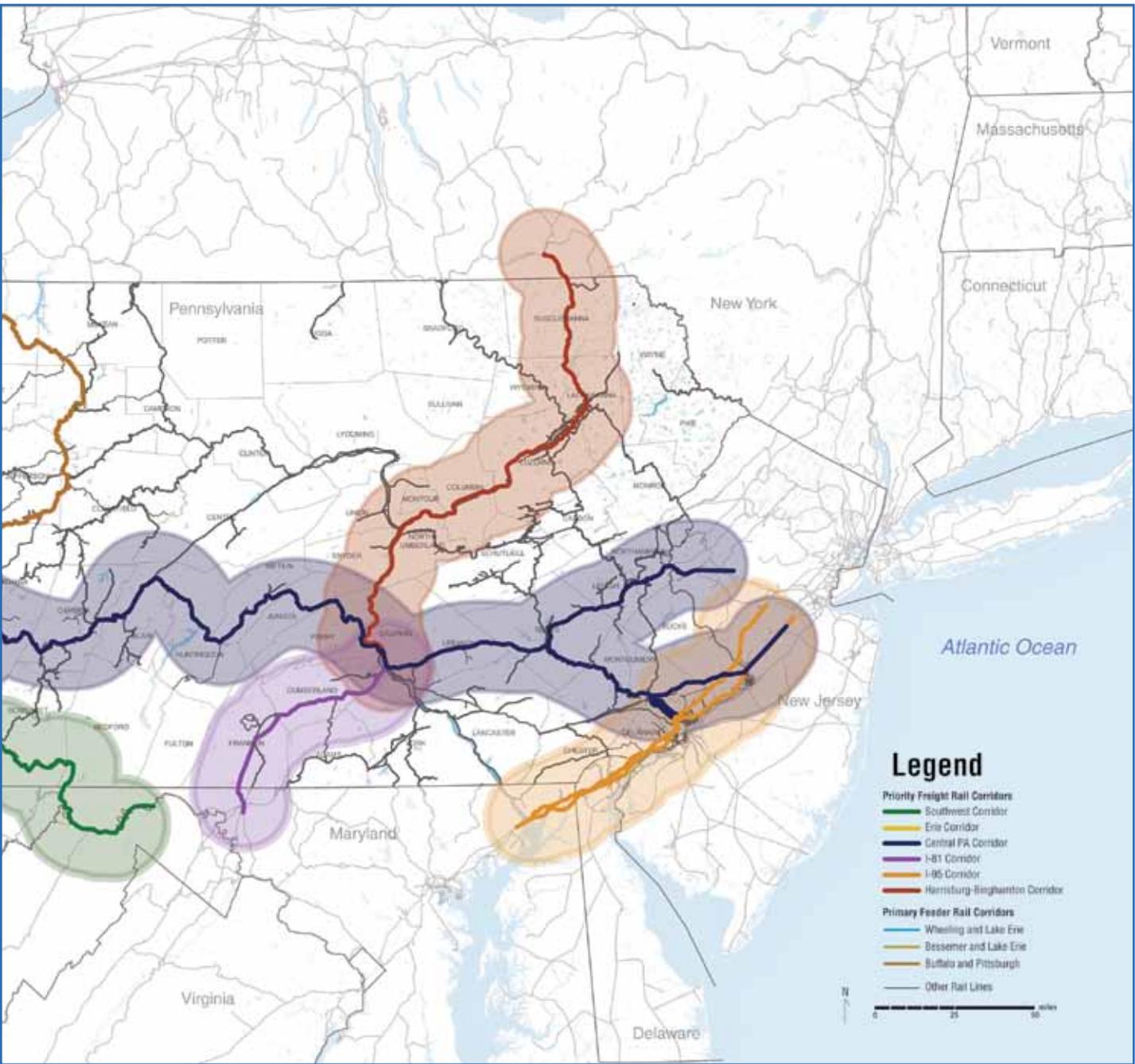
Central Corridor

The Central Corridor is the largest corridor in the state. It is operated by Norfolk Southern (NS) and extends the length of Pennsylvania, beginning at the western border near Midland and crossing east to Reading, where it splits northeast to Easton in the I-78 highway corridor and southeast to Philadelphia. There are six Norfolk Southern (NS) intermodal terminals on the corridor: Pittsburgh, Bethlehem, Morrisville, Philadelphia (Navy Yard) and two in Harrisburg. This corridor is double-stack cleared and 286K compliant.



Priority Freight Rail Corridors





Erie Corridor

The Erie Corridor consists of parallel mainline tracks operated by NS and CSX along Lake Erie in northwest Pennsylvania for approximately 95 miles. This corridor is double-stack cleared and 286K compliant.

I-95 Corridor

The I-95 corridor in southeastern Pennsylvania contains the CSX mainline and parallels I-95 at Chester north through Philadelphia to the New Jersey/Pennsylvania border at Yardley. The corridor contains the CSX intermodal terminal in South Philadelphia. While portions of the I-95 Corridor have been cleared for double-stack trains, sections of track have not, which causes the entire corridor to restrict regional transport. The main track in the corridor is 286K compliant, while feeder lines are not.

Southwest Corridor

This corridor, operated by CSX, crosses the southwest portion of the state beginning at the Pennsylvania/Maryland border near Cumberland, Maryland, north through Pittsburgh to the Ohio border near New Castle. The Southwest Corridor is part of CSX's National Gateway Program to create an efficient rail route linking Mid-Atlantic ports to Midwestern markets. The corridor is 286K compliant but is not double-stack cleared. The corridor is also in need of additional intermodal yard capacity.





I-81 Corridor

This corridor, operated by NS, parallels I-81 in central Pennsylvania from the Pennsylvania/Maryland border near Hagerstown, Maryland, to Harrisburg. The NS Rutherford intermodal terminal in Harrisburg is on the I-81 corridor and is a part of the NS Crescent Corridor initiative. This corridor is double-stack cleared and 286K compliant. However, the corridor is in need of additional intermodal yard capacity, and track upgrades and speed improvements are needed.

Harrisburg-Binghamton Corridor

This corridor extends north from Harrisburg along the Susquehanna River to Scranton and turns north to Binghamton, New York. The Canadian Pacific Railway (CP) operates this corridor between Sunbury and Binghamton, with NS operations between Sunbury and Harrisburg (with CP trackage rights). This corridor is double-stack cleared and 286K compliant. Track upgrades and speed improvements are needed.



The U.S. freight rail system carries 16% of the nation's freight by tonnage, accounting for 28% of total ton-miles.

(Association of American Railroads, www.aar.org)

Systematic Improvements by Category

Within the intercity passenger and freight rail priority corridors, three categories of rail have been identified for each. The following strategies were identified to address the issues facing each rail category. Funding for specific projects will be evaluated based in part on how well the project meets the plan's goals and objectives.

Passenger Rail – Improvements to Major Lines

All Corridors

- Bring existing track into a state of good repair.
- Expand track capacity.
- Streamline dispatching.
- Increase frequency of trains.
- Provide seamless connections among passenger modes.
- Reduce travel times.

Northeast Corridor

- Engage in discussions with local partners and adjacent states to prioritize actions within corridor.

Keystone Corridor East

- Achieve 125 mph.
- Develop a sealed corridor.
- Reduce travel time to 1 hour 15 minutes.

Keystone Corridor West

- Conduct an alternatives study.
- Create a service development plan.
- Consider high-speed rail.

Pittsburgh-Cleveland-Chicago

- Engage in discussions with other states and the Federal Railroad Administration (FRA) in context of National Rail Plan being developed.





Lehigh Valley Corridor

- Engage in discussions with local partners and adjacent states to prioritize actions within corridor.

Scranton-New York City Corridor

- Engage in discussions with local partners and adjacent states to prioritize actions within corridor.

Capitol Corridor

- Engage in discussions with local partners and adjacent states to prioritize actions within corridor.

Cleveland-Erie-Buffalo Corridor

- Engage in discussions with other states and FRA in context of National Rail Plan being developed.
- Consider high-speed rail.

Passenger Rail – Improvements to Regional Segments

All Corridors

- Improve intercity connections.
- Preserve/Obtain Right-of-Way to facilitate track expansion.
- Use strategic rail investments to support smart transportation, sound land use, and modal choice.

Passenger Rail – Improvements to Local Connections

All Corridors

- Improve connections with local bus, air, and commuter rail service.
- Engage in discussions with local governments to encourage transit-oriented development.

Prioritizing improvements by corridor while considering all categories will make the best use of funding and produce the most tangible results.

Freight Rail – Improvements to PA Portions of National Freight Core System

All Corridors

- **Obstacles to Double-stack:** Create an inventory of height clearance restrictions and prioritize removal of those restrictions.
- **Weight Restrictions:** Create an inventory of lines that are not 286K compliant and prioritize track to be upgraded.
- **Preservation of Right-of-Way:** Where appropriate, consider the preservation and protection of rights-of-way in order to add rail and reduce congestion and conflicts with passenger rail.
- **Intermodal yard capacity:** Ensure adequate space is available to provide seamless connections between freight modes.
- **Track and bridge upgrades:** Identify and prioritize upgrade or maintenance of track, replacement or rehabilitation of bridges, and upgrades to signal systems to increase line capacity and speeds.

Passengers and goods require the ability to connect to multiple rail lines in order for a network to exist.

In addition to connecting rail lines, passengers and goods need to be able to reach destinations beyond the train station or distribution center. Feeder services, such as buses, local transit, bike routes, walkable station areas, and trucking are critical to attracting as many customers as possible to rail—even if it is only for a portion of the journey.



Freight Rail – Improvements to Regional and Short Line Secondary and Feeder System

All Corridors

- **Weight Restrictions:** Create an inventory of lines that are not 286K compliant and prioritize track to be upgraded.
- **Intermodal facilities:** Ensure yard capacity and access are sufficient to encourage the movement of goods at the regional level.
- **Track and bridge upgrades:** Identify and prioritize upgrade or maintenance of track, replacement or rehabilitation of bridges, and upgrades to signal systems to increase speeds and reduce delay.
- **Highway/Rail Crossings:** Create an inventory of at-grade crossings within the priority corridor and identify crossings with safety and maintenance concerns.
- **Preservation of Right-of-Way:** Where appropriate, consider the preservation and protection of rights-of-way in order to add rail and reduce congestion and conflicts with passenger rail.

Freight Rail – Improvements to Economic/Business Development Connections

All Corridors

- **Locations of strategic sidings:** By examining land use and proposed population trends, consult with local businesses and governments in locating future sidings.



A freight train can move a ton of freight 457 miles on a single gallon of fuel.

(Association of American Railroads, www.aar.org)

What are the challenges?

Coordinated Commitment

Decisions on transportation infrastructure, service, and land use are made by myriad public and private entities—yet optimizing the investments in and performance of the overall system depends upon close coordination and shared commitment. One example is that when locating strategic sidings and other improvements, railroads want to be confident of sufficient business before investing in a siding. However, businesses are reluctant to commit to a location without assurance of rail service.



Conflicts between Passenger Rail and Freight Rail

While both share many similar challenges and need to be considered together at the state rail planning level, they are fundamentally different services with different needs, operations, customs, and customer expectations. Limited right-of-way forces the sharing of track, which brings these conflicts to a head. Most notable are the faster speeds at which passenger trains travel, their different requirements for curved track segments, and the greater wear and tear caused by heavy freight trains. Conflicts also occur between passenger rail systems operating on shared track, such as Amtrak and SEPTA. High-level platforms and other ADA requirements often present a conflict when rail lines provide both passenger and freight services.



Funding

For freight railroads, the cost of upgrading rail beds and bridges in order to increase capacity in heavy freight rail corridors can surpass their capital budgets. Short line railroads struggle financially to maintain traffic control devices and crossing surfaces. For passenger rail, the lack of a constant funding stream makes multi-year capital improvements difficult to execute. Capital investment and ongoing maintenance of infrastructure and rolling stock are very expensive, especially given the need to keep ticket prices affordable.

Topography

Pennsylvania's steep terrain, especially between Harrisburg and Pittsburgh, slows freight trains, hinders passenger rail, and presents vast technical challenges to high-speed rail.

Design Standards

For rolling stock manufacturers, accommodating new FRA crashworthiness standards for end-to-end compression requires extensive redesign and testing of their proven designs. Another design issue involves passenger platform height, which cannot be easily standardized because of the different capabilities of rolling stock to accommodate low platforms or the more expensive high platforms.

If just 10 percent of long-distance freight that currently moves by highway switched to rail, national fuel savings would exceed one billion gallons a year and annual greenhouse gas emissions would fall by some 12 million tons.

(Association of American Railroads, www.aar.org)

What are our core principles?

The path toward an enhanced rail system is complex, and requires flexibility and judgment to address longtime challenges in the context of emerging trends and issues. The following core principles will help shape project-level decisions on priorities, funding, and implementing this plan's goals and objectives.

Safety

Safety is a fundamental consideration for every rail project or initiative and the primary driver for many rail projects. Efforts to enhance the many aspects of safety will be given priority funding.

Sustainability

Consideration will be given as to whether the project balances economic, social, community, and environmental priorities within the rail network in both the near term and longer term.

Coordinated approach to passenger and freight rail

Passenger and freight rail each have distinct needs and priorities, yet are both part of Pennsylvania's overall transportation system that exists for moving people *and* goods. Planning and projects will take both passenger and freight rail into account, with an emphasis on finding ways for both to operate more efficiently and effectively within the same corridors.

Partnerships

Since PennDOT does not own the rail lines or rolling stock, identification and implementation of many potential strategies will require partnerships and collaboration to ensure that long-term benefits are achieved in Pennsylvania.





Smart transportation and sound land use

Planning and design for rail improvements is a strategic opportunity to support smart transportation and sound land use. Efforts will be made to strengthen city centers, enhance transit-oriented development, and reduce dependence on automobiles and trucks.

Intermodal opportunities

Pennsylvania’s rail system will be strongest and most effective when it is efficiently linked with other modes. Plans and projects will look for opportunities to improve connections with highways, airports, and ports to provide a dynamic system of modal choices for the consumers and producers within Pennsylvania and the region.

Economic development

Rail projects that create and sustain jobs, connect Pennsylvania businesses with customers, link the workforce with employment centers, and anchor desirable development will continue to be a top priority.

Strengthening communities

The ultimate aim is to strengthen Pennsylvania’s communities through the economic and environmental benefits possible through rail. As projects are undertaken, the focus will be on more than improving the rail system. It will also work to serve people and strengthen communities.



Every \$1 of rail infrastructure investment generates a \$3 return to the economy.

(Association of American Railroads, www.aar.org)

What are our next steps?

Clearly, Pennsylvania’s rail system is in need of substantial investment, and the time to make those investments and reap the associated benefits is now. Improvements will require numerous projects and initiatives executed by many different entities. There are many challenges to making cohesive improvements to our passenger and freight rail system, and no quick fixes or easy answers.

However, this plan establishes a framework for making systematic progress toward a shared vision of rail in Pennsylvania. It provides the big picture to help prioritize actions.

Intercity Passenger Rail

To advance passenger rail projects that are consistent with this plan, the following steps will be completed:

- **Feasibility Study** – In order to determine whether a project has merit, a feasibility study will be undertaken to identify any fatal flaws that would prohibit the project/improvement from being implemented.
- **Alternative Analysis/Service Development Plan** - Upon completion of a feasibility study and determination that a project is viable, potential project alternatives will be analyzed and compared in terms of effectiveness, cost, and impacts. This analysis phase will include environmental studies and documentation. This detailed step will also include preparation of a service development plan.
- **Apply for Federal Funding** – The last—and perhaps most critical—step in advancing a passenger rail project involves identifying local match funds for operating and capital costs.



Freight Rail

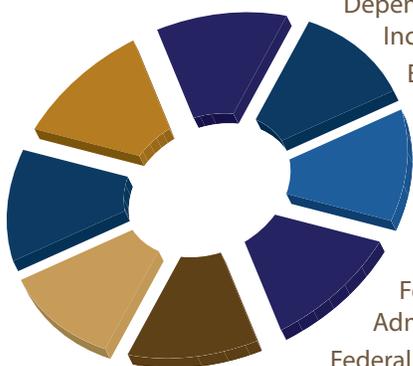
Projects with a freight focus also need to be consistent with the plan to qualify for freight improvement grants. Implementing planned improvements depends on the availability of matching funds and partnerships among the many public and private entities with a stake in freight rail.

Ultimately, projects aligning with the plan’s goals and core principles—and strengthening the overall rail system within the context of priority corridors and local and regional connections to those corridors—will receive priority funding to advance toward implementation.



Invited to Participate in Roundtable Meetings

10,000 Friends of Pennsylvania
 Aliquippa & Ohio River Railroad Company
 Allegheny Conference on Community Development
 Allegheny County Department of Economic Development
 Allegheny Energy, Inc.
 Allegheny Valley Railroad – Carload Express, Inc.
 American Short Line and Regional Railroad Association
 Amfire Mining Company
 Amtrak
 Association of American Railroads
 Canadian Pacific Railway
 Center for Advocacy for the Rights and Interests of the Elderly (CARIE)
 City of Harrisburg
 City of Philadelphia
 City of Pittsburgh
 CN (Canadian National Railway Company)
 Commonwealth Strategic Solutions
 CSX Corporation, Inc.
 Delaware Department of Transportation
 Delaware River Port Authority
 Delaware Valley Regional Planning Commission (DVRPC)
 Delaware-Lackawanna Railroad Company, Inc.
 Dependable Distribution Services, Inc.
 E. P. Bender Coal Company, Inc.
 East Penn Railroad
 Elected Officials
 Erie Coke Corporation
 Erie County Council
 Federal Railroad Administration
 Federal Transit Administration
 FirstEnergy Corp.
 Genesee & Wyoming Railroad, Inc.
 Greater Lehigh Valley Chamber of Commerce
 Greater Philadelphia Chamber of Commerce
 Greater Valley Forge Transportation Management Association
 Harrisburg Regional Chamber & Capital Region Economic Development Corporation
 Kellogg Company
 Keystone Association of Railroad Passengers
 Keystone State Railroad Association
 Kuperavage Coal Company
 Landisville Railroad
 Lehigh Valley Rail Management
 MAGLEV, Inc.
 McFarren Group, Inc.
 Middletown & Hummelstown Railroad
 Modern Transit Partnership
 National Association of Railroad Passengers
 New York, Susquehanna & Western Railway
 NJ TRANSIT
 Norfolk Southern
 North Central Pennsylvania Regional Planning and Development Commission
 North Shore Railroad Company
 Northern Tier Regional Planning & Development Commission
 Office of Pennsylvania Senator Robert Casey
 PA AFL-CIO (American Federation of Labor and Congress of Industrial Organizations)
 Patrick Engineering, Inc.
 PBS Coals, Inc.
 PECO
 PennFuture
 PennPIRG (Public Interest Research Group)
 Pennsy Supply, Inc.
 Pennsylvania Chemical Industry Council
 Pennsylvania Coal Association
 Pennsylvania Department of Community and Economic Development





Pennsylvania Department of Environmental Protection
 Pennsylvania Department of the Auditor General
 Pennsylvania Department of Transportation
 Pennsylvania Economic Development Association
 Pennsylvania Farm Bureau
 Pennsylvania General Assembly
 Pennsylvania Infrastructure Investment Authority
 Pennsylvania League of Cities and Municipalities
 Pennsylvania Motor Trucking Association
 Pennsylvania Northeast Regional Railroad Authority
 Pennsylvania Power Company (PennPower)
 Pennsylvania Public Transportation Association
 Pennsylvania Public Utility Commission
 Pennsylvania Services Corporation
 Pennsylvania Southwestern Railroad Company
 Pennsylvania State Association of Boroughs
 Pennsylvania State Association of Township Supervisors
 Philadelphia Regional Port Authority
 Pioneer Concrete Pumping, Inc.
 Pittsburgh Transportation Group
 Port Authority of Allegheny County
 Port of Pittsburgh Commission
 PPL Corporation
 R. J. Corman Railroad Group
 Reading Anthracite Company
 Reading Blue Mountain & Northern Railroad Company
 Reconnecting America
 Slusser Brothers
 Smart Growth Partnership
 SMS Rail Lines
 Snyder Trucking Ltd.
 Southeastern Pennsylvania Transportation Authority (SEPTA)
 Southwestern Pennsylvania Commission
 Standard Steel
 State Transportation Advisory Committee (Pennsylvania)
 Stone Consulting & Design
 Strasburg Rail Road Company
 Susquehanna Economic Development Association-Council of Governments (SEDA-COG) Rail Authority
 Sustainable Pittsburgh
 The Center for Rural Pennsylvania
 The Hankin Group
 The PENJERDEL Council
 TriCounty Area Chamber of Commerce
 Turtle Creek Industrial Railroad, Inc.
 U.S. Steel
 UGI Utilities, Inc.
 United Parcel Service
 United Refining Company
 United Transportation Union
 Urban Land Institute - Philadelphia
 Valley Distributing & Storage Company
 Wellsboro & Corning Railroad
 Wellsboro Electric Company
 West Chester Railroad Company
 Western New York & Pennsylvania Railroad
 Weyerhaeuser Company
 Wheeling & Lake Erie Railway
 York Railway Company
 Youngstown & Southeastern Railway Company

In addition to roundtable meetings, public meetings were held to obtain input from the general public:

- September 14, 2009 Philadelphia
- September 15, 2009 Harrisburg
- September 17, 2009 Pittsburgh (Carnegie)

Pennsylvania's rail vision, goals, and objectives reflect the collective priorities of dozens of stakeholders who were engaged in developing this plan.

