1. Overview: The Role of Rail in Statewide Transportation

Now is a critical time in the Commonwealth of Pennsylvania’s transportation history: both passenger and freight rail systems have seen substantial increases in usage; recent investments in the state’s rail transportation network have resulted in improved service; and Act 89 state transportation revenue will provide necessary funding to enable more improvements to help move Pennsylvania forward. The Pennsylvania State Rail Plan (SRP) creates a vision for the future of rail service throughout Pennsylvania, including high-speed, intercity, commuter, and freight railroads.

This vision takes into consideration increased demand of both passenger and freight rail, while assessing capital needs to meet the projected growth in these areas. The plan will define key rail initiatives necessary to serve growth in freight markets, promote economic growth across the Commonwealth, and improve passenger rail travel.

The SRP meets the requirements of the federal Passenger Rail Investment and Improvement Act (PRIIA) of 2008 and the Final SRP Guidance provided by the Federal Railroad Administration (FRA) in September 2013.
1.1 Pennsylvania’s Goals for a Multimodal Transportation System

The recent *PA On-Track Long Range Transportation Plan* emphasizes four overarching goals for the state’s transportation network:

1. System Preservation
2. Safety
3. Personal and Freight Mobility
4. Stewardship

These goals guide state and local decision making, leading to an improved transportation network for all of Pennsylvania. Building on these overarching goals, the specific goals and objectives for the SRP are listed below and on the following pages.

Goal 1: Bring the priority rail system to a state of good repair and maintain it.
Goal 2: Develop an integrated rail system.
Goal 3: Support the future needs of residents and businesses.
Goal 4: Enhance the quality of life in Pennsylvania.
Goal 5: Support personal safety and infrastructure security.
Goal 6: Support energy efficiency and environmental sustainability.
Goal 7: Identify stable and predictable funding.
Goal 8: Build public support for rail system services and assets.
Goal 1
Bring the Priority Rail System to a State of Good Repair & Maintain It.

Objectives:

1. Preserve rail rights-of-way for future railroad use.
2. Invest in rail system infrastructure to bring the system to a state of good repair.
3. Upgrade the rail system infrastructure and equipment to meet current standards.
Goal 2

Develop an Integrated Rail System.

Objectives:
1. Develop core rail infrastructure.
2. Balance passenger and freight rail needs in the same corridor.
3. Improve coordination among freight, passenger, and commuter rail systems.
4. Provide seamless connections between passenger modes.
5. Provide seamless connections between freight modes.
6. Increase intermodal freight traffic.
7. Complete links to connect the state’s major urban areas.
8. Integrate Pennsylvania’s rail system with the national rail system.
9. Provide access to large cities and gateways in the U.S. and Canada.
10. Improve access to the commuter and intercity rail system.
Goal 3
Support the Future Needs of Residents & Businesses.

Objectives:

1. Increase the capacity of rail infrastructure to move passenger and freight traffic.

2. Develop an equitable use of rail infrastructure by passenger and freight rail.

3. Enhance rail access to increase the competitiveness of the state’s ports and airports.
Goal 4
Enhance the Quality of Life in Pennsylvania.

Objectives:

1. Mitigate highway congestion.

2. Develop compatible land uses along rail lines that are consistent with smart growth and supportive of rail use.

3. Increase economic development opportunities in communities by advancing investments in rail.

4. Enhance the competitiveness of the rail system compared to other modes.
Goal 5
Support Personal Safety & Infrastructure Security.

Objectives:

1. Improve the safety of pedestrians and vehicles where there are at-grade crossings.
2. Improve the security of rail passengers on rail vehicles and at stations, consistent with federal and state policy.
3. Enhance the security of rail rights-of-way and rail infrastructure.
Goal 6
Support Energy Efficiency & Environmental Sustainability.

Objectives:
1. Improve air quality through reduced emissions by investing in rail transportation.
2. Reduce energy use.
Goal 7

Identify stable and predictable funding.

Objectives:

1. Pursue funding for increased investments to the rail system.

2. Create greater funding balance between rail and highway modes.

3. 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.

Objectives:

1. Educate the public about the railroad system and operations.

2. Garner support and cooperation for rail operations through metropolitan planning organizations, rural planning organizations, and regional/local governments.

3. Demonstrate the benefits of moving people and goods by rail.

4. Advocate for a national rail transportation policy and plan.
1.2 The Role of Rail Transportation in Pennsylvania

Pennsylvania has one of the largest rail networks of any state in the United States, with over 5,000 route miles of railroad. The rail system is as diverse as the Commonwealth itself, ranging from high speed intercity service to small short line railroads serving rural areas of the state. The over 50 railroad companies that serve the Commonwealth represent the most railroads in any state in the nation.

The history of rail in Pennsylvania stretches back to the 19th century with the 1834 Pennsylvania Main Line of Public Works (inspired by New York State’s Erie Canal). Significant events in Pennsylvania’s railroad history include direct rail service from Pittsburgh to Philadelphia in 1854, which reduced travel time between the two major cities from three days to 13 hours and initiated the rise of the Pennsylvania Railroad to become one of the largest railroads in the world. Examples of major projects constructed by the Pennsylvania Railroad include the Altoona Rail Works and improvements in Philadelphia. More recent events include the revival of railroads in the Commonwealth through publically owned passenger service and privately owned freight companies.
1.2.1 Freight Rail

Pennsylvania’s freight rail system is comprised of over 5,000 miles of track operated by more than 50 railroads. The Pennsylvania freight rail network carried an estimated 209 million tons of freight in 2013 (see Table 1-1 below). Inbound and outbound traffic accounted for 24 percent and 23 percent, respectively, of the state freight rail tonnage. Through freight rail movements comprised 48 percent of the total freight rail tonnage shipments in Pennsylvania, indicating the relative significance of Pennsylvania as an important link between the east coast and the midwest. More than ten million tons of freight were shipped internally in the state, accounting for five percent of the state’s total tonnage.¹

Table 1-1 and Figure 1-1 describe freight rail movements in Pennsylvania in 2013.

Table 1-1: Pennsylvania Freight Rail Traffic Movements, 2013

<table>
<thead>
<tr>
<th></th>
<th>Inbound</th>
<th>Outbound</th>
<th>Through</th>
<th>Internal</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tons</td>
<td>50,222,426</td>
<td>47,590,479</td>
<td>100,571,132</td>
<td>10,881,531</td>
<td>209,265,568</td>
</tr>
<tr>
<td>Percentage of Rail Tonnage</td>
<td>24%</td>
<td>23%</td>
<td>48%</td>
<td>5%</td>
<td>100%</td>
</tr>
<tr>
<td>Units</td>
<td>1,113,571</td>
<td>915,752</td>
<td>2,459,381</td>
<td>108,090</td>
<td>4,596,794</td>
</tr>
<tr>
<td>Percentage of Rail Units</td>
<td>24%</td>
<td>20%</td>
<td>54%</td>
<td>2%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Source: STB 2013 Waybill data processed by HNTB

More detail regarding freight rail movements can be found in Chapter 2.

¹ STB 2013 Waybill data processed by HNTB
As of 2012, Pennsylvania ranked first in the number of railroads operating in a state, fifth in total railroad mileage, eighth in the amount of tons originating in the state, twelfth in tons terminating in the state, eighth in the number of carloads originating in the state and seventh in the number of carloads terminating within the state. In comparison to other states, Pennsylvania also ranked 8th in total railroad employment (7,056) and rail wages ($501.5 million) in 2012.²

Freight railroads in Pennsylvania move raw materials, such as coal, crude oil, and agricultural products, and industrial output, such as steel and iron ore in the southwest and cement in the northeast. Railroads in the state also move significant volumes of through freight between the East Coast and the rest of the nation.

² Association of American Railroads (www.aar.org/Style%20Library/railroads_and_states/dist/data/pdf/State%20rankings.pdf)
1.2.2 Passenger Rail

Intercity service in Pennsylvania is provided by Amtrak, the national passenger railroad corporation, which provides 21,300 route miles of service in 46 states. Commuter rail service is provided in the greater Philadelphia region primarily through SEPTA’s Regional Rail system (SEPTA is the Southeastern Pennsylvania Transportation Authority), with 280 route miles served by 13 rail lines, as well as NJ Transit’s Atlantic City line (NJ Transit is New Jersey’s public transportation corporation), which connects 30th Street Station to eight stations in southern New Jersey.

The Philadelphia metropolitan area has an extensive commuter rail and transit network. This contributes to a transit mode share of approximately 12 percent for journey to work trips, as shown in Figure 1-2. Combined with other non-auto modes of transport, Philadelphia has the fifth highest rate of non-auto mode share of major cities in the United States, as shown in Figure 1-3.

Figure 1-2: Commute-to Work Mode Share, Southeastern Pennsylvania, 2014

Source: SEPTA Annual Report 2014

Figure 1-3: Non-Auto Mode Share, 25 Largest U.S. Cities, 2014

Source: SEPTA Annual Report 2014, US Census Bureau, American Community Survey
1.3 State Governance Structure for Rail in Pennsylvania

1.3.1 State Agencies

The following state level agencies play an important role in the planning, regulation and finance of railroads in Pennsylvania. These agencies work closely with local governments, railroads, federal agencies, and other key stakeholders to ensure the improvement of the state’s rail services and infrastructure.

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION

The Pennsylvania Department of Transportation (PennDOT) was created in 1970 to assume the powers and responsibilities of the former Pennsylvania Department of Highways and other transportation related functions of multiple state agencies. PennDOT is responsible for the Commonwealth’s multimodal transportation network. Units within PennDOT that are involved in rail planning efforts include:

1. **Bureau of Public Transportation**: The Bureau seeks to improve public transportation by providing oversight, funding and technical assistance to transit systems across the state.

2. **Bureau of Rail Freight, Ports and Waterways**: The Bureau works to improve rail and maritime freight systems throughout the Commonwealth. In 2013, the Bureau’s responsibilities were expanded to include the improvement of port infrastructure, formerly the role of the Department of Community and Economic Development.

3. **Bureau of Planning and Research**: Performs transportation planning, research, maintains Geographic Information Systems (GIS) data, and develops transportation statistics for all modes of transportation within the state.

4. **Office of Public Private Partnerships and Public Private Transportation Partnership Board**: The office and board were created in 2012 to implement Public Private Partnerships (P3’s). P3 opportunities currently being pursued include station improvements along the Keystone Line.

5. **Rail Freight Advisory Committee**: Provides input to improve the state’s freight rail network. The committee includes representatives from government agencies, elected officials, railroad companies, and companies that make use of the state’s rail freight system.

6. **Grade Crossing Unit**: This unit improves the safety of at-grade crossings by coordinating work between PennDOT’s eleven district grade crossing engineers, the Public Utility Commission, and the numerous railroads that operate in the state.

PennDOT is authorized to plan and fund rail service. The agency has responsibility for “…coordinating and developing transportation policy: assisting in the development and operation of transportation facilities and services such as highways, rail mass transit systems, and airports; formulation and revision of a long-range master plan for the development of commuter and general transportation facilities, both public and private; appearing or intervening as a party before the Public Utility Commission when transportation problems are being considered; and representing the transportation interests of the Commonwealth before any Federal agency or Commission which determines national or regional transportation rates, routes or policies” (PA Public Law 356).
PennDOT is the designated State Rail Transportation Authority (SRTA) and State Rail Plan Approval Authority (SRPAA), which provides the agency the power to create and approve the SRP.

PennDOT complies with all federal Section 22102 requirements to maintain eligibility for federal transportation funding as per the following requirements:

“(1) the State has an adequate plan for rail transportation in the State and a suitable process for updating, revising, and modifying the plan;

(2) the State plan is administered or coordinated by a designated State authority and provides for a fair distribution of resources;

(3) the State authority –
   a. is authorized to develop, promote, supervise, and support safe, adequate, and efficient rail transportation;
   b. employs or will employ sufficient qualified and trained personnel;
   c. maintains or will maintain adequate programs of investigation, research, promotion, and development with opportunity for public participation; and
   d. is designated and directed to take all practicable steps (by itself or with other State authorities) to improve rail transportation safety and reduce energy use and pollution related to transportation.

(4) the State has ensured that it maintains or will maintain adequate procedures for financial control, accounting, and performance evaluation for the proper use of assistance provided by the United States Government.”
1. OVERVIEW: THE ROLE OF RAIL IN STATEWIDE TRANSPORTATION

1.3 State Governance Structure for Rail in Pennsylvania

1.3.1 Pennsylvania Public Utility Commission

The Pennsylvania Public Utility Commission (PUC) is a regulatory agency formed in 1937 to regulate public utilities in the state. The Rail Safety Section of the Commission has jurisdiction over the safety of railroad crossings, both at-grade and grade-separated. The PUC also includes the Railroad Inspection Program, which consists of a team of safety inspectors to ensure compliance with state and federal railroad safety rules, as authorized by the Federal Railroad Safety Act of 1970. The Commission works with PennDOT to ensure the safety of railroads in the Commonwealth.

1.3.2 Pennsylvania Department of Community and Economic Development

The Pennsylvania Department of Community and Economic Development (DCED) is an economic development agency formed in 1996. In cooperation with PennDOT and the Commonwealth Financing Authority, DCED provides grants for railroads through the DCED Multimodal Transportation Fund (separate from the PennDOT Multimodal Transportation Fund).

1.3.2 Local Passenger Commuter Rail Agencies

The Federal Transit Administration (FTA) defines commuter rail as “short-haul rail passenger service operating in metropolitan and suburban areas, whether within or across the geographical boundaries of a state, usually characterized by reduced fare, multiple ride, and commutation tickets and by morning and evening peak period operations. This term does not include light or rapid rail transportation.” Pennsylvania is served by two commuter rail agencies. SEPTA’s Regional Rail network provides extensive service in greater Philadelphia. New Jersey Transit (NJ Transit) provides commuter rail service in the Commonwealth via one of its lines, the Atlantic City Line, which terminates at Philadelphia’s 30th Street Station.

Southeastern Pennsylvania Transportation Authority

SEPTA was created in 1963 and provides commuter rail service as well as light rail, rapid transit, and bus service throughout the Philadelphia metropolitan area. In Fiscal Year 2013, the agency provided over 330 million trips. Chapter 2 provides detailed information about the physical infrastructure and operating characteristics of the SEPTA system.

New Jersey Transit

NJ Transit was created in 1979 and provides commuter rail, light rail, and bus service throughout New Jersey, as well as commuter rail into Manhattan and Philadelphia. In Fiscal Year 2013, the agency provided over 263 million trips. (Note: Though mentioned in this section of the SRP for the commuter service it provides to Philadelphia, NJ Transit is not included in subsequent SRP analysis because the agency’s lines do not share tracks with freight railroads and, consequently, the agency does not fall under FRA jurisdiction.)
1.3.3 Metropolitan Planning Organizations

Federal law requires urbanized areas with populations of 50,000 or greater to establish Metropolitan Planning Organizations (MPOs). The organizations are responsible for developing and maintaining a regional Long Range Transportation Plan as well as a four year Transportation Improvement Program (TIP). These plans form the basis for the distribution of federal transportation funds. Table 1-2 includes a list of the MPOs in Pennsylvania.
<table>
<thead>
<tr>
<th>Name</th>
<th>Counties Served</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adams County Transportation Planning Organization (ACTPO)</td>
<td>Adams</td>
</tr>
<tr>
<td>Altoona Metropolitan Planning Organization</td>
<td>Blair</td>
</tr>
<tr>
<td>Centre County Metropolitan Planning Organization (CCMPO)</td>
<td>Centre</td>
</tr>
<tr>
<td>Delaware Valley Regional Planning Commission (DVRPC)</td>
<td>Bucks, Chester, Delaware, Montgomery and Philadelphia in Pennsylvania and Burlington, Camden, Gloucester and Mercer in New Jersey</td>
</tr>
<tr>
<td>Erie Area Transportation Study Metropolitan Planning Organization (Erie MPO)</td>
<td>Erie</td>
</tr>
<tr>
<td>Franklin County Metropolitan Planning Organization (FCMPO)</td>
<td>Franklin</td>
</tr>
<tr>
<td>Hagerstown/Eastern Panhandle Metropolitan Planning Organization (HEPMPO)</td>
<td>A portion of Franklin County, Pennsylvania Berkeley and Jefferson Counties, West Virginia, Washington County, Maryland</td>
</tr>
<tr>
<td>Johnstown Area MPO</td>
<td>Cambria</td>
</tr>
<tr>
<td>Lancaster County Metropolitan Planning Organization</td>
<td>Lancaster County</td>
</tr>
<tr>
<td>Lebanon County Metropolitan Planning Organization</td>
<td>Lebanon</td>
</tr>
<tr>
<td>Lehigh Valley Planning Commission</td>
<td>Lehigh and Northampton</td>
</tr>
<tr>
<td>Northeastern Pennsylvania Alliance</td>
<td>Carbon, Monroe, Pike, and Schuylkill</td>
</tr>
<tr>
<td>Reading Area Transportation Metropolitan Planning Organization</td>
<td>Berks</td>
</tr>
<tr>
<td>Scranton/ Wilkes-Barre Metropolitan Planning Organization</td>
<td>Lackawanna and Luzerne</td>
</tr>
<tr>
<td>Susquehanna Economic Development Corporation Council of Governments (SEDA-COG)</td>
<td>Clinton, Columbia, Juniata, Mifflin, Montour, Northumberland, Snyder and Union</td>
</tr>
<tr>
<td>Shenango Valley Area Metropolitan Planning Organization</td>
<td>Mercer</td>
</tr>
<tr>
<td>Southwestern Pennsylvania Commission</td>
<td>Allegheny, Armstrong, Beaver, Butler, Fayette, Greene, Indiana, Lawrence, Washington and Westmoreland</td>
</tr>
<tr>
<td>Tri-County Regional Planning Commission/ Harrisburg Area Transportation Study</td>
<td>Cumberland, Dauphin, and Perry</td>
</tr>
<tr>
<td>Williamsport Area Transportation Study Metropolitan Planning Organization</td>
<td>Lycoming</td>
</tr>
<tr>
<td>York Area Metropolitan Planning Organization (YAMPO)</td>
<td>York</td>
</tr>
</tbody>
</table>
Though federal regulations do not require a formal planning process for rural areas of the state, Pennsylvania has established Rural Planning Organizations (RPOs) to play a role similar to MPOs in rural areas. RPOs must also develop a Long Range Transportation Plan and the TIP for the rural areas of the state. Projects from these plans are eligible for federal and state funding. The Commonwealth’s RPOs are described in Table 1-3. In addition to these RPOs, Wayne County is an independent county for purposes of transportation planning.

### Table 1-3: Pennsylvania Rural Planning Organizations

<table>
<thead>
<tr>
<th>Name</th>
<th>Counties Served</th>
</tr>
</thead>
<tbody>
<tr>
<td>North Central Pennsylvania Regional Planning and Development Commission</td>
<td>Cameron, Clearfield, Elk, Jefferson, McKean and Potter</td>
</tr>
<tr>
<td>Northern Tier Regional Planning and Development Commission</td>
<td>Bradford, Sullivan, Susquehanna, Tioga and Wyoming</td>
</tr>
<tr>
<td>Northwest Pennsylvania Regional Planning and Development Commission</td>
<td>Clarion, Crawford, Forest, Venango, and Warren</td>
</tr>
<tr>
<td>Southern Alleghenies Planning and Development Commission</td>
<td>Bedford, Fulton, Huntingdon, and Somerset</td>
</tr>
</tbody>
</table>

Source: PennDOT
1.3.5 Regional Rail Authorities

There are two major public regional rail authorities in Pennsylvania, both of which own local short line railroads and contract out operations responsibilities to privately owned railroads companies. The Susquehanna Economic Development Association-Council of Governments (SEDA-COG) Joint Rail Authority was created in 1984 and owns five short line railroads in central Pennsylvania, for a total of approximately 180 miles of railroad. The Pennsylvania Northeast Regional Railroad Authority (PNRRA) was created in 2006 and owns a system of approximately one hundred miles of short line railroad. The network is a combination of the former assets of the Monroe County Railroad Authority and the Lackawanna County Railroad Authority which date back to 1982.

1.3.6 Ports

Pennsylvania’s ports play an important role in intermodal freight traffic. The Commonwealth has three major ports (described below), all with excellent rail connections. Philadelphia provides access to international shipping through its proximity to the Atlantic Ocean, Pittsburgh provides access to the nation’s inland waterway system, and Erie provides access to Great Lakes shipping routes. PennDOT coordinates port planning through its Bureau of Rail Freight, Ports, and Waterways.

PORT OF PHILADELPHIA

The Port of Philadelphia offers access to the Atlantic Ocean via the Delaware River. The port transported 28,539,476 tons of cargo in 2012 and is under the jurisdiction of the Philadelphia Regional Port Authority.

PORT OF PITTSBURGH

The Port of Pittsburgh offers access to the Ohio River, a major inland maritime transport route. The port moved 35,154,800 tons of freight in 2012, and is under the jurisdiction of the Port of Pittsburgh Commission.

PORT OF ERIE

The Port of Erie offers access to the Great Lakes and the Saint Lawrence Seaway. The port moves an average of 550,000 tons of cargo annually, and is under the jurisdiction of the Erie-Western Pennsylvania Port Authority.

1.4 Description of State’s Authority for Grant, Loan, and Public Private Partnership Funding

PennDOT has the authority to “… provide financial assistance for an efficient and coordinated intercity common carrier surface transportation program, consisting of both intercity passenger rail service and intercity bus service transportation, with the intent of sustaining strong intercity connections…” (Chapter 15, Section 1516, Part C of the Pennsylvania Consolidated Statutes).

Within the agency, the Bureau of Rail Freight, Ports, and Waterways administers funds for freight rail and the Bureau of Public Transportation is responsible for administering passenger rail funds. Table 1-4 presents the state’s allocation of funds to rail programs over the past five years.

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1 PA Department of Community & Economic Development, Pennsylvania Ports 2015 Fact Sheet
Act 89, signed into law in November 2013, provides for a significant, long-range source of new funding for transportation projects. The act will supplement current transportation funding, which is primarily based upon gas tax and user fees. The new plan provides over $2 billion in additional revenue over the next five years by eliminating the cap on the wholesale gas tax and increasing a range of user fees. Act 89 funding includes a set-aside for freight rail, which begins at $8 million annually and increases to $10 million. The legislation also includes a set-aside for passenger rail that begins at $6 million annually and increases to $8 million annually. The projected annual impacts of Act 89 funding are shown in Figure 1-4.

### Table 1-4: PennDOT Funding for Rail, Fiscal Years 2010-2014

<table>
<thead>
<tr>
<th></th>
<th>FY09-10</th>
<th>FY10-11</th>
<th>FY11-12</th>
<th>FY12-13</th>
<th>FY13-14</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freight Capital Grants</td>
<td>$85,610,182</td>
<td>$60,085,345</td>
<td>$50,416,910</td>
<td>$43,894,354</td>
<td>$27,442,141</td>
</tr>
<tr>
<td>SEPTA Capital</td>
<td>$202,300,000</td>
<td>$238,800,000</td>
<td>$124,100,000</td>
<td>$120,200,000</td>
<td>$122,400,000</td>
</tr>
<tr>
<td>SEPTA Regional Rail Operating</td>
<td>$57,810,000</td>
<td>$61,650,000</td>
<td>$52,310,000</td>
<td>$39,960,000</td>
<td>$31,630,000</td>
</tr>
<tr>
<td>Amtrak Capital</td>
<td>$9,094,346</td>
<td>$9,275,395</td>
<td>$8,818,000</td>
<td>$8,909,601</td>
<td>$15,534,000</td>
</tr>
<tr>
<td>Amtrak Operating</td>
<td>$2,000,000</td>
<td>$4,029,000</td>
<td>$5,783,000</td>
<td>$4,244,000</td>
<td>$13,180,000</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>$356,814,528</strong></td>
<td><strong>$373,839,740</strong></td>
<td><strong>$241,427,910</strong></td>
<td><strong>$217,207,955</strong></td>
<td><strong>$210,186,141</strong></td>
</tr>
</tbody>
</table>

Notes: Increased Amtrak capital spending in FY13-14 was to support further improvements to the Keystone Corridor. Increased operating spending in FY13-14 was to cover PRIIA mandated Amtrak operating costs.  
Source: PennDOT; SEPTA Capital and Operating Budgets

Source: 2014 Benefits from Pennsylvania’s Transportation Plan, PennDOT

### Figure 1-4: Annual Awarded Contracts, 2007 - 2020

Source: 2014 Benefits from Pennsylvania’s Transportation Plan, PennDOT
State funding for public transportation, including SEPTA’s Regional Rail system, is provided through the Public Transportation Trust Fund, which includes six major programs:

1. Operating Program (Section 1513)
2. Asset Improvement Program for Capital projects (Section 1514)
3. Capital Improvement Program (Section 1517)
4. Alternative Energy Program (Section 1517.1)
5. New Initiatives Program (Section 1515)
6. Programs of Statewide Significance (Section 1516)

1.4.1 Pennsylvania Rail Freight Preservation and Improvement Act

The Pennsylvania Rail Freight Preservation and Improvement Act of 1984 (Public Law 587-119) provides for Rail Freight Assistance Program (RFAP) and Rail Transportation Assistance Program (RTAP) grants. These programs provide funding for railroads to maintain and improve their infrastructure, and awarded grants totaling $41.7 million in 2014. Funding for freight rail improvements in the Marcellus Shale region is also available through Act 13 unconventional well fees. This program was started in 2012, and provides approximately one million dollars annually in the same manner as the RFAP program.

1.4.2 The Pennsylvania Infrastructure Bank (PIB)

The Pennsylvania Infrastructure Bank (PIB), within PennDOT, has provided low-interest loans for infrastructure improvements, including transit and freight rail infrastructure, since 1998. The PIB has an annual loan program of $30 million and makes loans to both public and private entities for infrastructure upgrades. Of this amount, an average of $2 million annually is used for freight rail infrastructure improvement projects.

1.4.3 Public Private Partnerships

Much of America’s rail network was built through cooperation between public and private entities, and this collaboration between the public and private sectors continues through today. Pennsylvania Act 88 of 2012 allows the state to enter into P3s and created the Public Private Transportation Partnership Board to guide these investments. PennDOT is currently exploring partnership opportunities for improvements to the Keystone Corridor.

1.4.4 Federal Funding

Federal funding for railroad infrastructure improvements is available through a variety of sources. The US Department of Transportation (USDOT) Office of Infrastructure Finance and Innovation provides Transportation Investment Generating Economic Recovery (TIGER) grants for multimodal transportation improvements, including railroad improvement projects. The FRA administers grants for projects such as high-speed rail infrastructure improvements. The Federal Highway Administration (FHWA) provides grants such as Congestion Mitigation and Air Quality (CMAQ) for rail projects that reduce motor vehicle pollution, and Section 130 grants to improve the safety of at-grade railroad crossings. The FTA provides funding for improvements such as new starts for building new rail lines, and Section 5309 grants for improving existing passenger rail systems. Past sources of federal funding have also included high-speed rail grants and stimulus funding. As of the time of this report, future federal funding levels are unclear due to the lack of a long-range transportation bill.
1.5 Summary of Existing Network and Plans

1.5.1 Existing Network

Pennsylvania’s existing passenger rail network consists of intercity and commuter rail services. Intercity rail in Pennsylvania includes Amtrak’s Keystone Corridor (Harrisburg to Philadelphia), Pennsylvanian (Pittsburgh to Harrisburg), Northeast Corridor (Washington DC to Boston through Philadelphia), Lake Shore Limited (Chicago to New York through Erie, PA), and the Capitol Limited (Washington DC to Chicago through Pittsburgh). Commuter rail consists of SEPTA’s 13 Regional Rail lines that serve the five-county Philadelphia region; Trenton, New Jersey; West Trenton, New Jersey; Newark, Delaware; and Wilmington, Delaware.
Amtrak intercity service serves over 6.3 million riders in Pennsylvania annually, via over 120 daily trains. Service ranges from high speed service along the Northeast Corridor (NEC) to daily service along the Capital Limited route. Over 4 million Amtrak passengers use Philadelphia’s 30th Street Station annually, making it the third busiest Amtrak station in the country.

SEPTA commuter rail service serves over 35 million passengers per year via 13 Regional Rail lines, which serve more than 150 stations. Regional Rail operations have continued to improve, achieving an on-time performance rate of 93 percent in 2013.

Recent environmental reviews for improved passenger rail service infrastructure in Pennsylvania are shown in Table 1-5.

**Table 1-5: Recent Environmental Reviews for Passenger Rail Improvements**

<table>
<thead>
<tr>
<th>Projects</th>
</tr>
</thead>
<tbody>
<tr>
<td>30th Street Station Signage</td>
</tr>
<tr>
<td>Automatic Block Signal</td>
</tr>
<tr>
<td>Bailey Interlocking</td>
</tr>
<tr>
<td>Coatesville Train Station Relocation</td>
</tr>
<tr>
<td>Downingtown Train Station</td>
</tr>
<tr>
<td>Eby Chiques Road At-Grade Crossing Elimination</td>
</tr>
<tr>
<td>Elizabethtown Overflow Parking Area Construction</td>
</tr>
<tr>
<td>Elizabethtown Path, Footbridge, and Drainage Improvements</td>
</tr>
<tr>
<td>Exton ADA Compliance and Parking Expansion</td>
</tr>
<tr>
<td>Harrisburg Train Station Passenger Access Reconfiguration</td>
</tr>
<tr>
<td>Irishtown Road At-Grade Crossing Elimination</td>
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<tr>
<td>Keystone Corridor East High Speed Rail Program</td>
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<tr>
<td>Middletown Train Station Relocation</td>
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<tr>
<td>Mount Joy Train Station Improvement</td>
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<tr>
<td>Newcomer Road At-Grade Crossing Elimination</td>
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<td>Paoli Interlocking</td>
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<td>Paoli Train Station ADA Improvements</td>
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<td>Potts Interlocking</td>
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<tr>
<td>State Interlocking Final Design/Construction</td>
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<td>Villanova Interlocking</td>
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<tr>
<td>Wynnewfield Interlocking</td>
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<tr>
<td>Zoo Interlocking</td>
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<tr>
<td>Zoo to Paoli Transmission Line</td>
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*Source: PennDOT*
1.5.2 Freight Rail

The state’s freight network consists of three large Class I carriers, CSX, Norfolk Southern, and Canadian National; two mid-sized Class II carriers, Buffalo & Pittsburgh and Wheeling & Lake Erie; and over 50 short line Class III carriers. Together, these freight railroads operate over 5,000 miles of track and carried over 209 million tons of freight in 2013. Mileage for the types of freight railroad in Pennsylvania is shown in Figure 1-5.

Figure 1-5: Route Miles of Active Freight Railroad in Pennsylvania

![Freight Rail Mileage](chart)

Source: PennDOT

1.6 Current Studies

1.6.1 Northeast Corridor

Amtrak’s NEC is a critically important route connecting major destinations including Boston, New York, Philadelphia, Baltimore, and Washington DC with frequent, high speed train service carrying approximately 260 million passengers annually.

Two complimentary strategies are currently being pursued to improve the NEC service: incremental “stair step” infrastructure improvements along the existing alignment of the corridor, and a new “NextGen” alignment that would allow trains to travel at much higher speeds. Incremental “stair step” improvements such as improved electrical and signaling systems can allow for near-term gains in speed and reliability. This approach is shown in Figure 1-6. It includes projects such as the improvements to the heavily used Zoo interlocking (adjacent to the Philadelphia Zoo) north of 30th Street Station in Philadelphia.
The “NextGen” new alignment alternatives would benefit NEC passengers by allowing much greater speed and efficiency, and could be constructed with minimal disturbance to rail traffic on the existing corridor. This approach is shown in Figure 1-7. However, construction of a new alignment for the NEC would require a new large-scale funding initiative, which has yet to be identified. Options for improving the NEC are being examined by the NEC FUTURE study and the NEC Commission.

NEC FUTURE

The NEC FUTURE study was launched by the FRA in 2012 to consider the future of the NEC through 2040. The study consists of both a Phase I Environmental Impact Statement (EIS) and a Service Development Plan. The study is examining the feasibility of the previously mentioned NEC infrastructure upgrades and will include a market conditions analysis, development of investment alternatives, a study of the environmental impact of these alternatives, and a recommended path for continuing progress on the corridor.
1.6.2 Keystone East Corridor

The Keystone East Corridor is an Amtrak owned high-speed rail line between Harrisburg and Philadelphia. Improvements to the Keystone East corridor have been the result of a successful partnership between Amtrak and PennDOT, bringing substantial enhancements in train speed and reliability. This partnership is a continuing effort, with the recent completion of a sealed corridor project to eliminate all public grade crossings on the route, and signaling and switch improvements planned for the near future. A number of stations on the route have also been rebuilt to improve the passenger experience and help economic development. An ongoing Access the Keystone study is examining ways of improving local access to Amtrak stations along the corridor.

NEC Commission

The NEC Commission (Northeast Corridor Infrastructure and Operations Advisory Commission) was created by the Passenger Rail Investment and Improvement Act (PRIIA) of 2008 to shape the future of the NEC through cooperation between federal and state representatives. The Commission works to address funding and operations issues that arise when planning transportation project across multiple governmental bodies and various transportation authorities. NEC Commission members include representatives from each of the NEC states, Amtrak, and the USDOT. PennDOT also plays an active role as a voting member of the NEC Commission.
1.6.3 Keystone West Corridor

The Keystone West corridor from Harrisburg to Pittsburgh differs in many ways from the eastern portion of the corridor. The corridor is characterized by challenging topography (such as the Horseshoe Curve in Altoona), a high level of freight traffic, and numerous at-grade highway crossings. Furthermore, the corridor is not owned by Amtrak. These factors ultimately contribute to lower travel speeds.

Low population densities and low levels of highway congestion along the corridor also make attracting ridership and investment difficult. Current Amtrak Pennsylvanian trip duration between Pittsburgh and Harrisburg takes approximately 5.5 hours, while driving takes approximately 3.5 hours.

The recently completed *Keystone West Feasibility Report and Preliminary Service Development Plan* evaluated potential improvements to the corridor. Overcoming the challenging topography of the corridor means a cost of approximately $1.5 billion to reduce travel time by less than ten minutes in each direction, while an investment of $9.9 billion yields time savings of approximately 30 minutes in each direction. A true high-speed corridor would require a new alignment that would bypass all existing stations between Harrisburg and Pittsburgh, and would have an estimated cost of $38.3 billion.

1.6.4 PA On-Track

The *PA On-Track* study, Pennsylvania’s Long Range Transportation Plan (LRTP), addresses the long-term future of Pennsylvania’s multimodal transportation network including highways, transit and railroads. The *PA On Track* study includes a new prioritized list of projects using PennDOT’s new Transportation Asset Management system, with a focus on maintaining critical infrastructure and promoting economic growth. The SRP was written to be consistent with the goals and objectives of the *PA On Track* project.