

Chapter 4: Performance-Based Planning and Programming

Background

The IIJA/BIL continues the requirements established in MAP-21 and FAST Act for state DOTs and MPOs to establish and use a performance-based approach in transportation decision making. This includes tracking performance measures, setting data-driven targets for each measure, and selecting projects to help meet those targets. The IIJA/BIL also requires that the TIP include a description of its anticipated effect toward achieving the established performance targets and linking investment priorities to those performance targets.

Transportation Performance Management (TPM) is a strategic approach that uses data to make investment and policy decisions to achieve national performance goals. 23 USC 150(b) outlines the national performance goal areas for the federal-aid program. This statute requires the USDOT to establish specific performance measures that address these national goal areas. The regulations for the national performance management measures are found in 23 CFR 490. The goal of PBPP is to ensure targeted investment of federal transportation funds by increasing accountability and transparency and providing for better investment decisions that focus on key outcomes related to seven national goal areas:

- Safety
- Infrastructure Preservation
- Congestion Reduction
- System Reliability
- Freight Movement and Economic Vitality
- Environmental Sustainability
- Reduced Project Delivery Delays

The FHWA has established three performance measure regulations that cover roadway safety (PM1), bridge and pavement condition (PM2), and system performance (PM3). PM 3 addresses system reliability, freight reliability, and air quality. The FTA has established performance measures for Transit Asset Management (TAM) and Transit Safety.

State DOTs and transit agencies are required to establish targets for each performance measure and report progress toward the target, with the exception of the Urban Area (UA) measures (PM 3 air quality) for which DOTs and MPOs contribute to establishing a unified target. MPOs may either choose to support the respective state DOT and transit operator targets and the agencies' efforts to achieve the targets, or develop their own regional targets. DVRPC has memoranda of agreements with various pertinent planning partners, including state DOTs, transit operators, and other MPOs, for each of the performance measure areas. The agreements outline how the planning partners will select and report performance targets and the reporting of performance.

As a bi-state MPO, DVRPC must plan and program projects to contribute toward separate sets of targets: one set for each state in which the Planning Area boundary extends. DVRPC has agreed to support the PM2 and PM3 targets set by PennDOT and NJDOT, respectively, as well as the respective transit agencies' Transit Asset and Transit Safety targets. For PM1, Roadway Safety, DVRPC has set its own target based on DVRPC's Regional Vision Zero 2050 goal. If an MPO adopts regional targets, they must adopt targets that cover the entire MPO region.

There are multiple performance measures established within the three FHWA performance measure areas. Each performance measure grouping has different requirements for reporting and updating performance

targets. Table 23 summarizes these measures, the geography for which they are being reported, the facilities included, and the update frequency.

Table 23: FHWA Performance Measures Summary

Goal Area	Performance Measure	Geography	Network	Reporting Frequency
PM1 Roadway Safety	Number of Fatalities	Statewide or Regional	All Roads	Annual
	Fatality Rate (per 100 million VMT)			
	Number of Serious Injuries			
	Serious Injury Rate (per 100 million VMT)			
	Number of Non-Motorized Fatalities and Serious Injuries			
PM2 Bridge and Pavement Condition	Good Pavement Lane Miles	Statewide or Regional	Interstates and National Highway System (NHS)	Two-Year Interim Target, Four-Year Target
	Poor Pavement Lane Miles			
	Good Bridge Deck Area		NHS	
	Poor Bridge Deck Area			
PM3 System Performance	Person Miles Traveled with Reliable Travel Times (%)	Statewide or Regional	Interstates and NHS	Two-Year Interim Target, Four-Year Target
	Truck Travel Time Reliability Index		Interstates	
	Percentage Non-SOV Travel	UA with a population over 200,000	All UAs (via ACS)	
	Annual Hours of Peak Hour Excessive Delay (PHED) per Capita		All NHS roads within UAs, AM and PM Peak Periods	
	CMAQ Emissions Reductions	Statewide and Regional	CMAQ Projects	

Source: DVRPC, 2025

On the transit side, the FTA has established performance measures for Transit Asset Management and Transit Safety. Table 24 has a summary of these measures. FTA regulations establish a strategic and

systematic process of operating, maintaining, and improving public capital assets effectively through their life cycle. The performance management requirements are a minimum standard for transit operators.

Table 24: FTA Performance Measures Summary

Goal Area	Performance Measure	Assets/Geography	Reporting Frequency
Transit Assets	Percentage of Rolling Stock Meeting or Exceeding the Useful Life Benchmark	Revenue Vehicles	Annual
	Percentage of Support Equipment Meeting or Exceeding the Useful Life Benchmark	Non-Revenue Vehicles	
	Percent of Facilities Rated Below 3 on the TERM Scale	Passenger, Administrative, and Maintenance Facilities	
	Percent of Track Segments with Performance Restrictions	Rail Track	
Transit Safety	Fatalities (Total and Number per Vehicle Revenue Mile)	Entire Transit Agency Service Area	Annual
	Injuries (Total and Number per Vehicle Revenue Mile)		
	Safety Events (Total and Number per Vehicle Revenue Mile)		
	System Reliability (Mean Distance in Miles between Major Service Failures)		
	Assaults on Transit Workers (Total and Number per Vehicle Revenue Mile)		

Source: DVRPC, 2025

Historic data for the metrics tracked through TPM are included in DVRPC's *Tracking Progress* website: <https://www.dvrpc.org/trackingprogress/>. *Tracking Progress* is an interactive dashboard tracking several metrics to gauge progress towards achieving the vision established in DVRPC's long range plan. Each metric includes a time series analysis to track data trends at different scales, including the regional level, county level, and by UA or transit agency, depending on the metric. The dashboard tracks actual performance for each of the performance measures via the following metrics:

- Safety
- Bridge Conditions
- Pavement Conditions
- System Reliability
- Transit Conditions
- Transportation Safety

The following sections of this chapter will provide more information on each performance measure and their associated targets, as they pertain to the region. For more information about the development and implementation of TPM policy and rulemaking, see www.fhwa.dot.gov/tpm. To view the latest TPM targets and performance for DVRPC, visit www.dvrpc.org/tpm.

Highway Safety Performance Measures (“PM1”)

In March 2016, the FHWA Highway Safety Improvement Program and Safety Performance Management Measures Rule (Safety PM Rule) was finalized and published in the Federal Register. The rule requires state DOTs and MPOs to set annual targets for five safety-related performance measures with the understanding that reaching zero fatalities on all public roads will require time and significant effort. A target is defined in 23 CFR 490.101 as a quantifiable level of performance or condition, expressed as a value for the measure, to be achieved within a time period required by FHWA. The federal safety performance measures are consecutive five-year rolling averages for the following:

1. Number of Fatalities
2. Rate of Fatalities per 100 Million Vehicle Miles Traveled (VMT)
3. Number of Suspected Serious Injuries
4. Rate of Suspected Serious Injuries per 100 Million VMT
5. Number of Non-Motorized Fatalities and Non-Motorized Suspected Serious Injuries

The non-motorized performance measure focuses on pedestrians and bicyclists killed or seriously injured in a crash. State DOTs report baseline values, targets, and progress toward meeting the targets to FHWA in an annual safety report. FHWA requires DOTs and MPOs to establish safety targets on an annual basis, beginning with targets for calendar year (CY) 2018. MPOs may either establish quantitative targets for their metropolitan planning area or agree to adopt the statewide targets.

DVRPC Regional Safety Targets

DVRPC has adopted regional safety targets in support of the Regional Vision Zero 2050 program. Regional Vision Zero provides the context for more meaningful and substantive strategies to improve safety systemwide. If an MPO adopts regional targets, they must adopt targets that cover the entire MPO region. The adopted regional safety targets capture fatal and suspected serious injury data for the combined nine-county, bi-state DVRPC region as required by the FHWA.

These targets are informed by the Regional Vision Zero 2050 trend line, updated with new data and careful consideration of previous trends, recently constructed projects, and the current socioeconomic environment. The targets are the result of a collaborative process conducted with DVRPC partners. The targets satisfy federal requirements and are consistent with New Jersey’s goal to achieve zero deaths on all New Jersey public roads by 2050. This long-term safety vision requires time to change attitudes and behaviors, while perpetually constructing infrastructure improvements that reduce the frequency and severity of crashes. DVRPC agrees to plan and program projects that contribute toward meeting or exceeding the regional safety targets.

Measures are for all public roads regardless of functional classification or ownership, and each target is based on a five-year rolling average, which is the average of five individual, consecutive points of data. Crash records are used to determine whether actual performance met or made significant progress towards a previously adopted target. If an MPO adopts regional targets, it must submit a progress report to the respective state DOT. State DOTs report baseline values, targets, and progress toward meeting the targets to FHWA in an annual safety report. FHWA will determine whether a state has met or made significant progress

toward its safety performance targets. A state is considered to have met or made significant progress when at least four out of the five safety performance targets are met or the actual outcome for the safety performance target is better than baseline performance. The performance (actual) data is also the baseline, or the basis, for the new targets.

If a state has not met or made significant progress toward meeting its targets, the state must comply with the provisions set forth in 23 USC 148(i) for the subsequent fiscal year. The state is required to use obligation authority equal to the HSIP apportionment for the year prior to the target year, only for HSIP projects, and submit an HSIP Implementation Plan that describes actions the state will take to meet or make significant progress toward meeting its targets. The HSIP Implementation Plan should guide the state's project decisions so that the combined 148(i) provisions lead to the state meeting or making significant progress toward meeting its safety performance targets in subsequent years.

As part of the IIJA and the National Roadway Safety Strategy, the FHWA issued new guidance to help states better protect “vulnerable road users,” that is pedestrians, cyclists, and people who use wheelchairs. Per the Vulnerable Road User Special Rule, if the total annual fatalities of vulnerable road users in a state represents at least 15 percent of the total annual crash fatalities in the state, that state is required to obligate at least 15 percent of HSIP funds for the following fiscal year for highway safety improvement projects to address the safety of vulnerable road users. The guidance requires Vulnerable Road User Safety Assessments developed by states to identify areas of “high risk” informed by demographic and performance data developed in consultation with local governments. NJDOT is beholden to the rule and has begun its outreach to affected communities. DVRPC has been included in this process.

Coordination and Progress Toward Highway Safety Targets

The New Jersey Strategic Highway Safety Plan (SHSP) is an action-oriented and data-driven statewide, coordinated safety plan that provides a comprehensive framework for reducing fatal and serious injury crashes on all public roads in New Jersey. Available online at www.saferoadsforallnj.com, the SHSP incorporates four Es: Education, Enforcement, Engineering, and Emergency Response. It was updated in collaboration with federal, state, county/regional, municipal, and non-profit and private safety stakeholders, including New Jersey's three MPOs, to focus on data-driven and action-oriented activities that will be most effective in reducing fatalities and serious injuries.

The New Jersey SHSP continues to support the national vision for highway safety—*Toward Zero Deaths: A National Strategy on Highway Safety*. Reaching zero fatalities will require time and significant effort by different partner agencies, and therefore, federal guidance requires setting and meeting annual targets to monitor and gauge progress towards the long-term goal of zero deaths. Annual targets must be data driven, realistic, and achievable to help agencies better utilize their safety resources to achieve the greatest reduction in fatalities and serious injuries over time. The current SHSP sets a statewide goal to reduce serious injury and fatal crashes by three percent annually.

NJDOT and the DVRPC Board are committed to directing resources to infrastructure-related safety strategies and diligently strive to drive down fatalities and serious injuries with an ultimate safety vision of zero deaths. The New Jersey SHSP will continue to guide the development of safety projects and allocation of HSIP funding and other resources to reduce highway fatalities and serious injuries on New Jersey's public roadways. Currently, highway safety improvement projects funded with HSIP funds are required to adhere to one or more safety emphasis areas within the New Jersey SHSP: intersections, driver behavior, lane departure, data, equity, pedestrians and bicyclists, and other vulnerable road users. HSIP-funded projects

must also adhere to performance-based goals, focusing resources on areas of greatest need and potential for the highest rate of return on the investment of HSIP funds on all public roads. There are also various federal funding opportunities besides HSIP funds (e.g., Surface Transportation Block Grant Program–Philadelphia [STBGP-PHILA]) that can help support safety goals.

The *Update: Connections 2050* Long-Range Plan aims to invest two percent of total roadway revenues in New Jersey on projects that are solely focused on substantive safety improvements. The bulk of the Plan's reasonably anticipated roadway funds will be spent on roadway system preservation projects (54 percent in New Jersey), which will also have safety benefits. Long-term funding allocation may not reflect the TIP from cycle to cycle as projects are programmed in the TIP based on project readiness, funding availability, and other factors.

DVRPC has incorporated the Regional Vision Zero policy into the work of the Regional Safety Task Force (RSTF), reframed to embrace FHWA's safe system approach. These holistic changes help to advance our safety culture and increase the priority of safety initiatives. In 2023 DVRPC launched the Regional Vision Zero 2050 program using a Safe Streets and Roads for All (SS4A) grant. This effort includes close coordination with county-partner sub-awardees to collaboratively develop the plan, which also includes engagement with municipal partners. DVRPC continues to include crash analyses in work program projects to advance substantive infrastructure safety improvements. The DVRPC region has received 22 SS4A grants over the short life of this program. This includes two grants for DVRPC, as well as grants for Burlington County, Mercer County, and Camden City. The remaining grants have gone to municipal governments. For a list of competitive grant awards in the DVRPC region, see www.dvrpc.org/pdf/summaryofiiijaawardstothedvrpc%20region.pdf.

As part of the Regional Vision Zero program, DVRPC has developed a Regional High Injury Network (RHIN), the result of a data-driven process designed to show where killed and severe injury (KSI) crashes and bicyclists and pedestrian crashes have occurred, both using reportable crash data from 2017-2021 (NJ) and 2018-2022 (PA). DVRPC published the RHIN in advance of the Regional Vision Zero Safety Action Plan release to support local safety planning.

The 2022 Transportation Safety Analysis and Plan (TSAP) is the current regional safety planning document informing safety work across the Greater Philadelphia area. Close collaboration with partners helps to raise the profile of regional safety needs and connects them to funding opportunities.

In New Jersey, DVRPC-led safety planning efforts include two completed and two scheduled Road Safety Audits covering all four counties, funded by NJDOT. The completed RSA's are now advancing into the HSIP Local Safety Program application process. In Trenton, this has included a Complete Streets Design Handbook, as well as various published and upcoming plans relating to the bike network, trails planning, and Vision Zero. Other studies include the Brown Mills Bicycle and Pedestrian Action Plan and Harrison Avenue Pedestrian Road Safety Audit. To strengthen communication and coordination efforts, various technical safety experts and planning staff from the MPOs and NJDOT meet regularly to discuss HSIP project advancement and performance measure targets and goals. The projects funded in the TIP will continue to make progress toward target achievement. At the NJDOT statewide and DVRPC regional levels, projects and programs are selected for HSIP funding to help achieve a significant reduction of traffic fatalities and serious injuries on all public roads in the state to support achieving safety targets. The TIP includes various HSIP-funded safety projects and programs in the DVRPC Regional Highway Program and the Statewide Program to make progress toward safety targets. As noted below, numerous projects that are not HSIP-funded will also implement safety improvements that will support achieving safety targets.

HSIP funds are set aside every federal fiscal year in the DVRPC TIP and the STIP to advance projects that are evaluated and ranked based on Benefit/Cost analysis, Highway Safety Manual analysis, fatal and injury crashes, application of systemic improvements, improvements on local roads, and deliverability. In the TIP, the DVRPC region is allocated around \$3 million of HSIP funds annually as part of the State's Financial Guidance for locally sponsored, HSIP-eligible projects on New Jersey HSIP-eligible High-Risk Rural Roads (DB #04314). The list of locations results from a data-driven analysis prepared by NJDOT that prioritizes fatal and serious injury crash concentrations in four categories: intersections, high risk rural roads, pedestrian corridors, and pedestrian intersections. Appropriate design and construction projects at these roadway locations are eligible for HSIP funds.

DVRPC, county and city partners, and NJDOT staff work together to develop safety projects at these locations. These projects are noted in Table 25. Potential projects are evaluated by using the Highway Safety Manual to ensure the identified safety improvement will have a positive benefit/cost ratio that meets NJDOT standards. In July 2015, NJDOT established a Systemic Pilot Program for Roundabouts to provide counties an opportunity to implement at least one modern roundabout on local roadways in each county. Burlington and Camden counties in the DVRPC region have taken this opportunity.

The Statewide Program includes but is not limited to the following programs to improve safety throughout the State of New Jersey:

- **Highway Safety Improvement Program Planning (DB #09388)** is an annual program for Safety Management System and Rail-Highway safety improvement projects. Through the guidance of the HSIP (23 CFR 924), it identifies, prioritizes and implements safety programs and projects associated with safe corridors and intersection improvement programs in an effort to reduce crashes and crash severity on New Jersey's roadways.
- **Motor Vehicle Crash Record Processing (DB #X233)** is an annual program that provides the in-house Crash Records unit with upgraded equipment and new methodology. The comprehensive crash record database will include driver/crash correlation, crash location, data for driver updates, and database cleaning (correction) process.
- **NJDOT's Rail Highway Grade Crossing Program, Federal (DB #X35A1)** is intended to eliminate hazards at rail-highway grade crossings, rehabilitate grade crossing surfaces, and install protective warning devices for roadways.
- **Safety Programs (DB #19370)** is an annual program to support HSIP eligible Safety Engineering Projects and pedestrian safety improvement projects, including engineering, right-of-way acquisition and construction activities intended to reduce fatalities and serious injuries on New Jersey roadways.
- **Utility Pole Mitigation (DB #15344)** is an annual program that seeks to identify and mitigate locations with incidents of high recurring utility pole accidents throughout New Jersey.

Many other TIP projects funded with federal non-HSIP funds will provide safety benefits to the roadway system, such as CR 614 (Tom Brown Road), CR 603 (Riverton Road) and New Albany Road Intersection Improvement (DB #D2201) in Burlington County. HSIP or STBGP-PHILA (whichever is determined to be appropriate) funding for the project will be explored as the project advances through design. Resurfacing, guiderail and vegetation maintenance, and bridge improvement projects are all expected to provide safety improvements and help decrease fatality and serious injury crashes.

Table 25: Local Safety Roadway Projects in the TIP

SPONSOR	DB #	PROJECT TITLE AND MUNICIPALITY	SHSP EMPHASIS AREA	PHASE	Federal Fiscal Year	COST (In Millions)
Burlington County	04314	Systemic Roundabout at CR 541 (Stokes Road) & CR 648 (Willow Grove Rd) in Shamong Township	Intersections	CON	2024	\$2.5 HSIP
Camden County	16319	Route 30, Gibbsboro Road (CR 686) in Clementon Boro and Lindenwold Boro	Intersections	ROW, CON	2026, 2028	\$10.3 HSIP
Mercer County	D2014	CR 622 (North Olden Ave), NJ 31 (Pennington Rd) to New York Ave in Ewing Township and Trenton City	Multimodal	CON	2027-2033	\$25.24 STBGP-TRENTON

Source: DVRPC, 2025

Lastly, NJDOT develops an annual safety investment strategy for all HSIP-funded activities and projects. The annual investment strategy demonstrates the linkage between the objectives of the SHSP and the projects being implemented to focus on the most effective safety improvements.

Infrastructure (Pavement and Bridge) Performance Management Measures Rule (“PM2”)

The FHWA rule for the National Performance Management Measures; Assessing Pavement and Bridge Condition for the National Highway Performance Program (NHPP) was published in the Federal Register (82 FR 5886) on January 18, 2017, and became effective on February 17, 2017. It established performance measures for all state DOTs to use to carry out the NHPP and to assess the condition of pavements on the Interstate system; pavements on the NHS (excluding the Interstate system); and bridges carrying the NHS, which include on- and off-ramps connected to the NHS. This rule established six measures related to the condition of the infrastructure on the NHS, commonly known as PM2:

- Percentage of Interstate pavements in good condition
- Percentage of Interstate pavements in poor condition
- Percentage of Non-Interstate NHS pavements in good condition
- Percentage of Non-Interstate NHS pavements in poor condition
- Percentage of NHS bridges by deck area classified in good condition
- Percentage of NHS bridges by deck area classified in poor condition

The current regulations are found at 23 CFR 490 Subpart C and Subpart D. Targets are established for these measures as part of a four-year performance period; the first was 2018 to 2021. This TIP includes projects that will impact the third four-year performance period of 2026 to 2029.

Pavement Infrastructure Targets

The Infrastructure Performance Management Measures (PM2) Rule requires the state DOT to report and manage performance of the NHS, regardless of ownership or maintenance responsibility, for the full extent of the Interstate and non-Interstate NHS. In New Jersey, 83 other owners, including authorities, counties, and municipalities, own 37 percent of the state’s 12,245 NHS lane miles (NJDOT, 2022). The rest are owned by NJDOT.

Federal rulemaking 23 U.S.C. 119 requires that all distress component information be collected for one-tenth mile increments. Pavement condition is measured by four distress components (International Roughness Index, Cracking, Rutting, and Faulting), which are then translated to good, fair, or poor condition scores per FHWA criteria and then broken out into separate values for the Interstate and Non-Interstate NHS.

- **International Roughness Index** quantifies how rough the bituminous and concrete pavement is by measuring the longitudinal profile of a traveled wheel track and generating a standardized roughness value in inches per mile.
- **Cracking** measures the percentage of bituminous and concrete pavement surface that is cracked.
- **Rutting** measures the depth of ruts (surface depression) in bituminous pavement in inches.
- **Faulting** quantifies the misalignment between concrete slabs as the difference in elevation across transverse concrete pavement joints in inches.

NJDOT uses two metrics to assess pavement condition: ride smoothness and a Surface Distress Index that includes cracking in the travel lane, rutting, faulting, patching, shoulder drop-off, and other indications of pavement deterioration. The three categories of pavement condition metrics for NHS pavements are ride smoothness, cracking in the wheel paths, and rutting for asphalt pavements or faulting for concrete pavements. All three metrics must be good for a pavement to be rated Good. Two or more must be poor to be rated Poor. Roughness affects travel speeds, safety, comfort, and transportation costs. Cracking, rutting, and faulting are surface indicators of underlying structural deterioration. All three pavement types consider the International Roughness Index and cracking. Bituminous pavements additionally consider rutting, while jointed concrete also utilizes faulting.

The federal Infrastructure PM Rule requires that less than five percent of Interstate miles be considered in poor condition to meet the federal threshold for pavement condition. If pavement conditions on the Interstate system fail to meet the federal minimum condition thresholds in the most recent year of the State biennial report, the state DOT must comply with the provisions set forth in 23 USC 119(f) for the subsequent fiscal year. The state must use obligation authority to transfer a portion of State Transportation Planning (STP) funds to the NHPP for maintenance projects to address interstate pavement conditions, and it must submit a Transportation Asset Management Plan (TAMP) that describes actions the state will take to meet or make significant progress toward meeting its targets. The TAMP should guide the state's project decisions to meet or make significant progress toward meeting its infrastructure performance targets in subsequent years.

Similarly, if a state has not met or made significant progress toward meeting its targets on the Non-Interstate NHS system, the state DOT must submit a TAMP that describes actions the state will take to meet or make significant progress toward meeting its targets. The TAMP should guide the state's project decisions to meet or make significant progress toward meeting its infrastructure performance targets in subsequent years.

Bridge Infrastructure Targets

Similar to the requirements around pavement condition, the PM2 rule requires the state DOT to report and manage performance of all bridges on the NHS, regardless of ownership or maintenance responsibility, including bridges on ramps connecting to the NHS and NHS bridges that span a state border. Statewide, 53 percent of the state's 61.34 million square feet of NHS bridge deck area is owned by owners other than NJDOT, including authorities, counties, and municipalities (NJDOT, 2022).

FHWA's performance measures aim to assess bridge condition by deriving the percentage of NHS bridges rated in good and poor condition by deck area on the NHS. A structure's overall condition rating is

determined by the lowest rating of its deck, superstructure, substructure, and/or culvert. If any of the components of a structure qualify as poor, the structure is deemed poor. 23 CFR 490.411(a) requires that no more than 10 percent of a state's total NHS bridges by deck area be in poor condition. It is important to note that poor does not correlate to the safety rating of the bridge. The bridge condition performance measures are calculated by summing the deck area of bridges in "good" and "poor" condition and dividing by the total deck area of all NHS bridges.

Both FHWA and NJDOT use bridge condition measures developed by the National Bridge Inventory to monitor the performance of NBIS bridges on the NHS and State Highway System (SHS). Bridges are inspected at least once every two years. A structure's overall condition rating is determined by the lowest rating of its deck, superstructure, substructure, and/or culvert. Conditions are recorded and assigned into Good, Fair, and Poor categories, as described below. In NJDOT'S TAMP, the term state of good repair (SGR) is used to describe bridges in Good or Fair condition.

Coordination and Progress Toward Pavement and Bridge Infrastructure Targets

NJDOT continues to hold stakeholder meetings and workshops that include the assessment and analyses of the state NHS network pavement and bridges and the State Highway System pavement and bridges as well as discussions related to performance measures, targets and target setting approach, SGR objectives, issues, and challenges. Since a significant amount of the NHS in the state is owned by other jurisdictions, stakeholders include non-NJDOT NHS owners. The MPOs in New Jersey assist NJDOT with the collection and dissemination of data to the non-NJDOT NHS owners. The MPOs have agreed to use the infrastructure targets that NJDOT established and to adopt the statewide federal TPM infrastructure targets.

State DOTs must submit interim and full term (two- and four-year) progress reports for the PM2 performance measures to demonstrate whether they have met or made significant progress toward meeting the targets. If a state has not met the federal threshold for bridge conditions for three consecutive years, the state DOT is required to obligate and set aside NHPP funds for eligible NHS bridge projects. The set-aside will remain in effect until the state meets the threshold of less than 10 percent of bridge deck area classified as structurally deficient.

NJDOT has continuously engaged with the state's three MPOs during the TAMP development process, enabling the department to inform, collaborate, and coordinate with all NHS owners to obtain condition data and investment information. In 2022, NJDOT updated its TAMP, which adopted transportation asset management as the official institutional approach to preserve infrastructure assets. The policy reflects the department's commitment to apply a performance-based approach to managing transportation system performance outcomes. Transportation Asset Management is the application of this approach to manage the condition of infrastructure assets. The TAMP documents the risk-based approach for management of the NHS and State Highway System assets in New Jersey, identifies SGR Objectives for assets, and outlines investment strategies that will help achieve these objectives. The TAMP represents NHS assets, regardless of ownership.

The DVRPC region remains dedicated to system preservation for pavement and bridges. The current TIP and DVRPC Long-Range Plan continue the emphasis on analysis related to transportation system preservation needs and funding, aligned with supporting the pavement and bridge condition performance targets, which in turn informs the fiscally constrained list of projects included in the Long-Range Plan and TIP. Pavement and bridge preservation projects comprise just over half (54 percent) of the region's Highway Program funded in the Long-Range Plan. Long-term funding allocation may not reflect the TIP from cycle to cycle as projects are programmed in the TIP based on project readiness, funding availability, and other factors

Pavement Projects and Programs in the TIP:

In the First-Four Years of the TIP, nearly \$68.75 million or 5.3 percent of the DVRPC Regional Highway Program funds (excluding STATE-DVRPC funds) is programmed on pavement rehabilitation projects, including, but not limited to the following projects:

DB # Title

15396	Route 168, Route 42 to CR 544 (Evesham Road)
18386	Route 44, Barker Avenue to Billingsport Road/Swedesboro (CR 653)
D2501	Chews Landing Road (CR-638) Roadway Improvements
D2203	CR 551 (Broadway) Elevation, Little Timber Creek to Route 130
D0302	Burlington County Roadway Safety Improvements
D0401	Gloucester County Roadway Safety Improvements
D0410	Camden County Roadway Safety Improvements
X51	Pavement Preservation*
24385	Route 1, Route 29 to Perry Street
24360	Route 27, Route 206 to Snowden Lane/Riverside Drive West
18353	Route 295, Sloan Avenue (CR 649) to CR 583 (Princeton Pike)*Statewide program not included in total

Bridge Projects and Programs in the TIP:

In the First-Four Years of the Draft TIP, nearly \$319.38 million or 24.6 percent of the DVRPC Regional Highway Program funds (excluding STATE-DVRPC funds) is programmed on bridge repair/replacement/rehabilitation projects including, but not limited to the following projects:

DB # Title

03304	Bridge Deck/Superstructure Replacement Program*
11326A	Route 76, Bridges over Route 130
12307	Route 38, South Church Street (CR 607) to Fellowship Road (CR 673), Operational and Safety Improvements
14348	Route 45, Bridge over Woodbury Creek
15317	Route 64, Bridge over Amtrak
15324	Washington Turnpike, Bridge over West Branch of Wading River
15385	Route 38, Nixon Drive to Route 295 Bridge
16335	Route 206, Bridge over Springers Brook
16336	Route 1B, Bridge over Shabakunk Creek
16339	Route 130, Bridge over Millstone River
16340	Route 130, Bridge over Main Branch of Newton Creek
16342	Route 73 and Ramp G, Bridge over Route 130
17412	North Olden Avenue (CR 622), Bridge over Amtrak
17419	Route 1, Alexander Road to Mapleton Road
18305	Prospect Street, Bridge over Belvidere-Delaware RR (Abandoned)
D1709	Kaighn Avenue (CR 607), Bridge over Cooper River (Roadway and Bridge Improvements)
D1710	Lincoln Ave/Chambers Street (CR 626), Bridge over Amtrak & Assunpink Creek
D2017	CR 706 (Cooper Street) Bridge over Almonesson Creek (Bridge 3-K-3)
D2018	Bridge No. C4.13 over Parkers Creek on Centerton Road
D2202	CR 616 (Mill Street) Bridge over South Branch Rancocas Creek Rehabilitation/Replacement

D2216 Porchtown Road (CR 613) Bridge over Still Run at Iona Lake
L064 Route 206, South Broad Street Bridge over Assunpink Creek
D2404 Camden White Horse Bridge/PATCO

*Statewide program not included in total

The NJDOT FFY2025 Transportation Capital Program totals \$4.852 billion and is funded primarily by the State Transportation Trust Fund (TTF), federal, and third-party resources. It includes the following projects that support the attainment of pavement and bridge condition performance targets.

Local Municipal Aid, DVRPC (DB #X98C1) is an annual \$28 million TTF-funded program for municipal road improvement projects, such as resurfacing, rehabilitation or reconstruction, and signalization. Projects involving bridge improvements, pedestrian safety improvements, and bikeway improvements are also eligible to receive funds under Local Municipal Aid.

NJDOT's **County Aid (DB #X41C1)** is a TTF-funded program that provides \$30 million annually to cover roads and bridges under county jurisdiction. Public transportation and other transportation projects are also included.

The NJDOT **Local Bridges, Future Needs Fund (DB #08387)** is an annual program that continues in the TIP. This program provides funding for improvements on county bridges. Currently, the state focuses on preventive maintenance, rehabilitation, and selective replacement of bridges.

The NJDOT **Local Aid Infrastructure Fund (DB #X186)** provides for various emergency and regional needs throughout the state at the county or municipal level, which includes the replacement or rehabilitation of orphan bridges.

In the TIP, the annual NJDOT **LFIF (DB #17390)** will continue to assist counties and municipalities with the impacts associated with the freight industry's use of infrastructure. Pavement and bridge preservation projects are LFIF eligible.

Finally, the **NJDOT Transportation Infrastructure Bank (DB #X186B)** remains in the Statewide Program. It will provide financial loans to public or private entities for the planning, acquisition, engineering, construction, reconstruction, repair, and rehabilitation of a transportation project or for any other purpose at a low interest rate. Camden County was the first in the State of New Jersey to receive financing from the NJDOT Transportation Infrastructure Bank for the Westfield Avenue (CR610) milling and overlay road reconstruction project that cost approximately \$2.1 million.

System Performance (NHS, Freight, CMAQ) Performance Management Measures ("PM3")

The FHWA final rule for the National Performance Management Measures; Assessing Performance of the NHS, Freight Movement on the Interstate System, and CMAQ was published in the Federal Register (82 FR 5970) on January 18, 2017, and became effective on May 20, 2017. The measures in this third and final rule are used by state DOTs and MPOs to assess the performance of the Interstate and non-Interstate NHS for the purpose of carrying out the NHPP; to assess freight movement on the Interstate system; and to assess traffic congestion and on-road mobile source emissions for the purpose of carrying out the CMAQ Program. These system performance measures are collectively referred to as PM3 measures.

The following PM3 system performance measures are divided into three categories: Travel Time Reliability (TTR), CMAQ Congestion, and CMAQ Emissions Reduction. Each category has its own measures.

TTR:

- Percentage of Person-Miles Traveled (PMT) on the Interstate System that are Reliable
- Percentage of PMT on the Non-Interstate NHS that are Reliable
- Interstate System Truck TTR Index

CMAQ Congestion:

- Annual Hours of Peak-Hour Excessive Delay (PHED) per Capita
- Percentage of Non-SOV Travel

CMAQ Emissions Reduction:

- On-Road Mobile Source Emissions Reduction for CMAQ-Funded Projects

Travel Time Reliability (TTR) Targets

The first major performance area under system performance is TTR. Reliability refers to the variability of travel times on road segments experienced by travelers. The less variability there is for any given set of roadway segments, the more reliable those segments are. TTR does not mean eliminating traffic congestion by reducing its extremes to maintain consistent traveler expectations. Reliability is used in reference to the level of consistency in the transportation service provided by a roadway. For example, a roadway can be heavily congested, but if the amount and time of day when the congestion occurs is consistent, then it is considered reliable. USDOT established performance measures pertaining to reliability because empirical evidence exists to suggest that the traveling public values reliability more than straight travel times. Traffic Congestion and Reliability: Linking Solutions to Problems is available on the FHWA website at https://ops.fhwa.dot.gov/congestion_report_04/.

State Departments of Transportation (DOTs) must establish statewide targets for the performance of the Interstate and non-Interstate National Highway System (NHS) during four peak travel time periods that include peak daytime periods and weekend periods. Each state sets its performance targets for the Level of Travel Time Reliability (LOTTR) Index, which indicates the reliability of travel on the Interstate and non-Interstate NHS. A road segment is considered reliable if the ratio of the 80th percentile peak hour travel time to the normal peak hour travel time (50th percentile) is less than 1.5. The measure also incorporates traffic volumes and vehicle occupancy to identify the person miles traveled on the system. LOTTR targets are established for the entire state and capture the person miles traveled on road segments that are considered reliable. Two- and four-year targets are set for (1) percentage of person miles traveled on the Interstate System that are considered reliable; and (2) the percentage of person miles traveled on the non-Interstate NHS that are considered reliable.

TTR is assessed by using archived real-time vehicle probe data contained in the National Performance Management Research Data Set (NPMRDS) and then calculated with the assistance of the Probe Data Analytics Suite. The Probe Data Analytics Suite was created and is maintained by the University of Maryland Center for Advanced Transportation Technology Laboratory (UMD CATT Lab), following FHWA guidance. Current and partial historical data is available through the Probe Data Analytics Suite; forecasts for these measures are not. The NJDOT Complete Team, which consists of planning and operations staff from NJDOT, all New Jersey MPOs, NJ TRANSIT, Port Authority of New York and New Jersey, New Jersey Turnpike

Authority, and FHWA-New Jersey, had several meetings to discuss the underlying data, calculation tools and methods, baseline results, and target-setting approaches for the PM3 measures.

Freight/Truck TTR Targets

The national system performance measure for freight is the Truck TTR Index and is required for Interstate highways on the NHS only. This measure is similar to the TTR measure and metric described above, but it is focused primarily on truck traffic. This metric is averaged for all Interstate Road segments in the state and weighted by distance, resulting in the Truck TTR Index for the state. Unlike the TTR measures, there is no “threshold” that determines whether a segment is reliable or unreliable for trucks.

As with the TTR measures, the Truck TTR performance measure was based on the NPMRDS data source and calculated by using the UMD CATT Lab NPMRDS Analytics Suite tool, but it uses travel times specifically reported from trucks (where available). As with the previous TTR measures, the NJDOT Complete Team met several times to discuss and agree on the underlying data, calculation tools and methods, baseline results, and target-setting approaches. Again, agencies implement policies to support improvements to freight TTR. State DOTs must establish a single index for the Interstate system in the state for five peak-hour travel time periods that include peak daytime periods, an overnight period, and weekend periods. The Truck Travel Time Reliability (TTTR) Index is measured by the ratio of the congested peak period travel time (95th percentile) to the normal peak period travel time (50th percentile) on each road segment on the Interstate system for the time periods. The highest TTTR value is used to determine the reliability of the Interstate system for truck traffic or freight reliability. The DOT establishes two- and four-year targets for the ratio of the congested period travel time to the normal period travel time, weighted by the length of the Interstate segment, for the entire Interstate system in the state.

CMAQ Congestion Targets

Federal Congestion Mitigation and Air Quality (CMAQ) funded projects reduce congestion and improve air quality. The CMAQ Congestion and Emissions Reduction Targets are specifically intended to reduce congestion directly related to attributes of federally funded projects, and unlike other federally required performance measures, they specifically apply to urban areas with a population over 200,000. Note that traffic congestion occurs when the amount of traffic far exceeds the physical capacity of the system, generally measured by the number of travel lanes on the roadway, the number of intersections, access points, and numerous other factors.

CMAQ Congestion has two measures for applicable urbanized areas:

- **Annual Hours of Peak-Hour Excessive Demand (PHED) per Capita on the NHS:** The threshold for excessive delay is based on the travel time at 20 mph or 60 percent of the posted speed limit travel time, whatever is greater, and is measured in 15-minute intervals. Travel times, hourly traffic volumes, posted speed limits, mode shares (passenger vehicles, transit, and trucks), and average vehicle occupancy factors are used to calculate excessive delay at the roadway segment level for peak periods 6:00-10:00 am and 3:00 -7:00 pm for all calendar days. The rule containing all the details is found in 23 CFR 490.707(a). The “excessive” part of the PHED name indicates that some level of congestion is recognized as not possible or desirable to eliminate and thus not counted. For example, some congestion can accompany economic activity in thriving places. The “per capita” implies that the total delay is shared by all residents, so some trips can be avoided or shifted to non-vehicular modes out of the peak period. This measure sums up the delay experienced by travelers throughout an entire year on NHS roads, specifically during peak periods.

- **Non-Single-Occupant Vehicle (SOV) travel on the NHS:** Non-SOV travel may include travel via carpool, vanpool, public transportation, commuter rail, walking, or bicycling, as well as telecommuting. The actual rule containing all the details is found in 23 CFR 490.707(b).

Both two- and four-year targets are required from the base year for the PHED per Capita and Percentage of Non-SOV measures.

CMAQ Emissions Reduction Targets

Federal Congestion Mitigation and Air Quality (CMAQ) funded projects reduce congestion and improve air quality. State DOTs whose geographic boundaries include any part of a nonattainment or maintenance area for ozone, carbon monoxide, or particulate matter are required to establish two- and four-year targets for the quantifiable pollutants that are reduced through transportation projects funded through the CMAQ program. State DOTs establish targets for the entire state and MPOs can support state targets or develop MPO targets. Targets for the performance period represent the cumulative pollutant reductions from CMAQ funded projects:

- On-road mobile source emissions reduced through the CMAQ program for the Ozone precursors Nitrogen Oxides (NOx) and Volatile Organic Compounds (VOCs), Fine Particulate Matter (PM_{2.5}), and Carbon Monoxide (CO). CO is required in Pennsylvania only.

Coordination and Progress Toward TTR and Freight/Truck TTR Targets

DVRPC is committed to improving reliability on roadways within its region in New Jersey. DVRPC staff work with NJDOT and county, city, and transit partners to develop projects that will improve TTR and help meet state targets. DVRPC proactively seeks to include freight as a primary planning factor through its Long-Range Plan and TIP development as well as through the conduct of technical studies. DVRPC's goal is to serve the region's freight stakeholders and maintain the Philadelphia-Camden-Trenton region as an international freight center. At the forefront of DVRPC's Freight Planning Program is the Delaware Valley Goods Movement Task Force, a broad-based freight advisory committee that provides a forum for the private- and public-sector freight community to interject its unique perspectives on regional plans and specific projects.

The CMP is another key component of DVRPC's commitment to improving TTR. DVRPC facilitates a CMP Planning Advisory Committee that is part of an overall, systematic, and ongoing process to determine where traffic congestion exists, identify causes, prioritize congested locations according to congestion and other CMP objective measures, and help develop strategies to reduce congestion and improve reliability.

PM₃ performance measures are mapped by roadway segments where data is available and used to inform the CMP process. Reliability is measured by LOTTR and Planning Time Index (PTI). PTI is a measure of roadway reliability defined as the ratio of the 95th percentile peak-hour travel time to the free-flow travel time (uncongested travel time) to better understand which CMP corridors are more or less reliable than others.

DVRPC tracks travel trends by CMP focus roadway corridor using the PTI measure. This measure considers non-recurring congestion impacts on travel due to traffic events, such as crashes, disabled vehicles, construction, and adverse weather. This information has been averaged by week and month and compared by month year-over-year to identify changes in reliability and help inform the process of developing strategies to improve travel times on the transportation network.

DVRPC proactively seeks to include freight as a primary planning factor through its Long-Range Plan and TIP as well as the conduct of technical studies. One of DVRPC's goals is to serve the region's freight stakeholders and maintain the Greater Philadelphia region as a premier freight transportation gateway.

The FAST Act established—and the IIJA/BIL continued—the NHFP to improve the efficient movement of freight on the NHFN. NHFP’s eligibility criteria require that a project contribute to the efficient movement of freight and be identified in the state’s freight investment plan. States may use up to 10 percent of NHFP funding each year for public or private freight rail, water facilities (including ports), and/or intermodal facilities. In the TIP, notable projects programmed with federal NHFP and NHPP funds in the DVRPC New Jersey region are as follows (in addition to paving projects):

- **Route 295/42/I-76, Direct Connection, Contract 4 (DB #355E)** is one of the last major construction contracts to relieve an existing bottleneck at an interchange and improve safety by providing direct connections among multiple highways.
- **Route 42 SB, Leaf Avenue Extension to Creek Road (CR 753) (DB #18313)** is a project carried over from the current FFY2024 TIP that will relocate access to NJ 42 ramps further down CR 753 and provide sufficient lane configurations to accommodate freight movement.
- **Route 38, South Church Street (CR 607) to Fellowship Road (CR 673), Operational and Safety Improvements (DB #12307)** will reconfigure Route 38 and South Church Street/Fellowship Road to improve congestion, improve safety, and ensure ADA compliance throughout the intersection. The project includes replacing and widening the Church Street Bridge and addressing deficiencies in sidewalk, curbs and curb ramps. The existing shoulders and auxiliary lanes will be brought into compliance with NJDOT standards.
- **Route 73, Church Road (CR 616) and Fellowship Road (CR 673) Intersections (DB #12380)** will improve operational and safety conditions within the Route 73 corridor, including a pedestrian overpass, utility relocations, ROW acquisitions, ramp relocations, and roadway realignment.
- **Route 73, Dutch Road to Route 70 (DB# 13319)** will address congestion and safety issues within the project limits through the widening of Route 73 to three through lanes in each direction, increasing approaches at the intersections of Route 73 and Brick Road and Route 73 and CR 544, and removing the unsignalized Route 73 southbound left turn to Commonwealth Drive. Additional sidewalks will be included in the proposed project to complete the gaps in the existing sidewalk network.
- **Route 295 and Route 38 Interchange Operational Improvements (DB #21311)** will address significant congestion on Route 38 from Duffy's Drive to Route 295, along with insufficient turning movement queues.
- **Pavement Preservation (DB #X51)** will allow NJDOT to accomplish eligible federal pavement preservation activities on New Jersey's Interstate highway system and will also allow for pavement preservation on all other state-maintained roads.

Further, the annual **New Jersey Rail Freight Assistance Program (DB #X34)** in the Statewide Program provides State Transportation Trust Fund dollars for the rehabilitation and improvement of key elements of the New Jersey rail freight network. NJDOT and NJ TRANSIT sponsor numerous statewide programs that improve TTR. Many of these are funded through the CMAQ Program further detailed in this document’s section 4.3 System (NHS, Freight, CMAQ) Performance Management Measures (“PM3”) under “Progress toward CMAQ Congestion and Emissions Reductions Targets.”

NJDOT’s Statewide Freight Plan, approved in 2023, identifies improving reliability and efficiency as one of its goals. This plan provides a well-defined blueprint for NJDOT investment, identifying discrete projects that

immediately address critical freight system improvements. It also includes a fiscally constrained freight investment plan that identifies and prioritizes freight-related transportation projects. The Truck TTR Index was one of four factors that were used for project prioritization.

In addition to the Statewide Freight Plan cited above, NJDOT continues to spearhead various initiatives with the specific intent of improving infrastructure conditions for goods movement in New Jersey, including the following:

- Freight Management System
- Freight Performance Measures
- Truck Monitoring Program

NJDOT is also developing an internal Freight Management System to advance freight specific concerns into NJDOT's capital programming process.

DVRPC is an active participant in NJDOT's Freight Advisory Committee and the Eastern Transportation Coalition (formerly known as the I-95 Corridor Coalition) and served on the stakeholder group for the development of the 2023 NJDOT Statewide Freight Plan. The Eastern Transportation Coalition provides a forum for state, local, and regional transportation agencies and organizations from Maine to Florida to work together to improve transportation mobility, safety, efficiency, and system performance. Coalition members facilitate more efficient network operations through regional incident management planning, coordination, communication, and improved information management across jurisdictions and modes. DVRPC and the other two MPOs in New Jersey are also involved in the Metropolitan Area Planning Forum of the Greater New York Metropolitan Transportation Management Area, which identified regional freight initiatives as one of the key items to work on.

There are also several grant programs (outside of DVRPC) administered by the state and federal governments that target freight. NJDOT's Local Freight Impact Fund (LFIF) assists counties and local municipalities with the mitigation of impacts on the local transportation system associated with the state's freight industry. Dozens of projects have been awarded NJDOT's LFIF, USDOT's INFRA grants in the DVRPC New Jersey region that directly support TTR and freight.

FFY2025 NJDOT LFIF AWARDS (\$7.46 MILLION TOTAL):

- \$850,000 for Resurfacing of Industrial Highway in Cinnaminson Township, Burlington County
- \$850,000 for Eayrestown Road Improvements in Lumberton Township, Burlington County
- \$460,000 for Improvements to Harding Ave and Benigno Blvd in Bellmawr Borough, Camden County
- \$4,000,000 for Camden Port Roads Reconstruction of Mechanic Street, Locust Street, and Jefferson Street in Camden City, Camden County
- \$1,000,000 for Stokes Avenue Resurfacing in Ewing Township, Mercer County
- \$300,000 for East Sixth Ave Road Improvements in Hamilton Township, Mercer County

FFY2024 NJDOT LFIF AWARDS (\$7.25 MILLION TOTAL):

- \$1,500,000 for the Haines Industrial Center Mobility Project in Burlington County
- \$490,000 for Railroad Ave Resurfacing in Florence Township, Burlington County
- \$1,000,000 for Haag Avenue & Regina Way Improvements in Bellmawr Borough, Camden County

- \$2,000,000 for Improvements to Holtec Boulevard/Morgan Street in Camden City, Camden County
- \$1,500,000 for Improvements to Jersey Avenue in Camden County
- \$570,000 for Improvements to Old Egg Harbor Road in Gibbsboro Borough, Camden County
- \$190,000 for Birch Creek Road Improvements in Logan Township, Gloucester County

FFY2023 NJDOT LFIF AWARDS (\$8.223 MILLION TOTAL):

- \$1,150,000 for Pedestrian Safety Improvements for Union Landing Road in Cinnaminson Township, Burlington County
- \$3,228,000 for the Reconstruction of Mansfield Road West in Mansfield Township, Burlington County
- \$1,750,000 for King Street and Broadway Intersection Realignment in Gloucester City, Camden County
- \$500,000 for Cove Road Delaware River Port Access Improvements in Pennsauken Township, Camden County
- \$1,595,000 for the Resurfacing of Grandview Avenue and Imperial Way in West Deptford Township, Gloucester County

FFY2022 NJDOT LFIF AWARDS (\$7.650 MILLION TOTAL):

- \$1,000,000 for Resurfacing of Taylor's Lane in Cinnaminson Township, Burlington County
- \$500,000 for Berry Drive Roadway Improvements in Lumberton Township, Burlington County
- \$500,000 for Improvements to Heller Place in Bellmawr Borough, Camden County
- \$3,000,000 for Camden City Port Access Truck Route Project in Camden County
- \$900,000 for Cenco Boulevard Roadway Improvements in Clayton Borough, Gloucester County
- \$500,000 for Improvements to Porches Mill Road in South Harrison Township, Gloucester County
- \$750,000 for Improvements to Forest Parkway in West Deptford Township, Gloucester County
- \$500,000 for the 2022 West Manor Way and Applegate Drive Resurfacing project in Robbinsville Township, Mercer County

FFY2021 NJDOT LFIF AWARDS (\$3.328 MILLION TOTAL):

- \$183,000 for the Reconstruction of Union Landing Road - Phase 3 in Cinnaminson Township, Burlington County
- \$1,050,000 for the Reconstruction of Hall Avenue & Heller Road in Bellmawr Borough, Camden County
- \$440,000 for the Water Street Improvements in Gloucester City, Camden County
- \$325,000 for Roadway Improvements to Heron Drive, Phase 2 in Logan Township, Gloucester County
- \$700,000 for Paradise Road Resurfacing in West Deptford Township, Gloucester County
- \$360,160 for the Industrial Drive Improvement Project in Hamilton Township, Mercer County
- \$270,000 for Thomas J Rhodes Improvement Project in Hamilton Township, Mercer County

FFY2018 NJDOT LFIF AWARDS (\$9.990 MILLION TOTAL):

- \$2.1 million for the Rising Sun Road-Dunns Mill Road Connector Road in Bordentown Township, Burlington County
- \$850,000 for Charles Street Roadway Improvements in Gloucester City, Camden County
- \$4 million for Route 44 Truck Bypass and DuPont Port Access Road in Gloucester County

- \$2 million for the Paulsboro Marine Terminal Spine Road Grading, Paving and Striping Project in Gloucester County
- \$300,000 for the reconstruction of Commerce Boulevard in Logan Township, Gloucester County
- \$740,000 for the Paulsboro-Greenwich Township Truck Route Improvements in Paulsboro Borough, Gloucester County

FFY2011 USDOT TRANSPORTATION INVESTMENT GENERATING ECONOMIC RECOVERY (TIGER) AWARD (\$18.5 MILLION TOTAL):

- \$18.5 million for the South Jersey Port Corporation's South Jersey Port Rail Improvements to repair the DelAir Bridge, a critical link to rail networks in Pennsylvania and New Jersey, and upgrade the rail network from the bridge to the Ports of Salem, Paulsboro, and Camden to accommodate anticipated demand in rail/port traffic. The DelAir Bridge is currently completed and open to traffic.

Coordination and Progress Toward CMAQ Congestion Targets

Pursuant to the IIJA/BIL, and the FAST Act and MAP-21 prior, and the ensuing requirements of 23 CFR Part 490, the National Performance Management Measures Final Rule, all state DOTs and MPOs that contain, within their respective boundaries, any portion of the NHS network within the urban area must establish a single unified target for the congestion measures. In other words, all performance areas require single statewide targets or their own regional target, except for the two CMAQ congestion measures (PHED per Capita and Percentage of Non-SOV Travel), where requirements apply to urban areas with a population over 200,000. DVRPC staff collaborated with multiple agencies in developing and agreeing on a single realistic target for each of the two measures.

In the case of the Philadelphia PA-NJ-DE-MD Urban Area ("Philadelphia Urban Area"), this means that DVRPC collaborated with the Lancaster County Transportation Coordinating Committee (LCTCC), North Jersey Transportation Planning Authority (NJTPA), South Jersey Transportation Planning Organization (SJTPO), Wilmington Area Planning Council (WILMAPCO), Pennsylvania Department of Transportation (PennDOT), New Jersey Department of Transportation (NJDOT), Delaware Department of Transportation (DelDOT), and Maryland Department of Transportation (MDOT) in developing and agreeing on a common congestion measure baseline and targets for the Philadelphia Urban Area. For the Trenton, NJ, Urban Area, DVRPC collaborated with NJDOT. Since there is a portion of the New York-Newark NY-NJ-CT Urban Area ("New York Urban Area") in Mercer County, New Jersey, within the DVRPC region, DVRPC also collaborated with the NJTPA, the New York Metropolitan Transportation Council (NYMTC), NJDOT, the New York State Department of Transportation (NYSDOT), and others to adopt a common congestion measure baseline and targets for that urban area. For the Allentown-Bethlehem-Easton PA-NJ Urban Area, DVRPC coordinated with the Lehigh Valley Planning Commission (LVPC), NJTPA, and state DOTs.

DVRPC is an MPO that serves a Transportation Management Area with a population greater than 200,000 and includes a nonattainment or maintenance area. As such, DVRPC was required to develop a CMAQ Performance Plan to support achievement of the CMAQ congestion targets. In the CMAQ Performance Plan, which is required to be updated biennially through the performance period, the MPO must describe its plans to meet the targets, detail progress toward achieving the targets over the course of the Performance Plan, and include a description of projects identified for funding that will contribute to achieving targets.

Coordination and Progress Toward CMAQ Emissions Reduction Targets

DVRPC has coordinated emissions reduction target setting with NJDOT to establish emissions reduction targets from CMAQ-funded projects in the relevant portions of the DVRPC planning area. NJDOT has developed state-level emissions reductions targets that account for emissions reductions at the MPO level. If the states and MPOs do not meet the two-and-four-year targets, they are able to adjust the targets and evaluate future CMAQ investments that may improve progress towards meeting the targets.

DVRPC continues to select projects and programs that have a positive air quality benefit in terms of reducing mobile source emissions to help the DVRPC region and the State of New Jersey meet two- and four-year targets for traffic congestion and on-road mobile source emissions. The latest FFY2020 Competitive CMAQ Program that DVRPC administered throughout CY20 to CY21 selected various projects that will support the CMAQ Congestion and Emissions Reductions Targets; these projects were approved in May 2021 by the DVRPC Board for authorization in FFY22, FFY23, or FFY24. See <https://www.dvrpc.org/cmaq/>.

There are also intersection/interchange improvement projects (totaling \$366.1 million over the First-Four Years) and signal/ITS improvement projects (\$3.2 million over the First-Four Years) on the TIP's Highway Program that will help meet these targets, accordingly.

INTERSECTION/INTERCHANGE IMPROVEMENTS ON THE TIP

DB #	Title
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355E	Route 295/42/I-76, Direct Connection, Contract 4
12307	Route 38, South Church Street (CR 607) to Fellowship Road (CR 673), Operational and Safety Improvements
13319	Route 73, Dutch Road to Rt 70
15302	Route 41 and Deptford Center Road
17419	Route 1, Alexander Road to Mapleton Road
18313	Route 42 SB, Leaf Avenue Extension to Creek Road (CR 753)
D2018	Bridge No. C4.13 over Parkers Creek on Centerton Road
D2014	CR 622 (North Olden Avenue), NJ 31 (Pennington Road) to New York Avenue
D2504	Intersection Improvements to Clayton Road (CR610) and Franklinville Road/Corkery Lane (CR 612)
D2505	Bridgeton Pike (SR 45) and Berkley Road Mantua Boulevard (CR 632) Intersection Improvements
12380	Route 73, Church Road (CR 616) and Fellowship Road (CR 673) Intersections
21311	Route 295 and Route 38 Interchange Operational Improvements

SIGNAL/ITS IMPROVEMENTS ON THE TIP

DB #	Title
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01300	Transportation Systems Management and Operations (TSMO)
D1601	New Jersey Regional Signal Retiming Initiative
D2004	Transportation Operations
D2021	New or Upgraded Traffic Signal Systems at Intersections, Phase 2
D2022	New or Upgraded Traffic Signal Systems at Intersections, Phase 3

DVRPC will continue to promote and develop projects and programs with air quality and congestion benefits to its counties and planning partners. Much of the congestion within the DVRPC region occurs on state-owned and maintained highways, which are part of the NHS. Therefore, NJDOT has invested a significant number of resources in congestion relief programs statewide. Congestion relief is also one of the focus areas in NJDOT's Capital Investment Strategy. Per the Statewide Capital Investment Strategy 2023 Update, almost \$5.213 billion (approximately 18 percent) of annual capital investments go toward mobility and congestion

relief projects in FYs 2023-2027. Progress is being made toward meeting the congestion relief and on-road mobile emissions reductions targets. Besides the DVRPC local CMAQ Program and examples of projects above, NJDOT and NJ TRANSIT have several statewide programs that help reduce emissions (as well as congestion) throughout the state. These are listed below.

Bicycle and Pedestrian Facilities/Accommodations (DB #X185) continues to be a comprehensive program to ensure the broad implementation of the Statewide Bicycle and Pedestrian Master Plan, Complete Streets Policy, and the implementation of federal and state policies and procedures pertaining to bicycle, pedestrian, transit, and ADA access and safety. This program includes addressing bicycle, pedestrian, transit, and ADA travel needs through the development of improvements on state, county, and local systems either by independent capital projects or through grants to counties and municipalities. Projects must make full consideration for the needs of all users. Funding is provided annually from three sources: CMAQ, State, and TA-FLEX.

Intelligent Traffic Signal Systems (DB #15343) will continue to improve mobility on New Jersey's arterial highways. Arterials contribute almost 70 percent of total congestion that occurs in New Jersey. This program will focus on dynamically managing New Jersey's arterials from NJDOT's Arterial Management Center. Existing traffic signals will be strategically, systematically, and programmatically upgraded from stand-alone signals to highly sophisticated, coordinated, real-time traffic response traffic signals. This upgrade will consist of installing new controllers, intelligent software and algorithms, robust detection, and communication. This is a plan to upgrade most of the signals on NJDOT-owned highways only.

Rail Rolling Stock Procurement (DB #T112) provides Section 5307, Section 5337, and State funds for the replacement of rail rolling stock, including engineering assistance and project management, to replace overaged equipment, including rail cars, revenue service locomotives, and expansion of NJ TRANSIT rolling stock fleet (cars and locomotives) to accommodate projected ridership growth and other system enhancements over the next 10 years. Funding is provided to support vehicles/equipment (for rail operations). Annual funds are provided for Comet V single-level car lease payments, electric locomotive lease payments, diesel locomotive lease payments, dual power locomotives and multi-level rail car lease payments, and other upcoming rolling stock lease payments. Pay-as-you-go funding is also programmed for multi-level vehicles and other rolling stock.

Small/Special Services Program (DB #T120) supports NJ TRANSIT efforts that initiate or promote transit solutions to reduce congestion, manage transportation demand, and improve air quality. Included are state funds for the Vanpool Sponsorship Program and Transportation Management Association Program, and federal funds for the East Windsor Community Shuttle operating support. Funding is also provided for capital acquisition/operating expenses for the Community Shuttle Program, Bike/Transit facilitation, and other activities that improve air quality and help reduce congestion.

Transit Asset Management (TAM) Rule

TAM is the strategic and systematic practice of procuring, operating, inspecting, maintaining, rehabilitating, and replacing transit capital assets to manage their performance, risks, and costs over their lifecycles to provide safe, cost-effective, and reliable public transportation. TAM uses transit asset condition to guide how to manage capital assets and prioritize funding to improve or maintain a State of Good Repair (SGR). TAM places value and understanding on the negative impacts of deferring maintenance and the positive outcomes of optimizing investment decisions that improve SGR. In short, TAM uses asset condition to guide the optimal prioritization of funding at transit properties.

Based on the mandate in MAP-21 (and continued in the FAST Act and IIJA/BIL), FTA developed a rule establishing a strategic and systematic process of operating, maintaining, and improving public transit capital assets effectively through their entire lifecycles. The TAM Final Rule, 49 USC 625, became effective Oct. 1, 2016. The TAM rule develops a framework for transit agencies to monitor and manage public transportation assets, increase reliability and performance, and establish performance measures.

Under the provisions of the Transit Asset Transportation Performance Management rulemaking, transit operators are required to set performance targets for their transit asset portfolio. Transit agencies are required to upload their performance targets and a supporting narrative in their annual National Transit Database (NTD) submission, and report progress towards these targets. They are also required to develop a TAM Plan to identify local funding prioritization. The regulations required by the FTA have established a strategic and systematic process of operating, maintaining, and improving public capital assets effectively through their life-cycles. The performance management requirements are a minimum standard for transit operators and involve measuring and monitoring the following:

- **Rolling stock:** The percentage of revenue vehicles (by type) that meet or exceed the useful life benchmark (ULB). ULB is the measure agencies will use to track the performance of revenue vehicles (rolling stock) and service vehicles (equipment) to set their performance measure targets. ULB means either the expected lifecycle of a capital asset or the acceptable period of use in service determined by FTA. Each vehicle type's ULB estimates how many years that vehicle can be in service and still be in an SGR. The ULB considers how long it is cost effective to operate an asset before ongoing maintenance costs outweigh replacement costs.
- **Equipment:** The percentage of non-revenue service vehicles (by type) that meet or exceed the ULB.
- **Facilities:** The percentage of facilities (by group) that are rated less than 3.0 on the Transit Economic Requirements Model (TERM) scale. Under the TERM scale, an asset in need of immediate repair or replacement is scored as one (1), whereas a new asset with no visible defects is scored as five (5).
- **Infrastructure:** The percentage of track segments (by mode) that have performance restrictions.

There are two Tier 1 agencies providing public transit service and subject to this FTA TAM performance management rule in the DVRPC New Jersey region: NJ TRANSIT and the Delaware River Port Authority/Port Authority Transit Corporation (DRPA/PATCO).

NJ TRANSIT operates and maintains a large fleet of buses, railroad cars, locomotives, and light rail vehicles in the DVRPC New Jersey region. To ensure these assets are in an SGR, NJ TRANSIT has budgeted funds to permit regular ongoing replacement of equipment as it approaches the end of its useful life. This approach also permits NJ TRANSIT to procure newer propulsion and fuel systems for vehicles and railroad equipment as they are proven to be feasible, reliable, and cost effective. This maintenance strategy creates a sustainable financial replacement program and is expected to continue.

DRPA/PATCO is a bistate corporation that owns and operates four major toll bridge crossings of the Delaware River. Its transit subsidiary, PATCO, operates and maintains a 14.2-mile rapid public transit line between Philadelphia and southern New Jersey, including an administrative and maintenance facility at Lindenwold, New Jersey. The DRPA owns nine stations in DVRPC's New Jersey region and leases five stations in Philadelphia from the City of Philadelphia. This includes the Franklin Square Station in Philadelphia which reopened in April 2025, becoming the fifth PATCO station in the city. Franklin Square Station was originally opened in 1936 as part of the Bridge Line operation between 8th & Market in

Philadelphia and Broadway in Camden. The station has been opened and closed sporadically since the original opening. The station received its last major update during the last period of passenger service between 1976 and 1979. The reopening project improves the station's civil, structural, mechanical, and electrical systems and provides access in compliance with the Americans with Disabilities Act (ADA).

Coordination and Progress Toward TAM Targets

DVRPC's Long-Range Plan prioritizes the preservation and maintenance of existing transportation infrastructure. This includes maintaining the transit system in an SGR and operating it in a safe and secure manner by replacing buses, railcars, and locomotives as they age, and by attending to rail bridges, track, signal systems, stations, and other infrastructure. An asset is in an SGR if (1) it can perform its designed function; (2) it does not pose a known unacceptable safety risk; and (3) its lifecycle investments have been met or recovered.

Transit providers are required to develop a TAM Plan to identify local funding prioritization. The plan presents a summary inventory of assets, describes the current condition of the assets, sets near-term targets for the required performance measures, and explains how transit agency managers develop and present requests for operating/maintenance budgets and capital asset replacements. TAM places value and understanding on the negative impacts of deferring maintenance and the positive outcomes of optimizing investment decisions that improve SGR.

TAM Plans must adhere to the following nine elements to ensure assets are in an SGR:

- Inventory of Capital Assets
- Condition Assessment
- Decision Support Tools
- Investment Prioritization
- TAM and SGR Policy
- Implementation Strategy
- List of Key Annual Activities
- Identification of Resources
- Evaluation Plan

NJ TRANSIT

The Transit Asset Transportation Performance Management rule requires MPOs to describe how the region's TIP will help to achieve the TAM targets. The TIP was developed to ensure progress toward target achievement. Transit operators have taken steps to ensure that projects selected for TIP funding help to achieve the TAM targets.

A few of NJ TRANSIT's projects and programs that have been allocated over the First-Four Years of the TIP to help achieve TAM Targets include the following:

- Preventive maintenance of the bus system (DB #T135)
- Rail preventive maintenance program (DB #T39), which is used for the overhaul of rail cars and locomotives, and other preventive maintenance costs
- Replacement of rail cars and locomotives that have reached the end of their useful life (DB #T112), and the Bus Acquisition Program to replace buses (DB #T111)

NJ TRANSIT's State Capital Program calls for continued investment in the state's transit infrastructure to maintain an SGR and provide reliable transit service. An emphasis on better preparing NJ TRANSIT to withstand, and recover from, future extreme weather events through building a more resilient system remains a key focus of the Capital Program, which invests in railroad bridge rehabilitation, track replacement, signal upgrades, repairs to overhead power lines and electric substations, improvements to rail stations, and bus shelter upgrades.

DRPA/PATCO

DRPA/PATCO has programmed most of their funding for system preservation and maintenance over the First-Four Years of the TIP. DRPA/PATCO's system preservation projects include the following:

- Preventive maintenance on vehicles and facilities (DB #DR034)
- Rehabilitate and replace interlockings, rail bed, and other rail improvements to ensure overall system safety, reliability, and minimal service disruptions (DB #DR1501)
- Renovate subway structures, such as pedestrian bridges, tunnels, subway stations, pump rooms, and tunnel leakage mitigation (DB #DR1802)
- Rehabilitate platforms at various PATCO stations (DB #DR1803)

DRPA/PATCO adopted the TAM policy to support and complement their Five-Year Strategic Plan, "Roadmap to World-Class Stewardship: 2018–2022," Five-Year Capital Program, and the Annual Budget Process in order to realize the agency's vision as a "World-Class Stewardship" organization. The October 2022 DRPA/PATCO Asset Management Plan affirms the operator will continue to utilize biennial inspections (that serve as the basis of the agency's budget program), an integrated budget and strategic plan process, and solutions derived from the asset management to continuously evaluate and update the asset management plan.

Transit Safety Rule

The Public Transportation Agency Safety Plan (PTASP) regulation, at 49 C.F.R. Part 673, requires covered public transportation providers and state DOTs to establish safety performance targets (SPTs) to address the safety performance measures identified in the National Public Transportation Safety Plan (49 C.F.R. § 673.11(a)(3)). Transit agencies were required to set their initial safety performance targets by December 31, 2020. In April 2024, updates were made to the PTASP regulation, creating new safety performance target requirements. The updates focused on transit worker safety, requiring target setting for transit worker injuries, fatalities, and assaults on transit workers. Additionally, new targets were added to track pedestrian, vehicular, and total collisions by transit mode. The DVRPC Board agrees to be consistent with the respective NJ TRANSIT and DRPA/PATCO targets for Transit Safety and will support the transit operators' efforts at achieving those targets displayed below:

- **Fatalities:** Total number of fatalities and number of transit worker fatalities reported to the National Transit Database (NTD) and rate per total vehicle revenue miles (VRM) by mode.
- **Injuries:** Total number of injuries and number of transit worker injuries reported to NTD and rate per total VRM by mode.
- **Safety Events:** Total number of safety events reported to NTD and rate per total VRM by mode. Total number of all collisions, pedestrian collisions, and vehicular collisions reported to NTD and rate per total VRM by mode.
- **System Reliability:** Mean distance between major mechanical failures by mode.

- **Assaults on Transit Workers:** Total number of assaults reported to NTD and rate per total VRM by mode.

Transit agencies are required to report their targets and performance to the state DOT and the agency's MPO(s) in order to prioritize funding to improve transit safety performance.

Fatalities

The transit safety performance measure requires that transit providers set annual targets for the number of fatalities that occur on each mode of transit that the agency operates, excluding deaths that result from trespassing, suicide, or natural causes. The NTPSP defines the modes as rail, fixed guideway bus service, and non-fixed route bus service. Fatalities are required to be calculated for both the total number of fatalities and the fatality rate per vehicle revenue mile. Transit worker fatalities are also reported, using the same metrics as total fatalities.

Injuries

The PTASP requires that transit agencies set annual targets for the number of injuries that occur on each mode of transit that the agency operates. Injuries are defined as "harm to persons that requires immediate medical attention away from the scene." Injuries are required to be calculated for both the total number of injuries and the injury rate per vehicle revenue mile for each of the modes that the agency operates. Transit worker injuries are also reported, using the same metrics as total injuries.

Safety Events

Transit providers are required to set annual targets for the number and rate of safety events, by mode, that occur across the transit agency's system. A safety event is defined by FTA as a "collision, derailment, fire, hazardous material spill, or evacuation." Safety events are required to be calculated for both the total number of events and the event rate per vehicle revenue mile for each of the modes that the agency operates. Pedestrian, vehicular, and total collisions are also reported, using the same metrics as total safety events.

System Reliability

Transit providers are required to set annual targets for the agency's system reliability for each mode of transit that the agency operates. The system reliability performance measure accounts for major mechanical failings of a vehicle that prevent the vehicle from starting or completing a scheduled trip. Mechanical failings and interrupted trips can create hazardous conditions for the transit operators and passengers depending on the location of the service interruption and if passengers are required to de-board in unsafe locations.

Assaults on Transit Workers

Transit providers are required to set annual targets for the total number of assaults on transit workers and the assault rate per vehicle revenue mile. Reporting requirements account for physical and non-physical assaults on any transit worker, including operators, police, or station agents, in any work setting.

Coordination and Progress Toward Transit Safety Targets

49 C.F.R. § 673.15(b) requires, to the maximum extent practicable, a state or transit agency to coordinate with states and MPOs in the selection of state and MPO safety performance targets; and in accordance with 49 U.S.C. 5303(h)(2)(B) and 5304(d)(2)(B), states and transit agencies must make their safety performance targets available to states and MPOs to aid in the planning process. MPOs are required to set performance targets for each performance measure, per 23 C.F.R. § 450.306; and these must be established 180 days after the transit agency establishes their performance targets. FTA will not impose penalties for failing to meet safety performance targets set by transit providers. DVRPC coordinates with both transit operating agencies on target setting and agrees to accept their Transit Safety Targets.

DVRPC is required to list the NJ TRANSIT and DRPA/PATCO projects in the DVRPC FY2026 TIP for New Jersey. The Transit Safety Rule requires MPOs to describe how the region's TIP will help to achieve the Transit Safety targets.

NJ TRANSIT takes every precaution to ensure both passenger and public safety on their bus, rail and light rail systems. NJ TRANSIT operates a risk-based safety management system (SMS), a data-driven process to proactively manage public transportation system risks. The SMS is intended to change the safety culture to reduce safety-related events by making safety everyone's responsibility, empowering employees to play a role in safety, and encouraging employees and contractors to report safety concerns to senior management.

- **ADA-Platforms/Stations (DB #T143)** provides for the design and construction of necessary repairs to make NJ TRANSIT's rail stations and subway stations more accessible per the requirements of the Americans with Disabilities Act (ADA), including related track and infrastructure work.
- **Bridge and Tunnel Rehabilitation (DB #T05)** provides for the design, repair, rehabilitation, replacement, painting, and inspection of tunnels/bridges, in addition to other work such as the movable bridge program, drawbridge power program, and culvert/bridge/tunnel right of way improvements necessary to maintain a state of good repair.
- **High Speed Track Program (DB #T43)** is an annual program of high-speed track rehabilitation including high speed surfacing, systemwide replacement of life-expired ties and other rail improvements, right-of-way fencing, equipment necessary to maintain a state of good and safe repair, purchase of long lead-time materials for the next construction season, maintenance-of-way work equipment, interlocking improvements, passing sidings, and other improvements, materials and services as necessary.
- **Track Program (DB #T42)** is an annual program of track rehabilitation including system wide replacement of life-expired ties and other rail improvements, right-of-way fencing, equipment necessary to maintain a state of good and safe repair, purchase of long lead-time materials for the next construction season, maintenance-of-way work equipment, interlocking improvements, passing sidings and other improvements.
- **Light Rail Infrastructure Improvements (DB #T95)** includes but is not limited to communication systems upgrade, accessibility improvements, vehicle and facility improvements, and other infrastructure rehabilitation improvements, including rolling stock enhancements, for the RiverLINE.
- **Other Rail Station/Terminal Improvements (DB #T55)** provides for the design, land acquisition and construction of various stations, platform extensions, parking and related facilities, and upgrades throughout the system, including related track and rail infrastructure work.
- **Safety Improvement Program (DB #T509)** provides for safety improvement initiatives systemwide addressing bus, rail, light rail, Access Link and other identified safety needs.
- **Security Improvements (DB #T508)** provides for continued modernization/improvements of NJ TRANSIT Police and other security improvements. Today, the NJ TRANSIT Police Department is the only transit policing agency in the country with statewide authority and jurisdiction.
- **Signals and Communications/Electric Traction Systems (DB #T50)** provides for continued modernization/improvements to the signal and communications systems, including signal/communication upgrade of interlockings, and other communication improvements. In addition, funding will be provided for Positive Train Control (PTC) training facilities including but not limited to equipment purchasing, engineering, design, planning, construction, acquisitions and other associated costs. Note that PTC is a major safety initiative underway at NJ TRANSIT. PTC uses Global Positioning System (GPS) technology, Wi-Fi, and high-frequency radio transmission to automatically control train speeds. PTC is capable of automatically controlling train speeds and movements,

thereby reducing the risk of accidents due to human error. PTC will make train accidents, already rare, even less likely. Implementation of PTC enhances the safety of NJ TRANSIT rail customers and employees and is required by federal law. Details of NJ TRANSIT's PTC program can be found at www.njtransit.com/ptc.

- **Bus Acquisition Program (DB #T111)** provides for the replacement of transit, commuter, Access Link, and suburban buses for NJ TRANSIT as they reach the end of their useful life and the purchase of additional buses to meet service demands.
- **Bus Support Facilities and Equipment (DB #T08)** will maintain NJ TRANSIT's bus fleet, including but not limited to bus tires, engines and transmissions and other parts, support vehicles/equipment (for bus operations), maintenance equipment, and bus mid-life overhaul needs. Also included is midlife rehabilitation of bus facilities, other capital improvements to various support facilities and bus midlife overhauls, including but not limited to acquisition of properties and any items or services needed to support the acquisition.
- **Preventive Maintenance-Bus (DB #T135)** provides for the overhaul of buses including preventive maintenance costs in accordance with federal guidelines as defined in the National Transit Database Reporting Manual and federal law.
- **Preventive Maintenance-Rail (DB #T39)** provides for the overhaul of rail cars and locomotives and other preventive maintenance costs in accordance with federal funding guidelines as defined in the National Transit Database Reporting Manual and federal law.
- **Locomotive Overhaul (DB #T53E)** provides for the cyclic overhaul of locomotives based on manufacturer replacement standards to support the equipment through its useful life.
- **Rail Fleet Overhaul (DB #T53G)** provides for the mid-life overhaul and reliability/safety improvements of rail cars based on manufacturer recommendations and other rolling stock modifications to meet mandated standards.
- **Rail Rolling Stock Procurement (DB #T112)** provides for the replacement of rail rolling stock, including engineering assistance and project management, to replace over-aged equipment including rail cars, revenue service locomotives, and expansion of NJ TRANSIT rolling stock fleet (cars and locomotives) to accommodate projected ridership growth and other system enhancements over the next ten years.
- **NEC Improvements (DB #T44)** provides for improvements to the Northeast Corridor (NEC) to maintain a state of good repair, increase capacity, and improve efficiency.
- **Technology Improvements (DB #T500)** provides for improvements to passenger communication and fare collection systems and other information technology improvements to meet internal and external customer needs. Funding is included for Public Address Upgrades/Onboard Communication Systems, Bus Radio System Upgrade Program, GIS Systems, TVM Replacement/Expansion, Smart Card Technology and improvements at stations system wide, computer systems and services, photocopy lease payments, ADA Access Link computer upgrades and upgrades to increase efficiency and productivity of NJ TRANSIT's technology infrastructure to support services to customers.

DRPA/PATCO:

- **PATCO Viaduct Preservation Project (DB #DR2007)** will improve and protect the Collingswood and Westmont viaducts, extending the useful life of this portion of the PATCO infrastructure.
- **Electrical Cable Replacement (DB #DR008)** provides for systemwide replacement of electrical cable to improve reliability and fire resistance.

- **Embankment, Fence, and Retaining Wall Restoration/Rehabilitation (DB #DR2302)** will address embankment restoration to prevent erosion and preserve drainage control.
- **PATCO Interlocking & Track Rehabilitation (DB #DR1501)** includes rehabilitation and replacement of interlockings, rail bed, and other rail improvements to ensure overall system safety, reliability, and minimal service disruptions.
- **PATCO Station Platform Rehabilitation (DB #DR1803)** includes planning, design, and reconstruction of PATCO Station Platforms. Work will include rehabilitation as well as replacement of concrete platforms and supporting structures including concrete and steel repairs for passenger safety.
- **Pedestrian Bridge and Tunnel Rehabilitation (DB #D1305)** provides for the planning, design, and construction to rehabilitate Pedestrian Bridges and Tunnels. The projects will allow for preventive repairs of bridges and tunnels owned by PATCO, including structural steel and concrete repairs, installation of protective coating, miscellaneous steel repair, joint filler and spot paint.
- **Rehabilitation of PATCO Bridges (DB #D1912)** provides for the planning, design, and construction to rehabilitate PATCO Bridges.
- **Subway Structures Renovation (DB #DR1802)** will provide for preventive repairs of pedestrian bridges, tunnels, subway stations, and pump rooms owned by PATCO, including but not limited to miscellaneous steel repair, concrete repair, joint filler, painting, waterproofing, and tunnel leakage mitigation throughout the PATCO High Speed Line System.
- **Relocation of Center Tower/SCADA Modernization (DB #DR038)** includes the purchase and installation of new equipment for centralized train control, traction power control, and integrated customer service/communication.
- **Smoke and Fire Control (DB #DR019)** will provide smoke and fire control for evacuation of patrons in emergencies and ventilation improvements.
- **DRPA - Rebuild PATCO Cars (DB #DR046)** provides for the replacement of PATCO's existing car fleet, through complete rebuilding of existing cars.
- **PATCO Track Resurfacing & Rail Profile Grinding (DB #D1911)** involves adjusting the track to eliminate minor horizontal and vertical shifts that impact ride quality. Work also includes the replacement of rail ties, ballast cleaning, and improvements to the shoulder that impact the track.
- **PATCO Rail Replacement - Ferry Avenue to Broadway (DB #DR2008)** provides for the replacement of approximately 40,000 linear feet of rail between Ferry Avenue and Broadway stations that are at the end of their useful life.
- **Preventive Maintenance (DB #DR034)** provides preventive maintenance expenses pertaining to activities performed on vehicles and facilities.
- **Transit Enhancements (DB #DR036)** will support enhancements to the PATCO High Speed Line.
- **PATCO Substation Improvements (DB #DR2304)** will include upgrades to equipment, including rehabilitation of the buildings at New Jersey PATCO substations.