

Unified Planning Work Program

**UPWP**

**FY2016**

**Volume VI  
Other Regional Transportation  
Planning Initiatives**



**North Jersey  
Transportation  
Planning  
Authority, Inc.**



**NORTH JERSEY TRANSPORTATION  
PLANNING AUTHORITY, INC.**

**FY 2016**

**UNIFIED PLANNING WORK PROGRAM**

**VOLUME VI**

**OTHER REGIONAL TRANSPORTATION  
PLANNING INITIATIVES**



# FY 2016 UNIFIED PLANNING WORK PROGRAM

## VOLUME VI OTHER REGIONAL TRANSPORTATION PLANNING INITIATIVES

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## INTRODUCTION

The Federal rules governing the work and responsibilities of Metropolitan Planning Organizations require that the Unified Planning Work Program produced every year “describe the planning priorities facing the metropolitan planning area (found in Volume I). This Volume, VI includes: “a description of all proposed transportation and transportation-related planning work elements or activities, including related state transportation department or transit authority corridor planning work elements or activities, regardless of funding sources; and a description of transportation-related air quality planning work elements or activities, regardless of funding sources and which entity conducts such work elements or activities.” As such this volume contains information not included in the other volumes of the FY 2016 UPWP.

The description includes:

- Who will perform the work;
- Completion schedules; and
- Final products.

The information is intended to insure the coordination of all transportation planning underway in the region and prevent duplication of planning and study efforts. This information, obtained from all transportation, planning and operating agencies that impact Northern New Jersey, reflects the overall complexity and multi-dimensionality of metropolitan planning activities throughout the region.

This portion of the FY 2016 UPWP is divided into two sections. Section One is separated into four parts. Part One incorporates information from various Transportation Planning and Operating agencies. Part Two includes Transportation Management Associations (TMAs) activities funded through NJ TRANSIT, NJDOT and New Jersey Department of Law and Public Safety, including transit marketing/promotional initiatives and services to support the NJ Safe Routes to School Program. Part Three includes the TMA and County Project Handoffs that are funded on a yearly basis. Additionally, it should be noted that Volume IV of the FY 2016 UPWP includes the full Transportation Management Association (TMA) work programs. The NJTPA assumed management of this program from NJDOT in FY 2012. Part Four is a compilation of Local Subregional Initiatives. Section Two is the New Jersey Department of Transportation State Planning and Research Program for CY 2015-CY 2016, Year One.



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PLANNING AUTHORITY, INC.**

**FY 2016**

**UNIFIED PLANNING WORK PROGRAM  
VOLUME VI  
OTHER REGIONAL TRANSPORTATION  
PLANNING INITIATIVES**

**SECTION I**

**PART ONE - TRANSPORTATION PLANNING AND  
OPERATING AGENCIES**



**AGENCY: NEW JERSEY TURNPIKE AUTHORITY  
NEW JERSEY TURNPIKE AND GARDEN STATE PARKWAY**

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**SUBJECT:** NJ Turnpike Interchange 6 to 9 Widening Program

**DESCRIPTION:** This project has been completed with all lanes opened to traffic in November of 2014.

**SCHEDULE:** Complete

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**SUBJECT:** NJ Turnpike Interchange 14A Improvement Project

**DESCRIPTION:** This project involves the implementation of capacity and safety improvements at Interchange 14A located on the Turnpike's Newark-Bay Hudson County Extension in Bayonne and Jersey City, Hudson County. Improvements are necessary to address current operating deficiencies at Interchange 14A and to accommodate significant traffic growth anticipated as a result of the expansion of adjacent commercial port operations. Construction is underway

**SCHEDULE:** Construction is anticipated to be completed by the end of 2018.

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**SUBJECT:** NJ Turnpike Interchange 9 Improvement Project

**DESCRIPTION:** This project involves the implementation of capacity and safety improvements at Interchange 9 located in East Brunswick, Middlesex County. The improvements are necessary to improve traffic operations between the Turnpike's interchange ramps and State Route 18. The project is being coordinated with the New Jersey Department of Transportation.

**SCHEDULE:** Construction is underway and is expected to be completed late 2015

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**SUBJECT:** NJ Turnpike Interchange 10 Improvement Project

**DESCRIPTION:** This project involves the implementation of capacity and safety improvements at Interchange 10 located in Edison Township, Middlesex County. The improvements are necessary to improve traffic operations throughout the interchange and will include the lengthening of the deceleration lane from Route 287 southbound to the interchange. The project is being coordinated with the New Jersey Department of Transportation.

**SCHEDULE:** Construction is underway and expected to be completed in 2015.

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**SUBJECT:** GSP Mainline Widening From Interchange 30 to 80

**DESCRIPTION:** This project provides for the widening of the Garden State Parkway between Interchanges 30 and 80. A third lane is being added in each direction to accommodate existing congestion and projected traffic growth. The northern third of this section of the Parkway is currently at or over capacity. Three major bridges within the project limits are also undergoing major repairs and/or replacement.

**SCHEDULE:** Construction between milepost 63 and 80 was completed in May 2011. The construction of the next phase of the Widening from Interchange 48 to 63 began in October 2011. In July 2013 the roadway section between milepost 52 and 63 was completed and opened to traffic. The section between milepost 48 and 52 was substantially complete in January 2014; however, the third lane opening is being delayed until May of 2015 to coincide with the completion of the widening and rehabilitation of the Bass River bridge at milepost 51.9. Construction on the southernmost section between milepost 35 and 48 began in September 2014 and is expected to be completed in 2018. The section between milepost 30 and 35 is currently on hold.

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**SUBJECT:** GSP Shoulder Restoration and Improvements Program, MP 83 to 100

**DESCRIPTION:** This project provides for the reconstruction of the Garden State Parkway between Mileposts 83 and 100 to restore full width left and right shoulders. The purpose of the project is to improve safety along this priority highway corridor and improve the roadway to conform to current design standards.

**SCHEDULE:** Construction is anticipated to be complete by the end of June 2015, except for the area between MP 95 and 97 which will be completed in October 2015.

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**SUBJECT:** GSP Interchange 88/89 Improvements

**DESCRIPTION:** The purpose of this joint Ocean County/NJTA project is to improve the current traffic flow pattern, relieve congestion on local roads, and enhance traffic safety at Garden State Parkway Interchanges 88 and 89. Improvements being constructed include service roads connecting the existing Interchange 89 ramps to a full interchange at Interchange 88 with new southbound entrance and exit ramps located within the southeast and southwest quadrants of the N.J. Route 70 and Garden State Parkway crossing; and new ramp connections to the service roads. Access to Route 70 will from the service road.

**SCHEDULE:** Construction began in the fall of 2012 and is anticipated to be completed by July 2015.

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**SUBJECT:** GSP Interchange 91 Improvements (Burnt Tavern Road)

**DESCRIPTION:** The purpose of this joint Ocean County/NJTA project is to improve the current traffic flow pattern, relieve congestion on local roads, and enhance traffic safety at the Garden State Parkway Interchange 91 with Burnt Tavern Road and Lanes Mill Road. Currently, this is a partial interchange with an exit ramp in the southbound direction and an entrance ramp in the northbound direction. Ocean County is taking the lead on this project and is administering the feasibility assessment, project scoping, permitting, final design and construction for the proposed construction of a new southbound Parkway entrance ramp and northbound Parkway exit ramp.

**SCHEDULE:** Construction began in the fall of 2014 and is anticipated to be completed by the end of 2016.

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**SUBJECT:** GSP Interchange 105

**DESCRIPTION:** The purpose of this project is to improve access to and from the Garden State Parkway at Interchange 105 as well as safety and operations at the Hope Road/NJ Route 36 intersection in the Boroughs of Tinton Falls and Eatontown, Monmouth County. The proposed interchange improvements include the reconstruction of the Hope Road/NJ Route 36 intersection, construction of a new southbound connection from the GSP local (outer) roadway to Wayside Road, and the addition of a second northbound deceleration lane from the Garden State Parkway local (outer) roadway to Interchange 105. Improvements will be constructed under two separate construction contracts. The first construction contract will construct the improvements at the Hope Road/NJ Route 36 intersection. The second construction contract will construct the southbound connection to Wayside Road and the second northbound deceleration lane.

**SCHEDULE:** The first construction contract began construction in the spring of 2014 and is anticipated to be completed by June 2015. Final design for the second contract is anticipated to be completed in the spring of 2015 and the project is anticipated to start construction in the summer of 2015 and be completed in May 2017.

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**SUBJECT:** GSP Interchange 109

**DESCRIPTION:** The purpose of this project is to improve the safety and operations of Interchange 109 in Middletown Township, Monmouth County. Proposed improvements will eliminate vehicular traffic queues extending onto the Garden State Parkway northbound mainline local roadway from the northbound exit ramp at Interchange 109; and improve traffic flow of traffic destined to/from the Garden State Parkway by mitigating peak hour traffic congestion along Newman Springs Road within the vicinity of the interchange.

**SCHEDULE:** Preliminary Design began in the fall of 2014 and Final Design is anticipated to be complete in December 2016. The project is anticipated to start construction in the spring of 2017 and be completed in the spring of 2019.

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**SUBJECT:** GSP Interchange 125

**DESCRIPTION:** This project involves the implementation of capacity and safety improvements at Interchange 125 located in the Borough of Sayreville, Middlesex County. The interchange will be reconfigured to accommodate future traffic growth resulting from the development of the adjacent waterfront. New ramps from the Parkway southbound and to the Parkway northbound will provide full access to Chevalier Avenue and the waterfront development. The project also includes local roadway improvements along Chevalier Avenue and Main Street Extension.

The project is being coordinated with the Sayreville Economic Redevelopment Agency (SERA), SERA's selected redeveloper of the waterfront (Sayreville Seaport Associates) and Middlesex County. Final engineering is underway.

**SCHEDULE:** Final Design is expected to be completed in 2015. Construction should be completed in 2018.

---

**SUBJECT:** GSP Interchange 145

**DESCRIPTION:** The purpose of this project is to improve the safety and operations of Interchange 145 within the City of East Orange, Essex County to accommodate the high travel volume at this interchange between I-280, the Garden State Parkway and the local road network. The proposed improvements will include the replacement of the Central Avenue bridge over the Garden State Parkway including relocation of the bridge abutments to allow the widening of the Parkway. The widening will allow for two standard width deceleration lanes to the Interchange 145 toll plaza in the northbound direction and two standard width acceleration lanes from the Interchange 145 toll plaza to the southbound Garden State Parkway to be constructed.

**SCHEDULE:** Final Design is anticipated to be complete in the spring of 2015 and the project is expected to start construction in the summer of 2015 and be completed in the winter of 2017.

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**SUBJECT:** GSP Interchange 163

**DESCRIPTION:** This project will implement safety improvements at Interchange 163 located in the Borough of Paramus, Bergen County. Interchange 163 exiting ramps to Route 17 have accident rates in excess of 2 times the statewide average. This is due in part to the existing left side location of the exits. This project involves the relocation of the Route 17 exits from the left side of the Parkway to the right side. This will be accomplished by relocating the Garden State Parkway into the median area. Six new structures will be constructed over Route 17 and four existing structures will be rehabilitated.

**SCHEDULE:** Construction started in June 2014 and is expected to be completed in May 2017.

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## AGENCY: NJ TRANSIT

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NJ TRANSIT has over the last decade established a series of ongoing programmatic planning efforts involving both the use of in-house staff; and using NJT's on-call consultants, selected through a competitive process, to augment NJT's staff capabilities to undertake specific analyses of proposals, issues and specific needs. In addition, depending on the scale of the proposed work effort and the skills and experience needed to successfully undertake that body of work, NJT will issue RFP's and select consultants this way through a competitive process. All work within these programs is regulated by the availability of funding whether within NJT's budget or through partnerships with other agencies.

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**SUBJECT:** Community Services Planning and Support

**DESCRIPTION:** This program focuses on planning, analysis, and support relating to human services transportation programs. Among NJT's responsibilities is administering the distribution and use of Federal funding intended for providing vehicles and operating assistance for community centered paratransit and other related services. Planning efforts include support for the development of local human services transportation plans, analysis of the performance, effectiveness, coordination with and demand for human services transportation programs/efforts, analysis of funding sources and mechanisms, program oversight, and other planning and analyses relating to community transportation services.

**SCHEDULE:** Ongoing, as required

**PRODUCT:** Plans/reports and other services, as required

---

**SUBJECT:** Corridor Planning and Analysis

**DESCRIPTION:** NJ TRANSIT maintains this program area to determine the suitability of transit in a variety of local or regional "corridors". It provides for development and analysis of preliminary implementation concepts for transit capital improvements, transit alternatives, operating schemes, and assessment of conceptual level environmental impacts. Work will be undertaken in select corridors to work with groups of communities where opportunities exist to leverage existing public transit services in support of redevelopment projects or more development because of the existence of underutilized, poorly functioning or vacant parcels of land. NJT will be focusing as much as is practical on communities on the inner portions of our transit services consistent with the population and employment growth projections being finalized now by NJTPA. Assessments consider a wide range of issues including land use, demographics, existing travel patterns, local planning and zoning, transit modes and environmental impacts. At

times within this program, NJT has teamed with MPOs, counties and other agencies in joint planning efforts. NJ TRANSIT has historically engaged in such assessments for commuter rail, light rail, and bus/BRT.

**SCHEDULE:** Ongoing, as required

**PRODUCT:** Analyses and reports as required

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**SUBJECT:** Qualitative & Quantitative Research

**DESCRIPTION:** Through this program, NJ TRANSIT regularly updates our knowledge of customer needs and preferences for use in our travel demand forecasting process, to address FTA requirements and ensure travel demand forecasting computer models are current in the background information they use. Surveys of our customers' needs and assessments of our transit services will be undertaken and published/made public. They will report on how well we are meeting our customer's expectations. This compliments other functional and financial measures. Market research initiatives are also undertaken to address specific issues. For example, prior to initiating a new campaign to convince young people not to walk on railroad tracks, a special effort was undertaken to speak to parents and teenagers respectively concerning what message and medium would be most effective. This information was used to produce public service announcements on the radio and TV. In combination with existing survey efforts, a focus will be placed on dimensioning trends in transit use and their origins, specifically related to demographic and work place changes. Also, some efforts may be undertaken to determine the effectiveness of various operating, fare level and other changes to cause shifts from oversubscribed transit services to others which have room to accommodate more demand. This is especially true of some trans-Hudson market demands on NJT rail and bus services.

**SCHEDULE:** Ongoing, as required

**PRODUCT:** Analyses and reports as required

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**SUBJECT:** Rail Operations and Infrastructure Planning

**DESCRIPTION:** This program area provides for planning support for rail-related initiatives and associated infrastructure needs and issues. This work primarily defines the infrastructure needs based on proposed operating plans which address projected ridership on rail transit services and/or to address safety, storm and related forms of resiliency and reliability concerns. It includes basic operations planning support (schedule development, crew and equipment plans, and train performance analysis), as well as development

of network performance simulations and interpretation/reporting. The program also provides for rail infrastructure planning and conceptual design for rail transit projects. Among the continuing activities under this program is cooperating and partnering with Amtrak and FRA as they progress their plans for improving the Northeast Corridor and to address trans-Hudson and Midtown Manhattan rail capacity.

**SCHEDULE:** Ongoing, as required

**PRODUCT:** Analyses and reports as required

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**SUBJECT:** Ridership Forecasting

**DESCRIPTION:** This program area involves development of ridership and revenue forecasts, as well as development and updating of forecasting models, in support of major capital projects, transit service planning, major service initiatives, and various other efforts. Much of the work undertaken is to comply with Federal Transit Administration (FTA) requirements and guidelines regarding preparation of travel demand forecasts for use in seeking FTA funding. In addition, this program provides support for MPO travel and air quality model development and training, Census, demographic and other travel data preparation and analyses, and other forecasting work. A continued main thrust of this work is to complete travel demand forecasts for a 2040 horizon year, but with data provided for intervening 5-year periods, to address FTA's and NJT's longer term planning requirements. Also, NJT will be intensely focusing on short term travel demand as the NY-NJ-PA region economy grows. With large blocks of new office space being built and leased in downtown around the WTC and on Midtown Manhattan's West Side, it is expected that trans-Hudson transit demand will grow placing more stress on the trans-Hudson rail and bus facilities which are today operating at capacity in key time periods.

**SCHEDULE:** Ongoing, as required

**PRODUCT:** Analyses, data and reports as required

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**SUBJECT:** Stations, Access & Site Planning

**DESCRIPTION:** This program focuses on planning for transit facility needs and prioritization for future capital investment, including specialized facility design, bike/pedestrian/ shuttle access, and potential ADA station improvement phasing. It includes analysis of existing conditions relating to physical conditions of stations and facilities, access to transit facilities, and parking issues including parking lot inventories, parking management

and accommodating projected growth. Within this program, NJT broadly monitors station, access by all modes and parking needs on its transit system and formulates proposed actions and projects to address those needs. Attention to shuttle buses, use of bicycles and walking are given attention within this body of work.

**SCHEDULE:** Ongoing, as required  
**PRODUCT:** Analyses and reports as required

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**SUBJECT:** Transit-Friendly Planning, Land Use & Development

**DESCRIPTION:** Through this program, NJ TRANSIT provides technical planning assistance to interested municipalities to create and implement sensitive, community-based “vision” plans to guide local growth in a comprehensive manner, especially in areas where transit could stimulate new development opportunities and create strong community centers for people to live, work and socialize. A critical component of this work is community outreach, engagement, consensus building and partnerships. Many accomplished projects successfully brought NJ TRANSIT and the targeted community together with state agencies, counties, MPOs, advocacy groups and not-for-profit organizations so that resources could be leveraged and common goals and objectives achieved. In many communities, successful vision plans have been incorporated into Master Plans and/or adopted as enhanced zoning or new redevelopment plans designed to specifically implement mixed-use Transit Oriented Development (TOD). Within this program, a primary activity has been NJT’s continued support for the HUD-funded Regional Plan for Sustainable Development, known locally as *Together North Jersey*, as well as other efforts and initiatives spawned by *Together North Jersey*.

**SCHEDULE:** Ongoing, as required  
**PRODUCT:** Plans/reports as required

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**SUBJECT:** Light Rail Planning

**DESCRIPTION:** Consistent with a multimodal approach, work will continue focused on accommodating future demand on our light rail services, especially the Hudson Bergen Light Rail Line, and extensions of that service which can be accommodated within the limits of the trunk line portion of that line.

**SCHEDULE:** Ongoing, as required  
**PRODUCT:** Plans/reports as required

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**SUBJECT:** Bus Rapid Transit Planning

**DESCRIPTION:** Work will continue to progress both by singularly by NJT and in partnership with counties, to plan for future BRT projects, and to otherwise improve bus services so they operate faster, more reliably and address changing customer needs. Particular attention will be given to the phasing and scalability of bus improvements to effectively use available capital funding and fit within tight operating funding constraints. Regarding trans-Hudson bus needs, NJT will continue to cooperate and work with the Port Authority of NY & NJ in their efforts to identify and progress remedies to address the capacity issues which exist and are expected to increase in the future.

**SCHEDULE:** Ongoing, as required

**PRODUCT:** Plans/reports as required

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**AGENCY: NEW JERSEY MEADOWLANDS COMMISSION**

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**SUBJECT:** Meadowlands District Transportation Plan Update

**DESCRIPTION:** The task will fulfill the requirements of the Hackensack Meadowlands Transportation Planning Act and update the Meadowlands District Transportation Plan (the Plan), adopted on November 28, 2007. The Update will evaluate the District's transportation needs incorporating the recent growths and transportation improvement projects in the District within the past five years. The Update will re-confirm the candidate transportation improvements recommended in the previous Plan, and renew the project recommendations that are needed to address existing transportation needs and support the District's developments over a time frame that reaches to the year 2035. The Update will estimate the cost of the recommended transportation improvements and update the transportation mitigation assessment framework to assure fair and sustainable growth in the District.

**SCHEDULE:** Scoping is slated to begin in 2015.

**PRODUCT:** Updated Meadowlands District Transportation Plan.

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**AGENCY: NEW YORK STATE DEPARTMENT OF TRANSPORTATION (NYSDOT)**

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**SUBJECT:** Tappan Zee Bridge/I-287 Corridor

**DESCRIPTION:** A Major Investment Study/Alternatives Analysis is currently in progress for this corridor which includes the Tappan Zee Bridge and extends for 30 miles from the I-287/I-87 interchange in Suffern, New York to the I-287/I-95 interchange in Port Chester, New York. The study will identify and evaluate alternative proposals to address identified transportation needs for the corridor while taking into account the structural needs of the Tappan Zee Bridge as well as other existing New York State Thruway infrastructure.

**SCHEDULE:** On-going - Tiered EIS Process

**PRODUCT:** The final product will be a completed EIS.

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**AGENCY: PORT AUTHORITY OF NEW YORK & NEW JERSEY (PANY&NJ)**

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**SUBJECT:** Cross Harbor Freight Movement Program EIS

**DESCRIPTION:** The Port Authority has assumed responsibility for completion of the Cross Harbor Freight Movement Project EIS initiated by the New York City Economic Development Corporation. Working with the Federal Highway Administration (FHWA) as lead agency for the NEPA process, PANYNJ is conducting a tiered EIS to evaluate potential diversion of cross-harbor freight shipments to rail and other alternatives to truck shipment, as well as rail network infrastructure and operational capacity in a broadly defined regional study area.

**SCHEDULE:** PANYNJ conducted analyses of potential freight markets and alternative modes and alignments through 2011. The project team presented findings and results of alternative screening to the EIS Stakeholder team in January 2012 and continued its analysis. PANYNJ and FHWA released the Tier I Draft Environmental Impact Statement in November, 2014, initiating an extended period for interagency and public review and comment

**PRODUCT:** Publication of NEPA Tier I DEIS, 2014

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**SUBJECT:** Comprehensive Regional Goods Movement Action Program (G-MAP)

**DESCRIPTION:** PANYNJ, in cooperation with the New Jersey and New York State departments of transportation, has developed a Comprehensive Long-Term Regional Goods Movement Action Program (G-MAP). The Program provides the region with a recommended vision and strategy, and the project concepts required to create an effective and expeditious regional goods movement network by 2040. Additionally, the program reflects documentation of current conditions and pertinent transportation plans, describes innovative goods-movement practices, and incorporates visioning and needs assessment in order to identify and prioritize recommended long-term regional goods movement goals and strategies. Complementing state-level and metropolitan planning processes, the program provides a regional framework and includes early-action improvements and approaches for coordinating implementation of priority projects. The effort also anticipates federal initiatives to create a national freight strategy and assist regional efforts to achieve more efficient and sustainable goods-movement services for trade, commerce, and metropolitan-area consumers.

**SCHEDULE:** This planning effort commenced in late 2009. The G-MAP partners have completed technical work, targeted stakeholder outreach, and a draft plan, which has been presented to NJTPA and to the New York Metropolitan Transportation Council (NYMTC). Public launch and progress on early actions and longer term initiatives is anticipate through 2015.

**PRODUCT:** Report and Recommendations

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**SUBJECT:** PATH Extension to Newark Liberty International Airport/NEC Rail Link Station

**DESCRIPTION:** In September, 2012, PANYNJ's Board of Commissioners directed staff to explore the extension of the current Newark Penn Station terminus of the World Trade Center-Newark PATH line to the Northeast Corridor Rail Link Station, where travelers could pick up AirTrain/Newark for connection to the airport's terminals and parking lots.

The renewed examination of this long-proposed link also includes evaluation of the potential to include park and ride capacity at the terminus of the PATH system extension to accommodate commuters and others traveling to and from Lower Manhattan and other points served by the PATH system.

The study will include updating cost estimates and ridership projections for the extension, as well as time frames for planning, intergovernmental coordination and approval, and construction.

**SCHEDULE:** PANYNJ team mobilized September 2012; technical work and interagency planning consultation are ongoing.

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**SUBJECT:** West-of-Hudson Regional Transit Access Alternatives Analysis (WHRTAS)

**DESCRIPTION:** MTA and its affiliate agency Metro-North Railroad (MNR) are conducting the West of Hudson Regional Transit Access Study (WHRTAS) Alternatives Analysis (AA). The study is looking at various transit alternatives to provide improved and more cost-effective commuter service between central Orange County and New York City and improved transit access to/from Stewart International Airport. The AA study is being conducted in two Phases. PANY&NJ jointly funded Phase 1 of the AA initiative with MNR, in close consultation with NJ Transit and other partner agencies.

**SCHEDULE:** The AA commenced in June 2008. MNR released a long-list of alternatives in December 2008. Analysis and public outreach continued through 2009-10. Metro North led interagency and public outreach in 2010, presenting a comparative analysis of a screened list of alternatives, and recommending continued development of both commuter rail and regional bus alternatives. In May 2012, MNR released a Phase I AA Screening Report which identified a short list of alternatives for further study. Metro-North initiated the second and final phase of the WHRTAS AA in 2012. During this phase, Metro-North will be narrowing the short list of alternatives to a Locally Preferred Alternative. The study is being advanced to, at a minimum, determine the most viable mode and alignment for future implementation. As part of Phase 2, Metro-North is evaluating Port Jervis Line Capacity Improvements that form the basis for the No Build Alternative. These improvements include identifying a mid-point yard location, and passing sidings, or double tracking a portion of the line. These improvements would allow for

more frequent peak and off-peak services and the introduction of zonal and reverse peak services. The anticipated completion date for Phase 2 is in early 2015.

**PRODUCT:** West of Hudson Regional Transit Access Study

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## AGENCY: TRANSCOM FHWA-FUNDED PLANS AND ACTIVITIES

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**SUBJECT:** TRANSMIT (TRANSCOM's System for Managing Incidents and Traffic) Upgrade and Enhancements

**DESCRIPTION:** TRANSCOM conducted an FHWA-funded operational test in the early 1990's using electronic toll collection (ETC) technology to detect incidents. The test successfully demonstrated that ETC technology could be used for traffic management and incident detection. TRANSMIT Phase I was a network of 20 roadside readers (at approximately 1.5-mile intervals along 19 miles of the Garden State Parkway and New York State Thruway) that use E-Z Pass toll transponder equipped vehicles as anonymous probes. TRANSMIT collects aggregated travel time and speed data from these vehicles and compares them to a historical database to detect congestion-causing incidents. TRANSCOM's Operations Information Center relays this incident information to the New York State Thruway Authority and the New Jersey Turnpike Authority – GSP Division to allow for rapid response and clearance, as well as directly to motorists (through variable message signs or highway advisory radio) to reduce congestion. The final evaluation reports for the project have been completed.

Since this time, TRANSMIT has been expanded to over 2500 one-way miles of roadway to provide travel times and speeds to our member agencies and the traveling public. TRANSMIT has been deployed on major roadways in Bronx, Kings, Queens, New York, Nassau, Suffolk, Westchester, Rockland, Orange, and Richmond counties in New York; and Bergen, Essex, Morris, Camden, Gloucester, Middlesex, Hudson, and Union counties in New Jersey.

As noted, this system was developed in the mid 1990's. The software has reached end-of-life (EOL) with all vendors, such as Microsoft, and is no longer able to be supported. Given the operational and traveler information dependencies' that the TRANSCOM Member Agencies have with the system it needs to be upgraded. In addition to the baseline system update to be conducted, a number of enhancements shall be developed. Based upon feedback from the TRANSCOM Member Agencies, the following list of additional functionalities has been identified:

- |                                  |                                       |
|----------------------------------|---------------------------------------|
| 1) Origin/Destination (O/D)      | 6) O/D by 15 minute time period       |
| 2) Path Travel Times             | 7) O/D approach for missed reads      |
| 3) TRANSMIT new device driver    | 8) Save O/D, path travel time queries |
| 4) Travel Times by Vehicle Class | 9) Fleet Management Application       |
| 5) O/D by Vehicle Class          |                                       |

**SCHEDULE:** The upgrade and enhancement work is expected to begin in the first quarter of 2013 with the work completed mid-2014.

**PRODUCT:** A more dependable and reliable application with increased capabilities to provide travel times and speeds to our member agencies and the traveling public.

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**SUBJECT:** TRANSCOM OpenReach (OR) System Enhancements and Data Interfaces

**DESCRIPTION:** The original Regional Architecture (RA) system provided TRANSCOM member agencies' operations centers with a gateway to a wide area network of the region's Transportation Management Centers (TMCs). Through this network, agencies shared incident and construction data, transit schedules, VMS and HAR information, CCTV and real-time traffic & transit conditions. This database of shared data is the foundation for both the New Jersey and New York 511 Traveler Information Systems. The TRANSCOM RA System provided technical coordination among TRANSCOM member agencies to ensure that all ITS technologies implemented in the region are designed to be compatible for communications among the systems and with the ITS National Architecture. The TRANSCOM RA System itself provided the links between systems to make these communications possible. TRANSCOM's OpenReach (OR) Project transformed the TRANSCOM RA system from a system that can only be accessed by a centralized workstation at each agency to a system that will be accessible anywhere Internet access is available. The TRANSCOM OR uses the Google map system to improve the user friendliness of the system. Additionally, TRANSCOM OR provides the real-time event and link content that is made available to the public via TRANSCOM's free data service (data.xcm.org).

Data interfaces have been developed between the TRANSCOM OR system and ConnDOT's Crescent and NYSDOT Region 10 transportation management systems. Data interfaces will also be developed between the OR system and other member agencies' Transportation Management systems, such as the NYS Thruway Authority's CARS system. These DIs will ensure the reliable transfer of information between these systems without the double entry currently required by the various operations center staffs.

Also, the video layer will be enhanced to improve reliability by directly connecting the member agencies' video feeds to the TRANSCOM OR on a separate connection. This work will also allow for the sharing of video from a member agency, which presently does not have a web browser for their video feeds.

**SCHEDULE:** Implementation of the original RA was completed in 2005. The implementation of the initial TRANSCOM Open Reach system has been completed. The NYSDOT Region 10 Data Interface was completed in 2010. The data interface between the TRANSCOM Open Reach system and ConnDOT's system was completed in 2011. The NYS Thruway CARS DI was completed in 2012. The enhanced video layer is expected to be completed in mid-2013.

**PRODUCT:** A seamless communications network for regional traffic operation centers accessible from any location with internet access. This network will also link the multi-agency remote video feeds through the TRANSCOM OpenReach system.

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**SUBJECT:** Travel Time Data Acquisition

**DESCRIPTION:** As described earlier, TRANSCOM has implemented the TRANSMIT system to obtain travel time and speed data on many of the roadways in the NY/NJ/CT metropolitan

area. TRANSCOM's Member Agencies also have other technologies, such as loops, radar, and video, on certain roadways to determine travel times and speeds. However, many roadways in the region do not have any technologies deployed which could provide this important transportation information. In order to assist in filling this gap, and to support the USDOT Section 1201 Rule for provision of real-time information, this project will purchase this travel time and speed data from transportation information vendors to provide this information for the major roadways within the metropolitan area.

This data will then be incorporated into the TRANSCOM data fusion engine, along with all the additional travel times obtained from TRANSMIT and the other technology sources, to provide a robust and highly viable database of travel times for the roadways throughout the metropolitan area. The TRANSCOM data fusion engine's software is capable of optimizing the travel time data for each segment based on rules established by the member agencies.

This data will then be distributed to the member agencies through the TRANSCOM OpenReach system and to the traveling public by a variety of means including 511 websites and phone systems, personalized traveler information services, and variable message signs.

**SCHEDULE:** It is expected that TRANSCOM will begin purchasing this data in mid 2013 and continue for approximately two years.

**PRODUCT:** Travel time and speed data for major roadways within the NY/NJ/CT metropolitan region which will be provided to the TRANSCOM member agencies and to the traveling public.

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**AGENCY: NEW JERSEY OFFICE OF HOMELAND SECURITY & PREPAREDNESS**

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**SUBJECT:** New Jersey Critical Transportation Need (CTN) Evacuation Operations Plan

**DESCRIPTION:** This is a bus mobilization plan funded by FEMA to provide motorcoach evacuation planning and operations support to New Jersey for the segment of the population that requires transportation assistance to evacuate an area and that will be transported to the State Supported Shelters or out of state in an event.

**SCHEDULE:** The planning process began in May 2012 and will continue through 2014.

**PRODUCT:** A CONPLAN and OPLAN have been developed that that are divided into three hurricane evacuation scenarios (i.e., Shore Region, UASI Region, and Full Coastal which includes the Delaware River Region). In 2014 there will be additional work on the project that includes continual development of the plan, incorporating air and rail in the plan, host state planning and training and exercising state and county agencies on the plan.

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**AGENCY: REGIONAL CATASTROPHIC PLANNING TEAM (“RCPT”)**

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**SUBJECT:** Established in 2008, the Regional Catastrophic Preparedness Grant Program (RCPGP) is a groundbreaking Department of Homeland Security initiative to encourage collaborative emergency planning in America’s largest urban regions.

**DESCRIPTION:** The RCPGP has three primary goals: 1) fix shortcomings in existing plans; 2) build regional planning communities; 3) link operational and capabilities-based resource planning. The regional project site for New York City and northern New Jersey also includes Long Island, several New York counties, and parts of Connecticut and Pennsylvania. With a population of 22 million people, this area is home to nearly 1 in every 14 Americans.

In early 2008, the Urban Area Working Groups in New York City and northern New Jersey came together to charter the Regional Catastrophic Planning Team (RCPT), a steering committee to guide RCPGP-funded activities in their region. RCPT members represent the interests of many stakeholders in their communities, including counties, cities, businesses, non-profit groups and volunteer efforts. In 2009 a program office (the Regional Integration Center) was established with dedicated planners to work with the public agency partners and other stakeholders in the region to strengthen collaboration and preparedness.

**SCHEDULE:** The RCPT received four rounds of RCPGP funding (FY08-FY11) and is now in its final stages with termination set for August 31, 2015.

**PRODUCT:** A variety of projects have been undertaken to 1) assess the state of regional emergency planning, 2) review existing protocols for regional operations, and 3) describe beneficial opportunities for collaboration, resulting in dozens of plans and tools. The table below lists the RCPT projects underway in 2014-2015.

<b>PROJECT</b>	<b>GOALS</b>
ACCESS AND FUNCTIONAL NEEDS GUIDANCE AND PLANNING ASSISTANCE PROJECT	Provides planning considerations and guidance documents to assist emergency managers with meeting the Americans with Disabilities Act (ADA) guidance and accommodations for people with disabilities and others with access and functional needs in four specific areas: 1) Evacuation, 2) Public Information and Notification, 3) Sheltering and 4) Transportation.
CATEX 2014 PUBLIC-PRIVATE INFORMATION SHARING DRILL	CATEX 2014 is the continuation of a regional public-private exercise series begun in the National Capitol Region and builds on the public-private “regional integrated planning” underway with the East Coast Corridor Coalition and the Multi-State Fleet Response Working Group. Bringing together public agencies and the lifeline sectors of electric, food and fuel, these public-private dialogues are developing solutions for private sector response challenges in

	<p>large scale disasters. The CATEX 2014 drill tested communication protocols for essential elements of information for those lifeline sectors.</p> <p>As a prelude to CATEX 2014, the Lifeline Sectors Response Coordination Workshop brought together representatives of the electric, food and fuel sectors, along with public agencies, to compare practices in disaster preparations and response, to identify operational chokepoints, and to identify essential elements of information. Sector working groups were formed to explore potential solutions to operational challenges and information sharing strategies to expedite private sector response and recovery across the Northeast.</p>
<p>CORPORATE EMERGENCY ACCESS SYSTEM REGIONALIZATION &amp; MOBILE APP</p>	<p>The Corporate Emergency Access System (CEAS) pre-authorization database system is used to facilitate businesses rapid entry for critical employees to restricted areas following a disaster to help them mitigate damage and loss. The RCPT built-system spans jurisdictional boundaries by developing a commonly accessible web-based portal to authenticate credentials, along with an application for use in the field.</p>
<p>CRITICAL INFRASTRUCTURE RESILIENCY PROJECT AND LIFELINE SECTOR RESPONSE COORDINATION WORKSHOP</p>	<p>Focused on improving planning and preparedness for large scale power outage incidents through collaborative engagement with utility operators and emergency service agencies. Initially focusing on electric power restoration support, next on critical system dependencies, and lastly on facility resiliency.</p> <p><u>Phase Three (2013-2015)</u> leveraged previous area studies and partner agency technology to provide infrastructure vulnerability assessments at thirty facilities representing five critical sectors. Information on facility “external critical needs” and “restoration time objectives” was compiled in a data-driven decision support tool to provide scenario-based regional impact reports with recommendations for how public agencies can better prepare to support restoration of critical systems.</p>
<p>DOZER DEBRIS MANAGEMENT ELECTRONIC PLANNING TOOL UPGRADE</p>	<p>This tool newly enhanced Dozer tool guides users through the compilation and organization of essential information to produce a debris response action document. The tool is a stand-alone software application designed for use either prior to or during a debris mission, and containing guidance for new users along with references to more comprehensive sources of information and assistance.</p>

<p>EMERGENCY MANAGEMENT CATASTROPHIC EXERCISE PROGRAM &amp; EXERCISE-IN-A-BOX</p>	<p>The Exercise-in-a-Box contains three exercise modules with three exercise scenarios for a total combination of nine possible exercise-in-a-box deliverables. Exercise modules are at the strategic, operational and tactical levels. Exercise scenarios include an IND detonation, major hurricane and cyber attack. Exercise goals are focused around regional coordination and communication.</p> <p>The RCPT hosted three local pilots to test the concepts and injects in the EMCEP Exercise-in-a-Box product and then conducted a region-wide Trinity Regional Functional Exercise based on the IND scenario and strategic level combination.</p>
<p>EMERGENCY MANAGEMENT COLLOQUIUM TRAINING PACKAGE</p>	<p>A series of five courses that integrate the core principles of emergency management and the plans and tools developed by the RCPT. These courses help to build specific skill sets for emergency managers, executives and agency representatives that will support a catastrophic response:</p> <ol style="list-style-type: none"> <li>1. RCPT Primer - online</li> <li>2. EOC and Catastrophic Emergencies - online</li> <li>3. Just-in-Time EOC - online</li> <li>4. EOC and Catastrophic Emergencies - classroom</li> <li>5. EOC Leadership Development Lab - classroom</li> </ol> <p>Seven pilot sessions hosted around the region were used to hone the learning objectives and activities for these trainings.</p>
<p>ESF JOB AIDS</p>	<p>This set of job aids for Emergency Operations Center staff includes mission, first steps, key and supporting agencies, plans, and tools for each of the 15 federal Emergency Support Functions (ESFs). Tips for success in performing the EOC's three missions of information management, resource management and consequence management are also included.</p>
<p>HOUSING RECOVERY &amp; RAPID REPAIR (H3R)</p>	<p>Provides an actionable plan for rapid housing repair to get residents back into their homes as quickly as possible following a catastrophic incident. The Program Plan outlines how to enable rapid mobilization of coordinated construction efforts across the region and the Bid Specification helps in procuring appropriately qualified contractors quickly.</p>
<p>LIGHTNING BOLT EOC GAME</p>	<p>A total immersion exercise that puts emergency managers in the center of a catastrophic response, challenging their EOC skills. The simulation focuses on breaking down silos, managing resource requests, and processing information. Players are also challenged to identify and solve emerging and cascading problems.</p> <p>Following the successful implementation of three Lightning Bolt Pilot tests, the RCPT is supporting stakeholders as they bring this EOC simulation to their jurisdictions. Support</p>

	includes providing planning milestones, advice on customizing the MSEL, SimCell training, and day of logistics.
MASS FATALITY FIELD OPERATIONS GUIDES	Focuses on three specific operations established in the Mass Fatality Response System: Scene, Postmortem (Morgue), and Antemortem (Victim Information Centers) operations. Serve as tools to assist medicolegal jurisdictions in the establishment and management of mass fatality operations by utilizing checklists, flowcharts, and Job Action Sheets.
MASS FATALITY RESPONSE SYSTEM TRAINING & EXERCISE	Hosted annually since 2010, the week-long program assembles representatives from a number of regional medical examiner/coroner offices and emergency management offices, and representatives from state, federal, private and military entities. Attendees participate in didactic training, facilitated discussions and field training related to command and control, scene investigation and recovery, as well as disaster morgue operations.
NUCLEAR RESPONSE PLAN	Regional plan that focuses on the tools used to handle chaos: coordination, communication and effective management. Gives emergency managers a framework to handle the complexity of an improvised nuclear device response by defining seven key actions for the response and developing procedures and objectives to execute each of these actions to bring order from chaos.
PARTICIPATORY URBAN PLANNING	<p>This Whole Community toolkit addresses long-term planning and recovery challenges by promoting effective coordination between the government, non-governmental organizations (NGOs), community-based organizations (CBOs), faith-based organizations (FBOs) and the public at large. Includes five steps for the government and the community to work together following a disaster: activate, assess, envision, plan and implement.</p> <p>The RCPT hosted three PUP sessions in the region, which brought together 30-40 representatives from all levels of government, local NGOs, academia, and the private sector to strategize interim housing for the gap between short-term emergency shelters closing and the return home after a disaster.</p>
QUICK TOUCH EOC PLAN APP	Provides a one-stop-EOC-shop for users to access and navigate RCPT developed plans and tools. Through a mobile device application, users can easily access plans and quick sheets.
STRATEGIC RISK REVIEW	Identifies inherent and emergent risks facing the region, overarching challenges to effective risk management, specific barriers faced by the region and methods to increase risk

	capacity. Research findings provide a framework for leaders to learn from “near misses” and prioritize risk reduction. The Playbook and Risk Card Deck detail a process for local risk review and tie risk management concepts to national planning scenarios.
SYNDROMIC SURVEILLANCE SYSTEM	The system provides templates and protocols that state and local health departments can use to share information in real-time to detect disease outbreaks, gather data on disease occurrence and communicate situational awareness during a catastrophic health event. A syndromic model that provides synthesized data analyses and visualization to decision makers is also included.
TRINITY REGIONAL FUNCTIONAL EXERCISE	The RCPT conducted a Regional Functional Exercise (Trinity) on October 22, 2014. Using the EMCEP Toolkit, the exercise focused on the emergency management mission of bringing resources from a variety of sources into a common management structure to provide logistical and information support to a catastrophic response. The exercise validated regional coordination, communication, and information sharing among regional organizations during a one day, IND event scenario. Five EOCs were activated, along with a FOB location and the UACG for exercise play.
VIDEO SERIES	Contains five short videos that answer key questions about the role of emergency managers and preparedness in a catastrophic response. Videos include: <ul style="list-style-type: none"> <li>• The Essential Emergency Manager: What They Do and How They Do It</li> <li>• Stronger Community, Better Response: Connecting Community Organizations During Disaster</li> <li>• Managing Consequences During a Disaster: Solving Problems Together</li> <li>• Business Preparedness for Community Resiliency</li> <li>• Strategic Risk in Disaster Planning</li> </ul>

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**AGENCY: INTER-MPO ACTIVITIES  
CENTRAL JERSEY TRANSPORTATION FORUM**

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**SUBJECT:** The goal of the Central Jersey Transportation Forum is to achieve improved and more integrated regional land use and transportation planning that will result in a better quality of community life in Central Jersey. The geography is approximately twenty-five municipalities, encompassing parts of the DVRPC and NJTPA regions, generally focused around US 1, but also including US 206 and US 130. The geographic area includes the cities of Trenton and New Brunswick. This committed group has been meeting since 1999.

Beneficiaries include NJDOT, NJ Transit, NJ Office of Planning Advocacy, NJ Department of Community Affairs, TMAs, study-area counties (Mercer, Middlesex, and Somerset) and municipalities, and residents and employees in the region.

**DESCRIPTION:** The Central Jersey Transportation Forum serves a role unique in the state in bringing together a wide range of public, non-profit, and private organizations with a stake in its transportation systems to facilitate a regional, cooperative approach to solving problems. The geography is approximately 25 municipalities encompassing parts of the DVRPC and NJTPA regions in three counties, generally focused around US 1, but also including US 206 and US 130. The geographic area includes Trenton through New Brunswick. It is a shared project with NJTPA, though it has been staffed by DVRPC. The Forum has held steadily well-attended meetings for over 15 years.

The Forum moves toward its goal through an agreed-upon action plan. This involves work in four interrelated issues: east-west access, transit and alternative modes, land-use/transportation integration, and system-wide planning and coordination. Progress on goals is reported on through a handout prepared for each meeting and through discussions. Approximately every two years a survey is conducted to better understand how participants feel efforts are going and to refine the future direction of the Forum. The 2014 survey showed long-term commitment by participants with 66% of respondents engaged in this voluntary gathering for four or more years. Respondents largely felt the Forum has been effective and action oriented for the last several years. The full Forum normally meets three times per year with meetings of its Steering Committee and two action teams in between. The Route 1 Regional Growth Strategy (Rt1RGS) Action Team focuses on policy matters and the Transit Action Team on advancing various ways of increasing transit use. The Rt1RGS Action Team developed a Smart Growth Road Show which had been presented for chief elected officials in seven municipalities and one county at the end of 2014. Each municipality went on to adopt a resolution supporting coordinated Smart Growth planning with other Central Jersey municipalities.

The Forum improves coordination, provides technical support, and can initiate projects though it is not an implementing agency. It has been a long-term supporter of NJ Transit's Route 1 Bus Rapid Transit (BRT) project, including assistance with study and implementation of early action feeder route development.

**TASKS:**

1. Implement and track progress on the action plan; conduct annual survey of effectiveness; continue to improve the effectiveness of the Forum
2. Arrange and support Forum meetings, Steering Committee meetings, action team meetings, Road Show presentations, and other work sessions.
3. Prepare Planned Projects Status Report and update interactive web maps developed in Fiscal Year 2014 for the purpose of increasing information sharing.
4. Coordinate with state, county and local staff, including Offices of Emergency Management, to increase the resiliency of the transportation network by improving communication about road closures during storms and other major events.
5. Maintain communication among participants, including through Forum web pages.
6. Coordinate with related projects on behalf of the Forum.

**PRODUCTS:**

1. Presentation and communication materials
2. Summaries of analysis and the Planned Projects Status Report
3. Meeting highlights and other material evaluating progress

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## **AGENCY: INTER-MPO ACTIVITIES PLANNING AT THE EDGE**

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**SUBJECT:** Planning at the Edge, Delaware Valley Regional Planning Commission

**DESCRIPTION:** Since 2003, the Planning at the Edge collaborative effort among nine MPOs and numerous state agencies has held periodic meetings to address issues of mutual concern and to forge unique and meaningful partnerships. The Planning at the Edge Forum discusses inter-regional issues and projects with the goal of achieving cooperative solutions and to identify ways to address the issues, both formally and informally, through coordination with the pertinent statewide, planning and operating agencies and MPOs. Planning at the Edge has proven to be very successful in fostering enhanced coordination among neighboring MPOs and regions. The Forum has held numerous informative discussions, shared information, and developed and promoted appropriate changes to policies and processes to help make the mega-region a world-class destination.

The trends from the New York to Philadelphia to Baltimore mega-region are similar; commuting times and congestion will continue to increase; what used to be predominantly rural counties are seeing increased development pressure; demographic forecasts show growth, putting pressures on our already aging infrastructure.

The Planning at the Edge partners are motivated by mutual interest and shared policy objectives that promote integrated investments in mobility, environment, and economic development that are needed to guide the nation's growth in the 21st century. In some cases (Airport planning, for example), DVRPC already is designated as the responsible agency for multi-county and multi-state planning areas that exceed its formal boundaries. However, in most instances to date, cross-boundary planning issue identification, assessment and resolution occurs on a case-by basis, depending on the parameters of a particular project or a specific coordination initiative. These partnerships have proven to be invaluable around individual projects, such as the seven-state Regional Greenhouse Gas Initiative to reduce carbon dioxide emissions in the Northeast, developing a bi-state Smart Transportation Guidebook and forging an alliance to begin to evaluate the regional food system within a 100 radius which includes four states.

It is a fundamental opportunity to organize and direct the trillions of dollars of investments that will be made over the next generation in infrastructure, housing and urban development, environmental protection, and new energy systems and to harness these investments to improve the competitiveness and livability of the Planning at the Edge Region. DVRPC has recently issued a report that updates demographic trends and pertinent issues for each of the MPOs within the Planning at the Edge boundaries.

### **Planning at the Edge Agencies:**

#### **Baltimore Metropolitan Council (BALTOMETRO)**

<http://www.baltometro.org/>

Executive Director – Mr. Michael B. Kelly

Counties - Baltimore, Anne Arundel, Carroll, Harford and Howard, MD  
The Baltimore region is the nation's 19th largest market, with over 2.5 million people with projections to increase in population by 15% in 2025.

**Berks County Planning Commission (BCPC)**

<http://www.co.berks.pa.us/planning/site/>

Executive Director- Shannon L. Rossman, AICP

County- Berks, PA

Berks County's population is projected to increase 12% by 2020.

**Delaware Valley Regional Planning Commission (DVRPC)**

<http://www.dvrpc.org/>

Executive Director - Mr. Barry Seymour

Counties – Bucks, Chester, Delaware, Montgomery and Philadelphia, PA

Burlington, Camden, Gloucester and Mercer, NJ

The DVRPC region is the nation's 4<sup>th</sup> largest market with over 5.6 million people and is projected to increase in population by 12% by 2030.

**Lancaster County Planning Commission (LCPC)**

<http://www.co.lancaster.pa.us/planning/site/>

Executive Director - Mr. James Cowhey

County – Lancaster, PA

Lancaster County's population is projected to increase 38% by 2030.

**North Jersey Transportation Planning Authority (NJTPA)**

<http://www.njtpa.org/>

Executive Director - Ms. Mary K. Murphy

Counties – Bergen, Essex, Hudson, Hunterdon, Middlesex, Monmouth, Morris, Ocean, Passaic, Somerset, Sussex, Union and Warren, NJ

NJTPA's population is projected to increase by 16% to 7.8 million people by 2035.

**South Jersey Transportation Planning Organization (SJTPO)**

<http://www.sjtpo.org/>

Executive Director Mr. Timothy T. Chelius

South Jersey Transportation Planning Organization

Counties- Atlantic, Cape May, Cumberland and Salem, NJ

Overall, the regional employment is forecast to grow about 25% and regional population is expected to grow approximately 20% by 2035.

**Lehigh Valley Planning Commission (LVPC)**

<http://www.lvpc.org/>

Executive Director – Becky A. Bradley, AICP

Counties – Lehigh and Northampton, PA

By 2030 about 55% of the Lehigh Valley will be urban, compared to 40% in 2000 and the population will grow by 22% between 2000 and 2030.

**Wilmington Area Planning Council (WILMAPCO)**

<http://www.wilmapco.org/>

Executive Director - Ms. Tigist Zegeye

Counties – Cecil, MD and New Castle County, DE

From 2000 to 2030, the two counties are projected to experience a population growth of 52%.

**New York Metropolitan Transportation Council (NYMTC)**

<http://www.nymtc.org/>

Executive Director - Mr. Joel P. Ettinger

Counties- Nassau, Putnam, Rockland, Suffolk and Westchester, NY

The NYMTC region includes New York City, Long Island and the lower Hudson Valley with a population of 11.3 million and where two million more people are expected to live by 2030.

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## AGENCY: NEW JERSEY HIGHLANDS COUNCIL

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**SUBJECT:** Highlands Regional Master Plan (RMP)

**DESCRIPTION:** Through the passage of the Highlands Act in August 2004, the Highlands Water Protection and Planning Council was created and charged with the task of developing a Regional Master Plan (RMP) to restore and enhance the significant value of the abundant and critical resources of the Highlands Region. The Act defines the Region as including nearly 860,000 acres located in 88 municipalities in seven northern New Jersey counties (Bergen, Morris, Hunterdon, Somerset, Sussex, Passaic and Warren).

A fundamental aspect of the RMP is the process by which local governments work collaboratively with the Council to adjust land use plans and development requirements to support the goals and requirements of the RMP. The Act requires Preservation Area municipalities and counties to conform to the RMP. Municipalities in the Planning Area have incentives to voluntarily conform to the RMP. The RMP is built upon land use standards and a Land Use Capability Map series.

The Land Use Capability Map series is based on an analysis of natural resources, existing development, infrastructure, and agricultural activities. The Zone map establishes six geographic zones that overlay municipal zoning, each with its own criteria and standards. Four other maps in the series address capacity for water availability, water supply utilities, wastewater utilities and septic systems.

The RMP became effective September 8, 2008. It serves as the regional planning framework for resource protection and as a complement to local land use planning efforts. The document provides strategic opportunities for communities to consider and act upon, based on an understanding of the cumulative and regional impacts of local land use decisions, including the relationship between land use and transportation. It also provides a framework to coordinate the policy and planning decisions made by federal, State, and regional entities such as NJTPA, to ensure that these decisions and public investments are guided by the goals of this Plan.

The RMP policies help shape the Region's transportation investments by working with State and local agencies and stakeholders. By implementing smart growth principles and by looking at transportation and land use planning in a comprehensive manner, a long-term strategy can then be developed to better handle the Region's many transportation and transit related concerns. The RMP contains a Smart Growth Component and a Transportation Component to provide a plan for transportation system preservation, including all federally mandated projects or programs, and recognizing smart growth strategies and principles.

The Act provides that the Council recognize projects that promote a sound, balanced transportation system that is consistent with smart growth strategies and principles. A preliminary evaluation of existing and planned transportation studies in the Highlands Region that are anticipated as near-term (5 years), mid-term (5 to 10 years) and long-term (greater than 10 years) projects was performed for the 2008 Regional Master Plan.

The Council received input from State agencies, transportation planning professionals, non-profits, and county, municipal and local stakeholders in its evaluation of projects. The projects were evaluated based on input received, research and participation in project studies, the viability of both an anticipated near term project and a longer term project, projects that promote preservation of the transportation system, incorporate transit or multi-modal components, serve a significant portion of the Region, reduce vehicle miles traveled, and improve mobility and accessibility for residents and visitors and support both the Highlands Act and RMP policies.

The funded projects and ongoing studies selected by the Council to be recognized in the 2008 Regional Master Plan for further evaluation included: the Access to the Regions Core (ARC)/Trans Hudson Expansion (THE) Tunnel project (later cancelled), which would have included upgrades to the Raritan Valley, Main/Bergen/Pascack Valley and Morris & Essex Lines; the Lackawanna Cutoff Project MOS1 rail extension project to Andover only, along the existing right of way; the Northwest NJ Bus Study, for which 80% of the study area is in the Highlands Region and provided a transit evaluation in an area that is currently underserved or not served by transit; and the Raritan Valley Line Extension Study from High Bridge to Phillipsburg. The study completed in April 2011 supported the I-78 Corridor Study and the rights of ways have been obtained by NJ Transit, however further study is warranted regarding station locations and amenities.

The Council will continue to evaluate transportation projects with its agency partners and stakeholders and support intra- and inter-regional transportation and transit through Plan Conformance and the Transportation Safety and Mobility Program. The Council worked with the Voorhees Transportation Center at Rutgers University in support of Plan Conformance to evaluate potential transit strategies for the Highlands Region, supports the Regional Transportation Plan (RTP) 2035, has been in discussions with NJ Transit regarding the Transit Friendly Planning Program and its work in Morristown, Netcong and Dover in the Highlands Region, and with NJTPA regarding the Together North Jersey project.

During development of the RMP the Council worked with NJDOT, NJTPA, and counties to develop a Highlands Sub-Area model based on information developed from the North Jersey Regional Transportation Model (NJRTM). There is a need to re-examine, refine, and monitor these roadway conditions and travel patterns, and the impact of future development and land use patterns on traffic conditions. The refined assessment will need to be conducted to a finer Traffic Analysis Zone standard and will require more local traffic count data in order to determine more accurately local roadway conditions by municipality in the Highlands Region. The Council will continue to partner with NJDOT, NJTPA, and counties to refine the model for future needs.

A long term goal of the Council is to incorporate a Highlands Region Sub-Area Transportation Model based on the NJRTM Focus Model and improve the nature and extent of municipal circulation plan element land use and multi-modal connections.

**SCHEDULE:** The Council expects during FY 2016 (July 1, 2015 to June 30, 2016) to continue to work with municipalities and counties in support of Plan Conformance with the RMP and intra- and inter- regional transportation and transit planning needs. The Council anticipates completion of its RMP Monitoring Program during FY 2016 and continue inter-agency

coordination with NJDOT, NJTPA and NJ Transit in support of the RMP Monitoring Program and Plan Conformance. To date the Council has approved 47 of the 60 municipal Petitions pending for Plan Conformance representing 52% of the Highlands Region or 449,578 acres of the 860,000 acres in the Highlands Region. Particularly in support of transportation and transit enhancement, the Council will focus on Plan Conformance for the 12 municipalities that have approved Highlands Centers as well as, the 11 approved Highlands Redevelopment Areas to ensure that land use, economic development and transportation and transit needs are coordinated and support regional and local multi-modal connections.

**PRODUCT:** Regional Master Plan, RMP Monitoring Program Report, Land Use Capability Map Series, Transportation System Preservation and Enhancement Technical report, Transportation Safety and Mobility Program, Plan Conformance - Circulation Plan Element and Highlands Project Review procedures.

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## **AGENCY: DELAWARE RIVER JOINT TOLL BRIDGE COMMISSION**

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**SUBJECT:** Scudder Falls (I-95) Bridge Replacement

**DESCRIPTION:** The Delaware River Joint Toll Bridge Commission is advancing the planned replacement of the I-95/Scudder Falls Bridge, which currently has numerous traffic safety and congestion issues. The bridge replacement project will be the largest single capital undertaking in Commission history.

The bridge is the most heavily used crossing among the 20 bridges in the Commission's system. Replacement of the I-95/Scudder Falls Bridge will provide a new, improved facility providing new capacity and other upgrades to meet future traffic demands of the coming decades. The I-95/Scudder Falls Bridge operates at the worst level of service (a federal highway classification called LOS F) during peak travel periods.

In 2003 the Commission signed a Memorandum of Agreement with PENNDOT and NJDOT to proceed with the environmental studies and preliminary design for the I-95/Scudder Falls Bridge Improvement Project. These organizations agreed to use PENNDOT's Project Development Process to fulfill the National Environmental Policy Act (NEPA) process requirements.

The Environmental Assessment (EA) the Commission prepared for the project underwent extensive review by the departments of transportation in New Jersey and Pennsylvania and the Federal Highway Administration (FHWA). The document also was reviewed by federal and state environmental resource and regulatory agencies with regard to project findings, assessments and mitigation for a number of environmental considerations within the project limits including historical and archeological resources, threatened and endangered species, and wetlands, among others.

The FHWA was the agency ultimately responsible for reviewing the EA and determining acceptability so that it may be distributed for public examination and comment during a comment period that would include an open house/public hearing. Announcements about the availability of the EA and details about the open house/public hearing were made through the project website ([www.scudderfallsbridge.com](http://www.scudderfallsbridge.com)), a newsletter to project stakeholders, press release, and advertisements in local newspaper outlets. The Commission and its project consultants examined a wide variety of improvement options for each of the four segments of the Scudder Falls (I-95) Bridge Replacement project. All of the options were aired at open houses, municipal meetings and stakeholder group sessions.

On June 14, 2012, the FHWA issued a Finding of No Significant Impact (FONSI) for the project. The FHWA's determination validated the project's extensive environmental documentation compiled by the Commission.

The Preferred Alternative consists of the following:

The proposed project area would extend 4.4 miles along I-95 – from the Route 332 interchange in Bucks County, Pa. to the Bear Tavern Road interchange in Mercer County, N.J. The work will include a complete replacement of the existing four-lane Scudder Falls Bridge over the Delaware River with six lanes of through traffic (three in each direction), two auxiliary northbound lanes for entry/exit travel, and one auxiliary southbound lane for entry/exit travel.

Other major components of the project include:

- Widening of I-95 from the Route 332 exit in Pennsylvania to the bridge by adding an additional lane in each direction (widening to the inside of the highway)
- Reconfiguration of the I-95/Taylorsville Road Interchange in Lower Makefield Twp., Pa. by eliminating the existing eastern southbound off-ramp from I-95 and combining it with the existing western southbound off-ramp
- Reconstruction and reconfiguration of the Route 29 interchange through the use of roundabouts. This option would avoid traffic signals, resulting in a folded diamond interchange with two roundabout intersections at the ramps with I-95
- A multi-use bicycle/pedestrian pathway on the southbound span
- Full inside and outside shoulders/breakdown lanes on both bridge spans, a current highway standard requirement; the inside shoulders will be 14-feet wide (two feet wider than the 12-foot width required under current highway design criteria) to allow for future bus-rapid transit routes in the region
- Noise-abatement walls along the approach roadways leading to and from the bridge

**SCHEDULE:** Completion of the project is tentatively scheduled for 2020.

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**NORTH JERSEY TRANSPORTATION  
PLANNING AUTHORITY, INC.**

**FY 2016**

**UNIFIED PLANNING WORK PROGRAM  
VOLUME VI  
OTHER REGIONAL TRANSPORTATION  
PLANNING INITIATIVES**

**SECTION I**

**PART TWO –TRANSPORTATION MANAGEMENT  
ASSOCIATIONS ACTIVITIES**

**AGENCY: NEW JERSEY DEPARTMENT OF TRANSPORTATION  
SAFE ROUTES TO SCHOOLS TMA PROGRAM**

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**SUBJECT:** NJDOT Safe Routes to Schools TMA Program

**DESCRIPTION:** The Federal-aid Safe Routes to School (SRTS) Program provides funds to the States to substantially improve the ability of primary and middle school students to walk and bicycle to school safely. The purposes of the program are to:

1. enable and encourage children, including those with disabilities, to walk and bicycle to school;
2. make bicycling and walking to school a safer and more appealing transportation alternative, thereby encouraging a healthy and active lifestyle from an early age; and
3. facilitate the planning, development, and implementation of projects and activities that will improve safety and reduce traffic, fuel consumption, and air pollution in the vicinity (approximately 2 miles) of primary and middle schools (Grades K-8).

The Alan M. Voorhees Transportation Center (VTC) at Rutgers University operates the NJ SRTS Resource Center. The NJ SRTS Resource Center will advance the purposes of the SRTS program by providing a variety of SRTS technical assistance services directly to regional and local governments and other non-governmental organizations throughout the state. The NJ SRTS Resource Center will:

1. develop a statewide community partnership structure that will support increased participation in education, encouragement and enforcement activities without the burden of grant application and administration;
2. provide training to Transportation Management Association staff who will be the community point people for the NJ SRTS program; and
3. deliver technical assistance directly to New Jersey communities.

Under the NJ SRTS Non-Infrastructure Pilot Project, TMAs are being funded and mobilized to work with schools and communities within their jurisdiction to support the implementation of SRTS programs. The NJ SRTS Resource Center will provide a range of advisory technical services to schools and communities based on their level of commitment to the SRTS program. All New Jersey municipalities and K-8 schools will be eligible to enroll as a SRTS partner to receive free, non-construction related services. Partnership levels will signify a community's progress towards implementing SRTS programs.

TMAs must designate a regional SRTS Coordinator for their service area. This person will serve as the main contact for working with communities, NJDOT, and VTC on implementing Safe Routes to Schools programs. This person will be responsible for attending all meetings and trainings, though other staff may attend as well. The regional SRTS Coordinator will have hands-on, intimate familiarity with Safe Routes to School operations as well as programs and opportunities in the service area.

The following tasks are included in the TMA's SRTS work programs:

- Task 1: NJ SRTS Coordination and Partnership Levels
- Task 2: Walk and Bike to School Events (iWalk)
- Task 3: Walking School Bus Train-the-Trainer Technical Assistance
- Task 4: Non-Infrastructure Technical Support – School Travel Plans
- Task 5: Youth Bicycle Education
- Task 6: SRTS Outreach and Assistance
- Task 7: Monitor Program Performance
- Task 8: Additional Safe Routes to School Activities

**SCHEDULE:** The TMA's are currently in the midst of a two year SRTS contract that runs through August 31 2015. It is anticipated that the contract will be renewed for a two year period beginning September 1, 2015.

**PRODUCT:** The work products can take many forms and will vary with each TMA depending on the exact needs for their service area. Anticipated products include applications for Safe Routes Funding, Walk to School Days, Walking School Busses, maps of safe corridors leading to the schools and any other acceptable way to encourage Safe Routes Programming within the community.

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**AGENCY: NEW JERSEY TRANSIT  
NJ TRANSIT TMA WORK PROGRAM**

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**SUBJECT:** NJ TRANSIT TMA Work Program

**DESCRIPTION:** The TMAs assist NJ TRANSIT by promoting the use of transit services as a means of assisting in the reduction of traffic congestion, improving air quality and quality of life in the TMA service area. The TMAs further assist NJ TRANSIT in improving mobility and accessibility to all residents in their service area by making commuting a more satisfying experience.

The TMAs use their resources to advocate a transit friendly environment. The TMA services include the provision of transit service information, outreach to potential transit users, and advocacy for employers and feedback to NJ TRANSIT on related activities.

The following is a general outline of the TMA's work program activities and objectives, along with examples of the tasks to be conducted.

**A. Information**

To provide a comprehensive inventory of information on transit related services available within the TMA service area.

**Objective:**

To assist NJ TRANSIT with the dissemination of information available to promote transit usage, inter-modalism, access to jobs, and improve the quality of life by reducing traffic congestion caused by the public's reliance on the use of single occupancy vehicles.

**Sample Tasks:**

1. The TMA staff will maintain a complete and up-to-date inventory of schedules and other transit information. Schedules and/or transit information superseded by updated data will be replaced.
2. The TMA staff will provide a package of commuter alternatives when responding to rideshare questions for information.
3. The TMA staff will update its website with relevant transit service information as it becomes available. They will monitor present links to other transit providers to insure all information is updated in a timely fashion.
4. The TMA staff will utilize its E-mail system to reach out to employers with weather alerts, transit information, emergency disruptions and changes in schedules as they become available.
5. The TMA staff will identify and assist in maximizing distribution points for transit information.
6. The TMA staff will attend NJ TRANSIT sponsored meetings to network and exchange ideas concerning TMA transit promotion ideas and strategies. The TMA staff will also

attend the NJ TRANSIT seasonal marketing campaigns and include NJ TRANSIT marketing material in our newsletters.

7. The TMA staff will distribute all available information to companies in our service area.
8. The TMA staff will provide information and assistance on NJ TRANSIT's Vanpool Sponsorship Program.
9. The TMA staff will provide and make transit information, described above, available to all requestors. The TMA will also provide applicable transit information to employers and their employees at Transportation Fairs.
10. The TMA will provide trip-planning assistance to all requestors, using the NJ TRANSIT Website.

## **B. Advocacy to Employers and Other Service Organizations**

### **Goal:**

To provide an active advocacy role in the promotion of transit service in the TMA's service area.

### **Objective:**

The TMA will assist NJ TRANSIT by developing, providing, improving and promoting existing & new transit services within TMA's service area, inclusive of NJ TRANSIT's Vanpool Sponsorship Program. The activities associated will be the focus of its marketing campaign to promote transit in the TMA service area.

### **Sample Tasks:**

1. The TMA staff will work with local employers, developers and organizations to promote the use of transit services.
2. The TMA staff will continue to serve as a liaison between employers and NJ TRANSIT on local issues.
3. The TMA staff will continue to utilize an up to date list of names, addresses, telephone numbers and wherever possible web site addresses for businesses in their service area.
4. The TMA staff will maintain updated information on all NJ TRANSIT products and transit alternatives.
5. The TMA staff will attend NJ TRANSIT training/refreshers courses to ensure that TMA employees are current in their knowledge of these programs.
6. The TMA staff will encourage transit service in its newsletters and through advertisements in local newspapers and/or magazines. The TMA will also provide transit information directly to employers and their employees through transportation fairs.
7. The TMA staff will meet with employers and public entities in need of transit or shuttle services. They will review the availability of existing transit service and further review accessibility to the work site.
8. The TMA staff will work with municipalities to promote community shuttle services through NJ TRANSIT's Community Shuttle Program.

9. The TMA staff will provide any available route and schedule information that is applicable to the employer and their work site.
10. The TMA staff will review current route information, analyze site(s) for potential riderships, make specific route modification recommendations to NJ TRANSIT and work with NJ TRANSIT to include the necessary modifications.
11. The TMA staff will hold public information exchanges, focus groups, and/or forums to provide information and educational awareness to the transit service in our area.

### **C. Outreach to Commuters and Potential Transit Users**

#### **Goal:**

To provide an outreach program in the promotion of transit service in the TMA's service area.

#### **Objective:**

The TMA will assist NJ TRANSIT in promoting the use of existing and new transit services within the TMA service area through the development and distribution of transit information, and to develop and implement a focused marketing plan including targeting outreach and public relations efforts.

#### **Sample Tasks:**

1. The TMA staff will conduct Transit Days, Transportation Fairs or similar events at employer, organization sites, municipal and county offices to inform employees and clients about transit services and to promote transit. They will also distribute NJ TRANSIT resource materials at these events and advertise the advantages of transit.
2. The TMA staff will conduct Customer Appreciation Days at the different transit facilities.
3. The TMA staff will assist in administering the NJ TRANSIT's Bike Locker Lease Program when it is implemented by functioning as the local lease agent with potential locker renters.
4. The TMA staff will collect applications from participants in NJ TRANSIT's Vanpool Sponsorship Program. The TMA will also maintain records for each existing vanpool and provide NJ TRANSIT with updates.
5. The TMA staff will continue to provide information on all NJ TRANSIT programs to interested calls received on the TMA's phone lines.
6. The TMA staff will work in coordination with NJ TRANSIT's Marketing Department to promote and market transit services on the safety in the schools program as part of our educational outreach programs within our service area.
7. The TMA staff will work with NJ TRANSIT staff to determine the range of marketing materials offered by NJ TRANSIT to fit the needs of service seekers in our area.
8. The TMA staff will work with employers, municipalities, economic development organizations, service area shopping malls, and libraries to provide information on transit services.

9. The TMA staff will continue to promote mass transit options to commuters that are affected by traffic due to heavy volume and construction.
10. The TMA staff will continue to work with municipalities and schools where transit service is extended to promote safe usage.

#### **D. Feedback**

##### **Goal:**

To provide feedback to NJ TRANSIT in order to determine reliability and effectiveness of existing transit services in TMA's service area.

##### **Objective:**

The TMA will report, on all activities undertaken and their findings, in a monthly status report to NJ TRANSIT.

##### **Sample Tasks:**

1. The TMA staff will work with employers to determine how well existing transit services meet the employees' needs and work schedules. They will advise NJ TRANSIT's TMA support staff on any findings.
2. The TMA staff will "spot check" performance, routing, timeliness, cleanliness, driver courtesy and other aspects of quality service on existing NJ TRANSIT services.
3. The TMA staff will monitor usage at Park & Ride lots along transit corridors.
4. The TMA staff will respond to all comments and/or complaints conveyed by the riding public, as it refers to NJ TRANSIT service. The TMA will report all findings to NJ TRANSIT's Community Affairs.
5. The TMA will continue to attend meetings requested by Community Relations, Marketing, and will assist in addressing bus service planning & service issues due to construction related activities.
6. The TMA will summarize and forward transit service quality issues to the appropriate NJ TRANSIT Support Unit.
7. The TMA staff will conduct surveys of ridership and forward results to NJ TRANSIT in a timely fashion.
8. The TMA staff will conduct surveys and make recommendations for Community Shuttle routes.
9. The TMA staff will forward all information, as described in the elements above, to NJ TRANSIT in a timely fashion. In general, this information will be formally transmitted, but will occasionally be verbally transmitted in the interests of safety and expediency.

**SCHEDULE:** This effort is an annual program.

**PRODUCT:** The work products can take many forms and will vary depending on the exact needs and opportunities for NJ TRANSIT assistance in the TMA service area.

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**AGENCY: NEW JERSEY DEPARTMENT OF LAW & PUBLIC SAFETY  
NJ DIVISION OF HIGHWAY TRAFFIC SAFETY GRANT PROGRAM**

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**SUBJECT:** NJ Division of Highway Traffic Safety Grant Program

**DESCRIPTION:** The NJ Division of Highway Traffic Safety offers, on an annual basis, federal grant funding to agencies that wish to undertake programs designed to reduce motor vehicle crashes, injuries, and fatalities on the roads of New Jersey. Seven of New Jersey's Transportation Management Associations are currently working under this grant program to raise awareness on pedestrian safety, bicycle safety, and distracted driving.

**SCHEDULE:** The fiscal year for the DHTS Grant begins the 1<sup>st</sup> of October of each year and ends on the 30<sup>th</sup> of September. For the current grant program all of the TMAs except Cross County Connection TMA, Inc. and Keep Middlesex Moving, Inc. are participating.

**PRODUCT:** The work products can take many forms and will vary with each participating TMA depending on the exact needs for their service area. Anticipated products include safety messaging on the topics of pedestrian safety, bicycle safety, and distracted driving.

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## AGENCY: TRANSOPTIONS

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**SUBJECT:** Traffic Safety Town Program

**DESCRIPTION:** TransOptions will expand its new safety education program to new schools and build upon the existing program to further improve the lesson for students. Traffic Safety Town is a portable, interactive, gym-based program that simulates bike, pedestrian and vehicular traffic flow in a model town. Elementary school students take away knowledge about rules of the road, and where travel risks and dangers lie. TransOptions is currently in the process of piloting the program in several schools and has seen very positive results.

**SCHEDULE:** The program is currently being piloted and will be expanded to more regular implementation, with the anticipation of one new school being added each month.

**PRODUCT:** Free interactive safety demonstration for elementary school students in Northwest New Jersey.

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**SUBJECT:** Coordinated Community Transportation

**DESCRIPTION:** TransOptions plans to lead a local stakeholder group or series of roundtable discussions regarding human services transportation options for seniors, disabled citizens and veterans to determine if there is opportunity for better coverage throughout Northwest New Jersey. TransOptions will organize and coordinate the stakeholder group with an end goal of better regional transportation for these often underserved groups.

**SCHEDULE:** Implementation date is not yet known

**PRODUCT:** Series of planning meetings to address growing need for senior/disabled/veteran and other human services transportation

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**SUBJECT:** Rt. 31 Feeder Shuttle

**DESCRIPTION:** TransOptions, in conjunction with HART TMA in Hunterdon County, will participate as a stakeholder in the planning and potential implementation of a feeder shuttle connecting the Oxford/Washington Township area of Warren County to the Annandale Station in Hunterdon County. The project aims to address parking concerns at the station, and better connect the Warren County region to the I-78 corridor. TransOptions is currently assisting with survey development and distribution to determine need, potential routes and potential schedules. Stakeholders include the county governments/freeholders and planning departments, human services departments, NJ Transit Local Programs, as well as HART and TransOptions.

**SCHEDULE:** The survey phase is expected to be completed prior to the start of the fiscal year, and if funding is secured either through 5311 or other means, a service launch is expected by the end of CY15.

**PRODUCT:** A new feeder shuttle connecting locations in Warren County to the Annandale train station in Hunterdon County via Route 31.

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**SUBJECT:** Bike, Pedestrian and Transit Infrastructure Audits

**DESCRIPTION:** TransOptions plans to implement an audit program that will assist towns in acquiring data regarding their existing bicycle and pedestrian infrastructure. The program will examine sidewalks, crosswalks, signals, striping, bike parking, transit facilities if applicable, and present the findings in a detailed report with low-cost or no-cost recommendations for safety improvements.

**SCHEDULE:** Implementation date is anticipated for either Q1 or Q2 of FY16.

**PRODUCT:** Infrastructure assessment and inventory, as well as a completed report with safety recommendations.

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**NORTH JERSEY TRANSPORTATION  
PLANNING AUTHORITY, INC.**

**FY 2016**

**UNIFIED PLANNING WORK PROGRAM  
VOLUME VI  
OTHER REGIONAL TRANSPORTATION  
PLANNING INITIATIVES**

**SECTION I**

**PART THREE - TRANSPORTATION MANAGEMENT  
ASSOCIATIONS /COUNTY PROJECT HANDOFFS**



**AGENCY: CROSS COUNTY CONNECTION TMA, INC.**

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**SUBJECT:** English Creek-Tilton Road Community Shuttle

**DESCRIPTION:** This shuttle operates in Egg Harbor and Northfield townships in Atlantic County and began operations October 2012. The shuttle serves numerous residential complexes, retail centers, a medical facility and other smaller employment locations. This service connects with three NJ TRANSIT buses, enabling passengers to reach employment opportunities in Atlantic City, Ocean City and other shore points. A reciprocal transfer agreement between the shuttle service and connecting NJ TRANSIT buses enables passengers to ride both systems at a reduced fare. The shuttle service is funded by the Pascale Sykes Foundation and a JARC grant (FTA), and is a partnership between Atlantic County, Family Service Association, NJ TRANSIT, SJTA and Cross County Connection.

**SCHEDULE:** This shuttle operates seven days per week from approximately 7:00 AM to 9:00 PM.

**PRODUCT:** A deviated fixed route service providing frequent connections with NJ TRANSIT bus services seven days per week.

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**SUBJECT:** Burlington County Intersection Pedestrian Safety Pilot Project

**DESCRIPTION:** This project will identify intersections with a high incident of pedestrian accident rates involving senior citizens and other special needs groups. The pilot project will concentrate on municipalities along the River LINE/Route 130 Corridor in Burlington County. An outreach program will be developed and administered to high risk groups, including senior citizens and persons with disabilities. Safety training for intersection crossings will be emphasized. Additionally, the actual walking speeds of high risk groups will be measured to recommend modifications to traffic signal timing, if warranted.

**SCHEDULE:** January 2015 to December 2015.

**PRODUCT:** Report documenting findings and recommended intersection improvements based on traffic light timing and other factors noted during the course of the study.

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**AGENCY: MEADOWLINK**

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**SUBJECT:** BikeShare Program

**DESCRIPTION:** Meadowlink plans to introduce a new transportation solution to the streets of Newark in the form of a BikeShare system. Designed for commuters and students, pedestrians will soon have the option of using inexpensive public bike transportation. The BikeShare programs involve making fleets of bicycles available for public use, for a small fee, by stationing clearly marked bicycles around a city. The BikeSharing system will be low-cost rental kiosks that lock the bikes to a station rack when not in use. Members or subscribers can swipe a student ID or credit card to release the bike, ride it to another station, and plug the bicycle back into the dock.

**SCHEDULE:** The program is scheduled for implementation in 2015.

**PRODUCT:** Low-cost rental bike transportation for use by commuters and students in Newark.

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**SUBJECT:** Carlstadt/Moonachie Shuttle

**DESCRIPTION:** Meadowlink launched the Carlstadt/ Moonachie Shuttle program to connect businesses in Carlstadt/ Moonachie with Secaucus Junction train station.

**SCHEDULE:** The program launched in December 2014 and it operates from 6:00 a.m.to 10:00 am and from 4:00 pm to 7:00 pm, Monday through Friday.

**PRODUCT:** High frequency shuttle service between businesses in Carlstadt/Moonachie and Secaucus Junction.

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**SUBJECT:** North Bergen Shuttle Service

**DESCRIPTION:** Meadowlink launched the North Bergen Shuttle program in November 2012 to connect businesses in North Bergen to the Hudson Bergen Light Rail Station at Tonnelle Avenue and the Journal Square Transportation Center in Jersey City.

**SCHEDULE:** Currently, the service operates only between the hours of 11:00 pm and 2:00 am, Monday through Friday

**PRODUCT:** High frequency shuttle service between North Bergen and the transit hubs at Tonnelle Avenue, Journal Square, and Secaucus Junction.

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**SUBJECT:** Route 3 Shuttle Service

**DESCRIPTION:** Meadowlink launched the shuttle program to connect businesses in the Route 3 corridor to the Secaucus Junction Train Station. It was designed to reduce traffic on the corridor and encourage commuters to use public transit.

**SCHEDULE:** The program was launched in November 2013 and it operates during peak commuting hours from 6am – 10am and from 4pm – 8pm Monday through Friday.

**PRODUCT:** High frequency shuttle service between Secaucus Junction train station and businesses in the Meadows Office Complex.

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**SUBJECT:** Long Branch Shuttle Service

**DESCRIPTION:** In partnership with the City of Long Branch and Monmouth University, Meadowlink launched the shuttle program to connect the Long Branch Train Station with the University, Pier Village and local businesses. In addition to reducing congestion, the shuttle helps mitigate demand for parking at the University.

**SCHEDULE:** The program was launched in September 2013.

**PRODUCT:** High frequency shuttle service between the train station and the beach in Monmouth County.

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**SUBJECT:** Harmon Meadow Shuttle Service

**DESCRIPTION:** In partnership with Hartz Mountain Industries, Meadowlink launched the shuttle program to connect people who work at businesses in Harmon Meadow, and residents of Osprey Cove at 45 Meadowlands Parkway with Secaucus Junction Train Station in Secaucus. In addition to reducing congestion, the shuttle helps mitigate demand for parking around Harmon Meadow business district.

**SCHEDULE:** The program was launched in December 2005. Service operates Monday through Friday during peak commuting hours from 7am – 10am and from 4pm – 8pm.

**PRODUCT:** High frequency shuttle service between Secaucus Junction train station and businesses in the Harmon Meadow.

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**SUBJECT:** Harmon Cove Shuttle Service

**DESCRIPTION:** In partnership with Rose Brand and ARRI, Meadowlink launched a commuter shuttle in 2008 that connects Secaucus Junction with these two major employers in the Harmon Cove area. Without this shuttle, there is no connection between Secaucus Junction and Harmon Cove's industrial center.

**SCHEDULE:** The program was launched in May 2008. Service operates Monday through every 10 minutes from 6:55am – 9:30am and 4:05pm – 7:20pm

**PRODUCT:** High frequency shuttle service between Secaucus Junction and employers in Harmon Cove. Free to employees.

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**SUBJECT:** WAVE Shuttle Service

**DESCRIPTION:** In partnership with Essex County, Meadowlink operates four shuttles buses to serve low-income residents access agencies in the Greater Newark Area that provide work training and work assistance.

**SCHEDULE:** The program was launched in October 2008. Shuttles operate along four different routes Monday through Friday from 7:40 am to 4:35 pm.

**PRODUCT:** High frequency shuttle for Essex County low-income residents to access employment/job training centers.

---

**SUBJECT:** Essex Night Owl Shuttle Service

**DESCRIPTION:** In partnership with Essex County, Meadowlink operates six shuttle buses for Essex County residents. The service provides late-night transportation to Newark Penn Station for Essex County resident who work at the Newark Liberty International Airport. In addition to reducing congestion this service provides vital link to jobs for many low-income residents in Essex County.

**SCHEDULE:** The program was launched in January 2004. It operates between the hours of 1:00am to 5:00am, Monday-Sunday.

**PRODUCT:** Late-night shuttle service to Newark Penn Station for residents from Irvington, Newark, Orange and East Orange.

---

**SUBJECT:** Lyndhurst Corporate Shuttle Service

**DESCRIPTION:** Meadowlink launched Lyndhurst shuttle service to link businesses at the Lyndhurst Corporate Park with two train stations, Kingsland Station in Lyndhurst and Rutherford Station in Rutherford.

**SCHEDULE:** The program was launched in November 2008. It operates Monday through Friday between 6 am - 10am and 4pm - 8:30pm.

**PRODUCT:** High frequency shuttle service between Kingsland Train Station in Lyndhurst, Rutherford Station in Rutherford and businesses at the Lyndhurst Corporate Park.

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**SUBJECT:** Route 10 Shuttle Service

**DESCRIPTION:** In partnership with Essex County, Meadowlink launched the Route-10 Shuttle for individuals to access employment along the Route-10 corridor in East Hanover and Whippany area.

**SCHEDULE:** The program was launched in January 2004. The shuttle operates from the NJ Transit bus stop at Route 10 and New Murray Road (Burger King) between 6 am and 9:30 am and between 3 pm and 7 pm, Monday through Friday.

**PRODUCT:** Demand responsive shuttle service connecting individuals to employment centers along the Route 10 corridor.

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**SUBJECT:** Route 46 Shuttle Service

**DESCRIPTION:** Meadowlink launched the service for people who work along Route 46 corridor in the townships of Fairfield and West Caldwell.

**SCHEDULE:** The program was launched in July 2006. The shuttle operates from 6 am to 9 am and from 3 pm to 7 pm.

**PRODUCT:** Demand responsive shuttle service connecting individuals to employment centers along Route 46.

---

**SUBJECT:** Rutherford Shuttle

**DESCRIPTION:** Meadowlink launched Rutherford shuttle to provide access to local transit for the businesses and the residential community in Lyndhurst. The shuttle connects both the Rutherford Train Station and the Kingsland Train Station with businesses and Vermella Lyndhurst, a residential community.

**SCHEDULE:** The program was launched in January 2010. The shuttle operates weekdays between 5:30 am and 9:15 am and between 4:00pm and 8:15pm.

**PRODUCT:** High Frequency shuttle service connecting Rutherford and Kingsland Train Stations with residential and corporate community.

---

**SUBJECT:** Kearny Commuter Shuttle

**DESCRIPTION:** In partnership with Hudson County Improvement Authority/Hudson TMA Meadowlink launched the service to provide transportation to the PATH station in Harrison. The shuttle services local residents along Ridge Road and Kearny Avenue in North Arlington and Kearny.

**SCHEDULE:** The program was launched in January 2010. The service operates from 6:20 am to 9:20 am and from 4:30 pm to 7:35 pm. One-way fare is \$1.50.

**PRODUCT:** High frequency shuttle service connecting residents with Harrison PATH station.

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**SUBJECT:** Wayne-Fairfield/West Caldwell Shuttle Service

**DESCRIPTION:** In partnership with Essex County, Meadowlink launched the shuttle to serve low-income residents to help them access jobs in Fairfield & West Caldwell area. Shuttle operates from the bus stop at Willowbrook Mall to businesses in Fairfield and West Caldwell.

**SCHEDULE:** The program was launched in March 2008. Shuttles operate along four different routes Monday through Friday from 7:40 a.m. to 4:35 p.m.

**PRODUCT:** Demand responsive shuttle service connecting low-income Essex County residents with employment centers.

---

**SUBJECT:** Elizabeth-Newark Airport Shuttle

**DESCRIPTION:** Meadowlink launched this late-night commuter shuttle to connect low-income Elizabeth residents with jobs at the Newark Liberty International Airport. Shuttle operates seven days a week. Shuttle provides hourly service between residents' homes and Newark Liberty International Airport seven days a week. The shuttle makes one stop at the Airport: Terminal B (NJ Transit bus stop).

**SCHEDULE:** The program was launched in October 2007. It operates between 2:15am and 5:15am, seven days a week.

**PRODUCT:** Demand response shuttle service connecting Elizabeth residents with Newark Liberty International Airport.

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**SUBJECT:** The Monarch Shuttle Service

**DESCRIPTION:** Meadowlink launched the shuttle program to connect The Monarch residential community in East Rutherford with Secaucus Junction Train Station. The shuttle reduces congestion and demand for parking at Monarch community.

**SCHEDULE:** The program was launched in November 2014 and provides service during peak commute hours on all week-days.

**PRODUCT:** High frequency service between residential community in East Rutherford and Secaucus Junction Train Station

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**SUBJECT:** Waters' Edge Shuttle Service

**DESCRIPTION:** Meadowlink launched the shuttle program to connect residential community at Waters' Edge in Harrison with the PATH station also in Harrison.

**SCHEDULE:** The program was launched in November 2014 and provides service Monday-Friday during peak commute hours.

**PRODUCT:** High frequency service between residential community in Harrison and PATH Train Station

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**SUBJECT:** Cablevision Shuttle Service

**DESCRIPTION:** In partnership with Cablevision, Meadowlink launched shuttle service in Newark for Cablevision employees to connect their facility with Newark Penn Station as well as Broad Street Station in Newark. The shuttle was launched to ensure safety for employees commuting during early/late night hours. Cablevision's concern for its employees was a major motivator in the establishment of this service.

**SCHEDULE:** The program was launched in March 2012. Service operates 7 days a week 365 days between the hours of 5:30 am – 10 am and in the evening from 6:40 pm – 12 am.

**PRODUCT:** High frequency service connecting Newark Penn Station, Broad Street Station and Cablevision facility.

---

**SUBJECT:** Community Cars Program

**DESCRIPTION:** Meadowlink launched the program to provide personalized, curb-to-curb transportation for seniors and their needs not currently filled by other transportation programs. Service operates with help from volunteer drivers who drive EZ Ride-marked cars. Community Cars Program is available for seniors residing in Bergen, Hudson, Essex, Union, Passaic and Monmouth Counties.

**SCHEDULE:** The program was launched in January 2008. Service is provided Monday through Friday from 8 am to 4 pm.

**PRODUCT:** Membership based demand-responsive transportation program for seniors.

---

**SUBJECT:** Flex-T Mobility Partner Program

**DESCRIPTION:** Meadowlink launched the Flex-T Program in Monmouth County along Route 35 corridor. Currently the service has expanded and operates in Bergen, Essex, Union, and Monmouth Counties. Clients use the program to access jobs or job training facilities.

**SCHEDULE:** The program was launched in November 2009. Service operates Monday through Friday from 8am to 4pm.

**PRODUCT:** Membership based demand-responsive transportation program for people with reduced mobility to access jobs.

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**AGENCY: RIDEWISE TMA**

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**SUBJECT:** Demand Responsive Rideshare Program

**DESCRIPTION:** RideWise plans to introduce a demand responsive rideshare program at the Somerville Rail Station to serve the last mile needs of travelers. This pilot program will utilize a mobile application to connect rail riders who are headed in the same direction around the same time with a local transportation vendor. The matched passengers will share the trip cost for a flexible affordable last mile connection. This service will be offered to/from sites that are within a 3-mile radius of the Somerville rail station.

**SCHEDULE:** The service will be provided during peak commute hours from approximately 6:00 a.m. to 9:00 a.m. and 4:00 p.m. to 7:00 p.m, Monday to Friday. The program is under development and scheduled for implementation in 2015.

**PRODUCT:** Demand responsive shared ride service between the rail station and employment sites.

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**SUBJECT:** RideConnect (formerly Senior RideWise)

**DESCRIPTION:** RideWise launched RideConnect in April 2012 to provide non-emergency, door-to-door rides for medical and social/quality of life transportation to senior citizens and residents with disabilities. The TMA partners with local ride providers for the provision of rides. Passengers can schedule rides with a screened, professional driver who provides door-to-door assistance. Rides are available for trips to the grocery store, hair salon, bank, post office, pharmacy, medical appointments, work, and social/recreational trips.

**SCHEDULE:** Rides are available, with 24-hours-notice, Monday thru Friday from 9:30 a.m. to 2:30 p.m.

**PRODUCT:** Subsidized transportation for senior citizens and individuals with disabilities.

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## AGENCY: TRANSOPTIONS

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**SUBJECT:** Livingston Shuttle

**DESCRIPTION:** This shuttle provides a connection between the Livingston Mall Park and Ride lot and the South Orange NJ Transit Train Station. The service operates Monday through Friday during the morning and evening rush to provide commuters with a convenient link to transit into both the New York City and Hoboken metropolitan areas. The shuttle service is paid for by the town of Livingston. TransOptions manages scheduling and routing as well as general advisement to the town. Due to significant and increasing ridership, the town continues to renew the contract, providing a valuable service to its residents.

**SCHEDULE:** Service began operations in September of 2012. The schedule is designed to meet the needs of commuters in the region. Demand had increased due to the stoppage of the Community Coach bus out of Livingston.

**PRODUCT:** A weekday commuter shuttle that connects the Livingston Mall Park and Ride lot to frequent and convenient train service out of South Orange.

---

**SUBJECT:** Bike Share Program

**DESCRIPTION:** TransOptions continues to examine the possibility of leading a local stakeholder group through the process of implementing a bike share system in the Morristown/Morris Township downtown area and rail corridor. The program would provide residents and tourists the ability to rent bicycles from a number of stations in the region, offsetting trips that would normally be made using single occupancy vehicles. TransOptions is currently in the early planning phases of this system and is partnering with a number of like-minded local groups and leaders.

**SCHEDULE:** Implementation date is not yet known.

**PRODUCT:** Low-cost bike rental transportation for use by commuters, tourists and all residents in the Morristown/Morris Township/Madison areas.

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**AGENCY: BERGEN COUNTY COMMUNITY TRANSPORTATION DEPARTMENT**

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**SUBJECT:** Bergen County Tri-Boro Shuttle Service

**DESCRIPTION:** This service connects the Ridgewood Train Station with office complexes in the Tri-Boro Area of Park Ridge, Woodcliff Lake, and Montvale. Currently, the vast majority of the 24,000 employees in the Tri-Boro office complex area live outside the area and travel to work by automobile. This service helps relieve traffic congestion and its resultant air pollution due to the congested conditions along the area's local roadways during peak hours. The funding source was from a non-renewable three (3) year CMAQ (Congestion Mitigation Air Quality) grant. It operates Monday through Friday specifically for the morning and evening commutes

**SCHEDULE:** The program began operation on January 1, 2012 and ridership commenced March 1, 2012. The grant period concludes on March 31, 2016.

**PRODUCT:** A shuttle service that connects the Ridgewood Train Station with office complexes in the Tri-Boro area of Park Ridge, Woodcliff Lake, and Montvale.

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**SUBJECT:** Bergen County Community College Shuttle

**DESCRIPTION:** This service connects the main Bergen Community College Campus in Paramus to its Lyndhurst Campus. It was designed to help reduce congestion along the Route 17 corridor. The shuttle is used by students, faculty, and the general public. This shuttle operates Monday through Friday.

**SCHEDULE:** This program began in October 2013. As of December 31, 2014, 25,789 students, faculty and the general public used this shuttle..

**PRODUCT:** A shuttle service that connects the main Bergen County Community College Campus in Paramus to the Lyndhurst Campus, and stops at the Rutherford Train Station.

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**AGENCY: MIDDLESEX COUNTY AREA TRANSIT**

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**SUBJECT:** M7 South Amboy- Brunswick Square Mall Shuttle

**DESCRIPTION:** This service will run between the Brunswick Square Mall and the Lighthouse Bay residential community in South Amboy. The service provides 30 minute peak period and 60 minute off-peak period service to over 4000 garden apartment units and providing connections to the North Jersey Coast Line at South Amboy Rail Station, the Route 9 corridor interstate bus services at Old Bridge Transportation Center, the Wall Street interstate bus service at the Garden State Parkway Cheesequake Service Area Park and Ride and four NJ Transit local bus routes at South Amboy Rail Station and Brunswick Square Mall.

**SCHEDULE:** This project was implemented on October 8, 2011 and is now carrying over 50 passenger trips per day in its second full month of operation.

**PRODUCT:** The M7 route is beginning to transport commuters who in some cases have access to an automobile and are using the M7 as a feeder to interstate bus and rail services.

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**AGENCY: GREATER MERCER TMA**

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**SUBJECT:** ZLine Shuttle

**DESCRIPTION:** The ZLine bus provides service from Hamilton Marketplace in Hamilton to the Matrix Business Park in Robbinsville. Three NJ TRANSIT buses connect to the service.

**SCHEDULE:** GMTMA launched the service in July 2014 with a two year NJ JARC grant with the match provided by Amazon and Mercer County.

**PRODUCT:** A “last mile” bus service to the Matrix Business Park with expanded NJ TRANSIT bus service to accommodate the shuttle.

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**NORTH JERSEY TRANSPORTATION  
PLANNING AUTHORITY, INC.**

**FY 2016**

**UNIFIED PLANNING WORK PROGRAM  
VOLUME VI  
OTHER REGIONAL TRANSPORTATION  
PLANNING INITIATIVES**

**SECTION I**

**PART FOUR - LOCAL SUBREGIONAL INITIATIVES**



**AGENCY: BERGEN COUNTY**  
**Bergen County Department of Planning and Economic Development**

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**SUBJECT:** Bus Rapid Transit Implementation Study

**DESCRIPTION:** The project proposes to further explore several Bus Rapid Transit routes identified in an earlier BRT Feasibility Study. Bergen County is working together with New Jersey Transit to identify implementable routes that link key activity centers with existing intermodal transit hubs in Central Bergen County.

**SCHEDULE:** Implementation Study 2013-2015, Implementation Plan 2015

**PRODUCT:** Implementation Plan

**CONTACT:** Christopher E. Helms, P.P., AICP  
Bergen County Department of Planning & Economic Development  
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Email: [chelms@co.bergen.nj.us](mailto:chelms@co.bergen.nj.us)

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**SUBJECT:** Hackensack Avenue/River Street/Bergen Turnpike Corridor Study

**DESCRIPTION:** For most of its length, this corridor experiences mobility challenges for motorists, pedestrians, bicyclists, and transit riders. The main causes are uncoordinated and non-actuated signals, lack of turn lanes, bus blockages, and missing sidewalks. Funds are being sought to improve the corridor from Route 4 to Route 46 for a survey of the entire corridor and a comprehensive circulation plan that includes major intersection improvements such as adding or upgrading traffic signals, adding turning and approach lanes, and realignment of the roadway. It will include associated improvements to sidewalks, curb ramps, pedestrian signals, signage, striping, and the coordination of all traffic signals. It will also assess River Street for potential Complete Streets elements and for potential bus pull-offs, shelters, and/or Bus Rapid Transit (BRT) stops and technologies such as signal pre-emption. Total study cost is estimated to be approximately \$5 million.

**SCHEDULE:** Survey and Corridor Study to commence in 2015

**PRODUCT:** Corridor Survey and Circulation Plan

**CONTACT:** Joseph Baladi, PE  
Bergen County Department of Planning & Economic Development  
Phone: 201-336-6428

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**SUBJECT:** Essex Street Corridor Development, Final Design and Construction

**DESCRIPTION:** Partnering with New Jersey Transit and in conjunction with the City of Hackensack for the design and construction of Essex Street Corridor from the west side of Main Street to the east side of Prospect Avenue. The project proposes to improve mobility along Essex Street and provide better connectivity to state roads Route 46 & Route 17 and interstate highway I-80 from Hackensack central business district. The intersections of Essex Street at Polifly Road, Newman Street, East and West Railroad Avenue, John Street, Green Street and Union Street will also be improved as part of the project.

**SCHEDULE:** TBD. The County has submitted an application to the NJTPA to include this project in their Local Concept Development Program.

**PRODUCT:** Concept Development Study

**CONTACT:** Joseph Femia, County Engineer  
Bergen County Department of Public Works  
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**SUBJECT:** Concept Development & Alternatives Analysis for Bridge & Intersection Improvements at Market Street, Essex Street & Rochelle Avenue/Main Street in the Borough of Lodi, Township of Rochelle Park, and Township of Saddle Brook

**DESCRIPTION:** The existing intersection approaches are substandard in width and lane configuration and are a choke point for the large traffic volume it serves. The intersection is currently controlled by a fixed time traffic signal that is not traffic responsive. The market Street approach to the intersection spans the Saddle River via a County owned bridge which is under the Interstate Route 80 overpass. The bridge was constructed in 1923 and is categorized as functionally obsolete and scour critical with a sufficiency rating of 60.5.

**SCHEDULE:** Proceed to Preliminary Engineering Phase - 2015

**PRODUCT:** Preliminary Engineering Plans

**CONTACT:** Joseph Femia, County Engineer  
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**AGENCY: JERSEY CITY**  
**Department of Housing, Economic Development and Commerce**

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**SUBJECT:** Route 440/Routes 1&9T Multi-Use Urban Boulevard Concept Development Supplement and Value Engineering Study

**DESCRIPTION:** This project will complete additional required tasks added to the NJDOT Concept Development phase after work on the City's Route 440/Routes 1&9T Multi-Use Urban Boulevard & Thru Truck Diversion Concept Development Study (DB 06307) was already underway.

The same consultant team will also value engineer the locally-preferred alternative (LPA) for the re-design of Route 440/Routes 1&9T as an urban boulevard that was identified by the Concept Development Study completed in 2011. This project will evaluate the urban boulevard LPA only and none of the potential through-truck diversion alternatives. Value engineering will identify and evaluate alternative designs or methods that satisfy the goals achieved by the LPA but that improve on the boulevard concept to maximize the value of dollars spent and minimize life cycle costs.

**SCHEDULE:** It is anticipated that the Concept Development Supplement and Value Engineering Study will begin early 2015. The anticipated duration of this project is approximately 12 months.

**PRODUCT:** Concept Development Supplemental Materials and a Value Engineering Technical Report that includes description of the alternative design(s) or method(s) to the Route 440/Routes 1&9T urban boulevard LPA (and the methodology to arrive at the alternative design(s)/method(s)) as well as the identified cost savings associated with those alternatives.

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**AGENCY: MONMOUTH COUNTY**

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**SUBJECT:** Improvements to Sharon Station Road between CR 539 and CR 526 and Reconstruction of Bridges U-34, U-35 and U-39, Upper Freehold Township

**DESCRIPTION:** Improvements to Sharon Station Road for the operational safety of the roadway and reconstruction of three County bridges along the limits of the roadway improvements.

**SCHEDULE:** Final Design in FY 2015-2016

**PRODUCT:** Final Design and Construction Documents for improvements to Sharon Station Road and reconstruction of the three bridges.

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**SUBJECT:** Improvements to CR 3 (Main Street – Tennent Road) between CR 527 and Kensington Drive/Woodland Circle, Manalapan Township

**DESCRIPTION:** Improvements to CR 3 for the operational safety of the roadway and reconstruction improvements of five County bridges, three culverts, and three traffic signals, as well as drainage improvements within the project limits.

**SCHEDULE:** Final Design in FY 2015-2017

**PRODUCT:** Final Design and Construction Documents for improvements to CR 3 and associated bridge, traffic signal and drainage improvements.

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**SUBJECT:** Improvements to CR 520 (Newman Springs Road), between Stag Place and Hurley’s Lane, Middletown Township

**DESCRIPTION:** To perform studies to address geometric and operational deficiencies, capacity, system linkage, access, projected transportation demands, environmental, and traffic safety issues.

**SCHEDULE:** Preliminary Engineering FY 2015

**PRODUCT:** The Preliminary Engineering Study & Report will provide sufficient information to establish final design parameters.

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**SUBJECT:** Improvements CR 14 (West Park Avenue), between Hope Road/Green Grove Road and CR 15 (Monmouth Road), Ocean Township and Tinton Falls Borough

**DESCRIPTION:** To perform studies and analyses to address congestion, roadway capacity, system linkage, geometric deficiencies, projected transportation demands, environmental and traffic safety concerns.

**SCHEDULE:** Preliminary Engineering in FY 2014-2015

**PRODUCT:** The Preliminary Engineering Study & Report will provide sufficient information to establish final design parameters.

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**AGENCY: MORRIS COUNTY**

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**SUBJECT:** Rockaway River Greenway (DB 03348)

**DESCRIPTION:** This bike trail will utilize a freight rail ROW designed to take advantage of a vacated ROW through downtown Dover after a bypass is built to serve the County's railroad operator. The project is active again now that the County is examining funding resources to build the rail bypass, thereby opening up the line for potential Greenway improvements. The project will eliminate 11 downtown grade crossings. Funding sources are unknown at this point.

**SCHEDULE:** 2013

**PRODUCT:** Concept design by Morris County

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**CONTACT:** Gerald Rohsler, Director  
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**AGENCY: CITY OF NEWARK**

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**SUBJECT:** McClellan Street Underpass Roadway and Drainage Improvements

**DESCRIPTION:** The McClellan Street Underpass is located east of Frelinghuysen Avenue in Newark's East Ward where McClellan Street traverses underneath the northeast Corridor. McClellan Street provides a key gateway between Routes 1 & 9 and Newark Airport to Frelinghuysen Avenue.

The USGS maps show the McClellan Street Underpass lies in a topographical depression. The area is too low to be drained by gravity/velocity so heavy rains result in extreme flooding conditions. The flooding creates a dangerous safety concern as well as impeding the flow of traffic.

The existing vertical clearance of 12'-1" is substandard, the design criteria requires a minimum of 14'-6". The lacks of appropriate vertical clearance prevent tractor trailer (WB-50) from utilizing this crossing and connect from Routes 1 & 9 and the airport to Frelinghuysen Avenue.

The purpose of the McClellan Street Underpass Project is the following:

- a) Improve the drainage system beneath the mainline tracks of the Northeast Corridor Line in order to eliminate the flood prone area.
- b) Improve the vertical clearance below the tracks by lowering the existing roadway profile to accommodate (WB-50) truck traffic.
- c) Widening the roadway through the underpass and underneath the Northeast Corridor to accommodate the full capacity of the roadway.

**SCHEDULE:** Final Design in February 2016 (Consultant: Parsons Brinckerhoff, Inc.)

**PRODUCT:** Final Design and Construction Documents

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**SUBJECT:** Delancy Street Roadway Improvements

**DESCRIPTION:** Improvements to 1.1 miles of Delancy Street, a two-lane arterial between Avenue I and Rutherford Street/Avenue P.

This industrialized segment of Delancy Street has been historically an important link between Routes 1&9, Newark Liberty International Airport and the Port Newark Terminal, and continues to carry significant heavy truck traffic.

Existing physical and operational deficiencies in this segment of Delancy Street are not consistent with its important existing and future role in freight movement. These deficiencies create traffic congestion and relatively high numbers of accidents. Considering the existing and future use of Delancy Street for access to the ports, the airport and major accessways, these

deficiencies need to be remedied, to enable efficient truck access and freight-carrying industries to continue and grow in this sector of Newark.

In view of these existing conditions and projected freight-carrying demand, the City of Newark retained PB Americas, Inc. (PB) to identify, develop and assess improvement alternatives that would remedy the following deficiencies within this roadway segment: lack of definition of travel lanes and traveled way; inadequate drainage conditions; and constrained roadway geometry. Additionally, traffic operating conditions and drainage at the Delancy Street intersection with Stockton Street and Route 1&9 needs to be improved.

Delancy Street will be widened by 10' to provide one 12' lane and 7' shoulder per direction and a 12' left-turn lane/stripped median and only minor revisions to the horizontal and vertical alignment will be made. Proposed improvements will include construction of new drainage inlets and pipes, replacement of pavement with full depth pavement, and new curbing and sidewalks. Utilities to be relocated will include aerial utility lines and poles due to roadway widening and underground water, sanitary and gas as needed for the proposed drainage design.

**SCHEDULE:** Final Design in December 2015 (Consultant: Michael Baker, Inc.)

**PRODUCT:** Final Design and Construction Documents

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**SUBJECT:** Newark Waterfront Pedestrian and Bicycle Access: Center Street

**DESCRIPTION:** The Newark Waterfront Pedestrian and Bicycle Access project proposes to improve pedestrian and bicycle connections to McCarter Highway (Route 21) in downtown Newark between City Dock Street (Newark Pennsylvania Station) and Bridge Street, along with a connection to Broad St via Center Street. This Phase of the project will consist of the connection between McCarter Highway (Route 21) and Broad St via Center St, and the total project length is approximately 1,050 feet.

The project includes pedestrian and bike connections between Broad St, McCarter Hwy and the Newark Riverfront. These improvements include new traffic signals with pedestrian countdowns, bike lanes, new sidewalks, new street lighting, street furniture, trees and signage.

**SCHEDULE:** Final Design in December 2016

**PRODUCT:** Final Design and Construction Documents

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**CONTACT:** Jack M. Nata, Manager  
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**AGENCY: OCEAN COUNTY**

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**SUBJECT:** Ocean County Barnegat Branch Trail, Barnegat to Toms River

**DESCRIPTION:** The trail will extend from Barnegat Township to Toms River, a distance of 15.6 miles along the former CNJ rail line. The landscape of the trail varies through each of seven municipalities - ranging from forest and sand mining to neighborhoods and commercial centers. Trailhead and comfort stations will be constructed at access nodes, and interpretive and historic signage will be installed throughout the trail to educate trail users.

**SCHEDULE:** Ocean County Planning, Engineering, Parks Departments and consultant team are actively working to develop and construct the trail in phases. Trail improvements are being funded by Ocean County and supplemented by various grants.

**PRODUCT:** Conceptual Plan - complete. Phase I (2 miles) - complete. Phase II (1.1 miles) - complete. Phase III (2.0 miles) - complete. Phase IV (1.5 miles) - complete. Phase V (2.4 miles) – construction 75% complete. Phase VI (0.8 miles) - construction Summer 2014.

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**SUBJECT:** Fischer Boulevard Extension Alternatives, Toms River Township, Ocean County

**DESCRIPTION:** Currently, Fischer Boulevard terminates at Hooper Avenue and is a point of significant congestion. Ocean County is studying options to address congestion at the intersection of Fischer Boulevard and Hooper Avenue in Toms River Township.

The Preferred Alternative concluded that the jug-handles at College Drive and Fischer Boulevard were the least environmentally disruptive build that improves LOS.

Final design is complete. CAFRA permit has been issued. Pending final approval of wetland and T&E habitat mitigation plans.

**SCHEDULE:** The project has been completed. Construction is funded and bids will be sought in early 2014.

**PRODUCT:** Alternatives Analysis, Preliminary and Final Design documents and permits.

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**SUBJECT:** Western Boulevard Extension, Berkeley Township, Ocean County

**DESCRIPTION:** The extension completes a bypass to State Highway Route 9 to relieve congestion for through traffic with origin and destination outside Berkeley Township. The Route 9 Corridor is a 2 lane arterial with unrestricted access. Limited Right-of-Way and intense commercial development make it physically difficult, if not impossible, to address capacity. This project will allow an alternate for the majority of vehicles that have destinations beyond this 9-mile segment of Route 9.

**SCHEDULE:** The project has encountered significant Threatened and Endangered Species issues and is currently still in the Conceptual Development Phase.

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**SUBJECT:** Garden State Parkway (GSP) Interchange 83 Connector Road, Toms River Township, Ocean County

**DESCRIPTION:** The construction of GSP Interchange 83 Connector Road and related improvements includes the following:

- New northbound GSP direct to State Highway Route 166 southbound
- Relocated Ramp B at State Highway 166 and a new traffic signal.
- New Ocean County Connector Road between State Highway Route 166 and Ocean County Route 571. This is a two (2) lane restricted access road except where turn lanes are shown at intersections.
- New traffic signal at relocated Ramp A and new Connector Road.
- New traffic signal at Ocean County Route 571 and Connector Road/Intermediate Way West.
- Widening of Intermediate Way West at Old Freehold Road.
- Widening of Ocean County Route 571.
- Removal of portions of existing Ramp A.

**SCHEDULE:** Phase A construction was completed in 2012. Phase B widening of CR 571 could not be completed until the GSP shoulder widening project replaces the overpass at CR 571. Phase B is funded. Construction should advance and be completed in 2014.

**PRODUCT:** Preliminary and Final Design documents, construction.

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**SUBJECT:** New Park & Ride Facility at Garden State Parkway Interchange 58

**DESCRIPTION:** The project proposes an 80 parking stall park and ride lot along the northbound side of the Parkway at Interchange 58 with access from CR 539. Currently, the area is informally used by as many as 40 vehicles a day for this purpose and creates a sometimes unsafe condition.

**SCHEDULE:** Consultant Solicitations are scheduled for early 2014. Design and permits should take 18 months. Construction should advance in late 2015. There is a funding agreement in place between Ocean County and the New Jersey Turnpike Authority.

**PRODUCT:** An 80 stall free Park & Ride facility for commuters accessing the Garden State Parkway at Interchange 58.

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**CONTACT:** Frank S. Scarantino, Office of the Ocean County Engineer  
Phone: 732-929-2130  
Email: [fscarantino@co.ocean.nj.us](mailto:fscarantino@co.ocean.nj.us)

**AGENCY: PASSAIC COUNTY PLANNING DEPARTMENT**

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**SUBJECT:** Morris Canal Greenway Feasibility Study Implementation

**DESCRIPTION:** This effort involves project handoffs and phased implementation products recommended in the Morris Canal Greenway Feasibility Study.

**SCHEDULE:** On-going

**PRODUCT:** Various implementation projects of recommendations stemming from the Morris Canal Greenway Feasibility Study. This includes partnering with the National Parks Service in a year long coordination effort. In addition the Planning Department continues to apply for various grants to construct new portions of the Morris Canal Greenway, install on-road facilities and signage, and engineer new facilities.

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**SUBJECT:** Passaic County Open Space, Parks, and Recreational Master Plan

**DESCRIPTION:** The Passaic County Planning Department is updating the Open Space and Recreation Master Plan that was last done in 2001. A consultant will be hired in the early spring to assist with this effort. The update will include an emphasis on County Parks that was not in the last Master Plan Element.

**SCHEDULE:** Work is anticipated to be complete within one year of hiring a consultant.

**PRODUCT:** The product will replace the existing Open Space and Recreation Element of the Passaic County Master Plan. This will include all proposed and potential open space acquisitions and needs for the County Parks system that could attract more visitors.

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**SUBJECT:** NYS&W Passenger Service Restoration Research Project

**DESCRIPTION:** The Passaic County Planning Department is working with NJ Transit and the NJTPA in creating a white paper on all efforts relating to restoring passenger service along the NYW&W freight railroad corridor. This work is being done in coordination with Morris, Sussex and Bergen Counties. Passaic County Planning staff will also continue working with NJ Transit on moving forward with the portion off the project between Hawthorne and Hackensack that has final design specifications completed

**SCHEDULE:** On-Going

**PRODUCT:**

The product will be a white paper detailing all the completed efforts relating to restoration of passenger service along the NYS&W corridor for all counties over recent years. This will be a vital product in moving forward with future coordination of projects along this important transportation corridor.

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**CONTACT:**

Michael Lysicatos AICP, PP – Senior Planner  
Phone: 973.569.4047  
Email: [mlysicatos@passaiccountynj.org](mailto:mlysicatos@passaiccountynj.org)

**AGENCY: SOMERSET COUNTY**

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**SUBJECT:** Davenport Street Extension (DB 06378)

**DESCRIPTION:** State and local development plans have focused on the Borough's downtown and its landfill which has the potential to house a major Transit-Oriented Development. One of the key constraints is access under the railroad tracks since links between the landfill and downtown are limited to the existing crossings at Somerset Street and South Bridge Street. A new grade separated crossing at Davenport Street would provide the connectivity for the Transit-Oriented Development. The planned redevelopment of the downtown mall also provides an opportunity to extend Davenport Street through the Mall site and then under the railroad tracks into the landfill site. This route will also become the main pedestrian corridor between downtown, the new civic center and other uses planned for the landfill and the Raritan River Greenway.

**SCHEDULE:** Final Design in FY 2015.

**PRODUCT:** Final Design and Construction.

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**SUBJECT:** Orchard Road Connector (DB 06381)

**DESCRIPTION:** Alternate solutions to relieve congestion were explored and a determination was made to investigate the use of loop roads. One of Montgomery Township Master Plan roads is known as Orchard Road connector which would be a north/south connector roadway to link Orchard Road and CR 518. In order to implement the construction of this connector road, a crossing of Bedens Brook is necessary. NJDOT and Somerset County Engineering Department have supported the concept of improving the Route 206/CR 518 intersection by constructing loop roads such as the Orchard Street connector. This method has been deemed the most cost effective method to alleviate traffic congestion.

**SCHEDULE:** Local Concept Development in FY 2015 and Preliminary Engineering in FY 2016.

**PRODUCT:** Concept Development and Preliminary Engineering.

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**SUBJECT:** Route 22 Sustainable Corridor Long Term Improvements (DB 03318)

**DESCRIPTION:** The proposed project will investigate long term improvements between Route 202/206 and Chimney Rock Road. Proposed improvements should address the high accident rates as well as eliminate congestion in this area. A full alternatives analysis is to be undertaken by Somerset County in order to fully determine the needs and the most cost-effective solution.

**SCHEDULE:** Local Concept Development in FY 2015.

**PRODUCT:** Breakout projects from the concept development study when completed.

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**CONTACT:** Walt Lane, Somerset County Planning Board  
Phone: 908-231-7021  
Email: [lane@co.somerset.nj.us](mailto:lane@co.somerset.nj.us)

**AGENCY: UNION COUNTY**

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**SUBJECT:** Elizabeth Ferry Project (DB HP01016)

**DESCRIPTION:** A new Ferry Terminal in Elizabeth will connect New Jersey to Manhattan and provide an alternative to the commuting public. The Ferry Terminal is proposed in an area just east of the Jersey Garden Mall, south of Port Elizabeth.

**SCHEDULE:** Preliminary design and construction in FY 2014.

**PRODUCT:** Preliminary design and construction.

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**CONTACT:** Colleen M. Mahr, Director of Strategic Planning &  
Intergovernmental Affairs  
County Of Union  
Phone: 908-527-4273  
Email: [cmahr@ucnj.org](mailto:cmahr@ucnj.org)

**AGENCY: WARREN COUNTY**

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**SUBJECT:** SR 31 shuttle to the Clinton PnR down SR 31 South

**DESCRIPTION:** Warren and Hunterdon are working to create a shuttle that will start in Washington then go to Oxford and then to Wash. Boro. It will then travel South on 31 to the PnR. There is a possibility we may take them to both train stations. Once back at the PnR they will have the option for linkage to a van pool, the Warren or Hunterdon shuttle busses or just get on the bus to NYC.

**SCHEDULE:** To-Be-Determined still planning the route, doing a survey..etc.

**PRODUCT:** Low-cost trip to the PnR that is at capacity

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**CONTACT:** Brian Appezzato, Senior Planner  
Warren County  
Phone: 908-475-6532  
Email: [bappezzato@co.warren.nj.us](mailto:bappezzato@co.warren.nj.us)

**NORTH JERSEY TRANSPORTATION  
PLANNING AUTHORITY, INC.**

**FY 2016**

**UNIFIED PLANNING WORK PROGRAM  
VOLUME VI  
OTHER REGIONAL TRANSPORTATION  
PLANNING INITIATIVES**

**SECTION II**

**NEW JERSEY DEPARTMENT OF TRANSPORTATION  
STATE PLANNING AND RESEARCH PROGRAM**



## STATE PLANNING AND RESEARCH PROGRAM, 2015 - 2016

**ACTIVITY:** Statewide Strategies – 4510015 / 5680  
**MANAGER:** James B. Lewis  
**UNIT:** Bureau of Statewide Strategies

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### **VISION:**

Provide an array of convenient, affordable, multi-modal travel choices, integrating land use, economic development and an enhanced environment for New Jersey's transportation system.

### **MISSION:**

To exercise a performance-based planning and programming approach to create cutting-edge concepts to foster awareness and education among the Department's relevant units, the transportation community and the public to implement connections of transportation to land use and essential services such as housing, healthcare, schools/education and recreation, that make communities more livable and promote strategic delivery of transportation facilities and services to enhance job creation, commerce and the economic health of the state and the region.

### **GOALS/ACTIVITIES:**

1. Implement the goals identified in the Statewide Long-Range Transportation Plan (SLRTP), *Transportation Choices 2030*, through the various policies, strategies and actions conveyed in the plan so that the SLRTP serves as the foundation for all of the Department's functional plans and programs. An update of the SLRTP shall be consistent with the goals of the State Development and Redevelopment Plan (SDRP) and meet the requirements of MAP-21 legislation.
  - a. Monitor new final rule for Statewide Planning for changes to statewide plan requirements and conceptualize plan for the development of the next statewide long-range transportation plan in concert with other federally required plans, collaborating with NJ TRANSIT, the state's MPOs, various transportation stakeholders and federal partners.
  - b. Ensure that NJDOT and NJ TRANSIT policies, programs, investments, and functional and operational plans reflect national goals and performance management measures and requirements, in addition to state planning factors and requirements, that are expressed through various efforts, including the NJDOT & NJ TRANSIT TAMPs, HSIP, CMAQ, SDRP, SLRTP, a high-level performance-based capital investment plan/SCIS, STIP, Statewide Freight Plan, Bicycle and Pedestrian Master Plan, New Jersey Travel Demand Management Strategic Plan, New Jersey Statewide ITS Architecture – "The Connected Corridor", New Jersey State Rail Plan, NJDOT's Complete Streets Policy, etc.
  - c. Continue to provide an awareness of the SLTRP and its goals through various public involvement and public participation techniques in order to inform staff, stakeholders and the public about the ongoing efforts to develop and achieve the plan's vision primarily through the website and perhaps other social media.
2. Develop an enhanced State Highway Access Management Code (SHAMC) that contains provisions and planning elements that support the state's smart growth and livability goals and objectives to ensure consistency with the policies and strategies of the SDRP and SLRTP.
  - a. Advance recommendations from the NJ Access Code Reevaluation Study, such as transit trip credits, Main Street designation process, and amendments to the Municipal Land Use Law.
  - b. Update the Desirable Typical Sections (DTS) in Appendix B of the State Highway Access Management Code by developing a standard approach to the appropriate sizing of the DTS consistent with State policies.
  - c. Provide guidance to the SHAMC for local officials and practitioners to promote the use of planning tools such as municipal zoning conformity with the Access Code and the development of Optimal Traffic Signal Location Plans and Access Management Plans.

## STATE PLANNING AND RESEARCH PROGRAM, 2015 - 2016

**ACTIVITY:** Statewide Strategies – 4510015 / 5680  
**MANAGER:** James B. Lewis  
**UNIT:** Bureau of Statewide Strategies

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### *GOALS/ACTIVITIES: (cont'd.)*

- d. Evaluate requests and provide recommendations on changes to access classifications as permissible in the subchapter on “Procedure for Changes in Classification” of the SHAMC and consistent with State policies and direction.
3. Develop viable transportation improvement recommendations from corridor studies and advance them into NJDOT’s capital planning program, problem intake phase. Collaborate with various State **and federal** agencies, NJ Transit, MPOs, counties and municipalities on these corridor studies and initiatives by other entities to develop and implement context sensitive solutions, encourage innovation and use of technology, multi-modal strategies, and non-transportation approaches in support of the SLRTP, SDRP, NJDOT’s Complete Streets Policy, The Connected Corridor, and federal sustainability and livability programs.
    - a. Evaluate, conduct and manage corridor studies considering multi-modal strategies and prepare problem statements for the Department’s problem intake phase of the project delivery process.
    - b. Continue to provide awareness of NJFIT approaches to integrating transportation and land use planning for residential and commercial development/redevelopment as NJDOT staff work to implement an innovative NJFIT initiative to gain greater acceptance in NJDOT’s decision-making processes, programs and initiatives.
      - i. Provide staff and consultant resources to support municipalities with developing successful problem statements that lead to sustainable transportation projects.
      - ii. Partner with local entities and the development community to achieve livable communities.
      - iii. Evaluate NJDOT’s internal programs to integrate NJFIT philosophy throughout the agency to enhance the department’s project delivery process.

### *ANTICIPATED ACCOMPLISHMENTS FOR CALENDAR YEAR 2015:*

- Completion of conceptual work plan and outline for potential tasks for the SLRTP.
- Advance through rulemaking the revised NJ SHAMC, including Appendix B changes/corrections and revised subchapter on “Procedure for Changes in Classification”.
- Advance proposals for inclusion of Transit Trip Credit and Main Street provisions in the SHAMC.
- A process and criteria for establishing the Desirable Typical Sections in Appendix B of the SHAMC.
- Issuance of guidance and/or educational material for planning tools related to access management, i.e. Zoning Conformity, Optimal Signal Location Plan, and Access Management Plans.
- Deliberative recommendations on access classification /DTS change requests resulting from procedure in the SHAMC and advancement to rulemaking proposed amendments to access classifications/DTSs in Appendix B of the Code.
- Complete reviews and provide determinations and responses to requests on Excess Parcel and Farmland Preservation inquiries related to the DTS in Appendix B.
- A proposal for a revamped or rebranded NJFIT Initiative.
- Advancement of planning initiatives and/or projects from the RT1RGS vision and the Central Jersey BRT efforts championed by the CJTF, i.e. Central Jersey/Route 1 BRT project w/NJ TRANSIT.
- Actively participate in MPOs subregional study efforts upon request, in an effort to facilitate NJDOT subject matter expertise and collaboration with locals.

## STATE PLANNING AND RESEARCH PROGRAM, 2015 - 2016

**ACTIVITY:** Statewide Strategies – 4510015 / 5680  
**MANAGER:** James B. Lewis  
**UNIT:** Bureau of Statewide Strategies

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### ***CONTRACTS:***

No contracts.

### ***STAFFING:***

Danielle Graves, Project Manager, Planning	0.50 PY
Tineen Howard, Principal Planner, Planning	1.00 PY
Joseph Burdulia, Senior Planner, Planning	0.80 PY
Thomas Houck, Planner, Planning	<u>1.00 PY</u>
Total	3.30 PY

## STATE PLANNING AND RESEARCH PROGRAM, 2015 - 2016

**ACTIVITY:** Performance-based Planning and Asset Management – 4510015 / 5900  
**MANAGER:** James B. Lewis  
**UNIT:** Statewide Strategies

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### **VISION:**

NJDOT is a national leader in performance-based planning (PBP) and asset management (AM). NJDOT implements transportation improvements that provide the most comprehensive benefits to a range of transportation objectives. NJDOT implements cutting edge preservation and renewal strategies that keep our assets in a state-of-good repair in the most cost-effective means possible to enable access to essential services such as housing, employment and commerce, healthcare, schools/education, and recreation.

### **MISSION:**

Maximize performance-based decision making in capital investment planning and programming. Enhance linkages between NJDOT's various processes, plans and programs in order to analyze all transportation priorities in concert so we can advance multiple transportation objectives most effectively. This would include the statewide long range transportation plan, MPO's metropolitan transportation plans, the state's freight plan, congestion management process, comprehensive strategic highway safety plan, the state development and redevelopment plan, various asset management plans for physical assets including structures, pavements, drainage, etc.

All PBP/AM related activities are not captured in this thumbnail activity. Portions are covered in various other activities and through coordinated and collaborative efforts with regional entities such as the MPOs and local entities, NJ TRANSIT, various transportation authorities, neighboring state DOTs and federal agencies. A number of activities in the work program can be considered PBP/AM in their entirety. They include:

1. Pavement Program Planning
2. NJDOT Pavement Support Program
3. Drainage Capital Improvement Program Planning
4. Bridge Management System
5. Straight Line Diagrams
6. Digital Roadway Imaging and Video Data
7. Transportation Data Warehouse and Maintenance
8. Traffic Monitoring System – Traffic Volumes Data Collection
9. Traffic Monitoring System – Database Maintenance
10. Traffic Monitoring System – Truck Weights
11. Traffic Monitoring System – Infrastructure Renewal

Activities with some PBP/AM elements include:

- Statewide Planning
- Transportation and Livable Communities
- Technical Analysis
- Goods Movement
- TIP/STIP Preparation
- TSRC
- Technology Transfer and Implementation
- LTAP
- Maintenance Decision Support

It is very difficult to isolate all the expenditures that are associated with PBP/AM. We will be able to easily track PBP/AM costs for activities that fully encompass PBP/AM and we will track costs associated with the efforts of this activity.

## STATE PLANNING AND RESEARCH PROGRAM, 2015 - 2016

**ACTIVITY:** Performance-based Planning and Asset Management – 4510015 / 5900  
**MANAGER:** James B. Lewis  
**UNIT:** Statewide Strategies

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### **GOALS/ACTIVITIES:**

1. Prepare a draft high level NJDOT investment strategy/plan supported by performance information.
2. Prepare a draft Transportation Asset Management Plan (TAMP) in line with MAP-21 requirements.
  - a. Engage consultant to begin preparation of TAMP using information provided by Pavement Planning Program, Bridge Management System and other sources.
  - b. Engage Department SMEs in an array of activities related to the TAMP's development, including identification and implementation of actions for improvement based on performance/asset management approach.
  - c. Collaborate with MPOs, counties and various transportation authorities and federal agencies on the TAMP's development, including data collection and reporting efforts, and the development of performance measures and targets for assets on the NHS system, as per MAP-21 requirements.
  - d. Present Asset Management information to AM Steering Committee for review and direction.
3. Collaborate with MPOs, counties, independent transportation authorities and federal agencies to establish methodology to gather and report on pavement condition on non-state NHS routes in line with MAP-21 requirements.
4. Continue to work with Pavement Management, Division of Local Aid and the MPOs in the development of a strategy for assessing county pavement condition and prioritizing county pavement improvements.
5. Continue work the MPOs to assist them in developing an asset management based prioritization process for programming federal funds for county bridges.
6. Improve problem intake process to strengthen performance driven methodology and transparency. Streamline the Tier 1/Tier 2 screening process into the Problem Screening Process. Collaborate with CPM to assess problem statements' appropriate path and accelerated graduation of potential projects.
7. Collaborate with TSM (Operations) to identify how technology can support PBP and project delivery.
8. Continue to identify innovative strategies for how technology can be utilized to keep NJ assets in a state-of-good repair.

### **ANTICIPATED ACCOMPLISHMENTS FOR CALENDAR YEAR 2015:**

1. Draft high-level investment strategy/plan.
2. Draft NJDOT's TAMP, with collaboration from the MPOs, counties, independent transportation authorities and federal partners.
3. Presentations at AM Steering Committee meetings.
4. Collected pavement condition data for non-state NHS routes.
5. Strategy for assessing county pavement condition and prioritizing county pavement improvements.
6. MPO established an asset management based prioritization process for programming federal funds for county bridges.
7. Develop new Problem Screening Process, with collaboration from the MPOs.
8. Integrate technology and operational (TSM) strategies as part of the problem screening process.

### **CONTRACTS:**

Consultant required to prepare the TAMP - \$750,000

### **STAFFING:**

Amy Polachak, Project Manager	0.75 PY	Danielle Graves, Project Manager	0.50 PY
George Baier, Analyst Trainee	1.00 PY	Joesph Burdulia, Senior Planner	0.20 PY
Jed Soriano, CET	0.50 PY		

## STATE PLANNING AND RESEARCH PROGRAM, 2015 - 2016

**ACTIVITY:** Transportation and Livable Communities – 4510015/5400  
**MANAGER:** James B. Lewis  
**UNIT:** Bureau of Statewide Strategies

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### ***VISION:***

NJDOT plays a leading role in providing long term sustainable and context sensitive solutions to transportation problems, in collaboration with other state agencies, MPOs, counties and municipalities, to develop and implement alternatives to single-occupant vehicle (SOV) travel such as trip reduction, mass transit, walking, biking and local street connectivity.

### ***MISSION:***

To maximize the efficiency of the transportation system statewide and in local communities by employing such initiatives as Mobility and Community Form and Transit Village designation to create a stronger link between transportation and land use according to the smart growth principles of the State Development and Redevelopment Plan (SDRP) and the federal Livable Communities strategy.

### ***GOALS/ACTIVITIES:***

1. Shape the Capital Investment Strategy with infusion of Smart Growth and State Strategic Plan (SSP)/State Development and Redevelopment Plan (SDRP) principles into the Department's policies, programs, practices and investment decisions.
  - a. Spearhead participation in New Jersey's economic growth agenda through coordination with other agencies in the evolving statewide effort to implement the goals, strategies and policies of the State Strategic Plan (SSP)/State Development and Redevelopment Plan (SDRP) and Smart Growth principles.
  - b. Increase awareness among Department units and the public about federal, regional and statewide Smart Growth, Sustainable Transportation and Livable Communities endeavors including the North Jersey Regional Plan for Sustainable Development, through literature distribution, workshop events and the State Plan/Smart Growth Implementation Team (I-Team).
  - c. Improve the existing process for internal Department review of local plans for transportation elements that embody Smart Growth concepts and underpin sustainable land use objectives according to principles of the emerging new SSP/SDRP.
  - d. Advocate the use of SSP/SDRP concepts in NJDOT's Asset Management and problem intake process by continuing to implement and further develop a "Smart Growth Management System" that works together with the other Department Management Systems to evaluate and prioritize transportation studies and capital projects for consistency with the SSP/SDRP and Smart Growth.
2. Provide resources and technical assistance to communities to link transportation and land use in municipal master plans using the principles of Mobility and Community Form (MCF).
  - a. Market MCF principles, encourage implementation and furnish resource material to relevant stakeholders.
  - b. Provide input and expertise toward any future MCF work efforts undertaken by any entity beyond the Pilot Program with specific communities that officially ended in 2013.

## STATE PLANNING AND RESEARCH PROGRAM, 2015 - 2016

**ACTIVITY:** Transportation and Livable Communities – 4510015/5400  
**MANAGER:** James B. Lewis  
**UNIT:** Bureau of Statewide Strategies

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### *GOALS/ACTIVITIES:* (continued)

3. Foster development of compact, mixed use Centers, as embodied in the New Jersey State Development and Redevelopment Plan (SDRP), by designating more Transit Villages.
  - a. Designate at least two new Transit Villages.
  - b. Monitor progress of designated Transit Villages.
  - c. Meet with interested Transit Village applicants and regularly coordinate with existing designated Transit Villages.

### *ANTICIPATED ACCOMPLISHMENTS FOR CALENDAR YEAR 2015:*

- Coordination of NJDOT's Smart Growth Implementation Team (I-Team) activities to foster sustainable transportation concepts in the way the Department conducts its business, such as transportation mode choice, Complete Streets, Context Sensitive Solutions (CSS), transit-oriented development (TOD), highway and transit connectivity and transportation infrastructure resiliency.
- Arrangement of at least one I-Team field visit to localities with smart growth potential or achievements.
- Contribution of transportation perspective to any outstanding Plan Endorsements of municipalities by the State Planning Commission.
- Performance of any required Department activities associated with the anticipated adoption of the SSP, such as preparation of an Agency Implementation Plan.
- Participation in Brownfields Interagency Work Group meetings and Brownfields Redevelopment and Development Opportunity Interagency Team meetings.
- Continuation of state-funded consultant work to complete the second phase of the Smart Growth Management System (SGMS), which would encompass physical roadway and project type factors.
- Provision of SGMS scores for proposed projects upon request to Capital Program Management.
- Designation of new Transit Villages (TV) that meet the TV criteria.
- Monitoring of progress of existing designated Transit Villages through a state-funded consultant effort to highlight accomplishments of each Transit Village.
- Organization of a peer-to-peer exchange of experiences and ideas for the existing Transit Villages.
- Deployment of Form-Based Code Users' Manual that emerged from the Mobility and Community Form Program and posting of the manual on the Department Web site.
- Participation in Together North Jersey activities as appropriate.

### *CONTRACTS:*

None.

### *STAFFING:*

Susan Weber, Supervising Transportation Analyst	1.00 py
LeRoy Gould, Principal Planner, Transportation	1.00 py

## STATE PLANNING AND RESEARCH PROGRAM, 2015 - 2016

**ACTIVITY:** Metropolitan Planning Organization (MPO) Liaison - 4510015 / 5690  
**MANAGER:** James Lewis  
**UNIT:** Statewide Strategies

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### ***VISION:***

New Jersey's three MPOs will undertake regional planning and data collection that is coordinated with the NJDOT, promotes the advancement of projects in the NJDOT pipeline, and provides measurable benefits to New Jersey's transportation system, communities, environment, and economic vitality.

### ***MISSION:***

To manage federal projects and task orders necessary to carry out the MPO work programs; to ensure that MPO regional planning efforts and procedures meet federal and state requirements; as well as to promote, coordinate, and advance the state's transportation agenda through the integration of state and regional transportation plans, policies, procedures, and improvement programs with the activities of the MPOs.

### ***GOALS/ACTIVITIES:***

1. Act as liaison between the NJDOT and New Jersey's three MPOs: the South Jersey Transportation Planning Organization, the Delaware Valley Regional Planning Commission and the North Jersey Transportation Planning Authority.
  - a. Participate in MPO technical committee meetings and serve as a NJDOT resource to MPO board members, staff and sub-regional representatives.
  - b. Facilitate point-of-contact collaboration between MPO and NJDOT planning activities.
  - c. Support NJDOT voting member at MPO board and committee meetings.
2. Proactively work with MPOs and host organizations to meet annual milestones and requirements.
  - a. Work with MPOs to ensure work plans, regional transportation plans and task orders are completed and executed on time.
  - b. Submit work plans UPWP to FHWA for authorization prior to June 30th.
  - c. Submit MPO regional transportation plans, conformity determinations, and self-certifications to FHWA, FTA, and EPA consistent with approval schedule.
  - d. Develop and maintain basic agreements with MPOs and/or hosting agencies as required.
3. Provide timely and accurate contract administration for MPO work program contracts and FHWA/FTA grants and agreements.
  - a. Review and submit MPO progress reports internally and to federal agencies as required.
  - b. Ensure prompt processing of invoices.
4. Close out completed task orders and associated federal project agreements within six months of completion or as soon as practicable to eliminate inactive agreements.
  - a. Participate in federal and state financial, programmatic, and certification audits /reviews as required.
  - b. Support departmental use of basic agreements for non-work plan activities as required.
5. Develop a memoranda of understanding between the MPOs and NJDOT to clarify expectations regarding the development, modification, and execution of the annual work programs.

## STATE PLANNING AND RESEARCH PROGRAM, 2015 - 2016

**ACTIVITY:** Metropolitan Planning Organization (MPO) Liaison - 4510015 / 5690  
**MANAGER:** James Lewis  
**UNIT:** Statewide Strategies

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### *ANTICIPATED ACCOMPLISHMENTS FOR CALENDAR YEAR 2015:*

- Assist the MPOs with the transition to performance-based planning as per MAP-21.
- Maintain the schedule outlined in the Mutual Service Standards.
- Secure federal approvals and authorizations for FY 2016 UPWPs.
- Plan and execute a planning workshop for Fall 2015.
- Strive for federal agreements to be closed within three years.

### *CONTRACTS:*

None

### *STAFFING:*

<u>Name</u>	<u>Title</u>	<u>Person Years</u>
Monica Etz	Supervising Planner, Transportation	1.00
Raymond Tomczak	Planner, Transportation	1.00
Cherie Shreve	Contract Administrator 2	.50

## STATE PLANNING AND RESEARCH PROGRAM, 2015 - 2016

**ACTIVITY:** Transportation Air Quality/Travel Demand Modeling Program – 4510015 / 5970  
**MANAGER:** James Lewis  
**UNIT:** Bureau of Statewide Strategies

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### **VISION:**

New Jersey will have its most efficient, sustainable and healthy transportation system since the advent of the automobile.

### **MISSION:**

To support Air Quality (AQ) conformity, strategies and transportation project development with models and analysis tools.

### **GOALS/ACTIVITIES:**

1. Update the unit's technical toolbox.
  - a. Update the unit's computer with the latest versions of MOVES and Cube by December 2014
  - b. Updated NJAQONE (New Jersey Air Quality off network estimator) by July 2015.
  - c. Complete and test the sensitivity of all MOVES 2014 input files by March 2015.
  - d. Explore adding Transportation Economic Modeling to the unit's technical toolbox by December 2015.
2. To enhance NJDOT's in-house modeling capability.
  - a. To possess updated versions of Cube-based supported models – North Jersey Regional Transportation model (NJRTM-E), (re-validated) South Jersey Regional Transportation Model (SJRTM), New Jersey Statewide Model (NJSWM), and MOVES. (ongoing)
  - b. To expand in-house capability to perform more complex regional modeling analyses.
  - c. To develop capability to perform economic analyses of transportation projects in coordination with MPO's and other partners.
3. Support the MPO conformity processes.
  - a. Participate in all MPO interagency consultation group (ICG) activities (ongoing)
  - b. Alert upper management or any potential disruptions to the capital program (ongoing)
4. Assist in implementing Green House Gas (GHG) strategies
  - a. Support development on selected GHG plan strategies.
  - b. Participate in multi-state, state and regional GHG activities.
    - i. Work to advance the Transportation Climate Initiatives Electric Vehicle project.
    - ii. Continue work on the FHWA NY/NJ/CT Post-Sandy Vulnerability Study
  - c. Help to advance NJ's state of the practice in climate change adaptation planning.
5. Assist in the State implementation of the CMAQ program
  - a. Develop the air quality benefits piece for the Department's annual CMAQ report.
  - b. To assist (when needed) in requesting funds and managing CMAQ projects.

### **ANTICIPATED ACCOMPLISHMENTS FOR CALENDAR YEAR 2015:**

1. Completed technical toolbox.
2. Enhanced in house modeling capability
3. Ongoing, effective coordination of MPO conformity process.
4. Ongoing support of the CMAQ program.
5. Maximum participation in GHG activities, subject to resource constraints.

## STATE PLANNING AND RESEARCH PROGRAM, 2015 - 2016

**ACTIVITY:** Transportation Air Quality/Travel Demand Modeling Program – 4510015 / 5970  
**MANAGER:** James Lewis  
**UNIT:** Bureau of Statewide Strategies

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### *CONTRACTS:*

No federally funded projects expected.

### *STAFFING:*

James DeRose, Section Chief	1.0 py
Charles Grill, Project Engineer, Planning	1.0 py

## STATE PLANNING AND RESEARCH PROGRAM, 2015 - 2016

**ACTIVITY:** SPR Program Management – 4510015 / 5395  
**MANAGER:** James B. Lewis  
**UNIT:** Statewide Strategies

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### ***VISION:***

A planning program that improves the transportation system to benefit the state's economy and the traveling public.

### ***MISSION:***

Manage the State Planning and Research (SPR) / Management System work program in compliance with federal and state program and financial requirements to support state policy, planning studies and programs.

### ***GOALS/ACTIVITIES:***

1. Manage CY 2015-2016 SPR/Management System Work Program.
  - a. Execute Federal-aid agreements to fund SPR Program.
  - b. Monitor federal agreement expenditures and secure modifications as needed.
  - c. Ensure federal and state regulatory compliance with FHWA funded planning study programs.
  - d. Recommend integration of federal and state program policies.
  - e. Submit contract scopes of work to FHWA for review and approval.
  - f. Submit program revisions required by Department priorities to FHWA for review and approval.
  - g. Prepare and submit half year progress reports to FHWA within 45 days of end of reporting period.
2. Close out completed CY 2013-2014 program.
  - a. Prepare and submit final acceptance request to close out completed program.
3. Streamline program delivery.
  - a. Monitor existing practices to identify and recommend improvements.
4. Update SPR activities.
  - a. Monitor MAP-21 guidance and rules for changes in planning requirements.
  - b. Scan program implementation and external sources for new opportunities.

### ***ANTICIPATED ACCOMPLISHMENTS FOR CALENDAR YEAR 2015:***

- CY 2015-2016 SPR/Management System Work Program and 6 Month Progress Report.
- CY 2013-2014 SPR/Management System Work Program Final Report.

### ***CONTRACTS:***

None.

### ***STAFFING PLAN:***

Cherie Shreve                      Contract Administrator 2                      .50 py

## STATE PLANNING AND RESEARCH PROGRAM, 2015 - 2016

**ACTIVITY:** Community Transportation Planning Assistance – 4510015 / 5380  
**MANAGER:** Andrew Swords  
**UNIT:** Commuter and Mobility Strategies

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### **VISION:**

A safe and integrated state and local transportation system that provides a high level of mobility and accessibility for all users and advances state and regional economic growth, energy, clean air and community livability goals.

### **MISSION:**

To collaborate with local jurisdictions on advancing municipally-based integrated land use and transportation planning, as a means for preserving and enhancing the state's multimodal transportation system.

### **GOALS/ACTIVITIES:**

1. Initiate up to four (4) municipal and county planning studies, upon request from local agencies for:
  - a. Improving local system safety for motorists, pedestrians and bicyclists
    - i. Promote and develop local Complete Streets policies and plans
    - ii. Conduct pedestrian and bicycle safety audits leading to sidewalk and bike facility concepts and plans for short-term implementation and state and federal grant readiness
    - iii. Partner with MPO's, counties and select municipalities in developing plans for meeting local transportation safety needs, in general.
  - b. Encourage more balanced transportation options to reduce reliance on driving and vehicle miles of travel (VMT)
    - i. Develop local land use and transportation plans based on higher density/mixed use center-based development, Transit Oriented Development (TOD's) and community form based development codes
    - ii. Assist in attaining the Department's goal of 10 miles of new bike paths a year
    - iii. Conduct parking management, sidewalk and streetscape, and local traffic flow and congestion improvement studies for centers and urban areas
    - iv. Conduct community-based transit service assessments and opportunity studies to improve mobility and access for NJ residents of suburban and rural communities.
  - c. Coordinate the selection and conduct of municipal and county planning studies and activities with respective MPO's.
2. Development of Access Management Plans (a CTPA program core function), as directed by the Department to preserve and improve the safety and performance of state and local highways
  - a. Develop plans to minimize and coordinate highway access points, as a means for reducing crashes and improving highway operations.
  - b. Partner with municipal governments, the public, and appropriate MPO's to coordinate land use and transportation planning in corridor areas, as a means of preserving future highway capacity.
  - c. Maintain and update existing Access Management Plans, as required by state statute.
3. Support, leverage and ensure consistency with federal, state and metropolitan regional planning agencies
  - a. Support other Department functional programs, such as Local Aid and Economic Development, and Commuter Mobility Strategies, to leverage their respective programs.
  - b. Seek opportunities to leverage federal planning programs, such as the Community Challenge Planning Grants, the Partnership for Sustainable Communities program and MPO local assistance programs.
  - c. Priority will be given to local governments most in need of funding aid and to those desiring to plan their growth and development consistent with the goals and objectives of the State Strategic Plan (SSP), NJDOT Long Range Transportation Plan, and the Department's Capital Investment Strategy.

## STATE PLANNING AND RESEARCH PROGRAM, 2015 - 2016

**ACTIVITY:** Community Transportation Planning Assistance – 4510015 / 5380  
**MANAGER:** Andrew Swords  
**UNIT:** Commuter and Mobility Strategies

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### *GOALS/ACTIVITIES: (cont'd.)*

4. Provide staff oversight for CTPA program
  - a. Scope of Work development and Task Order processing
  - b. Guidance, review and comment on planning products
  - c. Coordination with NJDOT subject matter experts and other agencies
  - d. Invoice processing and general program maintenance
5. Transportation and land use planning research and training
6. Represent NJDOT on various federal, state and regional planning initiatives, including the HUD grant Together North Jersey Local Demonstration Project studies.

### *ANTICIPATED ACCOMPLISHMENTS FOR CALENDAR YEAR 2015:*

- Initiate approximately two (2) Community Transportation Planning Assistance studies and (2) two potential Access Management Planning studies (Lakewood/Toms River, Route 9 and Woolwich Township, Route 322).
- Represent Division of Statewide Planning, as requested, on federal, state, and local planning initiatives.

### *CONTRACTS:*

Contractual - State TTF funds, two 3-year Consultant Task Order Agreements. No federal funding utilized.

### *STAFFING:*

Helene Rubin, PP, AICP, Project Manager	1.00 py
Andrew Clark, Senior Planner, Transportation	1.00 py

## STATE PLANNING AND RESEARCH PROGRAM, 2015 - 2016

**ACTIVITY:** Technical Analysis/Congestion Management – 4510015 / 5700  
**MANAGER:** Debbie Kingsland, Acting Manager  
**UNIT:** Commuter & Mobility Strategies

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### GOALS/ACTIVITIES: (cont'd.)

3. Respond to NJDOT's Congestion Relief Investment Needs
  - a. Develop congestion screenings used to advance projects through the development process
    - i. Up to 120 (60 per year) Tier 2 project scoping screenings (by 12/16)
    - ii. Up 30 (15 per year) project assessments for CPSC meetings (by 12/16)
  - b. Develop 1 annual Statewide Capital Investment Strategy document (SCIS)
    - i. Conduct Capital Program project pool ranking (by 11/15)
    - ii. Develop three to four alternative investment scenarios for the Congestion Relief Program (by 11/15)
    - iii. Make recommendations on appropriate funding levels for each element of the Congestion Relief Program (by 11/15)
    - iv. Update Tactical Level Assessment Management Plan, as appropriate (by 03/16)
4. Advance Planning/Operations Relationship to Facilitate Linkage Opportunities (complete team)
  - a. Organize and attend quarterly meetings to coordinate and integrate Planning/Traffic Operations and Mobility and Systems Engineering activities
    - i. Scope and attend four meetings (by 12/16)
  - b. Establish process and tracking protocols for performing, integrating and optimizing linkages between Planning and Operations (on-going)
  - c. Explore and Evaluate Innovative Solutions
    - i. Collaborate with Traffic Operations, BMSE and other Department and Regional Partners in researching, devising, instituting and evaluating new technologies and strategies, such as adaptive signal control, ramp metering, Integrated Corridor Management (ICM), "Green" technology, etc. (on-going)
  - d. Participation in Traffic Operations/Mobility & Systems Engineering Strategic Plan
    - i. Coordinate with Regional Partners (as needed)
    - ii. Provide technical support, e.g.; CMS analysis for ITS candidate corridors (as needed)
    - iii. Generate GIS mapping or other graphics (as needed)
    - iv. Conduct report review/comment (as needed)
5. Foster Performance-based Planning and Programming
  - a. Coordinate and collaborate with the State MPOs, NJT, NJTA and other State agencies in developing performance measures and targets, analytical processes and reporting in line with MAP-21 guidance
    - i. Using the results and recommendations from the NJ Pilot Study, and other work by FHWA and AASHTO, engage the CMC to coordinate and collaborate on the development of New Jersey's strategy for addressing MAP-21 performance measures: the analytical processes, assumptions, targets, and reporting (on-going)
    - ii. Engage the CMC and the Department's Data Development bureau in reconciling the (approximately) 128 miles of NJ's enhanced NHS that lacks traffic volume (and other) data (by 6/15)
    - iii. Develop and execute a proposal to integrate the missing enhanced NHS roadway segments into the CMS-21 tool (by 01/16)
    - iv. Specifically discuss the need for and use of an analytical tool (like VPP Suite) to do the analysis and results summaries (reporting) for MAP-21.

## STATE PLANNING AND RESEARCH PROGRAM, 2015 - 2016

**ACTIVITY:** Technical Analysis/Congestion Management – 4510015 / 5700  
**MANAGER:** Debbie Kingsland, Acting Manager  
**UNIT:** Commuter & Mobility Strategies

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### GOALS/ACTIVITIES: (cont'd.)

- b. Incorporate archived operations data into the Planning Process
  - i. Work with the UMD's CATT Lab (with support from NJIT) to facilitate traffic volume conflation to the VPP Suite's TMCs (by 12/15)
  - ii. Establish processes for integrating, summarizing and presenting archived operations data for performance-based planning (on-going)
  - iii. Develop an annual bottlenecks ranking process on the NJ Interstate Routes and State Routes to enhance annual problem development and MAP-21 (by 12/16)
  - iv. Participate in comprehensive training programs on the use of new tools and data, such as VPP Suite, RITIS, IPeMS, SPATEL, HERE data, etc. (on-going)
  - v. Integrate/coordinate the use of tools and data to minimize overlap/confusion and maximize output efficiency
- c. Initiate a comprehensive Project Assessment Program for Congestion Relief Projects
  - i. Enhance the Project Assessment Summary Template to include a Safety/Incident aspect and other potential summaries, such as User Delay Cost (by 06/15)
  - ii. Develop a companion (or standalone) one page summary document that provides simplified progress reporting in meeting performance goals and targets (by 08/15)
  - iii. Develop and use the new congestion tools to enhance mobility and reliability (on-going)
  - iv. Incorporate new tools (CMS-21, VPP Suite, etc.) to evaluate up to 3 recently completed projects for performance improvement, such as % delay reduction, travel time reduction, speed increase, etc. (by 12/15)
- d. Progress the use of "Shared Measures" recommended by the Partners in Using Archived Operations Data for Planning Purposes
  - i. Develop protocols and testing procedures for using the "shared measures" in various applications (e.g.; project before and after analyses) and formalize the process (by 12/15)
- 6. Encourage and Assist in Regional Collaboration
  - a. Coordinate with each MPO in their Congestion Management Process (CMP)
    - i. Attend two coordination meetings per MPO in their yearly update cycle (by 12/16)
    - ii. Supply technical tools (NJCMS) and expert guidance (on-going)
    - iii. Provide coordination and technical support to the South Jersey Transportation Planning Organization (SJTPO) in their enhancement of a fully functional CMP (on-going)
  - b. Coordinate with regional stakeholders through the NJDOT's Congestion Management Committee
    - i. Meet as needed during the SCIS cycle to develop the Congestion Relief portion of the overall document (as needed, until 03/16)
    - ii. Meet with the CMC up to four times a year to report out on congestion relief activities, share data and analytical techniques, and ensure consistency and clarity in communication to senior leadership and the general public (on-going)
  - c. Coordinate with the Users of Archived Operations Data Committee to establish baselines, data use, summary protocols, shared measures, etc. (on-going)
  - d. Coordinate with the Vehicle Probe Project Suite User Group to assist UMD in further enhancing the tool to meet the needs of regional stakeholders, including the addition of volume data and event (e.g.; incidents, construction, etc.) data (on-going)
  - e. Coordinate with other groups, such as the I-95 Corridor Coalition, ITS-NJ and TRANSCOM, to further the collaborating, understanding, sharing and use of archived ops data, system performance tools and techniques and the communication of results to a wide range of audiences.

## STATE PLANNING AND RESEARCH PROGRAM, 2015 - 2016

**ACTIVITY:** Technical Analysis/Congestion Management – 4510015 / 5700  
**MANAGER:** Debbie Kingsland, Acting Manager  
**UNIT:** Commuter & Mobility Strategies

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### *ANTICIPATED ACCOMPLISHMENTS FOR CALENDAR YEAR 2015:*

1. Fully functional CMS-21 that supports project development/evaluation and MAP-21 performance measure development and evaluation
2. A revised Congestion Relief Problem Statement Development Process
3. 6 signalized intersection problem statements submitted to Capital Investment Planning & Development
4. Completed vetting process for problem area interchanges
5. Completion of one pilot process and up to 4 Problem Statements for problem area interchanges
6. 60 Tier II Project Scoping screenings; 15 Project Assessments for CPSC meetings; 1 Capital Investment Strategy document; 1 Tactical-Level AMP
7. 4 quarterly meetings with Traffic Ops/BMSE (exact outcomes TBD)
8. Progress innovative solutions to congestion relief, such as a ramp-metering, Integrated Corridor Management (ICM) and adaptive signal control.
9. Contribution to BSME's Strategic Plan through analytical support and congestion relief expertise
10. Development of a NJ (System Performance) Strategy for addressing the requirements of MAP-21
11. In coordination with the MPO's and other State agencies, incorporation of archived operations data (speed and incident data) into the planning process.
12. Institute a Project Assessment Program for congestion relief projects
13. Evaluate up to 3 recently completed projects
14. Coordination and Technical support to the MPO's CMP processes
15. Coordination with regional stakeholders through the NJDOT's Congestion Management Committee
16. Coordination with the Users of Archived Operations Data Committee to develop and use protocols for at least 2 (of the 4) shared measures
17. Coordination with the VPP Suite User Group to further the development of the tool, thereby enhancing project performance analyses at the Department
18. Coordination with other groups (I-95 Corridor Coalition, ITS-NJ, TRANSCOM) to further the use, understanding and collaboration of archived ops data and tools.

### *CONTRACTS:*

None.

### *STAFFING:*

John Allen, Section Chief	1.0 py
Ira Levinton, Project Engineer, Planning	1.0 py
Sudhir Joshi, Project Engineer, Planning	1.0 py
Simon Nwachukwu, Principal Engineer, Planning	1.0 py
Neha Galgali, Principal Engineer, Planning	1.0 py

## STATE PLANNING AND RESEARCH PROGRAM, 2015 - 2016

**ACTIVITY:** Statewide Goods Movement - 4510015 / 5340  
**MANAGER:** Paul S. Truban  
**UNIT:** Freight Planning & Services

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### **VISION:**

Develop a safe, efficient and integrated intermodal goods movement system throughout New Jersey and it's coastline that supports the operation and growth of the region's critical industries while leveraging New Jersey's assets and natural resources with strategic investments in freight transportation infrastructure.

### **MISSION:**

To support the development of an integrated intermodal goods movement transportation system in New Jersey that enhances mobility, network performance, and system reliability across all modes while considering economic development and smart growth opportunities. By working closely with FHWA, FMCSA, MPO's, and other federal, state, and local agencies, this unit will also shape the policy, programs and projects necessary to identify and address priority freight issues.

### **GOALS/ACTIVITIES:**

1. Freight Planning-- Coordinate and manage significant freight related studies, programs, or policy initiatives among all modes on behalf of the Division of Multimodal Services.
  - a) Participate in freight related studies, programs, and regional planning efforts among all modes conducted by the MPOs and other transportation or government agencies that help to raise the awareness of the value of freight to New Jersey.
  - b) Develop public/private partnerships and coordinate closely with various agencies to advance the implementation of critical freight projects.
  - c) Advance freight recommendations for Trucking, Rail, Aviation, and Maritime modes as identified in previous freight planning studies. Develop mechanism to track implementation progress.
  - d) Monitor international and national logistics trends and driving forces that may profoundly impact freight delivery demand and patterns.
2. Address the requirements regarding Freight Planning in close coordination with the State's MPO's as noted within the provisions of MAP 21 and the recent FHWA Planning Emphasis Areas guidance letter.
  - a) Develop specific *Freight Performance Measures* and communication mechanisms to convey freight trends and assist in the alignment of freight investment and capital improvement strategies. Develop and/or enhance Multimodal freight data collection efforts, analysis tools, databases and models.
  - b) Develop a *Freight Management System* to prioritize capital projects, or segments of the state highway system, based upon weighted factors and measures that are considered important for goods movement in NJ.
  - c) Establish a *Freight Advisory Committee* that will serve as a forum and place for raising the issues and concerns, identifying problems and needs, and proposing and discussing solutions for the freight industry. Coordinate closely with the MPOs on the establishment and ongoing management of a *Freight Advisory Committee* that will serve as a nexus of statewide freight planning and analysis.
  - d) Provide necessary information and perform analysis to support designation of the National/Priority Freight Network within the state.

## STATE PLANNING AND RESEARCH PROGRAM, 2015 - 2016

**ACTIVITY:** Statewide Goods Movement - 4510015 / 5340  
**MANAGER:** Paul S. Truban  
**UNIT:** Freight Planning & Services

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### *GOALS/ACTIVITIES: (cont'd.)*

- e) Maintain data for the state's official National Highway System (NHS) connectors serving intermodal freight facilities.
  - f) Establish priorities to pursue available federal freight programs and funding opportunities (e.g., high priority corridor designation. TIGER).
3. Participate in and advance programs or projects that will promote greater usage of the freight rail system in coordination with MPO partners.
- a) Support and help advance improvements in the freight rail system to maximize efficiency and effectiveness and improve safety and capacity along key rail corridors.
  - b) Advance projects for restoration and improvement of rail corridors, improved terminal operations and resolution of dimensional issues, particularly height and weight limitations (286K and "Plate F" issues).
  - c) Support projects to improve air quality including the procurement of Genset Locomotives and other emission reduction projects.
  - d) Implement a Bridge Management System, which provides for programmed inspection of state owned freight rail bridges.
  - e) Monitor and preserve key freight rail corridors for future use.
  - f) Assist the NJTPA in developing the Pilot Freight Concept Development program. Activities will include but not be limited to - participating on the project team for each project in the program; Attend all project team meetings and provide technical assistance when required; Attend stakeholder and public meetings as needed; coordinate Subject Matter Experts from within the NJDOT as needed to advance freight projects in the program.
4. Monitor and reduce the impact of trucks on infrastructure statewide.
- a) Work with the NJSP to address recommendations contained within FHWA's 2013 Commercial Vehicle Size & Weight Program Report. Focus on implementation of better WIM technology and targeted enforcement activities along those roadways with a high percentage of OW vehicles.
  - b) Monitor NJDOT's weigh-in-motion station data to determine where heavy trucks may be operating and the types of truck configurations causing the most impact to the infrastructure in order to guide the implementation of targeted enforcement efforts or changes in legislation.
  - c) Work with neighboring states and the NASTO Subcommittee on Highway Transport to advance harmonization efforts underway to streamline OS/OW Permitting process and regulations among states. The goal is to harmonize permitting requirements and regulations to make it easier for truckers traveling across multiple jurisdictions to obtain their permits, which in turn will also help to ensure better compliance with permitting requirements.
  - d) Complete research to quantify the impact that Overweight trucks have on New Jersey pavement and bridges in coordination with national research under MAP-21 Comprehensive Truck Size and Weight Limits Study.
  - e) Support projects to improve air quality for trucks (i.e., Diesel Engine Retrofits or Truck Replacement Incentive Programs) and other emission reduction projects.

## STATE PLANNING AND RESEARCH PROGRAM, 2015 - 2016

**ACTIVITY:** Statewide Goods Movement - 4510015 / 5340  
**MANAGER:** Paul S. Truban  
**UNIT:** Freight Planning & Services

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### GOALS/ACTIVITIES: (cont'd.)

5. Monitor truck volumes and crash data statewide to help track the performance and needs along key highway freight corridors.
  - a) Monitor the movement of trucks throughout the state through the use of weigh-in-motion data and produce a Large Truck Monitoring Program Report every 3 years. Evaluate patterns and trends.
  - b) Monitor truck crash data to determine if and where high truck crash rates exist. Develop targeted enforcement plan and/or formulate problem statements to address identified high truck crash locations.
  - c) Review and Re-adopt the state's 102" wide Large Truck Network as defined under state regulations (NJAC 16:32). Develop recommendations for changes to the current network and revise the network accordingly within NJAC 16:32.

### ANTICIPATED ACCOMPLISHMENTS FOR CALENDAR YEAR 2015:

- Develop a *Freight Management System*
- Establish a *Freight Stakeholder Committee*
- Develop specific *Freight Performance Measures* and communication mechanisms
- Complete research study on the *Impact of Overweight Trucks on NJ Pavement and Bridges*
- Review, update and re-adopt 102" wide Large Truck Network regulations (NJAC 16:32).
- Develop mechanism to track implementation of freight planning recommendations.

### CONTRACTS:

1. Provide an additional \$250,000 in support of the continuation and advancement of the *Freight Stakeholder Committee* initiated under the 2013-2014 SPR Program.
2. Provide for an additional \$250,000 to support the continued development of a *Freight Management System* and *Freight Performance Measures*.
3. Carryover contract balance: The balance (est. \$162,550) of the Freight Resource Center/Advocacy Group contract is requested to be moved into a contract to support development of a *Freight Management System* and *Freight Performance Measures*.

### STAFFING:

Miki Krakauer	Administrative Analyst 1	0.90 py
Andrew Ludasi	Assistant Engineer	0.75 py
Thanh Le	Civil Engr. Trainee	0.25 py
	Total:	1.9 py

## STATE PLANNING AND RESEARCH PROGRAM, 2015 - 2016

**ACTIVITY:** Transportation Improvement Programs (TIP/STIP) Preparation – 4510015 / 5985  
**MANAGER:** Thomas Wospil  
**UNIT:** Capital Investment Planning and Development

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### ***VISION:***

A capital program seeking the enhancement of safety, preservation and mobility of the transportation system that reflects sound long-range planning, investment strategies and capital program development guided by performance-based, asset management among state, regional and local agencies in New Jersey.

### ***MISSION:***

To implement both highway and transit projects to achieve the statewide long-range transportation plan and capital investment strategy goals and objectives using an asset management, performance-based approach. This involves the development of the state highway, transit and local TIPs for the three Metropolitan Planning Organizations (MPOs) which together constitute the State's STIP. The development, coordination, and MPO and Governor's approval of these TIPs are a prerequisite for the use of federal (FHWA and FTA) capital funds.

### ***GOALS/ACTIVITIES:***

1. Develop and submit the multi-year STIP to the federal agencies by September 1<sup>st</sup>
  - a. Federal and State funding resource projections developed by December 1<sup>st</sup>
  - b. MPO TIPs developed and approved by July 31<sup>st</sup>
  - c. Public participation completed by June 30<sup>th</sup>
  - d. Annual Capital Program approved by June 30<sup>th</sup>
  - e. Public outreach will be conducted and coordinated with the MPOs
  - f. Modifications and amendments will be processed to maintain an accurate and up-to-date TIP/STIP documents
2. Refine the web-based e-STIP system for TIP/STIP obligations by December 31, 2016
  - a. Modules for NJ Transit and PANYNJ obligations will be functional by December 31, 2016 (assuming cooperation of transit agencies)
  - b. Module for tracking of transit obligations and reporting will be implemented by December 31, 2016 (assuming cooperation of transit agencies)
  - c. Agencies will be trained on their roles and responsibilities in the e-STIP process

### ***ANTICIPATED ACCOMPLISHMENTS FOR CALENDAR YEAR 2015:***

- Develop and negotiate with the three MPOs a 5-Year Plan (TIP), submit a FY2016-2025 STIP to FHWA/FTA for approval, present to the public and post on the NJDOT website.
- Governor and Legislature approval of a FY 2016 Transportation Capital Program by June 30, 2015 and post on the NJDOT website. Geographical display of Capital Program projects by July 15, 2015.
- Submit a draft FY 2016 Capital Program the State Legislature in March 2015 and post on the NJDOT website.
- Develop and negotiate with the three MPOs a Study and Development Program for FY 2016-2017.
- Work with NJIT, NJ Transit, PANYNJ and FTA to track transit project obligations.
- Provide MPOs with financial plans updates for review and comment.
- Track and provide updates on High Priority Projects.
- Provide agendas and minutes to the MPOs and FHWA regarding the outcome of the Capital Program Screening Committee and Capital Program Committee meetings.

## STATE PLANNING AND RESEARCH PROGRAM, 2015 - 2016

**ACTIVITY:** Transportation Improvement Programs (TIP/STIP) Preparation – 4510015 / 5985  
**MANAGER:** Thomas Wospil  
**UNIT:** Capital Investment Planning and Development

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### **CONTRACTS:**

\$34,000 – Overtime budget to develop and update the 10 year STIP database and documents by May 1 (\$17,000 per year)

\$300,000 – Installation of e-STIP modules into the NJDOT web page plus maintenance by NJIT (\$150,000 per year)

### **STAFFING:**

<u>Name</u>	<u>Title</u>	<u>Person Years</u>
James Vari	Administrative Analyst I	1.00
Amy Polachak	Project Manager, Transportation	0.25
Jesse Minsky	Assistant Engineer Transportation	1.00
Muhammad Khan	Civil Engineer Trainee	1.00
Jed Soriano	Civil Engineer Trainee	0.50
Sheryl Grant	Administrative Analyst I	0.30
Pam Szargowicz	Administrative Analyst II	<u>0.50</u>
		4.55

## STATE PLANNING AND RESEARCH PROGRAM, 2015 - 2016

**ACTIVITY:** Concept Development – 4510015 / 5980  
**MANAGER:** Dave Lambert, Director  
**UNIT:** Project Management

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### ***VISION:***

Develop solutions to transportation problem statements that result in a project that can proceed through the project delivery process in a timely manner and without delays.

### ***MISSION:***

Deliver well-defined and well-justified Purpose and Need Statements focusing on the primary transportation need to be addressed and culminates in the selection of a Preliminary Preferred Alternative (PPA) that addresses a problem while being cost effective, considerate of the environment and supported by the community.

### ***GOALS/ACTIVITIES:***

Building on problems, issues and strategies in the MPO's respective RTP's, Concept Development Studies are studies that assess the present and future transportation needs of a specified roadway segment or area and define recommended physical and/or operational concepts that should be pursued to satisfy those needs. The CD Phase will deliver a well-defined and well-justified Purpose and Need Statement focusing on the primary transportation need to be addressed and culminates in the selection of the Preliminary Preferred Alternative (PPA). This plan will be consistent with MPO plans, environmentally screened and supported by the community. The following major elements can be included in the CD Process: Tier II Screening, evaluation of needs, analysis of physical deficiencies, early and intensive public involvement, environmental screening using the FHWA planning and environmental linkages approach, incorporation of the federal Congestion Management process, and MPO CPM requirements, analyses of multi-modal alternatives, definition of potential concepts and/or complementary strategies as well as staging and phasing opportunities, and order of magnitude construction cost estimate. Each MPO prioritizes and selects transportation strategies to be advanced by CD as the first phase within the Department's capital development pipeline. As part of this pipeline process, the Capital Program Screening Committee and the Capital Program Committee ultimately will endorse a project to advance from Tier 2 to Concept Development in addition to advancing a project from CD to Preliminary Engineering. FHWA is part of the review and approval process for CD reports and their approval of the CD report is required for CPC to advance the project to PE. The STIP/TIP is updated on a two year cycle. The MPO Policy Boards, approve their Planning and Development Work Programs, which when combined form the Study and Development Program of the Department.

In addition to the above, Limited Scope Concept Development screenings are done on proposed bridge deck projects that are generated from the Bridge Management System and pavement resurfacing projects that are generated from the Pavement Management System. These are done to determine any fatal flaws and uncover basic information so that fundamental decisions about a scope of work can be determined. The result of the screening is to determine if the project can proceed to PE or needs a full Concept Development Study completed. Major elements of the studies are data collection, field investigations, internal coordination with subject matter experts and development of the scope of work and cost estimate. Screenings can also be performed for other transportation needs such as drainage, safety, pedestrian, motorcycle, etc.

## STATE PLANNING AND RESEARCH PROGRAM, 2015 - 2016

**ACTIVITY:** Concept Development – 4510015 / 5980  
**MANAGER:** Dave Lambert, Director  
**UNIT:** Project Management

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### *ANTICIPATED ACCOMPLISHMENTS FOR CALENDAR YEAR 2015:*

- Assist in the coordination with MPO's to ensure program compatibility. Participate in coordination meetings with DVRPC, NJTPA, SJTPO and county staff during NJDOT's "project pool" process to provide input and guidance on Sub regional Studies sponsored by each MPO.
- Work with lead engineers and MPO's to support the refinement of corridor/sub-area plans
- Identify the appropriate assignment and preliminary scope of the problem. Tier 2 Screening identifies the potential path of a problem but will not necessarily identify any solutions to the problem(s) identified or encountered.
- Identify any fatal flaws and uncover any other items that should be included to develop a thorough and complete scope of work for the bridge deck, culvert, pavement rehabilitation or any other screenings.
- Conduct concept development studies, as programmed, that have adequately assessed the community impacts for consideration by NJDOT and the MPO's for advancement to preliminary engineering in CY 2015 and CY 2016.

### *CONTRACTS:*

Carry over – Route 3 & Route I-495 Concept Development study - \$1,000,000.

## STATE PLANNING AND RESEARCH PROGRAM, 2015 - 2016

**ACTIVITY:** Concept Development – 4510015 / 5980  
**MANAGER:** Dave Lambert, Director  
**UNIT:** Project Management

**STAFFING:**

Bisda, Roland - Principal Engineer	.03py	Aleti, Adi - Principal Engineer	.30py
Chivulescu, Niculina - Principal Engineer	.03py	Birch, William -Project Manager	.30py
Estrada, Javier - Senior Engineer	.03py	Campi, John - Project Manager	.30py
Hebert, Melvin - Principal Engineer	.03py	Challender, Mearl - Project Engineer	.30py
Jeyamohan, Jay - Project Engineer	.03py	Clerge, Gaelle - Assistant Engineer	.30py
Maniar, Nipa - Project Engineer	.03py	Galarza, Luis - Principal Engineer	.30py
Middleton, Lynn - Project Manager	.03py	Gandhi, Anupkumar - Project Manager	.30py
Murphy, Veronica - Senior Planner	.03py	Hameed, Omar - Project Manager	.30py
Patel, Mahesh - Project Manager	.03py	Hurst, Aimee – Civil Engineer Trainee	.30py
Rana, Dhananjay – Principal Engineer	.03py	Jolibois, Louis - Senior Engineer	.30py
Thorn, Scott - Project Manager	.03py	Kuhn, George - Project Manager	.30py
Anthony, Rahmiati - Assistant Engineer	.30py	Mejia-Aragona, Zoila - Project Engineer	.30py
Ayub, Muhammad - Senior Engineer	.30py	Obidike, Tony - Project Engineer	.30py
Conrey, James - Project Manager	.30py	Pandya, Jayesh - Project Manager	.30py
Derilus, Fremio, Civil Engineer Trainee	.30py	Patel, Nirangan – Civil Engineer Trainee	.30py
Dogias, Nicholas - Project Manager	.30py	Qureshi, Ahmad - Project Manager	.30py
Eugene, Alwin - Project Manager	.30py	Shah, Samirkumar - Project Manager	.30py
Henry, Charles - Project Manager	.30py	Shelat, Hemant - Senior Engineer	.30py
Henry, Kevin - Principal Engineer	.30py	Verner, Robert -Project Manager	.30py
Kurcon, Piotr – Civil Engineer Trainee	.30py	Bousenberry, Robert - Project Manager	.30py
Lee, Robert - Project Manager	.30py	Colquitt, Willie - Project Engineer	.30py
Locke, Donald - Project Engineer	.30py	Ezeuka, Paul - Project Engineer	.30py
Mulcahy, Brian - Project Manager	.30py	Inverso, Frank - Project Manager	.30py
Patel, Rashmin - Project Engineer	.30py	Kasbekar, Milind - Project Manager	.30py
Quasmieh, Wael - Principal Engineer	.30py	Kennard, Amy - Project Engineer	.30py
Sundaram, Shan - Project Manager	.30py	Lepri, James - Principal Engineer	.30py
Szulczewski, Joshua – Senior Engineer	.30py	Maevsky, Andrew - Project Manager	.30py
Varone, Gregory - Principal Engineer	.30py	Marcellus, Evens - Project Engineer	.30py
Vijayakumar, Sangaran -Senior Planner	.30py	McCleerey, John - Project Manager	.30py
Worth, George - Project Manager	.30py	Mortaja, Nader – Principal Engineer	.30py

## STATE PLANNING AND RESEARCH PROGRAM, 2015 - 2016

**ACTIVITY:** Concept Development – 4510015 / 5980  
**MANAGER:** Dave Lambert, Director  
**UNIT:** Project Management

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**STAFFING: (cont'd.)**

Patel, Pankesh - Project Manager	.30py	
Pennell, Edward - Project Manager	.30py	
Rana, Sharad - Project Engineer	.30py	
Rezaeian, Abe - Project Engineer	.30py	
Shah, Bhupendrakumar - Project Engineer	.30py	
Shah, Pankajkuma - Principal Engineer	.30py	
Yousoufzai, Wahida - Senior Engineer	.30py	
Zim, John - Project Engineer	.30py	
Bhavsar, Nilesh - Senior Engineer	.30py	
Cruz, Manuel -Project Engineer	.30py	
Darcy, Edward - Project Manager	.30py	
Dave, Hardev - Project Manager	.30py	
Deeck, Scott - Project Manager	.30py	
Dhulesia, Babulal - Project Manager	.30py	
Kaushal, Kunelvir - Project Manager	.30py	
Manz, Christopher - Project Manager	.30py	
Molavi, Towfigh - Senior Engineer	.30py	
Najem, Frozan - Assistant Engineer	.30py	
Patel, Manubhai - Project Manager	.30py	
Patel, Vandna - Principal Engineer	.30py	
Patibandha, Nileshkum - Principal Engineer	.30py	
Scott, Edward - Project Manager	.30py	
Shah, Bhavesh - Project Engineer	.30py	
Shah, Dashrath - Senior Engineer	.30py	
Shah, Dinesh – Principal Engineer	.30py	
Shah, Kamlesh - Supervising Engr II	.30py	
Sohn, Thomas - Project Manager	.30py	

**Total Person Years: 22.9py**

## STATE PLANNING AND RESEARCH PROGRAM, 2015 - 2016

**ACTIVITY:** Travel Projections – 4510015 / 5350  
**MANAGER:** Dave Lambert, Director  
**UNIT:** Project Management

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### ***VISION:***

Provide technical expertise in travel projections and traffic analysis to various areas of NJDOT as it relates to traffic design data, pavement design data and future year travel projections.

### ***MISSION:***

In support of various NJDOT units, project future travel volumes and develop related data for ensuring that proposed projects have adequate capacity and are economically designed. Also in support of those units, provide specific traffic analyses, e.g., regional vs. local travel characteristics determination, that may be required for project development/advancement. Likewise, provide review, consultation, and advice to those units when travel projections and/or traffic analyses are undertaken by their consultants. Finally, provide planning support/input during concept development by participating in scoping meetings and plan reviews.

### ***GOALS/ACTIVITIES:***

The Division of Project Management (DPM) relies on the Bureau of Transportation Data Development's (BTDD) Traffic Monitoring System-Traffic Volumes Data Collection Activity. DPM reviews BTDD's files for available data and requests counts if none are available to complete DPM's Travel Projections Activity. DPM worked with BTDD to develop an internal Data Warehousing project to make traffic counts (Phase I) and other traffic related information (Phase II) readily available to anyone in the Dept. This effort provides for immediate count access improving on the monthly updates located on the web site. Additionally, consultant agreements include a new provision in the standard articles requiring consultants to submit any traffic data to BTDD. This Activity-Traffic Monitoring System-Database Maintenance also provides the seasonal and axle correction factors necessary for calculating the projections under the DPM Travel Projections Activity. The DPM Activity also makes use of the BTDD activity of Weights and Speed Monitoring using WIM sites for classification. DPM also identifies locations of defunct WIM stations during Pavement screenings for consideration updating or repairing sites as related to the Infrastructure Renewal activity. DPM continually uses the Straight Line Diagrams, Road Inventory and Mileposting and the Functional Classification System and Federal Aid System Products in the Travel Projections Activity.

Through accepted procedures, and in a timely manner, provide future year travel projections and other requested traffic analyses or consultation in support of concept development, preliminary engineering and design for requesting NJDOT units. Provide planning support/input during concept development.

### ***ANTICIPATED ACCOMPLISHMENTS FOR CALENDAR YEAR 2015:***

Complete approximately 40 travel projections and other analyses/consultation requests.

### ***CONTRACTS:***

N/A

## STATE PLANNING AND RESEARCH PROGRAM, 2015 - 2016

**ACTIVITY:** Travel Projections – 4510015 / 5350  
**MANAGER:** Dave Lambert, Director  
**UNIT:** Project Management

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**STAFFING:**

Jeyamohan, Jay - Project Engineer	.03py	Colquitt, Willie - Project Engineer	.02py
Maniar, Nipa - Project Engineer	.03py	Mortaja, Nader – Principal Engineer	.03py
Murphy, Veronica - Senior Planner	.03py	Yousoufzai, Wahida - Senior Engineer	.03py
Henry, Kevin - Principal Engineer	.03py	Molavi, Towfigh – Senior Engineer	.03py
Patel, Rashmin - Project Engineer	.03py	Shah, Bhavesh - Project Engineer	.03py
Vijayakumar, Sangaran -Senior Planner	.03py	Leach, Gary - Project Engineer, Planning	.15py
Clerge, Gaelle - Assistant Engineer	.03py		
Jolibois, Louis - Senior Engineer	.03py		
Mejia-Aragona, Zoila - Project Engineer	.03py		
Obidike, Tony - Project Engineer	.03py		

**Total Person years: 0.59 py**

## STATE PLANNING AND RESEARCH PROGRAM, 2015 - 2016

**ACTIVITY:** Concept Development – Environmental Support Services – 4510015 / 5111  
**MANAGER:** Joseph Sweger – Executive Manager  
**UNIT:** Bureau of Landscape Architecture and Environmental Solutions

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### ***VISION:***

Transportation projects will be developed to avoid and or minimize impacts to the natural and man made environments.

### ***MISSION:***

Establish environmental parameters to be considered in the development of the Preliminary Preferred Alternative (PPA) while balancing the transportation needs identified in this phase. Based on sufficient environmental analysis, determine the appropriate NEPA classification (Categorical Exclusion, Environmental Assessment, Environmental Impact Statement) for the PPA that will be prepared in the next project development phase.

### ***GOALS/ACTIVITIES:***

1. Ensure a thorough and comprehensive environmental constraint analysis is conducted during this phase consistent with the FHWA planning and environmental linkages approach for CD projects
2. Ensure socioeconomic factors, particularly community concerns related to Environmental Justice, livability, sustainability, and quality of life issues are identified and considered in the initial project development phases
3. Determine the appropriate environmental document consistent with NEPA requirements for the PPA
4. Gain Agency support for Purpose and Need that can be used to assess future alternatives in the NEPA process
5. Ensure appropriate community involvement has been initiated to fulfill NEPA requirements

### ***ANTICIPATED ACCOMPLISHMENTS FOR CALENDER YEAR 2015:***

- Environmental screening reports for CD reports
- Identification of probable NEPA classifications for PPAs

### ***CONTRACTS:***

N/A.

## STATE PLANNING AND RESEARCH PROGRAM, 2015 - 2016

**ACTIVITY:** Concept Development – Environmental Support Services – 4510015 / 5111  
**MANAGER:** Joseph Sweger – Executive Manager  
**UNIT:** Bureau of Landscape Architecture and Environmental Solutions

**STAFFING:**

**OES Year 1**

Ackerman, Scott, Env. Specialist 2	.0py	McCue, J., Env. Comp. Insp. 1	.23py
Adams, Laura, Env. Specialist	.35py	Mikusa, J. P., Env. Specialist 2	.35py
Adrian, N., Env. Specialist 3	.35py	Mudge, David, Env. Specialist 4	.35py
Ahdout, David, Env. Engineer 4	.35py	Nguyen, Henry, Asst. Engr. Transportation	.25py
Asadpour, J., Section Chief (provisional)	.23py	Osian, Edmund, Env. Specialist 3	.35py
Asadpour, Z., Env. Engineer 4	.35py	Pandya, Sunay, Asst Engr. Transportation	.25py
Bancroft, Kevin, Env. Specialist 1	.35py	Patel, Bakula, Prin. Engr. Transportation	.35py
Bevans, K., Env. Engineer 3	.23py	Patel, Vishal, Civil Engr. Trainee	.25py
Bird, Robert, Env. Specialist 3	.35py	Rauzino, David, Prin. Engr. Transportation	.23py
Brock, Brendan, Env. Specialist 3	.35py	Reali, Ryan, Sr. Engr. Transportation	.23py
Cheney, Amber, Env. Specialist 3	.35py	Sczepakowski, S., Env. Specialist 3	.35py
Fairfax, Brenna, Env. Specialist 4	.35py	Shutz, T., Env. Specialist 4	.35py
Gendek, Jeff, Env. Specialist 2	.35py	Liou, Jane, Env. Engineer 3	.35py
Gervasi, Cecilia, Env. Services Trainee	.35py	Sypko, I., Env. Specialist 3	.35py
Gupti, Aarti, Env. Specialist 2	.35py	Wilityer, M., Env. Specialist 3	.35py
Hawkinson, Bruce, Project Manager Trans.	.23py	Wolfram, T., Super. Engr. II	.23py

Total Person Years: **9.71**

**OES Year 2**

Ackerman, Scott, Env. Specialist 2	.35py	McCue, J., Env. Comp. Insp. 1	.23py
Adams, Laura, Env Specialist	.35py	Mikusa, J. P., Env. Specialist 2	.35py
Adrian, N., Env. Specialist 3	.35py	Mudge, David, Env. Specialist 4	.35py
Ahdout, David, Env. Engr 4	.35py	Nguyen, Henry, Asst. Engr. Trans	.25py
Asadpour, J., Section Chief (provisional)	.23py	Osian, Edmund, Env. Specialist 3	.35py
Asadpour, Z., Env. Engineer 4	.35py	Pandya, Sunay, Assistant Engineer	.25py
Bancroft, Kevin, Env. Specialist 1	.35py	Patel, Bakula, Prin. Engr. Trans	.35py
Bevans, K., Env. Engineer 3	.23py	Patel, Vishal, Civil Engr Trainee	.25py
Bird, Robert, Env. Specialist 3	.35py	Rauzino, David, Prin. Engr. Transportation	.23py
Brock, Brendan, Env. Specialist 3	.35py	Reali, Ryan, Sr. Engr. Transportation	.23py
Cheney, Amber, Env. Specialist 3	.35py	Sczepakowski, S., Env. Specialist 3	.35py
Fairfax, Brenna, Env. Specialist 4	.35py	Shutz, T., Env. Specialist 4	.35py
Gendek, Jeff, Env. Specialist 2	.35py	Liou, Jane, Env. Engineer. 3	.35py
Gervasi, Cecilia, Env. Services Trainee	.35py	Sypko, I., Env. Specialist 3	.35py
Gupti, Aarti, Env. Specialist 2	.35py	Wilityer, M., Env. Specialist 3	.35py
Hawkinson, Bruce, Project Manager Trans	.23py	Wolfram, T., Super. Engr. II	.23py

Total Person Years: **10.06**

## STATE PLANNING AND RESEARCH PROGRAM, 2015 - 2016

**ACTIVITY:** Geodetic Survey Services – 4510015 / 5100  
**MANAGER:** Bob Marshall  
**UNIT:** Geodetic Survey

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### **VISION:**

To ensure projects are developed avoiding and or minimizing impacts to the human, manmade, and natural environments by gathering data for base maps

### **MISSION:**

Gathering this mapping information during Concept Development will help ensure that projects minimize impacts and therefore are in compliance with provisions of federal and state environmental regulations. In areas where impacts do occur develop appropriate mitigation commensurate to the impacts generated. Gathering data for base mapping to identify these potential areas is a key function.

This process is done during the Concept Development phase as alternatives are investigated that meet project needs, yet also avoid and/or minimized environmental impacts. The culmination of this process leads to an approved environmental document demonstrating compliance with federal/state environmental regulations and is consistent with the FHWA planning and environment linkages approach. Use completed base map for the alternatives analysis.

### **GOALS/ACTIVITIES:**

- Assist in the development of mapping and plans for project study area, including identification of environmental resources/constraints that must be considered in developing alternatives.
- Complete the appropriate level of documentation needed to establish what the formal individual project approvals will be required in the next phase of work (Preliminary Engineering) demonstrating compliance with the National Environmental Policy Act (NEPA).

### **ANTICIPATED ACCOMPLISHMENTS FOR CALENDAR YEAR 2015:**

- Establish and maintain survey network required for the base maps required for project study areas using Aerial Photogrammetry and related GPS tools.
- Establish photogrammetric control for each project base map.

### **CONTRACTS:**

None.

### **STAFFING:**

B. Marshall, Supervising Engineer II	.25py	M. Iorio, Engineering Tech 3	.25py
F. Czepiga, Principal Engineer	.25py	F. Andrescik, Engineering Tech 5	.25py
R. Kuzma, Principal Engineer	.25py	S. Miller, Engineering Tech 5	.25py
I. Singh, Assistant Engineer	.25py		

## STATE PLANNING AND RESEARCH PROGRAM, 2015 - 2016

**ACTIVITY:** New Jersey Scenic Byways Program Management – 4510015 / 5600  
**MANAGER:** Joseph Sweger  
**UNIT:** Landscape Architecture

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### ***VISION:***

Improve the effectiveness and the sustainability of the NJ Scenic Byways Program through the implementation of the updated program guidelines.

### ***MISSION:***

To provide support and technical assistance to the NJ Scenic Byway Program, the byway users, and the byway sponsors and to ensure compliance with the federal regulatory requirements of the Federal Highway Administration (FHWA) when administering funding through Transportation Alternative Program and previous received National Scenic Byway Grants.

### ***GOALS/ACTIVITIES:***

1. Maintain the role of the Scenic Byway Advisory Committee.
  - i. Hold two meetings per year.
  - ii. Secure 3 new committee members as described in the updated byway manual.
2. Manage or monitor the Scenic Byway Projects awarded through previously received National Scenic Byway Grant Cycles.
  - a. Manage the following projects developed from grants awarded to NJ:
    - i. New Jersey Scenic Byways Statewide Directional and Wayfinding Signs
      1. Complete signing the 3 remaining byways.
    - ii. New Jersey Scenic Byways Statewide Trail Blazer Signs
      1. Complete sign location plans for the 7 designated byways listed in the grant.
      2. Complete fabrication and installation of at least 3 of the byways.
  - b. Monitor the following projects developed from grants awarded to NJ Scenic Byway sponsors and assure federal compliance. Get quarterly updates on each of the below projects from the sponsor of the project.
    - i. Delaware River Scenic Byway-Access to Recreational Area
    - ii. Delaware River Scenic Byway-Byway Facility: Restrooms.
    - iii. Delaware River Scenic Byway: Implementing the CMP
    - iv. Delaware River Scenic Byway: Land Acquisition – Devil’s Tea Table
    - v. Millstone Valley Scenic Byway: Implementing the CMP
    - vi. Millstone Valley Scenic Byway: Restoration of the Griggstown Bridgetender’s House
    - vii. Palisades Interstate Parkway: Fort Lee Museum
    - viii. Palisades Interstate Parkway: Interpretive Panels.
3. Educate the public and the sponsors about the New Jersey Scenic Byway Program.
  - a. Educate the NJ byway sponsors and other groups that can assist with moving program forward by holding byway workshops.
    - i. Hold one workshop per year.
  - b. Update the existing NJDOT website.

## STATE PLANNING AND RESEARCH PROGRAM, 2015 - 2016

**ACTIVITY:** New Jersey Scenic Byways Program Management – 4510015 / 5600  
**MANAGER:** Joseph Sweger  
**UNIT:** Landscape Architecture

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### **GOALS/ACTIVITIES: (cont'd.)**

4. Foster livable communities through place-based investments that increase transportation choices and access to transportation services along the scenic byways and increase the quality of life through having positive experiences along the scenic byways.
  - a. Educate and train byway sponsors on ways to work on implementing their corridor management plans.
  - b. Assist byways and the motoring public with a consistent signage system for finding and following the byways.

### **ANTICIPATED ACCOMPLISHMENTS FOR CALENDAR YEAR 2015:**

- Continue managing in-house projects for grant received through the 2012 grant cycle: NJ Scenic Byways: Statewide Directional and Wayfinding Signs. Complete signing the remaining 3 byways that are in various stages of being completed. 4 of the 7 byways have been completed.
- Manage NJ Scenic Byways: Statewide Trail Blazer Signs.
  - Complete sign location plans for the placement of trail blazer signs for the 7 designated NJ Byways.
  - Fabricate and install trailblazer signs for Delaware River Scenic Byway and Palisades Scenic Byway.
- Finish NJ Scenic Byway Sign Guidelines document.
- Continue monitoring projects developed from previous awarded grants: Delaware River Scenic Byway- Access to Recreational Area; Delaware River Scenic Byway-Byway Facility: Restrooms; Delaware River Scenic Byway: Implementing the CMP; Delaware River Scenic Byway: Land Acquisition – Devil’s Tea Table; Millstone Valley Scenic Byway: Restoration of the Griggstown Bridgetender’s House; Palisades Interstate Parkway: Fort Lee Museum; and Palisades Interstate Parkway: Interpretive Panels.
  - Complete the project Millstone Valley Scenic Byway: Restoration of the Griggstown Bridgetender’s House by finishing map for printing.
  - Complete 3<sup>rd</sup> year of 3 year project for Delaware River Scenic Byway: Implementing the CMP.
- Hold 1 Scenic Byway Workshop.

### **CONTRACTS:**

None.

### **STAFFING:**

Cindy Bloom-Cronin	Project Engineer Landscape	.5 py
Rich Attenello	Landscape Designer 1	.4 py
Lois Johann	Landscape Designer 1	.4 py
George Silvestro	Landscape Designer 3	.4 py

## STATE PLANNING AND RESEARCH PROGRAM, 2015 - 2016

**ACTIVITY:** Transportation Emergency Response Planning – 4510015 / 5500  
**MANAGER:** Robert Burd  
**UNIT:** NJDOT Office of Emergency Management/ Operations Support

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### **VISION:**

Achieve a reliable, prepared, and resilient transportation system, by ensuring an optimum level of awareness and preparedness by key personnel for all hazards

### **MISSION:**

To build, sustain and improve New Jersey Department of Transportation's capability to prepare for, protect against, respond to, recover from and mitigate all hazards that may affect the Department's infrastructure, personnel and the State of New Jersey.

### **GOALS/ACTIVITIES:**

1. Ensure the continuity and resiliency of NJDOT's Internal Operations during and after significant emergency events through the development and implementation of NJDOT's Continuity of Operations Plans
  - a. Update the COOP Plan with input from key Department heads and in consultation with the Division of Human Resources as needed.
  - b. Conduct training of key personnel
  - c. Conduct exercise with key personnel, prepare After-Action Report (AAR) and Improvement Plan (IP) and implement corrective actions consistent with IP
  - d. Research number and location of resources and assets in support of the plan
2. Maintain and improve New Jersey's Reverse Lane/Contraflow Plans to support the evacuation of State residents prior to significant emergency events
  - a. Update five current Contraflow/Reverse Lane Plans, with input from allied support agencies and field personnel
  - b. Conduct training of key field personnel
  - c. Exercise plans with key field personnel, prepare After-action Report (AAR) and Improvement Plan (IP) and implement corrective actions consistent with IP
  - d. Research number and location of assets in support of the plan
  - e. Develop similar plans for other regions of the State (as needed)
3. Maintain and improve New Jersey Emergency Support Function (ESF) #1 Transportation Annex to the State's Emergency Operations Plan and participate in the Region's/State's Catastrophic Planning initiatives
  - a. Monitor man-made and naturally occurring threats
  - b. Update and maintain NJDOT Emergency Operations Center standard operating procedures for use prior to, during and after an emergent events.
  - c. Develop Mobile Command Post standard operating procedures for use prior to, during and after emergent events
  - d. Update and maintain procedures for capturing critical situational awareness information as it relates to the operating status of transportation infrastructure assets and operations during emergency events
  - e. Conduct annual training of DOT-EOC volunteers
  - f. Develop Transportation Support Annexes to ESF#1 of the State Emergency Operations Plan (EOP), as requested by NJOEM.

## STATE PLANNING AND RESEARCH PROGRAM, 2015 - 2016

**ACTIVITY:** Transportation Emergency Response Planning – 4510015 / 5500  
**MANAGER:** Robert Burd  
**UNIT:** NJDOT Office of Emergency Management/ Operations Support

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### GOALS/ACTIVITIES: (cont'd.)

- g. Assist in the development of Incident and/or Support Annexes to the State EOP being developed by other ESF lead agencies and as requested by NJOEM.
  - h. Attend and contribute to monthly State Emergency Management Program Stakeholders (SEMPS) meetings at ROIC.
4. Maintain and expand Emergency Support Function (ESF) #1 Stakeholder Group.
- a. Convene quarterly meetings of the ESF 1 Stakeholder Group with the potential to conduct a monthly conference call, if necessary.
  - b. Conduct planning meetings with County OEMs to develop a protocol for interaction with a County ESF #1 Lead.
  - c. Conduct planning meetings with New Jersey's three Metropolitan Planning Organizations to ensure coordination of emergency management planning activities with regional assessments of resiliency and climate change implications.
  - d. Develop communications and information sharing (Situational Awareness) procedures with member agencies in order to develop a focused and current common operating picture during incidents and events.
  - e. Exercise plans and procedures with member agencies to improve the effectiveness of planning actions.
  - f. Plan and convene Statewide ESF#1 Stakeholder workshop.
5. Ensure NJDOT's compliance with NIMS (National Incident Management System), the National Response Framework (NRF) and the National Disaster Recovery Framework (NDRF)
- a. Implement training plan to ensure compliance with NIMS training objectives for key personnel
  - b. Develop a plan, with Human Resources, to conduct NIMS training for new hire orientation.
  - c. Develop and implement a comprehensive annual exercise program for ESF#1 emergency operations and action plans consistent with Homeland Security Exercise and Evaluation Program (HSEEP) protocols.
  - d. Participate and staff transportation infrastructure planning functions at the Joint Field Office as part of recovering activities after emergency events as needed.
  - e. Participate on and contribute to the State Hazard Mitigation Planning process.
6. Update and maintain NJDOT Emergency Operations Plan (EOP)
- a. Review and revise the current NJDOT EOP to be consistent with the updated State EOP.
  - b. Develop and implement an annual review process and schedule to ensure timely updates to the plan as needed.
7. Ensure the protection of NJDOT's critical transportation infrastructure assets and compliance with NIPP (National Infrastructure Protection Plan)
- a. Provide guidance and support to NJ-OHSP on the Transportation Systems Sector-Specific Plan and the Transportation Sector Working Groups
  - b. Ensure "Best Practices", when updated, are consistent with transportation industry standards (e.g., AASHTO Security Guidelines)
  - c. Encourage NJDOT's Subject Matter Experts to participate fully in the seven Transportation Sub-sector Working Groups (Passenger Rail, Freight Rail, Maritime/Port, Ferries/Water Taxis, Motor Coach, Motor Truck, and Highways, Bridges, and Tunnels)

## STATE PLANNING AND RESEARCH PROGRAM, 2015 - 2016

**ACTIVITY:** Transportation Emergency Response Planning – 4510015 / 5500  
**MANAGER:** Robert Burd  
**UNIT:** NJDOT Office of Emergency Management/ Operations Support

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### **GOALS/ACTIVITIES: (cont'd.)**

- d. Ensure transportation security documents and files, including gap analyses, containing SSI or PCII information are protected from the public domain
- e. Participate in identifying and accommodating transportation security considerations during special events

### **ANTICIPATED ACCOMPLISHMENTS FOR CALENDAR YEAR 2015:**

- Complete annual update of the COOP Plan
- Complete Exercise of COOP plan, including HSEEP compliant AAR/IP
- Complete annual update of five Contraflow Plans
- Complete Operational Exercise of Contraflow Plans, including HSEEP compliant AAR/IP
- Complete update of Emergency Support Function ESF#1 – Transportation Annex to the NJ State Emergency Operations Plan, including Incident and/or Support Annexes as needed.
- Complete four meetings of the Emergency Support Function ESF#1 Stakeholder Group and Statewide ESF#1 Stakeholder Workshop
- Complete update of NJDOT Emergency Operations Plan
- Complete development of NIMS compliant training program.

### **CONTRACTS:**

Rutgers/ Voorhees Transportation Center (TO) for emergency response planning support \$310,000. Rutgers/ Voorhees Transportation Center will provide a Scope of Work for the planned activities.

It is the nature of emergency management planning that we are always attempting to prepare for natural or man-made hazards which may be unforeseen. For the CY 2015-16 period, we anticipate contracting with Rutgers/Voorhees Transportation Center for planning support services within the first year to satisfy our anticipated operational planning needs (as outlined in Activities 1 - 5). If, during the second year, we identify additional unanticipated planning needs, especially under Activities 6 and 7, we want the ability to augment the Rutgers Task Order or to be able to develop a separate and distinct one from the basic Task Order, which might address specific infrastructure incident management planning and security needs, such as risk assessments. An additional Scope of Work will be developed in advance of year 2 (\$40,000) to address the additional unanticipated planning needs mentioned above.

Carryover contract – \$100,000, Rutgers Task Order for Emergency Response Planning support.

### **STAFFING:**

Noreen Cardinali, Section Chief	0.90
Terrance Garvey, Pr. Trans. Analyst	0.90
Edward Rogacki, Principal Engineer	0.90
David Macinnes, Sr. Trans. Analyst	0.90
Michael Reina, Confidential Assistant	0.90
Tim Steinbeiser, Environ. Specialist 4	0.05

## STATE PLANNING AND RESEARCH PROGRAM, 2015 - 2016

**ACTIVITY:** Concept Development – NJ TRANSIT – 4510015 / 5200  
**MANAGER:** Mike Viscardi  
**UNIT:** NJ TRANSIT Planning and Development

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### ***VISION:***

Develop highway related solutions needed to support the improvement of transit services running on the highways and vehicular, bike and pedestrian access to transit stations.

### ***MISSION:***

Develop well defined Purpose and Needs Statements that explain the need for specific highway and street improvements to support improved transit operations as well as improved access to transit.

### ***GOALS/ACTIVITIES:***

One of NJ TRANSIT's major objectives is to increase the effectiveness of our transit services and to improve customer satisfaction with our services. A significant portion of NJ TRANSIT's system is bus, which runs on state and local roadways, and is often significantly slowed down due to roadway congestion. This activity will look to develop strategies for improving travel time and reliability of buses by advancing BRT-type improvement that remove buses from highway congestion, and allow buses to operate more quickly. The goal is to have busses operating at posted speed limits for as much of the day as possible. Strategies that will be evaluated will include dedicated rights of way when possible and less intrusive but equally effective strategies when the space needed for dedicated right of way is not available. The evaluation of queue jumps, traffic signal priority, and expanded stations in pull-off areas will be evaluated. These corridor studies will also include evaluations of the effectiveness of low floor bus technology, off-board fare collection, and more real time bus information at each station in the corridor. All of these strategies taken together could result in significant travel time reductions and improvements in reliability, with the goal to increase bus usage in the selected corridors.

This activity will also include evaluations of improved roadway access to transit stations throughout the state. Access to stations is a very important part of the overall effectiveness of transit, so careful consideration of access improvements is essential. These would include expanding parking where appropriate, and evaluation of improved pedestrian and bike access at stations where it is appropriate.

On-going coordination with various NJDOT units is critical in this process. NJ TRANSIT will fully engage the appropriate NJDOT units in several aspects of this particular activity. NJ TRANSIT will also coordinate with NJTPA (conducting a regional connectivity study) and Monmouth County Planners (initiating a new Master Plan for the county) and Traffic Engineers.

### ***ANTICIPATED ACCOMPLISHMENTS FOR CALENDAR YEAR 2015:***

Further advance Route 9 BRT Purpose and Need and concept development schemes, commence with parking management, access and expansion study.

### ***CONTRACTS:***

Carryover - Interagency agreement with NJ TRANSIT for Route 9 BRT Concept Development, \$400,000 Effort to be completed through consultant services procured by NJ TRANSIT.

### ***STAFFING:***

None.

## STATE PLANNING AND RESEARCH PROGRAM, 2015 - 2016

**ACTIVITY:** Management of University/Consultant Contracted Research Initiatives – 4500015 / 7021  
**MANAGER:** Camille Crichton-Summers  
**UNIT:** Bureau of Research

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### ***VISION:***

The Bureau of Research is a premier transportation research organization that New Jersey transportation research customers/professionals think of first to help them with their transportation problems.

### ***MISSION:***

Our core purpose is to provide current and quality information, analysis, and value added research solutions to transportation professionals within New Jersey and throughout the Nation.

### ***GOALS/ACTIVITIES:***

- 1) Manage research studies that are contracted to consultants and universities.
  - a) Solicit research problem statements during calendar year
    - i) Send a notice to the Research User's Committee for Call for research needs
    - ii) Develop ten new research need statements for study
    - iii) Solicitation and negotiation of proposals
    - iv) Conduct meetings with universities and consultants
    - v) Preparation, execution and review of Task Orders, invoices, progress reports, preliminary reports and final reports
  - b) Close out of projects once approved
  - c) Preparation of department action for project closeout upon payment of final invoice
- 2) Coordination of mid-cycle problem statements/research studies

### ***ANTICIPATED ACCOMPLISHMENTS FOR CALENDAR YEAR 2015:***

- Complete ten research studies collecting final reports and technical briefs making them available via technology transfer mechanisms
- Initiation of new transportation research studies within one or more of the following categories:
  - Asset Management
  - Performance Management
  - Infrastructure
  - Environment
  - Safety
  - Operations / Mobility

Additional problem statements will be forwarded for approval upon receipt.

## STATE PLANNING AND RESEARCH PROGRAM, 2015 - 2016

**ACTIVITY:** Management of University/Consultant Contracted Research Initiatives – 4500015 / 7021  
**MANAGER:** Camille Crichton-Summers  
**UNIT:** Bureau of Research

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### **CONTRACTS:**

Various University Contracts - 2015 New Projects & Continuing Studies  
(CY 2015) \$2,500,000 (CY 2016) \$2,500,000

### **STAFFING:**

Manager staff time charged to MN

<u>Name</u>	<u>Title</u>	<u>Staff Time</u>
S. Rizzo	Contract Administrator	1.0 person year
E. Kondrath	Project Manager	.9 person-years
S. Potapa	Project Engineer	.9 person-years
P. Thomas	Project Engineer	.9 person-years
P. Ukpah	Principal Engineer	.9 person years
D. LiSanti	Principal Engineer	.9 person-years
G. Venkiteela	Assistant Engineer	.9 person-years
M. Rashid	CET	<u>.9 person-years</u>
		7.3 TOTAL py

## STATE PLANNING AND RESEARCH PROGRAM, 2015 - 2016

**ACTIVITY:** Technology Transfer and Implementation – 4500015 / 7030  
**MANAGER:** Paul Thomas  
**UNIT:** Bureau of Research

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### ***VISION:***

The Bureau of Research is a premier transportation research organization that New Jersey transportation research customers/professionals think of first to help them with their transportation problems.

### ***MISSION:***

Our core purpose is to provide current and quality information, analysis, and value added research solutions to transportation professionals within New Jersey and throughout the Nation.

### ***GOALS/ACTIVITIES:***

Conduct activities that promote the transfer of knowledge into and out of New Jersey. Assist research customers with the application of new techniques and materials.

- 1) Conduct Technology Transfer and Implementation tasks activities including
  - a) Maintain division web page;
    - i) Review webpage quarterly to ensure accuracy
    - ii) Add new quarterly reports and final reports upon receipt
  - b) Conduct the Research Showcase.
    - i) Procure contractor
    - ii) Approve and Monitor tasks in Scope of work
  - c) Conduct lectures or webinars on transportation research topics
  - d) Conduct Peer Exchange if scheduled as per federal requirement
- 2) Facilitation of Implementation Initiatives
  - a) Identify barriers to implementation on completed research studies.
  - b) Identify completed research from all sources that help meet customer needs If appropriate,
- 3) SHRP II & EDC Activity Coordination
- 4) Pooled Funds Transfer
  - a) Eliminate or reduce the potential for the duplication of research studies across the nation by providing a way to pool resources and share results through Technology Transfer.

### ***TASK/ACTIONS:***

- Provide funding commitment to the lead state
- Interested NJDOT customer as the stakeholder will monitor the progress of the study

## STATE PLANNING AND RESEARCH PROGRAM, 2015 – 2016

**ACTIVITY:** Technology Transfer and Implementation – 4500015 / 7030  
**MANAGER:** Paul Thomas  
**UNIT:** Bureau of Research

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### *ANTICIPATED ACCOMPLISHMENTS FOR CALENDAR YEAR 2015:*

- Update the webpage
- Conduct Research Showcase
- Conduct Various Lectures and/or Webinars
- Transfer funds to lead states or FHWA (as needed) to conduct pooled fund studies

### *CONTRACTS:*

University Contracts – (FY 15) - \$500,000; (FY 16) - \$500,000

### *STAFFING:*

Manager staff time charged to MN

<u>Name</u>	<u>Title</u>	<u>Staff Time</u>
E. Kondrath	Project Manager	.1 person-years
S. Potapa	Project Engineer	.1 person-years
P. Thomas	Project Engineer	.1 person-years
P. Ukpah	Principal Engineer	.1 person years
D. LiSanti	Principal Engineer	.1 person-years
G. Venkiteela	Assistant Engineer	.1 person-years
M. Rashid	CET	<u>.1 person-years</u>
		.7 TOTAL py

## STATE PLANNING AND RESEARCH PROGRAM, 2015 - 2016

**ACTIVITY:** Research Library – 4500015 / 7510  
**MANAGER:** Edward S. Kondrath  
**UNIT:** Bureau of Research

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### **VISION:**

The Bureau of Research is a premier transportation research organization that New Jersey transportation research customers/professionals think of first to help them with their transportation problems.

### **MISSION:**

Our core purpose is to provide current and quality information, analysis, and value added research solutions to transportation professionals within New Jersey and throughout the Nation.

### **GOALS/ACTIVITIES:**

1. Operate and improve the Research Library as a major resource for transportation knowledge management.
  - a. Provide library reference and referral services to government employees, transportation and other professionals, and the general public.
    - i. Respond to requests for information or documents.
    - ii. Provide reference, database searching and interlibrary loan services to NJDOT staff.
  - b. Select, acquire, process, store, and maintain library materials for use by NJDOT staff and others.
    - i. Process new acquisitions and donated items in a timely manner.
    - ii. Send materials to the NJ State Library for cataloging and/or list materials in new materials database.
  - c. Maintain and add content to the Research Library website.
    - i. Work with IT and Communications to update website.
2. Provide technology transfer through dissemination of library-related activities and transportation knowledge resource availability on a quarterly basis.
  - a. Compile quarterly list of new materials and make available via Intranet Newsletters and website.
    - i. Add new materials received into Shared Resources Catalog, edit entries, and generate quarterly report.
  - b. Send notification of research reports and upcoming webinars to relevant units.
    - i. Forward electronic versions of reports and notices of webinars.
3. Foster new research and networking opportunities for NJDOT staff and other professionals.
  - a. Participate in transportation library groups such as the Eastern Transportation Knowledge Network (ETKN) and the Technical Advisory Committee of the Transportation Library Connectivity & Development TPF-5(237) Pooled Fund.
    - i. Attend telephone and virtual meetings of the ETKN, Pooled Fund, and the Transportation Librarians Roundtable.
    - ii. Maintain membership in the Special Libraries Association Transportation Division, monitor discussion list, and attend conferences and meetings when possible.
    - iii. Refer staff to other NJDOT units and to other researchers outside of NJDOT.

### **ANTICIPATED ACCOMPLISHMENTS FOR CALENDAR YEAR 2015:**

- Provision of literature searches and access to documents
- Purchase of new materials at request of NJDOT staff
- Processing of new and donated items
- Organization and maintenance of the NJDOT Research Library collection

## STATE PLANNING AND RESEARCH PROGRAM, 2015 - 2016

**ACTIVITY:** Research Library – 4500015 / 7510  
**MANAGER:** Edward S. Kondrath  
**UNIT:** Bureau of Research

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### *ANTICIPATED ACCOMPLISHMENTS FOR CALENDAR YEAR 2015: (Cont'd.)*

- Quarterly list of new materials received in the Research Library
- Monthly reports to NJDOT and the NJ State Library

### *CONTRACTS:*

Thomas Edison – (CY 15) - \$212,251; (CY 16) - \$248,584

### *STAFFING PLAN:*

In-house staff time will be charged to Management of Contracted Research Initiatives (7021).

## STATE PLANNING AND RESEARCH PROGRAM, 2015 - 2016

**ACTIVITY:** Local Technical Assistance Program (LTAP) – 4500015 / 7728  
**MANAGER:** Paul Thomas  
**UNIT:** Bureau of Research

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### ***VISION:***

The Bureau of Research is a transportation research organization that New Jersey transportation research customers/professionals think of first to help them with their transportation problems.

### ***MISSION:***

Our core purpose is to provide current and quality information, analysis, and value added research solutions to transportation professionals within New Jersey and throughout the Nation.

### ***GOALS/ACTIVITIES:***

Since the Federal Highway Administration (FHWA) revised the LTAP/TTAP work plan guidance from six tasks to four focus areas (Safety, Workforce Development, Infrastructure Management and Organizational Excellence), they have modified performance measures to better reflect a continuous cycle of improvement.

Baseline measures established from the 2010 national performance level will be used to assess safety, workforce development, infrastructure management, and organizational excellence for the NJ LTAP over the next work cycle. This approach provides an opportunity to continually reassess each focus area that is outlined in the following section. FHWA reports that 60% of the courses provide through LTAP nationally are safety courses (FHWA LTAP/TTAP Presentation 8/2011). NJ LTAP has similarly demonstrated slightly more than half of its program efforts reflect safety priorities of local constituents.

### ***ANTICIPATED ACCOMPLISHMENTS FOR CALENDAR YEAR 2015:***

FHWA identified four focus areas for LTAP/TTAP organizations to address: Safety, Workforce Development, Infrastructure Management, and Organizational Excellence. All of the areas require external approaches for measurement of success, except Organizational Excellence, which involves both an internal and external component. When defining LTAP/TTAP services through safety, workforce development, infrastructure management, and organizational excellence; customers are better able to confirm the LTAP/TTAP Program's value in relationship to the surface transportation community.

### ***CONTRACTS:***

(FY15) \$510,000.00; (FY16) \$510,000.00

### ***STAFFING:***

In-house staff time will be charged to Management of Contracted Research Initiatives (7021).

**STATE PLANNING AND RESEARCH PROGRAM, CY 2015 – 2016**

**BUREAU OF RESEARCH – CONTINUATION STUDIES – 4500015**

- Technology Transfer – 7030
- Measuring Benefits of Transit Oriented Development – 7111
- Restricted-Use License Program for Suspended NJ Drivers – 7112
- High Reclaimed Asphalt in HMA – 7113
- Impact of Rail Grant Program – 7116
- Go Bus Impact and Analysis – 7117
- Snow Model Analysis – 7119
- Performance Testing for HMA Quality Assurance – 7123
- Technology Transfer at UTRC – 7124
- MYTIX: NJ Transit’s Mobile Ticketing Application – 7125
- Technology Transfer-Special Projects (2012) – 7127
- Landfill Closure with Dredged Materials - Desktop Analysis – 7128
- HMA Pay Adjustments – 7129
- Highway Repair Consolidation Feasibility – 7130
- ADA Paratransit Service Area Graphic Realignment – 7133
- Appropriate Implementation of Pavement Preservation Treatments – 7134
- Impact Analysis of Recreational Transit Services on Local Community Economic Development Employment and Spending – 7135
- Integration of Bus Stop Count Data with Census Data – 7137
- Design and Evaluation of Bridges for Scour Using HEC 18 – 7138
- Feasibility of Lane Closures Using Probe Data – 7140
- Safety and Accessibility of DMS – 7141
- Laser Scanning Aggregates for Real Time Property Identification – 7142
- Reducing Purchased Passenger Transportation Costs for State Agencies – 7143
- Increasing Female and Minority Representation in the Workforce – 7144
- Impact of Utility Relocation Delays on Project Delivery – 7145
- State Channel Maintenance Capacity: Evaluation of Dredge Holes – 7148
- Route 139 Rehabilitation: Pulaski Skyway Contract 2 – 7151
- Environmental Impacts of RAP - 7154
- Evaluation of Warm Asphalt Technology – 7801
- Streamlining Project Management (ePROMPTS) – 7813
- Recycled Concrete Aggregate in PCC – 7902
- Stormwater System Monitoring Evaluation – 7905
- Accelerated Infrastructure Testing Techniques – 7906
- Effect of Warm Mix Asphalt on RAP in HMA – 7913
- Review of NCHRP Study Implementation at NJDOT – 7916

## STATE PLANNING AND RESEARCH PROGRAM, 2015-2016

**ACTIVITY:** Straight Line Diagrams – 2205878 / 5140  
**MANAGER:** Michael G. Castaldo  
**UNIT:** Bureau of Transportation Data and Safety

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### **VISION:**

Provide easily accessible roadway inventory characteristic data for engineering tasks and decision making support.

### **MISSION:**

To maintain and continue the availability of the Straight Line Diagrams as a platform to access data elements describing the physical and network characteristics of all public roadways in the state. Included in this activity are tasks associated with maintaining the current application, adding new features to the application, user education, and providing user access to the database for analytic purposes and maintaining a geographic index for referencing this data.

### **GOALS/ACTIVITIES:**

1. Provide convenient access to roadway characteristic data stored in the Straight Line Diagrams database.
  - a. Deploy the Automated Straight Line Diagrams application to the NJDOT and the FHWA.
    - i. Provide training
    - ii. Provide technical support
    - iii. Provide application updates
2. Provide convenient access to the NJDOT VideoLog to view digital roadway images.
  - a. Deploy the NJDOT VideoLog application to the NJDOT and the FHWA.
    - i. Provide training
    - ii. Provide technical support
    - iii. Provide application updates
3. Provide access to the Maintenance Management System features inventory through the Automated Straight Line Diagrams application.
  - a. Develop symbology to display MMS features on the Straight Line Diagrams
  - b. Maintain point-and-click technology to retrieve MMS features data
    - i. Link MMS feature symbology to the Straight Line Diagrams database
    - ii. Link MMS feature symbology to digital imagery
4. Maintain a reference and indexing system for all roadways in New Jersey. ([Straight Line Diagrams](#))
  - a. Implement the Standard Route Identifier (SRI) system for all public roads in NJ.
    - i. Identify route hierarchy
    - ii. Assign logical SRI's to the routes
    - iii. Promote the SRI to be the department wide-standard for indexing public roadways
5. Provide coordination with internal and external agencies that request information from the Straight Line Diagrams database.
  - a. Perform ad-hoc queries for data as requested by customers
  - b. Educate customers on how to best utilize the Straight Line Diagrams
    - i. Provide training and demonstrations

## STATE PLANNING AND RESEARCH PROGRAM, 2015-2016

**ACTIVITY:** Straight Line Diagrams – 2205878 / 5140  
**MANAGER:** Michael G. Castaldo  
**UNIT:** Bureau of Transportation Data and Safety

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### ***ANTICIPATED ACCOMPLISHMENTS FOR CALENDAR YEAR 2015:***

- Deploy the Automated Straight Line Diagrams and NJ VideoLog to the web for internal and public use.
- Obtain the consultant services necessary to maintain and enhance the web enabled Automated SLD and VideoLog.
- Provide maintenance of the Straight Line Diagrams application.
- Provide maintenance of the NJDOT VideoLog application.
- Provide customer support and training for the Straight Line Diagrams and VideoLog applications.
- Provide an efficient method to integrate user comments and suggestions into the SLD program.
- Continue to provide roadway mileage statistics and ad-hoc queries for SLD data as requested by our customers.

### ***CONTRACTS:***

CURRENT CONTRACT – State of New Jersey GIS Services Contract (through OIT / Treasury)

CURRENT BUDGET - \$ 361,000.00 each year.

### ***STAFFING:***

Conti, B.	0.50
Faughnan, G.	0.15
Haji, S.	0.05
Mattern, C.	0.50
Perry, D.	1.00
Stanley, D.	0.25
Varone, A.	0.10
Total Staff Time:	2.55 person years

## STATE PLANNING AND RESEARCH PROGRAM, 2015-2016

**ACTIVITY:** Digital Roadway Imaging and Video Data – 2205878 / 5150  
**MANAGER:** Michael G. Castaldo  
**UNIT:** Bureau of Transportation Data and Safety

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### **VISION:**

To maintain a pictorial inventory and obtain data on State Highways and other principal roadways in New Jersey.

### **MISSION:**

This activity uses digital imaging technology and includes photographic archives recorded on both videotape and 35mm-film technology to provide for the needs of users throughout the NJDOT. Provide digital and videotape documentation for special projects and requests.

### **GOALS/ACTIVITIES:**

1. Ensure that all roadway imaging data on highways under State jurisdiction is no older than three (3) years.
2. Ensure that video archives are copied and that this redundant set of images is stored at a secured location.
3. Provide convenient and responsive access to users of roadway imaging data.
4. Provide timely and flexible response to customer requests for specialized video needs.

### **ANTICIPATED ACCOMPLISHMENTS FOR CALENDAR YEAR 2015:**

- Update the SLD videolog directory with new digital data collected during the duration of this work program.
- Provide video services for 120 requests made by NJDOT units.
- Provide 30 video and/or photographic submittals to the DAG's Office (or other requesters) requiring special services.
- Maintain an updated Roadway Image Library of all State Highways. This library will consist of roadway images portraying current and historical conditions.
- Maintain a redundant set of the Roadway Image Library of all State Highways (mainly for any future disaster recovery effort).

### **CONTRACTS:**

None

### **STAFFING:**

Castaldo, M.	0.10
Habel, R.	0.70
Total Staff Time:	0.80 person years

## STATE PLANNING AND RESEARCH PROGRAM, 2015-2016

**ACTIVITY:** Transportation Data Warehouse and Maintenance – 2205878 / 5160  
**MANAGER:** Michael G. Castaldo  
**UNIT:** Bureau of Transportation Data and Safety

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### ***VISION:***

Develop and maintain a one stop shop for all transportation related data.

### ***MISSION:***

Provide a Transportation Data Warehouse which contains accurate, complete and up-to-date transportation data for user groups, FHWA and other related agencies.

### ***GOALS/ACTIVITIES:***

1. Develop and maintain inventory and data collection programs to keep data current.
2. Make available all current and archived data to department decision makers, i.e.: roadway, digital images, MMS and other various asset management data through both the SLD suite of products and through the NJDOT's Business Objects program.
3. Develop and maintain NJDOT's GIS LRS system.
4. Develop and maintain NJDOT's Roadway Network GIS file.
5. Assist in the development and maintenance of New Jersey's Enhanced Roadway Network GIS file. (This activity is being conducted in collaboration with NJOIT's office of GIS.)
6. Develop and maintain NJDOT's mile posting program.
7. Provide support and database management of BT&S's HPMS database.
8. Maintain New Jersey's Functional Classification and Federal Aid system.

### ***ANTICIPATED ACCOMPLISHMENTS FOR CALENDAR YEAR 2015:***

- Publish the 2015 version of NJDOT's Roadway Network GIS file on a quarterly schedule starting in January, 2015.
- Assist in publishing the 2015 version of New Jersey's Enhanced Roadway Network GIS file on a monthly schedule starting in January, 2015. (This activity is being conducted in collaboration with NJOIT's office of GIS.)
- Provide convenient access to data related to roadway characteristics for interested users of the data.
- Data attributes related to roadways included as part of the National Highway System (NHS) will be no older than three (3) years.
- Data assets related to roadways included as part of the Highway Maintenance Management System program (HMMS) will be no older than five (5) years.
- Data assets related to bridges included as part of the Highway Maintenance Management System program (HMMS) will be no older than five (5) years.
- Data attributes related to roadways included as part of the STP Federal-aid roadway system will be no older than five (5) years.
- Additions of and revisions to roadways that are part of the Local System (non-Federal Aid category) will be indexed and updated using the Standard Route Identification (SRI) and data attributes related to these roadways will be no older than ten (10) years.
- Assist in the maintenance of a reference and indexing system for all roadways in New Jersey. ([Straight Line Diagrams](#))
- Maintain updated digital images of all State jurisdiction roadways for the Department's user groups and others on a three year cycle. A complete re-inventory of roadway images for the State system is to be completed in August 2014 and updated images will be available to Department user groups by September, 2014.

## STATE PLANNING AND RESEARCH PROGRAM, 2015-2016

**ACTIVITY:** Transportation Data Warehouse and Maintenance – 2205878 / 5160  
**MANAGER:** Michael G. Castaldo  
**UNIT:** Bureau of Transportation Data and Safety

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### *ANTICIPATED ACCOMPLISHMENTS FOR CALENDAR YEAR 2015: (cont'd.)*

- Maintain updated digital images of all Authority jurisdiction roadways for the Department's user groups and others on a five year cycle. A complete re-inventory of roadway images for the Authority system is to be completed in September 2014 and updated images will be available to the Department's user groups by October, 2014.
- Collect and maintain updated digital images of all County jurisdiction roadways for the Department's user groups and others on a five year cycle. A complete re-inventory of roadway images for the County system is to be completed in late spring, 2015 and updated images will be available to the Department's user groups by summer, 2015.

### *CONTRACTS:*

*CURRENT CONTRACT:* Monitor, complete and closeout the current Data Maintenance and Warehouse II Contract that maintains all Public Road Inventories. Updates to the standard SLD data will be collected and processed. Non-standard SLD data, specifically portions of the Maintenance Management Systems Feature inventory data, will be updated as well in order to aide in the development and support of the NJDOT's Asset Management Program. Develop innovative concepts and programs to achieve the above in the most cost effective manner.

*PROPOSED BUDGET:* Closeout in December, 2014

*PROPOSED CONTRACT:* Start the proposed project "Data Warehouse and Maintenance III, Statewide" that maintains all Public Road Inventories for 2015 - 2016. This proposed three year project will replace the above current three year project set to be completed in December, 2014 and will cover data maintenance tasks for calendar years 2015, 2016 and 2017. Major tasks of this project will continue to: provide updates to the standard SLD data that will be collected and processed, Non-standard SLD data, data from NJDOT's Maintenance Management Systems Feature inventory, ADA related data on the State system, and various other data that is part of the BTD&S's Transportation Data Warehouse. Also, pavement surface features for County roadways and roadway horizontal curve and grade data for use in HPMS / MAP-21 reporting

*PROPOSED 2015 BUDGET:* \$2,000,000.00 (2015 year1) plus \$1,500,000.00 (from 2014) = \$3,500,000.00 year 1  
\$2,000,000.00 (2016 year 2)

### *STAFFING:*

Castaldo, M.	0.75
Habel, R.	0.15
Faughnan, G.	0.55

Total Staff Time: 1.45 person years

## STATE PLANNING AND RESEARCH PROGRAM, 2015-2016

**ACTIVITY:** Traffic Monitoring System (TMS) – Traffic Volumes Data Collection – 2205878/ 5310  
**MANAGER:** Michael G. Castaldo  
**UNIT:** Bureau of Transportation Data and Safety

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### **VISION:**

Traffic data collected under New Jersey's Traffic Monitoring System for Highways will have a 95% confidence level of accuracy as we continue to install more sites, maintain existing sites and collect more samples.

### **MISSION:**

Collect and process traffic volumes and vehicle class data throughout the state. Provide traffic data to various units of the Department, the MPOs and to Local and private constituents. Provide traffic data required in Highway Performance Monitoring System (HPMS) program. Submit traffic volume and vehicle-type classification data to Federal Highway Administration (FHWA) monthly.

### **GOALS/ACTIVITIES:**

1. To complete the third year (2015) of current TMS Data Collection Cycle (2013-2015), and prepare a new package through the solicitation of EOI for the next 3 year TMS Data Collection Cycle (2016-2018), this process will include the first year of upcoming cycle for year 2016. This Traffic Monitoring System is required by the FHWA and is intended to monitor approximately 6,400 sites throughout the state for calendar year 2015 and 2016. These sites will be collected as a short term coverage sites, and will monitor travel trends over the short – term (minimum 48 hours). The spread of these counts and the type of activities are as follows:
  - a. The assigned TMS locations are counted using Automatic Traffic Recorder (ATR)
  - b. The assigned Automatic Vehicle Classification sites (AVC's)
  - c. The new HPMS sample sections on mainlines and on the ramps using ATR's
  - d. The performance of special counting program to support NJDOT operations and other management Systems including:
    - i. Special Manual (visual) turning movement counts
    - ii. Special ATR's and other special counts
    - iii. Special Pedestrian counts
  - e. Major Stations will be counted for one week every month using ATR's
2. Raw data will be retrieved and processed from continuous and major stations
3. Innovative concepts will include an application of new technology; communications, relational database design, development and management automation of processes; statistical analysis; data presentation and dissemination.
  - a. Database Update and Maintenance
  - b. TMS Application Update and Maintenance
  - c. Exploration of new traffic data collection equipment
  - d. AADT segmentation Map hosted on ARC GIS online
  - e. Data Review and Analysis
  - f. Maintenance and Technology Transfer
  - g. TMS Data viewer Enhancement
  - h. A Web application to process, validate and analyze traffic monitoring data including volume, classification, speed per vehicle format
  - i. A tool to analyze volume flow on Garden State Parkway and New Jersey Turnpike
  - j. A tool to separate and sort annual continuous AADTs data based on geographical region, functional class and volume range parameters
4. Roadway Inventory Data Collection

## STATE PLANNING AND RESEARCH PROGRAM, 2015-2016

**ACTIVITY:** Traffic Monitoring System (TMS) – Traffic Volumes Data Collection – 2205878 / 5310  
**MANAGER:** Michael G. Castaldo  
**UNIT:** Bureau of Transportation Data and Safety

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### **GOALS/ACTIVITIES: (cont'd.)**

- a. GeoLink based data collection. GeoLink will be used to collect standard roadway inventory attributes of about 6,000 miles statewide annually. The Roadway inventory will be conducted in accordance with the units' *Instruction Manual of Roadway Inventory Procedures*.
- b. NJDOT Highway Maintenance Management System (HMMS) via Feature Extraction video base images on state highways statewide. Video-based images will be collected in accordance with the units' *Instruction Manual of Roadway Inventory Procedures*.

### **ANTICIPATED ACCOMPLISHMENTS FOR CALENDAR YEAR 2015:**

- Complete approximately 3,200 TMS short term coverage counts (48 hours) including new HPMS sample sections, and special counts.
- Collect about 200 ramp counts including 700 and 600 series county routes for the HPMS sample sections.
- Innovative Concept applications for the following:
  - Data base update and Maintenance
  - Exploration of new traffic data collection equipment's
  - Data viewer Enhancement.
  - Load to database Volume, Classification and Weights formats
  - Validate Volume, Classification and Weights formats
  - Separate and sort reports to show the annual continuous AADTs data based on geographical region, functional class and volume range parameters
- Using GeoLink based data collection, collect roadway inventory attributes of about 6,000 centerline miles statewide in accordance with the units' *Instruction Manual of Roadway Inventory Procedures*.
- NJDOT Highway Maintenance Management System (HMMS) via Feature Extraction video base images on state highways statewide in accordance with the units' *Instruction Manual of Roadway Inventory Procedures*.
- Continue to support all units of the Department with the traffic data as needed
- Continue to process and analyze data collected from all permanent TMS stations statewide.

### **CONTRACTS:**

PROPOSED CONTRACTS: To fund the third year of the current 3 year TMS Data Collection Cycle (2013-2015).

Traffic Monitoring System Data Collection- Northern New Jersey	\$ 1,600,000.00
Traffic Monitoring System Data Collection- Central New Jersey	\$ 1,950,000.00
Traffic Monitoring System Data Collection- Southern New Jersey	<u>\$ 1,750,000.00</u>
	\$ 5,300,000.00

PROPOSED BUDGET: \$ 5,300,000.00 for year three

## STATE PLANNING AND RESEARCH PROGRAM, 2015-2016

**ACTIVITY:** Traffic Monitoring System (TMS) – Traffic Volumes Data Collection – 2205878 / 5310  
**MANAGER:** Michael G. Castaldo  
**UNIT:** Bureau of Transportation Data and Safety

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### *STAFFING:*

Abraham, A	1.00
Griffis, R..	0.30
Mordenti, M.	0.75
Oberle, E.	0.10
Stanley, D.	0.20
Zajac, K.	0.10
Total Staff Time:	2.45 person years

## STATE PLANNING AND RESEARCH PROGRAM, 2015-2016

**ACTIVITY:** Traffic Monitoring System (TMS) - Database Maintenance – 2205878 / 5320  
**MANAGER:** Michael G. Castaldo  
**UNIT:** Bureau of Transportation Data and Safety

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### ***VISION:***

Traffic data collected under New Jersey's Traffic Monitoring System (TMS) will have a 95% confidence level of accuracy and user friendly electronic internet access.

### ***MISSION:***

Provide traffic volume and classification data to Federal Highway Administration (FHWA) and various units of the Department to support transportation studies, funding allocation, and maintenance of infrastructure. Support the Highway Performance Monitoring System (HPMS) program.

### ***GOALS/ACTIVITIES:***

1. Submit monthly to FHWA volume and classification data collected from continuous monitoring stations.
2. Review and process traffic volume and classification data collected by consultants at over 3,000 HPMS sample sections sites and about 500 ramp locations and data collected for other transportation related studies.
3. Maintain the database of all traffic data collected and update regularly the internet home page.
4. Calculate annually and update the tables for: the seasonal adjustment factors, axle correction factors and the annual average growth rates.

### ***ANTICIPATED ACCOMPLISHMENTS FOR CALENDAR YEAR 2015:***

- A summary of classification data for the HPMS table, Travel Activity by Vehicle Type.
- 2015 tables of seasonal adjustment factors, axle correction factors and the annual average growth rates.
- A new web application to process continuous volume and classification data (Phase 1).
- Online monthly submittal via TMS2 to FHWA of volume data collected from WIM and TVS stations by the 3<sup>rd</sup> week of the following month.

### ***CONTRACTS:***

Fund year 2015 of the annual maintenance agreement for TRADAS software used to process data from permanent TMS sites and 48 hour stations.

PROPOSED BUDGET: \$ 105,000.00 each year

### ***STAFFING:***

Khandakar, M.           0.10  
Zajac K.                 0.60

Total Staff Time:       0.70 person years

## STATE PLANNING AND RESEARCH PROGRAM, 2015-2016

**ACTIVITY:** Traffic Monitoring System (TMS) – Weights and Speeds – 2205878 / 5330  
**MANAGER:** Michael G. Castaldo  
**UNIT:** Bureau of Transportation Data and Safety

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### **VISION:**

Traffic data collected under New Jersey's Traffic Monitoring System for Highways will have a 95% confidence level of accuracy as we continue to install more sites, maintain existing sites and collect more samples.

### **MISSION:**

Collect truck weights, speed and vehicle classification data from Weigh-in-Motion (WIM) system sites and submit data annually to FHWA through Vehicle Travel Information System (VTRIS) and Travel Monitoring Analysis System (TMAS). Provide traffic data updates for the Highway Performance Monitoring System (HPMS) program. Provide traffic loadings and speed data needed in designing bridges and roadways. Provide truck weight data and classification counts to Freight Planning and Services unit for the implementation of the Comprehensive Statewide Freight Plan. Assist the NJ State Police with their truck weight enforcement activity.

### **GOALS/ACTIVITIES:**

1. Collect truck weight, speed and classification data needed for roadway and bridge design. Update and maintain the Flowed Network of 18 kip Equivalent Single Axle Load (ESAL) factors for pavement design.
2. Provide traffic data needed for the Highway Performance Monitoring System (HPMS) program.
3. Collect truck data for Freight Planning & Services unit for the implementation of the Comprehensive Statewide Freight Plan.
4. Prepare and submit New Jersey's calendar year VTRIS data package to the FHWA by June 15 of the following year.
5. Provide monthly, traffic volume, classification and weight data at 10 Strategic Highway Research Program (SHRP) Long Term Pavement Performance (LTPP) program sites to FHWA consultant.
6. Re-calibrate thirty (30) WIM sites by December 31 of each year.
7. Update the monthly summary of vehicle classification and speed report.
8. Update the Roadway Information and Traffic Counts Web page.
9. Update the NJDOT Traffic Monitoring Guide as needed.
10. Prepare quarterly reports on overweight trucks for interstate highways.

### **ANTICIPATED ACCOMPLISHMENTS FOR CALENDAR YEAR 2015:**

Submission of the CY 2014 Truck Weight Study in VTRIS database to FHWA no later than June 15, 2015.

- Update traffic data reports at: "<http://www.state.nj.us/transportation/refdata/roadway/truckwt.shtm>" web site.
  - Monthly Average Weekday Traffic (MAWDT)
  - Monthly Average Weekend Traffic (MAWET)
  - Monthly Average Daily Traffic (MADT)
  - Monthly Average Weekday Speed
- Update Flowed Network table of 18-kip Equivalent Single Axle Load (ESAL) values for flexible and rigid pavement at about three hundred fifty (350) roadway sections by March 30, 2015.  
[http://www.state.nj.us/transportation/refdata/roadway/wim\\_files/ESAL\\_Design\\_Factors.pdf](http://www.state.nj.us/transportation/refdata/roadway/wim_files/ESAL_Design_Factors.pdf)
- Monthly submission of Classification and Weight Data from the 10 WIM systems at SHRP/LTPP sites to consultant no later than the 3<sup>rd</sup> week of the following month of data.
- Re-calibrate 30 WIM stations by December 31, 2015.
- Continue to provide various units of NJDOT, State Police and other agencies with truck weight, classification and other traffic data from permanent WIM stations.

## STATE PLANNING AND RESEARCH PROGRAM, 2015-2016

**ACTIVITY:** Traffic Monitoring System (TMS) – Weights and Speeds – 2205878/ 5330  
**MANAGER:** Michael G. Castaldo  
**UNIT:** Bureau of Transportation Data and Safety

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### *ANTICIPATED ACCOMPLISHMENTS FOR CALENDAR YEAR 2015: (cont'd.)*

- Online monthly submittal via TMS2 to FHWA of classification, speed and weight data collected from WIM stations by the 3<sup>rd</sup> week of the following month.
- Update and post in our website the correction factors needed to calculate AADT for short term counts by April 2015.

### **CONTRACTS:**

None

### **STAFFING:**

Britton, B.	0.10
Griffis, R	0.60
Khandakar, M.	0.90
Mordenti, M.	0.15
Oberle, E.	0.70
Stanley, D.	0.05
Zajac K.	0.10
Total Staff Time:	2.60 person years

## STATE PLANNING AND RESEARCH PROGRAM, 2015-2016

**ACTIVITY:** Traffic Monitoring System (TMS) – Infrastructure Renewal – 2205878 / 5510  
**MANAGER:** Michael G. Castaldo  
**UNIT:** Bureau of Transportation Data and Safety

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### ***VISION:***

Traffic data collected under New Jersey's Traffic Monitoring System for Highways will have a 95% confidence level of accuracy as we continue to install more sites, maintain existing sites and collect more samples.

### ***MISSION:***

Planning activities to maintain the infrastructure of the New Jersey's Traffic Monitoring System in good operating condition. Share access of TMS sites and data with Traffic Management Systems, the State Police, Freight Services and other interested parties. Select new sites where needed to meet the 95% confidence level when calculating the annual average daily traffic (AADT).

### ***GOALS/ACTIVITIES:***

1. Planning activities to maintain all permanent Weigh-in-Motion (WIM) stations and Traffic Volume Stations (TVS) sites in good working condition. Install new permanent sites where needed to increase the confidence level of factors used in calculating statewide AADTs of short duration counts stations.
2. Share access of statewide TMS sites with ITS traffic management centers, Freight Services and state police.
3. Construct new WIM sites that are necessary to monitor the effects of new Large Truck Network regulations.
4. Select the sites in need of repair or replacement of in-pavement failed sensors and electronics to continuously collect quality data.
5. Planning activities to upgrade TVS sites to Automatic Classification Station (AVC) sites to support the requirements of the Mechanistic Empirical Pavement Design Guide (MEPDG).
6. Planning of the management of the construction, maintenance and installation of WIM, AVC, TVS and VWS sites.
7. Planning activities to assist REs from various construction projects in the proper installation, testing and inspection of TMS sites.

### ***ANTICIPATED ACCOMPLISHMENTS FOR CALENDAR YEAR 2015:***

- Properly maintained WIM, AVC, TVS and VWS sites collecting reliable data.
- Collecting Weight, Classification and Traffic Volume data continuously 24 hrs. daily.
- Data for pavement design using MEPDG, vehicle classification counts, loadings and speed for other transportation design and research studies.
- Upgrades of five (5) TVS sites to AVC and WIM sites.
- Repave sections of roadway with new AVC and WIM sensors (Paving cost is covered by the NJ DOT Transportation Trust Fund) with the assistance of the NJDOT Maintenance bureau.
- Calibrate 10 WIM sites in collaboration with the Division of Purchase and Property of the NJ Department Treasury which provides a five axle truck and a driver.

## STATE PLANNING AND RESEARCH PROGRAM, 2015-2016

**ACTIVITY:** Traffic Monitoring System (TMS) – Infrastructure Renewal – 2205878 / 5510  
**MANAGER:** Michael G. Castaldo  
**UNIT:** Bureau of Transportation Data and Safety

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### **CONTRACTS:**

#### **Existing:**

#### TMS- Infrastructure Renewal Statewide 2011

Federal Project No. MGS-C00S (342)

Construction Job No. 2205382

DP No. 11415

Contractor Name: Daidone Electric, Inc.

Contract Execution Date: Dec.17, 2012

Contract End Date: Dec.16, 2015

Contract Total Amount: \$ 2,576,000

### **STAFFING:**

Britton, B. 0.10

Griffis, R. 0.05

Mordenti, M. 0.05

Oberle, E. 0.10

Zajac, C. 0.10

Total Staff Time: 0.40 years

Overtime budget - \$20,000. The Bureau currently has an active construction contract to restore the in-road sensors. This contract requires overnight working hours due to Traffic Operations regulations to conduct in-road construction during off-peak hours Staff is required to be present during sensor installations to make sure that all Quality Assurance rules are followed.

## STATE PLANNING AND RESEARCH PROGRAM, 2015-2016

**ACTIVITY:** Functional Classification System and Federal Aid System – 2205878 / 5650  
**MANAGER:** Michael G. Castaldo  
**UNIT:** Bureau of Transportation Data and Safety

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### ***VISION:***

To provide and maintain New Jersey's Urban Boundary and Functional Classification System; performing modifications to these systems; and, maintaining / updating the data in associated databases when requests for updates are received.

### ***MISSION:***

The designating and maintaining of the Federal Aid System and to provide the most current and accurate Urban Boundary and Functional Classification System for the state of New Jersey.

### ***GOALS/ACTIVITIES:***

From the developed 2010 update:

1. Analyze any data or mapping that is made available through requests for updates.
2. In cooperation with the MPO's and through them the counties, update the Urban Boundary and Functional Classification System for each request if required.

### ***ANTICIPATED ACCOMPLISHMENTS FOR CALENDAR YEAR 2015:***

- Review requests as received.
- Analyze any revised source data if provided.
- Perform field verification to resolve questions if required.
- Meet with NJDOT staff and requestor if required.
- Meet individually with the MPO involved to present revised update.
- Evaluate comments received from the meetings with the MPO's and incorporate updates as necessary.
- Obtain resolutions of support/concurrence from the MPO regarding update.
- Incorporate changes to map products or various databases.
- Create and submit revised GIS polygon feature class in geo-database format to NJDOT's Information Management & Technology Planning Bureau for inclusion in the Department's GIS if required.

## STATE PLANNING AND RESEARCH PROGRAM, 2015-2016

**ACTIVITY:** Functional Classification System and Federal Aid System – 2205878 / 5650  
**MANAGER:** Michael G. Castaldo  
**UNIT:** Bureau of Transportation Data and Safety

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### *PRODUCTS:*

- Maintenance of maps for New Jersey's current Urban Boundary, Functional Classification System and Federal-Aid System. Maps are made available to interested users via the Roadway System Section's website.
- Route List's of all NHS and STP roadways if revisions are required.
- Revise various mileage statistics by county and jurisdiction of the Functional Classification System if required.

### *STAFFING:*

Faughnan, G.	0.05
Haji, S.	0.05
Varone, A.	0.05
Total Staff Time:	0.15 years

## STATE PLANNING AND RESEARCH PROGRAM, 2015 - 2016

**ACTIVITY:** Highway Performance Monitoring System – 2205878/ 5930  
**MANAGER:** Michael G. Castaldo  
**UNIT:** Bureau of Transportation Data and Safety

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### **VISION:**

To continue providing the most current HPMS data and its submittal; to ensure federal decisions are based on the best available and most accurate data for New Jersey.

### **MISSION:**

To maintain and monitor an integrated database, using random selection of road sections with predetermined functional classification system and volume groups, in accordance with procedures outlined in FHWA's "HPMS Field Manual." A submittal of HPMS will be done on a yearly basis as required by FHWA representing the New Jersey Department of Transportation and the state of New Jersey.

### **GOALS/ACTIVITIES:**

1. Numerous design changes and enhancements need to be made to the NJDOT Highway Performance Monitoring System (HPMS) field and office version software.
  - a. Michael Baker Jr., Inc (MBJ) will review and make the needed updates/changes to both versions.
2. Staff will inventory seven of the twenty-one counties for the 2014 data year.
  - a. All of the HPMS sample sections for the seven counties will be field inventoried by in house staff.
    - i. Sections will be checked for both consistency and accurate data elements.
3. Staff will begin to identify, investigate, and if suitable, inventory new sample sections throughout the State.
  - a. All sections will be field inventoried for data and roadway features/elements to be homogeneous.
4. Staff will provide a list of all and or any new HPMS sample sections to our Traffic Counting Section for current AADT volumes.
  - a. The new HPMS sections list will include mile-posting, SRI number and the county of that route.
5. Staff will participate in several HPMS webinars regarding the new HPMS Software. These Webinars will take place at the FHWA headquarters in Washington D.C.
  - a. Webinars will inform the states of what procedures and steps should be followed in order to meet all of FHWA's requirements.
6. Complete the 2014 Certification of Public Road Mileage and the 2015 HPMS submittal, 2014 data year.
  - a. Submittal is to be forwarded to the FHWA headquarters in Washington D.C.
    - i. Copies of the certification and the HPMS submittal package will also be hand delivered to the local FHWA West Trenton Division office.
7. Update the Department's website with the 2014 Mileage and Vehicle Miles Traveled (VMT) statistics reports.
  - a. After approval from FHWA of the 2015 HPMS submittal NJDOT's website will be updated. This will be completed before December 31<sup>st</sup>.
8. Update the HPMS dataset with new local road mileage for the data year 2014.
  - a. Any new inventoried local road mileage will be checked and reviewed before being updated to the HPMS dataset.
9. Provide continuous feedback concerning the new software and submittal procedures to the FHWA headquarters in Washington D.C.
  - a. Any concerns and questions will be directed to FHWA for guidance and direction.
10. Update the HPMS dataset to include the correction of anomalies between NHS and the Functional Classification in the FHWA/HPMS application.
  - a. Run a validity check between the HPMS dataset and the SLD NHS tables to ensure accuracy exists between both datasets.
    - i. Provide details and documentation for any changes or updates to both datasets.

## STATE PLANNING AND RESEARCH PROGRAM, 2015 - 2016

**ACTIVITY:** Highway Performance Monitoring System – 2205878 / 5930  
**MANAGER:** Michael G. Castaldo  
**UNIT:** Bureau of Transportation Data and Safety

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### *GOALS/ACTIVITIES: (cont'd.)*

11. Complete the updating of all twenty-one county sample section maps.
  - a. Show all existing HPMS sample sections on maps that are to be inventoried.
12. Identify and investigate all HPMS full extent sections that need updated or current AADT's.
  - a. Updates will be applied to the HPMS dataset after each AADT is validated.
13. Begin analyzing all HPMS volume groups that are oversampled.
  - a. Delete sample sections that are oversampled per each volume group.
    - i. Review clustering of too many sample sections when mapping samples on county maps.
14. Field inspect random HPMS sample sections.
  - a. Review and field inspect random sample sections through-out the twenty-one counties.
    - i. As per FHWA guidelines for HPMS, all sections need to be reviewed and checked for both the accuracy and consistency of each data element.
15. Collect the various needed pavement data items per FHWA's guidelines for both full extent and sample sections.
  - b. Review and then process the pavement data items to the HPMS dataset for the 2014 data year.
16. Update all NHS International Roughness Index (I.R.I.) data each year as required by FHWA for th 2015 HPMS Submittal.
17. Request funds for overtime to review and update all HPMS full extent sections with either a flowed AADT or an actual.

### *ANTICIPATED ACCOMPLISHMENTS FOR CALENDAR YEAR 2015:*

- New Jersey's Annual HPMS submittal to the FHWA.
- New Jersey's Annual Certification of Public Roadway Miles.
- VMT estimates by Urbanized Area and County.
- Mileage statistics by Urbanized Area and County.

### *CONTRACTS:*

Reference - Data Warehouse and Maintenance Contract 5160

Overtime budget - \$3,000. Request funds for overtime to review and update all HPMS full extend sections with either a flowed AADT or actual AADT's.

### *STAFFING:*

Conti, B.	0.50
Faughnan, G.	0.10
Habel, R.	0.15
Haji, S.	0.90
Mattern, C.	0.50
Varone, A.	0.70
Total Staff Time:	2.85 person years

## STATE PLANNING AND RESEARCH PROGRAM, 2015-2016

**ACTIVITY:** Transportation Statistics – Data Dissemination – 2205878 / 5420  
**MANAGER:** Samuel Braun  
**UNIT:** Division of Accounting and Auditing

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### ***VISION:***

New Jersey will have reliable, accurate & timely Transportation Statistics submissions.

### ***MISSION:***

To compile and report to FHWA statistical data prescribed by the FHWA publication: “A Guide to Reporting Highway Statistics”.

### ***GOALS/ACTIVITIES:***

- 500 series forms that contain NJ fiscal year (ending June 30) data will be submitted timely. The reports due on a fiscal year basis are 531, 532, 534, 541, 542, 556, 561,562 and 566.
- Fuel statistics submitted on a monthly basis will be submitted within 60 days after the close of the month for which the data is being reported.
- Respond to periodic inquiries from FHWA to verify reports produced by the FHWA.

### ***ANTICIPATED ACCOMPLISHMENTS FOR CALENDAR YEAR 2015:***

- The timely submission of the reports to the FHWA for each category cited in the above Activities section. The FHWA utilizes the data to compile various reports comparing data from all States.
- Compile the monthly fuel statistics from which the FHWA compiles the annual motor fuel usage tables.
- Review annual motor fuel data for final publication by the FHWA.

### ***CONTRACTS:***

None.

### ***STAFFING:***

Samuel Braun .125 person year  
Albert Weierman .125 person year

## STATE PLANNING AND RESEARCH PROGRAM, 2015 - 2016

**ACTIVITY:** Transportation Geographic Information Systems – 2205878 / 5210  
**MANAGER:** Cynthia Dey  
**UNIT:** Bureau of Information Management & Technology Planning/GIS

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### **VISION:**

To provide NJDOT with the most accurate, reliable and productive geo-spatial data.

### **MISSION:**

To develop, manage, maintain and provide GIS applications and support to the New Jersey Department of Transportation (NJDOT) to support department-wide activities.

### **GOALS/ACTIVITIES:**

1. Coordinate efforts with federal, regional, county and local agencies in GIS development to avoid data redundancy and increase GIS presence.
2. The unit will continue to support a standard GIS software interface and maintain GIS databases in the Enterprise Shared Server Infrastructure.
3. Assess technological advances in GIS hardware and software and to plan implementation when appropriate.
4. Training of Department staff to support the GIS environment.
5. Collect, organize, retrieve and manage attribution and link to the GIS land base.
6. Maintain the State Transportation Data Model.
7. Update the following database table information to reflect current conditions:
  - a) Accident/Crash
  - b) Average Vehicle Occupancy
  - c) Aviation
  - d) Bridge Data
  - e) Capital Plan
  - f) Congressional Districts
  - g) Congressional Data
  - h) County Data
  - i) Environmental Data (DEP)
  - j) Geotechnical Database
  - k) Highway Inventory/SLD
  - l) Legislative Districts
  - m) Municipal Data
  - n) Park and Rides
  - o) Pavement data
  - p) Study and Development
  - q) Traffic Counts
  - r) Additional database tables will be created as needed.

## STATE PLANNING AND RESEARCH PROGRAM, 2015 - 2016

**ACTIVITY:** Transportation Geographic Information Systems – 2205878 / 5210  
**MANAGER:** Cynthia Dey  
**UNIT:** Bureau of Information Management & Technology Planning/GIS

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### **GOALS/ACTIVITIES: (cont'd.)**

8. Develop and complete a Rail GIS application to enhance rail analysis.
  - a) This project is funded through the Bureau of Multimodal Grants and Programs.
  - b) Michael Baker will begin the Build portion of the project using the GIS Services T-1841 Contract; a kick-off meeting be scheduled for August 2014.
9. Develop and complete a Dredged Materials Management System (DMMS) to enhance use of dredged materials throughout the state.
  - a) This project will be funded through the Office of Maritime Resources.
  - b) Applied Geographics, Inc. will begin the Build portion of project using the GIS Services T-1841 Contract; a kick-off meeting will be scheduled for September 2014.
10. Develop and complete a Waterway Linear Segmentation (WLS) to provide a linear reference system for NJ navigational waterways similar to the NJDOT roadway LRS.
  - a) This project will be funded through the Office of Maritime Resources.
  - b) Michael Baker Inc., will begin the Build portion of the project using the GIS Services T-1841 Contract; a kick-off meeting will be scheduled one the procurement paperwork has been completed.
11. Maintain the National Boating Infrastructure Grant (NBIG) application which provides increased service along, and navigability of New Jersey's waterways.
  - a) This project is funded through the Office of Maritime Resources.

### **ANTICIPATED ACCOMPLISHMENTS FOR CALENDAR YEAR 2015:**

- Continued updates to GIS database.
- Respond to GIS Help Desk requests.
- Test and install software upgrades and patches as they become available.
- Using data from NJDOT Data Development update the roadway network file.
- Kick off of the build of the Rail GIS application.
- Kick off of the build of the DMMS application.
- Kick off of the build of the WLS application.

### **CONTRACTS:**

None.

### **STAFFING:**

Tim Stewart	.30
Len Chetti	.25
Carla Calderone	.40
Deb Mesday	.60
Ellis K. Williams	.30
Magdy Guirguis	<u>.30</u>
Total	2.15

## STATE PLANNING AND RESEARCH PROGRAM, 2015 - 2016

**ACTIVITY:** Automated Mapping - Graphics – 2205878 / 5220  
**MANAGER:** Cynthia Dey  
**UNIT:** Bureau of Information Management & Technology Planning/GIS

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### **VISION:**

To provide NJDOT with the most accurate, reliable and productive geo-spatial data.

### **MISSION:**

To develop, manage, maintain and provide GIS applications and support to the New Jersey Department of Transportation (NJDOT) to support department-wide activities.

### **GOALS/ACTIVITIES:**

1. Rapidly respond to NJDOT's special GIS mapping requests, by providing digital and hard copy graphic and cartographic materials.
  - a) Custom map requests will be turned around in 5 business days
  - b) Standard plots will be turned around in 2 business days.
2. Update county digital landbase using digital orthophotography to add new local roads and realign the existing hydrography, as well as cultural and environmental features.
3. Provide support for Department plotting.
4. Incorporate GPS technology.

### **ANTICIPATED ACCOMPLISHMENTS FOR CALENDAR YEAR 2015:**

- Continue updates to county and municipal base maps.
- Generate plots for NJDOT users
- Provide custom mapping to NJDOT users.

### **CONTRACTS:**

None.

### **STAFFING:**

Tim Stewart	.20
Len Chetti	.25
Carla Calderone	.40
Deb Mesday	.20
Ellis K. Williams	.40
Magdy Guirguis	<u>.50</u>
Total	1.95

## STATE PLANNING AND RESEARCH PROGRAM, 2015 - 2016

**ACTIVITY:** New Jersey State Transportation Map – 2205878 / 5230  
**MANAGER:** Cynthia Dey  
**UNIT:** Bureau of Information Management & Technology Planning/GIS

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### **VISION:**

To provide NJDOT with the most accurate, reliable and productive geo-spatial data.

### **MISSION:**

To develop, manage, maintain and provide GIS applications and support to the New Jersey Department of Transportation (NJDOT) to support department-wide activities.

### **GOALS/ACTIVITIES:**

1. Manage the cartographic and digital production of the New Jersey Official State Transportation Map for free distribution to the public. This map is also available in a pdf file format:  
<http://www.state.nj.us/transportation/gis/map.shtm> .
2. Maintain the New Jersey State Transportation base maps to reflect current information.
3. Creation of theme, look and layout template for the planned map.
4. Selection of covers and artwork and the inclusion of Travel and Tourism information.
5. Assist in the state procurement process to select a vendor for printing.
6. Press proof color separations and “proofs” prior to printing.
  - a) Ensure that color accuracy and map registration is perfect prior to going to press.

### **ANTICIPATED ACCOMPLISHMENTS FOR CALENDAR YEAR 2015:**

- Continue to update the base maps, and insets to reflect current information.
- Continue to develop new layout and content for the next official state map printing.
- Prepare, edit and complete the 2014 State Map “Reprint”, with estimated delivery in late 2014.

### **CONTRACTS:**

None

### **STAFFING:**

Tim Stewart	.20
Len Chetti	<u>.25</u>
Total	0.45

## STATE PLANNING AND RESEARCH PROGRAM, 2015 - 2016

**ACTIVITY:** Digital Data Distribution – 2205878 / 5240  
**MANAGER:** Cynthia Dey  
**UNIT:** Bureau of Information Management & Technology Planning/GIS

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### **VISION:**

To provide NJDOT with the most accurate, reliable and productive geo-spatial data.

### **MISSION:**

To develop, manage, maintain and provide GIS applications and support to the New Jersey Department of Transportation (NJDOT) to support department-wide activities.

### **GOALS/ACTIVITIES:**

1. Maintain the New Jersey Department of Transportation GIS web home page to provide county and state base information providing maps in digital format. <http://www.state.nj.us/transportation/gis/>
2. Distribute data via various storage media including cd's, dvd's, mounted boards, ArcGIS Server web Applications, etc. as well as pdf, .jpg and other images.
3. Maintain the GIS portion of the NJDOT Internet web page [www.state.nj.us/transportation/gis](http://www.state.nj.us/transportation/gis)
4. Continue developing and enhancing GeoTrans, the interactive web-based mapping system, which provides data from every major area of NJDOT, to allow analysis, display, map and plot data. <http://gis/geotrans/>
  - a) Customize and design the web interface.
  - b) Customize map interface to include enhancements such as: map tools to further enhance GeoTrans analysis, map tips, transparency, buffers, plot template, export template, sql queries, clip, conversion tools, select tools, etc.
5. Development of web based viewers to be used to feed information to be populated on base maps, and provided to general public via web applications, such as Park and Ride and Geodetic Monuments.
6. Develop ArcGIS Online environment which will allow the creation of interactive web maps.

### **ANTICIPATED ACCOMPLISHMENTS FOR CALENDAR YEAR 2015:**

- Continued development/enhancement of GeoTrans to include additional functionality and data.
- Maintain the New Jersey Department of Transportation GIS Intranet page.
- Maintain the New Jersey Department of Transportation GIS Internet page.
- Distribute data via pdf's and other storage media.
- Continue to provide a web presence for GIS through GeoTrans and posting GIS files on the Internet/Intranet.
- Develop special web applications as needed/requested from NJDOT groups, including NJDOT Geodetic browser application and GeoTechnical Soils application.
- Develop ArcGIS Online environment.

## STATE PLANNING AND RESEARCH PROGRAM, 2015 - 2016

**ACTIVITY:** Digital Data Distribution – 2205878 / 5240  
**MANAGER:** Cynthia Dey  
**UNIT:** Bureau of Information Management & Technology Planning/GIS

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### *CONTRACTS:*

Year One - \$100,000 to be used towards obtaining consultant services for standing up the ArcGIS Online environment.

### *STAFFING:*

Tim Stewart	.30
Len Chetti	.25
Carla Calderone	.10
Deb Mesday	.20
Ellis K. Williams	.30
Magdy Guirguis	<u>.20</u>
<b>Total</b>	<b>1.35</b>

## STATE PLANNING AND RESEARCH PROGRAM, 2015 - 2016

**ACTIVITY:** Transportation Systems Information Management and Data Integration – 2205878/ 5250  
**MANAGER:** Cynthia Dey  
**UNIT:** Bureau of Information Management & Technology Planning/Information Management Unit

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### ***VISION:***

To provide NJDOT with Departmental data resources in a manner that avoids duplication and promotes easy and open access to data throughout the Department.

### ***MISSION:***

To offer analysis, design and implementation of integration of the NJDOT Transportation Management Systems that support department-wide activities.

### ***GOALS/ACTIVITIES:***

The New Jersey Department of Transportation (NJDOT) has several internal data systems that are critical to the effective management of New Jersey's transportation infrastructure. These systems provide decision support to management in the areas of planning, design, construction, maintenance, and operations of NJDOT's wide array of infrastructure. TransINFO is the Department Enterprise Data Warehouse that combined datasets from eight transportation management systems to support NJDOT planning efforts and facilitate analysis across multiple disciplines. The current Enterprise Data Warehouse is Oracle 10g and it is hosted by NJOIT.

Optimize TransINFO Data Warehouse and Business Intelligence tools within our environment, to leverage the existing system and to support additional components for a seamless and transparent product. Meet the informational and administrative needs necessary to support the day-to-day management of the Department. Provide the ability to query the Enterprise Data Warehouse and retrieve data from all integrated systems.

Areas of particular interest will be providing planners with answers to allow for better decisions and to make data available through maps. Data marts will be created to facilitate quick retrieval of data and reports. Business Objects Universes will be built to satisfy user community reporting needs. The fully functional TransINFO will allow user community, system owners and planners, to better advise for new projects and investments and to answer questions that have not been previously possible. Provide Business Objects training and education to NJDOT user community.

Once operational, the Information Management Unit will continue with the responsibility to monitor the various management systems as well as the integrated solution. Additional data sources are to be identified and integrated to better support our planners and DOT's user community to better advise for new projects and investments and to answer questions that have not been previously possible. Data sharing with DOT's business partners such as the TMA's, MPO's, FHWA, and other transportation entities will be addressed as well.

Develop a multi-phased plan for enabling MPOs access to datamarts via Business Objects. The MPO representatives will provide their anticipated data needs, categorized by management system, identifying how the data will be used. A SOW for the MPO data sharing project will be put out for vendor proposals to hire an Engagement Manager from the CAI contract to assist with the project. Per the Models of Regional Planning Cooperation; this project will promote the cooperation and coordination across MPO and State boundaries to ensure a regional approach to transportation planning and reporting via the data collection and data storage that the TransINFO data warehouse provides and the analytical tools available via Business Intelligence.

## STATE PLANNING AND RESEARCH PROGRAM, 2015 - 2016

**ACTIVITY:** Transportation Systems Information Management and Data Integration – 2205878 / 5250  
**MANAGER:** Cynthia Dey  
**UNIT:** Bureau of Information Management & Technology Planning/Information Management Unit

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### *GOALS/ACTIVITIES: (cont'd.)*

The current New Jersey Congestion Management System which is the primary congestion analysis tool of the NJDOT is undergoing a substantial data upgrade to include programming fixes and functionality enhancements to meet current and future needs of the Department of Transportation, the State's three Metropolitan Planning Organizations, other State Agencies, the Governor's Office and the FHWA. Once operational, a consultant may be procured to update TransINFO Data Warehouse to include the new CMS-21 system. The NJDOT Data Warehouse team will make the necessary changes to the Business Objects universes and reports.

The Department of Transportation has a need to link SAGE data with FMIS information for Federal reporting. The FMIS/Sage Integration project SOW will be put out for vendor proposals to hire an Engagement Manager from the CAI contract to assist with its project. It is anticipated that this will be part of the EIS Project and these new data sources will be incorporated into the NJDOT Enterprise Data Warehouse.

### *ANTICIPATED ACCOMPLISHMENTS FOR CALENDAR YEAR 2015:*

- Ability to report across all existing Transportation Systems in TransINFO and the Project Cross-Referencing System (PCRS) to provide integrated information to the Department's decision makers (e.g. for a given SRI and milepost limits a planner should be able to identify all deficiencies such as drainage, pavement, safety, bridge or congestion issues, traffic counts or maintenance work as well as project information).
- Provide Business Objects training and education to NJDOT user community for the new TransINFO Planning Data Mart.
- Support the NJDOT user community for the development of Business Objects reports as requested.
- Support the Production environment including ETL processes and Business Intelligence.
- Work with DOT data source stewards to correct data exceptions as reported during load process into Enterprise Data Warehouse to improve data quality and reporting capabilities.
- If source systems have changes these will need to be incorporated into the Enterprise Data Warehouse and it will impact data load processes and Business Objects.
- A new Congestion Management System (CMS-21) will replace the existing one included currently in TransINFO. Provide support for the implementation of the new CMS-21 by working with both the vendor and NJOIT for the new Windows Server for the application and Oracle Database for the data. This includes the identification of the source data from the NJDOT Enterprise Data Warehouse to CMS-21 and the work to create the data extract jobs in addition to the changes for the data load process. May require vendor work for the Enterprise Data Warehouse will be modified accordingly.
- Development of the MPO data sharing application accessing data marts via Business Objects.
- NJOIT is planning to upgrade Business Intelligence to version 4.1 this will involve migration of existing universes and reports. NJDOT will be responsible for the testing and validating of all our universes and reports to ensure a successful migration. NJDOT Data Warehouse staff will also need to learn this new version for both universe design and reporting. Hiring of vendor maybe needed for migration effort.

## STATE PLANNING AND RESEARCH PROGRAM, 2015 - 2016

**ACTIVITY:** Transportation Systems Information Management and Data Integration – 2205878 / 5250  
**MANAGER:** Cynthia Dey  
**UNIT:** Bureau of Information Management & Technology Planning/Information Management Unit

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### *PRODUCTS:*

- New NJDOT Enterprise Data Warehouse (3NF) to hold data from all nine source systems currently in scope, with accommodation for Historical data where required.
- New jobs to Extract/Transform/Load data from source systems to Data Warehouse.
- New ORACLE Star Schema (Dimensional) Dependent Data Marts designed to accommodate reporting requirements of User Groups. Data in the Data Marts will be stored at the one-tenth of a mile granularity. The Planning Data Mart will be the first data mart available for reporting via business objects.
- New jobs to Extract/Transform/Load data from the Data Warehouse to ORACLE Star Schema Data Marts.
- Business Objects Universes to satisfy user community reporting needs.
- New requirements and use cases for DOT's different user groups.
- MPO data sharing application.

### *CONTRACTS:*

Year One - \$50,000. This funding is for an ETL developer for the CMS-21 extract/load process from/to the NJDOT Enterprise Data Warehouse for the new version of this system.

Year Two - \$120,000. This funding will provide for a consultant to assist with the migration effort to upgrade the Business Intelligence environment to the new version 4.1. Contingent on NJOIT leading this migration and their implementation plan.

Carryover contract - \$1,400,000, Development of an Executive Information System, Phase III of the TransINFO Data Integration effort.

Carryover contract - \$220,000, MPO Data Sharing effort. Consultant will develop a plan for enabling MPO's access to datamarts via Business Objects.

### *STAFFING:*

Pamela Robertori, Administrative Analyst I	1.00
Erum Malik, Information Technology Specialist	1.00
Lavanya Korrapati, Information Technology Specialist	<u>1.00</u>
<b>TOTAL:</b>	<b>3.00</b>

## STATE PLANNING AND RESEARCH PROGRAM, 2015 - 2016

**ACTIVITY:** Transportation Safety Resource Center (TSRC) – 2205877  
**MANAGER:** Michael G. Castaldo  
**UNIT:** Bureau of Transportation Data and Safety

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### **VISION:**

The Transportation Safety Resource Center (TSRC) is New Jersey's one-stop-shop for traffic safety related data, analysis and data-driven solutions. TSRC provides valuable services by extending safety resources to State, County and local agencies through education, technical assistance, and support.

### **MISSION:**

The primary mission of the Transportation Safety Resource Center (TSRC) is to provide ongoing safety analysis support and safety concept development services to the New Jersey Department of Transportation's (NJDOT) Bureau of Transportation Data & Safety, (BTD&S).

### **GOALS/ACTIVITIES:**

The goal of this program is to develop and utilize tools and resources of the TSRC to optimize the funds available through the NJDOT's capital program to improve the safety of New Jersey's roadway network.

1. Provide assessable and accurate safety data to New Jersey
  - a. Operational support to the Plan4Safety Platform
    - i. Continued operation of the existing Plan4Safety platform and integration of timely crash data.
    - ii. Conduct P4S Technical Evaluation Committee meetings when required to develop enhancements to the current P4S product.
    - iii. Conduct P4S user group meetings when required to discuss new enhancement and functionality of the P4S product.
  - b. Validation
    - i. With guidance from NJDOT, TSRC will begin to implement of the previously developed P4S validation plan.
  - c. Expansion of P4S Capabilities
    - i. Identify comprehensive data sources and integrate into Plan4Safety. The feasibility of adding the Fatal Accident Records System (FARS) data to P4S will be evaluated.
    - ii. Continue to maintain and keep current the Data Dictionary for all data fields within P4S.
  - d. Data Warehouse
    - i. Identify processes and level of effort needed by NJOIT, NJDOT and TSRC staff to implement data warehouse initiative.
  - e. Pedestrian Safety Management System
    - i. Develop Bicycle Workflow
    - ii. Implement Composite Index
    - iii. Develop additional reporting tools in PSMS
    - iv. Enhance PSMS Summary Report
    - v. Support PSMS staff with data analysis when required
  - f. Crash Analysis
    - i. Continue to fulfill all crash analysis requests (approximately 100 requests)
    - ii. Offer at least 12 new user training courses

## STATE PLANNING AND RESEARCH PROGRAM, 2015 - 2016

**ACTIVITY:** Transportation Safety Resource Center (TSRC) – 2205877  
**MANAGER:** Michael G. Castaldo  
**UNIT:** Bureau of Transportation Data and Safety

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### *GOALS/ACTIVITIES: (cont'd.)*

- g. Crash Record Data Quality
  - i. Query all crash records from 2013-2014, and provide NJDOT flagged pairs of crashes identified as likely duplicate entries for all crash
  - ii. Review and verify all flagged pairs to confirm if the crash is a duplicate record, and communicate to NJDOT a verified listing of duplicate crash records in the state crash database.
  - iii. TSRC will continue to identify errors in the crash data base and work with NJDOT to develop a timeframe and plan to prioritize correction efforts.
  - iv. Develop and document methodologies to identify crash data which is inconsistent with itself, in areas prioritized by NJDOT.
  - v. Update the time to entry analysis on NJDOT crash records to document timeliness of historic crash data being entered to the database.
  - vi. Conduct a trends analysis to identify police departments / municipalities in which there was a significant drop off of crash reporting
- 2. Assist Metropolitan Planning Organizations (MPOs) and local system funding programs to optimize their impact
  - a. Network Screenings
    - i. Produce network screening lists using existing methodologies for the state highway system for use by NJDOT staff
    - ii. Develop methodologies for, and prepare additional network screenings lists for NJDOT
    - iii. Validate and enhance existing network screening process and outputs.
    - iv. Identify future methodological enhancements options for NJDOT.
  - b. Road Safety Audits
    - i. Provide SJTPO Technical Analysis Support to advance prior safety study efforts
    - ii. Partner with NJTPA to facilitate at least ten Road Safety Audits
    - iii. Provide DVRPC Technical Analysis Support to advance prior safety study efforts.
    - iv. Provide support to other RSAs conducted in NJ as directed by NJDOT.
    - v. Prepare implementation for all prior year RSAs
  - c. Highway Safety Manual
    - i. Provide education on the content, use and application of the HSM until a task order Safety consultant is selected by BTD&S. Provide support to Safety vendor after selection.
    - ii. Support and assist State, MPO and Local agencies with data-driven HSM analysis when requested.
    - iii. Support MPO use of HSM analysis in funding program applications
  - d. High Risk Rural Roads Program
    - i. Provide for an update to the methodology, and produce timely lists for local programing.
  - e. Systemic Analysis
    - i. Provide support to NJDOT and local safety systemic programs.
    - ii. Expand PSMS Systemic tools to all P4S data
  - f. Annual County Safety Briefs
    - i. TSRC will produce a county-specific safety briefs for each county within New Jersey to support implementation of the SHSP.
  - g. NJDOT HSIP Annual Report
    - i. Support NJDOT efforts in drafting the HSIP 2015 Annual Report

## STATE PLANNING AND RESEARCH PROGRAM, 2015 - 2016

**ACTIVITY:** Transportation Safety Resource Center (TSRC) – 2205877  
**MANAGER:** Michael G. Castaldo  
**UNIT:** Bureau of Transportation Data and Safety

**GOALS/ACTIVITIES: (cont'd.)**

- h. NJDOT Safety Program Portfolio
  - i. TSRC will update and enhance the NJDOT Safety Program Portfolio
- 3. Support Statewide Safety Initiatives and Management Plan
  - i. Provide on-call support to safety programs as directed by NJDOT

**ANTICIPATED ACCOMPLISHMENTS FOR CALENDAR YEAR 2015:**

<b>GOAL 1: Provide accessible and accurate safety data to New Jersey</b>	
<i>1a. Operational support to the Plan4Safety Platform</i>	
	<ul style="list-style-type: none"> <li>• Continued operation of the existing Plan4Safety platform and integration of timely crash data</li> </ul>
<i>1b. Validation</i>	
	<ul style="list-style-type: none"> <li>• With guidance from NJDOT, TSRC will begin to implement of the previously developed P4S validation plan.</li> </ul>
<i>1c. Expansion of P4S Capabilities</i>	
	<ul style="list-style-type: none"> <li>• Identify comprehensive data sources and integrate into Plan4Safety. The feasibility of adding the Fatal Accident Records System (FARS) data to P4S will be evaluated.</li> </ul>
	<ul style="list-style-type: none"> <li>• Continue to maintain and keep current the Data Dictionary for all data fields within P4S.</li> </ul>
<i>1d. Data Warehouse</i>	
	<ul style="list-style-type: none"> <li>• Limited on-call support at the direction of NJDOT</li> </ul>
<i>1e. Pedestrian Safety Management System</i>	
<i>Bicycle Workflow</i>	<ul style="list-style-type: none"> <li>• Develop Bicycle Workflow</li> </ul>
<i>PSMS Composite Index</i>	<ul style="list-style-type: none"> <li>• Implement Composite Index</li> </ul>
<i>PSMS Reporting tools</i>	<ul style="list-style-type: none"> <li>• Develop additional reporting tools in PSMS</li> </ul>
<i>PSMS Summary Reports</i>	<ul style="list-style-type: none"> <li>• Enhance PSMS Summary Report</li> </ul>
<i>1f. Crash Analysis</i>	
<i>Crash Analysis Requests</i>	<ul style="list-style-type: none"> <li>• Continue to fulfill all Crash Analysis Requests</li> </ul>
<i>Plan4Safety Training Courses</i>	<ul style="list-style-type: none"> <li>• Offer 12 new user training courses</li> </ul>
<i>1h. Crash Record Data Quality</i>	

## STATE PLANNING AND RESEARCH PROGRAM, 2015 - 2016

**ACTIVITY:** Transportation Safety Resource Center (TSRC) – 2205877  
**MANAGER:** Michael G. Castaldo  
**UNIT:** Bureau of Transportation Data and Safety

### ANTICIPATED ACCOMPLISHMENTS FOR CALENDAR YEAR 2015: (cont'd.)

<i>Duplicate Records (Accuracy)</i>	<ul style="list-style-type: none"> <li>Query all crash records from 2013-2014, and provide NJDOT flagged pairs of crashes identified as likely duplicate entries for all crash</li> <li>Review and verify all flagged pairs to confirm if the crash is a duplicate record, and communicate to NJDOT a verified listing of duplicate crash records in the state crash database.</li> </ul>
<i>Miscodes (Accuracy)</i>	<ul style="list-style-type: none"> <li>TSRC will continue to identify errors in the crash data base and work with NJDOT to develop a timeframe and plan to prioritize correction efforts.</li> <li>Develop and document methodologies to identify crash data which is inconsistent with itself, in areas prioritized by NJDOT.</li> </ul>
<i>Timeliness of Crash Reporting (Timeliness)</i>	<ul style="list-style-type: none"> <li>Update the time to entry analysis on NJDOT crash records to document timeliness of historic crash data being entered to the database.</li> </ul>
<i>Identify Sources of Missing Records (Completeness)</i>	<ul style="list-style-type: none"> <li>Conduct a trends analysis to identify police departments / municipalities in which there was a significant drop off of crash reporting.</li> </ul>
<p><b>GOAL 2: Assist Metropolitan Planning Organizations (MPO)s and local system funding programs to optimize their impact</b></p>	
<p><i>2a. Network Screenings</i></p>	
<i>Support MPOs and Local Roadway Owners Network Screenings</i>	<ul style="list-style-type: none"> <li>Provide updated network screening lists of the local system using existing methodologies and/or NJDOT adopted methodologies (Intersections, Ped Spot, Ped Corridor) to including more timely (2014) data</li> </ul>
<i>Support NJDOT Network Screenings</i>	<ul style="list-style-type: none"> <li>Produce network screening lists using existing methodologies for the state highway system for use by NJDOT staff.</li> </ul>
<i>Develop Additional Network Screenings</i>	<ul style="list-style-type: none"> <li>Develop methodologies for and prepare additional network screenings lists for NJDOT</li> </ul>

## STATE PLANNING AND RESEARCH PROGRAM, 2015 - 2016

**ACTIVITY:** Transportation Safety Resource Center (TSRC) – 2205877  
**MANAGER:** Michael G. Castaldo  
**UNIT:** Bureau of Transportation Data and Safety

### ANTICIPATED ACCOMPLISHMENTS FOR CALENDAR YEAR 2015: (cont'd.)

<i>Enhance Existing Network Screening Methodologies</i>	<ul style="list-style-type: none"> <li>• Validate and enhance existing network screening process and outputs</li> <li>• Identify future methodology enhancements options for NJDOT</li> </ul>
<b>2b. Road Safety Audits</b>	
<i>Support SJTPO Road Safety Audit Program</i>	<ul style="list-style-type: none"> <li>• Provide SJTPO Technical Analysis Support to advance prior safety study efforts</li> </ul>
<i>Support NJTPA Road Safety Audit Program</i>	<ul style="list-style-type: none"> <li>• Partner with NJTPA to facilitate at least ten Road Safety Audits</li> </ul>
<i>Support DVRPC Road Safety Audit Program</i>	<ul style="list-style-type: none"> <li>• Provide DVRPC Technical Analysis Support as requested</li> </ul>
<i>Support Road Safety Audits facilitated by others within NJ</i>	<ul style="list-style-type: none"> <li>• Provide support to other RSAs conducted in NJ as directed by NJDOT</li> </ul>
<i>Track the effectiveness of Road Safety Audit efforts in New Jersey</i>	<ul style="list-style-type: none"> <li>• Obtain NJDOT support of implementation report structure and content</li> <li>• Prepare 10 implementation reports</li> </ul>
<b>2c. Highway Safety Manual</b>	
	<ul style="list-style-type: none"> <li>• At the direction of NJDOT, provide educational and technical support regarding the implementation and of the Highway Safety Manual</li> </ul>
<b>2d. High Risk Rural Roads</b>	
	<ul style="list-style-type: none"> <li>• Provide for an update to the methodology, and produce timely lists for local programing.</li> </ul>
<b>2e. Systemic Analysis</b>	
	<ul style="list-style-type: none"> <li>• Provide support to NJDOT and local safety systemic programs.</li> <li>• Expand PSMS Systemic tools to all P4S data</li> </ul>
<b>2f. Annual County Safety Briefs</b>	
	<ul style="list-style-type: none"> <li>• TSRC will produce a county-specific safety briefs for each county within New Jersey to support implementation of the SHSP.</li> </ul>
<b>2g. NJDOT HSIP Annual Report</b>	
	<ul style="list-style-type: none"> <li>• Support NJDOT efforts in drafting the HSIP Annual Report</li> </ul>

**STATE PLANNING AND RESEARCH PROGRAM, 2015 - 2016**

**ACTIVITY:** Transportation Safety Resource Center (TSRC) – 2205877  
**MANAGER:** Michael G. Castaldo  
**UNIT:** Bureau of Transportation Data and Safety

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**ANTICIPATED ACCOMPLISHMENTS FOR CALENDAR YEAR 2015: (cont'd.)**

<i>2h. NJDOT Safety Program Portfolio</i>	
	<ul style="list-style-type: none"> <li>• TSRC will update and enhance the NJDOT Safety Program Portfolio</li> </ul>
<b>GOAL 3: Support Statewide Safety Initiatives and Management Plan</b>	
<i>3a. Support NJDOT and Partners to achieve NJDOT's Safety Vision</i>	
	<ul style="list-style-type: none"> <li>• Provide on-call support to safety programs as directed by NJDOT</li> </ul>

**CONTRACTS:**

Consultant Activities – \$1.65 million Year 1 and \$1.65 million Year 2

**STAFFING:**

M. Castaldo                      0.10  
 Total Staff Time:                0.10 person years

## STATE PLANNING AND RESEARCH PROGRAM, 2015 - 2016

**ACTIVITY:** Local Concept Development - Environmental – 2205876 / 5000  
**MANAGER:** Elkins Green, Director  
**UNIT:** Division of Environmental Resources

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### ***VISION:***

Dismiss projects with fatal flaws and identify projects that can be delivered in the Local Concept Development program as administered by the MPOs.

### ***MISSION:***

Establish environmental parameters to be considered in developing the Initially Preferred Alternative (IPA) that addresses transportation needs established in this phase. Based on sufficient environmental analysis, determine the appropriate NEPA classification (Categorical Exclusion, Environmental Assessment, Environmental Impact Statement) for the IPA that will be prepared in the next project development phase.

### ***GOALS/ACTIVITIES:***

1. Ensure viable projects enter the LCD phase by providing subject matter expertise regarding candidate applications.
2. Ensure a thorough and comprehensive environmental constraint analysis is conducted during this phase consistent with the FHWA planning and environmental linkages approach
3. Ensure socioeconomic factors, particularly community concerns related to Environmental Justice, sustaining livability and quality of life issues are identified and considered in the initial project development phases.
4. Ensure alternatives are fully investigated that meet the purpose & need and consider environmental factors in selecting the IPA
5. Determine the appropriate environmental document consistent with NEPA requirements for the IPA that will be required in the subsequent Preliminary Engineering Phase of work.
6. Coordinate input from Stakeholders and Agencies regarding the purpose and need, the development of alternatives, and environmental issues
7. Ensure appropriate community involvement has been initiated

To achieve these goals the following activities are required

- Field visits of the project location to identify site specific design and constraint issues.
- Provide subject matter expertise guidance related to Scopes of Work, Man-Hour Estimates, RFPs and consultant proposals.

### ***ANTICIPATED ACCOMPLISHMENTS FOR CALENDAR YEAR 2015:***

Approve LCD studies for selected projects and coordinate new LCD starts with MPOs and Local Aid

## STATE PLANNING AND RESEARCH PROGRAM, 2015 - 2016

**ACTIVITY:** Local Concept Development - Environmental – 2205876 / 5000  
**MANAGER:** Elkins Green, Director  
**UNIT:** Division of Environmental Resources

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### ***CONTRACTS:***

No contracts associated with this activity.

### ***STAFFING:***

This program is managed by staff from the Division of Environmental Resources. Each individual listed represents 0.03 person years for this activity.

#### Division of Environmental Resources

Lauralee Rappleye	.03
Pamela Garrett	.03
Sean Ream	.03
Marie Limage	.03
Charu Vaidya	<u>.03</u>
Total	.15 py

## STATE PLANNING AND RESEARCH PROGRAM, 2015 - 2016

**ACTIVITY:** Local Concept Development – Local Aid 2205876 / 4999  
**MANAGER:** Mike Russo, Director  
**UNIT:** Division of Local Aid

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### ***VISION:***

Establish and identify projects through concept development that can be delivered in the various Local Aid Programs.

### ***MISSION:***

Work with the MPO's in developing Initially Preferred Alternative (IPA) that addresses transportation needs established in this phase. Also to assist the MPO in determining project local concept development key tasks such as coordination with stakeholders.

### ***GOALS/ACTIVITIES:***

1. Participation on Consultant Selection Committee for advertisement of RFP
2. Provide technical expertise and local knowledge towards the development of the Purpose & Need
3. Participation on Project Selection Team to provide expertise towards identification of fatal flaws and selection of Preliminary Preferred Alternative at a planning level detail
4. Participation on Interagency Review Committee to conduct periodic reviews as subject matter experts towards project eligibility in the next phase

### ***ANTICIPATED ACCOMPLISHMENTS FOR CALENDAR YEAR 2015:***

Approve LCD studies for selected projects and coordinate new LCD starts with MPOs and Local Aid

### ***CONTRACTS:***

No contracts associated with this activity.

## STATE PLANNING AND RESEARCH PROGRAM, 2015 - 2016

**ACTIVITY:** Local Concept Development – Local Aid 2205876 / 4999  
**MANAGER:** Mike Russo, Director  
**UNIT:** Division of Local Aid

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### *STAFFING:*

This program is managed by staff from the Division of Local Aid. Each individual listed represents 0.07 person years for this activity.

#### Division of Local Aid

Eileen Schack	.07
Nabil Ayoub	.07
Richard Loveless	.07
Frank Mccombs	.07
Divya Kumar	.07
Jonathan Mojsoski	.07
Adam Iervolino	.07
Wendy Smith	.07
Deval Desai	.07
Jennifer Molter	.07
Milan Lambachia	.07
Richard Nusser	<u>.07</u>
Total	.84

## STATE PLANNING AND RESEARCH PROGRAM, 2015 - 2016

**ACTIVITY:** Local Project Development - Environmental – 2205876 / 6000  
**MANAGER:** Elkins Green, Director  
**UNIT:** Division of Environmental Resources

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### ***VISION:***

Enable projects in the various Local Aid Programs to efficiently advance thru the various federal environmental processes, thereby becoming eligible for funding for the respective phase of the project delivery process (up to Preliminary Engineering). Also to manage federal projects and make them easily accessible to Local Public Agencies

### ***MISSION:***

Provide environmental project management for individual projects in the various federal aid programs to ensure compliance with federal environmental requirements.

### ***GOALS/ACTIVITIES:***

Obtain project environmental approvals for the following Programs:

- a. High Priority Projects
- b. CMAQ funds
- c. Transportation Alternatives
- d. Safe Routes To Schools
- e. Local Safety Program/ High Risk Rural Roads

To achieve this goal the following activities are required

- Obtain project information from the Division of Local Aid and/or Local Public Agencies
- Ensure submitted documentation is in compliance with environmental policies, procedures, Or regulations
- Field visits of the project location to identify site specific design and constraint issues.
- Prepare and/or complete the Environmental Document.
- Prepare NJDEP and/or USACOE permits.
- Ensure environmental commitments are noted on final plans & specifications
- Conduct field verifications to ensure environmental commitments/permit conditions are followed

### ***ANTICIPATED ACCOMPLISHMENTS FOR CALENDAR YEAR 2015:***

Obtain environmental approvals for selected projects in the various Local Federal Aid Programs.

### ***CONTRACTS:***

No contracts associated with this activity

## STATE PLANNING AND RESEARCH PROGRAM, 2015 - 2016

**ACTIVITY:** Local Project Development – Environmental – 2205876 / 6000  
**MANAGER:** Elkins Green, Director  
**UNIT:** Division of Environmental Resources

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### *STAFFING:*

This program is managed by staff from the Division of Environmental Resources. Each individual listed represents 0.25 person years for this activity.

#### Division of Environmental Resources

Lauralee Rappleye -	.25
Pamela Garrett -	.25
James Sweet -	.25
Sean Warren -	.25
Paula Scelsi -	.25
Brett Hunger -	.25
Sean Ream -	.25
Marie Limage -	.25
Charu Vaidya -	.25
John Riggi -	<u>.25</u>
TOTAL:	2.50

## STATE PLANNING AND RESEARCH PROGRAM, 2015 - 2016

**ACTIVITY:** Pavement Program Planning – 2205875 / 9000  
**MANAGER:** Susan Gresavage  
**UNIT:** Bureau of Bridge Engineering and Infrastructure Management

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### ***VISION:***

The Pavement Management Unit will be the premier resource for pavement planning and condition information in NJ not only for the Department, but for all interested parties.

### ***MISSION:***

As of component of the Department's Asset Management (AM) program, provide information, recommendations and expertise in planning a comprehensive performance-based pavement program that will assist the Department in making sound short term and long term pavement investment decisions to maximize network condition levels in the most cost effective manner with an emphasis on a performance management approach as specified by MAP-21 and consistent with FHWA's MAP-21 Planning Emphasis Area (PEA).

### ***GOALS/ACTIVITIES:***

- Collect, analyze and report pavement condition data for the State Highway System to support pavement program development.
- Coordinate with MPO's, Authorities and Agencies in the collection and reporting of NHS pavement data to FHWA HPMS database as required by MAP-21 Legislation.
- Collect and analyze surface distress and smoothness data on 100% the State Highway System. Collect and analyze skid resistance data on 50% of the State Highway System.
- Maintain a pavement condition database to permit data driven programming decisions.
- Maintain and enhance pavement project tracking database to provide current and accurate pavement project information for pavement project planning purposes.
- Develop a pavement materials database to provide pavement performance information to pavement management software for validation of performance curves.
- Investigate and implement new technologies and approaches in the collection and analysis of pavement condition data to insure that the highest quality data is used to drive the Department's pavement planning and programming decisions.
- Prepare FHWA National Highway System VMT report.
- Prepare Annual Pavement Condition Report on New Jersey's Roadway Pavement System.
- Participate in the exchange of information and technology transfer through outreach, workshops, conferences and users groups.
- Provide data and support for the Department's Asset Management, Dashboard and Data Integration initiatives.
- Perform Ride Quality testing on new pavement and calculate pay adjustments based on test results to insure compliance with NJDOT ride quality specification.
- Recommend annual pavement program funding levels in order to meet the Department's pavement condition goals.
- Prepare investment, budget and network condition scenarios to Capital Investment Strategy Committee, Asset Management Task Force, and Senior Leadership for program planning purposes.
- Recommend achievable and maintainable pavement network condition goals for program planning purposes.
- Utilize pavement management software to provide forecasted network pavement condition levels based on various budget scenarios and mix of fixes.
- Recommend annual pavement program funding levels in order to meet the Department's pavement performance goals.
- Prepare investment, budget and network condition scenarios to Capital Investment Strategy Committee, Asset Management Task Force, and Senior Leadership for program planning purposes.

## STATE PLANNING AND RESEARCH PROGRAM, 2015 - 2016

**ACTIVITY:** Pavement Program Planning – 2205875 / 9000  
**MANAGER:** Susan Gresavage  
**UNIT:** Bureau of Bridge Engineering and Infrastructure Management

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### ***GOALS/ACTIVITIES: (cont'd.)***

- Optimize the Department's capital investment in pavements resulting in the maximum benefit from the network condition perspective.
- Evaluate, support and implement new treatments and materials related to pavements in order to maximize pavement service life and effectiveness of pavement program funding.
- Provide cost effective strategies for constructing, maintaining and rehabilitating pavements in order to maximize pavement service life and effectiveness of pavement program funding.
- Develop and recommend annual paving programs that reflect cost effective pavement investment strategies in order to achieve the above stated objectives.
- Prepare annual and multiyear Pavement Program for CPM and Operations.
- Identify pavement projects and treatments that optimize network pavement condition with available funding.
- Prepare problem statements for pavement preventive maintenance, resurfacing, rehabilitation and reconstruction projects.
- Prepare problem statements for pavement safety projects based on skid resistance and wet weather crash analysis.
- Provide for continuing training and professional development programs for Pavement Program Planning staff.

### ***ANTICIPATED ACCOMPLISHMENTS FOR 2015:***

- Collect and analyze surface distress and smoothness data on 100% the State Highway System. Collect and analyze skid resistance data on 50% of the State Highway System.
- Update the pavement condition database with 2013 condition data.
- Update pavement project tracking database with CPM, Operations, and Maintenance pavement project information. Develop graphical project mapping feature to assist with project identification.
- Develop a pavement materials database to provide pavement performance information to pavement management software for validation of performance curves.
- Evaluate video data viewers to facilitate viewing video data from new Dynatest profilers.
- Evaluate the use of ProVAL software for processing Ride Quality Pay Adjustments.
- Prepare FHWA National Highway System VMT report based on 2013 data collection.
- Prepare Annual Pavement Condition Report on New Jersey's Roadway Pavement System based on 2013 data collection.
- Update the Department's Asset Management Plan and Dashboard based on 2013 data collection.
- Upload 2013 pavement condition data into the Department's Data Warehouse.
- Perform Ride Quality testing on all new pavement and calculate pay adjustments based on test results.
- Prepare investment, budget and network condition scenarios to Capital Investment Strategy Committee, Asset Management Task Force, and Senior Leadership for program planning purposes.
- Utilize pavement management software to provide forecasted network pavement condition levels based on various budget scenarios and mix of fixes.
- Prepare investment, budget and network condition scenarios to Capital Investment Strategy Committee, Asset Management Task Force, and Senior Leadership for program planning purposes.
- Evaluate BRIC mix, Warm Mix, AROGFC, Microsurfacing, and HPTO, for continued and expanded use.
- Prepare annual and multiyear Pavement Program for CPM and Operations based on 2013 pavement condition data and 2015 10 year STIP.
- Prepare problem statements for pavement safety projects based on skid resistance and wet weather crash analysis based on 2013 pavement condition data and 2015 STIP.

## STATE PLANNING AND RESEARCH PROGRAM, 2015 - 2016

**ACTIVITY:** Pavement Program Planning – 2205875 / 9000  
**MANAGER:** Susan Gresavage  
**UNIT:** Bureau of Bridge Engineering and Infrastructure Management

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### **ANTICIPATED ACCOMPLISHMENTS FOR 2015: (cont'd)**

- Calibrate new data collection vehicle
- Evaluate and implement Automated Distress data collection

### **CONTRACTS:**

None – Insufficient funds to accommodate any consultant agreements for pavement data collection and pavement project development.

### **STAFFING:**

P. Bertucci	Admin. Analyst 1	1.0	R. Blight	Project Engineer	0.8
H. Matthews	Admin. Analyst 2	1.0	J. Fares	Principal Engineer	0.8
G. Leach	Project Engineer	1.0	N. Kohli	Principal Engineer	0.8
N. Gephart	Principal Engineer	1.0	N. Morshed	Senior Engineer	0.6
M. Kianka	Engineering Tech 1	1.0	Y. Patel	Assistant Engineer	0.6
T. McDonough	Engineering Tech 2	1.0	V. Gervasoni	Assistant Engineer	1.0
G. Walters	Engineering Tech 3	1.0	S. Ganthier	Assistant Engineer	0.6
			W. Kettleison	Assistant Engineer	0.6
<b>TOTAL PERSON YEARS</b>					<b>12.8</b>

Overtime (\$35,000/year). Overtime is essential so that pavement condition data can be collected on high volume roads during off-peak hours with extended days and on weekends.

## STATE PLANNING AND RESEARCH PROGRAM, 2015 - 2016

**ACTIVITY:** NJDOT Pavement Support Program – 2205875 / 9100  
**MANAGER:** S. Gresavage  
**UNIT:** Bureau of Civil Engineering  
Pavement and Drainage Management & Technology Unit

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### ***VISION:***

Improve the health of NJDOT's pavement network as a component of the State of New Jersey's performance-based planning (PBP) and asset management (AM).

### ***MISSION:***

The primary mission of the NJDOT Pavement Support Program is to provide ongoing Pavement Engineering support to the New Jersey Department of Transportation (NJDOT)'s Pavement and Drainage Management and Technology Unit to:

- Assist NJDOT in identifying and implementing cost effective preservation and renewal strategies to keep the state's pavement assets in a state of good repair.
- Optimize the overall condition of the State's Pavement network within the available funding levels
- Strive to establish and meet pavement performance measures consistent with MAP-21 Legislation

### ***GOALS/ACTIVITIES:***

The overall goal of this program is to use the tools and resources of the Pavement Support Program (PSP) to optimize the funds available to preserve the State's pavement assets and optimize the overall conditions of New Jersey's state-maintained highway pavements. The goals for the 2015-16 program are:

1. Enhance the NJDOT's pavement management system and incorporate data from the Pathways profiler subsystems into dTIMS. (Link to FHWA Pavement Management and Preservation focus area and MAP-21 Implementation Planning Emphasis Area)
2. Facilitate the implementation of the latest pavement design procedures (Darwin ME), (Link to FHWA Pavement Design and Analysis focus area)
3. Improve the Department's ability to assess and improve the State's pavement smoothness measurements (Link to FHWA Construction and Materials Quality Assurance focus area and MAP-21 Implementation Planning Emphasis Area)
4. Promote the development and implementation of tools to enhance the State's Environmental Stewardship in the Pavement area. (Link to FHWA Environmental Stewardship focus area)
5. Finalize Software Application to Replace Selected Features of the HPMA Software (Asbuilt, GPR, Cores, - Tabular, Graphical, and Query Functions) for integration with the Pavement Umbrella Software Application.)
6. Utilizing Non-Destructive Testing (NDT)/ Non-Destructive Evaluation (NDE) to provide technical support and develop NDT/NDE tools to enhance the inventory, and perform Quality Assurance procedures.
7. Constructability (Link to FHWA Construction and Materials Quality Assurance focus area)

## STATE PLANNING AND RESEARCH PROGRAM, 2015 - 2016

**ACTIVITY:** NJDOT Pavement Support Program – 2205875 / 9100  
**MANAGER:** S. Gresavage  
**UNIT:** Bureau of Civil Engineering  
Pavement and Drainage Management & Technology Unit

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### *GOALS/ACTIVITIES: (cont'd.)*

8. Provide Pavement and Materials Testing Services: rapidly respond to the NJDOT's need for advanced pavement engineering tools and services to address forensic and construction issues. (Link to FHWA Construction and Materials Quality Assurance focus area.)
9. Provide training of agency and consultant pavement specialists in the pavement engineering goals cited above.

The activities for the 2015-16 program are:

#### **1. Enhance the NJDOT's pavement management system**

- a. Implementation of dTIMS v.9
- b. Compare the results of dTIMS v.8 and v.9 Performance and Economic Analysis using the 2013 and 2014 IRI and distress data collection.
- c. Integrate the dTIMS v.9 Performance and Economic Analysis results with ArcGIS v. 10 to display the annual construction program and pavement condition index (NDI, LDI and SDIm)
- d. Evaluation of performance of Pavement Preservation Treatments in dTIMS v.9
- e. The NJDOT Pavement Support Program will work with Pathway and NJDOT staff to integrate data from the automated distress subsystem, and rut system to modify the NDI, LDI, and SDI condition indices into the PMS pavement condition database.
- f. Updated dynamic NJDOT dTIMS user manual for v. 9.

#### **2. Facilitate the implementation of the latest pavement design procedures (Darwin-ME)**

- a. Implement the Pavement ME Calibration Plan – Rehabilitation, and Reconstruction
- b. Provide continued training to NJDOT and pavement design consultants on the new Pavement-ME Software.
- c. Maintain pavement calibration sites for Pavement-ME model refinements.
- d. Work with the NJDOT Traffic and Weigh in Motion data inputs for Pavement-ME software (Level 2) traffic families inputs. Identify corridors where Level 1 data is available and required.
- e. Compare pavement designs using AASHTO 1993 method and Darwin-ME

#### **3. Improve the Department's ability to assess and improve the State's pavement smoothness measurements**

- a. Maintain pavement profiler certification test site and develop the profiler testing sections.
- b. Provide annual ride quality certification services of NJDOT's walking, portable and high-speed pavement profilers
- c. Assess the Department's Pavement ride quality specification as needed.
- d. Work with NJDOT to examine the factors used to adjust the project Target IRI for flexible and composite pavements.
- e. Refine the NJDOT's current Local Aid specification for ride quality.

## STATE PLANNING AND RESEARCH PROGRAM, 2015 - 2016

**ACTIVITY:** NJDOT Pavement Support Program – 2205875 / 9100  
**MANAGER:** S. Gresavage  
**UNIT:** Bureau of Civil Engineering  
Pavement and Drainage Management & Technology Unit

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### *GOALS/ACTIVITIES: (cont'd.)*

- 4. Promote the development and implementation of tools to enhance the State's Environmental Stewardship in the Pavement area.**
  - a. Maintain the QPPP data collection on the “quiet pavement surfaces” for the 3rd of the required 7 year data collection program
    - i. Collect data on a minimum of 10 pavement sections at least twice per year.
    - ii. Measure pavement noise levels on any innovative pavement surfaces developed and implemented on New Jersey's State-maintained roads.
    - iii. Develop a GIS based database to determine pavement noise “hot spots” in the State of New Jersey.
  - b. Optimize the use of RAP in balancing recycling efforts with enhancing pavement performance.
    - i. Continue supporting the performance testing of NJDOT's High RAP Asphalt Mixture specification
    - ii. Help New Jersey's asphalt industry in looking at an alternate method of using recycled asphalt materials (i.e. – rejuvenation, WMA, recycled asphalt shingles (RAS).
  - c. Perform pavement materials testing on pavement preservation treatments and mix design.
  - d. Foamed asphalt methodology for base and shoulders
  - e. Urban Heat Island testing and evaluation
  - f. Development of a 100% RAP HMA Base Course plant mix specification developed for use on NJDOT projects
  - g. Environmental benefit analysis of pavement preservation using NJ sections
- 5. Finalize Software Application to Replace Selected Features of the HPMA Software (Asbuilt, GPR, Cores, - Tabular, Graphical, and Query Functions) for integration with the Pavement Umbrella Software Application.) – Mohsen and Evan**
  - a. The NJDOT Pavement Support Program will work with the unit staff to integrate a GIS mapping of the Project Tracking System for experimental material application and preventive maintenance/pavement preservation treatments, locations, properties, and performance. This database and GIS tools will provide the means to track innovative treatment locations (constructed by Maintenance Operations personnel or contracts), and assess performance, and costs.
- 6. Utilizing Non Destructive Testing – The Pavement Support Program will continue to evaluate, develop and implement NDT/NDE tools to perform Quality Assurance procedures for the NJDOT.**
  - a. Evaluation of selected pavement sections with RABIT technology to examine the delamination for pavements and for pavement quality testing.
- 7. Constructability**
  - a. Implementation of Intelligent Compaction & Thermal Profile Sensor Technology

## STATE PLANNING AND RESEARCH PROGRAM, 2015 - 2016

**ACTIVITY:** NJDOT Pavement Support Program – 2205875 / 9100  
**MANAGER:** S. Gresavage  
**UNIT:** Bureau of Civil Engineering  
Pavement and Drainage Management & Technology Unit

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### *GOALS/ACTIVITIES: (cont'd.)*

- 8. Provide Pavement and Materials Testing Services: rapidly respond to the NJDOT's need for advanced pavement engineering tools and services to address forensic and construction issues.**
  - a. Continue Quality Control/Quality Assurance testing of NJDOT's performance-based asphalt mixtures (Bottom Rich Intermediate Course – BRIC; High Performance Thin Overlay – HPTO; Bridge Deck Water-proof Wearing Course – BDWSC; High RAP Mixture; and Warm Mix Asphalt Implementation testing requirements)
  - b. Perform Forensic Testing when necessary,
  - c. Work with NJDOT's asphalt mixture and binder lab conducting round robin testing and verifying test procedures and data.
  - d. The PRP staff will respond to 90% of requests within one day and develop an appropriate work plan to supply the needed support and respond to NDT/NDE field evaluation and other NJDOT requests within 3 days.
  - e. Coordinate requested services or information in areas as requested.
  
- 9. Provide training of agency and consultant pavement specialists in the pavement engineering goals cited above.**
  - a. Provide training sessions in the areas of pavement preservation and Darwin-ME implementation, ride quality assessment, PMS Implementation, GIS, and Environmental Stewardship topics.
  - b. Provide assistance with the implementation of pavement material specifications and drafting new specifications
  - c. Provide training as requested by NJDOT.

### **ANTICIPATED ACCOMPLISHMENTS FOR CALENDAR YEAR 2015:**

- **Enhance the NJDOT's pavement management system**
  - Implementation of dTIMS v.9
  - Compare the results of dTIMS v.8 and v.9 Performance and Economic Analysis using the 2013 and 2014 IRI and distress data collection.
  - Integrate the dTIMS v.9 Performance and Economic Analysis results with ArcGIS v. 10 to display the annual construction program and pavement condition index (NDI, LDI and SDIm)
  - Evaluation of performance of Pavement Preservation Treatments in dTIMS v.9
  - The NJDOT Pavement Support Program will work with Pathway and NJDOT staff to integrate data from the automated distress subsystem, and rut system to modify the NDI, LDI, and SDI condition indices into the PMS pavement condition database.
  - Updated dynamic NJDOT dTIMS user manual for v. 9.
  
- **Facilitate the implementation of the latest pavement design procedures (Darwin-ME)**
  - Implement the Pavement ME Calibration Plan – Rehabilitation, and Reconstruction
  - Provide continued training to NJDOT and pavement design consultants on the new Pavement-ME Software.

## STATE PLANNING AND RESEARCH PROGRAM, 2015 - 2016

**ACTIVITY:** NJDOT Pavement Support Program – 2205875 / 9100  
**MANAGER:** S. Gresavage  
**UNIT:** Bureau of Civil Engineering  
Pavement and Drainage Management & Technology Unit

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### ANTICIPATED ACCOMPLISHMENTS FOR CALENDAR YEAR 2015: (cont'd.)

- Maintain pavement calibration sites for Pavement-ME model refinements.
- Work with the NJDOT Traffic and Weigh in Motion data inputs for Pavement-ME software (Level 2) traffic families inputs. Identify corridors where Level 1 data is available and required.
- Compare pavement designs using AASHTO 1993 method and Darwin-ME
  
- **Improve the Department's ability to assess and improve the State's pavement smoothness measurements**
  - Maintain pavement profiler certification test site and develop the profiler testing sections.
  - Provide annual ride quality certification services of NJDOT's walking, portable and high-speed pavement profilers
  - Assess the Department's Pavement ride quality specification as needed.
  - Work with NJDOT to examine the factors used to adjust the project Target IRI for flexible and composite pavements.
  - Refine the NJDOT's current Local Aid specification for ride quality.
  
- **Promote the development and implementation of tools to enhance the State's Environmental Stewardship in the Pavement area.**
  - Maintain the QPPP data collection on the "quiet pavement surfaces" for the 3rd of the required 7 year data collection program
    - Collect data on a minimum of 10 pavement sections at least twice per year.
    - Measure pavement noise levels on any innovative pavement surfaces developed and implemented on New Jersey's State-maintained roads.
    - Develop a GIS based database to determine pavement noise "hot spots" in the State of New Jersey.
  - Optimize the use of RAP in balancing recycling efforts with enhancing pavement performance.
    - Continue supporting the performance testing of NJDOT's High RAP Asphalt Mixture specification
    - Help New Jersey's asphalt industry in looking at an alternate method of using recycled asphalt materials (i.e. – rejuvenation, WMA, recycled asphalt shingles (RAS)).
  - Perform pavement materials testing on pavement preservation treatments and mix design.
  - Foamed asphalt methodology for base and shoulders
  - Urban Heat Island testing and evaluation
  - Development of a 100% RAP HMA Base Course plant mix specification developed for use on NJDOT projects
  - Environmental benefit analysis of pavement preservation using NJ sections
  
- **Finalize Software Application to Replace Selected Features of the HPMA Software (Asbuilt, GPR, Cores, - Tabular, Graphical, and Query Functions) for integration with the Pavement Umbrella Software Application.) – Mohsen and Evan**

The NJDOT Pavement Support Program will work with the unit staff to integrate a GIS mapping of the Project Tracking System for experimental material application and preventive

## STATE PLANNING AND RESEARCH PROGRAM, 2015 - 2016

**ACTIVITY:** NJDOT Pavement Support Program – 2205875 / 9100  
**MANAGER:** S. Gresavage  
**UNIT:** Bureau of Civil Engineering  
Pavement and Drainage Management & Technology Unit

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### **ANTICIPATED ACCOMPLISHMENTS FOR CALENDAR YEAR 2015: (cont'd.)**

- maintenance/pavement preservation treatments, locations, properties, and performance. This database and GIS tools will provide the means to track innovative treatment locations (constructed by Maintenance Operations personnel or contracts), and assess performance, and costs.
- **Utilizing Non Destructive Testing – The Pavement Support Program will continue to evaluate, develop and implement NDT/NDE tools to perform Quality Assurance procedures for the NJDOT.**
  - Evaluation of selected pavement sections with RABIT technology to examine the delamination for pavements and for pavement quality testing.
- **Constructability**
  - Implementation of Intelligent Compaction & Thermal Profile Sensor Technology
- **Provide Pavement and Materials Testing Services: rapidly respond to the NJDOT's need for advanced pavement engineering tools and services to address forensic and construction issues.**
  - Continue Quality Control/Quality Assurance testing of NJDOT's performance-based asphalt mixtures (Bottom Rich Intermediate Course – BRIC; High Performance Thin Overlay – HPTO; Bridge Deck Water-proof Wearing Course – BDWSC; High RAP Mixture; and Warm Mix Asphalt Implementation testing requirements)
  - Perform Forensic Testing when necessary,
  - Work with NJDOT's asphalt mixture and binder lab conducting round robin testing and verifying test procedures and data.
  - The PRP staff will respond to 90% of requests within one day and develop an appropriate work plan to supply the needed support and respond to NDT/NDE field evaluation and other NJDOT requests within 3 days.
  - Coordinate requested services or information in areas as requested.
- **Provide training of agency and consultant pavement specialists in the pavement engineering goals cited above.**
  - Provide training sessions in the areas of pavement preservation and Darwin-ME implementation, ride quality assessment, PMS Implementation, GIS, and Environmental Stewardship topics.
  - Provide assistance with the implementation of pavement material specifications and drafting new specifications
  - Provide training as requested by NJDOT.

### **CONTRACTS:**

Consultant Activities—\$1.5 million Year 1 and \$1.5 million Year 2.

### **STAFFING:**

None.

## STATE PLANNING AND RESEARCH PROGRAM, 2015 - 2016

**ACTIVITY:** Drainage Capital Improvement Program Planning – 2205875 / 9200  
**MANAGER:** S. Gresavage  
**UNIT:** Bureau of Bridge Engineering and Infrastructure Management

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### ***VISION:***

Reduce statewide motorist impacts of functionally obsolete drainage facilities resulting in increased mobility, improved safety and increased pavement performance of NJDOT's highway network.

### ***MISSION:***

Through performance-based planning and asset management, provide drainage information, recommendations and expertise in coordination with Pavement Program Planning to better address drainage factors and infrastructure that impact mobility, safety and pavement life.

### ***GOALS/ACTIVITIES:***

The goals and activities listed below are consistent with the FHWA MAP-21 Implementation Planning Emphasis Area (PEA) in that they directly support the Department's Drainage Management System which is a component of the Department's performance based planning and asset management.

- Collect, analyze and report flooding impact data for the State Highway System to support drainage program development.
- Investigate and implement new technologies and approaches in the collection and analysis of flooding impact data to insure that the highest quality data is used to drive the Department's pavement planning and programming decisions.
- Maintain a prioritized database of drainage areas of concern to permit data driven decisions.
- Participate in the exchange of information and technology transfer through outreach, workshops, conferences and users groups.
- Provide data and support for the Department's Asset Management, Dashboard and Data Integration initiatives.
- Recommend achievable and maintainable drainage condition goals and annual drainage capital improvement program funding levels in order to meet the Department's drainage condition goals for program planning purposes.
- Prepare investment, budget and drainage condition scenarios to Capital Investment Strategy Committee, Asset Management Task Force, and Senior Leadership for program planning purposes.
- Optimize the Department's capital investment in drainage improvements resulting in the maximum benefit to motorists.
- Coordinate drainage and pavement solutions to maximize cost efficiencies and pavement performance.
- Evaluate, support and assist in the implementation of new technologies and treatments related to drainage in order to maximize effectiveness of drainage program funding.
- Provide cost effective strategies for constructing, maintaining and rehabilitating drainage facilities in order to maximize effectiveness of drainage program funding.
- Recommend Develop and recommend annual drainage capital improvement programs that reflect cost effective drainage investment strategies in order to achieve the above stated objectives.
- Prepare annual and multiyear Drainage Capital Improvement Program for CPM and Operations.
- Prepare problem statements for drainage capital improvement projects.
- Prepare problem statements for drainage safety projects.
- Provide for continuing training and professional development programs for Drainage Management staff.

## STATE PLANNING AND RESEARCH PROGRAM, 2013 - 2014

**ACTIVITY:** Drainage Capital Improvement Program Planning – 2205875 / 9200  
**MANAGER:** S. Gresavage  
**UNIT:** Bureau of Bridge Engineering and Infrastructure Management

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### ***ANTICIPATED ACCOMPLISHMENTS FOR 2015:***

- Refine data analysis technique to better identify chronic flooding locations that require capital improvements.
- Update the prioritized database of drainage areas of concern based on 2014 flooding data.
- Update the prioritized database of icing areas based on 2014 icing data.
- Update the Department's Asset Management plan and Dashboard based on 2014 flooding data.
- Upload updated DMS data to Department's data warehouse.
- Provide updated investment, budget and drainage condition scenarios to Capital Investment Strategy Committee, Asset Management Task Force, and Senior Leadership based on 2014 flooding and icing data.
- Cross check all proposed CPM pavement rehabilitation projects with DMS ranked locations to identify projects that should include drainage enhancements to enhance pavement performance.
- Evaluate porous pavement installations for expanded use in problematic drainage areas.
- Prepare annual and multiyear Drainage Capital Improvement Program for CPM and Operations based on 2014 flooding and icing data and 2016 10 year budget forecast.
- Prepare problem statements for drainage capital improvement projects based on 2014 flooding and icing data and 2016 STIP.
- Prepare problem statements for drainage safety projects based on 2014 flooding and icing data and 2016 STIP.

### ***CONTRACTS:***

None.

### ***STAFFING:***

Name	Title	Person Years
K. Chan	Supervising Engineer	1.0
R. Patel	Project Engineer	1.0
VACANT	Civil Engineer Trainee	1.0

TOTAL PERSON YEARS 2.0

## STATE PLANNING AND RESEARCH PROGRAM, 2015-2016

**ACTIVITY:** Bridge Management System – 2205874  
**MANAGER:** Gregory T. Renman  
**UNIT:** Bureau of Structural Evaluation & Bridge Management

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### **VISION:**

The Department's overall Bridge Management System (BMS) effort directs state investment to maintain the state's bridges, and other transportation structures, in optimal condition.

### **MISSION:**

To improve the Department's Bridge Management System effort to assist in developing the Statewide Transportation Plan and to efficiently develop the State Transportation Improvement Program (STIP).

### **GOALS/ACTIVITIES:**

1. Improve accuracy, efficiency and timeliness of BMS data collection
  - a. Develop Phase 2 of the NBIS Bridge Inspection data implementation in CombIS and Pontis (BrM). We will continue to expand CombIS's use to capture complete bridge inspection information for most NBIS bridges and State minor bridges, and continue the implementation of data collection and inspection information for other structural assets (including the overhead sign structures and high mast light poles, and basic data for dams).
    - i. Expand the CombIS software to capture data for State's less than 20' minor bridges, overhead sign structures and high mast light poles.
    - ii. Expand the CombIS system to support complete inspection report information for most (at least 95%) NBIS bridges.
    - iii. Add additional fields to CombIS and/or Pontis (BrM) as needed to support the MAP-21 data requirements determined to be necessary due the Final rulemakings issued in early 2015 for bridge and asset management.
  - b. Continuously perform QA on the SI&A and Pontis data.
    - i. Develop new reports as needed, in both CombIS and Pontis (BrM) to improve ease, and thus results, of data quality checking.
  - c. Transition from Pontis 5.2.1 to Pontis 5.2.2 and then 5.2.3.
    - i. Implement Pontis 5.2.2 - (expected in Spring 2015) in a test environment, and then into production. As this version will require us to convert the database from metric to english units, perform necessary checks to ensure that the entire data set converts correctly.
    - ii. Implement Pontis 5.2.3 - (expected in Spring 2016). At the moment, our best information is that this conversion will be mostly behind-the-scenes, and therefore will not require a test environment.
  - d. Begin the development of Phase 3 of the NBIS Bridge Inspection data implementation in CombIS and Pontis (BrM). We will continue to expand CombIS's use to capture complete bridge inspection information for the largest and most complex NBIS bridges.
    - i. Determine what capabilities have "matured" in the previous couple of years that we can take advantage of in implementing this Phase
    - ii. Develop a plan (in 2016) for how to implement Phase 3 of the NBIS Bridge Inspection data implementation in CombIS (Phase 3 consists of implementing complete inspection reports, field-by-field, for the remaining NBIS bridges within CombIS , as well as underwater inspection reports, and possibly mechanical/electrical reports for movable structures).

## STATE PLANNING AND RESEARCH PROGRAM, 2015-2016

**ACTIVITY:** Bridge Management System – 2205874  
**MANAGER:** Gregory T. Renman  
**UNIT:** Bureau of Structural Evaluation & Bridge Management

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### GOALS/ACTIVITIES: (cont'd.)

2. Increase the proportion of NBIS bridges in good condition.
  - a. Develop appropriate project priorities and recommendations for Asset Management and Capital Investment Strategy
    - i. Develop and identify Project/Maintenance recommendations for the Capital Program.
    - ii. Develop and implement methods of tracking progress with regards to meeting established goals.
  
3. Maximize the effectiveness of the investment in bridge infrastructure.
  - a. Improve data and deterioration model refinements.
    - i. Continue Development/Refinement of Performance Measures to monitor the health of our bridges. Also, guide and implement the results of the NJDOT contract with Rutgers - CAIT.
    - ii. Develop procedures and mechanisms to enable development of projects to ensure goals are met for bridges and all assets in the system.
    - iii. Maintain current data regarding NJDOT Capital Program projects and STIP.
    - iv. Modify cost models to reflect current NJ unit prices.
    - v. Develop procedures and analysis to support the identification of candidates for the Bridge Maintenance Program.
  - b. MAP-21 Implementation and data sharing/integration
    - i. Improve Integration of the BMS with the other Department management systems to ensure that projects are coordinated between disciplines.
    - ii. Provide support to the MPO's with regards to their data needs as they endeavor to comply with the MAP-21 requirement to: *Transition to Performance Based Planning and Programming*.
  - c. Implement a bridge preservation strategy, and methods to support this strategy.
    - i. Working with maintenance, develop methods that provide information to us on what maintenance work is being performed on State bridges and when.
    - ii. Working with maintenance and others, develop a list of actions that result in demonstrable bridge preservation results.
    - iii. Develop procedures and mechanisms (including the creation of necessary fields in CombIS and BrM) to enable development, initiation, and eventually the tracking, of projects for executing specific bridge preservation actions.
  - d. Begin to develop the capabilities to deliver a 10-year capital program and 25-year capital plan utilizing Pontis (BrM) directly to the extent possible, as well as utilizing other support capabilities where required.
    - i. After implementing BrM 5.2.3, begin to test its capabilities to generate the capital program. Determine its strengths and weaknesses.
    - ii. Develop and begin to implement a plan for implementation of the creation of the capital plan through BrM. This "plan" needs to especially identify the weaknesses found, and how to either adjust BrM to bring the models in alignment with our expectations, or look to data sources external to BrM for developing supporting information (preferably, data that can be added to the BrM data to supplement the ability of the system to make valid decisions).
    - iii. Determine where the system can perform adequately. Attempt to develop and run valid program simulations for various funding levels.

## STATE PLANNING AND RESEARCH PROGRAM, 2015-2016

**ACTIVITY:** Bridge Management System - 2205874  
**MANAGER:** Gregory T. Renman  
**UNIT:** Bureau of Structural Evaluation & Bridge Management

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### *ANTICIPATED ACCOMPLISHMENTS FOR CALENDAR YEAR 2015:*

1. Upgrade Pontis (BrM) from version 5.2.1 to version 5.2.2 and plan for upgrade to BrM 5.2.3.
2. Enhance/Improve the PONTIS modules utilized in deterioration modeling, including improving the cost information used as a basis for estimates, with a goal of bringing the overall system into alignment of how New Jersey needs to work.
3. Continue to enhance the data collected and stored in CoMBIS. Phase 2 will implement full and complete inspection data for most NBIS bridges in CombIS.
4. Implement the Overhead Sign Structure and High Mast Light Pole data sets in CombIS.
5. Develop various reports in CombIS and BrM to enhance how we look at bridge data, in order to improve efficiency, productivity, and timeliness.
6. Begin development and implementation of specific methods and actions focused on programmatic bridge preservation.

### *CONTRACTS:*

CoMBIS contract - Bentley (InspecTech) – Approx: \$125,000 in CY2015  
CoMBIS contract - Bentley (InspecTech) – Approx: \$225,000 in CY2016

### *STAFFING:*

	<u>CY2015</u>	<u>CY2016</u>
Jack Evans, Supervising Engineer	.25 person-year	.25 person-year
Gaurang Patel & TBD, Project Engineer	.65 person-year	.65 person-year
Harjit Bal & Chandrahas Shah & KeeRyde Talasan & Vijay Sampat & Gina Rossi & Yves Nadie & Talal Abdalla Prin./Sen./Asst. Engineers	2.00 person-year	2.50 person-year
Total	<u>2.90</u> person-years	<u>3.40</u> person-years

## STATE PLANNING AND RESEARCH PROGRAM 2015-2016

**ACTIVITY:** Bridge Resource Program (BRP) - 2205873  
**MANAGER:** Nat Kasbekar, P.E.  
**UNIT:** Engineering and Infrastructure Management

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### **VISION:**

Developing and supporting sustainable management policies to preserve and renew NJDOT's structures as a component of the State of New Jersey's Asset Management System.

### **MISSION:**

The primary mission of the Bridge Resource Program (BRP) is to provide ongoing Structural Engineering support to the New Jersey Department of Transportation (NJDOT)'s Structural Engineering Office to (1) Preserve the State's Bridge and Structural Assets, and (2) Optimize the overall condition of the State's structures within the available funding levels.

### **GOALS/ACTIVITIES:**

The foundation for a successful Bridge Resource Program is to ensure that its core functional areas are aligned with NJDOT's needs and is flexible and responsive. As such the BRP plan will be focused on the following core work areas:

1. Enhance NJDOT's Structural Management Activities
  - a. Enhance the bridge management system
  - b. Develop, refine and validate deterioration modeling
  - c. Provide PONTIS data mining & technical assistance as needed
  - d. Evaluate and enhance cost analysis capabilities within BMS
  - e. In accordance with MAP-21, support and enhance the Department's more comprehensive and methodical bridge preservation effort.
  - f. Coordinate and develop other structural assets (culverts, noisewalls, sign structures, etc) inventory and management strategies
  - g. Update the Structural Asset Tactical Plan as requested/required
2. Advanced Materials
  - a. Perform NDT/NDE methods and techniques
  - b. Evaluate innovative material and technologies
3. Structural and geometrics
  - a. Perform modeling and ratings analysis on complex structures
  - b. Overweight Truck route analysis (On Call only)
  - c. In-depth structural inspection and evaluation (On Call only)
4. Provide Technology Transfer
  - a. Investigate & recommend Bridge Preservation best practices
  - b. Deliver training to NJDOT staff, County Engineers and consultant engineers
5. On-Call Services
  - a. Standards Updating
    - i. Review AASHTO documents, TRB documents and other literature, as directed.
    - ii. Develop Standard Specifications updates, as directed.
    - iii. Develop updates to NJDOT Design Manual for Bridges and Structures, as directed.
    - iv. Develop updates to standard plans and standard details, as directed.
  - b. Rapidly respond to NJDOT's need for advanced bridge engineering tools and services to address forensic and construction, or maintenance, issues:
    - i. BRP staff will respond to 90% of requests within one day and develop an appropriate work plan to supply the needed support and respond to NDE field evaluation upon NJDOT's request within 3 days.

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### **GOALS/ACTIVITIES: (cont'd.)**

6. Reviewing Local Aid Future Needs Program:
  - a. Review applications for Local Bridges Future Needs (LBFN) program as part of the Statewide Capital Investment Strategy which focusses on preventive maintenance, rehabilitation and selective replacement of bridges.

### **ANTICIPATED ACCOMPLISHMENTS FOR CALENDAR YEAR 2015:**

#### Enhance the NJDOT's Structural Management Activities

- 1a. In collaboration with Department's structural evaluation staff, investigate default BrM 5.2.2 NBE deterioration models and compare with historic performance of bridge assets. Recommend changes to default settings in order to calibrate deterioration models to state-specific deterioration within BrM 5.2.2.
- 1b. Provide technology transfer via on-site staff to instruct in the use of new models, capture critical functionality desired by Department staff and refine state-specific BrM asset management software through collaboration with Bentley and on-site staff.
- 1c. In collaboration with the Department's structural evaluation staff, develop a state-specific risk based prioritization methodology and an integrated means of accomplishing within the Department's BMS framework. (IIS, Bentley).
- 1d. In collaboration with the Department's structural evaluation staff, evaluate effects of asset preservation strategies on deterioration modeling. Develop state-specific adjustments or credits that may be applied to the remaining life of a structure as part of selecting improvements or interventions.

#### Advanced Materials – review and performance

- 2a. Use Robot Assisted Bridge Inspection Tool (RABIT), as well as other appropriate technologies, to provide a comprehensive multimodal NDE scanning of up to ten (10) bridge decks, or up to an equivalent 60,000sf of deck, in order to inform deterioration algorithms.

#### Structural and geometrics – analysis and performance

- 3a. Perform a refined load rating of fifteen (15) bridges, or up to an equivalent 150,000sf of deck, that have resulted in Overload Truck Permits being re-routed due to load carrying capacity limits resulting from "standard" structural ratings to determine if additional load carrying capacity exists in the selected bridges. The goal is to provide a complete evaluation of the load carrying capacity of each structure studied, as defined in the AASHTO Manual for Bridge Evaluation, current edition.
- 3b. Perform a refined load rating of five (5) complex bridge structures, or up to an equivalent 150,000sf of deck, including strategic instrumentation and validating, if deemed necessary, to determine if additional load carrying capacity exists in the selected bridges. The goal is to provide a complete evaluation of the load carrying capacity of each structure studied, as defined in the AASHTO Manual for Bridge Evaluation, current edition.

#### Provide Technology Transfer

- 4a. In collaboration with the Department, select and coordinate webinars and training on structural and bridge evaluation topics.
- 4a. Review Accelerated Bridge Construction technologies for use in New Jersey including identifying modifications required to standard documents in order to create state-specific documents. Based on findings, develop guidance and proposed changes to the bridge design manual, standard plans and standard specifications for road and bridge construction.

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### **ANTICIPATED ACCOMPLISHMENTS FOR CALENDAR YEAR 2015: (cont'd.)**

#### On-Call Services

- 5a. BRP staff will be available to respond to urgent structural management, materials and technology issues that arise throughout the year.
- 5b. Assist the department in identifying technology needs that may be drafted into research problem statements. Provide technical advice and guidance for ongoing project activities to efficiently achieve objectives, as needed.
- 5c. Develop Standards for new materials and construction techniques as selected by NJDOT from the technical memorandums developed in other tasks.
- 5d. Review technical publications, journals and other resources including but not limited to FHWA, UTC and TRB to discover new technologies and construction techniques. Present result in technical memorandums.
- 5e. Review of proposed amendments to AASHTO publications submitted to the Subcommittee on Bridges and Structures (SCOBs). Present results and guidance in technical memorandums.

#### Reviewing Local Aid Future Needs Program

- 6a. Review and process applications for Local Bridges Future Needs (LBFN) program which focusses on preventive maintenance, rehabilitation and replacement of bridges.

### **CONTRACTS:**

2015 – \$1.6 million; 2016 - \$1.6 million.

### **STAFFING:**

Eddy Germain	Supervising Highway Engineer Bridge Design Spec. Review	0.124	PY
Jayesh Patel	Project Engineer Structural Transportation	0.2	PY
Hannah Xicheng	Principal Engineer Structural Bridge Design	0.2	PY
Kiranben Patel	Assistant Engineer Transportation	0.2	PY
Sudha Lakshminarayanan	Civil Engineer Trainee	0.2	PY
Ankur Patel	Assistant Engineer Transportation	0.2	PY
Mujahid Khan	Supervising Engineer Structural Evaluation	0.075	PY
Jack Evans	Supervising Engineer 2 Structural Evaluation	0.075	PY
Gaurang Patel	Project Engineer Structural Evaluation	0.075	PY
Harshad Ringwala	Project Engineer Structural Evaluation	0.075	PY
Mula Reddy	Principal Engineer Structural Evaluation	0.033	PY
Naveed Zaki	Assistant Engineer Transportation	0.033	PY
Harjit Bal	Principal Engineer Structural Evaluation	0.033	PY
Chandrasah Shah	Assistant Engineer Transportation	0.033	PY
Vijay Sampat	Civil Engineer Trainee	0.033	PY
Gina Rossi	Principal Engineer Structural Evaluation	0.033	PY

## STATE PLANNING AND RESEARCH PROGRAM, 2015 - 2016

**ACTIVITY:** Intelligent Transportation Systems Resource Center (ITSRC) – 2205871  
**MANAGER:** Wasif Mirza  
**UNIT:** Transportation Systems Management

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### **VISION:**

Utilize the Intelligent Transportation System Resource Center (ITSRC) as a premier technical, research, education, and knowledge transfer program to provide resources and assistance to NJDOT in improving safety, mobility, and efficiency of New Jersey's surface transportation systems through implementation of Intelligent Transportation Systems (ITS), and innovative transportation planning and management methods and strategies. The resource center is a partnership between federal and state transportation agencies, academia, private industry, and other entities that promote and advance implementation of ITS technologies in New Jersey's transportation system and is hosted by the New Jersey Institute of Technology.

### **MISSION:**

The primary mission of ITSRC is to assist NJDOT in enhancing the quality and efficiency of New Jersey's surface transportation systems through an effective implementation of ITS via a TSM&O pipeline. This is accomplished by conducting planning and research studies, operational tests, evaluation of deployment scenarios and strategies, training, and outreach. These activities specifically focus on technology assessment, development of new technology applications, testing deployments of new technologies, evaluation of ITS implementation strategies and scenarios, application of advanced transportation and traffic modeling tools for ITS deployment evaluation and planning, maintaining the ITS information database, and technology transfer. This will ensure that NJDOT is at the forefront of adopting the latest technological advancements in transportation technology, and makes the right decisions in investing in the most effective ITS applications, which maximizes benefits to the traveling public.

### **GOALS/ACTIVITIES:**

The objectives of this work program address the FHWA Planning Emphasis Areas: MAP-21 Implementation and Models of Regional Planning Cooperation, through the following activities:

1. Support Implementation of NJDOT ITS Strategic Deployment Plan
  - a. Integrate ITS and Transportation Systems Management and Operations (TSM&O) strategies and technologies in the transportation planning, programming, and project delivery process to ensure integration of planning and operations.
  - b. Contribute to the development and implementation of the Connected Corridor and the Capability Maturity Model (CMM) framework and plan for New Jersey.
  - c. Participate in the Connected Corridor, ITS Deployment Plan, and Statewide ITS Architecture documentation, in collaboration with NJDOT, FHWA, MPO, and other stakeholders.
  - d. Assist in integration of performance-based planning and programming concepts in deployment plans for ITS and TSM&O strategies and as part of the complete team and Connected Corridor initiatives.
2. Provide Technical Support for Technology Evaluation and Deployment
  - a. Conduct pilot deployment studies and assess effectiveness of innovative ITS technologies and TSM&O strategies.
  - b. Conduct pilot studies related to connected vehicle technologies and vehicle/highway automation.
  - c. On-call support to NJDOT related to ITS technology deployment.

## STATE PLANNING AND RESEARCH PROGRAM, 2015 - 2016

**ACTIVITY:** Intelligent Transportation Systems Resource Center (ITSRC) - 2205871  
**MANAGER:** Wasif Mirza  
**UNIT:** Transportation Systems Management

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### GOALS/ACTIVITIES: (cont'd.)

3. Implement Work Zone Mobility Monitoring and Improvement Program
  - a. Implement the Work Zone Interactive Monitoring Program (WIMAP) as an online application with a backend database, hosted at NJIT.
  - b. Continue instrumentation of select work zones in order to collect background data in support of development of mid- and long-term work zone management plans.
  - c. Review the best practices and recommend improvements in developing traffic mitigation plans (TMP) for roadway construction and maintenance projects, focusing on the use of ITS and TSM&O technology and strategies.
4. Support Planning and Capacity Building for Effective Traffic Incident Management
  - a. Expand and foster interagency coordination and enhance collaboration and communication among the agencies participating in traffic incident management.
  - b. Evaluate the performance of NJDOT Traffic Incident Management (TIM) programs and provide recommendations for program improvements.
  - c. Create tool for evaluating the impacts of geographically-based construction and maintenance work zones that incorporates detour routing, transit and other key factors and coordination of VMS, CCTV and other traffic monitoring/travel time tools (similar to OpenReach).
5. ITS and TSM&O Training and Technology Transfer and Outreach For NJDOT and Other Agencies
  - a. Provide technical support and training opportunities to all areas of the Department performing activities related to ITS. This will enhance the Department's ability to adapt to changing technologies and adopt advancements in the area of ITS.
  - b. Provide training for specific areas of traffic management and operations to enhance the effectiveness of NJDOT and local agency incident management-related personnel.
6. Arterial Management System Pilot

Staff, and develop performance measures for the Arterial Management Center (AMC). The AMC is where all Computerized Traffic Signal Systems (CTSS) systems owned by the Department of Transportation are managed and monitored.
7. Data acquisition, integration, analysis, and visualization support for transportation planning and operations

Provide assistance and technical support with data acquisition, integration, analysis, and visualization for transportation planning and operations.

  - a. Develop and implement innovative solutions for data integration and processing ('big data') and data visualization.
  - b. Develop and implement innovative data analytics tools that will utilize the wealth of data collected and acquired by NJDOT for transportation planning and traffic management purposes.
  - c. Conduct research and develop a framework for utilization of mobile data collection using DOT fleet: traffic, weather, infrastructure condition data, etc.

## STATE PLANNING AND RESEARCH PROGRAM, 2015 - 2016

**ACTIVITY:** Intelligent Transportation Systems Resource Center (ITSRC) - 2205871  
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### **GOALS/ACTIVITIES: (cont'd.)**

8. Integration of Central Dispatch Unit (CDU) Database and OpenReach System  
This will achieve a higher degree of data integration between the incident database maintained by the CDU and the incident data reported in the OpenReach and 511 systems, and include the following activities:
  - a. Implementation of EL-15 form functionality within the CDU and deployment of OpenReach-CDU Server, Monitor and Client on two server stacks with replication between them;
  - b. OpenReach-CDU integration with NJ OpenReach for bi-directional exchange of data, suggested Highway Event operations implementation and CDU map implementation;
  - c. Radio Log functionality implementation;
  - d. JobInterface web service implementation; and,
  - e. Attendance web service implementation.
  - f. System testing, acceptance, documentation and training
  
9. Conduct ITS Concept Development and System Requirement Studies for ITS And TSM&O Applications  
Following the systems engineering process ('V diagram') and the ITS Architecture:
  - a. Conduct concept of operations studies, including the following applications:
    - i. Integrated corridor management (ICM)
    - ii. Active traffic demand management (ATDM)
    - iii. Advanced signal control algorithms and strategies to improve operations on priority signalized (arterial) corridors.
    - iv. Advanced traffic management systems (ATMS)
  - b. Develop system requirements specifications documents for select ITS and TSM&O applications, following the completion of the concept of operations studies.
  - c. Conduct analysis, modeling, and simulation as part of the systems engineering process for the select ITS and TSM&O applications, following the completion of the high-level systems requirements assessment.
  - d. Develop implementation plans and prepare documentation that can be used to advance the implementation of select ITS and TSM&O applications.

### **ANTICIPATED ACCOMPLISHMENTS FOR CALENDAR YEAR 2015:**

- Attend meetings and participate in implementation of the CMM framework and plan for New Jersey and The Connected Corridor.
- Attend meetings and participate in the activities of the Complete Team (NJDOT Planning for Operations).
- Complete development of a real-time offset and split adjustment algorithm for ACS-Lite
- Complete evaluation report on the effectiveness of using UAV for traffic surveillance and incident management.
- Complete the framework for cost-effective adaptive control system for an urban corridor
- Deploy a Bluetooth-based V2I Connected Vehicle test-bed study
- Complete instrumentation and data collection at five (minimum) work zones.
- Launch the Work Zone Interactive Monitoring Program (WIMAP) application
- Complete an annual report assessing the effectiveness of TIM and Safety Service Patrol (SSP) programs.
- Conduct at least one TIM training seminar for first responders.
- Conduct at least two TIM coordination meetings with first responders, both in South and North region.
- Conduct at least three ITS and TSM&O workshops.

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### *ANTICIPATED ACCOMPLISHMENTS FOR CALENDAR YEAR 2015: (cont'd.)*

- Deliver Arterial Management Pilot Preliminary Results
- Complete integration of Central Dispatch Unit (CDU) database and OpenReach system
- Complete one data analysis, modeling, and simulation for at least one ITS deployment project

### *CONTRACTS:*

New Jersey Institute of Technology (Task Order) for the Intelligent Transportation Systems Resource Center  
\$6,000,000. (\$3,000,000 for Year 1; \$3,000,000 for Year 2)

### *STAFFING:*

Gail Yazersky	Planner, Transportation	.75
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