

FY2018UPWP

Unified Planning Work Program

Volume VI

Other Regional Transportation Planning Initiatives

FY 2018 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 2018 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 2018 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 2018 UPWP includes the full Transportation Management Association (TMA) work programs. 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 2017-CY 2018, Year One.

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

FY 2018

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

SECTION I

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

AGENCY: DELAWARE RIVER JOINT TOLL BRIDGE COMMISSION

SUBJECT: Scudder Falls (I-95) Bridge Replacement

DESCRIPTION:

The Delaware River Joint Toll Bridge Commission is continuing the planned replacement of the Scudder Falls (I-95) Bridge, which currently has numerous traffic safety and congestion issues. The bridge replacement project is 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 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 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), 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 (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 Project 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 Pedestrian/Bicycle shared-use pathway on the upstream structure of the new dual spans
- 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: Advanced construction contracts (tree clearing & noise walls) have been underway since 2016. The main construction contract was awarded January 30, 2017, and is scheduled to begin in March 2017. Completion of the project is tentatively scheduled for 2021.

SUBJECT: Northampton Street Toll-Supported Bridge Rehabilitation

DESCRIPTION: This project will consist of rehabilitation and replacement of the floor system at the Northampton Street Toll-Supported Bridge. Work will also include rehabilitating the bridge to preclude major repairs for a minimum of 15 years, including complete replacement of the grid deck and structural steel floor system; removal of existing paint and repainting of the trusses; repairs to the truss bearings and abutment backwalls; improving bridge drainage; replacement of sidewalk and access panels; substructure repairs;

new bridge lighting & architectural lighting; and replacement of the approach roadways at both ends of the bridge.

SCHEDULE: Concept Study / Design 2018-2019 and Construction in 2019-2020.

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

SUBJECT: Achieve improved and more integrated regional land use and transportation planning that will result in a better quality of community life in Central Jersey.

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 to facilitate a regional, cooperative approach to solving transportation problems. The geography is approximately 25 municipalities in three counties, generally focused around US 1 but also including US 206 and US 130. The 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 east-west access; transit and alternative modes; land-use/transportation integration; and system-wide planning and coordination. Progress is reported on through a handout prepared for each meeting. Approximately every two years a survey is conducted 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 Forum 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 elected officials in eight municipalities and one county at the end of 2015. Each went on to adopt a resolution supporting coordinated Smart Growth planning with other Central Jersey municipalities. The Forum has been a long-term supporter of NJ Transit's Route 1 Bus Rapid Transit (BRT) project.

TASKS:

1. Support Forum, action team, and Road Show presentations – Arrange meetings, prepare materials, track progress on the action plan, and continue to improve effectiveness.
2. Transportation and land development project web maps – Maintain and refine interactive web maps depicting timing and status of transportation improvement projects as well as planned and potential land development projects for the purpose of increasing information sharing.
3. Coordinate with other projects – Communicate with Forum participants and serve as liaison to related projects.

PRODUCTS:

1. Presentations, meeting summaries, table tracking progress, other outreach material
2. Summaries of analysis, updated web maps, additional web material

Beneficiaries:

NJDOT, New Jersey Transit, New Jersey Office of Planning Advocacy, TMAs, study area counties (Mercer, Middlesex, and Somerset) and municipalities, and residents and employees in the region.

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AGENCY: INTER-MPO ACTIVITIES PLANNING AT THE EDGE

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 issued a report in 2012 that updated 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/>

Counties - Baltimore, Anne Arundel, Carroll, Harford and Howard, MD

Berks County Planning Commission (BCPC)

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

Executive Director- Shannon L. Rossman, AICP

County- Berks, PA

Delaware Valley Regional Planning Commission (DVRPC)

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

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

Burlington, Camden, Gloucester and Mercer, NJ

Lancaster County Planning Commission (LCPC)

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

County – Lancaster, PA

North Jersey Transportation Planning Authority (NJTPA)

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

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

South Jersey Transportation Planning Organization (SJTPO)

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

South Jersey Transportation Planning Organization

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

Lehigh Valley Planning Commission (LVPC)

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

Counties – Lehigh and Northampton, PA

Wilmington Area Planning Council (WILMAPCO)

<http://www.wilmapco.org>

Counties – Cecil, MD and New Castle County, DE

New York Metropolitan Transportation Council (NYMTC)

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

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

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AGENCY: NEW JERSEY HIGHLANDS COUNCIL

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 as part of the ongoing RMP Monitoring Program to evaluate the need to refine the model for future transportation needs.

The long term goal of the Council identified in the RMP 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 is being evaluated by the Transportation and Air Quality technical advisory committee associated with the ongoing RMP Monitoring Program.

SCHEDULE: The Council expects during FY 2018 (July 1, 2017 to June 30, 2018) 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 2017 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 50 of the 61 municipal Petitions pending for Plan Conformance representing 55% of the Highlands Region or 472,797 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: NEW JERSEY MEADOWLANDS COMMISSION

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 review 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 2045. The Update will estimate the cost of the recommended transportation improvements and update the transportation mitigation assessment framework, including fee calculation methodology and VMT factors, to assure fair and sustainable growth in the District.

SCHEDULE: RFP is expected to be released in mid-2017. Project is expected to be completed in 2018.

PRODUCT: Updated Meadowlands District Transportation Plan.

SUBJECT: Meadowlands Parkway Bike Route, Secaucus, NJ

DESCRIPTION: A designated bike lane along Meadowlands Parkway southbound from the Route 3 exit to the parking garage and the enhancement of the gravel path behind the Meadowlands Hospital is a portion of the Secaucus Greenway initiative described in the NJMC Master Plan. The goal is to provide recreational opportunities, alternative transportation routes and a connection to nature for the local communities. NJSEA has funded this project through the Transportation Planning District Act fund.

SCHEDULE: Project is expected to be completed in 2017.

PRODUCT: A dedicated bike lane along Meadowlands Parkway.

SUBJECT: Meadowlands Adaptive Signal System for Traffic Reduction (MASSTR) – Phase 5

DESCRIPTION: Meadowlands Adaptive Signal System for Traffic Reduction (MASSTR) is an intelligent transportation system that integrates adaptive traffic signal control software, vehicle image detection, and wireless communication technology to optimize the operating efficiency of existing roadway infrastructure. The project will incorporate all of the Meadowlands region's traffic signals into a network of self-adaptive traffic signals to efficiently reduce roadway congestion, delay, travel time, fuel consumptions, and airborne emissions.

This Federally funded project will install an adaptive traffic control system on 128 traffic signals located in Bergen and Hudson Counties in the municipalities of Carlstadt, East Rutherford, Jersey City, Kearny, Little Ferry, Lyndhurst, Moonachie, North Arlington, North Bergen, Teterboro, Ridgefield, Rutherford, Secaucus, and South Hackensack on US1&9 and US46; NJ 7, 17, and 120. Currently, 113 traffic signals operate adaptively throughout the region.

Originally, the project divided the design and construction of MASSTR into four phases (Phase 1, 2, 3 and 4). However, during the course of the Project, several intersection sites where fell within the scope of MASSTR were in the process of upgrading and/or reconstructing. Due to the unavailability of intersections sites and for scheduling purposes, the project has initiated a new Phase 5. Subsequently, Phase 5 is divided into two sub-phases known as Phase 5A and Phase 5B, which have separate but consecutive construction schedules based on the timing of sites' availability.

SCHEDULE: It is anticipated that all phases are completed and the project is concluded by the third quarter of 2017.

PRODUCT: Fully operational self-adaptive network with 128 traffic signals.

DESCRIPTION: The 2-mile long New Road Project begins at the intersection of New Road/St Paul Ave and ends at the intersection of New Road/Secaucus Road in Hudson County, NJ. Two new Adaptive signals are proposed at St. Paul Avenue and at County Road intersections. NJDOT will take ownership of these two new signals and will have them operated by the NJSEA MASSTR system.

The existing signals at County Road to the entrance of NS Rail Road will be moved to the relocated access entrance of USPS and the existing adaptive signal at Secaucus Road will be modified as well. These two signals will continue to be owned by Hudson County and operated by NJSEA.

SCHEDULE: The installation of the two new signals and the modification of the two existing signals are scheduled to take place within the period of 2018-2020.

PRODUCT: Addition of the two adaptive traffic signals and modification of two existing adaptive signals.

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

SUBJECT: NJ Turnpike Interchange 14A Improvement Project

DESCRIPTION: This project involves the implementation of capacity and operational 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 the interchange 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.

SUBJECT: NJ Turnpike Interchange 9 Improvement Project

DESCRIPTION: This project involves the implementation of capacity and operational 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 substantially complete with final acceptance anticipated by Summer 2017.

SUBJECT: NJ Turnpike Interchange 10 Improvement Project

DESCRIPTION: This project involves the implementation of capacity and operational 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 substantially complete with final acceptance anticipated by Summer 2017.

SUBJECT: GSP Mainline Widening From Interchange 35 to 80

DESCRIPTION: This project provides for the widening of the Garden State Parkway between Interchanges 35 and 80. A third lane is being added in each direction to accommodate existing congestion and projected traffic growth.

SCHEDULE: Construction between milepost 63 and 80 was completed in May 2011. The

construction between milepost 48 and 63 including the widening and rehabilitation of the Bass River bridge at milepost 51.9 and the rehabilitation of the Mullica River bridge at milepost 49.0 was completed and opened to traffic in May 2015. Construction on the southernmost section between milepost 35 and 48 began in September 2014 and is expected to be completed in 2018.

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: The project was completed in May 2016.

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 2017.

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 constructed 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 was completed in June 2015. The second contract started construction in the summer of 2015 and is anticipated to be completed in May 2017.

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.

SCHEDULE: 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.

SUBJECT: GSP Interchange 125

DESCRIPTION: The purpose of this project is to improve access to and from the Garden State Parkway at Interchange 125, located in the Borough of Sayreville, Middlesex County. Interchange 125 is a partial interchange that provides limited access to and from the south via a southbound entrance ramp and a northbound exit ramp onto Chevalier Avenue. The interchange will be reconfigured for new ramps from the Parkway southbound and to the Parkway northbound and will provide full access to Chevalier Avenue and the adjacent waterfront development. The project also includes local roadway improvements along Chevalier Avenue and Main Street Extension which will result in capacity and safety improvements at the Interchange.

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

SCHEDULE: Construction is anticipated to start in the summer of 2016 and be completed in the end of 2019.

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: The project is expected to start construction late 2017 and be completed by the end of 2020.

SUBJECT: GSP Interchange 163

DESCRIPTION: This project will result in 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 is expected to be completed in May 2017.

SUBJECT: Deck Reconstruction of the Newark Bay – Hudson County Bridge

DESCRIPTION: This project will replace the bridge deck and re-paint the structure.

SCHEDULE: Construction started in 2010 and is expected to be completed in 2020.

SUBJECT: NJ Turnpike Interchange Newark Bay-Hudson County Extension Study

DESCRIPTION: This project will determine the extent of improvements necessary to the Newark Bay – Hudson County Extension to safely and efficiently accommodate existing and projected traffic volumes. The study will provide the Authority with several designs alternatives to address traffic capacity concerns, recommend a plan for implementing the improvements and establish program costs.

SCHEDULE: The study is anticipated to be completed by late 2017.

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AGENCY: NJ TRANSIT

NJ TRANSIT maintains 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.

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. 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

SUBJECT: Qualitative & Quantitative Research

DESCRIPTION: Through this program, NJ TRANSIT updates knowledge of customer travel characteristics by conducting origin and destination surveys of rail, bus, light rail and Access Link passengers. This information is used to support updating of forecasting models, to conduct Title VI analyses, support Transit Oriented Development, and for other business purposes. Research is conducted to define existing and potential markets through various techniques such as stated preference, public opinion studies and conjoint surveys. Databases are updated and merged in support of corridor planning, air quality initiatives and other planning efforts throughout the state. In addition, customer satisfaction studies are conducted on a quarterly basis and the key driver analysis helps to inform planning and decision making affecting several aspects of NJ TRANSIT.

SCHEDULE: Ongoing, as required

PRODUCT: Analyses and reports as required

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

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 is undertaken 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 focus of this work is to complete travel demand forecasts for the Regional Transportation Plan, as required for FTA's and NJT's longer term planning. 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

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 related to existing 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 as well as parking needs on its transit system, and formulates proposed actions and projects to address those needs. Bicycle and pedestrian access and facilities are given special attention within this body of work.

SCHEDULE: Ongoing, as required

PRODUCT: Analyses and reports as required

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. Critical components of this work include 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 efforts and initiatives spawned by the HUD-funded Regional Plan for Sustainable Development, known locally as *Together North Jersey*.

SCHEDULE: Ongoing, as required

PRODUCT: Plans/reports as required

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

SUBJECT: Bus Planning

DESCRIPTION: Work will continue to progress both by singularly by NJT and in partnership with municipalities and 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 YORK STATE DEPARTMENT OF TRANSPORTATION (NYSDOT)

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)

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 conducted 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. The Tier I process evaluated a range of cross-harbor freight movement alternatives, narrowing the “build” alternatives to two options: an enhanced railcar float service and a cross-harbor freight tunnel. FHWA published a Record of Decision on January 22, 2016, concluding the Tier I process. In May 2017, PANYNJ announced its intention to initiate a Tier II NEPA environmental review to evaluate the remaining “build” alternatives relative to “No-Build” conditions.

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. FHWA released the FEIS or comment in September 2015. On January 22 2016, FHWA published a Record of Decision based on the Tier I FEIS. Initiation of Tier II review in 2017 with anticipated completion not later than 202

PRODUCT: Tier I FEIS and FHWA Record of Decision

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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 through phased improvements 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 interagency effort anticipated inclusion of freight policy and funding initiatives in the recently re-authorized FAST Act.

SCHEDULE: Beginning in 2009, the G-MAP partners undertook extensive technical work and targeted stakeholder outreach initiated. In 2015, the agencies presented highlights of the draft plan to NJTPA and to the New York Metropolitan Transportation Council (NYMTC). NJDOT, NYSDOT, and PANYNJ have endorsed a G-MAP program document and initiated work on early actions and longer-term initiatives. G-MAP is underway as an ongoing cooperative platform for the partner agencies on regional freight-related planning, operational, and regulatory concerns and opportunities.

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 station access for local residents and park-and-ride and bus transfer 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. This engineering and planning assessment includes updates of project cost estimates and ridership projections for the extension, as well as time frames for planning, intergovernmental coordination and approval, and construction. In February 2017, the Port Authority Board of Commissioners included funding for this project in its ten-year capital plan, subject to completion of external reviews and approvals and project authorization by the PANYNJ Board.

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. It is anticipated that Phase 2 will conclude by 3Q2017.

PRODUCT: West of Hudson Regional Transit Access Study

SUBJECT: Port Jervis Line Capacity Improvements Study

DESCRIPTION: In 2012, MTA Metro-North initiated a study to examine ways to improve service on the Port Jervis Line (PJL). The study identified a proposed service strategy that will result in a more attractive service for PJL customers. This would be achieved through constructing a new train yard mid-way along the line to store additional trains and constructing passing sidings to allow trains to pass each other. Capacity restrictions on the line, mostly single-track, with one yard located 95 miles away from Hoboken terminal, limit the extent of service improvements that can be provided to Orange County residents. The proposed PJL improvements would allow Metro-North to provide more frequent peak and off-peak services, and to introduce reverse peak services. The project would also allow Orange County residents to attain the full benefits of any potential future trans-Hudson connection and transit access to Stewart International Airport.

SCHEDULE: Metro-North conducted public outreach in early 2017 and hosted an Open House on February 15, 2017 to present the findings of the Study and obtain public input. The final reports will be issued to the public in late Spring 2017.

PRODUCT: Port Jervis Line Capacity Improvements Study

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SUBJECT: Port Authority Bus Terminal Replacement Planning

DESCRIPTION:

In 2013, the Port Authority initiated a Midtown Bus Master Plan process to evaluate options for redevelopment of the Port Authority Bus Terminal (PABT). Opened in 1950 and expanded in 1979, in 2015 the PABT accommodated approximately 260,000 total passenger trips and more than 7,900 bus movements on a busy weekday. The planning initiative addressed a range of

considerations, including life-cycle issues for the existing facility, constraints in accommodating larger and heavier modern buses, operational limitations, anticipated future growth in the market served by interstate commuter and intercity bus services, and development in West Midtown.

In March 2015, staff presented the agency's Board of Commissioners with findings that included the recommendation to replace the outmoded existing terminal, and a range of project concepts. In October 2015, the Board authorized a "Design and Deliverability" competition, launched in March 2016, soliciting conceptual designs for a new facility. The Board also initiated a Trans-Hudson Commuting Capacity Study to examine in greater depth factors likely to affect long-term demand on the interstate bus network as well as multi-modal approaches for addressing the region's trans-Hudson commutation needs. Findings and recommendations of both efforts were presented to the PANYNJ Commissioners in late 2016.

In February, 2017, the agency's board approved a ten-year capital plan including \$ 3.5 Billion toward a project to replace the current facility. In addition, the plan included funding for near-term improvements to maintain efficient operations and improve facilities for customers, as well as authorization and funding to initiate formal planning for a replacement facility as well as intermediate improvements to support operation of the existing terminal based on forecasts of steadily increasing commuter transit demand.

SCHEDULE: Planning for short- and intermediate-term improvement is ongoing. The agency expects to initiate formal planning for a Port Authority Bus Terminal Replacement Program in 2017, anticipating the required approvals in time to begin construction of the new terminal before within the 2017-2026 timeframe of the approved capital plan.

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SUBJECT: Port Master Plan

DESCRIPTION: Port Master Plan (PMP) - This strategic planning initiative will provide a framework to help guide the future growth and development of the bi-state port over the next 30 years. It will examine global market and industry trends, port capacity and land-use policy, landside and logistics capacity, and the use and implementation of advanced technology systems. Various partners and stakeholders will be engaged to develop a vision of the port's future to guide PANYNJ's planning goals and objectives.

SCHEDULE: PANYNJ initiated the Port Master Plan process in late 2016 with anticipated completion in early 2018.

PRODUCT: Port Master Plan Report

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AGENCY: REGIONAL CATASTROPHIC PLANNING TEAM (“RCPT”)

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), which terminate in August 31, 2015. The Planning Team has been dissolved.

PRODUCT: A variety of projects were 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 completed in 2014-2015.

PROJECT	GOALS
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

	<p>developing solutions for private sector response challenges in 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 & 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 & 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"> 1. RCPT Primer - online 2. EOC and Catastrophic Emergencies - online 3. Just-in-Time EOC - online 4. EOC and Catastrophic Emergencies - classroom 5. EOC Leadership Development Lab - classroom <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 & 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"> • The Essential Emergency Manager: What They Do and How They Do It • Stronger Community, Better Response: Connecting Community Organizations During Disaster • Managing Consequences During a Disaster: Solving Problems Together • Business Preparedness for Community Resiliency • Strategic Risk in Disaster Planning

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AGENCY: TRANSCOM FHWA-FUNDED PLANS AND ACTIVITIES

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.

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.

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

FY 2018

**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**

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 Year One of a new two year SRTS contract that runs through August 31, 2017.

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**

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/refresher 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.

SUBJECT: Street Smart NJ Pedestrian Education Campaign

DESCRIPTION: HART will expand the NJ Street Smart program to two additional Hunterdon communities in FY 18. While much of HART’s Street Smart work falls under their NJTPA work program, additional support comes from the New Jersey Division of Highway Traffic Safety. The expansion into the new towns will include community surveying, observational analysis, stakeholder outreach, increased enforcement from police, and educational programs.

Based on previous successful implementation of Street Smart campaigns in Hunterdon County, NJ, HART, in coordination with TransOptions, will deliver a comprehensive, workshop-based training and support program to assist stakeholders and TMA representatives to launch programs aimed at replicating those successes in new locations. Stakeholders such as mayors, police officers, public safety officials and their respective Transportation Management Association will be assisted to implement their own Street Smart NJ campaign. Best practices will be shared to reflect the variety of campaign components from initial data analysis and outreach to final evaluations.

SCHEDULE: Work will be spread throughout the fiscal year.

PRODUCTS:

Hunterdon Street Smart Campaigns: Completed Street Smart NJ educational and enforcement program and final reports for each municipality.

Street Smart Training/Assistance: Delivery of Street Smart NJ Campaign Training programs and ongoing consultation as needed for stakeholders and TMA staff as appropriate.

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

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 1st of October of each year and ends on the 30th 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.

SUBJECT: Paint the Pavement (NJ Division of Highway Traffic Safety)

DESCRIPTION: In 2005, there were 256 emergency room visits attributed to distracted walking. By 2010, that number rose more than 500%, not including visits to personal physicians. Whether texting, talking, listening to music, conversing with friends, or daydreaming, distracted pedestrians are a danger to themselves and others.

KMM will extend the Paint the Pavement program begun in 2016. Paint the Pavement is an educational campaign to raise awareness of distracted walking with painted messages or pictures on the sidewalk. It gives distracted walkers a "heads up" while they are looking down by painting safety messages on the pavement.

In 2016, KMM invited high school and college students in Middlesex County to submit graphic designs depicting a message meant to discourage distracted walking. The designs were intended to give pedestrians a "heads up" as they were looking down. Twenty entries were received and judged by KMM staff, representatives of Walk Bloustein Bike Bloustein, and the Coordinator of the Injury Protection Program at Robert Wood Johnson University Hospital.

In 2017-2018, KMM seeks to make the program more community-oriented by coaching and supporting municipalities to sponsor art contests among residents.

SCHEDULE: October, 2016-September, 2017

PRODUCT: KMM will provide materials needed to paint the design on sidewalks in partner communities

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AGENCY: CROSS COUNTY CONNECTION TMA, INC.

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. This project was completed on schedule. In 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: TRANSOPTIONS

SUBJECT: Traffic Safety Town Program

DESCRIPTION: TransOptions will continue to expand its 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.

SCHEDULE: The program has been in place for over a year and has been expanded to deliver the program more regularly in schools throughout the service area.

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

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: Was conducted as a pilot in FY17 and will be offered more regularly as a component of Safe Routes to School programming in FY18.

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

SUBJECT: GoForGood Travel Tracking App

DESCRIPTION: In Q4 of FY16, TransOptions will launch a mobile app version of the GoForGood Tracking Tool (GoForGood.TransOptions.org), that “gamifies” alternate modes of transportation (bike, walk, transit, carpool, vanpool). Following this implementation, TransOptions will begin an intensive marketing campaign to promote the service throughout northwestern New Jersey. The app will allow users to simply start and stop the tracking of their trip. Because the GoForGood system will be shifting to a mobile and Google Maps based service, TransOptions will be able to collect valuable data about participation, including frequency, general trends and route selection, all of which can be useful to local and regional planners.

SCHEDULE: Challenges are hosted in May and October. Planning for additional but unique events is underway. Marketing efforts will continue throughout the year.

PRODUCT: Challenge-style events with mobile travel-tracker app participation ranging throughout the service area.

SUBJECT: Street Smart NJ Pedestrian Education Campaign

DESCRIPTION: TransOptions will again deliver the Street Smart NJ program into 3 additional towns in FY18. Boonton, New Providence and Newton are the target locations. While much of TransOptions' Street Smart work falls under their NJTPA work program, additional support comes from the New Jersey Division of Highway Traffic Safety and the Safe Routes to School program. The expansion into the three towns will include surveying, observational analysis, stakeholder outreach, increased enforcement from police, and educational programs such as TransOptions' Traffic Safety Town and Senior Pedestrian and Driving programs. TransOptions will expand its Street Smart activities in FY18 to provide training to TMAs and other stakeholders such as police departments, community groups and business groups to assist them in their program delivery.

SCHEDULE: Work in the three towns and the training efforts will be spread throughout the fiscal year.

PRODUCT: Completed Street Smart NJ educational and enforcement program and final reports for each municipality as well as training sessions for TMAs and other stakeholders.

SUBJECT: Safe Routes To School "Learn to Walk and Roll" and Bike Drivers' Ed

DESCRIPTION: TransOptions will offer two new programs in FY18. Both "Learn to Walk and Roll" and Bike Drivers' Education have been piloted and launched in FY17 and are available as part of the Safe Routes program offerings. "Learn to Walk and Roll" teaches young students the basics of road user interaction in a "choose your story" style classroom activity. Bike Drivers' Ed teaches students the basics of road riding and how to safely operate a bike like a vehicle.

SCHEDULE: Programming will be offered to schools throughout the school year.

PRODUCT: Free educational bike and pedestrian safety training for youth that incorporates multiple curriculum goal areas.

SUBJECT: Mack-Cali Parsippany Corporate Campus Shuttle

DESCRIPTION: TransOptions plans to continue efforts to start a shuttle service in the multi-tenant office park at the Routes 10 and 202 intersection. An innovative funding measure is being devised by TransOptions and Mack-Cali staff to treat shuttle transportation as an amenity of the campus. The shuttle would be available to all tenants and the price would be shared through common area charges, much like landscaping and snow removal is treated currently.

SCHEDULE: No implementation date has been determined as of yet, but conversations are ongoing.

PRODUCT: New and sustainable shuttle service for the corporate office park in Parsippany.

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

FY 2018

**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.

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 NJ-JARC grant, and is a partnership between Atlantic County, NJ TRANSIT, SJTA and Cross County Connection.

SCHEDULE:

This shuttle operates six days per week from approximately 7:00 AM to 8:00 PM.

PRODUCT:

A deviated fixed route service providing frequent connections with NJ TRANSIT bus services six days per week.

SUBJECT: Rt. 54/40 Community Shuttle

DESCRIPTION:

This shuttle operates between Hammonton and Richland in Atlantic County and began operations January 2016. The 30 mile route includes rural communities in the municipalities of Buena Vista and Buena and is designed to enable residents of rural areas to reach employment opportunities in Hammonton, Vineland and other regional destinations via connections with NJ TRANSIT. The shuttle connects with two NJ TRANSIT bus routes and the Atlantic City Rail Station in Hammonton, enabling passengers to reach employment opportunities in Vineland, Atlantic City, Camden County and Philadelphia. The shuttle service is fare free and is funded by the Pascale Sykes Foundation and a 5311 grant through NJ TRANSIT. The Rt. 54/40 shuttle is a partnership between Atlantic County, SJTA, the Pascale Sykes Foundation, NJ TRANSIT, community members, municipal representatives and Cross County Connection.

SCHEDULE:

This shuttle operates five days per week from 6:15 AM to 11:00 AM and 3:00 PM to 8:00 PM.

PRODUCT: A deviated fixed route service providing connections with NJ TRANSIT bus and rail services five days per week.

SUBJECT: Pureland East-West Community Shuttle

DESCRIPTION:

This shuttle operates in Gloucester County and travels along the Route 322 Corridor between the Avandale Park and Ride and the Pureland Industrial Complex, and serves numerous communities in Williamstown, Glassboro, Mullica Hill and Swedesboro. The shuttle began operations June 2015, and serves residential complexes, retail centers, and approximately 150 employers in the Pureland Industrial Complex. This service connects with 12 NJ TRANSIT bus routes, enabling passengers to reach employment opportunities throughout Gloucester and Camden counties and Philadelphia. A reciprocal transfer agreement between the shuttle service and connecting NJ TRANSIT buses enables passengers to ride both systems at a reduced fare. A one-way trip on the shuttle costs \$1.00. The services also includes an internal circulator that travels solely within the Pureland Industrial Complex (3,000 acres) to serve as a “last mile” connector between the Pureland East-West shuttle and NJ TRANSIT’s 402 bus. The shuttle service is funded by the Pascale Sykes Foundation and NJ- JARC grant, and is a partnership between the United Way of Gloucester County, Gloucester County, SJTA, the Pascale Sykes Foundation, NJ TRANSIT, The Heart of Gloucester County, and Cross County Connection.

SCHEDULE:

This shuttle operates five days per week from 5:00 AM to 11:00 AM and 1:00 PM to 7:30 PM.

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

SUBJECT: CHSTP Visualization Tool

DESCRIPTION: Cross County Connection will continue to refine an interactive mapping tool to visualize transportation services, building upon the pilot visualization tool initiated in FY17. The expanded tool will include fixed route transportation and human services destinations in NJTPA’s 13 counties.

SCHEDULE: The Visualization Tool will be populated with data upon receipt of data from NJTPA, VTC, TMAs and other organizations. The data population and technical specifications for the handoff will be completed by 6/30/18.

PRODUCT: Visualization tool, including technical specifications, populated with fixed route transportation services and human services destinations for 13 counties. Tool will be handed off to NJTPA.

CONTACT: William Ragozine,
Executive Director

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AGENCY: MEADOWLINK

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: 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.

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

DESCRIPTION: In partnership with Passaic 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.

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 and provides service from 7 am to 10 am and from 3 pm to 8 pm.

PRODUCT: High frequency shuttle service between the train station and the residential/business community in Monmouth County.

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.

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

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

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: 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 to 10am and from 4pm to 8pm Monday through Friday.

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

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 to 10am and 4pm to 8:30pm.

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

SUBJECT: Challenger Road Shuttle Service

DESCRIPTION: The service is funded by the Federal Transit Administration's (FTA) Job Access & Reverse Commute (JARC) program and The KABR Group. The shuttle connects four buildings on Challenger Road in Ridgefield Park with the Secaucus Junction Train Station.

SCHEDULE: The program was launched in November 2015. It operates Monday through Friday during peak commuting hours.

PRODUCT: High frequency shuttle service between Secaucus Junction Train Station in and businesses at the Challenger Road Corporate Park in Ridgefield Park.

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 Tonelle Avenue and the Journal Square Transportation Center in Jersey City.

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

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

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.

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.

Harmon Cove. Free to employees.

SUBJECT: Kearny Commuter Shuttle

DESCRIPTION: The shuttle services local residents along Ridge Road and Kearny Avenue in North Arlington and Kearny, and links them to the PATH station at Harrison.

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.

SUBJECT: Kearny Loop Shuttle

DESCRIPTION: Meadowlink launched the service to link local businesses and residents along Bergen County Avenue and Harrison Avenue in Kearny with the PATH station in Harrison.

SCHEDULE: The program was launched in October 2015. The service operates from 6 am to 10 am and from 4 pm to 8 pm. One-way fare is \$1.50.

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

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.

SUBJECT: Montclair Senior Shuttle

DESCRIPTION: Meadowlink operates the senior shuttle service for the town of Montclair. The shuttle provides rides for seniors to popular destinations within the town, such as the library, HUMC Hospital, YMCA, Edgemont Park House, Wally Choice Center and ShopRite-Brookdale. Reservations are required to be made 48 hours in advance.

SCHEDULE: The program was launched on February 1, 2017. Service operates weekdays from 8:30 am to 4:00 pm

PRODUCT: Shuttle service for Monclair residents aged 55 and over, and residents with disabilities.

CONTACT: Krishna Murthy

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AGENCY: RIDEWISE TMA

SUBJECT: Demand Responsive Rideshare Program

DESCRIPTION: RideWise plans to introduce an on-demand last mile solution at the Somerville Rail Station to connect rail riders with nearby employment sites. The service will utilize software that allows rail or bus travelers to reserve a seat via an Android APP, an iOS APP, a mobile website, a desktop website or a phone call during business hours. Commuters will set up an account and reserve a seat on a presubscription or an ad hoc basis, even with as little as a few minutes' notice if seats are available. The software will "match" passengers traveling to similar or nearby locations with the appropriate vehicle/driver. The matched passengers will share the trip cost for a flexible affordable last mile connection. This service will be offered to/from employment destinations that are within a 3-mile radius of the Somerville rail station.

SCHEDULE: The service will be provided during peak commute hours from approximately 7:00 a.m. to 9:30 a.m. and 4:30 p.m. to 7:00 p.m, Monday to Friday. The program is under development and scheduled for implementation in the fall of 2017.

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

SUBJECT: RideConnect

DESCRIPTION: This program provides non-emergency, door-to-door rides for medical and social/quality of life transportation to senior citizens and residents with disabilities. Passengers can schedule rides with a screened, professional driver for door-to-door service to the grocery store, hair salon, bank, post office, pharmacy, doctor appointments, work, and social/recreational trips. The program was temporarily discontinued in July 2016 after the third party vendor that was providing rides abruptly quit. The TMA plans to acquire vehicles and drivers to restart the service in the fall of 2017.

SCHEDULE: The program is under development and scheduled to restart in the fall of 2017.

PRODUCT: Subsidized, on-demand rides for senior citizens and individuals with disabilities..

CONTACT: Donna Allison

Phone: (908) 704-1011

Email: donna@ridewise.org

AGENCY: TRANSOPTIONS

SUBJECT: Mack-Cali Parsippany Corporate Campus Shuttle

DESCRIPTION: TransOptions plans to continue efforts to start a shuttle service in the multi-tenant office park at the Routes 10 and 202 intersection. An innovative funding measure is being devised by TransOptions and Mack-Cali staff to treat shuttle transportation as an amenity of the campus. The shuttle would be available to all tenants and the price would be shared through common area charges, much like landscaping and snow removal is treated currently.

SCHEDULE: No implementation date has been determined as of yet, but conversations are ongoing.

PRODUCT: New and sustainable shuttle service for the corporate office park in Parsippany.

CONTACT: John F. Ciaffone

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AGENCY: BERGEN COUNTY COMMUNITY TRANSPORTATION DEPARTMENT

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: THIS SERVICE WAS DISCONTINUED AS OF MARCH 2015

PRODUCT:

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.

SCHEDULE: The Shuttle operates hourly Monday thru Friday while school is in session.

PRODUCT: This project began in October of 2013 with a CMAQ Grant. The Grant expired in the fall of 2016. The project is continuing thru an agreement between the county and the college sharing the cost of the operation.

SUBJECT: Bus & Rail Transit Connection

DESCRIPTION: This service will be open to the general public and connect the County Complex, Hackensack Bus Station, Essex Street Train Station, and Hackensack Medical Center as well as down town shopping centers.

SCHEDULE: The Bus & Rail Transit Connection will consist of three buses running Five Days a Week for a total of Twelve Hours a day except when the County is closed.

PRODUCT:

CONTACT: Michael Policastro

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Email: Mpolicastro@Co.Bergen.nj.us

E-Mail: erondello@co.bergen.nj.us

AGENCY: GREATER MERCER TMA

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.

CONTACT: Cheryl Kastrenakes

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

FY 2018

**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

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 2013-2017

PRODUCT: Implementation Plan

CONTACT: Christopher E. Helms, P.P., AICP
Bergen County Department of Planning & Economic Development
Phone: 201-336-6443
Email: chelms@co.bergen.nj.us

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. This is being coordinated with the Adaptive/Intelligent Signal Program through the TCAM Program.

SCHEDULE: Survey and Corridor Study commenced in 2015 (survey contract awarded 8/19/15), work on survey was completed by the end of 2016. The survey plans, utilities, and other related CAD files are currently under review by the County. Additional work may be required. Advancing the project is under review by the County Administration as is finalizing the general shared services agreement with the City of Hackensack.

PRODUCT: Corridor Survey and Circulation Plan

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

SUBJECT: Preliminary Engineering 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. Complications arising from the recently announced Concept Development Study for the I-80 widening has impacted this project and solutions are being sought together with the NJDOT. A meeting with the NJDOT to discuss the I-80 widening over the County Bridge took place in January 2017.

SCHEDULE: Preliminary Engineering contract awarded in 2017.

PRODUCT: Preliminary Engineering Plans

CONTACT: Joseph Femia, County Engineer
Bergen County Department of Public Works
Phone: 201-336-6808
Email: JFemia@co.bergen.nj.us

AGENCY: CITY OF JERSEY CITY
DIVISION OF ARCHITECTURE, ENGINEERING, AND TRAFFIC DIVISION OF
CITY PLANNING

SUBJECT: Route 440/Routes 1&9T Multi-Use Urban Boulevard Concept
Development Supplement

DESCRIPTION: This project will undertake additional tasks required for the successful completion of the NJDOT Concept Development phase so that the preferred alternative can be advanced to Preliminary Engineering.

The preferred alternative for the Route 440/Routes 1&9T urban boulevard will be developed by refining the locally-preferred alternative (LPA) identified by the 2011 Concept Development Study based on the findings of a Value Engineering workshop held during March 2015. This preferred alternative will satisfy the goals achieved by the LPA but improve on the boulevard concept by incorporating cost-saving techniques and additional engineering analysis. This project will also include stakeholder outreach.

SCHEDULE: It is anticipated that the Concept Development Supplement will be complete by the end of 2016.

PRODUCT: Concept Development Supplement report that includes a description of the preferred alternative for the Routes 440/1&9T urban boulevard, the methodology used to arrive at the preferred alternative, identified cost savings, and a summary of stakeholder outreach.

CONTACT: Naomi Hsu, Senior Planner - Transportation
Division of City Planning
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AGENCY: MIDDLESEX COUNTY

SUBJECT: Middlesex County Bicycling Atlas

DESCRIPTION:

Reference guide that will provide the bicycling public with both a printed and web based document with information about the suitability of important roadways throughout the county for bicycling including the identification of bicycle paths and trails found within public parks and open spaces.

This project will help encourage the reduction in automobile use, the improvement of public health through increased outdoor activities, and the betterment of environmental conditions. We will be working with municipal officials in Middlesex County to provide information in the Bicycling Atlas that will include:

- Existing bicycling routes and designated bike lanes on roadways;
- All roadways with bicycling-related signage, striping, and other “share-the-road” road pavement markings or similar;
- Existing off-road bicycling paths and trails on municipally-owned properties (e.g. parks and open space);
- Other public bicycling accommodations and facilities, including racks, lockers, or shelters situated on municipally-owned properties or public school properties; and/or,
- Municipal bicycle, pedestrian or transportation plans, studies or master plan elements.

This document will also provide valuable assistance in the future update of the Middlesex County Bicycle – Pedestrian Plan component of the County Comprehensive Master Plan.

SCHEDULE: Completion FY 2017 – 2018

PRODUCT: *Middlesex County Bicycling Atlas*

CONTACT: Anthony Gambilonghi, Transportation Division Supervisor
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AGENCY: MONMOUTH COUNTY

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 completion FY 2017 – 2018

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

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: Segment 1 Final Design FY 2016 – 2018

PRODUCT: Final Design and Construction Documents for improvements to Segment 1 of CR 3 and associated bridge, traffic signal and drainage improvements.

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 2016 – 2018

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

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 address congestion, roadway capacity, system linkage, geometric deficiencies, projected transportation demands, environmental and traffic safety concerns.

SCHEDULE: Segment 1 Final Design FY 2017 – 2019

PRODUCT: Final Design and Construction Documents for improvements to Segment 1 of CR 14 and associated traffic signal and drainage improvements.

SUBJECT: Improvements to Three Brooks Road and Reconstruction of Bridges F-26, F-27 and F-28, Freehold Township

DESCRIPTION: Improvements to Three Brooks Road for the operational safety of the roadway and reconstruction of three County bridges along the roadway improvements.

SCHEDULE: Preliminary Engineering & Final Design FY 2017 – 2019

PRODUCT: Final Design and Construction Documents for improvements to Three Brooks Road and reconstruction of three bridges.

SUBJECT: Reconstruction of Bridge S-14, Swimming River Road, Tinton Falls Borough

DESCRIPTION: Reconstruction of Bridge S-14 and its approach roadway.

SCHEDULE: Preliminary Engineering & Final Design FY 2017 – 2018

PRODUCT: Final Design and Construction Documents for the replacement of Bridge S-14 and associated improvements at its approaches.

SUBJECT: Reconstruction of Bridge MS-48, Perrineville Road, and Rehabilitation of Perrineville Dam, Millstone Township

DESCRIPTION: Reconstruction of Bridge MS-48 and the rehabilitation of Perrineville Dam

SCHEDULE: Preliminary Engineering & Final Design FY 2017 – 2018

PRODUCT: Final Design and Construction Documents for the replacement of Bridge MS-48 and rehabilitation of Perrineville Dam.

CONTACT: Joseph Ettore, P.E.
County Engineer
Monmouth County Engineering Department
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AGENCY: CITY OF NEWARK

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 December 2016 (Consultant: Parsons Brinckerhoff, Inc.)

PRODUCT: Final Design and Construction Documents

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 2016 (Consultant: Michael Baker, Inc.)

PRODUCT: Final Design and Construction Documents

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 June 2017

PRODUCT: Final Design and Construction Documents

SUBJECT: NJ DOT Local Bicycle Pedestrian Planning Assistance Program:
BikeIronbound

DESCRIPTION: BikeIronbound is a bicycle circulation plan developed for Newark's Ironbound Neighborhood. The plan identifies bicycle routes as well as facility type. These routes provide circulation and connection to destinations within the Ironbound as well as connection to Newark Penn Station,

Downtown Newark and Port Newark and industrial areas to the east. The plan will result in several demonstration projects and will increase access, mobility and choice for commuters and residents.

SCHEDULE: Project start date: April 2015/ Anticipated end date: April 2016

PRODUCT: Bicycle master plan for Newark's Ironbound neighborhood, will include recommendations for bike routes, facility type and bicycle parking locations and two demonstration projects.

SUBJECT: NJ DOT Local Aid Bikeway Program: Station to Station Bike Connection

DESCRIPTION: Design and build phase 1 of a separated bikeway connection between Newark Penn Station and Broad Street Station. This connection will facilitate a safe and clearly marked bicycle connection between Newark's two regional rail stations. The route will pass through Downtown Newark and the Rutgers University campus providing bicyclists with many origin and destination points along the route.

SCHEDULE: Project start date: January 2016/ Anticipated end date: December 2017

PRODUCT: Completion of phase 1 of a fully separated on street bicycle route between Newark Penn Station and Broad Street Station.

CONTACT: Jack M. Nata, Manager
City of Newark, Division of Traffic and Signals
Phone: (973) 733-3985
Email: nataj@ci.newark.nj.us

AGENCY: OCEAN COUNTY

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.

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.

CONTACT: John Ernst, Ocean County Director of Engineering
Phone: 732-929-2130
Email: jernst@co.ocean.nj.us

AGENCY: PASSAIC COUNTY PLANNING DEPARTMENT

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.

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.

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.

CONTACT: Michael Lysicatos AICP, PP – Senior Planner
Phone: 973.569.4047
Email: mlysicatos@passaiccountynj.org

AGENCY: SOMERSET COUNTY

SUBJECT: Davenport Street Extension (DB 06378)

DESCRIPTION: State and local development plans have focused on Somerville 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 2017.

PRODUCT: Final Design and Construction.

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 2016 and Preliminary Engineering in FY 2018

PRODUCT: Concept Development and Preliminary Engineering.

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 2017.

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

CONTACT: Walt Lane, Somerset County Planning Board
Phone: 908-231-7178
Email: lane@co.somerset.nj.us

AGENCY: WARREN COUNTY

SUBJECT: Route 31 Shuttle to the Clinton Park and Ride

DESCRIPTION: The County was awarded the grant application to start shuttle service in Oxford Township. It then continues on to the second Park and Ride in Washington Twp. The third shuttle stop is located in Washington Borough at a private lot that was loaned to the county. There are additional stops at the Hawke Pointe Shop Rite and the Glen Garner Post Office but these must be called into Easton Coach in advance as they are not regular stops on the route. The shuttle ends its run at the Clinton Park and Ride located at the intersection of SR 31 and I-78. This park and ride lot is always filled early in the morning and while there is no problem adding more buses, there is just no place for people to park. Additional parking lots have been added and the demand is so great they also fill up early. We believe the demand is there to run this shuttle service and make stops along SR 31 South in the morning to get riders to the Clinton Park and Ride and then return them in the evening. We are constantly working to advertise the shuttle on the radio, in local newspapers, with posters hung in these municipal buildings and also with our website 31ride.com. This website has all the information you need to ride the shuttle. It also has phone numbers should you want additional information.

SCHEDULE: Shuttle would run Monday through Friday in the A.M. and P.M. peak hours. It would also make a mid-day shuttle run.

PRODUCT: State Route 31 Shuttle that starts in Oxford, Warren County and ends at the Clinton Park and Ride in Clinton at the intersection of SR 31 and I-78. It makes several stops along SR 31 and additional stops which are call ahead or demand response stops.

SUBJECT: Warren County Transportation Technical Study Update

DESCRIPTION: This is a comprehensive update to many technical studies the county has completed. The goal is to look at these studies and refresh the data that is contained in each study and look to see which projects are worth doing. Many of these studies have been impacted by the Highlands Act so we may be limited to what we accomplish with these new environmental restrictions. The study will also give us an idea of which projects are the least costly to implement. This would allow us to complete the less costly ones first with funding from NJDOT.

SCHEDULE: The RFP was posted and we are in the process of reviewing the RFP's we received. From there we will select the best proposal based on scores received from our scoring committee. Work will begin shortly after that.

PRODUCT:

The Technical Study Update is designed to refresh the many studies the department has undertaken. Ultimately we will also be doing an update to our transportation plan that is old and needs to be updated

CONTACT:

Brian Appezzato, Senior Planner
Warren County
Phone: 908-475-6584
Email: bappezzato@co.warren.nj.us

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

FY 2018

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

SECTION II

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

PLANNING

SPR-C00S(983)

**CAPITAL INVESTMENT, PLANNING
and GRANT ADMINISTRATION**

STATE PLANNING AND RESEARCH PROGRAM, 2017 - 2018

ACTIVITY: Performance-based Planning and Asset Management – 4510017 / 5900
MANAGER: James B. Lewis
UNIT: Statewide Strategies

VISION:

NJDOT is a national leader in performance-based planning (PBP) and asset management (AM). NJDOT implements transportation improvements and multimodal strategies 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 and risks at various levels (agency/enterprise, program and project risks), i.e. results of environmental conditions such as resiliency with regard to extreme weather and climate change, in concert so multiple transportation objectives are advanced in a transparent and most effective manner, while making progress toward national performance goals as required by MAP-21 and the FAST legislation. This would include the project delivery process; STIP, SCIS and NJDOT CIS; transportation asset management plans for physical infrastructure assets including structures, pavements, drainage, etc.; 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, etc.

- A. 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. Bridge Resource Program
6. Straight Line Diagrams
7. Digital Roadway Imaging and Video Data
8. Transportation Data Warehouse and Maintenance
9. Transportation Systems Information Management and Data Integration
11. Traffic Monitoring System – Traffic Volumes Data Collection
12. Traffic Monitoring System – Database Maintenance
13. Traffic Monitoring System – Truck Weights
14. Traffic Monitoring System – Infrastructure Renewal
15. Functional Classification System and Federal Aid System
16. Highway Performance Monitoring System
17. Transportation Systems Management and Operations

Activities with some PBP/AM elements include:

- Statewide Planning
- Transportation and Livable Communities
- Technical Analysis
- Goods Movement

STATE PLANNING AND RESEARCH PROGRAM, 2017 - 2018

ACTIVITY: Performance-based Planning and Asset Management – 4510017 / 5900
MANAGER: James B. Lewis
UNIT: Statewide Strategies

MISSION (continued):

- Environmental Resources
- TIP/STIP Preparation
- TSRC
- Technology Transfer and Implementation
- LTAP
- Maintenance Decision Support
- TSM&O/ITS

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.

- B. Enhance NJDOT's Performance and Inventory Information Center by updating and maintaining the internal repository of key performance information and inventory data used by staff for response to requests from the public and outside entities about the condition of our roads and bridges, fatalities, congestion on our roads, programs, services, and other key information. The repository is primarily used for the dissemination of consistent information to the general public via an internal webpage. The information primarily consists of data reported and maintained on the Governor's Performance Center.
 - a. Routinely update on a quarterly basis, or as needed, working with units such as Budget, Communications and management system owners and SMEs.
 - b. Respond to specific requests from staff or refer to SMEs for more detailed requests or additional information and context.
 - c. Collaborate with a core group of units including, Budget, Communications and IT, to provide enhancements to the performance/inventory information center intranet webpage.
- C. Begin an update of the Statewide Long-Range Transportation Plan (SLRTP). 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 and the FAST legislation.
 - a. Review applicable MAP-21/FAST final rules for Statewide Planning for statewide plan requirements and conceptualize a 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. The TAMP will also serve as a basis to inform many of the SLRTP's components, i.e. the transportation system assessment.
 - 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 vision, mission and 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 use of our website and in collaboration with NJ TRANSIT and the MPOs

STATE PLANNING AND RESEARCH PROGRAM, 2017 - 2018

ACTIVITY: Performance-based Planning and Asset Management – 4510017 / 5900
MANAGER: James B. Lewis
UNIT: Statewide Strategies

GOALS/ACTIVITIES:

1. Manage and coordinate the preparation of the NJDOT Transportation Asset Management Plan (TAMP) in line with MAP-21/FAST Act requirements. The TAMP will require consultant assistance under a consultant contract for this activity. The following activities are also associated with the development of the TAMP:
 - a. 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. In addition to the collaborative efforts on the development of MAP-21 performance measures reporting, these entities will also collaborate with NJDOT on target-setting for both the state and MPO targets for bridge and pavement assets.
 - b. 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.
 - c. Continue work the MPOs to assist them in developing an asset management based prioritization process for programming federal funds for county bridges.
 - d. Continue to identify innovative strategies for how technology can be utilized to keep NJ assets in a state-of-good repair.
 - e. Collaborate with various units and initiatives to identify how technology can support PBP/AM and enhance project delivery.
2. Begin preparation of the Statewide Long Range Transportation Plan (SLRTP) in accordance with MAP-21/FAST legislation.
3. Prepare draft high level NJDOT investment strategy/plan (NJDOT CIS) and the SCIS supported by performance information. Support MPO development of performance-based regional capital investment strategies drawing from the SCIS.

ANTICIPATED ACCOMPLISHMENTS FOR CALENDAR YEAR 2017:

1. Draft NJDOT's TAMP, with consultant assistance and collaboration from the MPOs, counties, independent transportation authorities and federal partners.
2. Presentations to Asset Management Steering Committee.
3. Strategy for assessing county pavement condition and prioritizing county pavement improvements.
4. MPO established an asset management based prioritization process for programming federal funds for county bridges.
5. Integrate technology, and operational (TSM) and innovative strategies that support PBP/AM into an enhanced project delivery process.
6. Completion of conceptual work plan and outline for potential tasks for the SLRTP.
7. Draft high-level investment strategy/plan, NJDOT CIS, in collaboration with the update of the SCIS.

STATE PLANNING AND RESEARCH PROGRAM, 2017 - 2018

ACTIVITY: Performance-based Planning and Asset Management – 4510017 / 5900
MANAGER: James B. Lewis
UNIT: Statewide Strategies

CONTRACTS:

Existing multi-year contract:
C00S(970) - NJDOT Transportation Asset Management Plan, \$925,383.81, previously authorized.

No new contracts.

TRAVEL:

Projected for Year 2: Attendance for 3 NJDOT employees to the National Asset Management Conference, July 15-17, 2018 in San Diego, CA—details TBD. Estimated cost \$5,400 for 3 attendees based on cost of prior conference attendance for 1 staff person from Statewide Strategies in 2016 to Denver, C--approximately \$1,800 (Registration \$530, Air Fare \$325, Hotel \$640, Meals \$285). Recommend staff representation from Statewide Strategies, Pavement Management and Structural Bridge Evaluation & Management attend the event in 2018 so the infrastructure SMEs are also able to participate to share and gain valuable insights and information on the subject.

EQUIPMENT:

None.

STAFFING:

Danielle Graves, Project Manager	0.75 PY
Nazhat Aboobaker, Principal Engineer	1.00 PY
Joseph Burdulia, Senior Planner	0.50 PY
Bassey Onyile, CET	1.00 PY

STATE PLANNING AND RESEARCH PROGRAM, 2017 - 2018

ACTIVITY: Transportation and Livable Communities – 4510017 / 5400
MANAGER: James B. Lewis
UNIT: Bureau of Statewide Strategies

VISION:

NJDOT plays a leading role in providing long-term sustainable and context sensitive solutions to transportation problems, in collaboration with our federal partners, other state agencies and transit entities, 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 that ultimately create livable economically-thriving communities.

MISSION:

To maximize the efficiency of the transportation system statewide and in local communities by employing such initiatives as Transit Village designation and access management planning 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 Partnership for Sustainable Communities' six livability principles, as well as the federal emphasis areas including Regional Models of Cooperation and Ladders of Opportunity.

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, along with requirements of federal legislation (FAST Act and MAP-21).
 - 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, county and local governments and the public about federal, regional and statewide Smart Growth, Sustainable Transportation and Livable Communities endeavors including implementation of the Together North Jersey Regional Plan for Sustainable Development, through interagency coordination, information and resource distribution and activities of the Department's State Plan/Smart Growth Implementation Team (I-Team).
 - c. Improve the existing process 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 anticipated 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.
 - e. 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).

STATE PLANNING AND RESEARCH PROGRAM, 2017 - 2018

ACTIVITY: Transportation and Livable Communities – 4510017 / 5400
MANAGER: James B. Lewis
UNIT: Bureau of Statewide Strategies

GOALS/ACTIVITIES: (continued)

2. 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 potential applicants and regularly coordinate with existing designated Transit Villages.
3. Develop an enhanced State Highway Access Management Code (SHAMC) that contains provisions and planning elements that support New Jersey's smart growth and livability goals and objectives to ensure consistency with policies and strategies of the SDRP/SSP and Statewide Long Range Transportation Plan (SLRTP), which reiterate federal requirements and national priorities.
 - a. Advance recommendations from the New Jersey Access Code Reevaluation Study, such as transit trip credits and a Main Street designation process.
 - 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 about 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 Optional Traffic Signal Location Plans and Access Management Plans.
 - d. Evaluate requests and provide recommendations on changes to access classifications as permissible in the Code's subchapter on "Procedure for Changes in Classification" and consistent with State policies and direction.
 - e. Review and provide DTS determinations to NJDOT Right of Way unit and NJ State Agricultural Development Committee on Excess Parcel and Farmland Preservation inquiries/requests.
4. Develop Access Management Plans 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 MPOs 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 New Jersey statute.
5. Collaborate with federal and state agencies, NJ Transit, MPOs, counties, municipalities, and regional stakeholders to develop, recommend and advance viable transportation improvements that encourage innovative technology and implement context sensitive multimodal strategies and solutions as a result of planning/corridor studies and non-transportation initiatives that support the SLRTP, SDRP, MTPs, Complete Streets policies, The Connected Corridor, etc., and federal sustainability and livability initiatives.
 - a. Participate in and evaluate planning and corridor studies and problem statements recommending multi-modal strategies for the Department's problem intake phase of the project delivery process.

STATE PLANNING AND RESEARCH PROGRAM, 2017 - 2018

ACTIVITY: Transportation and Livable Communities – 4510017 / 5400
MANAGER: James B. Lewis
UNIT: Bureau of Statewide Strategies

GOALS/ACTIVITIES: (continued)

- b. Provide staff resources to participate in MPO, county and municipal-led initiatives, serving as members of technical evaluation/advisory committees, for the development of feasible problem statements that lead to sustainable transportation projects.
- c. Partner with MPO, local entities and various regional stakeholders to advance priorities that achieve sustainable livable communities. Provide staff resources to serve as liaison to the Central Jersey Transportation Form (CJTF), which is an example of one of the federal emphasis areas and the Every Day Counts (EDC) initiative

ANTICIPATED ACCOMPLISHMENTS FOR CALENDAR YEAR 2017:

- Coordination of NJDOT's Smart Growth Implementation Team (I-Team) activities to foster sustainable transportation and community livability elements 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 sponsored field visit to localities with smart growth, sustainability and livability potential or achievements.
- Contribution of transportation and land use integration perspective to any outstanding Plan Endorsements of municipalities by the State Planning Commission.
- Performance of any required Department activities associated with the current or future SDRP/SSP.
- 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 progress of existing designated Transit Villages through a state-funded consultant effort to highlight accomplishments of the 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 Plan implementation as appropriate.
- Preparation of Route 34/Colts Neck AMP revisions for publication in the NJ Register.
- Participation in the NJTPA Connectivity Study.
- Advancement through the State of New Jersey's rulemaking process the revised NJ SHAMC, including Appendix B changes/corrections and revised subchapter on "Procedures for Changes in Classification".
- Advancement of proposals for inclusion of Transit Trip Credit and Main Street provisions in NJ 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.
- Make deliberative recommendations on access classification/DTS change requests resulting from procedures in the SHAMC and advancement to rulemaking proposed amendments to access classification/DTSs in Appendix B of the Code.
- Reviews, determinations and responses to requests on Excess Parcel and Farmland Preservation inquiries related to the DTS in Appendix B.
- Represent the Department, as requested, on federal, state and local planning initiatives.

STATE PLANNING AND RESEARCH PROGRAM, 2017 - 2018

ACTIVITY: Transportation and Livable Communities – 4510017 / 5400
MANAGER: James B. Lewis
UNIT: Bureau of Statewide Strategies

ANTICIPATED ACCOMPLISHMENTS FOR CALENDAR YEAR 2017: (continued)

- Advancement of planning initiatives and/or projects from the RTIRGS vision championed by the CJTF, i.e. Central Jersey/Route 1 BRT project w/NJ TRANSIT.
- Actively participate in MPOs subregional efforts upon request, in an effort to facilitate NJDOT subject matter expertise and collaboration with locals.

CONTRACTS:

None.

TRAVEL:

Mileage - \$75.00
Travel - \$168.00
Conferences/Training - \$150

EQUIPMENT:

None anticipated.

STAFFING:

Susan Weber, Supervising Transportation Analyst	1.00 py
LeRoy Gould, Principal Planner, Transportation	1.00 py
Andrew Clark, Senior Planner, Transportation	1.00 py
Richard Rabinowitz, Planner, Transportation	1.00 py
Danielle Graves, Project Manager	0.25 py
Joseph Burdulia, Senior Planner, Planning	0.50 py
Thomas Houck, Planner, Planning	1.00 py

STATE PLANNING AND RESEARCH PROGRAM, 2017 - 2018

ACTIVITY: Metropolitan Planning Organization (MPO) Liaison - 4510017 / 5690
MANAGER: James Lewis
UNIT: Statewide Strategies

VISION:

New Jersey's three MPOs will undertake regional planning and data collection that is coordinated with the NJDOT, as well as adjoining MPOs, that 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 MPO annual work programs to FHWA and FTA for approval.
 - c. Secure federal authorization for annual work programs prior to June 30th.
 - d. Submit MPO regional transportation plans, conformity determinations, and self-certifications to FHWA, FTA, and EPA consistent with approval schedule.
 - e. 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.
 - 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.

STATE PLANNING AND RESEARCH PROGRAM, 2017 - 2018

ACTIVITY: Metropolitan Planning Organization (MPO) Liaison - 4510017 / 5690
MANAGER: James Lewis
UNIT: Statewide Strategies

GOALS/ACTIVITIES: (continued)

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.

ANTICIPATED ACCOMPLISHMENTS FOR CALENDAR YEAR 2017:

- Maintain the schedule outlined in the Mutual Service Standards.
- Assist the MPOs with the transition to performance-based planning as per MAP-21/FAST.
- Strive for federal agreements to be closed within three years.

CONTRACTS:

None

TRAVEL:

TRB Annual Conference, Washington, DC. January 8-12, 2017
- Total cost: \$1,700.

EQUIPMENT:

None

STAFFING:

<u>Name</u>	<u>Title</u>	<u>Person Years</u>
Monica Etz	Supervising Planner, Transportation	1.00
Uzoma Anukwe	Planner, Transportation	1.00
Cherie Shreve	Contract Administrator 2	.50
	Total PY	2.50

STATE PLANNING AND RESEARCH PROGRAM, 2017 - 2018

ACTIVITY: Transportation Air Quality/Travel Demand Modeling Program – 4510017 / 5970
MANAGER: James Lewis
UNIT: Bureau of Statewide Strategies

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. To assist the NJDOT make use of CMAQ funds as efficiently and cost effective as possible.

GOALS/ACTIVITIES:

1. Update the unit's technical toolbox.
 - a. Keep the unit's computers updated with the latest versions of MOVES and Cube (ongoing)
 - b. Updated Statewide Model network/trip tables with latest MPO model updates by December 2017.
 - c. Add automation features to the Statewide Model including growth rates and data summary tables by December 2017.
 - d. Explore adding Transportation Economic Modeling capabilities to the unit's technical toolbox by December 2017.
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 benefit/cost analyses of transportation and air quality projects.
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. Participate in/support the multi-state Transportation Climate Initiative (TCI) as needed
 - 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 a CMAQ tracking database accessing multiple NJDOT databases
 - b. Assist in development of NJDOT CMAQ strategy to maximize air quality benefits
 - c. Develop the air quality benefits piece for the Department's annual CMAQ report.
 - d. To assist (when needed) in requesting funds and managing CMAQ projects.

STATE PLANNING AND RESEARCH PROGRAM, 2017 - 2018

ACTIVITY: Transportation Air Quality/Travel Demand Modeling Program – 4510017 / 5970
MANAGER: James Lewis
UNIT: Bureau of Statewide Strategies

ANTICIPATED ACCOMPLISHMENTS FOR CALENDAR YEAR 2017:

1. Updated 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.

CONTRACTS:

No federally funded projects expected.

TRAVEL:

None.

EQUIPMENT:

None.

STAFFING:

James DeRose, Section Chief	1.0 py
Charles Grill, Project Engineer, Planning	1.0 py
Total PY	2.0 py

STATE PLANNING AND RESEARCH PROGRAM, 2017 - 2018

ACTIVITY: SPR Program Management – 4510017 / 5395
MANAGER: James B. Lewis
UNIT: Statewide Strategies

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 2017-2018 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.
 - h. Prepare and secure approval and authorizations for Year 2 of CY 2017-2018 program.
2. Close out completed program CY 2015-2016.
 - 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 FAST guidance and rules for changes in planning requirements.
 - b. Scan program implementation and external sources for new opportunities.

ANTICIPATED ACCOMPLISHMENTS FOR CALENDAR YEAR 2017:

- CY 2015-2016 SPR/Management System Work Program Final Reports and close outs.
- CY 2017-2018 SPR/Management System Work Program 6 Month Progress Reports.
- CY 2017-2018 SPR/Management System Work Program Year 2 approval.

CONTRACTS:

None.

STAFFING PLAN:

Cherie Shreve	Contract Administrator 2	.50 py
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STATE PLANNING AND RESEARCH PROGRAM, 2017 - 2018

ACTIVITY: Technical Analysis/Congestion Management – 4510017 / 5700
MANAGER: Andrew Swords, Director
UNIT: Commuter & Mobility Strategies

VISION:

Moving people and goods quickly, efficiently and reliably.

MISSION:

Through multi-organizational collaboration and cooperation, develop measurable, cost-effective and targeted congestion-fighting strategies for New Jersey's highway system that enhances the quality of life for its citizens and supports a vibrant State economy and conserves natural resources.

GOALS/ACTIVITIES:

1. Maintain and Update the Congestion Management System
 - a. Work with NJDOT-IT and NJ OIT to continue updating the recently completed Department's new Congestion Management System (CMS-21) for traffic volume data.
 - b. Support and coordinate with MPOs and other agencies to transition to Performance Based Planning and Programming by fulfilling requests for data available from the newly developed CMS-21.
2. Advance the Congestion Relief Program Problem Statement Development Process
 - a. Revise the Problem Statement Development Process (PSDP)
 - i. Using Process revision example presented at the 5/22/14 Complete Team meeting, members to improve and formalize an overall new and more integrated process.
 - ii. Coordinate with the Smart Growth Management Committee (SGMC) to discuss and consider integration of the Smart Growth Management System into the Problem Prioritization Process of the PSDP.
 - iii. Coordinate with the Complete Team in formally integrating ITS/TSM problem identification/project development into the overall PSDP.
 - iv. Achieve buy-in, total agreement by all stakeholders to the new PSDP version.
 - b. Develop a framework for Problem Area Interchange Identification and Vetting Process
 - i. Meet with Stakeholder group to lay out a general approach.
 - ii. Coordinate with the SGMC, Complete Team and Freight Services to develop a specific, comprehensive process.
 - iii. Achieve buy-in, total agreement by all stakeholders to the new PSDP version.
 - c. Generate problem statements for high need signalized intersections
 - i. Develop problem statements for agreed upon final list of up to 6 signalized intersection locations. **NOTE:** This could be a combination of using the old PSDP and newer version.
 - d. Generate problem statements for problem area interchanges
 - i. Generate manageable short list of project locations.
 - ii. Complete one pilot to test process, including a complete Problem Statement.
 - iii. Develop problem statements for agreed upon final list of up to 3 problem area interchange locations.
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) Problem Statement project scoping screenings.
 - ii. Up to 40 (20 per year) project assessments for CPSC meetings.

STATE PLANNING AND RESEARCH PROGRAM, 2017 - 2018

ACTIVITY: Technical Analysis/Congestion Management – 4510017 / 5700
MANAGER: Andrew Swords, Director
UNIT: Commuter & Mobility Strategies

GOALS/ACTIVITIES: (cont'd.)

- b. Develop 1 annual Statewide Capital Investment Strategy document (SCIS)
 - i. Conduct Capital Program project pool ranking.
 - ii. Develop three to four alternative investment scenarios for the Congestion Relief Program.
 - iii. Make recommendations on appropriate funding levels for each element of the Congestion Relief Program.
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.
 - 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 TSM (Transportation Systems Management) and other Divisions 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. 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 through the Complete Team meetings in developing System Performance Measures and targets, analytical processes and reporting in line with MAP-21 System Performance Measures guidance as per the Final Rule (23 CFR Part 490, Subpart E).
 - i. Through the Complete Team meetings, discuss the System Performance Measures requirements in the NPRM # 3 published on April 22, 2016, submit the comments in the Docket and continue when the Final Rule is effective (on-going).
 - ii. Using the results and recommendations from the NJ Pilot Study, and other work by FHWA and AASHTO, engage the Complete Team to coordinate and collaborate on the development of New Jersey’s strategy for addressing MAP-21 System Performance Measures: the analytical processes, assumptions, targets, and reporting (on-going).
 - iii. Engage the Complete Team and the Department’s Data Development bureau in reconciling the (approximately) 128 miles of NJ’s enhanced NHS network, which is not part of the CMS-21 network, and therefore it lacks traffic volume (and other) data.
 - iv. Develop and execute a proposal to integrate the missing enhanced NHS roadway segments into the CMS-21 tool.
 - v. 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 System Performance Measures.
 - b. Incorporate archived operations data into the Planning Process
 - i. Establish processes for integrating, summarizing and presenting archived operations data for performance-based planning (on-going).

STATE PLANNING AND RESEARCH PROGRAM, 2017 - 2018

ACTIVITY: Technical Analysis/Congestion Management – 4510017 / 5700
MANAGER: Andrew Swords, Director
UNIT: Commuter & Mobility Strategies

GOALS/ACTIVITIES: (cont'd.)

- ii. Develop an annual bottlenecks ranking process on the NJ Interstate Routes and State Routes to enhance annual problem statement development and MAP-21.
 - iii. 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).
 - iv. 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.
 - ii. Develop a companion (or standalone) one page summary document that provides simplified progress reporting in meeting performance goals and targets.
 - 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 travel time reduction, speed increase, etc.
 - 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.
- 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.
 - ii. Provide expert guidance on tools provided, such as CMS-21 (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 Complete Team.
 - i. Meet as needed during the SCIS cycle to develop the Congestion Relief portion of the overall document (as needed).
 - ii. Meet with the Complete Team up to four times a year to report out on congestion relief activities, MAP-21 System Performance Measures, 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. The Archived Operations Data is available from many sources, and I-95 Corridor Coalition’s Partners Using Archived Operations Data Committee is one of them (on-going).
 - d. Participate in the Vehicle Probe Project Suite webinars and provide suggestions and comments to assist UMD staff in further enhancing the tool to meet the needs of regional stakeholders, including the addition of volume data and event data (e.g.; Map-21 System Performance Measures Widgets, incidents, construction, etc.) (on-going).
 - e. Coordinate with other groups, such as the I-95 Corridor Coalition, ITS-NJ and TRANSCOM, to further the collaboration, understanding, sharing and use of archived ops. data, system performance tools and techniques and the communication of results to a wide range of audiences (ongoing).

STATE PLANNING AND RESEARCH PROGRAM, 2017 - 2018

ACTIVITY: Technical Analysis/Congestion Management – 4510017 / 5700
MANAGER: Andrew Swords, Director
UNIT: Commuter & Mobility Strategies

ANTICIPATED ACCOMPLISHMENTS FOR CALENDAR YEAR 2017:

1. Utilize the fully functional CMS-21 that supports project development/evaluation and possibly for the MAP-21 System Performance Measures development and evaluation.
2. A revised Congestion Relief Problem Statement Development Process.
3. Completed vetting process for problem area interchanges.
4. 60 Problem Statement Project Scoping screenings; 20 Project Assessments for CPSC meetings; 1 Capital Investment Strategy document.
5. 4 quarterly meetings with TSM (exact outcomes TBD).
6. Progress innovative solutions to congestion relief, such as a ramp-metering, Integrated Corridor Management (ICM) and adaptive signal control.
7. Contribution to TSM's Strategic Plan through analytical support and congestion relief expertise.
8. Development of a NJ (System Performance) Strategy for addressing the requirements of MAP-21 System Performance Measures final rule. Collaborate with MPOs on target-setting for congestion-related MAP-21 System Performance Measures. Review the System Performance Measures final rule to make sure all comments submitted in the Docket for the NPRM # 3 (23 CFR Part 490, Part E) are addressed and the provisions in the final rule are not affecting the State of New Jersey adversely.
9. In coordination with the MPO's and other State agencies, incorporation of archived operations data (speed and incident data) into the planning process.
10. Institute a Project Assessment Program for congestion relief projects.
11. Participate in MPOs CMP Advisory Committee, coordinate and provide Technical support to the MPO's CMP processes.
12. Coordination with regional stakeholders through the Complete Team (Planning and Operations Collaboration)
13. Coordination with the Users of Archived Operations Data Committee. The Archived Operations Data is available from many sources, and I-95 Corridor Coalition's Partners Using Archived Operations Data is one of them.
14. Participate in the Vehicle Probe Project Suite webinars and provide suggestions and comments to assist UMD staff in further enhancing the tool to meet the needs of regional stakeholders, thereby enhancing project performance analyses at the Department.
15. 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:

We anticipate need for a Consultant for performing the MAP-21 System Performance Measures as per the final rule. \$250,000 (Term: Three Years)

TRAVEL:

TRB's annual conference – "International Conference on Transportation System Performance Measures and Data Conference" - \$1,500.

EQUIPMENT/SOFTWARE:

- Faster computers needed to perform massive data analysis for the MAP-21 System Performance Measures (\$10,000 requested to update software year one).

STAFFING:

Ira Levinton, Project Engineer, Planning	1.0 py
Sudhir Joshi, Project Engineer, Planning	1.0 py
Neha Galgali, Principal Engineer, Planning	1.0 py

STATE PLANNING AND RESEARCH PROGRAM, 2017 - 2018

ACTIVITY: Statewide Goods Movement - 4510017 / 5340
MANAGER: Paul S. Truban
UNIT: Freight Planning & Services

VISION:

Develop a safe, efficient and integrated intermodal goods movement system throughout New Jersey and its 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 (FRIO, G-MAP, NYMTC Rail Freight Council, Short-line Rail Committee) 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 "FAST" Act.
 - a) Develop the next Freight Plan in close cooperation with our MPO Partners and key stakeholders that encompasses all modes, provides a list of prioritized freight projects within New Jersey, and meets "FAST" Act requirements. 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 and related sub-committees* 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 both public and private partners including 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.

STATE PLANNING AND RESEARCH PROGRAM, 2017 - 2018

ACTIVITY: Statewide Goods Movement - 4510017 / 5340
MANAGER: Paul S. Truban
UNIT: Freight Planning & Services

GOALS/ACTIVITIES: (continued)

- d) Establish Rail Freight Advisory Committee as a sub-committee to work with both public and private partners and our MPO's to continue to advance rail freight projects and initiatives in New Jersey.
 - e) Provide necessary information and perform analysis to support designation of any changes to the National Multimodal or National Highway Freight Networks within the state.
 - f) Designate National Highway Freight Network critical urban and rural freight corridors as well as identify new intermodal connectors to key freight facilities. Maintain data for the state's official National Highway Freight Network (NHFN) and the National Multimodal Freight Network (NHMN), National Highway System (NHS) connectors, and intermodal connectors serving intermodal freight facilities. Coordinate data with parallel efforts being conducted by MPOs (e.g., DVRPC's Philly Freight Finder and NJTPA's Freight Activity Locator).
 - g) Establish priorities to pursue available federal freight programs and funding opportunities (e.g., high priority corridor designation, NHFP, FASTLANE, TIGER).
 - h) Establish the New Jersey Freight Advisory Committee and subcommittees to work with both public and private partners to continue to address freight related issues (i.e. 286k, truck rest stops, and port issues among others) in New Jersey.
 - i) Maintain data for the state's official National Highway Multimodal Network (NHMN), National Highway System (NHS) connectors, and intermodal connectors serving intermodal freight facilities.
 - j) Establish the New Jersey Freight Advisory Committee and subcommittees to work with both public and private partners to continue to address freight related issues (i.e. 286k, truck rest stops, and port issues among others) in New Jersey.
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) and Double Stack Clearance.
 - c) Support projects to improve air quality including the procurement of equipment and other emission reduction projects (GENSET Locomotives, Forklift and Cargo Handling).
 - d) Assist the NJTPA in developing the Pilot Freight Concept Development program. Coordinate Subject Matter Experts from within the NJDOT as needed to advance freight projects in the program.
 - e) Support DVRPC's efforts to improve rail and highway access to designated freight centers.
 4. Monitor and reduce the impact of trucks on infrastructure statewide.

STATE PLANNING AND RESEARCH PROGRAM, 2017 - 2018

ACTIVITY: Statewide Goods Movement - 4510017 / 5340
MANAGER: Paul S. Truban
UNIT: Freight Planning & Services

GOALS/ACTIVITIES: (continued)

- a) Work with the NJSP to address recommendations contained within FHWA's 2015 Commercial Vehicle Size & Weight Program Report. Focus on implementation 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) Work with the trucking industry to develop informational materials for truckers in order to comply with state and federal motor carrier regulations and size/weight regulations. Assist NJTPA as needed in the agency's development of a Truck Management Best Practice Handbook
 - e) Advance recently completed research that quantified 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.
 - f) Incorporate recommended changes from recent research efforts into NJ OS/OW regulations found under N.J.A.C 13:18 and/or Title 39:3-84. Work with NJMVC and NJSP to rewrite and adopt new regulations.
 - g) Modify OS/OW permitting regulations to address new federal requirements regarding the size and weight of vehicles that may travel on the Interstates and National network as defined in "FAST" Act.
 - h) Support projects to improve air quality for trucks (i.e., Diesel Engine Retrofits or Truck Replacement Incentive Programs) and other emission reduction projects.
 - i) Work with MPOs, cities, and municipalities to manage downtown deliveries.
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.
6. Monitor state-owned freight rail rights-of-way in accordance with FRA Inspection & Reporting Requirements
- a) Monitor and preserve key freight rail corridors owned by the state for future use.
 - b) Perform stewardship functions for these corridors including the lease, licensing or removal of encroachments from those rights -of-way.
 - c) Utilize the unit's Rail Bridge Management System to schedule and oversee inspection of state owned freight rail bridges.

STATE PLANNING AND RESEARCH PROGRAM, 2017 - 2018

ACTIVITY: Statewide Goods Movement - 4510017 / 5340
MANAGER: Paul S. Truban
UNIT: Freight Planning & Services

TRAVEL:

\$5,000 per year to attend events and conferences (registration, travel expenses, mileage reimbursement)

- AASHTO Sub-committee on Highway Transport (SCOHT) conferences
- TRB Truck Size and Weight Committee Meetings/Events
- NASTO OS/OW Permit Harmonization Task Force
- SCRA Annual Heavy Haul Transport Symposium

ANTICIPATED ACCOMPLISHMENTS FOR CALENDAR YEAR 2017:

- Complete final draft of new Multimodal Freight Plan, including an “Investment Plan”.
- Continue development of a *Freight Management System*.
- Develop FHWA required *Freight Performance Measures* and reporting mechanisms.
- Continue to develop and advance efforts of the newly formed Freight Subcommittee and associated subcommittees. Establish a Statewide Freight Advisory Committee using the Rail Freight Subcommittee as a foundation.
- Advance efforts to identify critical urban freight corridors and update NHS connectors, the NHFN and the NMFN.
- Incorporate findings from the *Impact of Overweight Trucks on NJ Pavement and Bridges* research study and other research efforts into re-write of N.J.A.C 13:18 & Title 39:3-84 regulations.
- Publish educational materials for changes in Commercial Motor Vehicle registration and OS/OW permitting requirements.
- Complete construction on the state’s first E-Screening Weigh Station Bypass System for trucks which will bring NJ into Core CVISN Compliance.
- Identify and prioritize truck/rest stops parking facilities on NHFN by implementing a plan; authorizing NHFP funds to open and or expand these existing facilities.
- Conduct and perform update to Large Truck Monitoring Program Report (Last completed in 2012).
- Complete “Transportation HazMat Report” to the legislature.

CONTRACTS:

Year 1: \$325,000 additional funding for any work associated with the completion or advancement of the new Multimodal Freight Plan, Freight Advisory Committee and Completion of Freight Management System Tool and Development of Freight Performance Measures.

Year 2: \$100,000 to support the continuation of Rail Bridge Inspection & Monitoring Program for state-owned rail rights of way.

\$50,000 to update the Large Truck Monitoring Program Report.

STAFFING:

Himanshu Patel	Project Engineer	0.75 py
Andrew Ludasi	Principal Engineer	0.90 py
Thanh Le	Assistant Engineer	<u>0.95 py</u>
	Total:	2.60 py

STATE PLANNING AND RESEARCH PROGRAM, 2017 - 2018

ACTIVITY: Transportation Improvement Programs (TIP/STIP) Preparation – 4510017 / 5985
MANAGER: James Vari
UNIT: Capital Investment Planning and Development

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 1st
 - a. Federal and State funding resource projections developed by December 1st
 - b. MPO TIPs developed and approved by July 31st
 - c. Public participation completed by June 30th
 - d. Annual Capital Program approved by June 30th
 - 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. eSTIP Enhancements
 - a. New user interface
 - b. Budget request "Pool Sheets" module
 - c. Fiscal Constraint module
 - d. Training and manuals
 - e. Study & Development monthly updates in e-STIP
 - f. New database for Problem Statements
 - g. New module to prepare Problem Screenings
3. Review Problem Statements
 - a. Review and analyze Problem Statements submitted to Dept. by various management systems, MPOs and local entities
 - b. Prioritize Problem Statements for advancement through Dept. Pipeline following revised process guidelines implemented 1/2016
4. Development of Transportation Asset Management Plan (TAMP)
 - a. Assist with development of TAMP, focus on financial elements, such as life cycle cost and risk management, investment scenarios and strategies and financial plan

ANTICIPATED ACCOMPLISHMENTS FOR CALENDAR YEAR 2017:

- Develop and negotiate with the three MPOs a 5-Year Capital Plan, submit a FY2018-2027 STIP to FHWA/FTA for approval, present to the public and post on the NJDOT website.
- Governor and Legislature approval of a FY 2018 Transportation Capital Program and post on the NJDOT website. Geographical display of Capital Program projects by July 15, 2017.

STATE PLANNING AND RESEARCH PROGRAM, 2017 - 2018

ACTIVITY: Transportation Improvement Programs (TIP/STIP) Preparation – 4510017 / 5985
MANAGER: James Vari
UNIT: Capital Investment Planning and Development

ANTICIPATED ACCOMPLISHMENTS FOR CALENDAR YEAR 2017: (continued)

- Submit a draft FY 2018 Capital Program the State Legislature in March 2017 and post on the NJDOT website.
- Develop and negotiate with the three MPOs a Study and Development Program for FY 2018-2019.
- 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.
- Review, prioritize and advance Problem Statements into Dept. project pipeline.
- Develop TAMP in collaboration with other state entities (NJT, NJTA, etc.) for FHWA review and approval.

CONTRACTS:

\$40,000 – Overtime budget to develop and update the 10 year STIP database and documents by May 1 (\$20,000 per year)

\$750,000 – Installation of e-STIP modules into the NJDOT web page plus maintenance by NJIT. Development of Problem Screening database and assistance with preparation of Problem Screenings (\$375,000 per year)

TRAVEL:

- Certain meetings held by each of the three MPOs based on monthly schedule.
- Active construction work sites.
- Problem Statement locations.
- eSTIP TELUS conference if requested by FHWA.
- \$15,000 (7,500 per year).

EQUIPMENT: None.

STAFFING:

<u>Name</u>	<u>Title</u>	<u>Person Years</u>
Amy Polachak	Project Manager, Transportation	1.00
Jesse Minsky	Senior Engineer Transportation	1.00
John Micikas	Administrative Analyst IV	0.30
George Baier	Budget Analyst	1.00
Stephen Fowler	Budget Analyst	1.00
Jed Soriano	Senior Engineer Transportation	0.38
Sheryl Grant	Administrative Analyst IV	0.20
Pam Szargowicz	Administrative Analyst III	0.50

PLANNING

SPR-C00S(983)

CAPITAL PROGRAM MANAGEMENT

STATE PLANNING AND RESEARCH PROGRAM, 2017 - 2018

ACTIVITY: Concept Development – 4510017 / 5980
MANAGER: Joseph Dee
UNIT: Division of Project Management

VISION:

To sustain and improve New Jersey's multi-modal transportation network by developing project plans in a manner that ensures multi-disciplinary reviews at the earliest stages.

MISSION:

Guided by Performance Based Programming and the Capital Investments Strategy, to wisely invest federal resources in a way that enables the Department to advance the project planning process as efficiently as possible. NJDOT utilizes the Concept Development phase to assess the condition existing infrastructure within the project limits as well as to take note of nearby educational, cultural and other resources that could be affected by the project. During Concept Development, NJDOT Subject Matter Experts (SMEs) and consultants assess a wide range of factors, including environmental impacts, pedestrian and bicycle accommodations, and compliance with the Americans with Disabilities Act within the project limits. Concept Development studies result in a Preliminary Preferred Alternative (PPA) that will fulfill the need and purpose of the project, and informs the Preliminary Engineering and Final Design phases.

GOALS/ACTIVITIES:

1. Maximize the use of FHWA-approved strategies to create pools of eligible consultants from which selections for multiple projects can be made.
 - a. Term Agreements and Multi-project solicitations significantly reduce staff time and expense to solicit and evaluate technical proposals from consultants
 - i. conserve federal resources
 - ii. efficiently advance projects through the pipeline toward Preliminary Engineering/Final Design.
2. FHWA is part of the review and approval process for CD reports for those projects designated to be a Project of Departmental Interest (PODI). FHWA approval of the CD report is required for CPC to advance PODI projects to PE. The STIP/TIP is updated on a two-year cycle. The MPO Policy Boards approve their Planning and Development Work Programs, which combined form the Study and Development Program of the Department.
3. Those bridge and pavement projects that are proposed for advancement via the limited scope process are screened at the beginning of the CD phase to reveal any fatal flaws and uncover basic information. Screenings are utilized to verify the appropriateness of a project advancing as a limited scope project, in which case it would advance from CD to FD, or if instead it should advance as a standard delivery project, which involves a more detailed CD study and a PE phase prior to FD.
4. Major elements of the screenings and 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, 2017 - 2018

ACTIVITY: Concept Development – 4510017 / 5980
MANAGER: Joseph Dee
UNIT: Division of Project Management

ANTICIPATED ACCOMPLISHMENTS FOR CALENDAR YEAR 2017:

- Provide status to MPOs upon request for CD phase-specific information on projects beyond that information which the Department already makes available to the MPOs. Meet with MPOs if requested to coordinate and clarify project/program compatibility.
- 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 2017 and CY 2018.

NJDOT posted in July a multi-project solicitation for Concept Development for three complex projects, federally funded through SPR. The Department will be posting in the fall of 2016 a solicitation for 12 Term Agreements that will be utilized over the next several years, federally funded through SPR. These projects will advance in CY 2017.

CONTRACTS:

Existing Multi-year contracts previously authorized:

C00S (328) - Route 3 & 495 Concept Development Study: \$ 1,454,489

CY 2017 Multi-year contracts to be authorized:

Term Agreements for a variety of bridge, pavement and safety projects: 12 three-year agreements capped at \$2 million each – total of \$24 million.

Multi-project solicitation for Concept Development for three complex projects: \$3.5 million broken out below:

- Rt 3 EB Bridge over Hackensack River and Meadowlands Parkway - \$1.1 million estimate
- Rt 9W, Bridge over Rt 95, Rt 1&9, and Rt 4 - \$1.4 million estimate
- Rt 46, Bridges over Rt 17 - \$1 million estimate

Route 71, Bridge over Shark River, Concept Development: \$788,284.

TRAVEL: None.

EQUIPMENT: None.

STATE PLANNING AND RESEARCH PROGRAM, 2017 - 2018

ACTIVITY: Concept Development – 4510017 / 5980
MANAGER: Joseph Dee
UNIT: Division of Project Management

STAFFING:

Roadway Design: 0.09 person-years each for a total of 1.9 person-years

Dante Sadama	Binh Vo
Mario Ritualo	Vinu C. Patel
Karalas Ranganathan	Edward D’Zurilla
Aurel Dogaru	Indravadan M. Patel
Stephen Rizzuto	Daud M. Ferozan
Nalinkumar Patel	Jairo Forero
Parvaneh Mahgerefteh	Nanda Kumar
Ashokkumar A. Patel	Arthur Christian
Glenn Adams	Mahendraku Shah
KimVan Le	Felixberto, David
Asma Hussain	

Division of Project Management: 0.33 person-years each for a total of 31 person years.

Alam, Muhammad – Pr. Engr	Dhulesia, Babulal - Proj Manager
Antala, Chiman - Project Manager	Dogias, Nick - Proj Manager
Assad, Hanaa - Principal Engr	Eindhoven, Nicole - Proj Manager
Ayub, Muhammad - Principal Engr	Estrada, Javier - Principal Engr
Bhavsar, Nilesh - Principal Engr	Eugene, Al - Project Manager
Bisda, Roland - Principal Engr	Ezeuka, Paul – Proj Engr Utilities
Campi, John - Project Manager	Fakhouri, Ahmad - CET
Carr, Mike - Project Manager	Figaro, Gaelle - Senior Engr
Challender, Mearl - Proj Manager	Galarza, Luis - Principal Engr
Chivulescu, Nina - Proj Engr SD	Gandhi, Anupam - Project Manager
Colquitt, Willie – Proj.Engr Planning	Gusovskaya, Emma - Senior Engr
Dalwadi, Nisharg - CET	Hameed, Omar - Proj Manager
D’Arcy, Ed - Project Manager	Hebert, Miguel - Principal Engr
Dave, Bhagirath - Asst Engr	Henry, Charles - Project Manager
Davé, Hardev - Project Manager	Henry, Kevin - Principal Engr
Davis, Ashley - Asst Engr	Hurst, Aimee - Asst Engr
Deeck, Scott – Project Manager	Jeyamohan, Jay – Project Manager

STATE PLANNING AND RESEARCH PROGRAM, 2017 - 2018

ACTIVITY: Concept Development – 4510017 / 5980
MANAGER: Joseph Dee
UNIT: Division of Project Management

STAFFING: (continued)

Division of Project Management: 0.33 person-years each for a total of 31 person years.

Kasbekar, Mike - Project Manager	Patel, Pankesh - Project Manager
Kaushal, Kunal - Project Manager	Patel, Rashmin - Project Manager
Kennard, Amy - Project Manager	Patel, Vandna - Project Engr SD
Kuhn, George - Project Manager	Patel, Vijaykumar - Asst Engr
Kurcon, Piotr - Asst Engr	Patibandha, Nilesh - Project Engr SD
Locke, Don - Project Manager	Pennell, Ed - Project Manager
Maevsky, Andrew – Proj Manager	Quasmieh, Wael - Principal Engr
Manz, Chris - Project Manager	Qureshi, Ahmad - Project Manager
Marcellus, Evens - Project Engr SD	Ramirez, Sara - Asst Engr
McCleerey, John - Project Manager	Rana, Dhananjay - Principal Engr
Mejia-Aragona, Zoila - Proj Manager	Rana, Sharad - Project Engr SD
Middleton, Lynn - Proj Manager	Rasheed, Yousef - CET
Molavi, Towfigh - Senior Engr	Rezaeian, Abe - Project Engr SD
Mortaja, Nader - Principal Engr	Shah, Bhavesh N. - Principal Engr
Mulcahy, Brian - Project Manager	Shah, Bhavesh V. - Asst Engr
Murphy, Veronica – Pr Planner	Shah, Bhupendra - Project Engr SD
Najem, Frozan - Principal Engr	Shah, Dinesh - Principal Engr
Nasef, Nirmin - Project Manager	Shah, Kamlesh - Supervising Engr II
Obidike, Anthony – Proj Engr Planning	Shah, Pankaj - Principal Engr
Pandya, Jay - Project Manager	Shah, Samir - Project Manager
Parmar, Pooja - Asst Engr	Shamali, Taimur - Senior Engr
Patel, Ashish - Asst Engr	Shelat, Hemant - Principal Engr
Patel, Chirag - Asst Engr	Sohn, Thomas – Project Manager
Patel, Mahesh - Project Manager	Sundaram, Shan – Project Manager
Patel, Meeta - Asst Engr	Szulczewski, Joshua – Senior Engineer
Patel, Niranjan – Asst. Engr.	Thorn, Scott – Project Manager

STATE PLANNING AND RESEARCH PROGRAM, 2017 - 2018

ACTIVITY: Concept Development – 4510017 / 5980
MANAGER: Joseph Dee
UNIT: Division of Project Management

STAFFING: (continued)

Division of Project Management: 0.33 person-years each for a total of 31 person years.

Tran, Nam Giao T. - CET
Upadhyay, Arpita - Principal Engr
Varone, Greg - Principal Engr
Verner, Bob - Project Manager
Vijayakumar, Sangarat – Pr Engr
Worth, George - Project Manager
Yousoufzai, Wahida - Senior Engr
Zim, John - Project Manager

STATE PLANNING AND RESEARCH PROGRAM, 2017 - 2018

ACTIVITY: Travel Projections – 4510017 / 5350
MANAGER: Joseph Dee
UNIT: Project Management

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:

To support various NJDOT units by projecting future travel volumes and developing related data to ensure that proposed projects have adequate capacity and are economically designed. The mission includes:

- Providing specific traffic analyses, e.g., regional vs. local travel characteristics determination, that may be required for project development/advancement
- Providing review, consultation, and advice to those units when travel projections and/or traffic analyses are undertaken by their consultants
- Providing 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.

NJDOT is aware that the MPOs also gather traffic volume data. NJDOT will reach out them prior to the start of CY 2017 to discuss ways to share this data.

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 2017:

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

STATE PLANNING AND RESEARCH PROGRAM, 2017 - 2018

ACTIVITY: Travel Projections – 4510017 / 5350
MANAGER: Joseph Dee
UNIT: Project Management

CONTRACTS: None.

TRAVEL: None.

EQUIPMENT: None.

STAFFING:

Davis, Ashley – Assistant Engineer	.01py	Obidike, Tony - Project Engineer	.01py
Murphy, Veronica – Principal Planner	.01py	Parmar, Pooja - CET	.01py
Patel, Ashish – Assistant Engineer	.01py	Patel, Jaimini – Senior Engineer	.01py
Figaro, Gaelle - Senior Engineer	.01py	Upadhyay, Arpita – Principal	.01py
Henry, Kevin - Principal Engineer	.01py	Yousoufzai, Wahida - Senior Engineer	.01py
Patel, Niranjan – Assistant Engineer	.01py	Molavi, Towfigh – Senior Engineer	.01py
Ramirez, Sara - CET	.01py	Patel, Chirag – CET	.01py
Shamali, Taimur – Senior Engineer	.01py	Patel, Vijaykumar - CET	.01py
Vijayakumar, Sangarant -Senior Planner	.01py	Shah, Bhavesh - Project Engineer	.01py
Alam, Muhammad – Principal Engineer	.01py	Mortaja, Nader – Principal Engineer	.01py
Colquitt, Willie - Project Engineer	.01py	Jeyamohan, Jey – Project Manager	.01 py

Total Person years: 0.22 py

STATE PLANNING AND RESEARCH PROGRAM, 2017 - 2018

ACTIVITY: Concept Development – Environmental Support Services – 4510017 / 5111
MANAGER: Joseph Sweger – Executive Manager
UNIT: Bureau of Landscape Architecture and Environmental Solutions, Office of Environmental Solutions

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 CALENDAR YEAR 2017:

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

CONTRACTS:

N/A

TRAVEL:

N/A

EQUIPMENT:

N/A

STATE PLANNING AND RESEARCH PROGRAM, 2017 - 2018

ACTIVITY: Concept Development – Environmental Support Services – 4510017 / 5111
MANAGER: Joseph Sweger – Executive Manager
UNIT: Bureau of Landscape Architecture and Environmental Solutions, Office of Environmental Solutions

STAFFING:

OES Year 1

Adams, Laura, Env Specialist 2 (provisional)	.35py	Mikusa, J. P., Env. Specialist 3	.35py
Asadpour, J., Section Chief (provisional)	.35py	Nguyen, Henry, Sr. Engineer Trans.	.25py
Asadpour, Z., Env. Engineer 4	.35py	Osian, Edmund, Env. Specialist 3	.35py
Bancroft, Kevin, Sr. Engr. Transportation	.35py	Pandya, Sunay, Sr. Engineer Trans.	.25py
Bevans, K., Env. Engineer 4	.25py	Patel, Bakula, Prin. Engr. Trans.	.35py
Bird, Robert, Env. Specialist 3	.35py	Patel, Kairavi, Env Specialist 1	.35py
Blick, Sandra, Env. Engineer 4	.25py	Patel, Vishal, Assistant Engineer Trans.	.25py
Britton, James, Prin. Engr. Transportation	0.0py	Rathbun, Ryan, Env. Spec. 2(provisional)	.35py
Cheney, Amber, Env. Specialist 4	.35py	Rauzino, David, Prin. Engr. Transportation	.25py
Ciappi, Michael, Env Specialist 1	.35py	Reali, Ryan, Sr. Engr. Transportation	.35py
Coe, Sharon, Env Specialist 1	.35py	Szczepkowski, S., Env. Specialist 3	.35py
Dekovitch, Rachel, Env Specialist 1	.35py	Shutz, T., Env. Specialist 4	.35py
Dill-Wendrzycki, Susan, Env. Specialist 3	0.0py	Trivedi, Meeta, Assistant Engineer Trans.	.25py
Fairfax, Brenna, Env. Specialist 4	.35py	Wilityer, M., Env. Specialist 3	.35py
Gervasi, Cecilia, Env. Specialist 1	.35py	Wolfram, T., Superv. Engr. II	.23py
Gupti, Aarti, Env. Specialist 3	.35py		
Hawkinson, Bruce, Project Manager Trans.	.35py		
McCue, J., Env. Comp. Insp. 1	.23py		

Total Person Years: 9.91

OES Year 2

Adams, Laura, Env Specialist 2 (provisional)	.35py	Mikusa, J. P., Env. Specialist 3	.35py
Asadpour, J., Section Chief (provisional)	.35py	Nguyen, Henry, Sr. Engineer Trans.	.25py
Asadpour, Z., Env. Engineer 4	.35py	Osian, Edmund, Env. Specialist 3	.35py
Bancroft, Kevin, Sr. Engr. Transportation	.35py	Pandya, Sunay, Sr. Engineer Trans.	.25py
Bevans, K., Env. Engineer 4	.25py	Patel, Bakula, Prin. Engr. Trans.	.35py
Bird, Robert, Env. Specialist 3	.35py	Patel, Kairavi, Env Specialist 1	.35py
Blick, Sandra, Env. Engineer 4	.25py	Patel, Vishal, Assistant Engineer Trans.	.25py
Britton, James, Prin. Engr. Transportation	0.0py	Rathbun, Ryan, Env. Spec. 2(provisional)	.35py
Cheney, Amber, Env. Specialist 4	.35py	Rauzino, David, Prin. Engr. Transportation	.25py
Ciappi, Michael, Env Specialist 1	.35py	Reali, Ryan, Sr. Engr. Transportation	.35py
Coe, Sharon, Env Specialist 1	.35py	Szczepkowski, S., Env. Specialist 3	.35py
Dekovitch, Rachel, Env Specialist 1	.35py	Shutz, T., Env. Specialist 4	.35py
Dill-Wendrzycki, Susan, Env. Specialist 3	0.0py	Trivedi, Meeta, Assistant Engineer Trans.	.25py
Fairfax, Brenna, Env. Specialist 4	.35py	Wilityer, M., Env. Specialist 3	.35py
Gervasi, Cecilia, Env. Specialist 1	.35py	Wolfram, T., Superv. Engr. II	.23py
Gupti, Aarti, Env. Specialist 3	.35py		
Hawkinson, Bruce, Project Manager Trans.	.35py		
McCue, J., Env. Comp. Insp. 1	.23py		

Total Person Years: 9.91

STATE PLANNING AND RESEARCH PROGRAM, 2017 - 2018

ACTIVITY: Geodetic Survey Services – 4510017 / 5100
MANAGER: Mike Martynenko
UNIT: Geodetic Survey

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.

The primary mission of the New Jersey Geodetic Survey Unit are to preserve, maintain, densify and inspect the official control survey network, North American Datum 1983 (NAD83) and North American Vertical Datum 1988 (NAVD88), within the state as per Chapter 118 supplementing P.L. 1966, c. 301, to submit precise horizontal and vertical surveying data to the National Geodetic Survey (NGS) for inclusion into the National Spatial Reference System (NSRS); to establish Capital Program Management (CPM) design project specific primary horizontal and vertical control as needed; to give survey support to the Department of Transportation (DOT) mapping, photogrammetry, boundary determination and graphic information system (GIS) activities.

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).
- Establish monument data into the NSRS maintained by NGS to define NAD83 and NAVD88 framework. This is in compliance with State Law and is published by NGS on the internet for project and public use.
- Continue to contribute to the NGS GPS on Bench Marks Campaign via the NGS Online Positioning User Service (OPUS) to improve future Hybrid GEOID Models, increasing access to NAVD 88 and enabling conversions to the new gravity-based vertical datum in 2022.
- Continue to establish vertical/horizontal control in deficient areas of the State.

ANTICIPATED ACCOMPLISHMENTS FOR CALENDAR YEAR 2017:

- 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 (4) project base maps.
- Establish and maintain statewide NSRS control network.

CONTRACTS:

None.

STATE PLANNING AND RESEARCH PROGRAM, 2017 - 2018

ACTIVITY: Geodetic Survey Services – 4510017 / 5100
MANAGER: Mike Martynenko
UNIT: Geodetic Survey

TRAVEL:

New Jersey Professional Land Surveyors Conference (NJPLS) / Feb. 2017. 6 attendees/\$700 ea.

EQUIPMENT:

- Leica DNA03 digital level (2)
- Leica Viva GNSS GS15 Receiver (6)
- Leica Viva CS15 Controller (6)
- Leica GeoOffice software (6 licenses)
- Leica GPCL3, 3-meter calibrate invar rods (2)
- Leica GWCL92, 92cm rod
- Leica GWCL60, 60cm rod

STAFFING:

J. Coyle, Project Engineer	.50py	M. Iorio, Engineering Tech 3	.80py
R. Kuzma, Principal Engineer	.80py	F. Andrescik, Engineering Tech 4	.80py
J. Romer, Engineering Tech 1	.80py	S. Miller, Engineering Tech 5	.80py
I. Singh, Senior Engineer	.80py		

STATE PLANNING AND RESEARCH PROGRAM, 2017-2018

ACTIVITY: Bridge Screening and Scoping – 4510017 / 6100
MANAGER: Jayant Dalal/Eddy Germain
UNIT: Bureau of Structural Design and Geotechnical Engineering/Bureau of Structural and Railroad Engineering Services.

VISION:

Develop transportation problem statements for structural work that result in a projects that can proceed through the project delivery process in a timely manner and without delays.

MISSION:

Develop well-defined and well-justified structural scope of work to improve the condition of Structurally Deficient bridges, Sign Structures and other structures on the State system.

GOALS/ ACTIVITES:

1. Perform screenings and develop structural scope of work for the Structurally Deficient bridges, and culverts under Limited Scope Project Delivery, and Standard Capital Project Delivery..
 - a. From the list developed by the Bridge Management System, prioritize the list of structures for Deck/Superstructure replacement in accordance with limited scope program.
 - b. Verify with other units to see if any of these structures are already programmed in any projects.
 - c. Review inspection reports for each structure.
 - d. Perform field screening inspection to determine structural scope of work.
 - e. Prioritize and program structures to advance to Concept Development phase under limited scope program.
2. Perform screenings for Replacement of all deficient sign structures.
 - a. From the list developed by the Bridge Management System, group the sign structures based on the location in the State.
 - b. Program sign structures to proceed to the Concept Development Phase.
 - c. Perform field screening inspection to evaluate various options for sign structure replacement.
 - d. Check conflicts with other projects.
 - e. Coordinate with other units and agencies.
 - f. Prepare the checklist for the structural portion as part of screening.
3. Review and Assist during Concept Development Phase for all projects.
 - a. Attend meetings and act as Subject Matter Expert during Concept Development Phase.
 - b. Review and provide comments on the draft CD report.
 - c. Review and approve structural scope of work as part of CD process

ANTICIPATED ACCOMPLISHMENTS FOR CALENDAR YEAR 2017:

1. Continue to perform screenings for the replacement of Deck/Superstructures of Structurally Deficient bridges and sign structures under limited scope program.
2. Continue to program the bridges for Deck/Superstructures Replacement based on the screening under limited scope program.
3. Continue to program replacement of deficient sign structures.
4. Continue to assist and act as an SME for the Concept Development Phase.

STATE PLANNING AND RESEARCH PROGRAM, 2017-2018

ACTIVITY: Bridge Screening and Scoping – 4510017 / 6100
MANAGER: Jayant Dalal/Vijay Thaker
UNIT: Bureau of Structural Design and Geotechnical Engineering/Bureau of Structural and Railroad Engineering Services.

TRAVEL / CONTRACTS / EQUIPMENT: None.

STAFFING: Bureau of Structural Design and Geotechnical Engineering (Unit 509-13)

EMPLOYEE	TITLE	CY '17	CY '18
SHIRISH PATEL	SUPERVISING ENGINEER	0.1	0.1
DAN IOSEB	SUPERVISING ENGINEER	0.1	0.1
PRAKASH PATEL	PROJECT ENGINEER STRUCTURAL TRANS	0.1	0.1
HARSHAD PATEL	PROJECT ENGINEER STRUCTURAL TRANS	0.1	0.1
BHARAT SHAH	PROJECT ENGINEER STRUCTURAL TRANS	0.1	0.1
RAMESH SUVAGIYA	PROJECT ENGINEER STRUCTURAL TRANS	0.1	0.1
STEVEN CIAPANNA	ENGINEER STRUCTURES PLANS & SPECS	0.1	0.1
ROBERT KUO	PR ENGINEER STRUCTURAL BRIDGE DESIGN	0.1	0.1
TSHODA LAN	PR ENGINEER STRUCTURAL BRIDGE DESIGN	0.1	0.1
MOHAMMED FASHIHUDDIN	PR ENGINEER STRUCTURAL BRIDGE DESIGN	0.1	0.1
MOHAMAD HASAN	PR ENGINEER STRUCTURAL BRIDGE DESIGN	0.1	0.1
DAVID YOON	SENIOR ENGINEER TRANSPORTATION	0.1	0.1
JUAN JAVIER	SENIOR ENGINEER TRANSPORTATION	0.1	0.1
WAIJHA FAROOQI	SENIOR ENGINEER TRANSPORTATION	0.1	0.1
KUNAL BAKHTARWALA	SENIOR ENGINEER TRANSPORTATION	0.1	0.1
NICHOLAS FACAS	ASSISTANT ENGINEER TRANSPORTATION	0.1	0.1
SHAISHAV RANA	CIVIL ENGINEERING TRAINEE	0.1	0.1
ANDREW BRANIN	CIVIL ENGINEERING TRAINEE	0.1	0.1
ILAN LEVY	CIVIL ENGINEERING TRAINEE	0.1	0.1
EVODIA IBRAHIM	CIVIL ENGINEERING TRAINEE	0.1	0.1
PRUTHVI PATEL	CIVIL ENGINEERING TRAINEE	0.1	0.1
DARRYL SERASPE	CIVIL ENGINEERING TRAINEE	0.1	0.1
CHAU V TRAN	CIVIL ENGINEERING TRAINEE	0.1	0.1
ROBERT GAISER	ENGINEERING TECHNICIAN I	0.05	0.05

STATE PLANNING AND RESEARCH PROGRAM, 2017-2018

ACTIVITY: Bridge Screening and Scoping – 4510017 / 6100
MANAGER: Jayant Dalal/Vijay Thaker
UNIT: Bureau of Structural Design and Geotechnical Engineering/Bureau of Structural and Railroad Engineering Services.

STAFFING: (continued) Bureau of Structural Design and Geotechnical Engineering (Unit 509-13)

EMPLOYEE	TITLE	CY '17	CY '18
CHRISTIAN BECKMAN	ENGINEERING TECHNICIAN 1	0.05	0.05
CLAYTON TICE	ENGINEERING TECHNICIAN 1	0.05	0.05
GAVIN SQUIRES	ENGINEERING TECHNICIAN 4	0.05	0.05
DOUGLAS KOPEC	ENGINEERING TECHNICIAN 5	0.05	0.05
FRANCIS BURKE	ENGINEERING TECHNICIAN 5	0.05	0.05
KIMBERLY SHARP	SUPERVISING ENGINEER, C & M	0.05	0.05
JOHN JAMERSON	PROJECT ENGINEER GEOLOGY	0.05	0.05
EID MORTAGY	PROJECT ENGINEER, GEOTECHNICAL	0.05	0.05
ALEXANDER MURAWSKI	PROJECT ENGINEER, GEOTECHNICAL	0.05	0.05
KAMALA RAVISHANKAR	PROJECT ENGINEER STRUCTURAL TRANSPORTATION	0.05	0.05
KUMAR SELVAKUMAR	PRINCIPAL ENGINEER, GEOTECHNICAL	0.05	0.05
AMANDA MCELWAIN	PRINCIPAL ENGINEER GEOLOGY	0.05	0.05
BAVIKERI LAXMANA	SENIOR ENGINEER, GEOTECHNICAL	0.05	0.05
MUSSIE EYOB	ASSISTANT ENGINEER TRANSPORTATION	0.05	0.05
HUMAYUN KABIR	SENIOR ENGINEER GEOTECHNICAL	0.05	0.05
VANESSA MEADES	SENIOR ENGINEER GEOLOGY	0.05	0.05
MD S RAHMAN	CIVIL ENGINEERING TRAINEE	0.05	0.05
MARIO SAZO	ASSISTANT ENGINEER TRANSPORTATION	0.05	0.05
ROBERT STINSON	GEOLOGIST TRAINEE	0.05	0.05
MOHAB HUSSEIN	CIVIL ENGINEERING TRAINEE	<u>0.05</u>	<u>0.05</u>
	TOTAL PERSON YEARS:	3.35	3.35

STAFFING: Bureau of Structural and Railroad Engineering Services (Unit 509-10)

EMPLOYEE	TITLE	CY '17	CY '18
ALBERT VIRGILIO	SUPERVISING ENGINEER	0.1	0.1
SAM SALIM	PROJECT ENGINEER SURFACE DESIGN	0.1	0.1
ALI J. NAJEM	PROJECT ENGINEER SURFACE DESIGN	0.1	0.1
JESS M. MENDENHALL	ASSISTANT ENGINEER TRANSPORTATION	0.05	0.05
MALAY KHETANI	ASSISTANT ENGINEER TRANSPORTATION	<u>0.05</u>	<u>0.05</u>
	TOTAL PERSON YEARS:	0.4	0.4

STATE PLANNING AND RESEARCH PROGRAM, 2017-2018

ACTIVITY: Rockfall Hazard Management System – 4510017 / 6000
MANAGER: Jayant Dalal
UNIT: Bureau of Structural Design & Geotechnical Engineering

VISION:

The Department's Rockfall Hazard Management System (RHMS) directs state investment to maintain the State's inventory of NJDOT-maintained State and Interstate highway rock cut slopes and installed Rockfall prevention measures in order to reduce the hazard of rockfall-related impacts to the motoring public.

MISSION:

To improve the Department's Rockfall Hazard Management System to assist in developing the Statewide Transportation Plan

GOALS/ACTIVITIES:

1. Validate accuracy, efficiency and timeliness of RHMS data collection.
 - a. Continuously validate/conduct updates and QA on the RHMS field data.
 - b. Develop new rankings as required due to changes in cut slope ratings through mitigation projects.
 - c. Investigate Rockfall events requiring re-evaluation in site conditions and existing RHMS rating factors.
2. Increase the proportion of NJDOT-maintained highway rock cut slopes rated 'moderate' to 'low' in RHMS.
 - a. Develop appropriate project priorities and recommendations for Asset Management and Capital Investment Strategy.
 - b. Program rockfall mitigation projects for implementation through the Capital Project Delivery Process.
 - c. Develop Rockfall mitigation alternatives for implementation through Maintenance Engineering.
 - d. Develop and implement methods of tracking progress in meeting established goals.
3. Maximize the effectiveness of the investment in Rockfall mitigation on NJDOT-maintained highways.
 - a. Develop long-term funding projections. Modify as appropriate.
 - b. Evaluate innovative and cost-effective mitigation methodologies to maximize available funding.
 - c. Continue development/refinement of performance measures.
 - d. Conduct risk assessment to identify specific risks with potential of preventing the meeting of performance targets.
 - e. Develop procedures to assist in project development to ensure goals are met for all assets in the system.
 - f. Develop and utilize multiple design solicitations to streamline mitigation project design activities.
4. Transition to Performance Based Planning and Programming.
 - a. Development of a Performance-Based Capital Investment Plan approach to transportation planning and programming to support achievement of transportation system performance outcomes.

STATE PLANNING AND RESEARCH PROGRAM, 2017-2018

ACTIVITY: Rockfall Hazard Management System – 4510017 / 6000
MANAGER: Jayant Dalal
UNIT: Bureau of Structural Design & Geotechnical Engineering

ANTICIPATED ACCOMPLISHMENTS FOR CALENDAR YEAR 2017:

1. Conduct update and refinements to RHMS rating data.
2. Evaluate and validate prioritization of Rockfall mitigation for project programming.
3. Review accuracy, efficiency and timeliness of RHMS data collection.
4. Develop and program capital projects to meet established performance goals.
5. Review recent rockfall mitigation projects to further develop long-term funding projections.

TRAVEL / CONTRACTS / EQUIPMENT: None.

STAFFING:

John Jamerson, Project Engineer, Geology	.60 Person-years
Amanda McElwain, Principal Engineer, Geology	.50 Person-years
Vanessa Meades, Assistant Geologist	.50 Person-years
Robert J. Stinson, Geologist trainee	<u>.50 Person-years</u>
Total:	2.10 Person-years

STATE PLANNING AND RESEARCH PROGRAM, 2017 - 2018

ACTIVITY: New Jersey Scenic Byways Program Management – 4510017 / 5600
MANAGER: Joseph Sweger
UNIT: Landscape Architecture

VISION:

Improve the effectiveness and the sustainability of the NJ Scenic Byways Program through the implementation of the updated program guidelines and work with the byways sponsors on increasing mobility with respect to travel and tourism activities.

MISSION:

To provide support and technical assistance to the NJ Scenic Byway Program, the byway users, and the byway sponsors, to ensure compliance with the federal regulatory requirements of the Federal Highway Administration (FHWA), and to work with the byways sponsors on matters relating to the role of intermodal transportation in facilitating mobility with respect to travel and tourism activities.

GOALS/ACTIVITIES:

1. Maintain the role of the Scenic Byway Advisory Committee and hold two meetings per year.
2. Complete and close the Scenic Byway Projects awarded through previously received National Scenic Byway Grant Cycles.
 - a. Delaware River Scenic Byway: Land Acquisition – Devil’s Tea Table
 - b. Millstone Valley Scenic Byway: Restoration of the Griggstown Bridgetender’s House
 - c. Palisades Interstate Parkway: Fort Lee Museum
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 the program forward by holding one byway workshop.
 - b. Update the existing NJDOT website.
 - c. Provide information, advice, and recommendations to the byways on matters relating to the role of intermodal transportation in facilitating mobility with respect to travel and tourism activities.
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 and sustaining their byways.

ANTICIPATED ACCOMPLISHMENTS FOR CALENDAR YEAR 2017:

- Complete and close out the last remaining projects from the federal funded grants.
- Hold 1 Scenic Byway Workshop.
- Work with the byway sponsors in strengthening the sustainability of their byways and on matters relating to the role of intermodal transportation in facilitating mobility with respect to travel and tourism activities.

CONTRACTS / TRAVEL/ EQUIPMENT:

None

STAFFING:

Cindy Bloom-Cronin	Project Engineer	.3
Rich Attenello	Landscape Designer 1	.3
Corey Wilson	Landscape Designer 3	.4

PLANNING

SPR-C00S(983)

OPERATIONS

STATE PLANNING AND RESEARCH PROGRAM, 2017 - 2018

ACTIVITY: Transportation Emergency Response Planning – 4510017 / 5500
MANAGER: Robert Burd
UNIT: NJDOT Office of Emergency Management/ Operations Support

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 Plan (COOP)
 - a. Update the COOP Plan
 - i. Research Department of Homeland Security, Transportation Research Board, and American Association of State Highway and Transportation Officials guidance and reports to develop an appropriate planning format for NJDOT COOP.
 - ii. Develop a planning team with representatives from key units within the Department.
 - iii. In consultation with Human Resources, develop a process to manage continuous updating of business continuity status for Department personnel.
 - iv. Each major business unit to complete an identification of essential supporting activities and staff.
 - v. In coordination with Facilities and Information Management, develop a plan to support implementation of the COOP through identification of alternate work facilities and equipment resources.
 - b. Conduct training of key personnel
 - i. Develop a COOP training plan for the following groups at a minimum:
 1. Executive Policy Team
 2. COOP Planning Team
 3. Emergency Relocation Group personnel
 4. Essential Personnel
 - c. Conduct at least a Table Top exercise with key personnel
 - i. Prepare After-Action Report (AAR) and Improvement Plan (IP)
 - ii. Implement corrective actions consistent with IP
 - d. Research number and location of resources and assets in support of the plan

STATE PLANNING AND RESEARCH PROGRAM, 2017 - 2018

ACTIVITY: Transportation Emergency Response Planning – 4510017 / 5500
MANAGER: Robert Burd
UNIT: NJDOT Office of Emergency Management/ Operations Support

GOALS/ACTIVITIES: (cont'd.)

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 Contraflow plan training of the following groups at a minimum:
 - i. key field personnel
 - ii. Senior Executives
 - iii. Operations Support personnel
 - iv. Traffic Systems Management personnel
 - c. Conduct at least a Table Top (Executives) and a Full Scale exercise of the plans
 - i. Participation from NJ State Police, NJ Turnpike Authority, South Jersey Transportation Authority, NJ Department of Corrections, NJ Transit, and affected counties.
 - ii. Prepare After-action Report (AAR) and Improvement Plan (IP)
 - iii. Implement corrective actions consistent with IP
 - d. Research number and location of assets in support of the plan
 - e. Research and Assess the need to further develop similar plans for other regions of the State.

3. Develop a resiliency strategy in relation to the Departments long range plan and asset tracking.
 - a. Collaborate with other NJ and regional transportation agencies on resilience projects.
 - i. Work with PANYNJ, NJTRANSIT, and Stevens Institute of Technology to link our efforts to improve our flood stage situational awareness to an existing situational awareness product they have developed.
 - b. Develop the strategy in concert with the FEMA National Frameworks.
 - c. Research and assess the need for a separate Department Mitigation Plan.
 - d. Assess how to better leverage Geographic Information System assets (such as HAZUS) to develop a better situational awareness for resilience planning and decision making.
 - e. Coordinate externally with MPOs, academia and non-profits to enhance community resilience and climate adaptation planning by engaging in the planning efforts across the state and through the sharing of information and data regarding transportation infrastructure and resources.
 - f. Improve resiliency through the establishment of evacuation zones in the State to support emergency plans and response.

STATE PLANNING AND RESEARCH PROGRAM, 2017 - 2018

ACTIVITY: Transportation Emergency Response Planning – 4510017 / 5500
MANAGER: Robert Burd
UNIT: NJDOT Office of Emergency Management/ Operations Support

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

4. Maintain and expand Emergency Support Function (ESF) #1 Stakeholder Group.
 - a. Convene quarterly meetings of the ESF 1 Stakeholder Group.
 - 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 an annual Statewide ESF#1 Stakeholder Seminar.
5. Develop a plan to place NJDOT in compliance with NIMS (National Incident Management System).
 - a. Implement training plan to ensure compliance with NIMS training objectives for key personnel
 - b. Develop a plan to conduct NIMS training for new hires.
 - c. 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 and resilience 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)
 - d. Participate in identifying and accommodating transportation security considerations during special events.
 - e. Identify and collect critical infrastructure resiliency information to support resiliency planning and priorities.
 - i. Conduct infrastructure walk-throughs identifying vulnerabilities and attack pathways for inclusion into threat and risk assessments to support resiliency strategy development.
 - ii. Conduct outreach with County OEMs to identify local planning consequences and concerns related to the loss of critical infrastructure and subsequently identify resilience, mitigation and climate adaptation strategies.
 - iii. Analyze the general vulnerability of infrastructure to climate change, specifically sea level rise, to determine future resiliency and climate change adaptation planning needs.

STATE PLANNING AND RESEARCH PROGRAM, 2017 - 2018

ACTIVITY: Transportation Emergency Response Planning – 4510017 / 5500
MANAGER: Robert Burd
UNIT: NJDOT Office of Emergency Management/ Operations Support

GOALS/ACTIVITIES: (cont'd.)

8. Develop and complete a Jurisdictional Threat and Hazards Risk Assessment
 - a. Establish target communities.
 - i. Based upon risk, vulnerability, or history
 - b. Develop a geographical risk assessment.
 - i. Examine the characteristics and components of risk to those communities in geographically sensitive areas.
 - c. Conduct risk assessment.
 - i. Based on target communities and transportation infrastructure assets.
 - d. Develop risk management process / system.
 - e. Use the findings to develop transportation input into the State Threat and Hazards Risk Assessment.
9. 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. Develop an assessment of important information and intelligence needs of the transportation agencies within NJESF1.
 - i. Identify critical situational awareness information as it relates to the operating status of transportation infrastructure assets to develop a better common operating picture for executive decision makers.
 - ii. Collaborate with other transportation agencies to establish a plan for information sharing of this intelligence during emergency incidents.
 - b. Develop a Statewide Evacuation Plan as part of the State Emergency Operations Plan and Regional initiatives.
 - c. Participate in regional emergency planning effort with other states, contiguous to New Jersey, and MPOs.

ANTICIPATED ACCOMPLISHMENTS FOR CALENDAR YEAR 2017:

- Develop a Jurisdictional Threat and Hazards Risk Assessment
- Updated Emergency Operations Plan
- Updated Continuity of Operations Plan
- Develop a NIMS Training Plan for the Department
- Updated version of the five contraflow plans
- Train & Exercise the five contraflow plans
- Train & Exercise the Continuity of Operations Plan
- Conduct a Statewide ESF 1 Stakeholders seminar & a one meeting per quarter

STATE PLANNING AND RESEARCH PROGRAM, 2017 - 2018

ACTIVITY: Transportation Emergency Response Planning – 4510017 / 5500
MANAGER: Robert Burd
UNIT: NJDOT Office of Emergency Management/ Operations Support

CONTRACTS:

Emergency Planning contractor for emergency response planning support. Specifically the update of the Department's Emergency Operations Plan, Statewide Evacuation plan, training plans, develop a resiliency strategy, and Jurisdictional Threat and Hazards Risk Assessment

2017: \$561,600; **2018:** \$374,400

TRAVEL:

American Association of State Highway and Transportation Officials (AASHTO) - Special Committee on Transportation Security and Emergency Management (SCOTSEM) Annual Meeting - This special committee meeting supports the accomplishment of the Emergency Response planning activities through increased education. The topic and theme focus of the Special Committee meeting is focused on Resilience, Evacuation Management, Cyber Security to name a few. The increased emphasis on security and infrastructure protection directly relates to the development of long term resiliency and mitigation planning. Budget: \$2,082 (one attendee each year)

EQUIPMENT:

None.

STAFFING:

Edward Rogacki, Principal Engineer	0.90
Nikki Ghorbani, Administrative Analyst 1	0.90
Ryan Whytlaw, Sr. Trans. Analyst	0.90
Kristen Buddenbaum, Administrative Analyst 3	0.90

PLANNING

SPR-C00S(983)

**TRANSPORTATION SYSTEMS
MANAGEMENT**

STATE PLANNING AND RESEARCH PROGRAM, 2017 - 2018

ACTIVITY: Transportation Systems Management - Concept Development – 4510017 / 5300
MANAGER: Wasif Mirza
UNIT: TSM Mobility and Systems Engineering

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 requirement to be addressed and concludes in the selection of a Preliminary Preferred Alternative (PPA) that addresses a problem using advanced technology solutions that are cost effective, considerate of the environment, safe, secure and preserve existing systems that are supported by the community.

GOALS/ACTIVITIES:

Concept Development (CD) Studies 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 and achieve sustainable solutions. 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 concludes in the selection of the Preliminary Preferred Alternative (PPA). The following major elements can be included in the CD Process: evaluation of needs, analysis of physical deficiencies, early and intensive public involvement, environmental screening using the FHWA planning and environmental linkages approach, integration of the federal Congestion Management process, 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. As part of this pipeline process, the Capital Program Screening Committee and the Capital Program Committee ultimately will endorse a project to advance from CD to Final Design Engineering. FHWA is part of the review and approval process for CD reports. FHWA approval of the CD report is required for the Capital Program Committee (CPC) to advance the project to Final Design.

In addition to the above, Concept Development screenings will be done on proposed ITS/Adaptive projects that are generated from Mobility Systems Engineering/Transportation Systems Management projects. The process will be achieved with a detailed review of the purpose and need, determining fatal flaws and uncover any basic information to inform necessary decisions about the scope of work. The CD will also evaluate any environmental impact, constructability, order of priority, schedule and effectiveness of the PPA. Major elements of the CD studies are data collection, field investigations, cost estimating, internal coordination with subject matter experts and development of scope of work.

ANTICIPATED ACCOMPLISHMENTS FOR CALENDAR YEAR 2017:

Prepare scope of work and procure consultants

Assign work to consultants to produce Concept Development reports.

Review reports from consultants.

Conduct in-house CD checklists for projects not requiring the work effort of a consultant.

STATE PLANNING AND RESEARCH PROGRAM, 2017 - 2018

ACTIVITY: Transportation Systems Management - Concept Development – 4510017 / 5300
MANAGER: Wasif Mirza
UNIT: TSM Mobility and Systems Engineering

CONTRACTS:

Multiyear contract to prepare Concept Development studies - \$3,000,000.

TRAVEL / EQUIPMENT: None.

STAFFING:

Name	Title	PY
<u>Division of Mobility Systems and Engineering</u>		
J. Singh	Princ. Engineer	.05
P. Amin	Supvg. Engr.	.10
R. Casmer	Supvg. Engr.	.10
S. Catlett	Project Manager	.10
F. Prezioso	Project Engr.	.10
A. Ali	Princ. Engineer	.10
A. Ibrahim	Princ. Engineer	.15
K. McVeigh	Princ. Engineer	.10
N. Toner	Asst. Engineer	.15
N. Shah	Asst. Engineer	.15
C. Ononiwu	Senior Engineer	.10
B. Patel	Senior Engineer	.10
R. Patel	Senior Engineer	.10
J. Romero	Asst. Engineer	.10
M. Juliano	Proj. Mgr	.10
K. Hall	Engr. Tech 1	.10
J. Darrar	Realty Spec.	.10
E. Germain	Supvg Engr.	.15
J. DeGroff	Proj. Engr.	.15
<u>Division of Environmental Resources</u>		
L. Rappelaye	Project Manager	.10
J. Sweet	Environmental Specialist 4	.10
C. Patel	Environmental Specialist	.10
B. Hunger	Environmental Specialist 3	.10
Total PY		2.55

RESEARCH

SPR-C00S(974)

BUREAU OF RESEARCH

STATE PLANNING AND RESEARCH PROGRAM, 2017 - 2018

ACTIVITY: Management of Research Activities – 4500017 / 7021
MANAGER: Camille Crichton-Summers
UNIT: Bureau of Research

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 once 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
 - c) Preparation of department action for project closeout upon payment of final invoice
- 2) Coordination of mid-cycle problem statements/research studies
 - a) Arrange Promising Innovative Transportation Research Awards

ANTICIPATED ACCOMPLISHMENTS FOR CALENDAR YEAR 2017:

- Complete ten research studies collecting final reports and technical briefs making them available via technology transfer mechanisms
- Initiation of ten new research studies which may include basic, applied or development research in any sub discipline of transportation research including maritime, freight, rail, highway, pavement, safety, structures, Additional problem statements will be forwarded for approval upon receipt.

CONTRACTS:

University Contracts
New Projects (FY 2017) \$2,750,000 (FY 2018) \$2,750,000

TRAVEL:

Bureau of Research employees travel to transportation meetings related specific research project.
(FY 2017) \$5,000 (FY 2018) \$5,000

EQUIPMENT:

None

STATE PLANNING AND RESEARCH PROGRAM, 2017 - 2018

ACTIVITY: Management of Research Activities – 4500017 / 7021
MANAGER: Camille Crichton-Summers
UNIT: Bureau of Research

STAFFING:

Manager staff time charged to MN

<u>Name</u>	<u>Title</u>	<u>Staff Time</u>
A. Gendek	Project Manager	.7 person-year
S. Potapa	Project Engineer	.9 person-year
K. Davis	Project Engineer	.6 person-year
P. Ukpah	Principal Engineer	.7 person year
P. Shah	Principal Engineer	.8 person-year
T. Howard	Principal Engineer	.9 person-year
G. Venkiteela	Assistant Engineer	.7 person-year
M. Rashid	Assistant Engineer	.8 person-year
S. Rizzo	Admin Asst	1.0 person year
Total	7.1 py	

STATE PLANNING AND RESEARCH PROGRAM, 2017 - 2018

ACTIVITY: Technology Transfer and Implementation – 4500017 / 7030
MANAGER: Camille Crichton-Summers
UNIT: Bureau of Research

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:

1. To provide a forum for transportation related agencies to convene for the purpose of shared knowledge in the advancements being made in the field of transportation research and technology.
2. To highlight and enhance NJDOT research and technology initiatives.
3. To offer the transportation community effective academic and scientific research opportunities.
4. To promote poster session quality and involvement through a “Best Poster Award” competition.
5. To identify and select a 2014 “Implementation Award” winner to acknowledge a NJDOT sponsored project that has had significant positive impact through implementation.
6. To recognize outstanding students involved in transportation research through an “Outstanding Student in Transportation Research” award competition.

ACTIVITIES:

1. Maintain division web page;
 - a. Review webpage quarterly to ensure accuracy
 - b. Add new quarterly reports and final reports upon receipt
2. Conduct lectures or webinars on transportation research topics
3. Literature Review
4. Project Work Plan
5. Survey NJDOT Subject Matter Experts (SMEs) to determine technology transfer needs
6. Develop and implement technology transfer training and event programs for workforce development
 - a. Prioritize topics for technology transfer program training and events
 - b. Determine type of method and timing of training event
 - c. Develop technology transfer electronic calendar
7. Develop knowledge capture program
 - a. Develop guide of effective knowledge capture techniques
 - b. Organize Peer Exchange on knowledge capture programs
 - c. Provide technical assistance for knowledge capture initiatives
8. Develop a tool for solicitation of research ideas
9. Ideas in innovation ~ Build a Better Mousetrap Competition
10. TRB Annual Meeting & other research events

STATE PLANNING AND RESEARCH PROGRAM, 2017 - 2018

ACTIVITY: Technology Transfer and Implementation – 4500017 / 7030
MANAGER: Camille Crichton-Summers
UNIT: Bureau of Research

ACTIVITIES: (Continued)

- a. Research communications and newsletter
 - a. Prepare annual implementation status report
 - b. Project management and progress reports
- 11. Facilitate 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
- 12. Activity Coordination for the Strategic Highway Research Program 2 (SHRP2), Every Day Counts (EDC), and State Transportation Innovation Council (STIC)
- 13. 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.
 - b. Provide funding commitment to the lead state
 - c. Interested NJDOT customer, as the stakeholder, will monitor the progress of the study

TPF Number	Title
TPF-5(346)	Regional Roadside Turf grass Performance Testing Program
TPF-5(351)	Self De-Icing LED Signals
TPF-5(321)	TRB Core Program Services for a Highway RD&T Program - FFY 2015 (TRB FY 2016)
TPF-5(308)	The Use of Bridge Management Software in the Network Analysis of Big Bridges
TPF-5(299)	IMPROVING THE QUALITY OF PAVEMENT SURFACE DISTRESS AND TRANSVERSE PROFILE DATA COLLECTION AND ANALYSIS
TPF-5(297)	Improving Specifications to Resist Frost Damage in Modern Concrete Mixtures
TPF-5(240)	Core Program Services for a Highway RD&T Program - FFY 2011 (TRB FY 2012)
TPF-5(237)	Transportation Library Connectivity and Development
TPF-5(230)	Evaluation of Plant-Produced High-Percentage RAP Mixtures in the Northeast
TPF-5(223)	Core Program Services for a Highway RD&T Program - FFY 2010 (TRB FY 2011)
TPF-5(206)	Research Program to Support the Research, Development, and Deployment of System Operations Applications of Vehicle Infrastructure Integration (VII)
TPF-5(195)	Core Program Services for a Highway RD&T Program - FFY 2009 (TRB FY 2010)
TPF-5(193)	Midwest States Pooled Fund Crash Test Program (MASH Testing)
TPF-5(178)	Implementation of the Asphalt Mixture Performance Tester (AMPT) for Superpave Validation
TPF-5(146)	Evaluation of Modified Performance Grade Binders in Thin Lift Maintenance Mixes, Surface Mix, and a Reflective Crack Relief Layer Mix
TPF-5(065)	Traffic Control Device (TCD) Consortium
TPF-5(063)	Improving the Quality of Pavement Profiler Measurement

STATE PLANNING AND RESEARCH PROGRAM, 2017 - 2018

ACTIVITY: Technology Transfer and Implementation - 4500017 / 7030
MANAGER: Camille Crichton-Summers
UNIT: Bureau of Research

ANTICIPATED ACCOMPLISHMENTS FOR CALENDAR YEAR 2017:

- Ensure the activities are going forward as per the work plans
- Review the status reports, deliverables, and invoices, and process them as per guidelines
- Receive and approved final report packages which document the accomplishment of the project activities
- Process the final invoice that would include the costs of producing the final report package, and close the project accordingly

CONTRACTS:

Rutgers technology Transfer Contract- (CY 17) \$ 423,897 (CY 18) \$ 334,725
Implementation Contracts- (CY 17) \$ 300,000 (CY 18) \$ 300,000

FHWA Pooled Fund - (CY 17) \$ 400,000; (CY 18) \$ 400,000 from apportionment

TRAVEL:

Attendance for 8 DOT employees at annual TRB Annual meeting, FHWA EDC meetings, visiting scholar seminars and other sessions or meetings related to the transfer of knowledge or technology for completed research projects to assist in the assimilation of research products at NJDOT, NJ Transit or Motor Vehicle Commission.

(CY 17) \$3,816; (CY 18) \$ 3,816

EQUIPMENT:

None

STAFFING:

Manager staff time charged to MN

Name	Title	Staff Time
A. Gendek	Project Manager	.3 person-year
S. Potapa	Project Engineer	.1 person-year
K. Davis	Project Engineer	.1 person-year
P. Ukpah	Principal Engineer	.1 person year
P. Shah	Principal Engineer	.1 person-year
Tineen Howard	Principal Engineer	.1 person-year
G. Venkiteela	Assistant Engineer	.1 person-year
M. Rashid	Assistant Engineer	.1 person-year

Total: 1.0 py

STATE PLANNING AND RESEARCH PROGRAM, 2017 - 2018

ACTIVITY: Research Showcase – 4500017 / 7165
MANAGER: Camille Crichton-Summers
UNIT: Bureau of Research

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:

Research Showcase - for NJDOT customers to experience the broad scope of ongoing research initiatives, technology transfer activities, and academic research being conducted by university research partners and their associates. This event also serves to showcase the benefits of the NJDOT Research program.

ACTIVITIES:

1. Secure the event location for Annual Research Showcase, space accommodations; and additional logistics.
2. Marketing and registration for Annual Research Showcase
3. Event coordination for Annual Research Showcase
4. Participation and on-site logistics for Annual Research Showcase
5. Procurement and Reporting.
 - a. Process requisitions and payment for host location and catering.
 - b. Provide quarterly reports to NJDOT.
 - c. Maintain attendance records.
6. Provide a forum for transportation related agencies to convene for the purpose of shared knowledge in the advancements being made in the field of transportation research and technology.
7. Highlight and enhance NJDOT research and technology initiatives.
8. Offer the transportation community effective academic and scientific research opportunities.
9. Promote poster session quality and involvement through a “Best Poster Award” competition.
10. Identify and select “Implementation Award” winner to acknowledge a NJDOT sponsored project that has had significant positive impact through implementation.
11. Recognize outstanding students involved in transportation research through an “Outstanding Student in Transportation Research” award competition.
12. Arrange for Professional Development Hours (PDHs)

STATE PLANNING AND RESEARCH PROGRAM, 2017 - 2018

ACTIVITY: Research Showcase – 4500017 / 7165
MANAGER: Camille Crichton-Sumners
UNIT: Bureau of Research

ANTICIPATED ACCOMPLISHMENTS FOR CALENDAR YEAR 2017:

- Ensure the project is going forward as per the work plan
- Review the quarterly reports and invoices, and process them as per the guideline
- Receive and approved final report package which documents the accomplishment of the project activities.
- Processing the final invoice that would include the costs of producing the final report package.

TRAVEL:

None

CONTRACTS:

(CY 17) \$ 57,000; (CY 18) \$ 59,000

EQUIPMENT:

None

STAFFING:

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

STATE PLANNING AND RESEARCH PROGRAM, 2017 - 2018

ACTIVITY: Research Library Operations – 4500017 / 7510
MANAGER: Camille Crichton-Summers
UNIT: Bureau of Research

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), the Transportation Library Connectivity & Development Technical Advisory Committee and the TRB Standing Committee on Library and Information Science for Transportation (LIST).
 - i. Attend telephone and virtual meetings of the Transportation Librarians Roundtable and other various transportation library network groups/committees.
 - 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 2017:

- Provision of literature searches and access to documents
- Purchase of new materials at request of NJDOT staff

STATE PLANNING AND RESEARCH PROGRAM, 2017 - 2018

ACTIVITY: Research Library Operations – 4500017 / 7510
MANAGER: Camille Crichton-Sumners
UNIT: Bureau of Research

ANTICIPATED ACCOMPLISHMENTS FOR CALENDAR YEAR 2017: (Continued)

- Processing of new and donated items
- Organization and maintenance of the NJDOT Research Library collection
- Quarterly list of new materials received in the Research Library
- Monthly reports to the NJ State Library
- Quarterly reports to NJDOT

CONTRACTS:

Thomas Edison – (CY 17) - \$231,346; (CY 18) - \$236,800

TRAVEL:

Transportation of personnel to and from State Library meetings by Carol Paszamant and Laurie Strow included in contractual costs.

Attendance at TRB conference for two night's hotel, meals and entrance fees (Federal per diem rates for Washington, DC) for Carol Paszamant - Technology Transfer in accordance with Fixing America's Surface Transportation Act. Travel will be reimbursed within the library contract.

EQUIPMENT:

Not Applicable

STAFFING:

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

STATE PLANNING AND RESEARCH PROGRAM, 2017 - 2018

ACTIVITY: Local Technical Assistance Program (LTAP) – 4500017 / 7158
MANAGER: Camille Crichton-Summers
UNIT: Bureau of Research

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:

The CY 2017 work plan is organized into six task areas which address the Federal Highway Administration's mandated four focus areas for the national LTAP/TTAP program: Safety, Infrastructure Management, Workforce Development, and Organizational Excellence. In order to meet the objectives of the NJLTAP for 2017, the following tasks will be conducted:

1. Training (non NJDOT) – workshops for municipal and county officials and consultants performing work on behalf of public agencies. Topics selected in partnership between NJLTAP and NJDOT.
2. Training for NJDOT – workshops specifically requested by NJDOT and for NJDOT personnel.
3. Technical Assistance – upon request, the team will provide guidance on technical, transportation-related problems that municipal agencies may be experiencing. The team will not perform any studies or engineering work that is more appropriately conducted by private entities.
4. Communications – website, e-newsletter, printed newsletter, technical briefs.
5. Outreach – exhibits, Every Day Counts Webinar Exchanges, meetings and conferences.
6. Reporting and Evaluation – quarterly reports, Annual Program Assessment Report, Annual Center Assessment Report, annual customer survey, and continual course evaluation.

ANTICIPATED ACCOMPLISHMENTS FOR CALENDAR YEAR 2017:

- Every Day Counts (EDC)

CONTRACTS:

Rutgers– (CY 17) - \$ 446,000; (CY 18) – \$ 450,000

TRAVEL:

Travel to Annual LTAP meeting 1 NJDOT staff person
(CY 17) -\$2,200; (CY 18) - \$2,200

Travel to Annual TRB meeting 1 NJDOT staff person
(CY 17) -\$477.26; (CY 18) - \$485.00

STATE PLANNING AND RESEARCH PROGRAM, 2017 - 2018

ACTIVITY: Local Technical Assistance Program (LTAP) 2016-2018 - 4500017 / 7158
MANAGER: Camille Crichton-Sumners
UNIT: Bureau of Research

EQUIPMENT:

None

STAFFING:

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

TRAFFIC MONITORING SYSTEMS

NHP-D00S(003)

**BUREAU OF TRANSPORTATION
DATA DEVELOPMENT**

STATE PLANNING AND RESEARCH PROGRAM, 2017-2018

ACTIVITY: Straight Line Diagrams – 2206279 / 5140
MANAGER: Sophia Azam
UNIT: Bureau of Transportation Data and Safety

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, FHWA and public facing web site.
 - 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, FHWA and public facing website.
 - 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, 2017-2018

ACTIVITY: Straight Line Diagrams – 2206279 / 5140
MANAGER: Sophia Azam
UNIT: Bureau of Transportation Data and Safety

ANTICIPATED ACCOMPLISHMENTS FOR CALENDAR YEAR 2017:

- Provide maintenance for the Automated Straight Line Diagrams and NJ VideoLog on 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.

TRAVEL: None.

EQUIPMENT: None.

STAFFING:

Conti, B.	0.50
Faughnan, G.	0.10
Haji, S.	0.05
Perry, D.	0.40
Nwachukwu, S.	0.10
Thomas, P.	0.10

Total Staff Time: 1.25 years

STATE PLANNING AND RESEARCH PROGRAM, 2017-2018

ACTIVITY: Digital Roadway Imaging and Video Data – 2206279 / 5150
MANAGER: Sophia Azam
UNIT: Bureau of Transportation Data and Safety

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 2017:

- 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

TRAVEL: None.

EQUIPMENT: None.

STAFFING:

Perry, D	0.10
Thomas, P	0.10

Total Staff Time: 0.20 years

STATE PLANNING AND RESEARCH PROGRAM, 2017-2018

ACTIVITY: Transportation Data Warehouse and Maintenance – 2206279 / 5160
MANAGER: Sophia Azam
UNIT: Bureau of Transportation Data and Safety

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 2017:

- Publish the 2017 version of NJDOT's Roadway Network GIS file.
- Assist in publishing the 2017 version of New Jersey's Enhanced Roadway Network GIS file on a monthly schedule that started 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 2017 and updated images will be available to Department user groups by September, 2017.

STATE PLANNING AND RESEARCH PROGRAM, 2017-2018

ACTIVITY: Transportation Data Warehouse and Maintenance – 2206279 / 5160
MANAGER: Sophia Azam
UNIT: Bureau of Transportation Data and Safety

CONTRACTS:

The “Data Warehouse and Maintenance III, Statewide” maintains all Public Road Inventories for 2015 - 2017. This three year project 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 BT&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. Provide MIRE Fundamental Data Elements for State highways and NHS routes.

PROPOSED 2017 BUDGET: \$1,500,000.00

TRAVEL: None.

EQUIPMENT: None.

STAFFING:

Perry, D..	0.40
Faughnan, G.	0.10
Nwachukwu, S.	0.15

Total Staff Time: 0.65 years

STATE PLANNING AND RESEARCH PROGRAM, 2017-2018

ACTIVITY: Traffic Monitoring System (TMS) – Traffic Volumes Data Collection – 2206279 / 5310
MANAGER: Sophia Azam
UNIT: Bureau of Transportation Data and Safety

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 second year (2017) of current TMS Data Collection Cycle (2016-2018), which was executed on June 2016. This Traffic Monitoring System is required by the FHWA and is intended to monitor approximately 7,500 sites throughout the state for calendar year 2017 and 2018. 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. Safety Voyager Phase 2
 - b. DVRPC Data Integration
 - c. WIM Data Analysis
 - d. Short Term Classification Counts Pattern Analysis to establish a baseline for validation.
 - e. TMS Application Update and Maintenance
 - f. Explore new technologies for data collection
 - g. Update AADT segmentation Map hosted on ARC GIS online
 - h. TMS Data Processor Application Phase 3
 - i. Per Vehicle Record Analytical Tool
 - j. WIM Streamer Phase 2
 - k. NJTR-1 reports redact application

STATE PLANNING AND RESEARCH PROGRAM, 2017-2018

ACTIVITY: Traffic Monitoring System (TMS) – Traffic Volumes Data Collection – 2206279 / 5310
MANAGER: Sophia Azam
UNIT: Bureau of Transportation Data and Safety

ANTICIPATED ACCOMPLISHMENTS FOR CALENDAR YEAR 2017:

- Complete approximately 4,000 TMS short term coverage counts Minimum of (48 hours) and up to 7-days including new HPMS sample sections, AVC counts, major stations and special counts (Turning movement counts, volume counts and AVC counts)
- Collect about 300 ramp counts including 700 and 600 series county routes for the HPMS sample sections.
- Innovative Concept applications for the following:
 - Database Maintenance, Update and Technology Transfer
 - 2016 DVRPC Data Integration
 - Update AADT Segmentation Map hosted on ARC GIS Online
 - TMS Data Processor Application (Weight Data Validation and Reporting)
 - WIM Streamer Phase 2 – present clean weight data.
 - NJTR-1 Reports Redact application
 - Portable Bridge WIM Pilot
 - Jamar Radar non-intrusive data collection equipment
 - Safety Voyager Phase 2 (Heat Map and Specialized Reports related to Safety)
 - Annual Safety Reports –Database development and scripts.
 - Short Term Classification Counts Pattern Analysis to establish a baseline for validation. (North, Central, South)
- 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 year 2017 of the current 3 year TMS Data Collection Cycle (2016-2018).

Traffic Monitoring System Data Collection- Northern New Jersey	\$ 1,630,134.33
Traffic Monitoring System Data Collection- Central New Jersey	\$ 1,999,400.00
Traffic Monitoring System Data Collection- Southern New Jersey	<u>\$ 2,099,924.00</u>
	\$ 5,729,458.33

PROPOSED BUDGET: \$ 5,729,458.33 for year one, 2017 of SPR CY (2017-2018)

STATE PLANNING AND RESEARCH PROGRAM, 2017-2018

ACTIVITY: Traffic Monitoring System (TMS) – Traffic Volumes Data Collection – 2206279 / 5310
MANAGER: Sophia Azam
UNIT: Bureau of Transportation Data and Safety

STAFFING:

Abraham, A	0.5
Griffis, R..	0.2
Mordenti, M.	0.5
Zajac, K.	0.1
Sperrazza, R.	0.5
Oberle, E.	0.3

Total Staff Time: 2.1 person years

STATE PLANNING AND RESEARCH PROGRAM, 2017-2018

ACTIVITY: Traffic Monitoring System (TMS) - Database Maintenance – 2206279 / 5320
MANAGER: Sophia Azam
UNIT: Bureau of Transportation Data and Safety

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 2017:

- A summary of classification data for the HPMS table, Travel Activity by Vehicle Type.
- 2017 tables of seasonal adjustment factors, axle correction factors and the annual average growth rates.
- Online monthly submittal via TMS2 to FHWA of volume data collected from WIM and TVS stations by the 3rd week of the following month.
- Migrate TRADAS traffic processing software to the new online application, Jackalope.

CONTRACTS:

Fund year 2017 of the annual maintenance agreement for TRADAS software used to process data from permanent TMS sites and 48 hour stations.

PROPOSED BUDGET: \$ 99,000.00 each year

STAFFING:

Oberle, E. 0.40
Zajac, K. 0.10

Total Staff Time: 0.50 person years

STATE PLANNING AND RESEARCH PROGRAM, 2017-2018

ACTIVITY: Traffic Monitoring System (TMS) – Weights and Speeds – 2206279 / 5330
MANAGER: Sophia Azam
UNIT: Bureau of Transportation Data and Safety

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. Share truck data with 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 (50) 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.
11. Planning activities to maintain all permanent Weigh-in-Motion (WIM) stations and Traffic Volume Stations (TVS) sites in good working condition.
12. Select the sites in need of repair or replacement of in-pavement failed sensors and electronics to continuously collect quality data.
13. Coordinate between different CPM and Maintenance resurfacing projects impacting existing WIM and TVS station.

ANTICIPATED ACCOMPLISHMENTS FOR CALENDAR YEAR 2017:

Submission of the CY 2016 Truck Weight Study in VTRIS database to FHWA no later than June 15, 2017.

- 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

STATE PLANNING AND RESEARCH PROGRAM, 2017-2018

ACTIVITY: Traffic Monitoring System (TMS) – Weights and Speeds – 2206279 / 5330
MANAGER: Sophia Azam
UNIT: Bureau of Transportation Data and Safety

ANTICIPATED ACCOMPLISHMENTS FOR CALENDAR YEAR 2017: (cont'd.)

- 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 June 30, 2017.
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 3rd week of the following month of data.
- Continue to provide various units of NJDOT, State Police and other agencies with truck weight, classification and other traffic data from permanent WIM stations.
- Online monthly submittal via TMS2 to FHWA of classification, speed and weight data collected from WIM stations by the 3rd week of the following month.
- Update and post in our website the correction factors needed to calculate AADT for short term counts by June 2017.
- 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.
- 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.
- Select sites to test new technologies, such as laser classification sensors, solar power, camera verification, and license plate readers.

CONTRACTS:

IRD Auto polling software annual subscription: \$1000.00

Proposed:

\$ 12,000 - Division of Purchase and Property (Calibration Truck driver salary).

STAFFING:

Oberle, E.	0.30
Griffis, R	0.80
Mordenti, M.	0.50
Zajac, K.	0.40
Sperrazza, R.	0.50
Brzostowski, P.	1.00
Abraham, A.	0.40
Technician 5	1.00

Total Staff Time: 4.9 person years

Overtime budget

\$28,576- The Bureau staff plays a subject matter expert role in different CPM and Maintenance resurfacing projects impacting our WIM/TVS monitoring stations. The activities related to the construction contracts require overnight working hours due to Traffic Operations regulations to conduct in-road construction during off-peak hours. BTDS staff are required to be present during sensor installations to make sure that all Quality Assurance rules are followed.

\$3,000 – Operations Staff assists with electrical

STATE PLANNING AND RESEARCH PROGRAM, 2017-2018

ACTIVITY: Functional Classification System and Federal Aid System – 2206279 / 5650
MANAGER: Sophia Azam
UNIT: Bureau of Transportation Data and Safety

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.
- 3.

ANTICIPATED ACCOMPLISHMENTS FOR CALENDAR YEAR 2017:

- 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, 2017-2018

ACTIVITY: Functional Classification System and Federal Aid System – 2206279 / 5650
MANAGER: Sophia Azam
UNIT: Bureau of Transportation Data and Safety

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.

CONTRACTS: None

TRAVEL: None.

EQUIPMENT: None.

STAFFING:

Faughnan, G.	0.10
Haji, S.	0.05
Nwachukwu, S.	0.05
Thomas, P.	0.10
Total Staff Time:	0.30 years

STATE PLANNING AND RESEARCH PROGRAM, 2017 - 2018

ACTIVITY: Highway Performance Monitoring System – 2206279 / 5930
MANAGER: Sophia Azam
UNIT: Bureau of Transportation Data and Safety

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 2015 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 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 2015 Certification of Public Road Mileage and the 2016 HPMS submittal, 2015 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 2016 HPMS submittal NJDOT's website will be updated. This will be completed before December 31st.
8. Update the HPMS dataset with new local road mileage for the data year 2015.
 - 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, 2017 - 2018

ACTIVITY: Highway Performance Monitoring System – 2206279 / 5930
MANAGER: Sophia Azam
UNIT: Bureau of Transportation Data and Safety

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 2015 data year.
16. Update all NHS International Roughness Index (I.R.I.) data each year as required by FHWA for the 2016 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 2017:

- 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

TRAVEL / EQUIPMENT: None.

Overtime budget - \$3,077. Request funds for overtime to review and update all HPMS full extent sections with either a flowed AADT or actual AADT's.

STAFFING:

Conti, B.	0.50
Faughnan, G.	0.70
Haji, S.	0.90
King, E.	1.00
Nwachukwu, S.	0.60
Thomas, P.	0.10

Total Staff Time: 3.8 person years

**TRAFFIC MONITORING
SYSTEMS - GIS**

NHP-D00S(005)

**DIVISION OF ACCOUNTING
AND AUDITING**

STATE PLANNING AND RESEARCH PROGRAM, 2017 - 2018

ACTIVITY: Transportation Statistics – Data Dissemination – 2206280 / 5420

MANAGER: Samuel Braun

UNIT: Division of Accounting and Auditing

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” and to ensure that the data produced and published by FHWA and used by independent research organizations (i.e. Reason Foundation) properly reflects state highway capital spending and maintenance metrics.

GOALS/ACTIVITIES:

- Series 500 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. Report due on bi-annual basis is 536
- 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.
- Continue working with FHWA to possibly reformat/redesign certain forms that more accurately accounts for the state’s bond issue by allocating proceeds and related annual debt service among state highway, mass transit, and local aid capital spending that directly impacts FHWA methodology in its compilation of annual state by state reporting on state highway expenditures that can be misused by independent research organizations like the Reason Foundation.

ANTICIPATED ACCOMPLISHMENTS FOR CALENDAR YEAR 2017:

- 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.
- The outsourcing of the bi-annual 536 report of state municipalities on local roads data to either an independent research firm or with a NJ college/university (i.e. Voorhees Transportation Center/Rutgers) – according to FHWA several states utilize this option
- 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 currently - outsourcing of the FHWA-536 will entail formal agreement

TRAVEL:

N/A

EQUIPMENT:

None.

STAFFING:

Samuel Braun .125 person year

Albert Weierman .125 person year

TRAFFIC MONITORING SYSTEMS - GIS

NHP-D00S(005)

**DIVISION OF INFORMATION
TECHNOLOGY**

STATE PLANNING AND RESEARCH PROGRAM, 2017 - 2018

ACTIVITY: Transportation Geographic Information Systems – 2206280 / 5210
MANAGER: Cynthia Dey
UNIT: Bureau of Information Management & Technology Planning / GIS

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, 2017 - 2018

ACTIVITY: Transportation Geographic Information Systems – 2206280 / 5210
MANAGER: Cynthia Dey
UNIT: Bureau of Information Management & Technology Planning / GIS

GOALS/ACTIVITIES: (continued)

8. Complete and Maintain a Rail GIS application to enhance rail analysis.
 - a) This project is funded through the Bureau of Multimodal Grants and Programs.
 - b) Michael Baker began Build portion using the GIS Services T-1841 Contract - August 2014.
9. Complete and Maintain 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. began the Build portion using the GIS Services T-1841 Contract - September 2014.
10. Complete and Maintain 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. began the Build portion using the GIS Services T-1841 Contract – October 2014
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 2017:

- 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.
- Complete and deploy the Rail GIS application.
- Complete and deploy the DMMS application.
- Complete and deploy the WLS application.

CONTRACTS:

Year One - TRAVEL – \$10,000 – Needed for staff to attend the next ESRI User Conference in California, which provides 5 days of Esri software training, hundreds of user presentations that share best practices, and user-to-user communication opportunities essential for learning about real-life GIS experiences, best practices, and tips.

Year Two - TRAVEL - \$10,000 – Needed for staff to attend the next ESRI User Conference in California, which provides 5 days of Esri software training, hundreds of user presentations that share best practices, and user-to-user communication opportunities essential for learning about real-life GIS experiences, best practices, and tips.

STAFFING:

Tim Stewart	.25
Len Chetti	.25
Carla Calderone	.40
Ellis K. Williams	.25
Magdy Guirguis	.35
Nirali Patel	.30
Total	1.80

STATE PLANNING AND RESEARCH PROGRAM, 2017 - 2018

ACTIVITY: Automated Mapping - Graphics – 2206280 / 5220
MANAGER: Cynthia Dey
UNIT: Bureau of Information Management & Technology Planning / GIS

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, including the newly provided consolidated plotters located throughout the department facilities.
4. Providing new GPS units for various applications, including mapping, allowing users to collect points and enabling position accuracy to the National Spatial Reference System, both horizontally and vertically.

ANTICIPATED ACCOMPLISHMENTS FOR CALENDAR YEAR 2017:

- Continue updates to county and municipal base maps.
- Continue updates to cultural and environmental features.
- Generate plots and presentation materials for NJDOT users, as requested.
- Provide custom mapping to NJDOT users.
- Provide GPS assistance, including instructions on using unit, exporting of data off unit, creation of text, database, or shapefile, to be used to input to GIS software.

CONTRACTS:

Equipment - \$10,000 GPS Units Purchase (year one) - This will provide for multiple units and software that is required for the field data collection and uploading data in order to support GPS portion of this work program.

Equipment - \$15,000 Plotter Purchase (year two) - This is for the replacement of 42" plotter.

STAFFING:

Tim Stewart	.25
Len Chetti	.25
Carla Calderone	.30
Ellis K. Williams	.50
Magdy Guirguis	.25
Nirali Patel	.30

Total **1.85**

STATE PLANNING AND RESEARCH PROGRAM, 2017 - 2018

ACTIVITY: New Jersey State Transportation Map – 2206280 / 5230
MANAGER: Cynthia Dey
UNIT: Bureau of Information Management & Technology Planning / GIS

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 Official New Jersey 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, appearance and layout template for the planned map.
4. Selection of photography, including cover and backside artwork.
 - a. Ensure permissions and waivers are obtained
5. Inclusion of other transit agency info, and Travel & Tourism information.
6. Assist in the state procurement process to select a vendor for printing.
7. Press proof color separations and quality assurance prior to printing.
 - a. Ensure that color accuracy and map registration is perfect prior to going to press.

ANTICIPATED ACCOMPLISHMENTS FOR CALENDAR YEAR 2017:

- Continued updating of the base maps, and insets to reflect current information.
- Continued development of new layouts, themes and content for the next official state map printing.
- Prepare, edit and complete the 2016 State Map “Reprint”, with estimated delivery in late 2016.

CONTRACTS:

None

STAFFING:

Tim Stewart	.25
Len Chetti	.25
Total	0.50

STATE PLANNING AND RESEARCH PROGRAM, 2017 - 2018

ACTIVITY: Digital Data Distribution – 2206280 / 5240
MANAGER: Cynthia Dey
UNIT: Bureau of Information Management & Technology Planning / GIS

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
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 and maintenance 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 SRI/NHS, Aviation, Agreement & Jurisdictional Map, Park & Ride and Geodetic Monuments.
6. Develop ArcGIS Online platform and environment which will allow the creation of interactive web maps.

ANTICIPATED ACCOMPLISHMENTS FOR CALENDAR YEAR 2017:

- 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
- Develop ArcGIS Online environment & platform.

STATE PLANNING AND RESEARCH PROGRAM, 2017 - 2018

ACTIVITY: Digital Data Distribution – 2206280 / 5240
MANAGER: Cynthia Dey
UNIT: Bureau of Information Management & Technology Planning / GIS

CONTRACTS:

Year One - \$50,000 obtaining consultant services for standing up the ArcGIS Online environment.
Year Two - \$50,000 funding for statewide Orthoimagery subscription/flight.

STAFFING:

Tim Stewart	.25
Len Chetti	.25
Carla Calderone	.30
Ellis K. Williams	.25
Magdy Guirguis	.40
Nirali Patel	.40
Total	1.85

STATE PLANNING AND RESEARCH PROGRAM, 2017 - 2018

ACTIVITY: Transportation Systems Information Management and Data Integration - 2206280 / 5250
MANAGER: Cindy Dey
UNIT: Bureau of Information Management & Technology Planning/Information Management Unit

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 part of the Department Enterprise Data Warehouse (EDW) 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 Enterprise 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 have been created to facilitate quick retrieval of data and reports. Business Objects Universes continue to be built to satisfy user community reporting needs. The EDW allows 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.

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 is being addressed as well.

Develop a multi-phased plan for enabling MPOs access to DataMart via Business Objects. The MPO representatives will provide their anticipated data needs, categorized by management system, identifying how the data will be used. An MOU for the MPO data sharing project will be drafted. 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 Enterprise Data Warehouse. Provide the analytical tool available via Business Intelligence; including training.

The Department of Transportation has developed an Executive Information System (EIS) as Phase III of the existing TransINFO Data Integration project. The goal of the EIS project is to provide senior leadership and project/program managers with a single source of information for key management data and thus improve financial oversight, project scheduling, contract management and federal grant administration. The system enables NJDOT to shift from a reactive posture to a pro-active approach for all project phases (including federal pre-authorization, implementation and closeout) and heighten accountability among NJDOT staff.

NJDOT is looking to strengthen its grants management effort to ensure the proper stewardship of various projects from "cradle to grave". The EIS also provides project specific information for the project authorization and implementation

STATE PLANNING AND RESEARCH PROGRAM, 2017 - 2018

ACTIVITY: Transportation Systems Information Management and Data Integration - 2206280 / 5250
MANAGER: Cindy Dey
UNIT: Bureau of Information Management & Technology Planning/Information Management Unit

GOALS/ACTIVITIES: (cont'd.)

phase of work (i.e., defined to include the usual sequence of planning, right of way, design and construction phases) for capital and Local Aid projects. The EIS offers a comprehensive project specific data warehouse.

The EIS incorporates all capital projects funded by the FHWA and the TTF, as well as grants issued for Local Aid, multimodal projects (e.g., airports and rail freight) and planning and research, certain road maintenance projects that are presently tracked separately and contracts issued for dredging work on the State's navigable channels.

The EIS/TransINFO update/enhancement project consists of adding data from several new source systems and integrating that data with the existing ten management systems in the EDW. In addition this phase will enhance existing EDW tables with new and modified data from updated DOT sources systems.

ANTICIPATED ACCOMPLISHMENTS FOR CALENDAR YEAR 2017:

- 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 MPO's/ FHWA for the new TransINFO Planning Data Mart and EIS dashboards. Continue training of the NJDOT user community for new users, etc.
- 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.
- Source System changes will need to be incorporated into the Enterprise Data Warehouse which will impact data load processes and Business Objects.
- 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.
- Maintenance and enhancement of the EIS which enables Federal Reporting and monitoring of inactives.
- Perform maintenance and complete additions and enhancements to the Enterprise Data Warehouse.

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 is stored at the one-tenth of a mile granularity. The Planning Data Mart is 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.
- Business Objects Dashboards to satisfy user's informational needs.
- New requirements and use cases for DOT's different user groups.
- MPO data sharing application.
- A Departmental EIS application.

STATE PLANNING AND RESEARCH PROGRAM, 2017 - 2018

ACTIVITY: Transportation Systems Information Management and Data Integration - 2206280 / 5250
MANAGER: Cindy Dey
UNIT: Bureau of Information Management & Technology Planning/Information Management Unit

CONTRACTS:

Year One - \$1,150,000 this funding will provide EIS and TransINFO Enterprise Data Warehouse (EDW) maintenance activities such as universe design, dashboard and report development, tuning queries and data loads, data modeling, ETL procedures and testing.

\$145,000 - To enhance existing EDW tables with new and modified data from updated DOT sources systems – PRS replacement EBuilder PRMS.

\$355,000 - Operational Data Store project – This project will create an Operational Data Store (ODS). This ODS will include the FMIS legacy system data which will be collected at a greater frequency to allow a view of the up-to-the-minute FMIS data. As the data ages it will then be passed to the Enterprise Data Warehouse. This effort will alleviate the current lag time in FMIS loads which causes discrepancies in reporting.

\$240,000. This funding will provide for 2 consultants to assist with the migration effort to upgrade the Business Intelligence environment; which includes reports, dashboards and universes to the new version 4.1. Contingent on NJOIT leading this migration and their implementation plan.

Year Two - \$1,150,000 This funding will provide EIS and TransINFO Enterprise Data Warehouse (EDW) maintenance and enhancements. The goal of this project phase is to continue to add data from new source systems and integrate that data with the existing management systems in the EDW.

\$145,000 - To enhance existing EDW tables with new and modified data from updated DOT sources systems

STAFFING:

Pamela Robertori, Administrative Analyst I	1.00
Erum Malik, Information Technology Specialist	1.00
Vacant, Information Technology Specialist	<u>1.00</u>
Total	3.00

LOCAL CONCEPT DEVELOPMENT SUPPORT

STP-D00S(004)

Division of Environmental Resources
Division of Local Aid

STATE PLANNING AND RESEARCH PROGRAM, 2017 - 2018

ACTIVITY: Local Concept Development - Environmental - 2206277 / 5000
MANAGER: Elkins Green, Director
UNIT: Division of Environmental Resources

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. Consistent with Planning & Environmental Linkages (PEL) complete the NEPA environmental document as appropriate.
7. Coordinate input from Stakeholders and Agencies regarding the purpose and need, the development of alternatives, and environmental issues
8. 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.
- Review RFP's for evaluation and short listing.
- Review and rate proposals solicited by the MPO's for LCD efforts
- Complete environmental impact analysis as needed

ANTICIPATED ACCOMPLISHMENTS FOR CALENDAR YEAR 2017:

Approve LCD studies for selected projects and coordinate new LCD starts with MPOs and Local Aid
Complete NEPA documents for Limited Scope projects graduating from Limited Scope Concept Development phase

STATE PLANNING AND RESEARCH PROGRAM, 2017 - 2018

ACTIVITY: Local Concept Development - Environmental – 2206277 / 5000
MANAGER: Elkins Green, Director
UNIT: Division of Environmental Resources

TRAVEL:

\$5,000 (\$2,500 each year) to attend training and/or conferences.

EQUIPMENT:

None.

CONTRACTS:

No contracts associated with this activity.

STAFFING:

This program is managed by staff from the Division of Environmental Resources. Each individual listed represents 0.6 person years for this activity.

Division of Environmental Resources

Lauralee Rappleye	.2
Pamela Garrett	.5
Sean Ream	.6
Marie Limage	.4
Charu Vaidya	.35
Sean Warren	.10
Jeff Gendek	.10
John Riggi	.10
James Sweet	.10
Brett Hunger	.10
Chirag Patel	.10
Total	2.65 py

STATE PLANNING AND RESEARCH PROGRAM, 2017 - 2018

ACTIVITY: Local Concept Development – Local Aid – 2206277 / 4999
MANAGER: Mike Russo, Director
UNIT: Division of Local Aid

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 2017:

Approve LCD studies for selected projects and coordinate new LCD starts with MPOs, Local Aid and BEPR.

CONTRACTS:

No contracts associated with this activity

TRAVEL:

No travel associated with this activity

EQUIPMENT:

No equipment associated with this activity

STATE PLANNING AND RESEARCH PROGRAM, 2017 - 2018

ACTIVITY: Local Concept Development – Local Aid – 2206277 / 4999
MANAGER: Mike Russo, Director
UNIT: Division of Local Aid

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
Nabil Ayoub
Richard Loveless
Frank Mccombs
Divya Kumar
Jonathan Mojsoski
Adam Iervolino
Deval Desai
Milan Lambachia
Richard Nusser
Adam Iervolino
John Kosciuch
Thomas Berryman
Arun Kumar
Art San Jose
Vijesh Darji
David Cihocki
Kyle Skala
Lauren Coe
Bert Gonzales

Total: 1.4 PY

TAP PLANNING and DEVELOPMENT

TAP-D00S(002)

Division of Local Aid and Economic
Development
Division of Environmental Resources

STATE PLANNING AND RESEARCH PROGRAM, 2017-2018

ACTIVITY: TAP Planning and Development - 2206278
MANAGER: Michael Russo
UNIT: Division of Local Aid & Economic Development

VISION:

The Division of Local Aid plays a leading role in the planning and selection of viable projects that meet the spirit and vision of the Transportation Alternatives Program (TAP). The purpose of this program is to enhance the cultural, aesthetic, historic and environmental aspects of our intermodal transportation system. Also expand travel choice, strengthen local economies of counties and municipalities and make travel to school safer and healthier for students from K-8 under the Safe Routes to School (SRTS) provisions.

MISSION:

- To develop the selection process for the TAP program in cooperation with New Jersey's three Metropolitan Planning Organizations (MPOs), with the SRTS component as a separate program.
- Ensure that the State TAP goals are aligned with the MAP-21 and FAST Act requirements.
- Develop program guidance and management, particularly of a programmatic, procedural and financial nature, for the Transportation Alternatives Program including SRTS as a separate component.
- Provide program guidance and support in environmental matters for the Transportation Alternatives Program.
- To solicit applications, gather data and perform a competitive project selection process.
- To ensure compliance with federal regulatory and environmental requirements for the Federal Highway Administration TAP and SRTS funding.

GOALS/ACTIVITIES:

Solicitation and selection of new eligible TAP and SRTS projects:

- Develop selection process including guidance documents and FAQ's to assist counties and municipalities and other eligible applicants of the program in submitting better applications
- Updates and development of applications annually, for TAP and SRTS to meet current updates and changes using the System for Administering Grants Electronically (SAGE) software. These updates are developed with full input and cooperation with the three MPO's and the NJDOT Division of Environmental Resources and the Office of Bicycle and Pedestrian Programs (OBPP).
- Develop methodology for planning and implementation of project screening and evaluation for the project selection committee
- Database management and development and distribute listings of projects eligible for rating and evaluation.
- Conduct workshops for perspective applicants to assist in their submittal of better applications.
- Conduct field reviews to evaluate information submitted in the applications
- Prepare for and participate in selection meetings with the MPO's and other units in the Departments such as Office of Bicycle and Pedestrian Programs and BEPR to Select projects that best meet program goals
- Consistent with Planning & Environmental Linkages, complete NEPA compliance documents as appropriate
- Organized the lists of selected projects and create reports for the Commissioner's office, MPO's, and FHWA. Efforts will also include making the information available to the public via NJDOT website.
- Network with other States TAP and SRTS coordinators, including webinars, conference calls and attend conferences and related events.

ANTICIPATED ACCOMPLISHMENTS FOR CALENDAR YEAR 2017:

- Conduct selection meetings with MPO's and the Bureau of Environmental Program Resources.
- Project Selection of FY 2016 TAP Program for by April of 2017.
- Complete NEPA documents where feasible

STATE PLANNING AND RESEARCH PROGRAM, 2015-2016

ACTIVITY: TAP Planning and Development - 2206278
MANAGER: Michael Russo
UNIT: Division of Local Aid & Economic Development

CONTRACTS:

No contracts are associated with this activity.

TRAVEL:

None.

STAFFING:

This program has involvement of all staff from throughout the Division of Local Aid and Economic Development and some staff from the Bureau of Environmental Program Resources and the Office of Bicycle and Pedestrian Programs.

Local Aid

Each individual listed represents .07 person year for this activity.

ABUHUZEIMA, SHUKRI	AYOUB, NABIL	WILLIAMS, GEORGE
BISWAS, ARNAB	GHALY, MIRIANA	CIHOCKI, DAVID
BOLE, JUDITH	LOVELESS, RICHARD	COE, LAUREN
BRUCCOLERI, DAVID	McCOMBS, FRANK	DARJI, VIJESH
KHANDAKAR, MAHMOOD	MOJSOSKI, JONATHAN	GONZALES, NENEBERT
PANDIT, KOMILA	NOGUEIRA, ALBERTO	KASPRZAK, FRANCIS
PATHARE, BHUSHAN	PATCHAK, SHAILESH	MASCIANDARO, VINCENT
SEAMAN, JULIE	SCHACK, EILEEN	MCKEE, FRANCIS
ANDERSON, LINDA	YAOUSSEF, CECIEL	SAN JOSE, ARTURO
DUKE, JOHN	BERRYMAN, THOMAS	SHAH, ALKABEN
EDWARDS, CHERYL	DESAI, DEVAL	SKALA, KYLE
IERVOLINO, ADAM	KUMAR, ARUN	WIRTZ, BRIAN
KOSCIUCH, JOHN	KUMAR, DIVYA	ZAMAN, QAMAR
LIMBACHIA, MILAN	MIRANDA, PAUL	PATEL, DHRUV
AHMAD, AHMAD	NUSSER, RICHARD	SOMARATNA, M. KUMUDIKA

Division of Environmental Resources

Staff person years are as follows:

Lauralee Rappleye	0.1	Paula Scelsi	0.05
Sean Warren	0.5	Chirag Patel	0.5
Jeff Gendek	0.6	John Riggi	0.5

Office of Bicycle and Pedestrian Programs

Each individual listed represents .1 person years for this activity

Elise Bremer Nei William Revere

Total Staff Person-Years: 3.65

PAVEMENT PLANNING PROGRAM

STP-D00S(009)

STATE PLANNING AND RESEARCH PROGRAM, 2017 - 2018

ACTIVITY: Pavement Program Planning– 2206282 / 9000
MANAGER: S. Gresavage
UNIT: Pavement and Drainage Management & Technology

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 a 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 FAST legislation.

GOALS/ACTIVITIES:

- Collect, analyze and report pavement condition data including surface distress, smoothness and skid resistance 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 and FAST Legislation.
- 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.
- Provide multi-year 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 annual Pavement 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.
- 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.

STATE PLANNING AND RESEARCH PROGRAM, 2017 - 2018

ACTIVITY: Pavement Program Planning – 2206282 / 9000
MANAGER: S. Gresavage
UNIT: Pavement and Drainage Management & Technology

GOALS/ACTIVITIES: (cont'd.)

- 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.
- Perform pavement screening for recommended treatment locations for pavement scope development.
- 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 data.
- Provide for continuing training and professional development programs for Pavement Program Planning staff.

ANTICIPATED ACCOMPLISHMENTS FOR 2017:

- Collect and analyze surface distress and smoothness data on 100% the State Highway System. Collect and analyze skid resistance data as required on the State Highway System.
- Update the pavement condition database with **2016** 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.
- Enhance the analysis of multi-year pavement condition data to include additional pavement performance related information such as construction QA data to improve reliability of performance curves.
- Evaluate the use of ProVAL software for processing Ride Quality Pay Adjustments.
- Prepare Annual Pavement Condition Report on New Jersey's Roadway Pavement System based on **2016** data collection.
- Update the Department's Asset Management Plan and Dashboard based on **2016** data collection.
- Upload **2016** 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.
- 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 **2016** pavement condition data and **2018** 10 year STIP.
- Prepare problem statements for pavement preservation, rehabilitation and safety projects based on **2016** pavement condition data and **2018** STIP.
- Complete pavement screening for recommended treatment locations for pavement scope development
- Provide input to the Transportation Asset Management Plan (TAMP) development team to prepare NJDOT's first TAMP submission as required by MAP-21/FAST
- Evaluate NJDOT's Pavement Management software and databases for compliance with MAP-21/FAST analysis and reporting requirements and develop a strategy for modification as required.
- Evaluate the automated distress data collected by the Pavement Management vehicle and the semi-automated windshield survey and develop and refine algorithms to determine and correlate pavement distress rating based on this data rather than the windshield survey.
- Investigate data storage and back-up solutions to better protect pavement management data.

STATE PLANNING AND RESEARCH PROGRAM, 2017 - 2018

ACTIVITY: Pavement Program Planning – 2206282 / 9000
MANAGER: S. Gresavage
UNIT: Pavement and Drainage Management & Technology

CONTRACTS:

Three Pavement Screening Term Agreements (\$600,000 year one; \$1,000,000 year two)

TRAVEL:

Deighton User Group conference (approx.. \$3,000 ea. Year)

EQUIPMENT:

PMS data storage and archival (\$50,000 each year)

STAFFING:

P. Bertucci	Admin Analyst 4 Info Sys	1.0	R. Blight	Project Engineer	0.8
H. Matthews	Admin Analyst 3 Info Sys	1.0	J. Fares	Principal Engineer	0.8
G. Leach	Project Engineer	1.0	N. Kohli	Principal Engineer	0.8
Appv'd Backfill	Principal Engineer	1.0	N. Morshed	Senior Engineer	0.6
V. Gervasoni	Senior Engineer	1.0	Y. Patel	Senior Engineer	0.6
M. Kianka	Engineering Tech 1	1.0	W. Kettleston	Senior Engineer	0.6
Appv'd Backfill	Engineering Tech 3	1.0	V. Ganarajan	Senior Engineer	0.6
G. Walters	Engineering Tech 2	1.0	Appv'd Backfill	Senior Engineer	0.6
N. Hayduk	Engineering Tech 5	1.0	Appv'd Backfill	Senior Engineer	0.6
J. Spizz	Engineering Tech 5	1.0			

TOTAL PERSON YEARS **16.0**

Overtime (**\$25,000/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, 2017 - 2018

ACTIVITY: Pavement Support Program - 2206282 / 9100
MANAGER: S. Gresavage
UNIT: Pavement and Drainage Management & Technology

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 identify and evaluate innovative Pavement Management and Engineering strategies to support the New Jersey Department of Transportation (NJDOT)'s Pavement and Drainage Management and Technology Unit in the following areas:

- Cost effective preservation and renewal strategies to keep the state's pavement assets in a state of good repair.
- Optimization of the overall condition of the State's Pavement network within the available funding levels
- Compliance with FAST 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 **2017** program are:

1. Innovative Materials: Research and test new or innovative materials or additives or mix designs to enhance pavement performance, constructability, material production, sustainability, etc. Examples include rubber modified gap graded mix, fiber additives, warm mix technologies, trackless tack coat, recycled materials, etc. Assist in the development of related design guidance, construction specifications and quality assurance test procedures to aid in successful implementation.
2. Innovative Technologies: Research innovative pavement technologies that offer benefits with regard to cost, quality, performance, constructability or sustainability through surveys, literature reviews, equipment demonstrations, etc. Examples include Intelligent Compaction, Thermal Profiling, etc. Assist in the development of related design guidance, construction specifications and quality assurance test procedures that will aid in successful implementation.
3. Pavement Management system development: Assist the Department in the development and continuous improvement of its Pavement Management System. Examples include evaluating alternative methods for incorporating automated distress data into the Pavement Management System network condition analysis, refining treatment triggers, budget analysis and program development. Investigating the impacts of the MAP-21 data collection and reporting requirements, identifying gaps and developing potential strategies to bring New Jersey's Pavement Management System into compliance. Refine the Data Workflow User Manual of pavement condition data collected during NJDOT highway network condition assessment and the quality assurance manual for data collection and analysis.

STATE PLANNING AND RESEARCH PROGRAM, 2017 - 2018

ACTIVITY: Pavement Support Program 2206282 / 9100
MANAGER: S. Gresavage
UNIT: Pavement and Drainage Management & Technology

GOALS/ACTIVITIES: (cont'd.)

4. Pavement Design Procedures: Assist the Department in evaluating its current Pavement Design procedures and software. Research and recommend alternatives to improve reliability of pavement designs. Investigate and develop NJ specific inputs and templates to improve productivity and develop related design guidance documents.
5. Life Cycle Cost Analysis: Assist in developing a methodology to evaluate and compare the life cycle costs of new pavement materials and technologies that have been implemented with those of more traditional materials and technologies. Examples include Binder Rich Intermediate Course (BRIC) w/Stone Matrix Asphalt (SMA), High Performance Thin Overlay (HPTO), rubber modified mixes, etc. Refine the Cost Benefit Analysis (CBA) to assess the benefits of Pavement Preservation Treatments in improving the NJDOT Pavement Network.
6. Conduct Research in support of pavement policy decisions: Assist in gathering and presenting information to help guide and justify DOT pavement policy through data mining, surveys, and literature searches.
7. Technology Transfer: Provide pavement related presentations and demonstrations to highlight relevant pavement information to keep NJDOT staff abreast of the current state of the practice and promising developments in the fields of pavement management, pavement design, materials engineering and pavement construction.

ANTICIPATED ACCOMPLISHMENTS FOR CALENDAR YEAR 2017:

1. Innovative Materials
 - a. NJDOT Cold In-Place Recycling Efforts
 - i. Refine the current NJDOT Specification for Cold In-Place Recycling (CIR) using Foamed Asphalt Procedures
 - ii. Refine the NJDOT Specification for Cold In-Place Recycling (CIR) using Emulsions
 - iii. Evaluate materials and early field performance of the first NJDOT CIR project placed on Rt 83
 - iv. Observe preparation and construction of 2nd NJDOT CIR project proposed to be placed on I-287
 - b. NJDOT Performance Based Specialty Asphalt Mixtures
 - i. Evaluate the impact of age on the performance predictions for the Pavement Management System “triggers” for HPTO
 - ii. Evaluate the potential incorporation of NJDOT Materials Bureau Quality Control test results into the performance analysis of NJDOT’s Performance Based Specialty Asphalt Mixtures
 - iii. Evaluate the performance of SMA based on PMS data in order to develop a material specific performance curve.
 - c. NJDOT Performance Based Specifications – Precision and Bias Statements for Performance Testing
 - i. Develop, manage, and conduct a Round Robin experiment to develop a Precision and Bias statement for the Overlay Tester (NJDOT B-10)
 - ii. Develop, manage, and conduct a Round Robin experiment to develop a Precision and Bias statement for the Flexural Beam Fatigue (AASHTO T321)

STATE PLANNING AND RESEARCH PROGRAM, 2017 - 2018

ACTIVITY: Pavement Support Program 2206282 / 9100
MANAGER: S. Gresavage
UNIT: Pavement and Drainage Management & Technology

ANTICIPATED ACCOMPLISHMENTS FOR CALENDAR YEAR 2017: (continued)

- d. NJDOT Skid Resistance Thresholds
 - i. Research and evaluate the skid resistance thresholds currently used by the NJDOT's Locked Wheel skid testing procedures
 - e. New Pavement Preservation Asphalt Mixtures for NJDOT
 - i. Evaluate and develop specifications for new and promising thin-lift asphalt applications that can be utilized in NJDOT's Pavement Preservation activities. Applications to include, but not limited to; Highly Modified Thin Asphalt Mixture (HiMA) and Gap-Graded Asphalt Rubber Mixture
 - f. Evaluate Performance of Recycled Asphalt Binder from Recycled Asphalt Pavement (RAP) and Recycled Asphalt Shingles (RAS)
 - i. Evaluate the performance of NJDOT asphalt mixtures containing recycled asphalt shingles (RAS) from both post-consumer and post-manufacturer waste streams
 - ii. Evaluate the field performance of NJDOT HRAP (High RAP) mixtures placed between 2013 and 2016.
2. Innovative Technologies
- a. NJDOT Intelligent Compaction Policy
 - i. Develop, finalize and provide guidance for an Intelligent Compaction specification that can be used for Quality Control – potentially in lieu of NJDOT's current allowance of the Nuclear Density Gauge
 - b. Pavement Generated Noise on NJDOT's Highways
 - i. Maintain the QPPP data collection on the "quiet pavement surfaces" for the 5th of the required 7 year data collection program
 - ii. Collect data on a minimum of 10 pavement sections at least three times per year.
 - iii. Measure pavement noise levels on any innovative pavement surfaces developed and implemented on New Jersey's State-maintained roads.
 - c. NJDOT Longitudinal Joints – Post Construction Specification
 - i. Develop, manage, and analyze Pilot Study program evaluating a proposed Longitudinal Joint Acceptance specification for the NJDOT. The pilot studies would consist of different asphalt mixture surface courses, potentially including but not limited to; 9.5 and 12.5 mm nominal maximum aggregate size mixtures; stone mastic asphalt (SMA); Asphalt mixtures with PG64 and PG64E-22 asphalt binders; HPTO; warm mix asphalt (WMA) technologies.
3. Pavement Management System (PMS) Development
- a. Manage data workflow of pavement condition data collected during NJDOT highway network condition assessment
 - b. Refine the Data Workflow User Manual of pavement condition data collected during NJDOT highway network condition assessment
 - c. Refine the NJDOT's PMS Quality Assurance manual to include visual pavement distress collected and analyzed using automated distress collection system
 - i. Work to help phase out NJDOT manual windshield rating system
 - d. Develop cracking parameters and refine NJDOT's Surface Distress Index (SDI) using automated distress collection system capabilities.
 - e. Evaluate and refine dTIMS v.9 inputs, triggers, and models
 - f. Automate and document the Annual dTIMS v.9 analysis and results

STATE PLANNING AND RESEARCH PROGRAM, 2017 - 2018

ACTIVITY: Pavement Support Program 2206282 / 9100
MANAGER: S. Gresavage
UNIT: Pavement and Drainage Management & Technology

ANTICIPATED ACCOMPLISHMENTS FOR CALENDAR YEAR 2017: (continued)

- g. Automate the transfer of pavement condition data, and recommended annual pavement construction program to ArcGIS for illustration
 - h. Update the dynamic NJDOT dTIMS User Manual for v.9
 - i. Transition the HPMA database into Rutgers developed software application
 - i. Includes training to NJDOT staff
 - ii. Refine the HPMA replacement application based on user input
 - j. Work with NJDOT to implement MAP-21 data collection and reporting requirements, identifying gaps and developing potential strategies to bring New Jersey's Pavement Management System into compliance
- 4. Pavement Design Procedures**
- a. Complete the development of the NJDOT Pavement-ME Traffic Families and provide guidance to the NJDOT on how to utilize them within the Pavement-ME design software
 - b. Continue the refinement of the NJDOT Pavement-ME Materials Catalog
 - i. Anticipated that an additional 4 to 6 dense-graded asphalt mixtures and 2 to 3 Specialty asphalt mixtures will be collected and evaluated
 - c. Initiate the calibration of pavement performance models in the Pavement-ME using NJDOT pavement locations and regional conditions
 - i. Models proposed, but not limited to, for evaluation include; asphalt mixture rutting, fatigue cracking, and reflective cracking models.
 - d. Development of a NJDOT Pavement Design Guideline
 - i. Provides guidance on how NJDOT engineers and consultants should design highway pavements of varying structures, materials and traffic levels
- 5. Life Cycle Cost Analysis**
- a. Develop Cost-Benefit Analysis scenarios for NJDOT's non-conventional asphalt mixtures, such as High Performance Thin Overlays (HPTO), Stone Matrix Asphalt (SMA) and Stone Matrix Asphalt used in conjunction with Bituminous Rich Intermediate Course (BRIC)
- 6. Research in Support of Pavement Policy Support**
- a. Develop, manage, and analyze a pilot study that looks at using Traffic Speed Deflectometer (TSD) to measure pavement strength/integrity of NJDOT's highways at highway traffic speeds for network level data collection
- 7. Technology Transfer**
- a. Develop, manage, and conduct training activities to include but not limited to;
 - i. Pavement-ME Use and Guidance
 - ii. NJSAT Hot Mix Asphalt Materials Refresher
 - iii. NJDOT's Performance-Based Specifications

CONTRACTS:

Consultant Activities—\$2.0 million Year 1.

STATE PLANNING AND RESEARCH PROGRAM, 2017 - 2018

ACTIVITY: Pavement Support Program 2206282 / 9100
MANAGER: S. Gresavage
UNIT: Pavement and Drainage Management & Technology

TRAVEL:

Attendance for 1 DOT employee at annual North East User Producer User Group (NEAPUG) meeting (approx.. 500 ea. Year)

EQUIPMENT:

None

STAFFING:

None

STATE PLANNING AND RESEARCH PROGRAM, 2017 - 2018

ACTIVITY: Drainage Capital Improvement Program Planning - 2206282 / 9200
MANAGER: S. Gresavage
UNIT: Pavement and Drainage Management & Technology

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/FAST Implementation 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.
- Coordinate with other Divisions to implement low cost high value drainage solutions where possible.
- 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 and develop 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, 2017 - 2018

ACTIVITY: Drainage Capital Improvement Program Planning - 2206282 / 9200
MANAGER: S. Gresavage
UNIT: Pavement and Drainage Management & Technology

ANTICIPATED ACCOMPLISHMENTS FOR 2017:

- 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 2016 flooding data.
- Update the prioritized database of icing areas based on 2016 icing data.
- Update the Department's Asset Management plan and Dashboard based on 2016 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 2016 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 2016 flooding and icing data and 2016 10 year budget forecast.
- Prepare problem statements for drainage capital improvement projects based on 2016 flooding and icing data and 2018 STIP.
- Prepare problem statements for drainage safety projects based on 2016 flooding and icing data.

TRAVEL:

None

EQUIPMENT:

None

STAFFING:

Name	Title	Person Years
K. Chan	Supervising Engineer	1.0
R. Patel	Project Engineer	1.0
L. Zhao	Civil Engineer Trainee	1.0

TOTAL PERSON YEARS 3.0

BRIDGE MANAGEMENT SYSTEM

STP-D00S(010)

STATE PLANNING AND RESEARCH PROGRAM, 2017-2018

ACTIVITY: Bridge Management System - 2206285
MANAGER: Gregory T. Renman
UNIT: Bureau of Structural Evaluation & Bridge Management

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, the State Transportation Improvement Program (STIP), to support the development of Department's Transportation Asset Management Plan (TAMP), and to enable more pro-active and cost-efficient methods of managing the Department's structural assets.

GOALS/ACTIVITIES:

1. Improve accuracy, efficiency and timeliness of BMS data collection.
 - a. Complete the final validation portion of Phase 2 of the NBIS Bridge Inspection data implementation in the Combined Inspection System (CombIS) and AASHTOWare BrM (BrM), focusing on capability and final optimization. We will continue to expand CombIS's collection and use of inspection information for most NBIS bridges, and all State minor bridges and other structural assets (including the overhead sign structures and high mast light poles, and basic data for dams).
 - i. Perform the typical cleanup effort needed at the end of any major upgrade to ensure all aspects of the system (mostly outliers and seldom used items) are functioning properly.
 - ii. Continue to add additional fields to CombIS and/or BrM as needed to support the MAP-21 data requirements determined to be necessary due to the Final Rulemakings due out in Nov/Dec. 2016 for bridge performance measures and asset management.
 - b. Continuously perform QA on the SI&A and National Bridge Element data.
 - i. Develop new reports as needed, in both CombIS and BrM to improve ease, and thus results, of data quality checking and reporting.
 - ii. Develop reports that make it easier to track and report on the 23 Federally-mandated Metrics.
 - c. Perform all necessary actions to enable the provision of the federal "Tapes" from BrM 5.2.3.
 - d. Begin the development of Phase 3 of the NBIS Bridge Inspection data implementation in CombIS and 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 2018) 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, 2017-2018

ACTIVITY: Bridge Management System - 2206285
MANAGER: Gregory T. Renman
UNIT: Bureau of Structural Evaluation & Bridge Management

GOALS/ACTIVITIES: (cont'd.)

2. Establish appropriate data linkages, and/or manual methods (especially initially), to enable the optimized flow of information to support the Department's decision-making. Work with the Department to adjust/refine the structural project identification and prioritization process such that, for major efforts, the right work happens at the right time. As part of this, develop appropriate project priorities and recommendations for effective Asset Management, and provide this information for use in the Capital Investment Strategy, the STIP, and the TAMP. Also, ensure that work accomplished, both major and minor (maintenance items), flows into CombIS and BrM.
 - a. Develop a way of obtaining data on existing asset-related work from all maintenance activities (This will likely require a link from the proposed Maintenance Fieldbook software to CombIS).
 - b. Develop a way of obtaining data on major work performed (bridge and structure major rehabilitations and replacements) from the Department's construction activities. This will require developing a data flow (initially manual and then later via data transfer) from eBuilder, and possibly other data sources, to CombIS, with CombIS providing this data to BrM as needed.
 - c. Develop appropriate project priorities and recommendations for Asset Management and the entire Capital Investment effort, and develop ways of adjusting these recommendations over time to maximize value and minimize cost.
 - i. Work with the Department as necessary to adjust the project development and delivery process to be more compatible with computerized methods of project identification, development, and time-based (delivery-date-focused) optimization.
 - ii. Based on this, develop and identify Project/Maintenance recommendations for the yearly Capital Program, the Capital Investment Strategy, the STIP, and the TAMP.
 - iii. Develop and implement methods of tracking progress with regards to meeting established goals.

3. Maximize the effectiveness of the investment in bridge and structural asset infrastructure.
 - a. Improve BrM data and deterioration model refinements.
 - i. Continue Development/Refinement of Performance Measures to monitor the health of our bridges. Also, provide tasks each year for, and implement the results of, the Bridge Resource Program activities.
 - 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 yearly to reflect current NJ unit prices.
 - v. Modify/augment BrM formulas to support the NJ risk-based approach.
 - vi. Develop procedures and analysis to support the identification of bridge cyclic maintenance and preservation efforts.
 - 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 (partly described in section "2" above).
 - ii. Working with the Department, develop and provide an appropriate level of 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*.
 - iii. Implement all required aspects of the Rulemakings involving the Bridge Performance Measures and the TAMP.

STATE PLANNING AND RESEARCH PROGRAM, 2017-2018

ACTIVITY: Bridge Management System - 2206285
MANAGER: Gregory T. Renman
UNIT: Bureau of Structural Evaluation & Bridge Management

GOALS/ACTIVITIES: (cont'd.)

- c. Implement a bridge preservation strategy, and methods to support this strategy.
 - i. Continue to develop the “*Playbook*” (a task-by-task method of documenting why we chose each action we make available for a bridge, what benefit we can take credit for in BrM deterioration modeling, what the cost benefit is, and the specifics of the action).
 1. Working with maintenance, develop/document in the *Playbook* methods that provide information to us on what maintenance work is being performed on State bridges and when.
 2. Working with maintenance and others, develop a list of actions that result in demonstrable bridge preservation results.
 3. Make the *Playbook* information available to the FHWA as part of the TAMP implementation and delivery.
 - ii. 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.
 - iii. Develop and document various methods and decision trees for determining when to implement the various alternatives listed in the *Playbook*.
- d. Develop the capabilities to deliver the TAMP, as well as a 10-year capital program and 25-year capital plan, utilizing BrM directly to the extent possible and 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 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 and methods 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). If significant weaknesses are discovered, get involved in the BrM development effort.
 - iii. Develop and deliver all data required for the TAMP, including Lifecycle and funding alternatives analysis.
 - iv. Develop appropriate project priorities and recommendations for the yearly Capital Program.

STATE PLANNING AND RESEARCH PROGRAM, 2017-2018

ACTIVITY: Bridge Management System - 2206285
MANAGER: Gregory T. Renman
UNIT: Bureau of Structural Evaluation & Bridge Management

ANTICIPATED ACCOMPLISHMENTS FOR CALENDAR YEAR 2017:

1. Complete the final validation portion of Phase 2 of the NBIS Bridge Inspection data implementation in CombIS and BrM 5.2.3.
2. Complete the final pieces of the implementation of the overhead sign structure, high mast light pole, and dam inspection efforts in CombIS, with a focus on adding mission supporting reporting and efficiency improving adjustments.
3. Continue to develop CombIS in various ways to effectively support the overall bridge inspection effort.
4. Based on the "Fieldbook" vendor being in place, develop an initial plan for how to feed maintenance activities into CombIS & BrM.
5. Continue to enhance/improve the BrM modules utilized in deterioration modeling, including improving the cost information used as a basis for estimates.
6. Modify/augment BrM formulas to support the NJ risk-based approach.
7. Implement an initial version of the *Playbook*.
8. Implement BrM 5.2.3 capabilities to support TAMP development.

CONTRACTS:

CoMBIS contract - Bentley (InspecTech) – Approx: \$250,000 in CY2017

CoMBIS contract - Bentley (InspecTech) – Approx: \$275,000 in CY2018

STAFFING:

	<u>CY2017</u>	<u>CY2018</u>
Jack Evans, Supervising Engineer	.25 person-year	.30 person-year
Harjit Bal, Project Engineer	.60 person-year	.65 person-year
Gina Rossi & Chandrahas Shah & Yashesh Patel & Vijay Sampat & Doug Tintle & Nirav Patel & Yves Nadie & Talal Abdalla & Mohammad Khan & Amar Patel Naveed Zaki & Bhavesh Patel	2.05 person-year	2.30 person-year
Prin./Sen./Asst. Engineers		
Total	2.90 person-years	3.25 person-years

BRIDGE RESOURCE PROGRAM

STP-D00S(011)

STATE PLANNING AND RESEARCH PROGRAM 2017 - 2018

ACTIVITY: Bridge Resource Program (BRP) - 2206281

DIRECTOR: Nat Kasbekar, P.E.

UNIT: Engineering and Infrastructure Management

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 engineering evaluation and research support to the New Jersey Department of Transportation (NJDOT)'s Division of Bridge Engineering and Infrastructure Management to (1) Preserve the State's Bridge and Structural Assets, (2) Optimize the overall condition of the State's structures within the available funding levels, and (3) Assist with the development of policy based on new technologies and guidelines.

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 are flexible, responsive and can efficiently enhance the overall performance of State assets. As such the BRP plan will be focused on the following core work areas:

1. Enhance the NJDOT's Structural Management Activities
 - a. Evaluate the existing activities and practices, find improvement needs in the existing activities and develop methods to mitigate deficiencies in the NJDOT's Bridge Management System.
 - b. Develop methods and procedures of performing Risk Based Prioritization work on assets in order to maximize safety and structural life at the optimal cost.
 - c. Coordinate, learn and develop management strategies for other structural assets (culverts, noisewalls, sign structures, high mast light poles, dams etc.)
 - d. In accordance with MAP-21, support and enhance the Department's more comprehensive and methodical bridge preservation effort.
 - e. Research and recommend technical tools, develop guidelines and manuals for the Bureau of Structural Evaluation and Bridge Management.
 - f. Develop, refine and validate bridge deterioration modeling. Develop and research methods of efficiently analyzing bridge component data with the intention to utilize the data in such a manner that the desired performance and results are achieved. Provide asset data mining & technical assistance as needed.
2. Structural and Geometrics
 - a. Research methods for performance modeling and rating analysis on complex structures.
 - b. Evaluate the effectiveness of various methods used for the SUPERLOAD System. Evaluate and recommend best practices for performing Load Rating.
 - e. Develop methods to evaluate and validate currently implemented overweight truck route analysis.
 - d. In-depth structural inspection and evaluation to investigate structural emergencies
3. Advanced Materials
 - a. Research, review and pilot NDT/NDE methods and techniques in accordance with the NJDOT requirements.
 - b. Evaluate innovative material and technologies in the areas of Structural Engineering, bridge design and preservation.
 - c. Provide technology transfer and training to NJDOT's Division of Bridge Engineering & Infrastructure Management staff on topics pertaining to but not limited to new products, policy guidelines and research products.
4. 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 the NJDOT Design Manual for Bridges and Structures, as directed.
 - iv. Develop updates to standard plans and standard details, as directed.

STATE PLANNING AND RESEARCH PROGRAM 2017 - 2018

ACTIVITY: Bridge Resource Program (BRP) - 2206281

DIRECTOR: Nat Kasbekar, P.E.

UNIT: Engineering and Infrastructure Management

GOALS/ACTIVITIES: (Continued)

- b. Rapidly respond to the NJDOT's need for advanced bridge engineering tools and services to address forensic and construction, or maintenance, issues:
 - g. BRP staff will respond to the requests within one day and develop an appropriate work plan to supply the needed support and respond to NDE field evaluation upon NJDOT request within 3 days.
5. Provide Technology Transfer
- a. Develop and provide technical training modules and technology transfer for BRP related presentations and demonstrations to highlight relevant information to keep NJDOT staff abreast of the current state of practice and new developments in the fields of Design, Materials Engineering, Maintenance and Preservation, Construction and Bridge Management.
6. Local Aid Future Needs Program:
Evaluate applications for Local Bridges Future Needs (LBFN) program as part of the Statewide Capital Investment Strategy, which focuses on preventive maintenance, rehabilitation and selective replacement of bridges.
7. Bridge Design Manual, Standards and Policy Update
Review adoption of AASHTO design specifications, NCHRP documents on bridge design/construction, design and construction practices of other state agencies, and other technical research documents in order to provide requirements and guidance on bridge design methods and policies. This will be achieved by using the research information to maintain and update the NJDOT Design Manual for Bridges and Structures, the structural portion of the Standard Specifications for Road and Bridge construction, and the Standard Drawings for Bridges and Structures so that these documents reflect current design and construction practices.

ANTICIPATED ACCOMPLISHMENTS FOR CALENDAR YEAR 2017:

Enhance NJDOT's Structural Management Activities in collaboration with the Department's Structural Evaluation staff

- 1a. Investigate default BrM 5.2.3 actions, utility and other features. Recommend changes to default settings in order to calibrate BrM framework to state-specific protocols.
- 1b. Develop methods, and validate procedures of performing Risk Based Prioritization work on assets in order to maximize safety and structural life at optimal cost.
- 1c. Provide technology transfer via on-site staff to instruct in the use of new models, capture critical functionality desired by the Department staff and refine state-specific BrM asset management software through collaboration with Bentley and on-site staff.
- 1d. Validate and fine-tune the implementation of the state-specific risk based prioritization methodologies within the Department's overall BMS framework, after the Department has fully implemented BrM 5.2.3, and has verified how BrM 5.2.3 will be making project decisions (based on task 1f. below).
- 1e. Develop a structure for a comprehensive asset preservation "manual" that describes existing and innovative strategies and interventions; is structured in such a way as to track and support both the decision process for the adoption of each intervention by the Department, as well as how, when and where to perform each intervention, as well as what credit BrM can take for the application of the intervention. In addition to how to apply each intervention once an intervention has been determined to be of sufficient value, each "page" of this "manual" is envisioned to support the tracking of the entire decision-making process, including everything from an initial literature search to any research performed in support of validating the intervention as appropriate for New Jersey. This "manual" is also intended to serve as a key support component of the determination of the life-cycle of a bridge in compliance with 23CFR515.

STATE PLANNING AND RESEARCH PROGRAM 2017 - 2018

ACTIVITY: Bridge Resource Program (BRP) - 2206281

DIRECTOR: Nat Kasbekar, P.E.

UNIT: Engineering and Infrastructure Management

ANTICIPATED ACCOMPLISHMENTS FOR CALENDAR YEAR 2017: (Continued)

- 1f. In collaboration with Department's structural evaluation staff, investigate default BrM 5.2.3 project planning tools and compare with state-specific protocols to identify strategies that may be undertaken by the Department towards a comprehensive integration of project selection and long-term program planning utilizing BrM.

Structural and Geometrics – analysis and performance

- 2a. Refined Load Rating
- i. Evaluate the effectiveness of current practices used for the SUPERLOAD System.
 - ii. Recommend best practices for performing load rating.
 - iii. Research methods for performance modeling and rating analysis on complex structures.
 - iv. In-depth structural inspection and evaluation to investigate structural emergencies.
- 2b. Review our current policy on assigning Engineering Judgment ratings and provide recommendations to fully comply with the FHWA's requirements on Metric 13. Evaluate up to five (5) specific instances where "Engineering Judgment" has been used to assign load capacity ratings for reasons including but not limited to missing plans, structure type and software limitations.

Advanced Materials – review and performance

- 3a. In collaboration with the Department, develop a protocol to rapidly assess bridge decks and deploy rapid interventions that will greatly extend service life. The findings will inform state-specific adjustments or credits that may be applied to the remaining service life of bridge decks following the intervention.

On-Call Services

- 4a. Review proposed amendments to AASHTO publications submitted to the Subcommittee on Bridges and Structures (SCOBS). Present results and guidance in technical memorandums.
- 4b. 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.
- 4c. Assist with research for development of updates to Standard Specifications, Plans and Details, as directed.
- 4d. Develop Standards for new materials and construction techniques as selected by NJDOT from the technical memorandums developed in other tasks.
- 4e. Respond to urgent structural management, materials and technology issues that arise throughout the year.

Provide Technology Transfer

- 4a. In collaboration with the Department, select and coordinate webinars and training on design, structural and bridge evaluation topics.

Evaluating Local Aid Future Needs Program

- 6a. Evaluate applications for Local Bridges Future Needs (LBFN) program which focuses on preventive maintenance, rehabilitation and replacement of bridges.

Adoption of current practice to State Standards and Policy

- 7a. Review adoption of current practice including research to update the state's Design Manual for Bridges and Structures, bridges standards and policy documents.

CONTRACTS:

2017 – \$1.6 million; 2018 - \$1.6 million.

STATE PLANNING AND RESEARCH PROGRAM 2017 - 2018

ACTIVITY: Bridge Resource Program (BRP) - 2206281

DIRECTOR: Nat Kasbekar, P.E.

UNIT: Engineering and Infrastructure Management

STAFFING:

To Be Filled	Supervising Highway Engineer Bridge Design Spec. Review	0.6
Jayesh Patel	Project Engineer Structural Transportation	0.7
Hannah Xicheng	Principal Engineer Structural Bridge Design	0.7
Kiranben Patel	Senior Engineer Transportation	0.8
Sudha Lakshminarayanan	Assistant Engineer Transportation	0.8
Ankur Patel	Assistant Engineer Transportation	0.8
Joseph Warren	Civil Engineer Trainee	0.8
Mujahid Khan	Supervising Engineer Structural Evaluation	0.033
Jack Evans	Supervising Engineer 2 Structural Evaluation	0.075
Harshad Ringwala	Project Engineer Structural Evaluation	0.075
Harjit Bal	Project Engineer Structural Evaluation	0.075
Chandahas Shah	Senior Engineer Transportation	0.033
Vijay Sampat	Assistant Engineer Transportation	0.066
Mula Reddy	Principal Engineer Structural Evaluation	0.075
Mushtaq A Nasim	Civil Engineer Trainee	0.05
Gina Rossi	Principal Engineer Structural Evaluation	0.033
Yves Nadie	Principal Engineer Structural Evaluation	0.01
Talal Abdallah	Assistant Engineer Transportation	0.01
Yashesh Patel	Assistant Engineer Transportation	0.01
Muhammad A Khan	Assistant Engineer Transportation	0.02
Amar Patel	Civil Engineer Trainee	0.01
Bhaveshkumar Patel	Civil Engineer Trainee	0.01

**INTELLIGENT
TRANSPORTATION SYSTEMS
RESOURCE CENTER**

STP-C00S(999)

STATE PLANNING AND RESEARCH PROGRAM, 2017 - 2018

ACTIVITY: Intelligent Transportation Systems Resource Center (ITSRC) – 2206275
MANAGER: C. William Kingsland
UNIT: Transportation Systems Management

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 to New Jersey's transportation system.

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 a robust combination of 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, traveler information via multiple methods, and technology transfer. This approach ensures 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 and deployments, which maximizes benefits to the traveling public.

GOALS/ACTIVITIES:

The objectives of this work program address the three current FHWA Planning Emphasis Areas: MAP-21 Implementation and Regional Models of Planning Cooperation are addressed with multiple goals. The provision of free travel time information on the roads and via free access to 511nj, integrated corridor management and related strategies also supports transportation disadvantaged communities and Ladders of Opportunity. These objectives are addressed through the following activities:

1. Conduct Annual Best Practices Research, and Strategic Planning/Policy Development
 - a. Prepare high level annual best practice scans for all TSM&O traffic operational and deployment aspects for:
 - i. traffic operations and call centers
 - ii. financial and capital management
 - iii. mobility systems engineering
 - iv. innovative and emerging technologies-
 - b. Develop and integrate a comprehensive and formal *TSM&O Management System* and propose implementation methodology; tying system to other TSM strategies such as COAST-NJ and the ITS Strategic Deployment Plan.
 - c. Support Implementation of NJDOT ITS Strategic Deployment Plan, including tools, techniques, outreach, and integration with other Department Units, incorporating traditional and emerging applications such as WIMS for consideration in transportation planning, capital programming and project delivery processes
 - d. Contribute to and participate in the development and implementation of "The Connected Corridor" and FHWA Capability Maturity Model (CMM) framework and plan for NJ in collaboration with FHWA, MPOs and other stakeholders, applying the NJ ITS Architecture, as appropriate.
 - e. Promote TSM&O successes both within and external to the Department, including web page development and to support and make the business case for TSM&O in NJ.
 - f. The work program will also review the impacts on Capital Management and Funding Opportunities to support optimal use of funds for programs supporting NJDOT's mission.

STATE PLANNING AND RESEARCH PROGRAM, 2017 - 2018

ACTIVITY: Intelligent Transportation Systems Resource Center (ITSRC) - 2206275
MANAGER: C. William Kingsland
UNIT: Transportation Systems Management

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

- g. Assist in development, support and integration of performance-based planning and programming concepts and measures, and project delivery process in deployment plans for ITS and TSM&O strategies and the ITS statewide/regional architecture, in collaboration with agency partners, utilizing select performance measures for development of a report-card type benchmark for TSM.
2. Develop and Conduct TSM&O and ITS Training, Technology Transfer and Outreach
 - a. Provide technical support and training opportunities to all areas of the Department performing activities related to ITS, to 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.
3. Data acquisition, integration, analysis, and visualization support for transportation planning and traffic operations

Provide assistance and technical support with data acquisition, integration, analysis, and visualization for transportation planning and traffic operations.

 - a. Develop and implement innovative solutions for data utilization and processing ('big data') and data visualization tools to support performance measurement, data engines, real-time traffic, optimization and predictive analytics for transportation planning and traffic management purposes.
 - b. Conduct research and develop a framework for utilization of mobile data collection using DOT fleet: traffic, weather, infrastructure condition data, etc.
4. Traffic Operations Capacity Building and Integration of Arterial and Freeway Management
 - a. Evaluate performance from other existing TOCs and Central Dispatch Centers (CDU) outside NJ, and conduct research studies to identify optimal 24-hour functionality, develop Concept of Operations and methodology for deployment of improvements.
 - b. Research and develop detailed program and Concept of Operations for Safety Service Patrol (SSP) for current functionality as well identify unaddressed needs, vehicle and other emerging enhancements such as permanent video cameras for SSP and Incident Management Response Team (IMRT) into updatable Operational Manual complete with training.
 - c. Develop program to educate and convey existing Safe Passage regulations along roadsides utilizing all available ITS tools as well as other options.
 - d. Evaluate feasibility and develop pilot for combining current arterial management center (AMC) operations with freeway operations with existing TOCs, and identifying potential practices and protocols for integration and communications.
 - e. Build on the existing adopted statewide TIM plan and working groups' activity, improve the performance of NJDOT statewide Traffic Incident Management (TIM) programs and provide recommendations for updates to the adopted plan, TIM training and overall program.
 - f. Identify and test improvements to current traffic operations practices (weekly calls, TMP reviews, etc.) with other Departmental functions (construction for ex.).
5. Improve Work Zone Mobility Monitoring
 - a. Research and conduct interactive reviews of best practices with feedback loop to test and improve work zone monitoring.

STATE PLANNING AND RESEARCH PROGRAM, 2017 - 2018

ACTIVITY: Intelligent Transportation Systems Resource Center (ITSRC) - 2206275
MANAGER: C. William Kingsland
UNIT: Transportation Systems Management

GOALS/ACTIVITIES: (cont'd.)

- b. Continue instrumenting, researching, and documenting work zones monitoring programs for utilization in evaluating work zone management, performance measures, strategy effectiveness and developing/testing online pilot application having a backend database.
6. Provide Technical Support for Technology Evaluation and Deployment
 - a. Conduct pilot deployment studies and assess effectiveness of innovative ITS technologies and TSM&O strategies:
 - i. Connected vehicle (CV) and vehicle/highway automation (V2I) studies
 - ii. Connected and automated vehicle policy research and development of proposed regulation/legislation for on-road testing and operating on NJ roadways
 - iii. Unmanned aerial vehicles (drones) testing for multiple potential applications –
 - b. Conduct traffic simulation, sketch planning and analysis modeling studies
 - c. Develop video analytics pilot research to advancing technology-based incident and other traffic detection.
7. Conduct ITS Feasibility, Concept Development and Systems Requirements Studies for ITS and TSM&O
 - a. Following the systems engineering process ('V diagram') and ITS Architecture, conduct high-level concept of operations (ConOps) studies:
 - i. Conduct Active Traffic Demand Management (ATDM) studies
 - ii. Conduct advanced signal control and advanced traffic management systems (ATMS) ConOps
 - iii. Conduct advanced Integrated Corridor Management (ICM) development and design studies, building on earlier efforts and proposing and test pilot applications and measure mobility, reliability, efficiency and safety across multiple travel modes to assess traveler benefits and options in real-time.
 - b. Conduct more detailed systems requirements studies for activities where high-level ConOps have been completed.
 - c. Test models and conduct simulations to test the ConOps studies selected for advancement as part of the V-diagram process.
8. Program Management
 - a. Coordinate with TSM&O technical and contractual staff, with NJDOT subject matter experts, Research and other Department staff as appropriate for general program maintenance, as needed to ensure tasks and deliverables are met as stated, identifying and working to resolve impediments quickly.
 - b. Record meeting activity and prepare summaries.
 - c. Provide SPR reporting support.

STATE PLANNING AND RESEARCH PROGRAM, 2017 - 2018

ACTIVITY: Intelligent Transportation Systems Resource Center (ITSRC) - 2206275
MANAGER: C. William Kingsland
UNIT: Transportation Systems Management

ANTICIPATED ACCOMPLISHMENTS FOR CALENDAR YEAR 2017:

- Complete a database scan for integration initiatives on various tasks.
- Attend meetings and support workshop led by FHWA SMEs regarding update of the CMM for New Jersey Department of Transportation.
- Attend meetings and participate in the activities of the Complete Team (NJDOT Planning for Operations). Anticipated meetings on quarterly basis. Prepare technical memoranda, briefing papers and/or presentations as appropriate
- Participate in annual review and update of the ITS New Jersey Architecture and ITS Strategic Deployment Plan
- Launch a pilot study on the use of UAV for traffic surveillance and incident management. The findings from the pilot will be summarized in a technical report (memorandum).
- Complete instrumentation and data collection at five (minimum) additional work zones. Progress status technical memorandum summarizing the activities and results of the Work Zone Monitoring Program to date will be submitted.
- Conduct at least two TIM coordination meetings with first responders, one in each South and North region. Meeting notes, presentations, and other materials will be provided for the TIM coordination meetings.
- Conduct at least two ITS and TSM&O workshops or training/technology transfer seminars.
- Submit best practice scan for a TSM&O areas of operation
- Initiate at least two (CV and drone) pilot technical studies for technology evaluation
- Begin detailed system requirements for ICM utilizing V-diagram process
- Complete a national scan of the Connected & Autonomous Vehicle deployment and test-beds.

CONTRACTS:

University Task Order to conduct Intelligent Transportation Systems Resource Center with a budget of \$3,000,000 per year for Year 1 and Year 2.

TRAVEL:

Travel Estimates	#Staff/ Mtg	Mileage Reimbursement	Hotel	Meals	Travel Expenses	Registration
Rowan meetings	1/ 4	110	0	0	0	0
Rutgers meetings	2/ 3	60	0	0	0	0
UMD/I-95 CC	2/ 2	280	0	0	0	\$120
TRB conference	2/ 1	0	\$3,200	\$360	\$320	0
ITSA conference	1	0	\$900	\$240	\$550	\$400
ITSNJ conference	2	50	0	0	0	\$100
APANJ conference	1	75	0	0	\$75	\$375
Peer Workshop	2/ 2	80	0	0	0	\$400
TIM Meeting	2/ 2	30	0	0	0	0
Column Total		@0.50/mile 685 miles \$343.00	\$4,100	\$600	\$945	\$1,395
Grand Total				\$7,383.00		

STATE PLANNING AND RESEARCH PROGRAM, 2017 - 2018

ACTIVITY: Intelligent Transportation Systems Resource Center (ITSRC) - 2206275
MANAGER: C. William Kingsland
UNIT: Transportation Systems Management

EQUIPMENT:

\$100,000-\$125,000 per year

Equipment costs will provide for purchasing required and approved equipment for instrumenting work sites for data collection. The data collection equipment will range from controllers, field devices such as Bluetooth devices, wi-fi sniffers etc., lab testing equipment (such as hardware-in-loop simulation testing), DSRC radios, SPaT devices, on-board and road-side units. The equipment developed and purchased will be used specifically for research related activities that are part of this work program.

STAFFING:

Jeevanjot Singh, PMP	Principal Engineer, Traffic	.95
Gail Yazersky, PP, AICP	Planner, Trans.	1.00