

# 2022 Annual Summary Report

## Department of Transportation & Infrastructure

*Aaron T. Watson, Deputy County Administrator*



# MERCER COUNTY BOARD OF COUNTY COMMISSIONERS



From Left to Right: Commissioners Terrance Stokes, Andrew Koontz, Chair Nina D. Melker, Kristin L. McLaughlin, Vice Chair Lucylle R.S. Walter, John A. Cimino, Samuel T. Frisby

## 2022 Executive Summary

**Aaron T. Watson, Deputy County Administrator**

Under the leadership of Mercer County Executive Brian M. Hughes, and with the support of the Board of County Commissioners this 19<sup>th</sup> Annual Summary Report for the Department of Transportation & Infrastructure (DOT & I) continues our commitment to improving the safety, mobility and efficiency of our transportation infrastructure for Mercer County residents. DOT & I staff take great care to plan and complete priority projects throughout the entire County.

Our department has delivered on its' primary responsibilities, while managing critical resources and planning for the future, including:

- \* Construction management, operations and planning for the future at Trenton-Mercer Airport;
- \* Fleet administration (acquisition, maintenance and disposal);
- \* Engineering, planning, design and construction oversight of roads and bridges;
- \* Construction, repair and maintenance of roads, bridges and traffic signals; and,
- \* Service to our seniors and people with disabilities by providing transportation that serves as a lifeline to their community.

Through the hard work of our dedicated staff, we proudly share our many important accomplishments for 2022 and our goals for 2023.

## **2022 Executive Summary**

**Aaron T. Watson, Deputy County Administrator**

### **Engineering**

- \* **Annual Transportation Program (ATP) & Local Bridges, Future Needs Program** - Received funding from 2010 through 2023 in the amount of \$8,463,238.
- \* **Completed 3 Bridge Reconstruction Projects (on budget)** - Parkside Avenue under Abandoned Railroad (Structure No. 180.1), City of Trenton; Lower Ferry Road over Gold Run (Structure No. 415.2), Ewing Township; Locust Lane over Harry's Brook (Structure No. 364.15), Princeton.
- \* **Completed Final Design Project** - Lincoln Avenue over Assunpink Creek and Amtrak Northeast Corridor, City of Trenton.
- \* **Completed 4 Roadway and Intersection Construction Projects** - Old Trenton Road and Edinburg Road, West Windsor Township; Rosedale Road and General Johnson Drive, Princeton; utilizing surplus ATP funding completed paving on Quakerbridge Road/Collins Road to Village Road East, and Whitehorse-Mercerville Road, Sam Alito Way to Estates Boulevard, Hamilton Township, utilizing surplus ATP funding.
- \* **Completed 2 Roadway and Pedestrian Safety Projects** - Kuser Road, Hamilton Township; Bear Tavern Road and Scenic Drive, Ewing Township.
- \* **Completed 25 Guiderail Repair/Replacement Projects throughout Mercer County.**

### **Highway**

- \* Completed 24 milling and resurfacing projects;
- \* Completed 3 Municipal Assistance Projects (milling and resurfacing);
- \* Responded to 7 storm events, 17.6" of snowfall;
- \* Issued 179 Road Permits requested by utility companies and contractors;
- \* Utilized Direct Hires on various ADA Ramp Projects on newly completed milling and resurfacing/curbing projects;
- \* Inspected 250 inlets; retrofitted 59 steel grates, and replaced 30 bicycle grates;
- \* Completed 15 Priority 1 Repairs on bridges, as mandated by the State of New Jersey;
- \* Completed 2 in-house Bridge Construction Projects - Bayberry Road, (232.11) Hopewell Township; Poor Farm Road (213.19), Hopewell Township;
- \* Installed Video Detection Equipment at 3 intersections.

## 2022 Executive Summary

Aaron T. Watson, Deputy County Administrator

### Trenton-Mercer Airport (TTN)

- \* Completed construction of the FlightServ Hangar, a new 80,000 sf Fixed Base Operator (FBO);
- \* Received the final determination of the Terminal Environmental Assessment (EA), resulting in a Finding of No Significant Impact (FONSI);
- \* Acquired several properties within the Runway Protection Zone;
- \* Prepared fifty (50) Resolutions for various Airport projects/issues;
- \* Acquired over \$4,267,000 in FAA grants;
- \* Collected over \$900,000 in NJDOT grants;
- \* Collected over \$1,590,000 in terminal parking revenue;
- \* Collected over \$1,210,000 in Passenger Facility Charges (PFC).

### TRADE *(Transportation Resources to Aid the Disadvantaged and Elderly)*

- \* TRADE received \$915,000 in funding from the Delaware Valley Regional Planning Commission (DVRPC) for replacement vehicles;
- \* Received \$25,000 in revenue through vehicle advertisements;
- \* Upgrade scheduling software features and implement other technologies. TRADE will continue to work with our vendor (TripSpark) following the software upgrade completed in 2020. Following review and potential approval of TRADE's 2023 Capital Project Request, TRADE will begin a process to install new technology components that will include electronic communication between dispatch and drivers through tablets, including GPS capability to track on-time performance and vehicle location. A second phase will enhance communication with customers.

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Deputy Administrator



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## Engineering

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### **Basit A. Muzaffar, P.E., County Engineer**

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The Division of Engineering is responsible for project development, design, and construction oversight of Mercer County owned transportation infrastructure which includes nearly 700 bridges and culverts, 300 electronically operated traffic control devices, and 180 miles of roadways. The Engineering Division also supports the design and construction of drainage systems, guiderail, lane markings and signs within the county roadway network. The Division is also responsible for the review and approval of site plans and subdivisions submitted to the Mercer County Planning Board. Mercer County's Engineering Division continues to successfully acquire State and Federal funding for substantial capital investments for various infrastructure improvements to minimize the expenditure of County funds.

#### **STAFF**

#### **FULL TIME (8)**

**Basit A. Muzaffar, P.E., County Engineer**

Jason M. Mildenberg, P.E., Assistant County Engineer

Joseph B. Vena, P.E., Supervising Engineer (Bridge Unit)

Yueming Li, P.E., Principal Engineer (Road Unit)

Caitlin Skocypec, P.E., Principal Engineer (Traffic Unit)

Brian Gibson, Principal Engineer (Traffic Unit)

Michele Rizziello, Confidential Secretary III

Symone Seldon, Assistant Administrative Analyst

## Achievements & Grant Awards

### Annual Transportation Program (ATP) & Local Bridges, Future Needs Program

County Aid funds are appropriated by the New Jersey State Legislature annually for the improvement of public roads and bridges under County jurisdiction. Each County must develop an Annual Transportation Program (ATP). The ATP must be approved by the appropriate County governing body before submission to the State of New Jersey Department of Transportation (NJDOT) for final approval. Submission includes a certification detailing that allotted funds will only be expended on eligible costs for projects set forth in the approved ATP.

The Local Bridges, Future Needs Program provides funds for the improvement of County jurisdiction bridges. As part of its Statewide Capital Investment Strategy, the NJDOT is focusing on preventive maintenance, rehabilitation and selective replacement of bridges. This program was initiated in recognition of funding that goes beyond what is currently available at a local level.

FISCAL YEAR	AMOUNT
2010	\$4,699,500.00
2011	\$3,856,000.00
2012	\$3,856,000.00
2013	\$3,868,200.00
2014	\$3,675,900.00
2015	\$3,808,700.00
2016	\$3,808,700.00
2017	\$4,278,200.00
2018	\$8,726,989.00
2019	\$8,645,306.00
2020	\$8,611,252.00
2021	\$8,700,206.00
2022	\$8,662,324.00
2023	\$8,463,238.00

Listed above are the combined totals beginning 2010 through 2023



## Bridge Award

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### Dual bridge project recognized for excellence by Alliance for Action

Mercer County has received the 2022 Distinguished Engineering Award by the New Jersey Alliance for Action for the County's engineering of two structures, Mercer County Bridge 330.1 and Bridge 331.1, carrying Alexander Street over Stony Brook and Alexander Street over Alexander Creek in the Municipality of Princeton.



Mercer County and the New Jersey Department of Transportation (NJDOT) undertook simultaneous bridge replacement projects to minimize the closures of Alexander Street, which carries a considerable amount of traffic volume and serves as a main access road between downtown Princeton, Princeton University and West Windsor Township. NJDOT completed replacement of the bridge over the Delaware and Raritan Canal immediately east of MC #330.1.

This unique design of this project was driven by requirements determined through intensive coordination with the various stakeholders: Municipality of Princeton, Princeton Historical Society and State Historic Preservation Office, Delaware & Raritan Canal Commission, Princeton University, NJDOT, utility owners, West Windsor Township and Green Acres.

Bridge 330.1 was previously a single span, simply supported pony truss structure supported on concrete abutments. The previous truss bridge, which was intended to be a temporary structure, was in need of replacement due to the poor condition of the deck, superstructure and substructure. The bridge width was also substandard and limited the passage of larger transit vehicles. It was deemed Structurally Deficient with Sufficiency Rating of 7.4 out of 100. The adjacent structure to the west, 331.1, was a three-sided box beam culvert and was also in need of replacement. While its structural and geometric conditions were not as critical as Bridge 330.1, it was logical to replace the structure at the same time while Alexander Street was closed.

White bridge railings and brown powder-coated guiderail are consistent with similar elements installed on the adjacent Delaware & Raritan Canal Bridge. Roadway work included hot-mix asphalt, new striping, new guiderail and approach guiderail systems, and landscaping. The proposed cross section at MC #330.1 consists of two 12-foot travel lanes, two 5-foot shoulders and one 8-foot sidewalk. Bridge 331.1 was replaced with a similar three-sided culvert and received similar railing and guiderail treatments as the adjacent structure. It consists of two 12-foot travel lanes, two 5-foot shoulders, one 5-foot sidewalk and one 8-foot sidewalk. The culvert and approaches were overlaid with 1-inch thick Polyester Polymer Concrete (PPC) to protect the concrete deck.

Van Cleef Engineering Associates of Freehold was contracted by the County of Mercer to provide design services for the reconstruction of the structures, and Marbro Construction LLC of West End was awarded the contract.



Photo caption: Center, County Engineer Basit A. Muzaffar, left, Director, Highway Design George Afful, Van Cleef Engineering, Marketing Coordinator Jaclyn Poissonnier, Van Cleef Engineering, right, Principal Engineer Lawrence Diffley, Van Cleef Engineering, Project Manager Janella Guillermo, Traffic Planning & Design, and Assistant County Engineer Jason Mildenberg

## 2022 Accomplishments

### Bridge Construction Projects

#### Parkside Avenue under Abandoned Railroad Trail, City of Trenton (Structure No. 180.1)

**2022 Goal: Complete Construction** - *This goal has been accomplished.* Mercer County received bids for the replacement of Structure No. 180.1 carrying Abandoned Railroad Trail over Parkside Avenue in the City of Trenton on August 21, 2021. The project was awarded to Rencor, Inc. of Somerville, New Jersey submitting a bid in the amount of \$1,885,227.00. The historic bridge often referred to as the “Gateway to Trenton” was replaced in-kind with the same aesthetics as the original structure. It was opened on April 29, 2022 on budget.



Photo caption: County Executive Brian M. Hughes, center, cuts the ribbon on the new Parkside Avenue Bridge. Joining him are, from left W. Reed Gusciora, Esq., Mayor, City of Trenton, Deputy County Administrator Aaron T. Watson, County Commissioner (Vice-Chair) Lucylle R.S. Walter, County Commissioner Terrance Stokes and County Commissioner Samuel T. Frisby

## 2022 Accomplishments

### Bridge Construction Projects

#### Locust Lane over Harry's Brook (Structure No. 364.15) , Princeton

**2022 Goal: Complete Construction** - *This goal has been accomplished.* Mercer County received bids for the replacement of Structure No. 364.15, carrying Locust Lane over Harrys Brook in Princeton on December 1, 2020. The project was awarded to Colonnelli Brothers, Inc. of Hackensack, New Jersey, submitting a bid in the amount of \$997,000.00. Notice to proceed was issued on August 1, 2021. This three stage bridge re-construction project was completed on May 12, 2022.



Pictured above: Top of roadway, Locust Lane Bridge (No. 364.15) in Princeton, and pictured below west elevation



## 2022 Accomplishments

### Bridge Construction Projects

#### Lower Ferry Road over Gold Run (Structure No. 415.2) , Ewing Township

**2022 Goal: Award the project and complete construction** - *This goal has been accomplished.* Mercer County received bids for the replacement of Bridge No. 415.2, carrying Lower Ferry Road over Golds Run in the Township of Ewing on March 2, 2022. The project was awarded to CMS Construction, Inc. of Plainsfield, New Jersey, submitting a bid in the amount of \$2,238,003.00. Notice to proceed was issued on August 1, 2022. The bridge was opened to traffic on December 14, 2022 on budget.



Pictured above: Completed bridge structure (No. 415.2)



Photo caption: County Executive Brian M. Hughes, center, cuts the ribbon on the new Lower Ferry Road bridge in Ewing Township. Joining him are, from left, Carlos DaSilva, CMS Construction, Inc; Michael Drobny, French & Parello Associates; Ewing Business Administrator Jim McManimon; Deputy County Administrator Aaron T. Watson, County Commissioner Terrance Stokes, County Engineer Basit A. Muzaffar, Assistant County Engineer Jason Mildenberg and County Supervising Engineer Joseph Vena

## 2022 Accomplishments

### Bridge Construction Projects

#### **Carter Road over Bedens Brook, Hopewell Township (Structure No. 250.3)**

**2022 Goal: Award the project and commence construction** - *This goal has not been accomplished due to New Jersey Department of Transportation (NJDOT) Final Plans, Specifications and Engineering (PS&E) review comments, project will be bid Spring 2023.* Boswell Engineering was selected to provide engineering design services for replacing Structure No. 250.3, carrying Carter Road over Beden's Brook in Hopewell Township, The contract was awarded on September 11, 2014 in the amount of \$200,903.00.

#### **Iron Bridge Road over Doctors Creek (Bi-County Bridge Structure No. 670.4) Mercer/Burlington Counties/Hamilton/Chesterfield Townships**

**2022 Goal: Award the project and commence construction** -*This goal has not been accomplished due to New Jersey Department of Environmental Protection (NJDEP) permitting issues and will continue into 2023.* On December 15, 2016, Mercer County entered into a Shared Services Agreement with Burlington County for the replacement of Bi-County Structure No. 670.4, Iron Bridge Road over Crosswicks Creek, Mercer/Burlington Counties, Hamilton/Chesterfield Townships. Under the terms of our agreement, Burlington County and Mercer County are sharing both the design and construction costs equally.

Mercer County awarded a contract to Dewberry Engineers, Inc. to provide engineering design services for the replacement of the bridge. As mentioned above, design and construction costs are equally split with Burlington County. Therefore, Mercer County is paying up to one-half the total design costs (50%) or \$256,464.00.

#### **Windsor Road over Tributary to Assunpink Creek (Structure No. 942.6), Robbinsville Township**

**2022 Goal: Award the project and commence construction** - *This goal has not been accomplished due to New Jersey Department of Transportation (NJDOT) major access permitting issues and will continue into 2023.* On June 3, 2020, Mercer County received an FHA Individual Permit (IP) and a FWW General Permit No. 10A from NJDEP for the replacement of the structure. Due to the close vicinity of State Rt. 130, it was determined in February of 2022 that Mercer County would also need a Major Access Permit to proceed with construction. Mercer County's design consultant Boswell Engineering, Inc. has been working with the NJDOT Major Access Division to secure the permit. It is expected that the process will be finished in the first half of 2023 and that the project will be put out to bid for second half construction.

## 2022 Accomplishments

### Bridge Design Projects

#### Lincoln Avenue over Assunpink Creek and Amtrak Northeast Corridor, City of Trenton (Structure No. 140.9)

**2022 Goal: Award the final design of the project - *This goal has been accomplished.*** On December 22, 2022, Greenman-Pedersen, Inc. (GPI) received approval to proceed with final design services in an amount of \$3,516,155.98 for replacement of Structure No. 140.9, carrying Lincoln Avenue over the Northeast Corridor Rail Line, an inactive rail yard, and Assunpink Creek in the City of Trenton.



Pictured above: Lincoln Avenue Bridge (Structure No. 140.9), City of Trenton

## 2022 Accomplishments

### Bridge Design Projects

#### Washington Road over Carnegie Lake, Princeton (Structure No. 360.1)

**2022 Goal: Award the contract for design** - *This goal has not been accomplished due to other design priorities. Goal to be accomplished in 2023.*



Pictured above: Washington Road Bridge (Structure No. 360.1), Princeton

#### Quakerbridge Road over Miry Run, Hamilton Township (Structure No. 641.4)

**2022 Goal: Award the contract for design** - *This goal has not been accomplished due to other design priorities. Goal to be accomplished in 2023.* Quakerbridge Road over Miry Run (Bridge No. 641.4) in Hamilton Township, is a scour critical structure built in 1936 that has a concrete deck in poor condition. The new structure will utilize modern scour countermeasures and be wide enough for proper bicycle and pedestrian safety.



Pictured above: Elevation view (Structure No. 641.4) , Hamilton Township



## PLANS AND GOALS FOR 2023

### Bridge Construction Projects:

**2023 Goal: Montgomery Street over Assunpink Creek, City of Trenton (Structure No. 140.4) - Award the project and commence construction.**

**2023 Goal: Carter Road over Beden's Brook, Hopewell Township (Structure No. 250.3) - Award the project and commence construction.**



Photo caption: Center, Deputy County Administrator Aaron T. Watson, left, County Supervising Engineer Joseph Vena and right County Engineer Basit A. Muzaffar

**2023 Goal: Lower Ferry Road over Shabakunk Creek, Ewing Township (Structure No. 441.4) - Award the project and commence construction.**

**2023 Goal: Iron Bridge Road over Doctors Creek (Bi-County Bridge Structure No. 670.4) Mercer/Burlington Counties/Hamilton/Chesterfield Townships - Award the project and commence construction.**

**2023 Goal: Millstone/Grovers Mill Road over Millstone River, West Windsor Township (Structure No. 760.4) - Award the project and commence construction.**

**2023 Goal: Windsor Road over Tributary to Assunpink Creek, Robbinsville Township (Structure No. 942.6) - Award the project and commence construction.**

### Bridge Design Projects:

**2023 Goal: Washington Road over Carnegie Lake, Princeton (Structure No. 360.1) - Award the contract for design.**

**2023 Goal: Quakerbridge Road over Miry Run, Hamilton Township (Structure No. 641.4) - Award the contract for design.**

## 2022 Accomplishments

### Traffic & Roadway Construction Projects



Pictured above: Old Trenton Road Edinburg Road pre and post construction photos

#### **2022 Goal: Construct Road Widening and Signal Improvements at the Intersection of Old Trenton Road and Edinburg Road, West Windsor Township**

*This goal has been accomplished.* Mercer County received bids for the construction project on March 31, 2022 and awarded said project to Lima Charlie Construction on April 28, 2022 in the amount of \$544,100. Notice to proceed was issued on June 22, 2022 and the project was completed on August 2, 2022.

#### **2022 Goal: Commence Construction of Phase 1 Improvements on Princeton-Hightstown Road between Wallace/Cranbury Road and Clarksville Road, West Windsor Township**

*This goal has been partially accomplished and is ongoing.* Mercer County is currently undergoing the Right-of-Way and Parcel acquisition/negotiation process using a 3rd-party vendor. The project includes construction of sidewalk and road widening to accommodate a two-way center left turn lane and bicycle lanes. The project will be completed in two phases: Phase 1-Princeton-Hightstown Road between Wallace/Cranbury Road and Alexander Road; Phase 2- Princeton-Hightstown Road between Alexander Road and Clarksville Road.

## 2022 Accomplishments

### Traffic & Roadway Construction Projects

#### **2022 Goal: Construction for traffic signal upgrades at the intersections of Hamilton Avenue, Kuser Road and Liberty Street, Hamilton Township**

*This goal has been partially accomplished.* Mercer County received bids for the construction project on March 8, 2022 and awarded said project to Earle Asphalt Company on April 28, 2022 in the amount of \$990,513.13 funded through a federal grant. Notice to proceed was issued on July 6, 2022. Construction began July 25, 2022 and is ongoing. Expected project completion early 2023.

Pictured above: Construction project on Hamilton Avenue, Kuser Road and Liberty Street in Hamilton Township (corner of Kuser Road and Hamilton Avenue)



Pictured below: Construction project on Hamilton Avenue, Kuser Road and Liberty Street in Hamilton Township (corner of Hamilton Avenue and Johnston Avenue)



## 2022 Accomplishments

### Traffic & Roadway Construction Projects

#### 2022 Goal: Intersection Improvements at the Intersections of Princeton Avenue and Mulberry Street and Farmers Market Driveway, Lawrence Township

*This goal has not been accomplished and is on-going.* Mercer County received bids for the construction project on April 29, 2022 and awarded said project to Earle Asphalt Company on May 26, 2022 in the amount of \$650,513.13. Notice to proceed was issued on June 7, 2022 and construction began August 8, 2022. Construction is ongoing and expected to be completed early 2023.



Pictured above: Electrical contractors laying rigid metallic conduit for new traffic signal at the intersection of Princeton Avenue and Mulberry Street in Lawrence Township



Pictured above: Concrete contractors laying new sidewalk at Princeton Avenue and Trenton Farmers Market Driveway in Lawrence Township

## 2022 Accomplishments

### Traffic & Roadway Construction Projects

#### **2022 Goal: Construction of Mini-Roundabout at the intersection of Rosedale Road and General Johnson Drive, Princeton**

*This goal has been accomplished.* In an effort to improve safety and calm speeding the engineering department worked to design and construct a mini-roundabout at the intersection with a mountable center island for larger trucks. The project started July 5, 2022 and was completed August 24, 2022. Design was finalized by Traffic Planning and Design and construction was completed by prime contractor Orchard Holdings, LLC. The total cost of the mini-roundabout was \$736,540.00.



Pictured above: Previous condition at Rosedale Road and General Johnson Intersection in Princeton



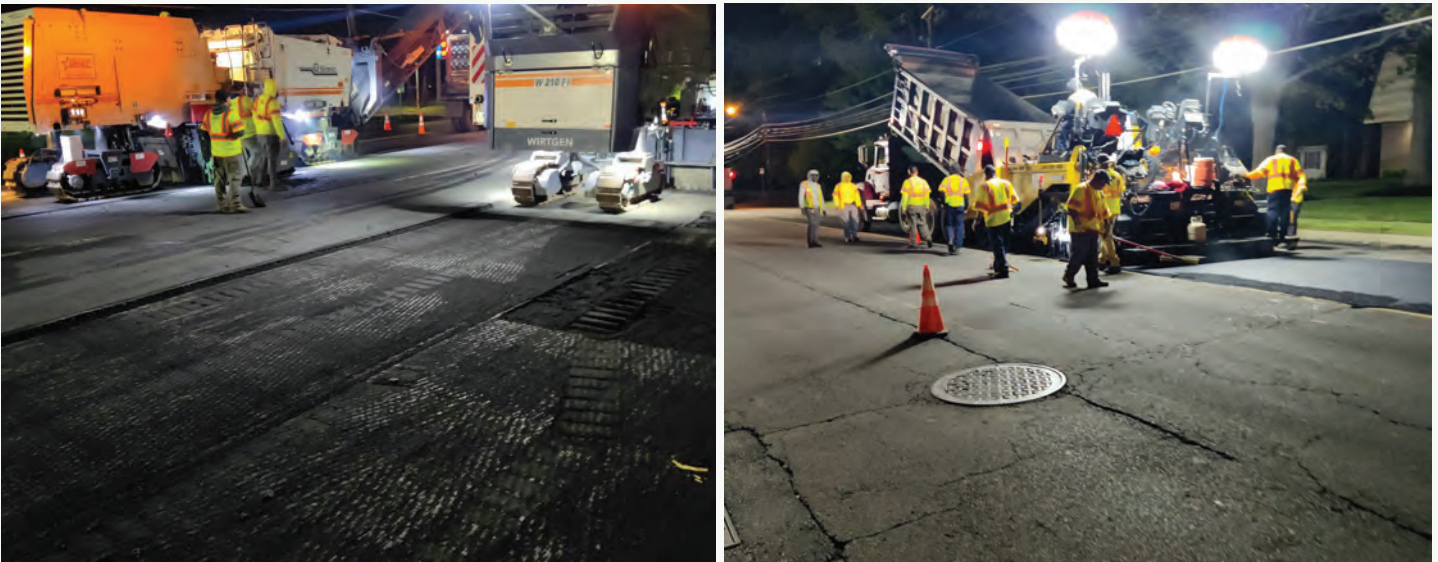
Pictured above: Newly installed Mini-Roundabout at Rosedale Road and General Johnson Intersection in Princeton

## 2022 Accomplishments

### Traffic & Roadway Construction Projects

#### 2022 Goal: Repaving of Quakerbridge Road (Collins Road to Village Road East) and Whitehorse Mercerville Road (Sam Alito Way to Estates Boulevard), Hamilton Township

*This goal has been accomplished.* Utilizing surplus ATP Funding the Engineering Division developed plans for the repaving of two highly traveled roadways in Mercer County. The projects were bid and awarded to American Asphalt Company (Quakerbridge Road) and Earle Asphalt Company (Whitehorse-Mercerville Road). Quakerbridge Road paving was completed in May 2022 while Whitehorse-Mercerville Road paving was completed in September 2022.



Pictured above: American Asphalt Company milling existing paving, then applying new asphalt on Quakerbridge Road in Hamilton Township



Pictured above: Earle Asphalt Company completing paving using transfer truck and paver on Whitehorse-Mercerville Road in Hamilton Township

## 2022 Accomplishments

### Traffic & Roadway Construction Projects

**2022 Goal: Utilize Underground Contract to improve Roadway and Pedestrian Safety** - *This goal has been accomplished.* We have improved various traffic intersections and pedestrian crossings throughout Mercer County using this contract.



Pictured above: New audible Rectangular Rapid Flashing Beacon (RRFB) on Kuser Road in Hamilton Township installed by Orchard Holdings, LLC



Pictured above: New Modified PMC Foundation for traffic cabinet being installed at Bear Tavern Road and Scenic Drive in Ewing Township by Orchard Holdings, LLC

Contractors installing Rebar for New Signal Foundation

## 2022 Accomplishments

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### Traffic & Roadway Design Projects

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#### **2022 Goal: Complete Final Design for the Brunswick Circle Extension and Princeton Pike, Lawrence Township**

*This goal has been partially accomplished.* Final design is complete and construction of the roundabout will advance in late Spring of 2023. The project will include improvements to safety and traffic operation while accommodating safer pedestrian and bicyclist movements via construction of a single-lane roundabout.

#### **2022 Goal: Parkway Avenue Road Diet, Ewing Township/City of Trenton - Complete preliminary design by early 2022 and gain federal authorization for final design.**

*This goal has been partially accomplished.* Preliminary design is ongoing and anticipated to be submitted to NJDOT in Spring 2023. Final design is anticipated to begin Fall 2023.

#### **Design of Improvements at Old Trenton Road and Princeton-Hightstown Road Intersection, East Windsor Township**

*This goal has not been accomplished due to other design priorities .* Several alternatives for improving the intersection of Old Trenton Road/Princeton Hightstown Road and Old Trenton Road/Millstone Road intersections have been prepared and reviewed. Over the next year, we intend to coordinate with East Windsor Township and advance final design. We would also identify and seek potential funding sources for preparing final design and bid documents and construction.

#### **2022 Goal: Design of Roundabout at South Broad Street and Kim Valley Road, Hamilton Township**

*This goal has not been accomplished due to other design priorities .* Continue to prepare bid documents for either traffic signal upgrades or installation of a roundabout at the intersection of South Broad Street and Kim Valley Road, Hamilton Township.

#### **2022 Goal: Engineering Task Order Agreements (Continuing Design)**

*This goal has been accomplished and is ongoing.* Our design consultants are working on the following projects:

- \* Arora and Associates, PC: Roundabout at Broad St and Kim Valley/Sunnybrae Boulevard, Hamilton.
- \* Michael Baker International, Inc., Road Diet & Pedestrian Improvements along Spruce Street between Artic Parkway & Princeton Avenue, Ewing Township/Lawrence Township.
- \* Traffic Planning And Design, Inc (TBD): Roundabout & Roadway Design for Spruce Street & Arctic Parkway, Ewing Township/Lawrence Township.



## PLANS AND GOALS FOR 2023

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### **Traffic & Roadway Construction Projects**

**2023 Goal: Brunswick Circle Extension and Princeton Pike Roundabout, Lawrence Township** – Award the project and commence construction.

**2023 Goal: Arctic Parkway and Spruce Street Roundabout, Ewing/Lawrence Township** - Complete design, award the project and commence construction.

**2023 Goal: Princeton Hightstown Road Widening (Phase 1), West Windsor Township** - Finalize right-of-way, award the project and commence construction.

**2023 Goal: Signalized Intersection Improvements Project at Hamilton Avenue and Klockner Road, Hamilton Avenue and Cypress Lane, and South Broad Street and Highland Avenue, Hamilton Township** - Commence construction once materials have been acquired.

### **Traffic & Roadway Design Projects**

**2023 Goal: Commence final design on Roundabout at intersection of South Broad Street and Sunnybrae Boulevard/Kim Valley Road Intersection, Hamilton Township.**

**2023 Goal: Commence Final Design of Arctic Parkway and Spruce Street Roundabout, Ewing/Lawrence Township**

**2023 Goal: Commence Final Design of Olden Avenue Local Concept Development (LCD) Project, Ewing Township**

**2023 Goal: Commence Final Design of Great Western Bikeway (Segments 2 and 3), various locations across Mercer County.**

## 2022 Accomplishments

### Guiderail – Replacement/Repair

**2022 Goal: Repair/Replace guiderail** - *This goal has been accomplished.* Guiderail repairs and replacement were funded through “On-Call” Services for installation, replacement, and repair of guiderails at various locations throughout Mercer County and were constructed by J. Fletcher Cramer & Sons, Inc. This project was designed for emergency repairs at the locations where guiderails got damaged by accidents and were used for the guiderail with low functional condition and high priority replacement required.



Pictured above: Valley Road in Hopewell Township washed out by Hurricane IDA in September 2021



Pictured above: Valley Road in Hopewell Township after full replacement



Pictured above: Basin Road in Lawrence Township hit and damaged by a truck accident



Pictured above: Basin Road in Lawrence Township after repair in April 2022

## 2022 Accomplishments

### Guiderail – Replacement/Repair

#### Klockner Road (Structure No. 641.2), Hamilton Township



Pictured above: Klockner Road in Hamilton Township, guiderail was hit on its tangent terminal



Pictured above: Klockner Road in Hamilton Township after repairs in March 2022

#### Clarksville Road (CR 638), West Windsor Township



Pictured above: Guiderail on Clarksville Road in West Windsor Township in poor condition



Pictured above: Guiderail on Clarksville Road in West Windsor Township under construction in August 2022

## 2022 Accomplishments

### Guiderail – Replacement/Repair

In 2022, 25 guiderails were repaired/replaced in the following municipalities resulting in a total cost of \$616,349.50.

No.	Municipality	Roadway	CR#	Structure No.	Cost
1	East Windsor	Princeton-Hightstown Road	571		\$63,012.50
2	East Windsor	Cedarville Road		864.2	\$32,125
3	Ewing	Jacobs Creek Road	637		\$31,642.50
4	Hamilton	Klockner Road		641.2	\$18,224.50
5	Hamilton	Whitehead Road	616		\$10,487.50
6	Lawrence	Lawrence Station Road	608		\$7,562.50
7	Lawrence	Franklin Corner Road		542.9	\$14,625.00
8	Lawrence	Basin Road		6-540.5	\$15,325.00
9	Hopewell	Van Dyke Road		237.2	\$29,350.00
10	Hopewell	Bear Tavern Road	579		\$6,000.00
11	Hopewell	Hopewell Princeton Road	569		\$6,325.00
12	Hopewell	Pennington Hopewell Road	654		\$41,512.50
13	Hopewell	Valley Road		211.4	\$10,500.00
14	Hopewell	Poor Farm Road		214.19	\$11,537.50
15	Hopewell	Titus Mill Road		230.5	\$5,500.00
16	Hopewell	Bayberry Road		232.11	\$31,000.00
17	Hopewell	Blackwell Road		233.18	\$11,000.00
18	Hopewell	Blackwell Road		233.4	\$32,687.50
19	Hopewell	Titus Mill Road		235.2	\$34,400.00
20	Hopewell	Hopewell-Amwell Road		252.5	\$21,162.50
21	Princeton	Rosedale Road		330.5	\$6,500.00
22	Robbinsville	Old York Road	539		\$8,000.00
23	Robbinsville	Robbinsville-Allentown Road	526		\$66,070.00
24	West Windsor	Clarksville Road	638		\$92,300.00
25	West Windsor	Meadow Road		721.2	\$9,500.00
<b>Total</b>					<b>\$616,349.50</b>

## PLANS AND GOALS FOR 2023

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**2023 Goal: Guiderail Construction Projects** - This is a federally funded project used to improve Trenton urbanized area roadway safety. Johnson, Mirmiran and Thompson (JMT) were hired to provide the design. The contractor will be selected through a bidding procedure. All the design documents were developed and submitted to NJDOT for fund authorization. The following table is a list of guiderails to be included in this project construction:

### **Ewing Township**

- \* Jacobs Creek Road, CR 637
- \* Scotch Road, CR 611 (Structure No. 441.12)

### **Hamilton Township**

- \* Klockner Road (Structure No. 642.16)
- \* South Broad Street, CR 524 (Structure No. 671.12)
- \* Yardville-Allentown Road, CR 524, Structure No. 671.12)

### **Lawrence Township**

- \* Franklin Corner Road, CR 546 (Structure No. 542.9)
- \* Keefe Road (Structure No. 543.17)

### **Hopewell Township**

- \* Blackwell Road, CR 546 (Structure No. 233.18)
- \* Washington Crossing-Pennington Road (Culvert)
- \* Church Road (Structure No. 217.7)
- \* Jacobs Creek Road, CR 637 (Structure No. 214.3)
- \* Dublin Road (Structure No. 216.15)

### **Robbinsville Township**

- \* Robbinsville-Allentown Road, CR 526

## **DIVISION OF HIGHWAY**

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### **Vincent Russo, Superintendent of Public Works**

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The Division of Highway is comprised of 6 divisions: **Roads, Bridges & Culverts, Mosquito Control, Motor Pool, Shade Tree and Traffic & Signal** with 117 employees along with a Capital and Operating Budget in the approximate amount of \$11,926,946.00. Each of the divisions has tasks unique to its responsibilities; however, all Units work together in many facets of the division to provide services necessary for a safe, clean and healthy environment.

**Vincent Russo, Superintendent of Public Works**

**Stephen Benner, General Supervisor of Roads**

**Jodi Hawryluk, Office Services Manager**

### **Support Staff**

Marisa Longo, Clerk 3

Kevin Payne, Storekeeper

Luigi Corsaro, GIS Specialist II

### **Supervisors**

Richard L. Baker, III, Supervising Bridge Repairer 1

Nicholas F. Longo, Supervising Bridge Repairer 1

Charles C. Beauchamp, Supervising Mechanic II

William H. Buck, Supervising Mechanic II

Edward Kaczor, Supervising Mechanic II

Nicholas Indelicato, General Supervisor of Mosquito

Jason Rogers, Tree Maintenance Supervisor

Thomas Bigley, Tree Maintenance Supervisor

Mark Mattaliano, General Supervisor of Traffic Maintenance

## Roads Unit

### STAFF

#### FULL TIME

#### Road Supervisor (6)

Jose A. Burgos (25 Years)

Shane Gibson

Edward A. Gregg, Jr.

Francis Kelly

George Patas

Richard Vitella

#### Senior Road Inspector (1)

Joseph Solack (25 years)

#### Road Inspector (1)

James Carroll

#### Heavy Equipment Operator (3)

Sheldon Jordan

Anthony Kuligoski

David Thompson

#### Heavy Equipment Operator, Asphalt (5)

Archibald Harrison, Jr.

Kyle Kidd

Shawn C. McCall

William B. Harrison

Floyd Scott

#### Equipment Operator (8)

Marquis J. Bibb

Kyle Carmichael

Paul Ford

David S. Gibson

Ryan T. Laird

Gregory A. Lawrence

Eric J. Pressley

Gerald E. Tilghman

#### Employee Continuing Education

- \* Getting the most from Microsoft Excel
- \* Complete Streets for Rural Areas
- \* Conflict Management in Woman
- \* 2022 KnowB4 Security Awareness Training
- \* Roadway and Roadside Drainage Webinar- Rutgers CAIT

#### Laborer Heavy (5)

Miguel A. Hernandez

David D. Lucas

Hector L. Montanez

Robert Mulvihill

Kenneth Williams

#### Mason's Helper (1)

David Angeline

#### Truck Driver (4)

Jonathan D. Howard

Vincent C. Malcom

Asim H. Shabazz

Clarence Willets, Jr.

#### Laborer (14)

Anthony Bencivengo

Nicholas Chamberlain

Eric Flowers

Matthew Hawkyard

Heath Jackson

Kurt Jordy

Steven Melendez

Richard Morris

Earl W. Peters, Jr.

Brandon Pickett

Christin Reisner

Matthew Richards

Leo Sanders

Christopher Vega

## 2022 Accomplishments

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### Milling and Resurfacing Projects

**2022 Goal: Conduct large-scale road construction, resurfacing and repair projects** - *This goal has been accomplished.* The maintenance of nearly 180 miles, 425 lane miles, of county roadways is essential to ensure safety to the traveling public. Roadways are routinely inspected by our personnel. This year, **24** milling and resurfacing projects were budgeted and completed. In addition to milling and resurfacing inlet basin retrofits were required to comply with the New Jersey Department of Environmental Protection (NJDEP) regulations. If needed, faded signs were replaced to help ensure the safety of the traveling public and ensure compliance with retro-reflectivity requirements. Americans with Disability Act (ADA) facilities were retrofitted and upgraded to become compliant with the ADA. Data collection was conducted to report National Highway System (NHS) asset inventory to the New Jersey Department of Transportation for critical infrastructure evaluations required by the Federal Highway Administration's National Highway Performance Program (FHWA NHPP). Due to deteriorated surface pavement conditions, the following milling and resurfacing projects were completed:

#### East Windsor Township

- \* Old Trenton Road (CR 535) from Route 571 to Dorchester Drive

#### Ewing Township

- \* Bear Tavern Road (CR 579) from Scenic Drive to Jacobs Creek Road
- \* Parkway Avenue (CR 634) from Pennington Road to Prospect Street
- \* Parkway Avenue (CR 634) from Prospect Street to West Ingham Avenue
- \* Parkside Avenue (CR 634, from Pennington Road to North Olden Avenue

#### Hamilton Township

- \* Hamilton Avenue (CR 606) from South Olden Avenue to Newkirk Avenue
- \* Sloan Avenue (CR 649) from Vetterlein Avenue to Klockner Road
- \* Nottingham Way (CR 614) from Sculptors Way to Greenwood Avenue
- \* South Broad Street (CR 672) from Church Street to the New Jersey Turnpike
- \* South Olden Avenue (CR 622) from Cedar Lane to Liberty Street
- \* Lalor Street (CR 650) from Liberty Street to South Broad Street



### **Hopewell Township**

- \* Blackwell Road (CR 632) from Pennington-Lawrenceville Road to Benjamin Trail

### **Lawrence Township**

- \* Lawrence Station Road (CR 608) from Quakerbridge Road to the Dempster Fire Training Center

### **Robbinsville Township**

- \* Robbinsville-Allentown Road (CR 526) from Route 195 State Line to County Line/Indian Run
- \* Edinburg-Windsor Road (CR 641) from South Lane to Main Street

### **West Windsor Township**

- \* Cranbury Road (CR 615) from Rabbit Hill Road to Millstone River Bridge;
- \* Village Road East (CR 644) from Dutchneck Road to Southfield Road;
- \* Edinburg-Dutchneck Road, CR 526 from Conover Road to Old Trenton Road;

### **Trenton**

- \* North Olden Avenue (CR 622) from Princeton Avenue to New York Avenue
- \* Chambers Street (CR 626) from South Broad Street to Cedar Lane (Trenton/Hamilton)

## **OTHER ACCOMPLISHMENTS**

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In addition to the goals set forth for 2022, the following accomplishments have also been undertaken:

### **Novotx, LLC - ElementsXS Asset Management Software**

- \* Mercer County staff from Highway, Engineering, Trenton-Mercer Airport, Park Commission, Planning and Office of Information Technology (OIT) participated in preparation of a Competitive Contracting Request for Proposal (RFP) to replace our current software application as we found it to be challenging to use and poorly supported. Following public advertisement of the RFP, the Purchasing Department received qualified proposals from (11) respondents. After rigorous review of proposals, vendor demonstrations, client interviews, and exploration of support materials, the procurement selection committee identified one software solution as best suiting the needs of the Highway Division and other units within the County Administration. The procurement selection committee recommended ElementsXS Asset Management Software by Novotx, LLC for a period of (3) years. The Board of County Commissioners ratified Resolution No. 2022-533, adopted July 14, 2022.

### **Commercial Drivers License Testing (CDL)**

- \* The County has been given the authority from the US Department of Transportation Federal Motor Carrier Safety Administration (FMCSA) to use our facility for the CDL training of employees.



Roads

### Utilization of Direct Hires

This year, the following projects have been undertaken by Direct Hire:



Pictured above: Delaware Avenue, Pennington Borough



Pictured above: Sullivan Way, Ewing Township



Pictured above: Calhoun Street, Trenton



Pictured above: Chambers Street, Hamilton Township

- \* **Office of Emergency Management** - Repaired a collapsed E-Inlet inside the Dempster Fire Training Academy training area.
- \* **Prosecutor's Office** – Built a concrete platform needed for the installation of a new generator at their Lamberton Street facility located on Duck Island.
- \* **Trenton-Mercer Airport** - Replaced 40' of damaged curbing inside the parking area; repaired (2) E-Type inlets located inside the parking area; installation of new curbing along Terminal Circle Drive.

Pictured right: Installation of concrete platform to support new generator at the Prosecutor's Facility located on Duck Island



Pictured left: Prepping the area for the installation of new curbing at Terminal Circle Drive; right: completed

- \* **Salt Dome** - The salt dome is used as a temporary storage for all construction debris; milling and paving, ADA upgrades and bridge reconstruction projects. The debris is crushed into a recyclable material and hauled for disposal. The recyclable material is available to the public.

**2022 Goal: Municipal Assistance Program (MAP) - Respond to requests from local and municipal agencies within Mercer County for assistance with local road maintenance and rehabilitation projects - This goal has been accomplished.** The MAP provides labor and equipment for milling and resurfacing of roadways not under the jurisdiction of Mercer County. Under this program, the Highway Division provided assistance to the following municipalities this year:

### **East Windsor Township**

- \* Conover Road - Resurfaced Conover Road from Woods Road to Old York Road.
- \* Lake Drive and Twin Rivers Road - Supplied and spread sand on the roadway due to a Hazardous Material Spill.

### **Ewing Township**

- \* Ewing Township Community Center - On September 20, 2022, the center suffered a devastating five-alarm fire. The Division of Highway provided barricades for road closures; Motor Pool's fuel truck assisted with keeping various fire engines fueled.



### **Hopewell Township**

- \* Van Dyke Road - Milled damaged black top along the roadway;
- \* Salt Storage - Provide temporary storage of their salt supply at the County's salt dome until their new facility is constructed.
- \* Union Fire Company and Rescue Squad, Titusville - Resurfacing of a boat ramp located on Upper River Drive along the river used for access by the fire company for River Rescue with boats and training, along with access for Titusville residents.

Pictured left below: The boat ramp before resurfacing; right: completed project



### **Hightstown Borough**

- \* Ward Street - Placed barriers at the Peddie Lake Bridge to prevent motorists from traveling over the bridge structure.

### **Princeton**

- \* Province Line Road - Milled and resurfaced Province Line Road from Rosedale Road to Stony Brook Tributary boundary.

### **Trenton**

- \* Provided /supplied Brine to (3) trucks.
- \* Assisted the Trenton Circus Squad with the delivery of tents to Camden.
- \* Met with Trenton Public Works and Parks staff on-site at Parkside Avenue Canal Bridge to discuss a solution to the heavy water traveling down the path area that leads to the park. The Road Unit used the JetVac to clean and clear an existing inlet structure deemed "dead". This discovery may help prevent unnecessary storm maintenance reconstruction in that area.

**2022 Goal: Interdepartmental Assistance Program (IAP) - Provide resources to other departments within the County** - *This goal has been accomplished.* The Division of Highway provided the following labor and material:

### **Board of Elections**

- \* 930 Spruce Street - Acid washed a wall and plastered a door.

### **Correction Center**

- \* Delivery of salt as requested for icy conditions.

### **Human Services**

- \* Filled potholes at several branches, Ewing, Lawrence and West Windsor.
- \* Replaced old Storm drain grates at the Lawrence Library.
- \* Removed brush and dirt in rear parking lot of the Lawrence Library to alleviate drainage issues.

### **McDade Administration Building**

- \* Parking Lot, 640 South Broad Street - Replaced a damaged section of fencing.

### **Park Commission**

- \* Delivered (5) loads of 18-24 " core stone to Mercer Lake.
- \* Delivered millings to various facilities.
- \* Delivered (1) load of DGA, (1) load of stone dust, and (1) load of 3/4" clean stone to Mercer Park.
- \* Cleaned debris from the Parking Lot at Trenton Thunder.
- \* Hauled dirt from Rosedale Park to Princeton Golf Course.

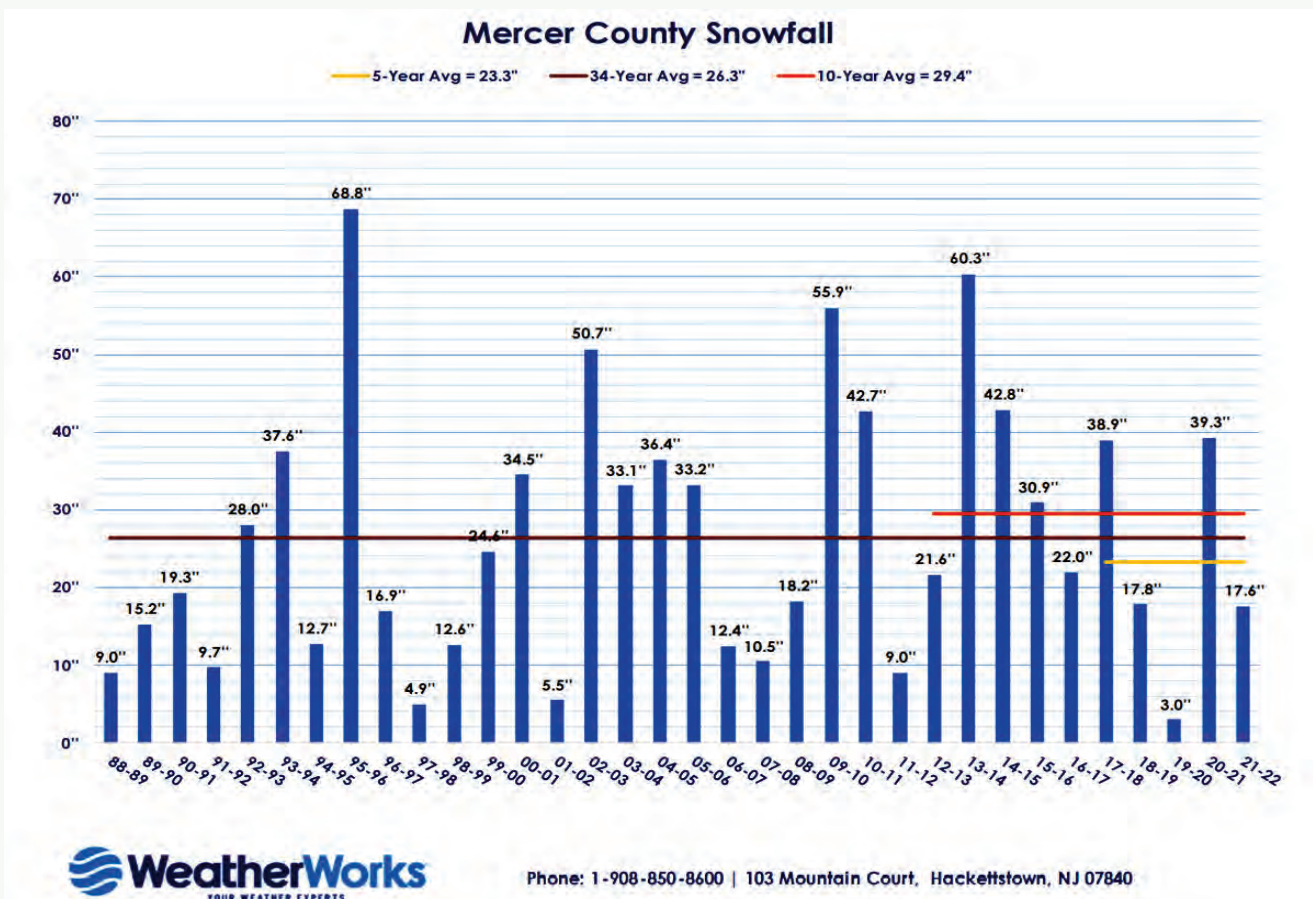
**2022 Goal: Snow Event Equipment and Staffing** - This goal has been accomplished. The Mercer County Division of Highway strives to provide for the efficient flow of traffic within the Mercer County Region during periods of inclement winter weather. The Highway Division coordinates with the Motor Pool Division which maintains a fleet of snow removal equipment to include trucks with plows and sanders, front-end loaders, road graders, backhoes, power brooms, and track-type dozers.



Pictured right: Installation of snow fence/poles. Prior to the onset of winter, snow fence is installed on areas that have the potential of snow to blow back on the roadway surface causing hazardous driving conditions.

Personnel from all Highway Division Units responded to 7 storm events during the 2021-2022 winter seasons. Over 3,602 tons of pre-treated salt was utilized at a cost of \$266,295.85. The amount spent on labor to staff the sanding and salting vehicles was \$152,227.99 with an additional \$585.00 for meals.

The total expense to ensure the safe roadway conditions throughout the storms amounted to \$878,905.72. The Highway Division continues to employ WeatherWorks, the weather reporting and projection service, which aids in the ability to be properly equipped, staffed and well organized.



**2022 Goal: Stormwater Management Plan - Implement Stormwater Management Plan compliance requirement** - *This goal has been accomplished.* In accordance with U.S. Environmental Protection Agency's National Pollutant Discharge Elimination System (NPDES) monitoring program and the New Jersey Department of Environmental Protection (NJDEP) Municipal Stormwater Regulation Program (MSRP), storm control inlets were routinely swept and cleared of debris that would clog the stormwater drainage system. This year, the following maintenance activities were performed:

### **Inlet Inspections**

The annual inspection and maintenance of stormwater inlets require accurate record keeping. The Highway Division has the resources to complete this task by using Global Positioning System (GPS) based mapping systems to inventory the inlets and assign unique identifiers to each structure. A detailed inspection is completed to each inlet and minor cleaning is completed as part of the normal annual inspection. This year, 250 inlets were inspected.

### **Inlet Retrofit**

Preventing debris from entering the storm sewer system, replacement of new inlets were required to stay in compliance with the Stormwater Management Program. This year 59 steel face plates were added and 30 bicycle grates were replaced.

### **Jet/Vac Maintenance**

The County is mandated under the NJ Stormwater Rules to clean inlets of sediments and debris. Inlets located on county roadways are vacuumed out with Jet/Vac Trucks each year. This year, an average of 60 inlets were cleared and 35 yards of material were collected and disposed.

### **Street Sweeping**

Street sweepers are utilized in conjunction with the Shade Tree Unit to sweep and collect debris from county roadways. This prevents the material from entering the storm sewer system. Currently 3 are in operation, which are each responsible for a section of nearly 180 miles, 425 lane miles of county roadway.

### **Erosion Control/Herbicide**

Roadside erosion control measures were utilized clearing drainage areas of debris. In conjunction with the Shade Tree Unit, 230 gallons of herbicide were used to control the growth of weeds.



**2022 Goal: Deer Carcass Removal - Provide removal and disposal of deer carcass on County roadways** - *This goal has been accomplished.* This service is provided through an outside vendor, DCRS/Deer Carcass Removal Services, LLC in Cream Ridge, NJ. The contract period is February 1, 2021 to January 31, 2023. This year, approximately 162 carcasses were removed and disposed of properly.

**2022 Goal: Annual Fall Leaf Collection Program - Provide curbside leaf pickup on county roadways** - *This goal has been accomplished.* The Annual Leaf Collection Program commenced on October 21, 2022 and continued through the week of December 27, 2022. Residents were advised to rake leaves between their sidewalk and curb. Specially-equipped unit trucks were dispatched to vacuum up the leaf piles.



**2022 Goal: Inspection of Projects and Permits** - *This goal has been accomplished.* The Road Unit currently employs 2 Road Inspectors, a Senior Road Inspector and Road Inspector, who inspect all roadways under the jurisdiction of Mercer County. The office also has a permit office through which it receives and reviews requests from contractors and utility companies to perform work on County roadways and rights-of-way. This year, there were 179 Road Permits issued throughout the County.



## PLANS AND GOALS FOR 2023

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**2023 Goal: Maintenance of County Roadways – Conduct large-scale construction, resurfacing and repair projects.** In conjunction with the County Engineer, implement an annual Roadway Resurfacing Program for identifying roadway deficiencies.

**2023 Goal: Implement requirements of the Mercer County Stormwater Management Plan -** In accordance with NJDEP rules and regulations, continue to comply with the Stormwater Management Plan.

**2023 Goal: Snow and Ice Operation - Ensure county roadways are clear of snow and ice to allow safe vehicle passage -** Provide removal of snow and ice from Mercer County roadways.

**2023 Goal: Interdepartmental Assistance Program (IAP) -** Provide resources to assist other agencies within the County.

**2023 Goal: Municipal Assistance Program (MAP) -** Continue to provide resources, labor and equipment to local municipalities for upgrades.

**2023 Goal: Shared Services - Seek and Implement Opportunities with Municipalities.** Mercer County currently has a Shared Services Agreement with the Hamilton Township Ecology Facility for the purpose of disposing leaf, brush and wood. The Agreement helps to reduce operational costs during times of routine maintenance as well as when natural disasters occur such as hurricanes. The County will continue to seek additional opportunities with municipalities.

**2023 Goal: Deer Carcass Removal Services, LLC -** Continue to provide contracted services.

**2023 Goal: Annual Leaf Collection Program -** Continue to update the Annual Leaf Collection program and schedule.

**2023 Goal: Inspection of Projects and Permits -** Continue to inspect all roadways under the jurisdiction of Mercer County and review all permits received from contractors and utility companies requesting to perform work on county roadways and rights-of-way.

# TRANSPORTATION ASSET MANAGEMENT INFORMATION SYSTEM

## TAMIS

The TAMIS Project exists to assist the Department with increasing efficiency levels regarding maintenance and operations procedures relating to County transportation assets. The success of the TAMIS project continues to be achieved through adaptive innovation to support and enhance current department practices.

### 2022 Accomplishments

- \* From January 1 to September 30, TAMIS recorded 1992 daily work orders for the Motor Pool in the new Fleet Management System, Ekos which is powered by Go Energies.
- \* From January 1 to September 30, TAMIS recorded 635 daily work orders for the Traffic Department in the legacy Asset Management System.
- \* From January 1 to September 30, TAMIS has recorded 589 daily service requests submitted by Highway Division and Emergency Services Communication Center dispatchers (ESCC) in the legacy Asset Management System.
- \* As of September 30, 221 fuel rings were installed on County vehicles while encompassing 29 Departments.
- \* The initial Driver data loading and in the post implementation, collecting additional Driver data to account for County employees is a success. As of September 30, 826 drivers are in the system. This is to allow County employees with their identification to fuel a County vehicle that hosts a fuel ring, without the use of a swipe card.
- \* Successfully assisted the Motor Pool in the implementation of Ekos work order portal and automotive parts inventory portal while promoting sound data entry practices.
- \* Fuel Delivery Receipts portal and Vendor Information implementation is a success.
- \* Data collection remains a large-scale and continuous effort for TAMIS, including updating and creating new records for signs, signals, inlets, bridges and culverts, and ADA ramps. In 2023, the anticipation of data collection and maintenance will migrate over to an Enterprise Geodatabase (eGDB) in conjunction with the new Asset Management software acquired by the County, Elements XS (Elements), which is powered by Novotox. This will replace the previous Asset Management System.

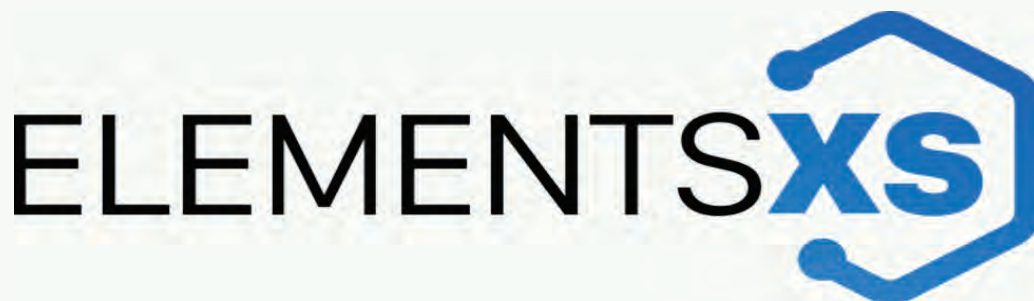
### Employee Continuing Education

- \* New Jersey Dept. Of Transportation Safety Summit (October 2022)
- \* Environmental Systems Research Institute (ESRI) E-Learning Geographic Information Systems (GIS) training courses for eGDB data maintenance & Asset Management best practices (September-October 2022)
- \* Attended New Jersey Asset Management Event, Rutgers University-New Brunswick (September 2022)
- \* KnowBe4 Cyber Security Awareness Training (July 2022)
- \* Ekos Fleet Management system administration general training, multiple sessions (2022)

## PLANS AND GOALS FOR 2023

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- \* Highway, in conjunction with Planning, will be underway in late 2022 to implement data loading and construct a new work order management system for Elements as well as a new portal for service requests to be entered. This will encompass signage, signals, bridges and culverts (county-wide), inlets, and guiderail along with the County road network. Long-range goals for Work Order management include the Park Commission, TTN Airport and Buildings & Grounds.
- \* Reach out to key departments outside of Highway that can use Elements in replacement of the legacy Asset Management system. The priority will be for those who have had prior experience with similar workflows and used a reliable computerized maintenance management system (CMMS).
- \* Continue collecting and updating new data points to maintain data relevancy as the County's infrastructure continues to change while utilizing the eGDB.
- \* Assist the Motor Pool in the implementation of the Gasboy fueling hardware at Mercer Oaks utilizing cellular capability and assist the Park Commission in getting users acquainted with Ekos. Long range goals may include expanding fueling sites.
- \* Assist the Traffic Department with some conjunction with the Bridges & Culverts Unit in determining areas of expanding the use for object markers for bridges and culverts, inlet markers for inlets, route number assembly signs and other projects that would require an inventory count of our current Assets. The implementation of Elements will help make this goal easier to obtain than the legacy Asset Management system.
- \* Assist the Shade Tree Unit in determining the location of Emerald Ash Borer trees to be removed by using Elements, which will make this goal easier to obtain than the legacy Asset Management System.



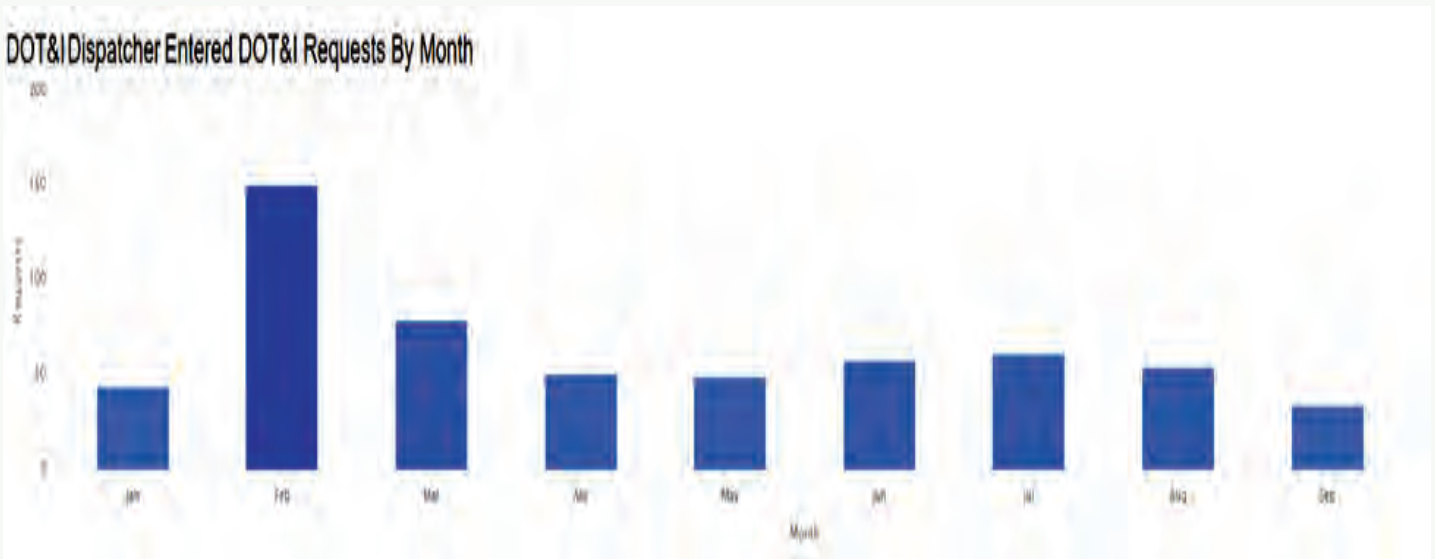
The County acquired Elements in late 2022 to replace the legacy Asset Management System.



The eGDB will be the foundation of a new generation of data management in a real-time live database environment for all GIS users in the County. This will also be inter-connected with Elements.

Fuel Price Dashboard		UNLEADED	
Fuel Site	ULSD #1		
<a href="#">Mercer County DOT, Highway Division</a>	Aug 23	2.02 <sup>14</sup>	Sep 22 2.18 <sup>04</sup>
<a href="#">Mercer County Park</a>	Aug 23	2.02 <sup>14</sup>	Sep 21 2.18 <sup>04</sup>
<a href="#">Mercer Oaks</a>	Sep 13	2.29 <sup>14</sup>	Sep 24 2.24 <sup>24</sup>
Fuel Site	ULSD #2	UNLEADED	

This is the Ekos dashboard that shows the current price per gallon. Motor Pool, Highway and Park Commission staff are able to update the price by clicking on “set price” so that fuel dispensed as accurately accounted for by transaction date. This occurs after a fuel delivery.



Highway Division and ESCC by the numbers each month for submitted service requests per previous Asset Management System (Jan-Sep 2022)

## BRIDGES & CULVERTS

Richard L. Baker, III, Supervising Bridge Repairer 1

Nicholas F. Longo, Supervising Bridge Repairer 1

The Bridges & Culverts Unit is responsible for the maintenance of nearly 700 bridges and culverts within local and county roadways. The State of New Jersey Bridge Inspection Program is essential to ensure the safety of those Mercer County maintained bridges and culverts. The inspections determine bridge sufficiency ratings, which the department uses to prioritize bridge rehabilitation or replacement projects.

### STAFF

#### FULL TIME (8)

Richard L. Baker, III, Supervising Bridge Repairer 1

Nicholas F. Longo, Supervising Bridge Repairer 1

Daniel R. Purdy, Senior Bridge Repairman

Michael J. Estok, Senior Bridge Repairman

Matthew C. Mesday, Bridge Repairman

Thomas A. Sparano, Bridge Repairman

Samuel L. White, Jr., Bridge Construction Worker

Daryll I Price, Equipment Operator

## 2022 Accomplishments

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**2022 Goal: Complete State-mandated Priority Repairs for all bridges greater than 5' feet** - *This goal has been accomplished.* The State of New Jersey Bridge Inspection Program is essential to ensure the safety and stability of the 688 County maintained bridges and culverts. The inspections determine bridge sufficiency ratings in which the department uses to prioritize bridge rehabilitation or replacement projects. 2022 was the 10th year of the new mandatory inspection program for all bridges less than 20' feet in addition to the inspection program for bridges over 20' feet. This year, 15 Priority 1 deficiencies have been completed in-house. The bridge department also identifies bridges to replace in-house. In 2022, the following repairs or reconstruction projects have been accomplished.

### East Windsor Township

- \* Hankins Road, Bridge No. 961.3 - Repaired damaged guiderail due to a motor vehicle accident;
- \* Hankins Road, Bridge No. 961.4 - Repaired damaged guiderail due to a motor vehicle accident;

### Ewing Township

- \* Jacobs Creek Road, Bridge No. 411.7 - Rebuilt stone headwalls that collapsed; replaced missing guiderail;
- \* Parkway Avenue, Bridge No. 415.6 - Repaired inlet over top of culvert;
- \* Prospect Street, Bridge No. 441.2 - Installed core stone in scour hole (*Priority Repair*);
- \* Lower Ferry Road, Bridge No. 441.11 - Installed concrete bags below undermined section of concrete apron (*Priority Repair*);
- \* Stratford Road, Bridge No. 441.33 - Installed core stone in washouts (*Priority Repair*);
- \* Ewingville Road, Bridge No. 442.1 - Removed flood debris blocking upstream channel (*Priority Repair*);
- \* Green Lane, Bridge No. 442.2 - Trimmed and removed overgrowth from structure;

### Hamilton Township

- \* Nottingham Way, Bridge No. 6-140.13 - Repaired damaged guiderail end treatment due to a motor vehicle accident;
- \* Carnegie Road, Bridge No. 6-540.4 - Removed graffiti from bridge structure;
- \* Quakerbridge Road, Bridge No. 6-540.7 - Repaired damaged guiderail due to a motor vehicle accident;
- \* Klockner Road, Bridge No. 641.2 - Patched bridge deck with quick set concrete;
- \* Quakerbridge Road, Bridge No. 641.4 - Patched hole next to bridge deck with cold patch;

- \* Edinburg Road, Bridge No. 641.7 - Installed new poles and chain link fence along parapet wall;
- \* Klockner Road, Bridge No. 642.11 - Patched bridge deck with quick set concrete;
- \* Whitehorse-Mercerville Road, Bridge No. 644.3 - Removed broken fence from bridge parapet and trimmed overgrowth around bridge structure;
- \* Youngs Road, Bridge No. 645.3 - Repaired damaged guiderail;
- \* Carnegie Road, Bridge No. 6-540.4 - Removed graffiti from bridge structure;



Pictured above: Installation of new poles and chain link fence on Edinburg Road, Bridge No. 641.7 in Hamilton Township

### **Hightstown Borough**

- \* Old Trenton Road, Bridge No. 860.2 - Repaired damaged guiderail due to a motor vehicle accident;
- \* North Main Street, Bridge No. 860.6 - Patched bridge deck spalls with quick set concrete;
- \* Princeton-Hightstown Road, Bridge No. 861.2 - Installed core stone in washout (*Priority Repair*);
- \* Milford Road, Bridge No. 863.3 - Replaced damaged guiderail end treatment damaged due to a motor vehicle accident;
- \* Woods Road, Bridge No. 866.1 - Patched corner of failed pavement with quick set concrete;

### **Hopewell Township**

- \* Valley Road, Bridge No. 211.4 - Removed jersey barricades to install new guiderail; transported barricades to north salt dome;
- \* Pleasant Valley-Harbourton Road, Bridge No. 211.16 - Installed washout with core stone;
- \* Fiddlers Creek Road, Bridge No. 212.2 - Repaired parapet wall damaged by Hurricane Ida;



Pictured above: Replacement of culvert on Poor Farm Road, Bridge No. 213.9 in Hopewell Township; completed in-house

- \* Poor Farm Road, Bridge No. 213.19 - Replaced culvert damaged by Hurricane Ida;
- \* Bear Tavern Road, Bridge No. 214.2 - Due to Hurricane Ida, removed gabion baskets from residents property; installed core stone in washout left by Hurricane Ida;
- \* Mine Road, Bridge No. 230.3 - Removed flood debris from deck bridge; installed traffic bollards to prevent motor vehicle traffic on bridge; removed jersey barricades and filled bollards with stone;
- \* Bayberry Road, Bridge No. 232.9 - Patched blacktop along edge of box culvert;

Pictured below: Installation of core stone on Bear Tavern Road, Bridge No. 214.2 in Hopewell Township





- \* Bayberry Road, Bridge No. 232.11 - Completed in-house construction project and opened roadway to traffic; removed and disposed of brush and debris from roadway;
- \* Federal City Road, Bridge No. 233.6 - Repaired damaged guiderail;
- \* Federal City Road, Bridge No. 233.13 - Repaired damaged guiderail;
- \* Stony Brook Road, Bridge No. 234.2 - Repaired washout with concrete and backfilled with core stone;
- \* Stony Brook Road, Bridge No. 234.3 - Repaired washout with concrete;
- \* Stony Brook Road, Bridge No. 234.10 - Patched damaged pipe and repaired sinkhole in roadway;
- \* Pennington-Hopewell Road, Bridge No. 235.4 - Poured concrete in washout; installed blacktop over concrete patch;
- \* Moores Mill-Mount Rose Road, Bridge No. 235.6 - Installed new guiderail and installed core stone in washout (*Priority Repair*);
- \* Pennington Hopewell Road (CR 654), Bridge No. 235.10 - Scraped and painted bridge rails; removed brush overgrowth from around structure;
- \* Woosamonsa Road, Bridge No. 236.7 - Installed core stone in washout and along both abutment footings;
- \* New Road, Bridge No. 239.1 - Removed timber debris blocking upstream channel; installed core stone along guiderail at the sound end of structure;
- \* Hopewell-Rocky Hill Road, Bridge No. 252.2 - Installed core stone in washout and removed flood debris from stream;
- \* Hopewell-Rocky Hill Road, Bridge No. 252.8 - Installed core stone in washout and removed flood debris from stream;
- \* 91 Jacobs Creek Road - Removed debris and disposed of debris from drainage easement;
- \* 141 Old Mount Rose Road - Installed steel plates over top hole in arch structure;



Pictured above: Completed in-house construction project on Bayberry Road in Hopewell Township

## Lawrence Township

- \* Province Line Road, Bridge No. 5-333.1 - Installed core stone along north and south skewbacks @ east end of structure (*Priority Repair*);
- \* Province Line Road, Bridge No. 5-334.2 - Installed DGA stone along shoulder of roadway; removed large tree blocking upstream channel;
- \* Province Line Road, Bridge No. 530.2 - Removed flood debris from pedestrian walk bridge; repaired guiderail damaged by Hurricane Ida;
- \* Cleveland Road, Bridge No. 531.1 - Installed core stone in washout;
- \* Fairfield Avenue, Bridge No. 541.6 - Replaced missing angle iron from parapet wall; scraped and painted all parapet rails;
- \* Betts Avenue, Bridge No. 541.18 - Cleared flood debris blocking upstream channel;
- \* Irwin Place, Bridge No. 541.24 - Inspected and filled sinkhole with cold patch;
- \* Carnegie Road, Bridge No. 6-540.4 - Removed spray paint graffiti from bridge structure;
- \* Van Kirk Road, Bridge No. 543.9 - Installed core stone along both abutment footings (*Priority Repair*);
- \* Whitehead Road, Bridge No. 6-540.2 - Removed large timber debris blocking upstream channel due to Hurricane Ida;
- \* Quakerbridge Road, Bridge No. 6-540.7 - Repaired damaged guiderail from traffic accident;
- \* 100 Franklin Corner Road - Formed and poured new curb to prevent roadway from washing out; installed core stone behind curb;



Pictured above: Replacement of angle iron on Fairfield Avenue, Bridge No. 541.6 in Hopewell Township

Pictured below: New concrete curb, along with installation of core stone at 1100 Franklin Corner Road in Hopewell Township



## Pennington Borough

- \* Pennington Rocky Hill Road, Bridge No. 230.7 - Removed debris restricting water flow in spans one and three;

## Princeton

- \* Quaker Road, Bridge No. 330.2 - Removed flood debris from upstream and downstream channel; replaced missing stones from parapet wall and replaced concrete cap;
- \* Princeton Pike, Bridge No. 330.3 - Repaired damaged guiderail end treatment;
- \* Princeton Pike Pedestrian, Bridge No. 330.8 - Removed flood debris blocking upstream channel;
- \* Rosedale Road, Bridge No. 334.3 - Installed core stone in washout next to culvert;
- \* Harrison Street, Bridge No. 360.2 - Patched hole at bridge approach with cold patch;
- \* Roper Road, Bridge No. 364.10 - Installed core stone in washout;
- \* Little Brook Road, Bridge No. 364.11 - Backfilled the area of erosion at northwest wing wall;
- \* Snowden Lane, Bridge No. 364.3 - Replaced wood parapet boards with composite boards;
- \* Shady Brook Lane, Bridge No. 364.12 - Installed core stone along both abutment footings (*Priority Repair*);
- \* Poe Road, Bridge No. 364.13 - Trimmed and removed overgrowth around bridge structure; repaired damaged guiderail; scrapped and painted all bridge rails;
- \* Province Line Road, Bridge No. 5-333.1 - Installed core stone along north and south skewbacks at the east end of bridge structure (*Priority Repair*);
- \* Province Line Road, Bridge No. 5-334.2 - Installed DGA stone along shoulder of roadway; removed large tree blocking upstream channel;



Pictured above: Replaced missing stone from parapet wall on Quaker Road, Bridge No. 330.2 in Princeton

Pictured right: Repaired damaged guiderail, scrapped and painted bridge rails on Poe Road, Bridge No. 364.13 in Princeton



## **Robbinsville Township**

- \* Meadowbrook Road, Bridge No. 941.2 - Removed debris blocking water flow;
- \* Meadowbrook Road, Bridge No. 941.5 - Removed debris blocking water flow;
- \* Patriot Drive, Bridge No. 941.18 - Removed large trees blocking downstream channel (*Priority Repair*);
- \* Windsor Road, Bridge No. 942.2 - Scraped and painted bridge rails; removed brush overgrowth from bridge structure;
- \* Windsor Road, Bridge No. 943.1 - Installed core stone along west abutment (*Priority Repair*);
- \* Sharon Road, Bridge No. 943.2 - Patched bridge deck spalls with quick set concrete;
- \* Windsor Road, Bridge No. 942.3 - Scraped and painted bridge rails; removed brush overgrowth from bridge structure;
- \* Windsor Road, Bridge No. 942.6 - Repaired sinkhole with quick set concrete; removed large trees blocking upstream channel; installed core stone along wingwall abutments (*Priority Repair*);

## **West Windsor Township**

- \* Edinburg Dutchneck Road, Bridge No. 745.4 - Repaired bridge deck with high strength concrete;
- \* Millstone River, Bridge 760.4 - Patched bridge deck with cold patch as a temporary repair;
- \* Washington Road, Bridge No. 761.1 - Installed core stone along wingwall footings (*Priority Repair*);

## **Trenton**

- \* Montgomery Street, Bridge No. 140.4 - Removed flood debris blocking upstream channel;
- \* Monmouth Street, Bridge No. 140.8 - Removed flood debris blocking upstream channel (*Priority Repair*);
- \* Nottingham Way, Bridge No. 6-140.13 - Removed large trees on superstructure of bridge; repaired damaged guiderail end treatment due to a motor vehicle accident (*Priority Repair*);

**2022 Goal: Interdepartmental Assistance Program (IAP)** - Provide resources to other departments within the County. *This goal has been accomplished.* Equipment and labor was provided to other Mercer County agencies upon request. The following assistance was provided this year:

The Bridge Unit provided assistance to other units within the Division of Highways:

- \* Responded to 7 storms during the 2021-2022 snow seasons;
- \* Provided equipment and labor assistance on various projects;
- \* Provided equipment and labor to dig and install new bus terminals at Trenton-Mercer Airport;
- \* Provided use of equipment and manpower to perform various tasks at the North Salt Dome; loaded millings and assisted with crushing and screening of asphalt milling material;
- \* Provided equipment and labor to install DGA stone at Prosecutor's Parking Lot;
- \* Provided assistance with the removal and replacement of a damaged section of chain link fence at the McDade Administration Parking Lot located at 640 South Broad Street in Trenton.

## PLANS AND GOALS FOR 2023

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**2023 Goal: State-mandated Priority Repairs** - The State of New Jersey Bridge inspections will continue to determine bridge sufficiency ratings which the department will use to prioritize bridge rehabilitation or replacement projects. As directed by the Engineering Division, priority repairs will continue to be completed, in-house.

**2023 Goal: Bridge Rehabilitation Projects** - Under continued direction from the Engineering Division, the Bridge Unit will complete rehabilitation of the following bridge structures:

- \* Cleveland Road, Bridge No. 231.1, Hopewell Township
- \* Moores Mill-Mount Rose Road, Bridge No. 232.7, Hopewell Township
- \* Merrick Road, Bridge No. 671.16, Hamilton Township

**2023 Goal: Maintenance** - Provide incidental maintenance to nearly 700 bridges and culverts.

**2023 Goal: Respond to emergency calls and potential threats** - Respond to emergencies and remediate threats as warranted.

**2023 Goal: Interdepartmental Assistance (IAP)** - Provide resources, equipment and labor to assist other departments.

**2023 Goal: Snow Removal** - Provide assistance to the Road Unit during snow/ice events.

## MOSQUITO CONTROL

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**Nicholas C. Indelicato, General Supervisor, Mosquito Extermination**

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The Mosquito Control Unit provides safe, effective, environmentally friendly, and economic mosquito management for the County of Mercer. We provide continued surveillance of mosquitoes to determine the threat of disease transmission and annoyance levels and then use environmentally-sound integrated pest management techniques to keep mosquitoes below those levels. Our personnel employs a variety of methods to reduce and manage mosquito populations throughout the County.

### STAFF

#### FULL TIME (11)

**Nicholas C. Indelicato, General Supervisor, Mosquito Extermination**

Michael J. Milewski, Supervisor, Mosquito Extermination

Christopher S. Borow, Senior Inspector, Mosquito Extermination

Christopher C. Weber, Senior Inspector, Mosquito Extermination

William H. Cook, Inspector, Mosquito Extermination

Ryan E. Dajczak, Inspector, Mosquito Extermination

Kurt C. Neinstedt, Inspector, Mosquito Extermination

Daniel P. Scozzaro, Inspector, Mosquito Extermination

William J. Voorhees, Inspector, Mosquito Extermination

Eddie Liverman, Inspector, Mosquito Extermination

Samuel H. Buck, Inspector, Mosquito Extermination

## 2022 Accomplishments

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### Season Summary

The top priorities of Mercer County's Mosquito Control Unit are to protect residents from mosquito-borne illness and reduce nuisance-level mosquito populations. To accomplish this perennial mission, the Unit has demonstrated its proclivity to consistently perform a high standard of mosquito control measures and integrate innovative operational strategies.

To meet the needs of an ever-more engaged constituency, the Unit completed the development of a digitized service request portal, inspection application, and geographic information systems powering adulticide and larvicide treatments. The results-based analysis demonstrates that these standardized systems meaningfully reduced service request response time and more precisely tracked pesticide usage and coverage.

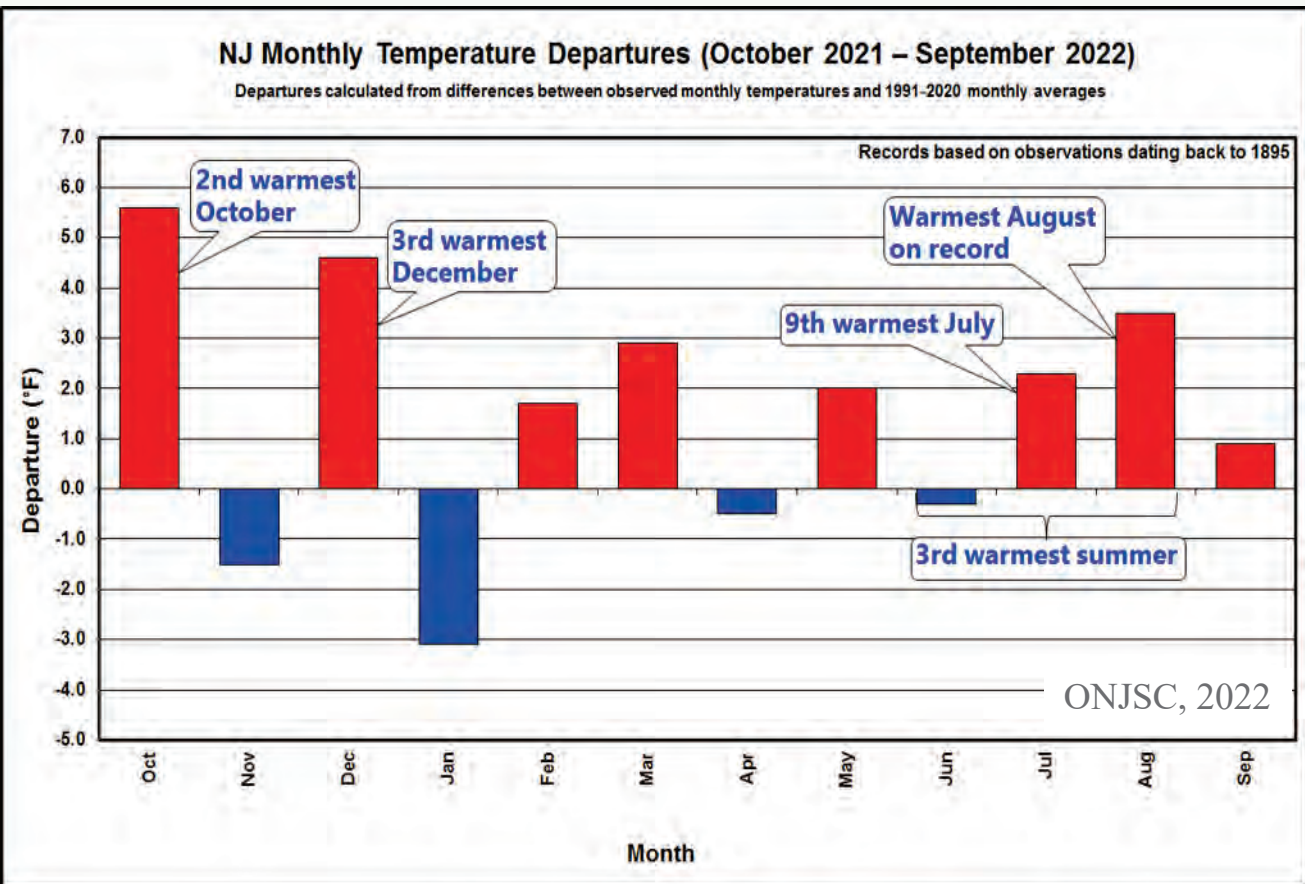
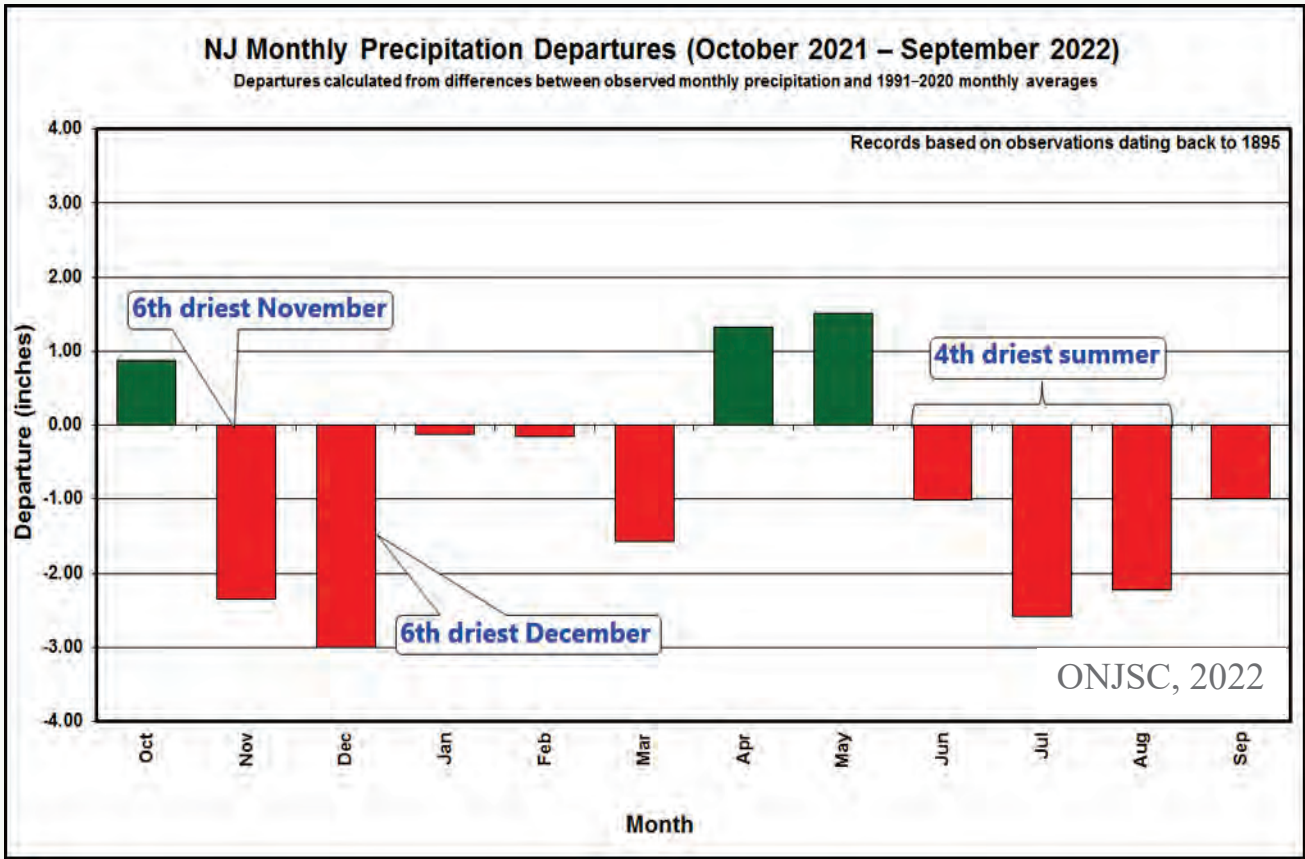
New doctrines incorporating these systems and equipment led to more effective control overall. Woodland pools and semi-permanent aquatic habitats were treated early with pre-season larvicidal aerial applications for the sixth year. The Unit doubled the frequency of ARGO vehicle deployments from last year to deliver quantities of larvicide which more effectively controlled entire wetlands and vernal pools. Responses to high-priority habitats were executed with complimentary area-wide treatments including truck-mounted adulticide and larvicide spray operations overnight, providing treatment twice weekly to areas with high trap numbers and potential arboviral threats.

As seen in the graphs on Page 3 provided by the NJ State Climatologist the past 12 months have seen the 6<sup>th</sup> driest November and December and the 4<sup>th</sup> driest summer. This summer was also the warmest August on record and the 9<sup>th</sup> warmest July, leading to the 3<sup>rd</sup> warmest, based on the records dating back to 1895 (ONJSC, 2022). Although we experienced drought conditions, spikes in West Nile Virus activity were observed after each rainfall, raising the stakes. The frequency of each rain event, however, allowed time to increase suppression efforts during an active arboviral year.

Pictured right: Mosquito Inspector Trainee Samuel H. Buck treats a floodwater habitat with a larvicidal product under the supervision of a licensed applicator



Mosquito Control





**2022 Goal: Leverage technology to increase operation effectiveness** - *This goal has been accomplished.* The Unit successfully deployed a new service request portal and dispatch application to greatly improve service request response. Using GIS applications and cloud computing by Esri, these applications provided a technologically robust system for the Unit to track requests, inspections, follow-up procedures, and pesticide applications for all 433 service requests this year. These tools and digital infrastructure have primed the Unit for the implementation of enterprise asset management systems in the very near future. Below is our public-facing service request form, through which we have received the vast majority of requests this year .

### Mosquito Control Inspection Request

#### Resident Information

**Date\***

**Name\***  
Please provide your first and last name.

**Phone\***  
Please provide your phone number without special characters (i.e. 6095307501).

**Email\***  
Please provide your email address.


**Address\***  
Please provide your street address. Please note that your address must be in Mercer County

Page 1 of 2

### Mosquito Control Inspection Request

#### Resident Information

**Location\***  
Please mark the exact location where you are experiencing the most mosquitos.



Esri Community Maps Contributors, Mercer County, NJ, data.pa.gov, New Jersey Office ... Powered by Esri

Lat: 40.20945 Lon: -74.75447

**Access Available\***  
Is access available to your property for our inspectors?

Yes
  No

**Township\***  
Please select the township that corresponds to the location of your request.

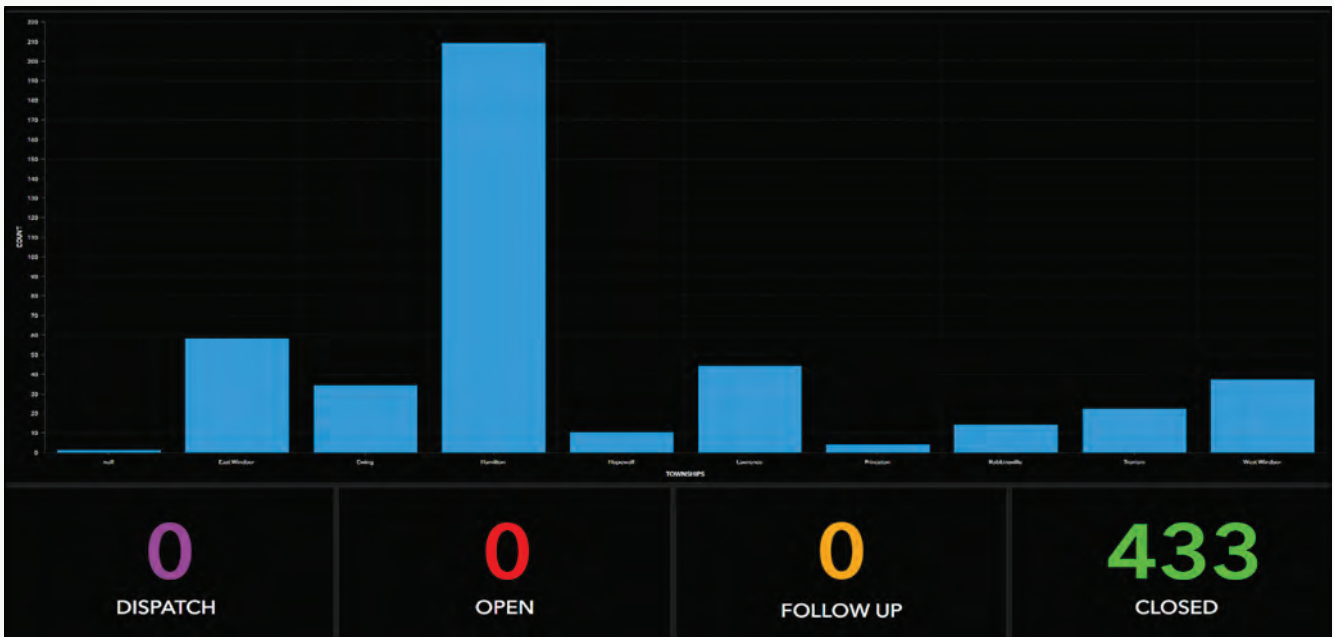
-Please select-

Below is our in-house adulticide spray management dashboard. In one web application, the Unit can identify service requests and exclusion zones, assign new spray sessions, and create comprehensive reports of all previous spray applications.

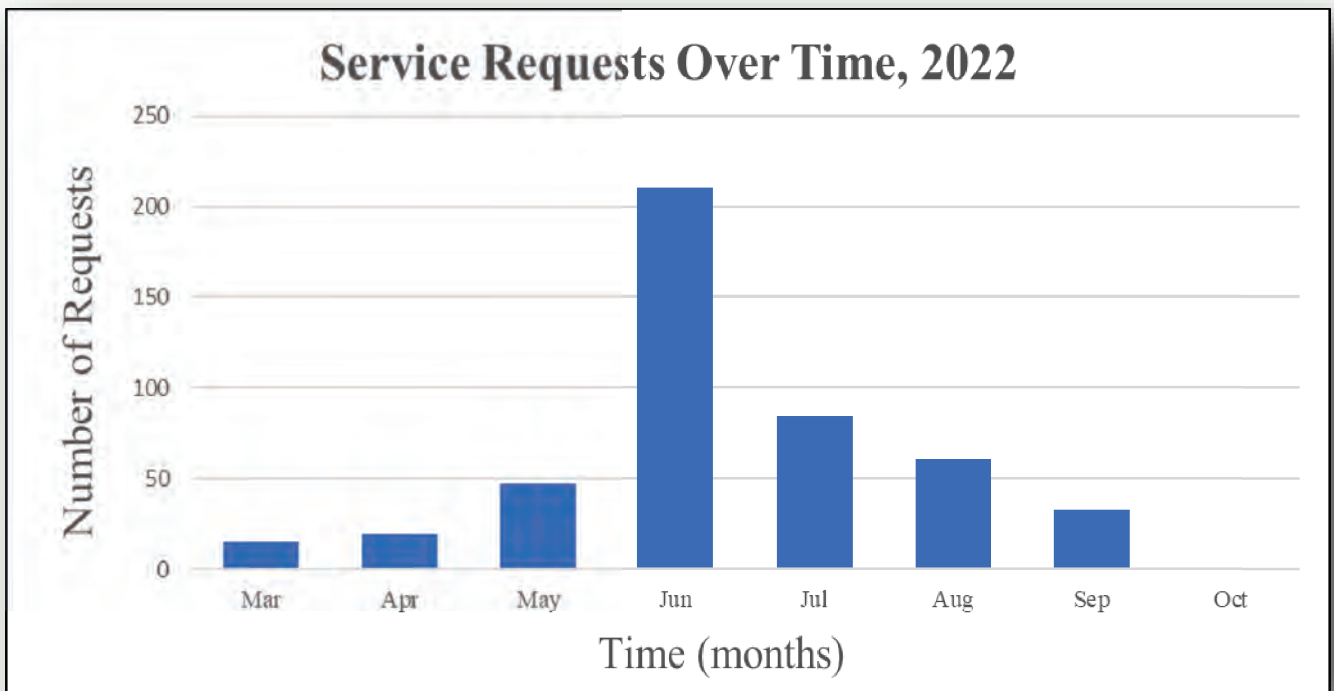
time_start	applicator	product	time_end
6/14/2022, 12:59 AM	kcneinstedt	Zenivex	6/14/2022, 1:02 AM
6/14/2022, 1:23 AM	kcneinstedt	Zenivex	6/14/2022, 1:27 AM
6/14/2022, 1:33 AM	kcneinstedt	Zenivex	6/14/2022, 1:35 AM
6/14/2022, 1:38 AM	kcneinstedt	Zenivex	6/14/2022, 1:41 AM

The importance of this dashboard beyond operational efficiency is that it addresses the Unit's need to maintain regulatory compliance with the New Jersey Department of Environmental Protection.

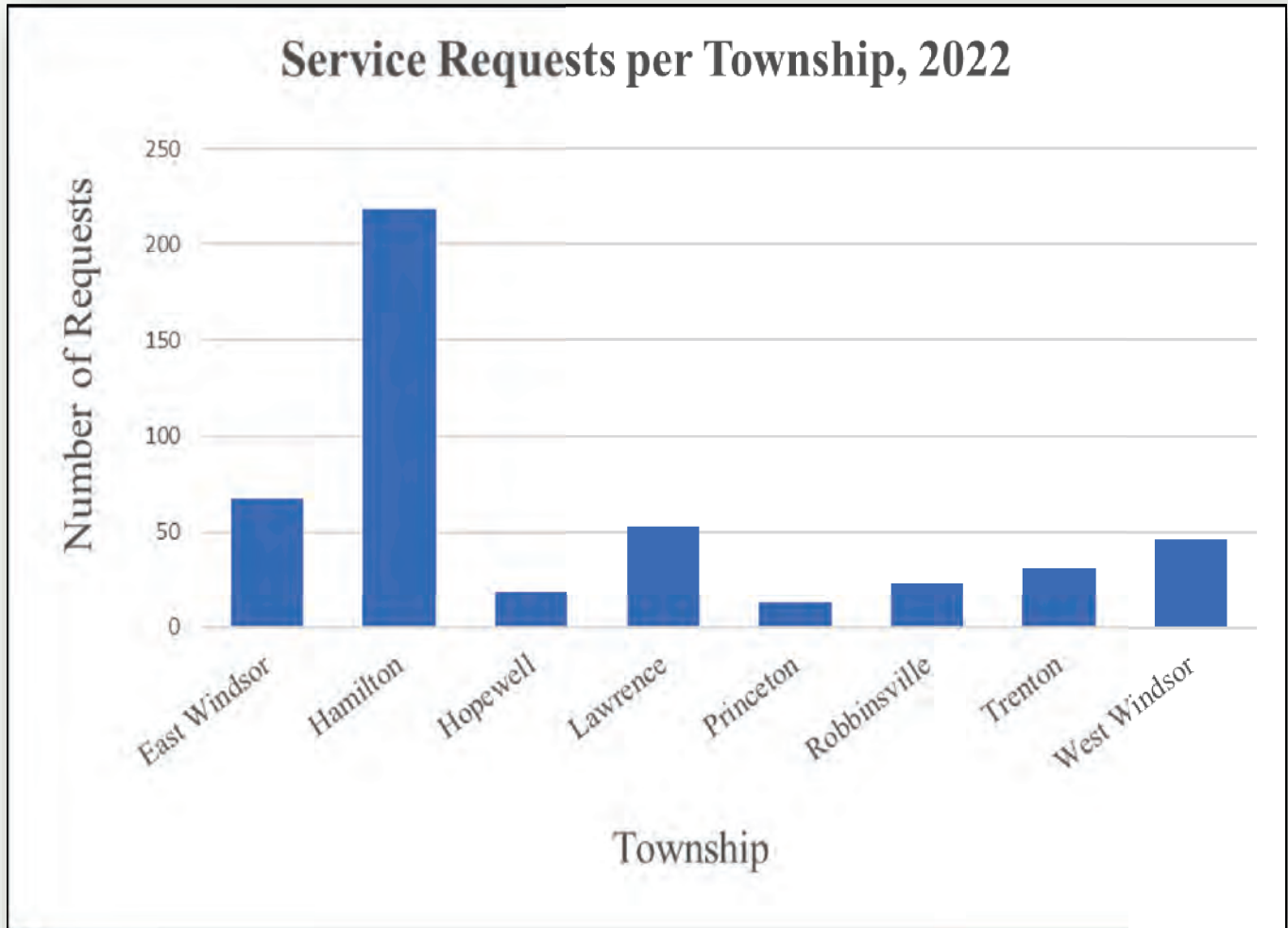
**2022 Goal: Respond to service requests** - *This goal has been accomplished.* The Unit resolved each of the 433 service requests it received in 2022. This was facilitated by the deployment of a new, built-for-purpose request submission form. This form, built on Geographic Information Systems (GIS) applications developed by Esri, was embedded on the Unit’s service request web page in early spring. This form standardized the collection of service requests directly from the public, connected to a hosted database, and automatically created service requests viewable on a dashboard. Time data suggests that Inspectors were able to significantly shorten response time by addressing requests in their inboxes, adding inspection actions, and resolving the service requests in real time.



Above: New Mosquito Control dispatch dashboard



This system's inherent value was demonstrated during June when a sudden increase in engagement from the public was received. Within the last week of June, we received 99 service requests – one-fifth of this year's requests were made within these seven days. The system greatly alleviated the intake workload for dispatch roles and facilitated the quick allocation of personnel and resources based on geographic data.



Most service requests received this year originated in Hamilton. The second-most were received from East Windsor, with the majority occurring around the same week in June. Regardless of the township, the Unit maintained an average time to resolution of two working days for all townships throughout both sudden increases in requests as well as normal operations.

**2022 Goal: Provide larviciding control measures** – *This goal has been accomplished.*

**Resolution Number:** 2021-249

**Contract Number:** CK09MERCER2021-02

**Contract Name:** Aerial Dispensing Helicopter Bid for use by Mosquito Department and the Mercer County Cooperative Contract Purchasing System for a Period of Two (2) Years

In the spring, water and atmospheric temperatures can increase suddenly creating the immediate need for large-scale larvicide applications at breeding sites across the County's 226 square miles. These sites are vast, comprised of more than 1400 acres of surface area. Delivering effective abatement for residents of Mercer County requires application by helicopter through the use of an outside contractor. Reducing the season's initial broods of mosquitoes is important to keep populations down to tolerable levels and to help disrupt the mosquito-borne disease cycle. The Mosquito Control Unit would like to express its sincerest gratitude to the Board of County Commissioners, and the County Administration for the continued support of this vital mosquito control operation.



Aerial larviciding in 2022 applied 7760 pounds of VectoMax FG across 1431 acres and required 12 hours of airtime over the following dates:

\* April 20, 21, 22

To deliver the product to precise areas, the Unit used equipment, such as backpacks and the amphibious ARGO vehicle, to apply treatments from the ground. The following quantities of pesticide were applied manually in 2022:

109 briquets Altosid Briquets

9 g Altosid Pellets

156 pouches Altosid WSP

36 briquets Altosid XR

647 fl oz COCOBEAR

166 briquets Fourstar BTI (180 day)

77 briquets Fourstar BTI (45 day)

904 g Natular G30

39 tablets Natular XRT

20480 gal VectoBac 12AS

63424 gal VectoBac WDG

1287 lbs VectoMax FG

34 pouches VectoMax WSP

4251 lbs VectoPrime FG



Above: Mosquito Inspector Ryan Dajczak treats a detention basin in advance of a mosquito emergence

### Bio-control for larval mosquitoes:

As part of an Integrated Mosquito Management strategy during the 2022 season, the Mosquito Control Unit stocked problematic mosquito habitats with Fathead minnows. These fish are natural predators of larval mosquitoes and are an extremely low-maintenance control measure when applied to isolated bodies of water.



Above: Mosquito Inspector William Cook stocks standing water with fish to control mosquito larvae

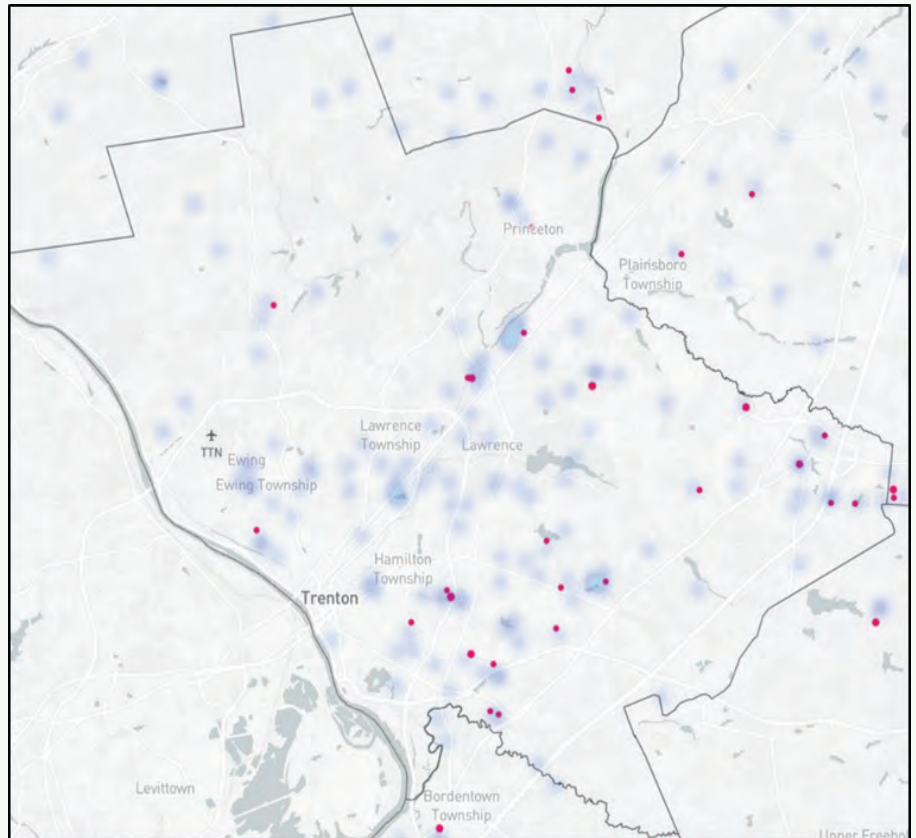
**2022 Goal: Provide adulticide control measures** - Continue to provide efficient and effective adult control measures (when needed) for the residents of Mercer County. *This goal has been accomplished* The Unit continues to respond to inspected habitats and service requests with area-wide ultra-low volume (ULV) adulticide applications to target mosquitoes in the adult life stage. In addition to habitats and neighborhoods observed to harbor mosquitoes, this is also a powerful tool to resolve threats to public health when disease surveillance results return positive from known trap locations. This essential operation is typically conducted up to twice a week between the hours of 8 PM and 5 AM.

Truck-mounted ULV adulticide operations covered over 4,540 acres and took place on the following dates:

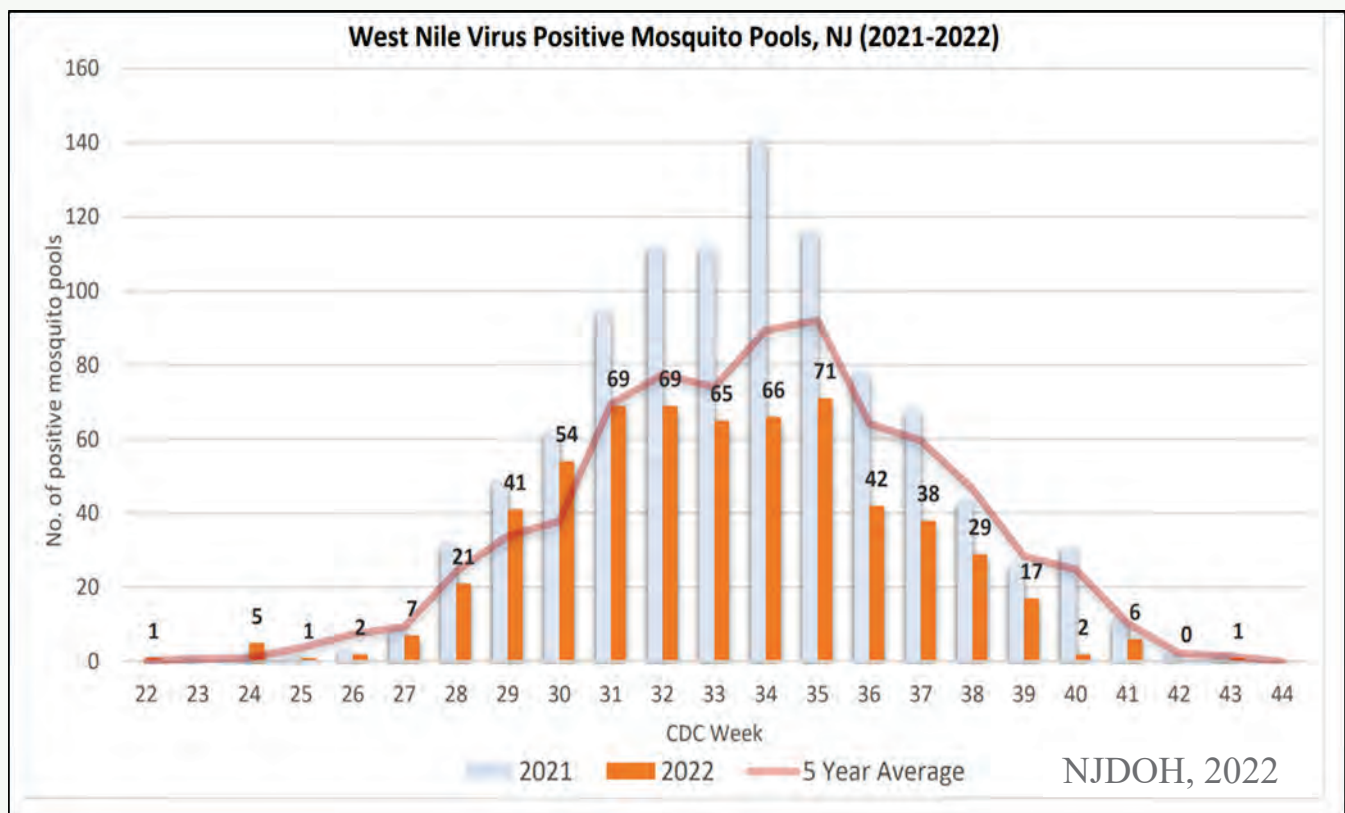
- \* June 14, 17, 18, 25, 29, 30
- \* July 12, 14, 15, 20, 23, 27, 29
- \* August 2, 4, 6, 13, 16, 19, 26
- \* September 2, 4, 9, 14, 16, 21, 23, 30
- \* October 7

**2022 Goal: Disease Surveillance**

- *This goal has been accomplished.* During the 2022 season, the Unit carried out extensive vector surveillance operations. A total of 481 pools containing 5,719 mosquitoes were submitted for West Nile Virus (WNV) testing from 160 locations throughout the county. Of the pools submitted, 34 returned positive giving us an overall minimum field infection rate of 5.95 (MFIR = the number of infected mosquitoes per 1,000). La Crosse Virus (LACV) surveillance continued this year with a total of 16 pools containing 34 mosquitoes from 10 locations, all returning negative results. Using our mapping features and comparing historical numbers keeps our finger on the vector season pulse.



Mapping surveillance locations is important to provide uniformity to the greatest extent possible, as well as to target historical WNV sites. The chart below shows the number of WNV+ pools over time as divided by CDC week.





**2022 Goal: Increase training of staff** - *This goal has been accomplished.* The Unit attended the New Jersey Mosquito Control Association's 109<sup>th</sup> annual convention for training and to update the necessary pesticide license credits. More credits were earned by attending a Pesticide Applicator License Recertification hosted by Hunterdon County Mosquito Control. Pesticide License Category 2 - Forest Pest Control was also earned by The Unit. This is the category needed to help in the fight against the Spotted Lanternfly.

**2022 Goal: Employee continuing education** - *This goal has been accomplished.* The Unit has empowered staff to continue taking classes relevant to job safety and subject-matter knowledge. In 2022, the Unit's staff completed the following classes and meetings:

- \* Fit Testing Respirators
- \* Snow Plow / Snow Removal Safety
- \* Fire Extinguisher Safety
- \* Ladder Safety / Walking & Working Surfaces
- \* Shop & Tool Safety
- \* Chain Saw Safety
- \* Personal Protective Equipment (PPE)
- \* Lock Out/Tag Out (LOTO)
- \* Back Safety / Material Handling
- \* The Hazard Communication Standard (HCS)
- \* Pesticide Control Code Category 2: Forest Pest Control

**Meetings Attended:**

- \* New Jersey Mosquito Control Association's (NJMCA) 109<sup>th</sup> Annual Meeting
- \* New Jersey Mosquito Control Association's (NJMCA) Annual Pesticide Applicator Recertification Training
- \* Northeast Mosquito Control Association's (NMCA) Annual Meeting



**2022 Goal: Assist state and regional programs in the suppression of the Asian Tiger Mosquito (ATM)** - Continue to investigate novel control measures for ATM and provide logistic support and guidance to other programs that may need our help. - *This goal has been accomplished* - Through years of extensive population surveillance, the Unit was able to assist with the peer-reviewed publication below regarding population genetics of *Aedes albopictus*.

Gloria-Soria, A., Shragai, T., Ciota, A.T., Duval, T.B., Alto, B.W., Martins, A., Westby, K., Medley, K.A., Unlu, I., Campbell, S.R., Kawalkowski, M., Tsuda Y., Higa, Y., **Indelicato, N.**, Leisnham, P.T., Caccone A., Armstrong, PM., (2022). Population genetics of an invasive mosquito vector; *Aedes albopictus* in the Northeastern USA. *NeoBiota*, (Accepted for publication, date pending).

**2022 Goal: Tire Removal Program** - Expand and make this service available to more residents that are in need and cannot recycle or remove their tires. *This goal has been accomplished.* Results-based analysis indicates the Unit has effectively expanded tire collection. Due to the natural proclivity of discarded tires to create contained and semi-protected bodies of standing water, they are frequently used by container-breeding mosquitoes. Tire count tracking on personnel logs has tracked 604 discarded tires that were collected by Inspectors, doubling collection efforts from the previous year. All tires were collected either as part of routine inspections of neighborhoods or collected opportunistically during travel between service requests, trail maintenance, or surveillance duties.

**2022 Goal: Water Management Program** - *This goal has been accomplished.* The Unit completed over 250 water-management control measures throughout the county including deconstructing 14 beaver dams, unclogging ditches, and cleaning/unclogging detention basins.



Above: Senior Mosquito Inspector Christopher S. Borow notches a beaver dam during a pre-season water management project

**2022 Goal: Subject-matter leadership** - Under the General Supervisor's guidance, the Unit staff will continue to disseminate operational and biological information on mosquitoes through scientific publication. Sharing our findings with other mosquito control programs helps advance operational knowledge and better addresses health-related hazards.

Pictured below, Mosquito Inspector Daniel P. Scozzaro shared informational posters during NJMCA's Annual Meeting.



**2022 Goal: Perform Insecticide Resistance Testing** - *This goal has been accomplished.* If not carefully managed, mosquitoes can become resistant to commonly used chemical controls over time, reducing product efficacy and thereby reducing the level of control expected post-application. To overcome this challenge, an integrated strategy is employed which includes insecticide resistance testing. Mercer County Mosquito Control continues to participate in the insecticide resistance motoring program made available by Cornell University's Northeast Regional Center for Excellence in Vector-Borne Diseases.

## PLANS AND GOALS FOR 2023

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**2023 Goal: Increase Automation** - The Unit will continue to pursue opportunities to include technology for compliance, tracking, and reporting as it becomes available.

**2023 Goal: Increase Training of Staff** - Continue professional training for technical field staff and provide opportunities for the field staff to become more involved at the state and regional levels.

**2023 Goal: Respond to Service Requests** - Continue to increase the efficiency of responding to service requests from residents, and reduce the need for recurrent inspections.

**2023 Goal: Provide Larviciding Control Measures** - Continue to provide efficient and efficacious larval control measures for the residents of Mercer County by focusing on the use of bio-rational, low-impact products.

**2023 Goal: Provide Adulticide Control Measures** - Continue to provide efficient and effective adult control measures (when needed) for the residents of Mercer County.

**2023 Goal: Assist State and Regional Programs in the Suppression of the Asian Tiger Mosquito (ATM)** - Continue to investigate novel control measures for ATM and provide logistic support and guidance to other programs that may need our help.

**2023 Goal: Tire Removal Program** - Continue to expand and make this service available to more residents that are in need and cannot recycle or remove their tires.

**2023 Goal: Water Management Program** - Provide additional services to retention/detention basins, ditches, and streams that require clearing to ensure flow during the off-season.

**2023 Goal: Subject-matter Leadership** - Under the General Supervisor's guidance, the Unit staff will continue to disseminate operational and biological information on mosquitoes through scientific publication. Sharing our findings with other mosquito control programs helps advance operational knowledge and better addresses health-related hazards.

**2023 Goal: Tick Surveillance** - We will continue to include tick biology in our training programs, and track legislation mandating tick control is conducted by county mosquito control programs.

### References:

New Jersey Department of Health (NJDOH). (2022). Vector-borne Surveillance Reports. Retrieved from <https://www.nj.gov/health/cd/statistics/arboviral-stats/>

Office of the NJ State Climatologist (ONJSC). (2022). NJ Precipitation and Temperature departures. Retrieved from [https://climate.rutgers.edu/stateclim\\_v1/njwaterwatch.html](https://climate.rutgers.edu/stateclim_v1/njwaterwatch.html)

## MOTOR POOL

**Charles C. Beauchamp, William H. Buck, Edward Kaczor, Supervising Mechanic II**

The Motor Pool Unit plans for, acquires, maintains and disposes of the County's fleet of motor vehicles, buses, heavy equipment, and other vehicular equipment in support of the transportation and service delivery needs of all County departments. The Motor Pool Unit manages a \$6,303,000 million annual budget for fleet services and is responsible for approximately 700 vehicles, vans, pick-up trucks and various specialty vehicles/equipment assigned to the County departments. Motor Pool ensures the safe, cost-effective management of the County's vehicle/equipment purchase support, vehicle disposal and auction, Department of Motor Vehicle (DMV) processing and automated fuel sites.

### STAFF

#### FULL TIME (15)

Charles C. Beauchamp, Supervising Mechanic II

William H. Buck, Supervising Mechanic II

Edward Kaczor, Supervising Mechanic II

Richard A. Carnevale, Senior Mechanic

Joseph L. Fedor, Jr., Senior Mechanic

Glenn B. Holcombe, Senior Mechanic

Christopher P. Trail, Senior Mechanic

Edward M. Kaczor, Senior Mechanic Diesel

Brian J. Simiscsak, Senior Mechanic Diesel

Mark A. White, Senior Mechanic Diesel

William Dickerson, Mechanic

Jalen Dunn, Mechanic

Carmen Gee, Mechanic

Michael Liverman, Mechanic's Helper

Gregory K. Reid, Storekeeper

### Continuing Education

#### New Jersey Emission Inspector License

Richard Carnevale, William Dickerson and Michael Liverman completed and passed this hands-on test

#### Advanced Automotive Air Conditioning Training

Charles Beauchamp, Joseph Fedor, William Dickerson, Michael Liverman, Carmen Gee and Jalen Dunn completed this training.

## 2022 Accomplishments

### 2022 Goal: Utilizing New Jersey State Contracts for cost effective purchasing -

*This goal has been accomplished and continues to be pursued.* Motor Pool purchases vehicles and equipment. The New Jersey State Contract provides effective cost savings to the County. State contracts were used for the following vehicles/equipment:

- \* 1-Ford Police Interceptor SUV w/police package
- \* 2-Ford Edge
- \* 9-Chevrolet Tahoe w/police package
- \* 1-Ford F450 Truck



Pictured above: Elgin Broom Bear Street Sweeper and below Brush Bandit Chipper both purchased through the Middlesex County Educational Services Commission Co-Op

**2022 Goal: Utilize Middlesex County Educational Services Commission Co-Op -** *This goal has been accomplished and continues to be pursued.* The following equipment was purchased through Middlesex County Educational Services Commission Co-Op:

- \* 1-Ford Explorer
- \* 1-Elgin Broom Bear Street Sweeper
- \* 1-Falcon Asphalt Hot Patcher
- \* 3-2023 Kenworth T880, 6x4 Dump Trucks
- \* 5-2023 Kenworth T480, 4x2 Dump Trucks
- \* 1-Brush Bandit Chipper



**2022 Goal: Advertise for bids and award contract for the purchase of new vehicles and equipment** - *This goal has been accomplished* and continues to be pursued. The Mercer County Purchasing Department advertised, received bids and awarded the contracts for the following purchases of vehicles/equipment:

- \* The Purchasing Department advertised for bids on August 10, 2022 for the replacement of Lubrication Pumps in Building 1 and 4. This project involved the replacement of the existing pumps and installation of new pumping system in both buildings.

In addition to the above, the Motor Pool Unit utilized the Somerset County Co-Op for the purchase of the following equipment:

- \* Solar Tech Message Board, mid-size (46 x 78) full matrix, standard crank
- \* OEM parts and repairs.



Pictured above: Replacement of Lubrication Pumps

**2022 Goal: Coordinate 2 Annual Surplus Auctions** - *This goal has not been accomplished.* The Purchasing and Legal Departments were notified by the State of New Jersey that regulation requirements must be followed when gross sales exceed the bid threshold.

The Purchasing Department advertised for Request for Proposals (RFP's) for Auctioneer Services for Internet Web-Based Auction Services for Mercer County on August 10, 2022. The County of Mercer was looking for a fully functional Auctioneer Internet Web-Based auction service to sell Mercer County surplus property.

A selection committee was formed to review the RFP's. The selection committee agreed to award the contract to Auction Liquidation Services. The Board of County Commissioners adopted Resolution No. 2022-808 on November 21, 2022 for the period of November 21, 2022 through November 20, 2023, with an option to extend for 2, 1 year periods through 2025.

**2022 Goal: Provide Emergency Services** - *This goal has been accomplished.* Motor Pool employees handled all emergency services including but not limited to: towing, inclement weather and breakdowns.

**2022 Goal: Provide Interdepartmental Assistance (IAP) to other departments.** This goal has been accomplished. Motor Pool provides Interdepartmental Assistance to other departments. In 2022, the Motor Pool Unit provided assistance to the following departments:

- \* Correction Center – Delivered diesel fuel used for generators;
- \* Highway – Provided fuel and tire services, including on-site, to vehicles and/or equipment;
- \* Prosecutor’s Office – Provided towing services on a 24/7 basis for vehicles;
- \* Sheriff’s Office – Provided towing services on a 24/7 basis for vehicles;
- \* Trenton-Mercer Airport – Provided fuel and tire services, including on-site, to vehicles and/or equipment. Maintenance and repair of all equipment used for snow removal.

## OTHER ACCOMPLISHMENTS

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In addition to the goals set forth for 2022, the following accomplishments have also been undertaken:

**Fueling Stations at the DOT & I Facility** – Phase I of this project started in April 2020 and completed in April 2021. It involved the removal of 2 - 15,000 gallon Underground Storage Tanks, 1 for gasoline, and 1 for Diesel. These tanks were replaced by 2 - 12,000 double walled Fireguard Aboveground Storage Tanks. In addition, the complex now has 5 new Gasboy fueling dispensers (3 sets for gasoline and 2 for diesel). Phase II of this project involves the installation of fuel rings on every vehicle and piece of equipment. These rings will work in conjunction with the new fueling nozzles to accurately monitor who is fueling, what vehicle/equipment is receiving fuel and will send this information to our new fueling software. The fuel ring installation was completed on vehicles assigned to TRADE and Motor Pool in 2021. To date, 221 fuel rings were installed on County vehicles while encompassing 29 departments. Installation will be on-going until completed.

Pictured below: Fueling stations at the DOT & I Facility on Scotch Road



**Motor Pool**



## PLANS AND GOALS FOR 2023

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**Utilize Contracts for Purchasing** - Continue to look for opportunities to save County funds by utilizing advantageous pricing offered by the New Jersey State Contract, Middlesex County Educational Services Commission Co-Op, Somerset County Co-Op, Sourcewell and National Intergovernmental Purchasing Alliance (IAP).

**Coordinate Surplus Auctions** - Coordinate 2 on-line surplus auctions with Auction Liquidation Services.

**Interdepartmental Assistance Program (IAP)** - Continue to provide assistance to other departments.

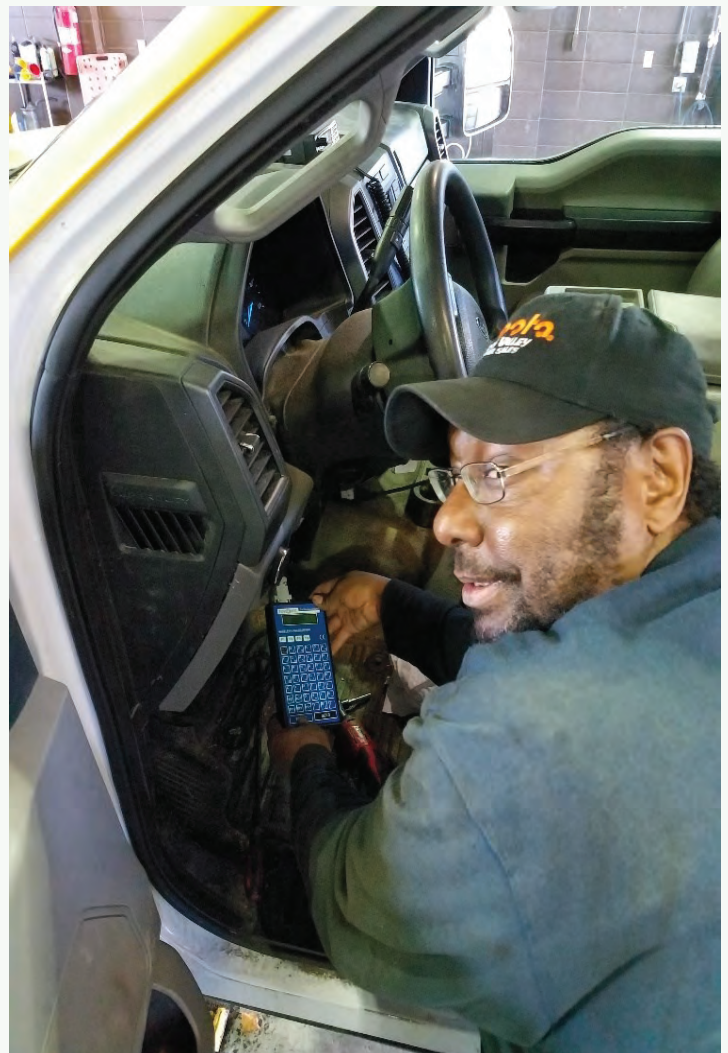
**Provide Emergency Services** - Continue to provide emergency services to all departments.

**Update Current Fleet Management System** - This project is ongoing and will be completed as part of the County Asset Management System.

**Fuel Ring Installation** - As part of our fueling station upgrades at the DOT & I Facility, this project will be ongoing until all County vehicles and equipment have the new fuel ring installed.

**Employee Continuing Education** - Schedule employees for their yearly training classes. Additionally, look for other training classes that could be beneficial to employees.

Pictured right: Mechanic's Helper Michael Liverman checking diagnostic on vehicle



Motor Pool

## SHADE TREE

**Thomas M. Bigley, Supervisor of Trees**

**Jason Rogers, Supervisor of Trees**

The Shade Tree Unit is responsible for the maintenance of trees, weeds, grass and roadside vegetation within Mercer County's right-of-way. Routine trimming, hazardous tree removals and new tree planting are all part of the daily routine. Shade Tree also maintains grass and weed control on 18 county-maintained traffic islands and guide rail, servicing 180 miles of county roadway.

### STAFF

#### FULL TIME (8)

**Thomas M. Bigley, Supervisor of Trees (25 Years)**

**Jason Rogers, Supervisor of Trees**

Michael J. Douglass, Senior Tree Climber

Ryan T. Elder, Senior Tree Climber

John Mulryne, Tree Climber

Corey Thomas, Tree Climber

Kyle Ficci, Tree Trimmer

John Argust, Tree Trimmer

#### Employee Continuing Education

##### JA Montgomery Management and Employee Training

- \* Flagger Skills and Safety
- \* Chainsaw Safety
- \* Chipper Safety
- \* Hearing Conversation
- \* 96th Annual New Jersey Shade Tree Federation Conference

## 2022 Accomplishments

**2022 Goal: Roadside Vegetation Management Program - Continue to eliminate or control vegetation through a variety of strategies including mowing, brush cutting and use of herbicides.** *This goal has been accomplished* through the following integrated Roadside Management Program. Approximately 350 gallons mixed, and 32 gallons concentrated of weed killer was applied to Mercer County roadways, servicing 180 linear miles, and also the Mercer County Correction Center (parking lots, sub-stations and all weed growth around the facility).



Pictured above: Tree Trimmer John Argust cutting stalk with chainsaw, along with Tree Climber John Mulryne operating the remote on the crane truck on Hamilton Avenue in Hamilton Township

**2022 Goal: Traffic Control Devices Visibility - Provision of routine maintenance on traffic control devices blocked by brush, trees, grass or weeds -** *This goal has been accomplished* through the routine maintenance of traffic control devices.

**2022 Goal: Sign Visibility—Improvement of visibility on the county’s roadway network by the removal of grass, weeds, brush and tree branches that cause obstruction in the view of the motoring public -** *This goal has been accomplished* through the removal of overgrown vegetation obstructing the view of motorists.

**2022 Goal: Drainage—Comply with the regulation set forth by the New Jersey Department of Environmental Protection (NJDEP) Stormwater Management Plan -** *This goal has been accomplished* through the enforcement of control measures with clearing drainage areas of weeds and debris.

**2022 Goal: Roadside Tree - Removal of dead or damaged trees -** *This goal has been accomplished* through the removal of trees within the County right-of-way that endanger the traveling public.

**2022 Goal: Guide rail - Control measures for overgrown vegetation along county maintained guide rail segments -** *This goal has been accomplished* through the use of our Mow Trim Tractor along with the enforcement of applying herbicide to control the growth.

**2022 Goal:** Routinely inspect 180 linear miles of county-maintained roadways for overhanging tree branches and dead or dangerous trees threatening the cartway - *This goal has been accomplished* and remediation was undertaken and warranted. This year, the following services were completed:

- \* **Tree Removal:** 80, 10" or larger trees were deceased, storm damaged or obstructing the view of motorists:
- \* **Tree Trimming:** 600 trees, providing sight clearance for the safety of the traveling public along roadways and intersections.
- \* **Roadway Clearance:** Removed over 15 limbs.
- \* **Tree Stumps:** Removed over 45 tree stumps.

**2022 Goal: Assist Electrical Utility Operations in High Voltage Areas** - *This goal has been accomplished.* Assistance was provided to Nelson Tree Service/ ARS Corps and Public Service Electric & Gas (PSE&G) with the removal and trimming of trees interfering in high voltage areas, resulting in a total of 25 trees.

**2022 Goal: Provide tree clearance for milling and resurfacing operation** - *This goal has been accomplished.* Working in conjunction with the Road Unit, the clearance and removal of trees, brush and roadside vegetation is removed prior to commencement of the milling and resurfacing project providing clearance for the milling machine. This year, the Shade Tree Unit assisted with 9 projects.



Pictured above: Tree Trimmer John Argust removing an ash tree at 2139 Hamilton Avenue in Trenton



Pictured above: Stump grinding at 837 Parkside Avenue in Ewing Township

**2022 Goal: Respond to requests from local municipal agencies within Mercer County for assistance with local road maintenance and rehabilitation projects -** *This goal has been accomplished.* The Shade Tree Unit provided assistance to local municipalities for the removal of dead or dangerous trees, trimming and provided weed control to local municipalities. This year assistance was provided to the following local municipalities:

- \* East Windsor Township
- \* Ewing Township
- \* Hightstown Borough
- \* Hopewell Borough/Township
- \* Pennington Borough
- \* Princeton
- \* Robbinsville Township
- \* West Windsor Township
- \* Trenton



Pictured above: Tree Climber Michael J. Douglass removing a large ash tree at 28 Jacobs Creek Road in Ewing Township

**2022 Goal: Provide unit support to Bridges & Culverts -** *This goal has been accomplished.* The Shade Tree Unit provided maintenance to over 700 bridges and culverts routinely inspected for overhanging branches, and dead or dangerous trees threatening the structure's cartway, along with overgrown brush and weeds. Remediation was undertaken and warranted. In addition, the unit assisted with service requests for debris clearance in roadways.

**2022 Goal: Snow Removal and Ice Control.** Provide assistance to the Road Unit during snow events - *This goal has been accomplished.* The Shade Tree Unit provided assistance during 7 storm events during the 2021-2022 winter seasons.

**2022 Goal: Respond to emergency calls and potential threats -** *This goal has been accomplished.* Over 25 emergency calls were received from various local Police Departments and residents.

**2022 Goal: Provide resources to other departments within the County** - *This goal has been accomplished.* This year, the Shade Tree Unit provided resources, equipment and labor to the following departments/divisions:

**Bridges & Culverts** - Assisted with the removal of a large oak tree laying across the creek on Church Street in Hamilton Township.

**Correction Center** - Mow trimmed brush line around perimeter of facility, along with entrances to both shooting ranges and up the hillside to the entrance of the facility.

**Court House** - Removed a tree at the entrance of the parking lot on Livingston Avenue.

**Human Services** - Removed 6 small trees in front of Lawrence Library that were hazardous; mow trimmed behind library along bush line to open stormwater drains.

**Park Commission** - Assisted the Park Commission with the removal of 26 dead/hazardous trees at Cadwalader Park.

**Prosecutor's Office** - Assisted the utility company with the removal of 3 trees needed to supply electric to the facility located at 1600 Reed Road; mow trimmed behind the Prosecutor's Lot to minimize the overgrowth of weeds and brush; trimmed 10 trees to help reduce the growth of mold.

**Trenton-Mercer Airport** - Trimmed trees to provide sight clearance for the Fire Department Facility.



Pictured above: Mow trim completed behind the Lawrence Library along brush line



Pictured above: Tree Climber Michael J. Douglass removing a large oak tree inside Cadwalader Park in Trenton

**2022 Goal: Provide maintenance on county-maintained traffic islands located throughout Mercer County - *This goal has been accomplished.*** Mercer County currently maintains 20 traffic islands throughout the Mercer County Region. Grass mowing and weed control was scheduled and carried out routinely. This year, routine maintenance was provided on the following traffic islands:

### **Ewing Township**

- \* Bear Tavern and Jacobs Creek Roads
- \* Bear Tavern Road @bus turn around
- \* DOT & I Complex, 300 Scotch Road
- \* Olden Avenue @Princeton Avenue
- \* Ewingville and Federal City Roads

### **Hamilton Township**

- \* Quakerbridge Road @Big Oak Tree
- \* South Broad Street near Highland Avenue
- \* Arena Drive @Bradford Avenue

### **Hopewell Township**

- \* Rosedale and Elm Roads
- \* Washington Crossing Road @Reed Road
- \* Pennington Centerville Road @County Line

### **Lawrence Township**

- \* Port Mercer and Province Line Roads
- \* Grovers Mill Road Extension
- \* Princeton Pike Spur

### **Pennington Borough**

- \* South Main Street @Pennington-Lawrenceville Road

### **Robbinsville Township**

- \* Robbinsville-Edinburg Road across

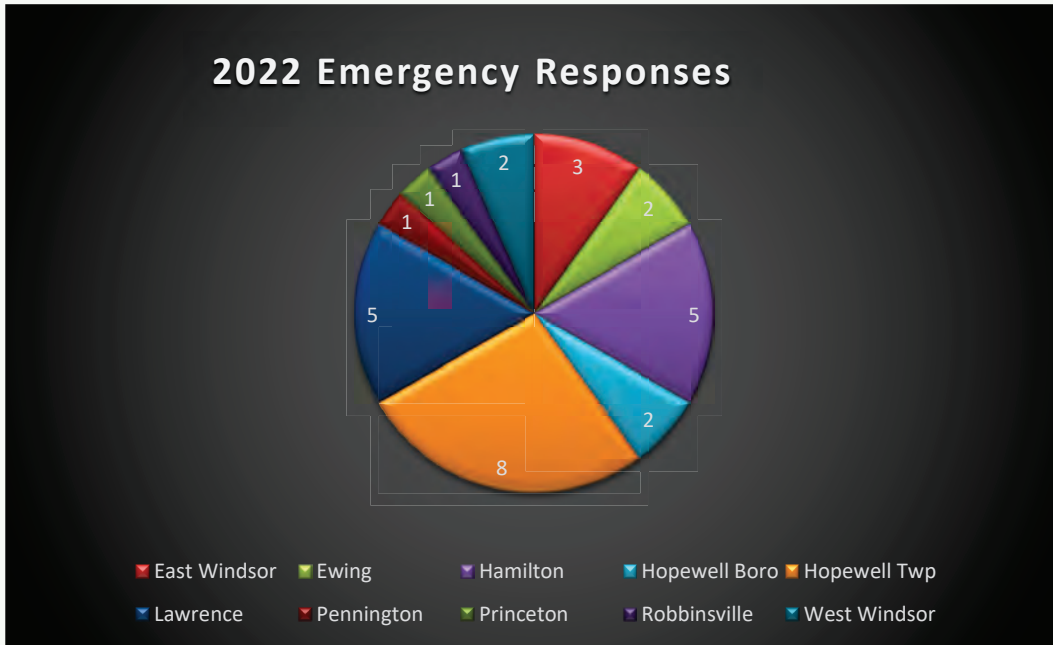
### **West Windsor Township**

- \* Princeton-Hightstown and South Mill Roads
- \* Old Trenton Road @Mercer County Vocational School
- \* Edinburg and Village Road East

### **Trenton**

- \* Parkside Avenue @West State Street

**2022 Goal: Emergency Responses** - The Shade Tree Unit is available 24 hours per day, 7 days a week for emergency responses throughout the County. This could be from downed wires due to fallen trees or unsafe branches hanging dangerously over a roadway. In addition to our daily tasks, the Shade Tree Unit responded to 30 emergency calls in the following municipalities:



**2022 Emerald Ash Borer (EAB). Continue and implement the removal of diseased Ash Trees with EAB infestation** - This goal has been accomplished by removing and stump grinding approximately 50 dead Ash Trees. The Emerald Ash Borer (EAB), is a non-native insect pest that kills all species of Ash Trees. This highly destructive insect has killed millions of Ash Trees including many trees in Mercer County. The Shade Tree Unit has formulated an EAB Management Plan to inventory all trees with a 5-inch diameter or greater within the County right-of way. A certified Arborist identified each tree to species and performed a risk analysis to prioritize those which posed the greatest safety concern.



Shade Tree



## PLANS AND GOALS FOR 2023

### **2023 Goal: Emerald Ash Borer (EAB) -**

Continue and implement the removal of diseased Ash Trees with EAB infestation. This will be a continuing project over the next several years.

### **2023 Goal: Routine Maintenance -**

Provide sight clearance for traffic signals and intersections on County roadways.

### **2023 Goal: Roadside Vegetation**

**Management Program** - Eliminate or control vegetation through a variety of strategies including mowing, brush cutting and use of herbicides.

### **2023 Goal: Milling and Resurfacing**

**Operation** - Coordinate 2023 milling and resurfacing projects with the Road Unit to ensure proper clearance of trees, brush and roadside vegetation.

**2023 Goal: Bridges & Culverts** - Provide unit support to 700 bridges and culverts inspecting for overhanging branches, dead or dangerous trees, and overgrown brush and weeds.

**2023 Goal: Road Unit - Snow Removal and Ice Control** - Provide assistance to the Road Unit during inclement weather events.

**2023 Goal: Interdepartmental Assistance Program (IAP)** - Provide resources to other departments.

**2023 Goal: Emergency Calls and Complaints** - Respond to emergency calls and potential threats.

**2023 Goal: Utility Companies** - Assist utility companies with the removal and trimming of trees interfering in high voltage areas.

**2023 Goal: Traffic Islands** - Provide maintenance, grass mowing and weed control on county-maintained traffic islands.



Pictured below: Shade Tree Unit assisting ARS Corp with removing large ash trees on Rosedale Road by Johnson School in Princeton

## TRAFFIC & SIGNAL

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**Mark Mattaliano, General Supervisor Traffic Maintenance**

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The Traffic & Signal Unit seeks to improve safe travels for residents of Mercer County through positive applications of signs, pavement markings, and traffic signals. Standardized maintenance practices teamed with professional engineering judgments enable the unit to provide a progressive highway network maintenance program. The unit's goal is to consistently ensure public confidence through its ongoing efforts.

### STAFF

#### FULL TIME (8)

**Mark Mattaliano, General Supervisor Traffic Maintenance**

William Heil, Supervisor Traffic Maintenance *(25 Years)*

Richard Danley, Senior Traffic Signal Electrician

David Cifielli, Traffic Signal Electrician

Alfred Council, Traffic Maintenance Worker

Michael S. Gilleo, Traffic Maintenance Worker

Clorie Jones, Traffic Maintenance Worker

Michael Pusey, Traffic Maintenance Worker

## 2022 Accomplishments



**2022 Goal: Perform maintenance on County maintained electrically operated traffic control devices and bridge lighting** - *This goal has been accomplished.* All device and lighting locations were inspected and preventative maintenance was performed to assure proper operation.

**2022 Goal: Respond to emergency service calls** - *This goal has been accomplished.* The Traffic & Signal Unit responds to emergency calls from municipal police departments as well as residential complaints. Emergencies include the following:

- \* **Emergency Road Closures**, placement of directional signage, cones, barrels and barricades.
- \* **Malfunctioning Traffic Control Devices.**
- \* **Motor Vehicle Accidents**, damage to traffic signals standards, control boxes, and signage.

**2022 Goal: Construct new traffic signals and reconstruct existing traffic signals in need of relocation, equipment upgrades, and safety enhancement measures along roadways** - *This goal has been accomplished.* The Traffic & Signal Unit has performed successful renovations at the following signalized locations:

### **East Windsor Township**

- \* Princeton-Hightstown Road and McGraw Hill Boulevard

### **Ewing Township**

- \* Bear Tavern Road and Scenic Drive
- \* Bear Tavern Road and Mountainview Drive (new traffic signal)
- \* Parkway Avenue and Town Center Drive
- \* Sullivan Way and Silvia Street (proposed new traffic signal)

### **Hamilton Township**

- \* Arena Drive and Gropp Avenue
- \* Edinburg Road and Flock Road
- \* Sloan Avenue and Fairlawn Avenue
- \* Yardville-Allentown Road and Crosswicks-Hamilton Square Road

### **Hopewell Township**

- \* Bear Tavern Road and Washington Crossing Road
- \* Scotch Road and Nursery Road

### **West Windsor Township**

- \* Old Trenton Road and Edinburg-Windsor Road
- \* Quakerbridge Road and Village Road



Pictured above: General Supervisor of Traffic Maintenance Mark Mattaliano along with Supervisor Traffic Maintenance William Heil assess conduit installation at the intersection of Quakerbridge Road and Village Road in Hamilton Township

The following traffic signals and flashers were knocked down and repaired during public emergency settings at the following locations in 2022:

### **Ewing Township**

- \* North Olden Avenue and Capital Plaza
- \* North Olden Avenue and Princeton Avenue
- \* Parkside Avenue and Parkway Avenue (*Ewing/Trenton - 3 knockdown repairs*)
- \* Parkway Avenue and Prospect Street (*Ewing/Trenton*)

### **Hamilton Township**

- \* Arena Drive and Woodside Avenue, Hamilton Township
- \* East State Street and Adella Avenue
- \* East State Street and Johnston Avenue
- \* East State Street and Whitehead Road and Roberts Avenue
- \* Hamilton Avenue and Klockner Road
- \* Hamilton Avenue and Kuser Road
- \* Sloan Avenue and Klockner Road (*2 knockdown repairs*)

### **Hopewell Borough**

- \* Broad Street and Greenwood Avenue

### **Hopewell Township**

- \* Bear Tavern Road and Washington Crossing Road
- \* Carter Road and Cherry Valley Road

**2022 Goal: Provide maintenance for newly installed electrically operated traffic control devices on County roadways - This goal has been accomplished.** The Traffic & Signal Unit maintains roadway crossing limits for pedestrian travel. New Rapid Flashing Beacons have been installed at the following crosswalk locations:

### **Ewing Township**

- \* Parkway Avenue and Hillcrest Avenue

### **Hamilton Township**

- \* Kuser Road and Lorraine Drive

### **Hightstown Borough**

- \* North Main Street and Wycoff Mills Road

### **Princeton**

- \* Rosedale Road and General Johnson Road



**2022 Goal: Replace incandescent halogen bulbs with energy saving LED (Light Emitting Diodes) -This goal has been accomplished.** The Traffic & Signal Unit is in the process of upgrading many of our traffic signals and street lighting. As part of this improvement project, halogen bulbs are being upgraded and replaced with LEDs using less electricity and have a significantly longer useful life and enhance visibility. The following signalized intersections have been upgraded:

- \* Scotch Road and Sam Weinroth Road, Ewing Township
- \* Scotch Road and Nursery Road, Hopewell Township

**2022 Goal: Install video detection equipment at various intersections** - *This goal has been accomplished.* The Traffic & Signal Unit has been installing video detection systems to detect vehicles and bicycles at traffic signals. Video detection systems replace in-pavement loop detector systems. In addition to the installation of new systems, the Traffic & Signal Unit provides maintenance such as necessary adjustments and cleaning of the lens. Video detection systems were installed or upgraded at the following intersections:

### Ewing Township

\*Bear Tavern Road and Mountainview Road (*Radar Video Detection*)

\*Bear Tavern Road and Scenic Drive (*Radar Video Detection*)

### Hamilton Township

\*Arena Drive and Gropp Avenue (*Gridsmart Video Detection*)

**2022 Goal: Maintenance of signage on County roadways** - **Perform routine maintenance of signage on county roadways.** *This goal has been accomplished.* The Traffic & Signal Unit replaced signs and installed break-away sign posts along county roadways. Dispatched service requests and scheduled sign repairs are all registered electronically into Mercer County's Asset Management System.





**2022 Goal: Replace and install guide, regulatory and warning signs to meet FHWA retro-reflectivity standards - This goal has been accomplished.** The Traffic & Signal Division replaced signs and installed break-away sign posts along County roadways when they were resurfaced. Special jurisdictional sign additions are also accommodated upon approval. The following roadway segments were completed

**Pictured left:** A new speed limit sign and support installation on Old Trenton Road is inspected by General Supervisor of Traffic Maintenance, Mark Mattaliano in West Windsor Township

### **County Route 583**

\* Princeton Avenue from Spruce Street to US Route 206

### **County Route 604**

\* Rosedale Road from Province Line Road to Elm Road (*new speed limit signs/roundabout warning signs*)

### **County Route 606**

\* Hamilton Avenue from South Olden Avenue to Newkirk Avenue

### **County Route 614**

\* Nottingham Way from NJ Route 33 to East State Street

### **County Route 618**

\* Nottingham Way from NJ Route 33 to Paxson Avenue (*weight limit restrictions sign additions*)

### **County Route 622**

\* South Olden Avenue from Cedar Lane to Hamilton Ave

### **County Route 626**

\* Chambers Street from Liberty Street to Hamilton Avenue

### **County Route 626**

\* Chambers Street from Cedar Lane to South Broad Street

### **County Route 632**

\* Blackwell Road from Pennington-Lawrenceville Road and Benjamin Trail

### **County Route 634**

\* Prospect Street from North Olden Avenue to Parkway Avenue

### **County Route 644**

\* Village Road East from Edinburg Road to Southfield Road

**2022 Goal: Install thermoplastic intersection pavement markings on selected county roadways -**  
*This goal has been accomplished.* Thermoplastic traffic markings were applied at the following intersection:



Pictured above: Traffic Maintenance Worker, Mike Gilleo uses caution while applying thermoplastic material onto pavement surfaces

### **City of Trenton**

- \*Hamilton Avenue and South Olden Avenue
- \*Hamilton Avenue and Newkirk Avenue
- \*Hamilton Avenue 1400 block handicapped parking stall
- \*North Olden Avenue and New York Avenue
- \*North Olden Avenue and Brunswick Avenue
- \*North Olden Avenue and Indiana Avenue
- \*Parkway Avenue and Prospect Street
- \*Chambers Street and Cedar Lane
- \*Chambers Street and Roebling Avenue
- \*Chambers Street and Hamilton Avenue
- \*Chambers Street and Forrest Street
- \*Lalor Street and South Broad Street
- \*Parkway Avenue and Parkside Avenue
- \*Parkway Avenue and Glenwood Avenue
- \*Prospect Street and Parkway Avenue

### **East Windsor Township**

- \*Princeton-Hightstown Road and Old Trenton Road
- \*Old Trenton Road and Windsor Center Drive



### Ewing Township

- \*Bear Tavern Road and Mountainview Road
- \*Bear Tavern Road and Jacobs Creek Road
- \*Bear Tavern Road and Scenic Drive
- \*Parkway Avenue and Prospect Street
- \*Parkway Avenue and Parkside Avenue
- \*Parkside Avenue between Cross Street and Hazelhurst Avenue
- \*Prospect Street and Parkway Avenue
- \*Parkway Avenue and Glenwood Avenue



Pictured above: Traffic workers use teamwork in reconstructing a traffic signal at Bear Tavern Road and Scenic Drive in Ewing Township



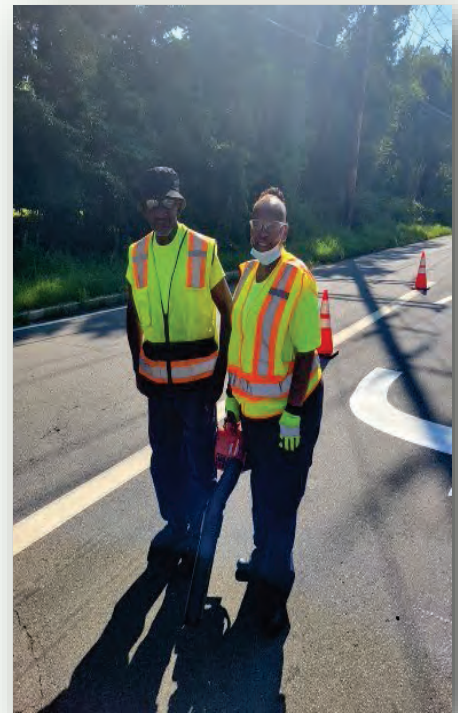
Pictured above: Yellow thermoplastic gore markings are angled for roadway delineation application

## Hamilton Township

- \*Arena Drive and Central Avenue
- \*Chambers Street and Cedar Lane
- \*Chambers Street and South Clinton Avenue
- \*Flock Road and Edinburg Road
- \*Flock Road and Lions Road
- \*Hamilton Avenue and Klockner Road
- \*Hamilton Avenue and Newkirk Avenue
- \*Hamilton Avenue and Norway Avenue
- \*Hamilton Avenue and South Olden Avenue
- \*Kuser Road and Lorraine Drive
- \*Nottingham Way and East State Street
- \*Nottingham Way and Rosalie Avenue
- \*Nottingham Way and Sculptors Way
- \*Sloan Avenue and American Metro Boulevard
- \*Sloan Avenue at Hamilton Station Shopping Center Entrance
- \*Sloan Avenue and Klockner Road
- \*South Broad Street and Church Street
- \*South Broad Street and Gropp Avenue
- \*South Broad Street and Yardville-Allentown Road
- \*South Broad Street and Yardville-Hamilton Square Road
- \*South Broad Street between Church Street /NJTPK Overpass
- \*South Olden Avenue and Cedar Lane
- \*South Olden Avenue and Liberty Street
- \*Sweetbriar Avenue and Rutgers Avenue
- \*Sweetbriar Avenue and Sandalwood Avenue
- \*Sweetbriar Avenue and South Lehigh Avenue
- \*Sweetbriar Avenue and Trinity Avenue
- \*Sweetbriar Avenue and Vetterlein Avenue
- \*Whitehorse Avenue and Cypress Lane
- \*Chambers Street and South Broad Street
- \*Whitehead Road and East State Street



Pictured above: Lane directional marking restoration is performed at the intersection of Pennington-Lawrenceville Road and Blackwell Road in Lawrence Township



Pictured above: Traffic Maintenance Workers, Alfred Council and Clorie Jones provide safety during line striping operations

### **Hightstown Borough**

\*North Main Street and Monmouth Street

### **Hopewell Township**

\*Blackwell Road and Pennington-Lawrenceville Road

\*Scotch Road and Capital Health Hospital Entrance

### **Lawrence Township**

\*Lawrence Station Road and Quakerbridge Road

\*Lawrence Station Road and Radha Krishna Temple

### **Pennington Borough**

\*Delaware Avenue and Main Street

### **Princeton**

\*Rosedale Road and Elm Road

\*Rosedale Road and Province Line Road

### **Robbinsville Township**

\*Church Street and Main Street

### **West Windsor Township**

\*Clarksville Road and North Post Road

\*Clarksville Road and Princeton-Hightstown Road

\*Old Trenton Road and Dorchester Drive

\*Old Trenton Road and One Mile Road

\*Princeton-Hightstown Road and Rabbit Hill Road

\*Village Road East and Edinburg Road

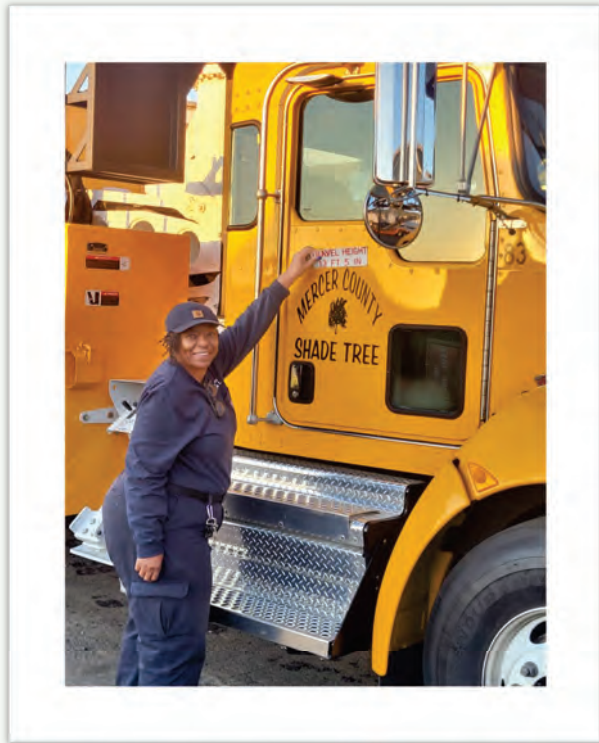
\*Village Road East and West Windsor-Plainsboro School

\*Windsor Edinburg Road from South Lane to Church Street

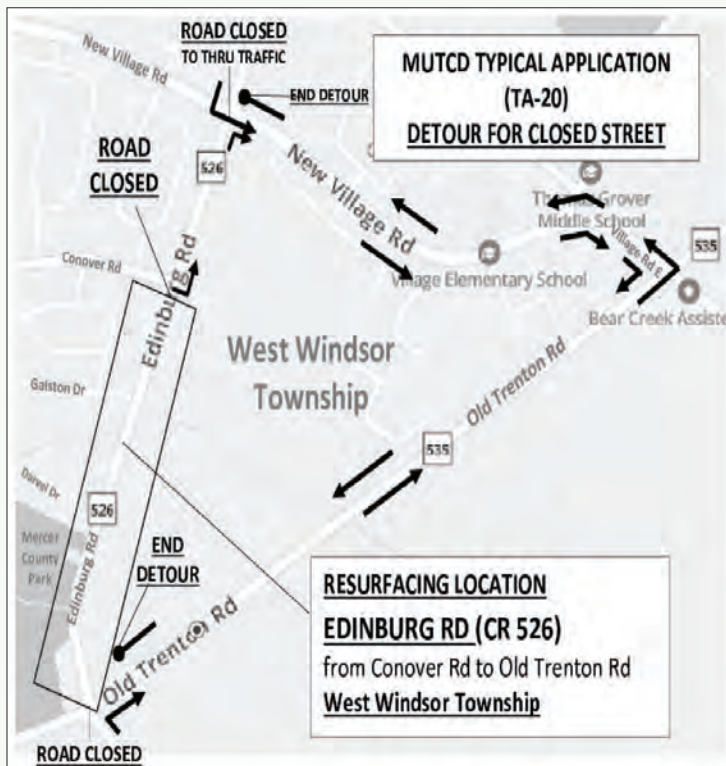


Pictured above: White thermoplastic lane divider markings successfully installed on Scotch Road per Capital Health Hospital's approved request

**2022 Goal: Lettering of new vehicles** - *This goal has been accomplished.* The Traffic & Signal Unit provided the lettering for all new fleet vehicles and equipment for the County.



Pictured above and right: Traffic Maintenance Worker, Clorie Jones accurately details new fleet vehicles



**2022 Goal: Coordinate roadway closures** - *This goal has been accomplished.* The Traffic & Signal Unit designed traffic control plans for **four (4) bridge repair projects** and **twenty-one (21) milling and resurfacing projects** and coordinated the scheduling of police officers to assist with traffic control. Advanced notification, construction warning and detour signs were installed prior to the improvement projects starting date.

**2022 Goal: Bike Lane Striping and Signage Implementation** - *This goal has been accomplished.* This year, the Traffic & Signal Unit installed Bike Lane Striping and Signage in correspondence with new traffic patterns influenced through the National Association of City Transportation Officials (NACTO). The following segments were subject to cyclist-friendly applications within the Mercer County roadway network:

- \*Parkway Avenue from NJ Route 31 to West Ingham Way, City of Trenton/Ewing Township
- \*Prospect Street from North Olden Avenue to Parkway Avenue, Ewing Township
- \*Parkside Avenue from North Olden Avenue to NJ Route 31, Ewing Township



Pictured below: A bike lane configuration plan on Parkway Avenue in the City of Trenton/Ewing Township becomes a reality through sign installations and striping modifications by the Traffic Unit.



**Parkway Ave Striping Plan: Kelsey Ave to Route 31 (Sheet 2 of 2)**

Created: July 21, 2019  
 Edited: April 28, 2021  
 Aerial: March 2021

**2022 Goal: Training of staff** - *This goal has been accomplished.* The following training classes were attended:

### Certified Public Works Manager Program

Mark Mattaliano, General Supervisor, Traffic Maintenance

- \* Management Tasks, Responsibilities, and Practices – Completion of Certification
- \* Managing and Developing Human Resources – Completion of Certification



### NEMA TS 1 Troubleshooting Seminar

Mark Mattaliano, General Supervisor, Traffic Maintenance - Completion of TS-1 Certification

William Heil, Supervisor Traffic Maintenance - Completion of TS-1 Certification



### 2022 KnowBe4 Security Awareness Training

Mark Mattaliano, General Supervisor, Traffic Maintenance - Completion of Certification

William Heil, Supervisor Traffic Maintenance - Completion of Certification



**2022 Goal: Provide Interdepartmental Assistance to other departments/divisions – This goal has been accomplished.** This year, the Traffic & Signal Unit provided the following assistance:

### Board of Elections

- \* Provided portable light towers, Variable Message Sign display , and barricades during County elections proceedings.

### Buildings and Grounds

- \* Installed new thermoplastic parking stalls and yellow gore barrier markings at the Mercer County Department of Transportation and Infrastructure complex .



Pictured right: Yellow thermoplastic is heated and applied at the MCDOT complex for safety improvements along the buildings and grounds

### Central Maintenance

- \* Provided the aerial platform lift truck for overhead lighting repair at several county facilities.

### Courthouse

- \* Provided portable light towers for overnight courthouse activity.

### Culture & Heritage

- \* Installed and removed Mercer County Cultural Festival event signs at various countywide roadway locations

## Emergency Management

- \* Responded to an emergency Hazmat situation at a Willow Street high-rise building chemical spill in the City of Trenton calling for light tower deliveries and road closures within the affected surrounding area.
- \* Responded to an emergency fire dispatch at the Ewing Community Center including roadway closures, barricades placement, cones deployment, and lane diversions away from the hazardous explosion situation in Ewing Township.

## Improvement Authority (MCIA)

- \* Provided electronic variable message signs and traffic cones for events at the CURE Insurance Arena
- \* Installed directional trailblazers, waste designation signs, traffic cones, and electronic variable message sign display for Household Hazardous Waste Disposal Day held on three separate occasions at the Dempster Fire Training Center.
- \* Provided variable message sign and traffic cones for a Shredding Event held at the McDade Administration Building parking facility.

**HOUSEHOLD HAZARDOUS WASTE COLLECTION  
AND ELECTRONICS RECYCLING EVENTS**

Sponsored by the Mercer County Improvement Authority

**SATURDAY, MARCH 26, 2022 / 8 AM – 2 PM**  
**SATURDAY, JUNE 4, 2022 / 8 AM – 2 PM**  
**SATURDAY, SEPTEMBER 10, 2022 / 8 AM – 2 PM**

Dempster Fire School / 350 Lawrence Station Road  
MATERIALS ONLY ACCEPTED ON THESE DATES AND TIMES, RAIN OR SHINE

**CAUTION HAZARDOUS WASTE**

**ACCEPTED MATERIALS**  
Aerosol Cans / Used Motor Oil / Propane Gas Tanks / Pesticides & Herbicides  
Car Batteries / Paint Thinner / Oil Based Paint / Stains & Varnishes / Gasoline  
Anti-Freeze / Driveway Sealer / Insect Repellents / Mercury / Fluorescent & CFL Bulbs

**MATERIALS NOT ACCEPTED**  
NO LATEX PAINT / NO Heating Oil / NO Infectious Waste / NO Radioactive Materials  
NO Explosives or Munitions / NO Railroad Ties / NO Asbestos / NO Tires  
NO Wood / NO Fencing / NO Air Conditioners / NO Helium or Oxygen Tanks  
NO Humidifiers / NO Dehumidifiers / NO Unknowns / NO Batteries

**ACCEPTED ELECTRONICS**  
Computers / Printers / Copiers / Fax Machines / Stereos / Televisions / Microwaves

**MERCER COUNTY IMPROVEMENT AUTHORITY**  
Residential Waste Only / NO COMMERCIAL BUSINESSES  
Mercer County Residents Only / Proof of Residency Required (Driver's License)

**MERCER COUNTY RECYCLES**

Brian M. Hughes, County Executive / John P. Thurber, Chairman / Phillip S. Miller, Executive Director  
FOR MORE INFORMATION CALL 609-278-8086 OR VISIT [WWW.MCIANJ.ORG](http://WWW.MCIANJ.ORG)

## McDade Administration Building

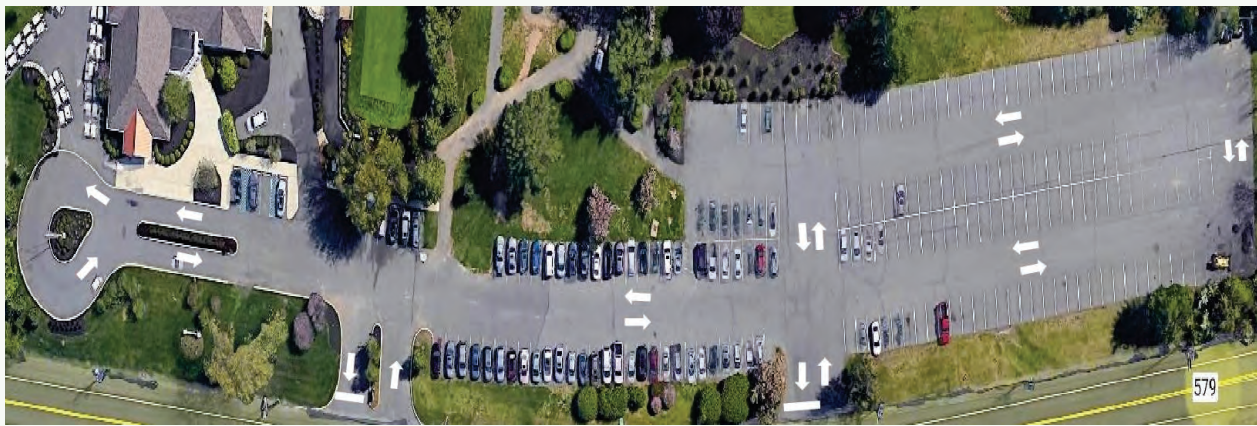
- \* Provided portable light towers at the McDade Administration Building during County elections proceedings.
- \* Designed and fabricated office door labels for various personnel within complex.



## Park Commission

- \* Installed thermoplastic parking stalls and added related parking lot signage upgrades at the Mountainview Golf Club in Ewing Township.
- \* Installed thermoplastic parking stalls and added related parking lot signage upgrades at the newly acquired Hopewell Valley Golf Club in Hopewell Township.

**Pictured right:** A new Rosedale Park directional sign installed by traffic workers in support of the Mercer County Park Commission on South Main Street in Pennington Borough.



Pictured above: An aerial view of the new directional arrow configuration concept implemented by the Traffic Unit at the Mountainview Golf Course parking lot facility



Pictured above: Left: Directional arrows installed per plan; Right: Completed Mountainview Golf Course parking lot striping

## Sheriff's Office

- \* Assisted with water barrier labelling fabrication for designated safety operations deployment.

## Trenton-Mercer Airport

- \* Fabricated and installed requested signs for new Airport Parking Lot on Scotch Road.

**2022 Goal: Participate in Shared Services** - *This goal has been accomplished.* The Traffic & Signal Unit provides the delivery, installation and removal of equipment requested by local municipalities, police, fire and local organizations for special events and requests throughout the entire County of Mercer. This year, equipment was requested for the following events:

- \* Ewing High School evening football game, 2 portable light tower units
- \* Ewing Township's Fireworks event, 4 portable light towers, water barrier units
- \* Ewing Township's Trunk or Treat Halloween event, 2 portable light tower units, 50 traffic cones
- \* Hightstown's Annual Harvest Festival, 2 electronic variable message signboards
- \* Hopewell Township's Fireworks event, 4 portable light towers
- \* Hopewell Valley Arts Council's Amazing Pumpkin Carve , 2 portable light towers, 2 variable message signboards
- \* Lawrence Township 4th of July event, 150 traffic cones
- \* Lawrence Township Police Department's Bike Rodeo event, 200 traffic cones
- \* Pennington Fire Company building renovations, 2 portable light tower units
- \* Princeton Township's new roundabout area on Rosedale Road and General Johnson Avenue , 2 portable light tower units, 2 electronic variable message signboards for new traffic pattern display
- \* Rider University's campus registration weekend event, 200 traffic cones
- \* Robbinsville Community Day, 3 variable message signboards
- \* Saint Gregory the Great Carnival in Hamilton Township, 50 barricades
- \* TCNJ's campus hosted Special Olympics, 4 portable light towers, water barricades units
- \* TCNJ's campus hosted 5K event sponsored by the YMCA , 100 traffic cones, 50 barricades
- \* TCNJ Commencement Ceremony, 2 variable message signboards
- \* West Windsor Fire Company, 2 variable message signboards

## OTHER ACCOMPLISHMENTS

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In addition to the goals set forth for 2022, the following accomplishments have also been undertaken:

### **Mercer County Stands with Ukraine**

- \* Delivered and programmed electronic variable message signboards county-wide in support of “Mercer County Stands with Ukraine” public notification.



### **COVID-19 Response**

- \* Provided COVID-19 vaccination and testing center assistance with the deployment and maintenance of light tower units and electronic variable message signboard displays at various facilities sponsored by the County of Mercer.



## **PLANS AND GOALS FOR 2023**

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**2023 Goal: Upgrade electrically operated traffic control devices on County roadways** - The Traffic & Signal Unit proposes to upgrade signalized intersections and crossings.

**2023 Goal: Perform maintenance on County maintained electrically operated traffic control devices and bridge lighting** - Inspect all devices and lighting locations and perform preventative maintenance to insure proper operation.

**2023 Goal: Install video detection at signalized intersections** - Video detection will be installed at intersections when in-pavement loop detector systems fail.

**2023 Goal: Replace incandescent halogen bulbs with energy saving LED (Light Emitting Diodes)** - As a cost savings effort, continue replacement on various traffic signals and related street lighting locations, county-wide.

**2023 Goal: Respond to emergency service calls** - Respond to emergencies from local municipal Police Departments as well as residential complaints.

**2023 Goal: Maintenance of signage on County roadways - Perform routine maintenance of signage on County roadways.** Replace damaged traffic signs and posts.

**2023 Goal: Replace guide, regulatory and warning signs to meet FHWA retro-reflectivity standards** - Replace signs and install break-away sign posts along County roadways.

**2023 Goal: Install thermoplastic intersection markings on selected County roadways** - Projects scheduled for next year are currently in the planning process.

**2023 Goal: Provide lettering of new vehicles** - Provide lettering of all new fleet vehicles for the County.

**2023 Goal: Coordinate roadway closures** - The Traffic & Signal Unit will continue to coordinate all roadway closures, detours and traffic control with local police departments prior to commencement of a road improvement project. Advanced notification and detour signage will be installed prior to the improvement projects starting date.

**2023 Goal: Training Opportunities** - Continue to provide training opportunities to Traffic & Signal personnel.

**2023 Goal: Assist in the snow removal operation. Provide assistance to the Road Unit in the removal of ice/snow emergencies** - Provide assistance during snow events. In addition to snow removal, the Traffic & Signal Unit also assists in the repair of residential mail boxes that are damaged by snow impacts on County roadways.

**2023 Goal: Provide Interdepartmental Assistance Program (IAP)** - Continue to provide assistance to other departments/divisions.

**2023 Goal: Participate in the Municipal Assistance Program (MAP).** Continue to provide assistance to local municipalities.

**2023 Goal: Participate in Shared Services.** Continue to provide services to local municipalities, police and fire departments, and local organizations.



Pictured right:  
Senior Traffic Signal  
Electrician, Richard  
Danley makes wire  
connections

Pictured above: Traffic Signal Electrician, David  
Cifelli safely operates a platform truck to replace  
a signal head on Bear Tavern Road and Scenic  
Drive in Ewing Township

## TRADE (Transportation Resources to Aid the Disadvantaged and Elderly)

### **Martin DeNero, Director**

It is the purpose of TRADE to support eligible County residents who require transportation to maintain their health, improve their financial status, utilize various public and private programs and services (medical, therapeutic, recreational) and access other needed community resources. TRADE Transportation is accessible to all eligible residents of Mercer County, including older adults (age 60+) and people with disabilities.

#### **STAFF**

**FULL TIME (28)**

**PART TIME (1)**

#### **Martin DeNero, Director**

Junior Spence, Program Coordinator

Julio Silva, Clerk 4

Jaqueline Harrison, Clerk 3

Christina Raspatello, Clerk 2

Lismarie Rentas, Clerk 2

Nicole Harrison, Clerk 1

#### **Stand-by Motor Vehicle Operator (PT)**

Abdul Momoh

#### **Motor Vehicle Operators (FT)**

Fiaysal Algimer (*25 years*)

Ruth Buck

Crystal Futrell

Jose Gomez

Steven Harmon

Debra Lucas

Robert Markley

Charles McCloskey

Robert Metelsky

Kym Miller

Mario Prophete

Michael Pusey

Jeronimo Rodriguez

Sherman Rogers

Pedro Sapon

Shawn Tift

Clark Wiley

Geraldine Moore

Curtis Lewis

Samuel Taylor

Frederick Wingate

## 2022 Accomplishments

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The Department of Transportation and Infrastructure (DOT&I) and TRADE Transportation developed goals for 2022, which provided a framework for action during the year. In the first section of this report for TRADE, the goals for 2022 are listed, along with information about TRADE's accomplishments in meeting these goals. Other accomplishments from 2022 are also listed. The second section documents TRADE's goals for 2023.

As an introduction, it must be mentioned that Covid-19 continues to impact TRADE's operations, its' staff, our customers and the community we serve. When the State and County issued Emergency Proclamations and many entities shut down in March 2020, TRADE continued operations. We did our best to establish safety procedures. All employees, including drivers and office staff, continued to contribute and offer assistance on the road and on the phones. I continue to be proud of such a brave and dedicated group of people at TRADE. **TRADE employees have stepped up to the many challenges and continue to do so today!**

During 2022 safety procedures continued in place until late in the year. Mask requirements were lifted and operations returned to what could be considered "normal". During the pandemic TRADE was delivering meals to customers at their homes. The County Senior Nutrition sites reopened in May 2022 and TRADE returned to transporting customers to the Centers and discontinued home-delivered meals. This required significant effort for our office staff and was a major accomplishment.

This year we continue to face challenges, mainly related to staff vacancies and employees on medical leave. There has been a major upheaval in the labor market for motor vehicle operators and salaries/wages being offered by private entities and school bus companies leave TRADE at a competitive disadvantage. As a result, TRADE has four vacancies for driver positions. A significant number of customers have passed away but we continue to enroll new participants and have reduced our waiting list for transportation to dialysis centers.

**2022 Goal: Upgrade Scheduling Software Features and Implement Other Technologies.** *This goal has been partially accomplished.* In 2022 TRADE thoroughly researched alternatives for new technologies with our software vendor (TripSpark) following the major software upgrade that was completed in 2020. The upgrade provides a solid platform to implement new technology that can modernize our operations. Our research reveals that the project would best be accomplished through implementing two phases.

During the first phase a new Software module will be configured and installed to connect the existing scheduling software and dispatch staff with drivers on the road in real-time, through the use of digital tablets that will be installed on vehicles. The software will provide GPS location data that dispatch staff can use to identify the location of vehicles when it is necessary to find a driver to pick-up a customer. Driver assignments can be made and changes communicated to the drivers. The GPS data will provide real-time data about the exact times that drivers arrive at locations and their departure times and will also be used to monitor and track "on-time performance". Currently, arrival and departure times are self-reported by drivers. Reports will be developed through the software to monitor this important data. TripSpark has provided information on the options and pricing.

It has been a strong trend since Covid-19 that customers at medical appointments are ready to return home earlier than the time they had initially provided, as medical offices attempt to clear their offices as soon as possible. The software will provide a benefit to customers through enhanced response times to their requests. This will also assist TRADE and our customers when they are not ready to leave at the time of their scheduled return ride home, when TRADE may need to assign a different driver to complete the trip.

During the second phase, a second software module will be installed with the primary scheduling software to provide customers with a phone call/text the day before service, reminding them of their reservation pending for the next day. Through IVR technology, the customer will also be able to confirm or cancel their scheduled ride during this call. Additionally, another feature would provide customers with a phone call with real-time information on when the vehicle will arrive at their location. This software module combines the use of tablets installed on the vehicles, with the GPS data made available and connected to the scheduling system developed in the first phase.

TRADE has worked with TripSpark through 2022 to develop the outlined approach, to define the required equipment and obtain cost estimates. A capital budget request has been submitted for approval within the 2023 County Capital budget. This goal will be continued.

**2022 Goal: Explore revenue sources to offset County expenses.** Continue efforts to locate grant funding for vehicle replacements to reduce use of County Capital grant funds. Also, continue to explore other grant opportunities to support operating expenses. *This goal has been partially accomplished.* TRADE Transportation has developed a partnership with the Mercer County Planning Department to participate with the Delaware Valley Regional Planning Commission (DVRPC) in securing sustainable long-term financial resources through the NJ Transportation Improvement Program (NJ TIP). **We have achieved great success in this area.** Historically, programs similar to TRADE have not been participants in this funding program, which has been dominated by Highway, Bridge, Ferry, Light Rail, Mass Transit and other traditional participants.

Our efforts so far resulted in obtaining funding in the Short Range Transit Plan for replacement vehicles every two years. In FY2018 and FY2020 approximately \$1,900,00 in funding for replacement vehicles have been approved through this program. **And, in FY 2022, DVRPC has made available to TRADE \$915,000 in funding.** Having a sustainable source of funding for replacement of TRADE vehicles will significantly reduce reliance on County Capital funding for purchase of replacement vehicles. While this funding is currently approved, NJ Transit is the entity that will purchase vehicles on our behalf. NJ Transit has experienced significant delays in the procurement process.

And so, although the funding is in place, **the procurement problems faced by NJ Transit continue to present serious issues.** The initial delay was in the NJ Transit development of the procurement package, which was partially held up by the State shutdown due to COVID-19. A primary issue facing us is that the market of suppliers has experienced a radical consolidation. A major company has purchased many of their competitors, and closed several of their factories, and there has been a shortage of companies participating in the bid process. A second primary issue is an explosion in the cost of vehicles ranging from 42% to 70% higher, depending on the size of the vehicle. These increases will reduce the number of vehicles that can be purchased as originally planned with the funding available. And, it is unclear at this time when these vehicles will actually be delivered to TRADE, as a timeline has not been released by NJ Transit. This is a terrible combination of factors (not to mention supply-chain issues) impacting vehicle availability across the board. This goal will be continued in 2023.



**2022 Goal: Vehicle Advertising** - Continue to make use of a Contractor for vehicle advertising. *This goal has been accomplished.* A new vendor, Gateway Outdoor Advertising, was selected late in 2021 to continue this effort. During 2022, approximately \$25,000 in revenue was obtained through this project. Advertisements were placed for the following: (Vaccine Promotion, Rental Relief, NY Yankees, NJ Department of Transportation) partially through grants obtained by County Departments for Covid-19 relief and other external sources.

**2022 Goal: Continue Development of Transportation Improvements by providing leadership to the Mercer County Coalition for Coordinated Transportation.** The general purpose of the Coalition is to work together to enhance transportation options for residents of Mercer County who are elderly, people with



The Mercer County Human Services Transportation Coordination Plan involves multiple strategies and action steps to be accomplished over the short and long-term. The Mercer County Coalition for Community Transportation [Coalition] is a stakeholder group that works to develop the Coordination Plan, and TRADE provides leadership and support to the Coalition, acting as Co-Chair. Work on this goal area will continue in 2023 and the Plan will be updated.

*This goal has been accomplished.* During 2022 regular meetings have been curtailed, though Zoom meetings have been held. Members did collaborate with a long-term partner in the Coalition, the Greater Mercer Transportation Management Association (GMTMA) on a project serving employers along the Route 130 Corridor. Employment Centers have expressed difficulty with transportation for employees seeking work. The County Route 130 Shuttle partially meets this need, but does not extend far enough north at the current time.

**2022 Goal: Customer Satisfaction Survey - Disseminate a Passenger Satisfaction Survey and compile a report** - *This goal has been partially accomplished.* The survey form has been developed and printed. The surveys will be distributed over the next month, and a report will be issued in the first quarter in 2023.





Pictured above: TRADE Office Staff

## Other Accomplishments

In addition to the goals set forth in 2022, the following accomplishments have also been undertaken:

## Revenue Changes

### Sports Betting

The U.S. Supreme Court ruled in 2018 that sports-betting is a legal activity and the State of NJ instituted rules/regulations directing that some proceeds from the betting will support the Casino Revenue Fund. The Casino Revenue Fund has historically supported County Transportation Programs, though it has declined by approximately 50% since 2008. The revenue resulting from sports betting will begin to be realized to County Transportation Programs in 2021. The internet wagering has started to have some positive benefit to the Casino Revenue Fund, beginning in 2017, as revenue from table game betting has generally remained flat the past two years and has plummeted in 2020.

Mercer County will realize an increase of \$282,000 (38%) in grant funding through the Senior Citizen and Disabled Resident Transportation Assistance Program in 2023, largely due to these two new sources of funding. The brick and mortar betting revenue continues to lag. Without the sports betting and internet gambling, Casino Revenues would continue to show a decline.

NJ Council on Special Transportation advocated for the inclusion of sports betting revenue in the Casino Revenue fund. The Casino Revenue fund supports transportation programs similar to TRADE throughout the state. Martin DeNero sits on the Executive Committee for NJ COST.

## Transportation Services

### Dialysis Center Customers

TRADE has made concerted efforts since 2015 to address the waiting list for customers needing transportation to dialysis centers. The problem of transportation for customers needing transportation has worsened over the past six years as the number of dialysis centers increased from six to ten centers. At the beginning of 2015 a total of 45 customers were on the waiting list for transportation. By November 2018, 9 customers remained on the waiting list. During 2020 and 2021 the demand continued, even as efforts continued to add customers to the list as openings permitted. As of November 2020, approximately 30 people were on the waiting list. As of November 2022, 22 people remain on the waiting list. All people on the wait list were referred in 2022.

### Senior Nutrition Picnic

For the first time since 2019, the County Office on Aging held their Senior Picnic at Mercer County Park. TRADE transported approximately 150 seniors to the event and fun was had by all.

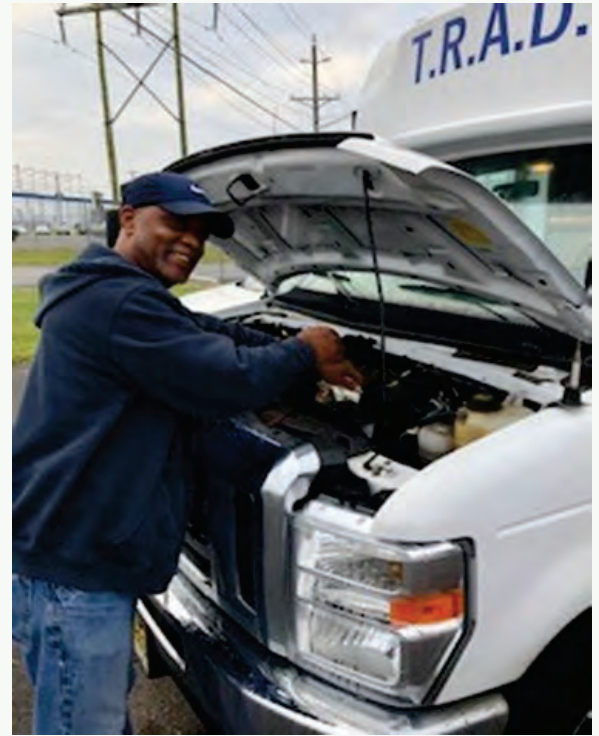


## Community Service

TRADE has usually participated in regular meetings with community agencies and also made presentations to groups to explain services offered by TRADE. These activities were curtailed in 2022 because of the pandemic.

## Vehicle Maintenance

TRADE has worked diligently since 2018 to meet vehicle maintenance requirements. This is especially key for vehicles operated by TRADE through a lease agreement with NJ Transit. As part of FTA requirements and in conjunction with the independent audit firm KFH, 80% of the fleet needs to be compliant and within a 10% variance threshold. According to an audit of vehicle maintenance conducted by NJ Transit in October 2022, *93% of the vehicles owned by NJ Transit and operated by TRADE are compliant in totality.*



Pictured above: Motor Vehicle Operator Steven Harmon completing daily vehicle inspection

## Voter Registration

NJ Transit was notified by the NJ State Secretary of State that there were deficiencies in New Jersey in Voter Registration requirements passed in law many years ago. Specifically, NJ Transit and their contractors are required to assist customers with voter registration information. Accordingly, NJ Transit required TRADE to participate in this effort. In October 2022 TRADE mailed voter registration forms to almost 1,000 customers who had taken at least one ride in the last year. Forms are also distributed to new customers upon intake and if there is a change in address. This was a significant efforts undertaken by Office Staff this year, and the requirements will continue.

## Veterans Day Ceremony

TRADE participated in a ceremony at the Mercer County Veterans Service Office, and provided information about services for veterans. It was a heartwarming event with testimonials that brought tears.



## PLANS AND GOALS FOR 2023

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**2023 Goal - Upgrade Scheduling Software Features and Implement Other Technologies.** TRADE will continue to work with our vendor (TripSpark) following the software upgrade completed in 2020. Following review and potential approval of TRADE's capital project request, TRADE will begin a process to install new technology components that will include electronic communication between dispatch and drivers through tablets, including GPS capability to track on-time performance and vehicle location. A second phase will enhance communication with customers.

**2023 Goal - Explore revenue sources to offset County expense.** Continue efforts to locate grant funding for vehicle replacements to reduce use of County Capital grant funds. Also, continue to explore other grant opportunities to support operating expenses.

**2023 Goal - Continue Development of Transportation Improvements by providing leadership to the Mercer County Coalition for Coordinated Transportation.** The general purpose of the Coalition is to work together to enhance transportation options for residents of Mercer County who are elderly, people with disabilities and people with low incomes. During 2023, an update to the Mercer County Human Service Transportation Coordination Plan will be completed.

**2023 Goal - Vehicle Advertising.** Continue to make use of a Contractor for vehicle advertising.

**2023 Goal - Customer Satisfaction Survey.** Disseminate a Passenger Satisfaction Survey and compile a report.

**TRENTON-MERCER AIRPORT (TTN)**

**Melinda Montgomery, A.A.E., Airport Manager**

**STAFF**

**FULL TIME (23)  
PART TIME (3)**

**Administrative Office**

Eric Billowitz, Assistant  
Airport Manager

Keith Herzstein,  
Confidential Aide

Jodie E. Otilie,  
Office Services Manager

Nilda Garcia,  
Administrative Analyst

Leticia Hernandez,  
Account Clerk

Shelby Willmot,  
Clerk 1

**Operations Unit**

Edward Berry, Airport  
Operations & Safety Officer

Matthew Parker, Airport  
Operations & Safety Officer

David S. Washington, Airport  
Operations & Safety Officer



Pictured above: Left to right, Clerk 1 Shelby Willmot, Airport Manager Melinda Montgomery, Administrative Analyst Nilda Garcia, and Account Clerk Leticia Hernandez at Frontier Airlines 10th Anniversary

**Maintenance**

Joseph DiDonato, Road Supervisor 1

Kurt R. Neinstedt, Maintenance  
Supervisor

Adam Vacirca, Electrician

Shannon Bell, Equipment Operator

Maurice Dixon, Equipment Operator

Charles Howarth, Equipment Operator

Malik Moreland, Equipment Operator

Michael Gore, Maintenance Repairer

Dylan Harrison, Laborer

Carlos Hendricks, Laborer

James Jackson, Laborer

Raheem Thompson, Laborer

**Parking**

William Jones, Parking  
Enforcement Supervisor

David Brittingham,  
Parking Attendant

Arthur Piotrowski,  
Parking Attendant

Doris Thompson, Parking  
Attendant

## Employee Continuing Education

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### **Melinda Montgomery, A.A.E., Airport Manager**

- \* AAAE Annual Conference, Seattle, WA
- \* NEC/AAAE Annual Conference, Philadelphia, PA
- \* AAAE National Airports Conference, Orlando, FL
- \* NEC/AAAE Airports Conference - Hershey, PA
- \* AOA Driver Certification Retraining
- \* United States Airport Professional - Enrolled
- \* Standard Airport Training as required (Wildlife, Part 139 and Snow)

### **Eric J. Billowitz, Assistant Airport Manager**

- \* AAAE - Accredited Airport Executive (A.A.E.) Candidate - ongoing study
- \* FAA National Civil Rights Training Conference for Airports - Virtual
- \* DHS/TSA Authorized Signatory Certification
- \* DHS/TSA Unmanned Aerial Systems Tabletop Exercise - Virtual
- \* COVID Testing at Airports - ACI-NA Seminar - Virtual
- \* Standard airport training as required (AOA, Wildlife, Part 139 and Snow)
- \* AAAE - Disability, Equity & Inclusion Summit: Taking disability inclusion to the next level - Virtual
- \* FAA Part 139 Airport Operator's Response to Unauthorized UAS Operations - Virtual
- \* AAAE UAS Working Group Meeting - Virtual

**Matthew Parker, C.M., Airport Operations & Safety Officer**

- \* NEC/AAAE Annual Conference, Philadelphia, PA
- \* AAAE Annual Conference, Seattle, WA
- \* Earned a Masters of Science, Aeronautics/Aviation Safety - Embry - Riddle University

**Adam Vacirca, Electrician**

- \* Obtained Journeyman Electrician Certification - Mercer County Vo - Tech School
- \* Obtained Advanced ASOS Certification
- \* Obtained AAAE Advanced Snow Management Certification

**Joseph DiDonato, Road Supervisor 1**

- \* Obtained Certified Public Works Manager Certification - Rutgers University
- \* Standard airport training as required (AOA, Wildlife, Part 139 and Snow)

**Nilda Garcia, Administrative Analyst**

- \* Obtained ACE Finance Certification



## Mission Statement

Operating an airport of this size is like managing a small city, encompassing many aviation and non-aviation tasks. TTN is concerned with providing the necessary “tools” to maintain facility infrastructures by acquiring funding, maintenance of records, compliance with regulatory requirements, personnel management, and interaction with the public.



Pictured above: Aerial photograph of Trenton-Mercer Airport

## 2022 Accomplishments

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**2022 Goal: Acquire additional and maintain existing passenger destinations** - *This goal has been partially accomplished.* Although the economic climate has not permitted acquisition of additional destinations we have maintained our existing destinations.

**2022 Goal: Explore development of further revenue enhancing projects** - *This goal has been accomplished and continues to be pursued.* FlightServ LLC has completed construction of a new 80,000 sf FBO. The Airport has negotiated an eight fold increase in rent received for the East Hangar and also taken possession of the Airport Corporate Center Office Building, the National Guard Hangar and will soon acquire the former FlightServ Hangar.



Pictured above: Special Olympics aircraft receiving a water cannon salute

**2022 Goal: Continue our efforts to meet all regulatory requirements concerning environmental issues and safety standards at our facility** - *This goal has been accomplished and continues to be pursued.* The Airport received the final determination of the Terminal Environmental Assessment (EA) which resulted in a Finding of No Significant Impact (FONSI).

**2022 Goal: Implement specific recommendations provided in the Runway Protection Zone (RPZ) Study** - *This goal has been accomplished and continues to be pursued.* The Airport, in conjunction with C&S Engineers, has acquired several properties within the Runway Protection Zone and we are continuing to work to obtain avigation easements. The Airport also anticipates to begin obstruction removal in 2023 pursuant to the recommendations set forth in the study.

**2022 Goal: Complete Staffing Review Study** - *This goal has been partially accomplished.* The data has been collected by McFarland-Johnson and a majority of the analysis has been completed. The Airport is awaiting the final analysis and accompanying recommendations.

**2022 Goal: Formulate a Public Awareness and Education Campaign** - *This goal has not been accomplished.* A contract was executed with McFarland-Johnson and TTN is awaiting the final product.



Pictured above: Shelby Willmot representing TTN at the Princeton University Travel Showcase

## OTHER ACCOMPLISHMENTS

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In addition to the goals set forth for 2022, the following accomplishments have also been undertaken:

- \* Prepared fifty (50) Resolutions for various Airport projects/issues;
- \* Acquired over \$4,267,000 in FAA grants;
- \* Collected over \$900,000 in NJDOT grants;
- \* Collected over \$1,590,000 in terminal parking revenue;
- \* Collected over \$1,210,000 in Passenger Facility Charges (PFC);
- \* Updated the Airport Certification Manual;
- \* Updated the Airport Emergency Plan;
- \* Updated the Airport Wildlife Management Plan;

### Airfield

The lifeblood of an airport is its runways, taxiways, lighting, markings, and navigational aids. A primary function of TTN staff is the maintenance of those essentials in order to maintain a safe, efficient, and regulatory compliant airfield, capable of supporting the aircraft activities of our tenants and users. To this end, TTN has made a tremendous effort to maintain and upgrade our facility to meet or exceed industry standards.

**2022 Goal: Complete Phase 2 of the Taxiway D Extension** - *This goal has not been accomplished.* Phase 2 of the TWY D Extension has been delayed due to FAA design changes.

**2022 Goal: Continue to focus on the elimination of all runway/airfield incursions** - *This goal was accomplished and continues to be pursued.* There were no incursions this year.



Pictured above: Core samples being taken on Taxiway A

**2022 Goal: Continue brush and tree removal operations to aid navigation, and minimize wildlife habitat** - *This goal has been accomplished.* Brush removal occurred inside the perimeter fence to discourage wildlife using the brush for cover.

**2022 Goal: Continue to research ways to minimize airport closures during inclement weather, construction, and maintenance projects** - *This goal has been accomplished,* by utilizing FAA matrix formulas to better identify runway conditions.

**2022 Goal: Bring pavement strength up to aircraft design standards** - *This goal has been partially accomplished.* Core sampling has taken place on Taxiway A to determine the overall design of the Taxiway A Rehabilitation Project which is anticipated to begin construction in the second half of 2023 along with completion of Taxiway D.

## Community Relations

TTN has “*answered the call*” from the community, the Nation, and the World since 1929, and that commitment to service continues today. In addition to providing safe, convenient air transportation to commercial, corporate, and private travelers alike, TTN is involved in a number of community-based causes. Likewise, TTN is committed to keeping its neighbors informed on various issues, in various venues.

**2022 Goal: Continue to increase community awareness of the airport** - *This goal has been accomplished and continues to be pursued.* For example, the Airport has been working closely with our neighbors wishing to participate in the Runway Protection Zone (RPZ) Project. This project aims to increase airport safety by mitigating obstructions affecting aviation. We have been guiding residents, who wish to participate, through the process of land acquisition and easements to assist them in navigating the process.

**2022 Goal: Continue our noise abatement efforts** - *This goal has been accomplished.* We have continued to respond to residents and pilots alike swiftly and professionally.

**2022 Goal: Continue the process of communication with residents from whom the County may seek to obtain easements, and property ownership in order to mitigate negative impact on the Airport’s Runway Safety Area (RSA)** - *This goal continues to be pursued.* The County has purchased an 18 acre parcel of land from the State of New Jersey within the RSA.

## Facilities

The Maintenance of our facilities continues to be of concern, as most of our buildings are functionally inadequate and obsolete. An aggressive safety compliance and infrastructure maintenance program on these decades' old buildings has caused much work to be done in this regard. While we may not be able to immediately acquire new facilities, we can maintain and improve what we have to improve what we currently have.

**2022 Goal: Continue to provide adequate space and facilities to accommodate the healthy growth of commercial passenger service at TTN, guided by the Master Plan** - *This goal has been accomplished and continues to be pursued.* The Airport has received a determination on the Terminal Environmental Assessment (EA) with a Finding of No Significant Impact (FONSI). This will allow the Airport to move forward with the construction of a new 125,000 square foot replacement terminal.

**2022 Goal: Complete Wetlands Restoration Project** - *This goal has been accomplished.* All work relating to flora replacement and invasive species monitoring has been completed.

**2022 Goal: Obtain Terminal EA determination from the FAA** - *This goal has been accomplished.* The Airport has received a determination on the Terminal Environmental Assessment (EA) with a Finding of No Significant Impact (FONSI). This will allow the Airport to move forward with the construction of a new 125,000 square foot replacement terminal from an environmental prospective.

**2022 Goal: Break ground for the new passenger terminal** - *This goal has not been accomplished.* Due to the delay in receiving the required FAA determinations relating to the Terminal EA we were constrained in breaking any new ground relating to this project.

**2022 Goal: Break ground for the new ARFF facility** - *This goal has not been accomplished.* Due to the delay in receiving the required FAA determinations relating to the terminal EA, which include the ARFF facility, we were constrained in breaking any new ground relating to this project.



Pictured above: Old Navy hangar prior to demolition



Pictured above: Old Navy hangar site after demolition and new hangar construction commencing



January 2022 – Roof is completed, outside walls are being installed and concrete working is ongoing



Pictured above: April 2022 – Windows and interior fans were installed



Pictured above: October 2022 – Completed construction of the new 80,000 square foot FlightServ hangar





Pictured above: ARFF vehicles with Air Force Two support aircraft

## Emergency Response/Preparedness

When an incident occurs we are very fortunate to have 24/7 Aircraft Rescue and Firefighting (ARFF) coverage along with the presence of Mercer County Sheriff's Officers (MCSO). ARFF's presence (coupled with that of the MCSO) not only benefits the safety of our commercial carrier and passengers, it is a benefit to all our tenants, and in fact, is one of the many reasons that Trenton-Mercer Airport has been chosen as aviation headquarters for over 20 aviation tenants, including the aviation units of a number of Fortune 500 companies. However, countless other Federal, State, and Local agencies (such as FAA, N.J. Division of Aeronautics, N.J. State Police, Ewing Police, Trenton EMS, Station 30 Ewing Township Fire Department, and the West Trenton Fire Company) are involved in maintaining the safety of TTN. It is the responsibility of airport staff to supervise these services, ensure their readiness, and coordinate operations and training of vested parties.

**2022 Goal: Continue to work with all stakeholders to ensure a timely and effective response in the event of any emergency - This goal has been accomplished.**

### Other Accomplishments

In addition to the goals set forth in 2022, the following accomplishments have also been undertaken:

- \* Responded to ten (10) "aircraft incidents" in 2022.
- \* Responded to one hundred and sixty (160) emergency calls (non-aircraft related) in 2022.

### Governmental Relations

As a key economic engine and transportation center for Mercer County, Trenton-Mercer Airport is regulated by a myriad of Federal, State, and Local statutes and rules. TTN must have continual communication with every level of government, as well as with many agencies within County Government, to maintain regulatory compliance, stay abreast of statutory changes, available grants, coordinate emergency response planning, industry updates, and the like. In total, staff at TTN participated in approximately 300 meetings with representatives of numerous government entities.



Pictured above: County Executive Brian M. Hughes speaks at the 10th Anniversary of Frontier Airlines

**2022 Goal: Continue to ensure that the TTN**

**Contract Air Traffic Control Tower remains open and operating, in spite of any future budget impasses on the Federal Level - This goal has been accomplished.** We continue to monitor this situation and work with the Contract Tower Association regarding any Congressional activity in this regard.

**2022 Goal: Seek avenues to secure federal infrastructure funding that will be made available in the near future - This goal has been accomplished.** The Airport is anticipating receiving more than \$17,000,000.00 over the course of three years through grants made available under the Federal Bipartisan Infrastructure Law.

## Other Accomplishments

In addition to the goals set forth in 2021, the following accomplishments have also been undertaken:

- \* Staff attended various meetings with other County offices and staff, on a number of important issues, such as wildlife management, environmental compliance, and grant awards.
- \* Staff attended airport users meetings to discuss TTN related subjects and enhancements.

## Security

Security continues to be a major concern at our Nation's airports, so too at TTN. In addition to coordinating the disposition of Mercer County Sheriff's Office units assigned to the airport, airport staff must also coordinate with the U.S. Transportation Security Administration (TSA), and the Federal Bureau of Investigation (FBI), as well as other tenants and users of the airport, regarding compliance with security regulations. Additionally, maintenance of security assets (perimeter fence, gates, locks, doors, etc.) are also managed by Airport Administration as are security grant applications, the creation and maintenance of the Airport Security Plan (ASP), and other related matters. We have also provided MCSO liaisons to TSA for coordination of security related activities.

**2022 Goal: Badge close-in SIDA tenants, namely condo and T-Hangar tenants** - *This goal was not accomplished, as it is not currently required.*

**2022 Goal: Rebadge all current airport SIDA badge holders** - *This goal was accomplished.*  
Rebadging was completed in March of 2022.

## Other Accomplishments

In addition to the goals set forth in 2022, the following accomplishments have also been undertaken:

- \* Continued monitoring of TSA Watch Lists, as required.
- \* Maintained records for TSA registered Security Identification Display Area (SIDA) employees, as required.
- \* Attended TSA Quarterly Stakeholder Meetings.

- \* Conducted background checks for all necessary airport employees, and foreign flight students, as required.
- \* Participated in regularly scheduled “Law Enforcement Working Group” meetings aimed at enhancing information sharing between Federal, State, and Local law enforcement and the Airport.



Pictured above: Air Force 2 sits on the tarmac at Trenton-Mercer Airport

## Training

The relatively large size of the airport, and the numerous types of activities/projects occurring at TTN, really require us to train for any eventuality, and so, our training is varied. Whether its snow, employee safety training, or regulatory compliance, TTN is prepared to do battle in order to maintain the highest standards of professionalism and effectiveness.

**2022 Goal: Continue safety training of airport staff** - *This goal has been accomplished and continues to be pursued, such as with HazCom Training, CDL, and PPE Training.*



Pictured above: 2022 Emergency Preparedness Table Top Exercise

**2022 Goal: Attend airport training through AAEE, and other specialized training outlets** - *This goal has been accomplished and continues to be pursued, such as with Part 139 training, and ASOS School. Training attended by staff in 2022 included the basic and advanced snow academies, basic airport operations safety and specialist (ASOS) schools.*

## Other Accomplishments

In addition to the goals set forth in 2022, the following accomplishments have also been undertaken:

- \* Provided snow removal training for staff.
- \* Provided TSA Regulation Part 1542 training to staff, ARFF, and airport tenants and contractors.
- \* Participated in annually required FAA wildlife training.
- \* Completed required AOA training and Part 139 training.
- \* Held Runway Safety Action Team (RSAT) meeting for tenants.

## PLANS AND GOALS FOR 2023

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In order to perpetuate the high level of safety, professionalism, and structural integrity we currently enjoy, we will continue to maintain and upgrade our existing airport facilities, continue to train and manage our staff in an efficient and thorough manner, communicate with the public in an efficient manner, and be prepared for any eventuality.

### **Administration**

- \* Acquire additional and maintain existing passenger destinations.
- \* Continue our efforts to meet all regulatory requirements concerning environmental issues and safety standards at our facility.
- \* Explore development of further revenue enhancement projects.
- \* Complete a Staffing Review Study.
- \* Formulate a TTN Public Awareness and Education Campaign.

### **Airfield**

- \* Continue to focus on the elimination of all runway/airfield incursions.
- \* Continue brush and tree removal operations to aid navigation, and minimize wildlife habitat.
- \* Begin Taxiway A Rehabilitation Project.
- \* Complete Taxiway D extension Phase II.
- \* Bring pavement strength up to aircraft design standards.

## Facilities

- \* Continue to provide adequate space and facilities to accommodate the healthy growth of commercial passenger service at TTN, guided by the future findings of the Master Plan Review.
- \* Advance new passenger terminal.

## Community Relations

- \* Continue the process of communication with residents from whom the County may seek to obtain easements, and in some cases property ownership in order to mitigate negative impact on the airport's Runway Safety Area (RSA).
- \* Continue our Noise Abatement efforts.
- \* Continue to increase community awareness of the airport.

## Governmental Relations

- \* Continue to ensure that the TTN Contract Air Traffic Control Tower remains open and operating, in spite of any future budget impasses on the Federal Level.
- \* Seek avenues to secure federal infrastructure funding.

## Security

- \* Respond to any and all security directives.

## Training

- \* Continue safety training of airport staff.
- \* Attend airport training through AAAE, and other specialized training outlets.
- \* Conduct successful Full Scale Exercise.

## APPENDIX OF ACRONYMS AND ABBREVIATIONS

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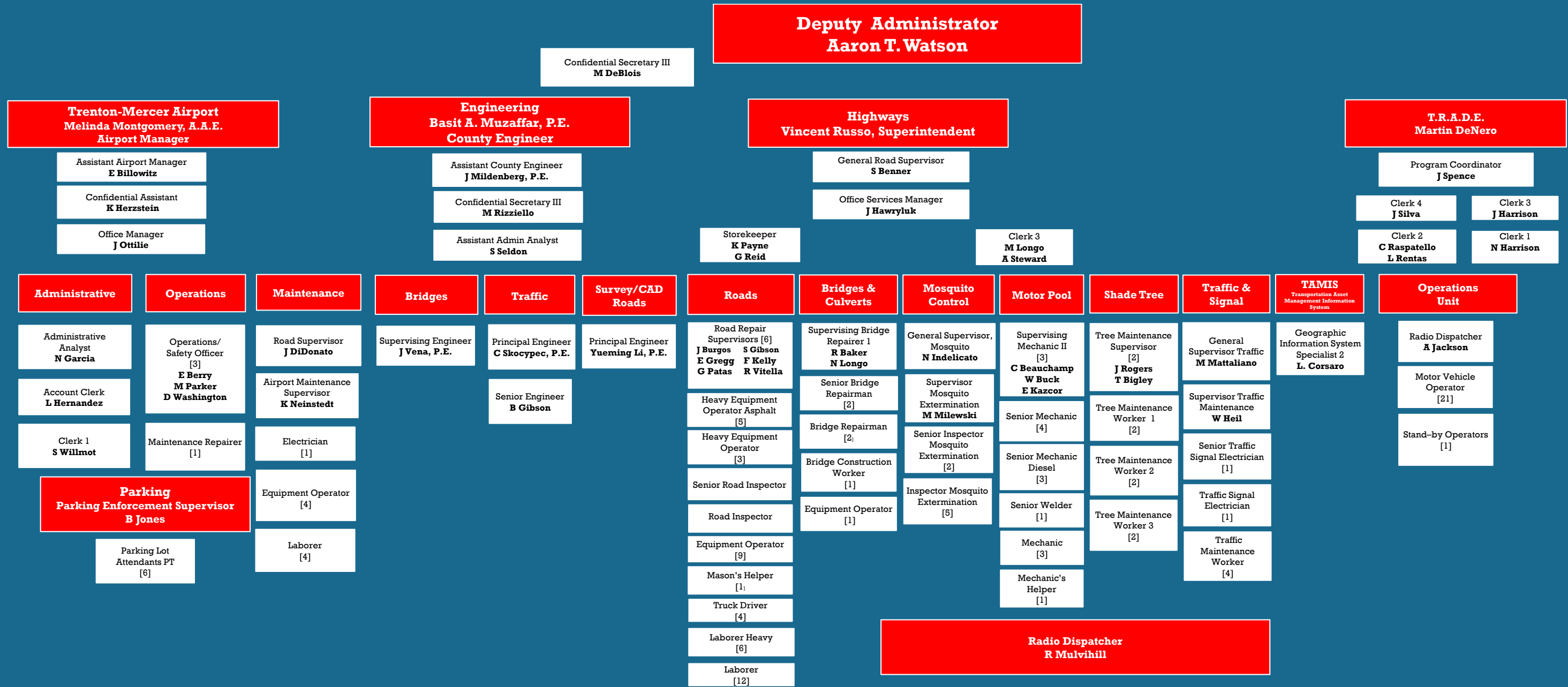
AAAE – American Association of Airport Executives  
 ADA – Americans Disability Act  
 AED – Automated External Defibrillator  
 AEP – Airport Emergency Plan  
 AMCA - American Mosquito Control Association  
 AOA – Aircraft Operating Area  
 ARFF – Aircraft Rescue & Firefighting  
 ASO – Airport Security Officer  
 ASP – Airport Security Plan  
 ASOS – Automated Surface Observation System  
 ATM - Asian Tiger Mosquito  
 ATCT – Air Traffic Control Tower  
 ATP – Annual Transportation Program  
 AGO - Autocidal Gravid Oviposition  
 AVL – Automated Vehicle Location  
 BBT – Bloodborne Pathogens Training  
 CAIT – Center for Advanced Infrastructure and Transportation  
 CDC - Center for Disease Control  
 CDL – Commercial Driver’s License  
 CMMS – Computerized Maintenance Management System  
 COST – NJ Council on Special Transportation  
 DOT&I – Department of Transportation and Infrastructure  
 D&R – Delaware and Raritan Canal  
 DRCC – Delaware and Raritan Canal Commission  
 DVRPC – Delaware Valley Regional Planning Commission  
 EA – Environmental Assessment  
 EAB—Emerald Ash Borer  
 EPA – Environmental Protection Agency  
 EOC – Emergency Operation Center  
 ESCC – Emergency Services Communications Center  
 FAA – Federal Aviation Administration  
 FAR – Federal Airport Regulation  
 FBI – Federal Bureau of Investigation  
 FBO – Fixed Base Operator  
 FCC – Federal Communications Commission  
 FEMA – Federal Emergency Management Agency  
 FHA – Federal Highway Administration  
 FONSI - Finding of No Significant Impact  
 FTA – Federal Transit Administration  
 GIS – Geographic Information System



## APPENDIX OF ACRONYMS AND ABBREVIATIONS

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GMTMA - Greater Mercer Transportation Management Association  
 GPS – Global Positioning System  
 HMPG - Hazard Mitigation Grant Program  
 IAP – Interdepartmental Assistance Program  
 LCMS – Laser Crack Measuring System  
 LED – Light Emitting Diode  
 LEO – Law Enforcement Officer  
 LHT – Lawrence Hopewell Trail  
 LIFT – Let’s Investigate Flying Together  
 MAP – Municipal Assistance Program  
 MCCC – Mercer County Community College  
 MCIA – Mercer County Improvement Authority  
 MCMC – Mercer County Mosquito Control  
 MCSO – Mercer County Sheriff’s Officers  
 NAWC – Naval Air Warfare Center  
 NEC – Northeast Chapter  
 NJAA – New Jersey Airport Association  
 NJDEP – New Jersey Department of Environmental Protection  
 NJDOT – New Jersey Department of Transportation  
 NJMA – New Jersey Mosquito Association  
 NJOEM – New Jersey Office of Emergency Management  
 NJOGIS – New Jersey Office of Geographic Information Systems  
 NJSTEP – New Jersey Supervisory Training Empowering Performance  
 NJT – New Jersey Turnpike  
 PPE - Personal Protective Equipment  
 PFC – Passenger Facility Charge  
 PSE&G – Public Service Electric & Gas  
 RRFB - Rectangular Rapid Flashing Beacons  
 RPZ - Runway Protection Zone  
 RFP – Request for Proposal  
 RSA – Runway Safety Area  
 SCDRTAP – Senior Citizen and Disabled Resident Transportation Assistance Program  
 SIDA – Security Identification Display Area  
 SLDs – Straight Line Diagrams  
 TAMIS – Transportation Asset Management Information System  
 TAMP – Transportation Asset Management Plan  
 TIPS – Techniques for Improving Performance  
 TSA – Transportation Security Administration  
 TTF – Transportation Trust Fund  
 TTN – Trenton – Mercer Airport



# Department of Transportation & Infrastructure

## In Memoriam

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### Rudolph B. Galiber, Jr.

Sunrise

July 26, 1952

Sunset

April 28, 2022

Rudolph Galiber, Jr. (Rudy) was a Motor Vehicle Operator, Elderly/Handicapped, with TRADE Transportation, for 6 years. He was a kind and gentle soul who loved children and sports, cooking and travel and his loving family. He was born in St. Thomas, US Virgin Islands and received a B.S. Degree from Trenton State College. He had a noteworthy career, with U.S. Steel, and a Construction Company making safety improvements to the World Trade Tower, Chase Building and the Empire State Building, to name a few.

Among other positions later in his life, he was a Trenton school teacher and an Instructor with the Trenton Housing Authority, through a program affiliated with the Mercer County One-Stop and Social Services. Following a short time working as a shuttle driver for Mercer County Airport, TRADE was fortunate that he joined our staff and served our customers quite well with his kindness and dependability. He was a brave soul who fought a tough battle with cancer and he passed in 2022. It is our loss and may he rest in Peace.