



Your Local Technology Transfer Newsletter

Message from the Director

Hello readers,

Thank you to everyone who completed our stakeholder needs assessment in the last couple of months. We have been using your feedback to plan for next year. Several new training programs are in the works.

As we start to wind down the clock on 2022, please be sure to take advantage of the many workshops that are scheduled between now and the end of December. Some of these events are in-person and some are online. We are currently planning to offer workshops in both formats moving forward.

If you are attending the League of Municipalities Conference at the Atlantic City Convention Center in November, please stop by and say hello. It has been a long time since we have seen many of you in person. The NJLTAP team will be in booth #3409 in aisle 24. While there, make sure you to visit the NJDOT Local Aid Resource Center booth. Also, please join us as we co-host an educational session with the NJ Chapter of the American Public Works Association, which will focus on Public Works Infrastructure: Supply Chain Impact. This session will take place on Wednesday, November 16, 2022 from 2:00 p.m. – 3:15 p.m. in Room 415.

Finally, NJLTAP has some big news! I am pleased to welcome Jessica Brown to our team. Jessica joins us as a Program Coordinator and will serve in the very important role of Registrar. Her background is quite varied, from working on Wall Street to catering for weddings to running a state-wide healthcare nonprofit. We are very happy to have Jessica on board and she is anxious to help you with your registration inquiries and meet you at our events. She may be reached at job32@soe.rutgers.edu or (848) 445-3112.



Issue Highlights

LTAP Turns 40!

Learn what the National Local Technical Assistance Program has accomplished in the next forty years, and what to look forward to next.



New Jersey's National Electric Vehicle Deployment Plan

The State of New Jersey has committed to the widespread deployment of Electric Vehicle (EV) charging technologies in the pursuit of cleaner, less carbon intensive roadway travel. Read how you can get involved.



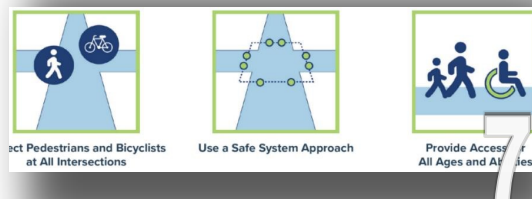
NJDOT Grants Available for Local Freight & Bridges

NJDOT announced the grant solicitation period for the Fiscal Year 2023 Local Freight Impact Fund program is open, with applications being accepted through December 12, 2022. Learn how to apply here.



Guide for Pedestrians and Bicyclists Released

The share of bicyclist and pedestrian fatalities and serious injuries that occurs at intersections is notable. This new guide will help your community protect these vulnerable road users.



The Local Technical Assistance Program (LTAP) and Tribal Technical Assistance Program (TTAP) are composed of a network of 57 Centers – one in every state and Puerto Rico, as well as 6 serving Tribal Agencies. The LTAP/TTAP Centers enable local counties, parishes, townships, cities and towns to improve their roads and bridges by supplying them with a variety of training programs, an information clearinghouse, new and existing technology updates, personalized technical assistance and newsletters.

The Local Technical Assistance Program: 40 Years of Service

Every time you leave for work, order a delivery, or call for an ambulance, you depend on a complex system of roads and bridges that allow modern life to function. The maintenance and construction of our public roads are the responsibility of dedicated people who use skill, experience, and innovative thinking to get the job done. And while the capability and commitment of local highway departments and public works agencies across the Nation are top notch, even they need help sometimes.

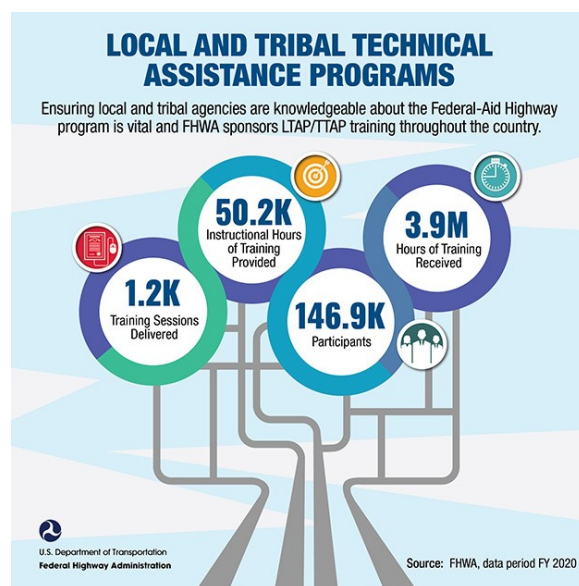
For decades, local transportation agencies across the Nation have sought assistance from the Local Technical Assistance Program (LTAP). Through their local LTAP centers, these agencies have utilized a variety of low cost and accessible training, education, and support activities.

Much can be learned from the history of a government program. Examining LTAP's history and its intellectual underpinnings helps ensure that the program's opportunities for development and growth are not ignored. This year, LTAP celebrates its 40th year of serving local transportation agencies in Puerto Rico, the Virgin Islands, Native American territories, and every State. While the LTAP system is the embodiment of formalized Federal support for local transportation training and education, the idea's roots go back much further. Initially, bicyclists brought together educational institutions, rural civic associations, agricultural interest groups, and other organizations to form what is now known as the Good Roads Movement—a roadway advocacy campaign between the 1870s and the 1920s. Existing before the days of social media, the internet, television, or even radio, the Good Roads Movement and its ideas were spread by an advocacy publication called Good Roads Magazine. As the movement progressed, good roads associations formed in States throughout the Nation.

While providing funding and establishing higher standards for America's roads was an important initial goal, Good Roads Movement participants also knew that entities who did local road work needed support and training. Supporting local road agencies with training, assistance, and education was an effort that took many different forms at the State level.

Today, the need to provide quality training, education, and technical assistance to local transportation agencies is greater than ever. Local agencies, especially in rural areas, face ongoing workforce pressures as retirements increase, creating the need to recruit and train new workers while the local population decreases. On the regulatory side, State and Federal mandates can strain local departments without always providing the corresponding resources to facilitate compliance. Currently, LTAP centers across the Nation are providing resources and training to help meet these workforce development and agency administration needs. Whether it is vocational training, basic safety courses, or management and leadership education, LTAP centers develop resources to meet these needs.

In the future, LTAP centers will need to help local agencies navigate the challenges and opportunities posed by aging infrastructure in the United States. Recently passed State and Federal legislation will infuse communities with much needed resources to upgrade, replace, and/or maintain its infrastructure. Educating local agencies about the availability of these resources and how to access them will be an important part of the LTAP's future work. LTAP centers are also helping communities connect to information and education about how to prepare for a future where infrastructure must be more resilient to changes in global climate and weather patterns.



Source: FHWA.

What the National Electric Vehicle Infrastructure program means for EV Adoption in New Jersey

The State of New Jersey has committed to the widespread deployment of Electric Vehicle (EV) charging technologies in the pursuit of cleaner, less carbon intensive roadway travel. With the establishment of the National Electric Vehicle Infrastructure program (NEVI) in the Bipartisan Infrastructure Law (BIL), also known as the Infrastructure Investment and Jobs Act (IIJA), additional federal funding will be available to support New Jersey's EV transition ambitions.

To receive NEVI Formula Program funds, states are required to develop an FHWA-approved EV Infrastructure Deployment Plan that describes how the state intends to use the funds in accordance with the NEVI Formula Program Guidance. The State of New Jersey convened a multi-agency task force that included the New Jersey Department of Transportation (NJDOT), NJ Department of Environmental Protection (NJDEP), NJ Board of Public Utilities (NJBPU), the NJ Economic Development Authority (NJEDA), among others, to meet the August 1, 2022 deadline for plan submission to the Joint Office of Energy and Transportation with FHWA approval expected by Winter 2022.

Having the highest number of registered electric cars on the road per public charging station of any state in the country, at a ratio of 46.16, New Jersey stands to benefit greatly from NEVI's formula funding for new EV charging stations. In total, NJDOT will receive \$104.4 million from the program over five years.

The NJ EV Plan establishes three phases for EV infrastructure development:




- **Phase 1** focuses on developing electric vehicle supply equipment (EVSE) along the State's AFCs toward achieving "fully built out" status pursuant to the national NEVI program guidance. Nominated corridors must be equipped with at least four, 150 kW chargers at least every 50 miles and located less than or equal to one mile from the corridor exit.
- **Phase 2** focuses on addressing DC fast chargers on New Jersey's main corridors every 25 miles, as established by State law and recognizing NJ as the most densely populated state. The State will incentivize the siting of charging stations at corridor interchanges to achieve the goal of EVSE chargers at a spacing of 25 and 50 miles. The 25-mile spacing provides opportunities to install one EVSE location at the intersection of two corridors and potentially serve both corridors which in some instances may save on installation costs.
- **Phase 3** implements EVSE flexibly in accordance with community needs which could include community-centric charging as well as fast charging hubs near multi-unit dwellings (MUD) and in disadvantaged and overburdened communities to enable electric ride sharing and ride hailing.

Check out the [full list of EV initiatives here!](#)

All EV Charging

736

Total* Public Charging Locations in NJ

EV Charging Station Details		
	Level 1 EV Charging Locations	3
	Level 2 EV Charging Locations	618
	DC Fast Charging Locations	141

NJDOT Grants for Local Freight and Bridges Now Available

The New Jersey Department of Transportation (NJDOT) announced the grant solicitation period for the FY23 Local Freight Impact Fund and the Local Bridges Fund is now open.

“An integrated transportation network that depends on safe truck routes to efficiently move goods to and from New Jersey’s seaports, airports, and rail yards is critical to a vibrant state and regional economy,” NJDOT Commissioner Diane Gutierrez-Scaccetti said. “The Local Freight Impact Fund provides aid to counties and municipalities for transportation projects that address the impacts of freight travel in local communities and on local transportation infrastructure.”



The Local Freight Impact Fund (LFIF) is a competitive \$30.1 million program, which was created as part of the Transportation Trust Fund (TTF) reauthorization in October 2016. The program helps New Jersey’s municipalities and counties fund projects that emphasize and enhance the safe movement of large truck traffic, renew aging structures that carry large truck traffic, promote economic development, and support new transportation opportunities. Project eligibility has been expanded this year to include projects that address pedestrian safety. These grants will be accepted through December 12, 2022.

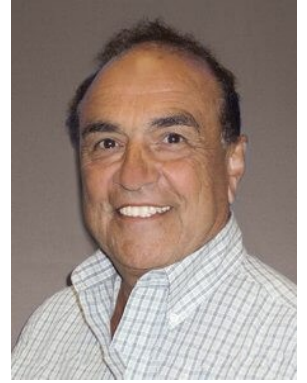
Under the program, projects that fall into five categories are eligible for funding:

- **Pavement Preservation** - to improve pavement conditions in support of freight travel on municipal/county transportation infrastructure.
- **Truck Safety and Mobility** - to improve large truck access, routing, and mobility along the municipal/county roadway system.
- **Bridge Preservation** - to improve bridge ratings/conditions in support of freight travel on municipal/county transportation infrastructure.
- **New Construction** - to promote new construction in support of freight travel on municipal/county transportation infrastructure.
- **Pedestrian Safety** - *New this year* - to improve pedestrian access to freight nodes, address pedestrian safety, and promote equity for those without the option to drive.

Similarly, the Local Bridges Fund is a \$47.3 million program funded through the New Jersey Transportation Trust Fund (TTF), which provides funding for each of New Jersey’s 21 counties for the improvement of county bridges. Every county receives \$1 million, and the additional funding is allotted based on a formula taking into account the total bridge deck area in the county and the amount of deck area in poor condition in the county. As part of the Department’s Statewide Capital Investment Strategy, the grants are intended to help counties focus on the bridges within their jurisdiction with the greatest structural deficiencies. These grants will be accepted through November 23, 2022.

Jacob's Junction

As an instructor for the New Jersey Local Technical Assistance Program (NJLTAP) at CAIT, Lloyd Jacobs draws on four decades of experience when he teaches professional development courses and trainings. Here we ask him for some advice.



Question: How do we ensure DBE participation once a project is underway? Where does the documentation for that come from?

“Beginning at the commencement of the project, the RE must continuously monitor DBE/ESBE/SBE participation as the project progresses to ensure that that the assigned DBE / ESBE/SBE goal on the contract will be met by the time the project is completed. This is a project responsibility and it would be a good practice to maintain a separate file. DBE The success of these programs is achieved by thoroughly implementing the monitoring and reporting procedures as the project progresses. The RE will then be able to address any issues early and take effective steps to ensure proper administration of the DBE/ ESBE/SBE Program and avoid any penalties.”

Question: What is the process for a contract which requires new costs and new work?

“Any new or extra work needs to be defined and approved prior to being included in the contract. This approval is done through a change order which requires written justification, a breakdown of costs and quantities, and timely approvals. New costs must be negotiated, itemized and justified.”

Addressing Equity for Underserved Communities and Vulnerable Users with the Pedestrian and Bicycle Crash Analysis Tool

- The Pedestrian and Bicycle Crash Analysis Tool Version 3.0 (PBCAT 3) is a web application developed to help agencies generate objective descriptors of non-motorist crash types, location context, and other crash circumstances. In turn, the descriptors can be used to inform crash and injury prevention strategies. Based on the Fatality Analysis Reporting System and FHWA Roadway Departure Definition/Attributes, pedestrian and bicycle crashes consistently comprise around 20 percent of U.S. traffic fatalities. PBCAT 3 is ideally suited to examine the large numbers of pedestrians in lesser served areas, which allows for targeted assessment of vulnerable areas and the development and application of appropriate safety countermeasures.
- The PBCAT 3 user guide can be found here: <https://highways.dot.gov/sites/fhwa.dot.gov/files/2022-06/FHWA-HRT-22-071.pdf>. Please see the following for more information about PBCAT 3:
- Presentation: Traffic Records Forum 2022, "Supporting Data-Driven Road Safety Management with the Pedestrian and Bicycle Crash Analysis Tool (PBCAT)" (upcoming)
- TechBrief: [Pedestrian and Bicycle Crash Analysis Tool Version 3.0](#)
- Safety Compass Newsletter: [Pedestrian and Bicycle Crash Analysis Tool, Version 3, Available!](#)

New Intersection Informational Guide for Pedestrians and Bicyclists Released

The share of bicyclist and pedestrian fatalities and serious injuries that occurs at intersections is notable. Based on data from the National Highway Traffic Safety Administration, from 2015 to 2019, an estimated 57 percent of bicyclist and 39 percent of pedestrian fatalities and incapacitating injuries occurred at intersections or were related to intersections.

Compared to people traveling in motor vehicles, pedestrians and bicyclists are typically at greater risk of casualty in the event of a crash. Therefore, it is even more critical that planning, design, and operation of intersections account for the most vulnerable. When designed with pedestrians and bicyclists explicitly in mind, all types of intersections can facilitate safe, accessible, convenient, and comfortable walking and bicycling.

This was the motivation for a new guide, [Improving Intersections for Pedestrians and Bicyclists](#), recently published by FHWA. This guide is a supplement to the preceding series of informational intersection guides and makes direct connections to other bikeway and pedestrian facility selection guides.

The pursuit of eliminating deaths and serious injuries on our Nation's roads relies on the Safe System Approach as an integral tool for reaching this goal. At intersections, this involves minimizing risks to all road users by applying a kinetic energy management model. The model relies on design features that lower vehicle speeds, separate road users, remove conflict points, and reduce conflict point severity. To varying degrees, both traditional and innovative/alternative intersection designs may exhibit some or all of these kinetic energy management model characteristics. The new guide represents a holistic approach to combining innovative/alternative intersection designs with the Safe System Approach, complete streets, Proven Safety Countermeasures, and facility selection best practices to help agencies create walkable and bikeable intersections that are safer for all users.

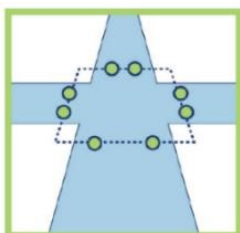
Three key principles ground the guide and set the stage for planning and designing intersections for pedestrians and bicyclists:

- ◆ Expect pedestrians and bicyclists at all intersections
- ◆ Use a Safe System Approach
- ◆ Provide access for all ages and abilities

The guide is heavy on graphic representations of the key principles and concepts, as reflected in the figure down below. In addition to graphics for different intersection types, there is also discussion on assessment techniques for identifying and characterizing conditions that impact pedestrians and bicyclists. Download your copy today!



Expect Pedestrians and Bicyclists
at All Intersections



Use a Safe System Approach



Provide Access for
All Ages and Abilities

Motorcycle Safety Noteworthy Practices: Infrastructure and Engineering

Motorcycles comprise only 3 percent of registered vehicles and 0.6 percent of vehicle miles traveled. But, more than 5,500 motorcyclists were killed in traffic crashes in 2020, accounting for 14 percent of motor vehicle traffic fatalities. It is clear that motorcyclists' safety issues must be addressed if we want to achieve the goal of zero fatalities, and efforts must be made to ensure that our transportation system is designed and operated to provide safe mobility for all road users.

To address this challenging safety issue, FHWA has been leading a Motorcycle Safety Program to conduct research and to provide technical assistance, outreach and education, and resources to states on a variety of important motorcycle safety topics. One of the most recent efforts is the development of Motorcycle Safety Noteworthy Practices: Infrastructure and Engineering. These noteworthy practices aim to transfer roadway infrastructure countermeasures that researchers have examined, and that State and local agencies have used to improve motorcyclist safety, to practitioners so that more agencies can broadly implement the countermeasures.



The noteworthy practices contain summaries on nine infrastructure-based countermeasures that address specific road and barrier design, pavement design and construction, and maintenance issues related to motorcycles. Detailed information on these nine motorcycle safety noteworthy practices can be accessed at the [linked website here](#). FHWA will continue working with transportation agencies and safety stakeholders to promote and implement effective safety countermeasures for motorcyclists. For other FHWA motorcycle safety resources, please check out FHWA's Motorcycle Safety Program website.

For more information, please contact Guan Xu at guan.xu@dot.gov.

New Jersey's Build a Better Mousetrap Competition Open for Entries!

People involved in the transportation industry often find better ways to do their jobs. Whether it's a new gadget that improves the quality and safety of a project, or an innovative process that reduces costs and improves efficiency, it is typically the people on the front lines that often realize the latest and best practices.

Now is the time to share those new ideas with others in New Jersey's **Build a Better Mousetrap Competition**. We are looking for submissions from any employee of a local or state public agency (municipalities, counties, parks commissions, NJ Department of Transportation, NJ Transit) that has create an alternate or better way of doing something in a transportation project. We will gather the best ideas from around the state and judge them using a 5 point rating system. As a reminder, this competition is open to any local, county, or state transportation agency, including New Jersey Department of Transportation and New Jersey Transit employees. Two winners will be selected; one for the best local agency and another for the NJDOT/NJT Submission.



**"Build a better mouse trap,
and the world will beat a path
towards your door."**

- Ralph Waldo Emerson

Visit <https://cait.rutgers.edu/mousetrap/> for more information and to download the entry form today!

Publication Statement

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Upcoming Events

This winter we would like to remind you of some available courses in the LTAP catalogue. Whether you're a seasoned veteran or new to the job, LTAP's courses will provide you with the best instruction on what you need to know. Register today!

In-Person Event - NJLTAP - Traffic Signs and Pavement Markings - November 21, 8:30 a.m. - 3:30 p.m.

This course reviews the basic regulations and engineering guidelines for the installation of pavement markings and properly establishing and posting regulatory, warning, and guide signs. If you are looking to better understand the concepts and principles behind signage, [register today!](#)

Webinar—NJLTAP - Maintaining Safe Walking Surfaces in Winter - November 21, 2022 10:00 p.m. – 11:30 p.m.

Public Works departments will be challenged all winter long with maintaining safe walking surfaces for the public. This presentation will discuss how to prevent and manage icy walking surfaces under the responsibility of municipalities and counties, such as sidewalks.

Our full online catalogue of courses can be found at our website, <https://cait.rutgers.edu/cait/events> or email Jessica Brown at caitregistrar@soe.rutgers.edu for more information!

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