Volume 24 Issue 2 April 2022



Message from the Director

Spring is here, and so is a partial return to in-person events. Earlier this month the NJLTAP team attended the Public Works EXPO and Education Program at The New Jersey Convention and Exposition Center. With well over 700 on site, we were able to visit with many of the public works professionals we have only seen virtually for the last few years. NJLTAP hosted four extremely well attended workshops during the event and exhibited a booth with informational resources free for the asking.

Several workshops are back on the schedule as in-person events. Beginning with late April, please be sure to double check when you register whether the training is virtual or in-person; events on Rutgers campus are subject to the University's Covid-19 protocols and vaccination requirements. We're particularly excited to announce a one-time offering of a Green Infrastructure and Porous Asphalt seminar (virtual) coming up on June 7 and there is still time to get enrolled in the four-part (virtual) Safe Systems



Approach series that begins in early May. The series will discuss what exactly the Safe System approach is and why it is important. This approach aims to eliminate fatal & serious injuries for all road users, doing so through a holistic view of the road system that first anticipates human mistakes and second keeps impact energy on the human body at tolerable levels. Safety is an ethical imperative of the designers and owners of the transportation system. Register below and learn everything you need to know about how to bring the Safe System approach to your community! You may register for just one or as many of the four webinars as you like. These will be the only offerings of this type in 2022.

May 10: NJLTAP – The Safe System Approach: What is it and why is it getting so much attention? (Webinar)

May 12: NJLTAP – Advancing Complete Streets and Equity Goals within the Safe System (Webinar)

May 17: NJLTAP – <u>A Safe System Based Framework for Assessing Intersections (Webinar)</u>

May 19: NJLTAP – Implementing a Safe System Approach: A Playbook for State and Local Transportation Agencies (Webinar)

Issue Highlights

NJDOT Announces Multiple Funding Opportunities

NJDOT recently announced funding the Highway Safety Fund Program and Municipal Aid Applications. See if you qualify here!

High Friction Surface Treatments in New Jersey

Learn how this new technology is being studied and applied in New Jersey!

Understanding the Safe System Approach

The Safe System Approach is being applied in a growing number of nations and cities around the world and has now taken hold in the United States. Learn more here and register for our upcoming courses!

Traffic Fatalities Continue to Climb

The National Safety Council released its preliminary estimates for motor vehicle fatalities in 2021, and for a second year in a row, the numbers are deeply concerning. Read about the trends here.



The Local Technical Assistance Program (LTAP) and Tribal Technical Assistance Program (TTAP) are composed of a network of 58 Centers – one in every state, Puerto Rico and regional Centers serving tribal governments. 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,









NJDOT Announces Multiple Funding Opportunities

The New Jersey Department of Transportation (NJDOT) announced the grant solicitation period for NJDOT's Fiscal Year 2023 State Aid programs is now open. Starting, April 22, applications will be accepted for Municipal Aid, Transit Village, Bikeway, and Safe Streets to Transit programs through July 1, 2022.

"The New Jersey Department of Transportation has a number of grant programs that allow our cities and towns to make needed safety and quality-of-life improvements to enhance our local transportation infrastructure without the need to impact local property taxes," NJDOT Commissioner Diane Gutierrez Scaccetti said. "By providing financial assistance, technical expertise and training for municipal and county transportation initiatives, NJDOT is working to ensure New Jersey has a modern, efficient, and equitable transportation system."

NJDOT's grant cycles allow municipalities to incorporate awarded projects into upcoming municipal budgets to ensure that important infrastructure projects get to construction sooner. Grant awards are expected to be announced in November. The following is a brief description of each grant program:

- Municipal Aid This \$151.25 million program has been a significant resource in funding local transportation projects. All municipalities are eligible. The Department continues to encourage municipalities to consider using the Municipal Aid Program to fund projects that support walking and biking in their communities, especially now that additional funds are available. An additional \$10 million is provided in Urban Aid for a total of \$161.25 million.
- **Transit Village** This \$1 million program provides grants for traditional and non-traditional transportation projects that enhance walking, biking and/or transit ridership within a half mile of the transit facility. Only New Jersey municipalities that have been designated as Transit Villages by the Commissioner of Transportation and the inter-agency Transit Village Task Force are eligible to apply. The eligible town list can be found at: http://www.state.nj.us/transportation/business/localaid/transitvillagef.shtm
- **Bikeways** This \$1 million program is intended to fund bicycle projects that create new Bike Path Mileage. It is available to all counties and municipalities. The Department continues to work toward the goal of achieving 1,000 miles of dedicated bikeways in New Jersey. Special consideration will be given to bikeways that are physically separated from motorized vehicular traffic by an open space or barrier, but on-road bike lanes and other bike routes and facilities are also eligible for funding.
- Safe Streets to Transit The intent of this \$1 million program is to encourage counties and municipalities to construct safe and accessible pedestrian linkages to transit facilities, in order to promote increased usage of transit by all segments of the population.

NJDOT also announced the award of \$1.4 million in Highway Safety Fund Program grants to 54 municipalities to promote safety along designated Safe Corridor highway segments. "The Highway Safety Fund provides grants to local law enforcement, helping ensure they have the tools they need to keep our roads safe," NJDOT Commissioner Diane Gutierrez-Scaccetti said. "The funding provides resources necessary for local governments to achieve their

safety objectives without burdening local property taxpayers." This data driven model directs more resources to those areas within Safe Corridors exhibiting the greatest need for continued enhanced enforcement measures.

The grants are administered by the NJDOT Division of Local Aid and Economic Development. The Local Aid Resource Center provides a central warehouse for local government managers by providing hands-on resources for the application process, raising awareness of grant cycles and proactively communicating program information.



High-Friction Surface Treatments: New Strategies and Applications for New Jersey

High Friction Surface Treatments (HFSTs) are a safety countermeasure with exceptional skid-resistant properties intended to restore and maintain pavement friction in wet and dry conditions to reduce crashes. These properties are the result of the application of durable aggregates bonded to the existing pavement by a layer of polymer resin. HFSTs are effective in reducing crashes on horizontal curves and ramps, intersections, and pedestrian crossings, especially those with limited sight distance. HFSTs are also suitable for high traffic volume, conditions where the road will need to reopen to traffic quickly, and roads within an environmentally sensitive area. An FHWA advanced statistical study using empirical Bayes methodology shows a crash reduction of 57 percent for total crashes and a crash reduction of 83 percent for crashes on wet curves.

Maintaining the appropriate amount of pavement friction is critical for safe driving. In locations such as sharp horizontal curves and where vehicles may brake excessively, pavement surfaces may become prematurely polished, thereby reducing the available pavement friction. This friction reduction can contribute to vehicles losing control or skidding when they speed, turn abruptly, or brake excessively. HFST can restore safe friction levels to polished pavement.

Additionally, compared to vehicles driving on a tangent section of road, vehicles traversing horizontal curves

require a greater side (lateral) force friction and vehicles at intersections require greater longitudinal force friction. These areas may need greater-than-normal pavement friction.

HFST technology is unique in its ability to address site-specific issues and may also be beneficial at:

- High volume intersection approaches,
- Interchange ramps,
- Bridges, and
- Selected segments of interstate alignments.

In New Jersey, the technology has been applied in various locations around the state. As per the guidelines, HFST must be applied to pavements in "good" or better condition (i.e. with no cracking or rutting). While effective in reducing crashes at these locations, studies conducted at the tests sites showed premature deterioration, likely due to underlying undetected issues at the test site. The study, conducted by researchers at the Center for Advanced Infrastructure and Transportation developed an effective prescreening tool that assesses the compatibility of asphalt and epoxy. The study also explored High Friction Chip Seal as an alternative to HFST. In a case study, an asphalt-based binding system was shown to be more compatible with the pavement than epoxy resin.

To learn more about the research, you can download a copy of the presentation here.



NHTSA's Safe System Approach: Educating and Protecting All Users

More than 50 years ago, the Highway Safety Act of 1970 confirmed the commitment of the U.S. Government to work to protect the traveling public's safety on the road. NHTSA estimates that since 1960, improved vehicle safety technologies alone have saved more than 600,000 people. Unfortunately, the Nation continues to lose too many family members, friends, and neighbors to traffic crashes. In 2020, the United States lost more than 38,000 people to traffic crashes.

"We must address the tragic loss of life we saw on the roads in 2020 by taking a transformational and collaborative approach to safety. Everyone—including those who design, operate, build, and use the road system—shares responsibility for road safety, This is the foundation of the safe system approach, and one that guides our lifesaving work at NHTSA," says Dr. Steven Cliff, NHTSA's deputy administrator.

The Safe System Approach is a data-driven, holistic, and equitable method to roadway safety that fully integrates the needs of all users, anticipates the possibility of errors by drivers and other road users, and manages crash impact forces to levels tolerated by the human body. The Safe System Approach includes five elements: safe road users, safe vehicles, safe speeds, safe roads, and post-crash care. The approach incorporates the 5 Es of traffic safety—equity, engineering, education, enforcement, and emergency medical services (EMS)—but goes beyond the traditional approach to enlist designers, operators, and users of the transportation system to prevent fatal crashes and reduce crash severity. NHTSA's efforts focus on safe road users, safe vehicles, safe speeds, and post-crash care.

The Safe System Approach broadens NHTSA's scope with the tenets that safety is proactive and responsibility is shared. It challenges everyone involved to not accept fatalities and serious injuries as a consequence of mobility. Instead, the approach is founded in the conviction that no one should be killed or seriously injured while using the roadway system. It recognizes that people make mistakes, and those who oversee, design, and regulate the components of the transportation system have a responsibility to develop a system that accommodates mistakes. In the case where a crash cannot be prevented, the energy that dictates the injury severity, when possible, should be mitigated to improve survivability outcomes. A Safe System provides equitable, timely, and appropriate care.



Historically, NHTSA has always used a data-driven systems approach to crashes, related causal factors, and candidate countermeasures. NHTSA's National Center for Statistics and Analysis (NCSA) supports data-driven decisions through the collection and analysis of data and the dissemination of information to quickly identify potential problems and support data-driven safety decisions. In addition to its own data sources, NCSA uses data from other governmental agencies, as well as crash files from States, to support analytical activities. NCSA also regularly publishes a variety of research notes, crash statistics, traffic safety fact sheets, and reports that provide information on crashes at the national and State levels (for more information, please see www.nhtsa.gov/data)

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.



Question: We're interested in applying for federal funding but want to determine which of project costs will be reimbursable. Are there any general guidelines we can use to determine what's allowable?

Lloyd Jacobs: Projects are comprised of direct and indirect costs, all of which must be necessary, reasonable, and allocable for the project. Direct costs are things like project supplies and materials bought specifically for the project. Indirect costs are things that benefit more than one project or purpose, like those for accounting systems or general office equipment. In order to receive reimbursements of costs, LPAs must provide invoices of direct costs. To get indirect costs reimbursed, you must develop an approved Indirect Cost Allocation Plan, or ICAP, delineating how the costs are being disseminated. Federal funding is an excellent opportunity for local agencies to get funding for important projects, so don't let questions of reimbursement prevent you from applying. The rules are written to protect the interest of the public, so make sure you keep your source documentation and provide evidence of your costs relating to the project.

Question: Can a person in "responsible charge" of a project have multiple projects under their purview? Can a project have multiple people providing oversight?

LJ: The regulations do not preclude sharing of these duties and functions among a number of public agency employees. The regulations also do not preclude one employee from having responsible charge of several projects and directing project managers assigned to specific projects, as long as the prescribed duties are carried out.

May is Motorcycle Awareness Month—Barrier Design



ZERQISOUR

Addressing the Motorcyclist Advisory Council Recommendations:

Synthesis on Barrier Design for Motorcyclist Safety



The Motorcyclist Advisory Council (MAC), established by FHWA under requirements of Fixing America's Surface Transportation (FAST) Act, was tasked with providing recommendations to address certain infrastructure issues related to motorcyclist safety. One of the issues specified in the FAST Act and discussed in the MAC recommendation report is barrier design. The newly published <u>Synthesis on Barrier Design for Motorcyclist</u> <u>Safety</u> aims to address the barrier design issues evaluated and recommended by MAC. Check it out today!

Traffic Fatalities Continue to Climb

The National Safety Council released its preliminary estimates for motor vehicle fatalities in 2021, and for a second year in a row, the numbers are dark and deeply concerning. NSC data show more than 46,000 people died on U.S. roads in 2021, a 9% increase from 2020. This comes as miles traveled rebounded 11% from 2020 lows and only lags 2019 miles traveled by 1%. With the number of vehicles on our roads increasing to pre-pandemic rates, as well as the number of preventable deaths climbing across the country, NSC estimates the death rate in 2021 exceeds the rate in 2019 by 19% at 1.43 deaths per 100 million miles traveled.

"This devastating news serves as yet another wakeup call for this country. We are failing each other, and we must act to prioritize safety for all road users," said Lorraine Martin, NSC president and CEO. "One life lost in a preventable crash is tragic enough and more than 46,000 in one year is unacceptable. NSC is more committed than ever to its partnership with the Department of Transportation and commends the much-needed action recently taken by the federal government to save lives."



Between the passage of the Infrastructure Investment and Jobs Act in November 2021 and the release of the Department of Transportation's National Roadway Safety Strategy in January 2022, federal decision-makers are keenly focused on mobility safety. Additionally, the goal of zero traffic deaths was included in the National Roadway Safety Strategy, a national commitment NSC and its partners have called for since day one of the Biden Administration. While these recent wins are moving us in the right direction, more can be done. There are several life-saving actions to be taken by federal, state and local decision-makers to set the nation on a path to zero traffic deaths, including:

- Adopting a Safe System approach when looking at roadway safety
- Equitable implementation of roadway safety laws, policies, procedures and infrastructure improvements; communities of color are disproportionately impacted by motor vehicle crashes, lack of access to public transportation and poor infrastructure, among other critical elements that make a safe system
- Improved impaired driving countermeasures, such as mandatory ignition interlocks for convicted drunk drivers, lowering state BAC levels to .05 and better education about the nature of impairment
- With vehicle crashes causing 38% of preventable workplace deaths, employers should implement safe driving policies and train employees to identify and address impairment.
- As addressed in the National Roadway Safety Strategy, a comprehensive approach to speed management, including lowering speed limits in accordance with roadway design

If you are interested in looking up the newest information and resources to make your streets safers, please visit the National Safety Council Website. NSC <u>offers many resources</u> to help drivers be safe on the roads including outreach materials, guidebooks, and information on upcoming webinars.

Safe Streets and Roads for All Program and Webinar Series Announced

The Bipartisan Infrastructure Law (BIL) establishes the new Safe Streets and Roads for All (SS4A) discretionary program that will provide \$5-6 billion in grants over the next 5 years. Funding supports regional, local, and Tribal initiatives through grants to prevent roadway deaths and serious injuries. The SS4A program supports Secretary of Transportation Pete Buttigieg's National Roadway Safety Strategy and a goal of zero deaths and serious injuries on our nation's roadways.

Who will be eligible to apply for grant funding?

- Metropolitan planning organizations;
- Counties, cities, towns, other special districts that are subdivisions of a State, and transit agencies;
- Federally recognized Tribal governments; and
- Multijurisdictional groups comprised of the above entities.

Eligible activities

- Develop or update a Comprehensive Safety Action Plan.
- Conduct planning, design, and development activities in support of an Action Plan.
- Carry out projects and strategies identified in an Action Plan.

Please register for a "Getting Ready for SS4A Grants" Webinar session using one of the links below. Space is limited, so please register for the webinar that applies to your entity. We encourage one representative from each entity. The presentation and recordings will be posted for each of these sessions. Visit <u>https://www.transportation.gov/grants/SS4A/</u>webinars to register today!

Did You Know?

Between 2019 and 2020, fatal crashes in work zones increased by 1.4 percent while fatal crashes outside of work zones increased by 6.6 percent.4 Although there were decreases in the percentages of fatal work zone crashes involving rear-end collisions as well as those involving a commercial motor vehicle (CMV), these were offset by an increase in fatal work zone crashes that involved speeding. Persons on foot and bicyclists also saw a significant increase (21%) in work zone fatalities in 2020 relative to 2019. Learn how you can make work zones safer for workers and travelers.





Exploring Strategic Workforce Development in NJ: An Interview Series

Strategic Workforce Development, an FHWA Every Day Counts (EDC) Round 6 innovative initiative, anticipates collaboration between government agencies, trade organizations, private agencies and communities to prepare individuals for the construction workforce. We have spoken with several experts in New Jersey who are implementing funding and training programs to build pathways to careers in the construction sector and increase the representation of women, minorities, and other disadvantaged populations in the construction and operations workforce. Check out the interviews below!

- Jill Schiff, Executive Director, Operations, and Darlene Regina, Chief Operating Officer, Associated Construction Contractors of New Jersey (ACCNJ). See: <u>Exploring Strategic Workforce Development in NJ: An</u> <u>Interview with the Associated Construction Contractors of New Jersey</u>
- Lori Margolin, Associate Vice President for Continuing Education and Workforce Development at Hudson County Community College (HCCC). See: <u>Exploring Strategic Workforce Development in NJ: An Interview</u> with Hudson County Community College
- Nicholas Toth, Director, New Jersey Office of Apprenticeship, NJ Department of Labor and Workforce Development (NJDOL).
 See: Exploring Strategic Workforce Development: An Interview with the Office of Apprenticeship, NJ Department of Labor and Workforce Development (NJDOL)





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.

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



"Build a better mouse trap, and the world will beat a path towards your door." - Ralph Waldo Emerson

Publication Statement

This newsletter is published biannually by the New Jersey Local Technical Assistance Program, Center for Advanced Infrastructure and Transportation, Rutgers University, using funds from the Federal Highway Administration and the New Jersey Department of Transportation. The opinions, findings, or recommendations expressed in this newsletter are those of the New Jersey Local Technical Assistance Program and do not necessarily reflect the views of the Federal Highway Administration nor the New Jersey Department of Transportation nor Rutgers University. Any product mentioned in this newsletter is for information purposes only and should not be considered a product endorsement.

Upcoming Events

This spring 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 – Asphalt Roads: Common Maintenance Problems -May 16, 2022 8:30 a.m. - 12:30 p.m.

This course provides relevant information to individuals who have to maintain asphalt pavements. The course material reviews the importance of preventive maintenance to the life of an asphalt pavement. The material will help the student identify common asphalt distress, the cause of the distress, and the appropriate treatments. The latest techniques, materials, and equipment will be reviewed with an emphasis on repairing the asphalt distress properly the first time. Register here!

In-Person Event – NJLTAP – Design of ADA Curb Ramps and Pedestrian Access

Routes - May 25, 2022 8:30 p.m. – 1:30 p.m.

This training is designed to ensure that pedestrian facilities and access routes, in particular curb ramps, along our roadways are properly design and constructed for all individuals, including those with disabilities. This training was developed to provide information and good practices for those involved in the design and maintenance of curb ramps and pedestrian facilities, and for those individuals that ensure the compliance to applicable accessibility laws and guidelines. Register here!

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

NJLTAP Contact Information

Comments may be addressed to : 100 Brett Road Piscataway, New Jersey 08854 http://cait.rutgers.edu/njltap

NJ LTAP Staff

Janet Leli jleli@soe.rutgers.edu **Ted Green** tngreen@soe.rutgers.edu Shane Mott smott86@soe.rutgers.edu **David Maruca** dem200@soe.rutgers.edu

Omid Sarmad sarmad@soe.rutgers.edu Lloyd Jacobs ljacobspe@verizon.net Workshop Inquiries caitregistrar@soe.rutgers.edu



Local Technical Assistance Program