## BETTER ROADS SAFER ROADS



**Advancing Safety and Roadway Infrastructure** 





#### BETTER ROADS SAFER ROADS

Division for Enterprise Development

TXLTAP

Summer 2024 | TxLTAP.org

TXDOT ASKING FOR FEEDBACK ON RECORD \$104 BILLION 10-YEAR PLAN

To help keep a thriving Texas economy moving, the Texas Department of Transportation (TxDOT) is drafting a record-breaking 10-year transportation plan, and the public is invited to weigh in on potential projects in communities across the state.

SPEEDING KILLS. SLOW DOWN AND SAVE LIVES.

The telltale red-and-blue lights in a driver's rear-view mirror can inspire shame and guilt, but that doesn't come close to the guilt speeding drivers feel after killing or injuring someone – or the pain a family feels when someone dies in a crash.

TEAMING UP TO TACKLE IMPAIRED DRIVING IN HARRIS COUNTY AND ACROSS THE STATE

July and August are the calendar's two deadliest months for drunk-driving fatalities, and TxDOT is tackling the issue through multiple strategies in the Houston area and across the state.

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#### 5-STAGE MODEL TO ATTRACT AND RETAIN PUBLIC WORKS EMPLOYEES

Did you know that the direct and indirect costs to replace employees who leave you can reach 3 to 4 times the employee's salary?

TTI ADVANCES RESEARCH ON EV SAFETY AND ROADWAY INFRASTRUCTURE

As the adoption of electric vehicles (EVs) accelerates, the Texas A&M Transportation Institute (TTI) is leading the charge in safety innovation.

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#### BRIGHTER IS NOT BETTER: EMERGENCY VEHICLE LIGHTING GETS "SMART"

Flashing lights at a traffic incident scene ahead are every driver's cue to be cautious, however, achieving better driver visibility for responders does not always mean adding more or brighter lights to their vehicles.

NOTICE OF FUNDING OPPORTUNITIES

Three opportunities for project funding.

USDOT AWARDS NEARLY \$60 MILLION
IN ADVANCED VEHICLE TECHNOLOGY GRANTS
TO ARIZONA, TEXAS AND UTAH TO SERVE AS
NATIONAL MODELS AND HELP SAVE LIVES ON
OUR NATION'S ROADWAYS

The U.S. Department of Transportation's Federal Highway Administration (FHWA) recently announced that it is awarding \$60 million in grants under the Saving Lives with Connectivity: Accelerating V2X Deployment program to advance connected and interoperable vehicle technologies.

TxLTAP TRAINING & SERVICES

Contact TxLTAP for more information or to request training, services, or equipment.

## TXDOT ASKING FOR FEEDBACK ON RECORD \$104 BILLION 10-YEAR PLAN



To help keep a thriving Texas economy moving, the Texas Department of Transportation (TxDOT) is drafting a recordbreaking 10-year transportation plan, and the public is invited to weigh in on potential projects in communities across the state.

The draft 2025 Unified Transportation Program (UTP) proposes \$104.2 billion in transportation spending, making it the second year in a row that the UTP plan exceeds \$100 billion.

The UTP provides a road map to help develop projects around Texas to improve safety, address congestion and connectivity, and preserve roadways for Texas drivers. The UTP also addresses public transportation, maritime, aviation, rail, freight and international trade, and bicycle and pedestrian connectivity. TxDOT works with its transportation partners to identify projects to be included in the UTP and updates it every year.

"The UTP serves as TxDOT's strategic 10-year blueprint for advancing projects statewide," said Executive Director Marc Williams. "Collaborating with our transportation partners and communities ensures that we continue connecting you with Texas while prioritizing safety, delivery, innovation and stewardship."

TxDOT invited the public to learn about the draft 2025 UTP in a virtual public meeting on July 2nd and to offer comments during a virtual public hearing on July 31st. The draft 2025 UTP public comment period was opened between July 5th - August 5th. Both the public meeting and hearing presentations were recorded and are available for viewing on the website.

Visit the UTP Public Involvement webpage at <a href="www.txdot.gov/">www.txdot.gov/</a> <a href="projects/planning/utp-public-involvement.html">projects/planning/utp-public-involvement.html</a> for more information.

The UTP Fact Sheet located here, <a href="https://ftp.txdot.gov/pub/txdot/tpp/utp/fact-sheet.pdf">https://ftp.txdot.gov/pub/txdot/tpp/utp/fact-sheet.pdf</a>, provides an overview of the program.

The Texas Transportation Commission approves the UTP annually in accordance with Texas state law at its August commission meeting and publishes the approved UTP on TxDOT.gov.

### SPEEDING KILLS. **SLOW DOWN AND SAVE LIVES.**





The telltale red-and-blue lights in a driver's rear-view mirror can inspire shame and guilt. But those feelings don't come close to the guilt speeding drivers feel after killing or injuring someone - or the pain a family feels when someone dies in a crash.

Speeding can kill, and someone is always left behind to deal with the painful aftermath.

Speed was a factor in more than 160,000 traffic crashes in Texas last year, and 1,456 people were killed in speed-related crashes. That's a third of all traffic deaths in Texas.

Lanisa Dehn knows how lives can be forever changed when someone makes the choice to drive at an unsafe speed. In 2020, a young man driving twice the speed limit in Lubbock, crashed into her mother's car as she tried to make a left turn. Her mother died at the scene.

"If that driver would've obeyed the law, my mother might still be here today," said Dehn. "I hope other drivers will hear my story and protect their fellow Texans by slowing down and avoiding making the same mistake."

Tragic deaths like that of Dehn's mother are why TxDOT partnered with law enforcement to launch its summer Be Safe. Drive Smart. campaign and encourage motorists to slow down.

"Speeding is one of the deadliest problems on our roads," TxDOT Executive Director Marc Williams said. "Getting to the office, home or wherever you're going a few minutes faster isn't worth putting your life or the lives of others at risk."

#### Speeding is not only dangerous, it can also be costly.

The Be Safe. Drive Smart. campaign coincided with Operation Slowdown, a statewide, high-visibility speed limit enforcement period. Between July 19th and August 4th, Texas law enforcement agencies stepped up their efforts to get drivers to slow down or pay up. Be Safe. Drive Smart. means more than following the speed limit. Follow these tips to keep yourself and others safe, and avoid a ticket:

- Match your speed to road conditions, such as bad weather or driving through a work zone.
- Slow down and allow for more distance to stop when traffic is heavy or roads are slick.
- Watch for road signs alerting you of reduced speed limits ahead

TxDOT actively monitors roadways throughout the state to identify patterns that may help implement additional safety measures to prevent speeding. Working together, TxDOT, law enforcement, and drivers can save lives on Texas roads.

Be Safe. Drive Smart. is a key component of #EndTheStreakTX, a broader social media and word-of-mouth effort that encourages drivers to make safer choices while behind the wheel to help end the streak of daily deaths. Nov. 7, 2000, was the last deathless day on Texas roadways.

#### **BE SAFE. DRIVE SMART.**

#EndTheStreakTX TxDOT



## TEAMING UP TO TACKLE IMPAIRED DRIVING IN HARRIS COUNTY AND ACROSS THE STATE

y Danny Perez



July and August are the calendar's two deadliest months for drunkdriving fatalities, and TxDOT is tackling the issue through multiple strategies in the Houston area and across the state.

In the Houston area in 2023, there were 4,665 DUI-alcohol related traffic crashes, resulting in 223 fatalities and 345 serious injuries. This includes Brazoria, Fort Bend, Harris, Galveston, Montgomery and Waller Counties.

To significantly reduce these numbers, TxDOT is addressing the situation utilizing a vast array of resources.

"We are working across agency lines to take care of this problem in our region and we are using all the resources available to us," said Ugonna Ughanze, TxDOT Houston District Director of Transportation Operations. "TxDOT is actively involved in working on all aspects on traffic safety –engineering, education and enforcement."

Ughanze and his team of traffic engineers and support staff regularly look at improving signage visibility while designing roads and intersections with enhanced safety features such as improved lighting and better roadway configurations. These roadway improvements help to boost safety along state roads in the Houston area. This work also includes implementing traffic management systems that can detect and respond to wrong way drivers who are often impaired.

TxDOT also leads the Houston Traffic Safety Coalition, which is a group of various government agencies, law enforcement partners and non-profits with the goal of ending impaired driving. The group is led by TxDOT Traffic Safety staff members Trey Salinas and James Adkins and meets regularly to talk about ways to collaborate and join forces to combat drinking and driving. Partners include Mothers Against Drunk Driving (MADD), the Houston Police Department and the American Automobile Association (AAA).

"We are so enthused by the participation and the messaging getting out to the public," said Salinas. "We've made great progress but there is still more work to do."

Recently, TxDOT joined DA Kim Ogg, Harris County Sheriff Ed Gonzalez and Acting Houston Police Chief Larry Satterwhite for a press conference to announce plans for the summer holidays to strictly enforce impaired driving laws. The collaboration has helped bring partners together to encourage everyone to plan ahead while also reminding motorists of the consequences of impaired driving.

## "We've made great progress but there is still more work to do."

"DWI and impaired driving are crimes that can hurt, maim or kill and would be completely preventable if everyone were to make a plan for a sober ride before they start drinking," said Harris County District Attorney Kim Ogg. "That's why we take it so seriously — if you're drinking and you get pulled over, you're going to jail."

TxDOT also partners with law enforcement agencies by providing grants for traffic enforcement initiatives including drinking and driving. These grants provide a valuable resource to partnering agencies to dedicate law enforcement personnel to specific problem areas. Based on data, law enforcement agencies can target key roadways where DWI crashes are the highest.

Using technology is also key to curbing DWI crashes, injuries and fatalities. The Houston ConnectSmart mobile app provides users with available and personalized intermodal travel options, transportation system updates, predictive travel times and more while influencing traveler behavior in real-time to encourage the use of alternative mobility options. Several times this year, the app has partnered with a ride-share company to provide coupon codes to help cover the cost of taking a sober ride home during the Houston Livestock Show, Rodeo and Independence Day holiday.

"Impaired driving remains a significant challenge on our Houston roads, and with the support of Houston ConnectSmart, we are taking proactive steps to promote safer and smarter driving habits," said Ughanze. "Our goal is to encourage individuals to utilize ride-hailing services instead of driving under the influence (DUI), ultimately making our roads safer for everyone."

Drunk driving crashes are completely preventable and it's important to always plan ahead for a sober ride.



## 5-STAGE MODEL TO ATTRACT AND RETAIN PUBLIC WORKS EMPLOYEES

Did you know that the direct and indirect costs to replace employees who leave you can reach 3 – 4 times the employee's salary? Additionally, the replacement process can take an average of 8 – 12 weeks or longer. During that time, almost one-half of your other employees will experience some form of burnout from picking up additional responsibilities. Five Hidden Costs of Employee Attrition states that onboarding a new employee can take three months to become somewhat productive. A new hire can take 1 – 2 years to hit their stride and fully contribute to your team.

So why do counties need a plan to attract and retain employees? It's straightforward...

- 94% of employees said they would stay with their company longer if it invested in learning and development. (LinkedIn Learning Report, 2018)
- Clear onboarding processes improve retention rates by 23%. (Employee Retention Statistics: A 2024 Overview | TeamStage)
- Companies that create a strong onboarding program are 50% more likely to produce productive employees. (Society for Human Resources Management Survey)

- Higher early attrition rates result from 88% of organizations onboarding their employees inefficiently. (Top 100 Hiring Statistics for 2022 (linkedin.com))
- Inadequate employee training accounts for 40% of resignations. (TeamStage Employee Retention Statistics: A 2024 Overview | TeamStage)
- About one-third of employees resign within the first six months. Employee retention statistics in 2024 showed that of 1,000 employees, 31% quit their jobs within six months from their hire date. Employees listed onboarding experience and unclear job expectations as one of the top reasons for their resignation. (TeamStage Employee Retention Statistics: A 2024 Overview | TeamStage)

These are just a few alarming statistics all cities and counties face when hiring and attempting to retain quality employees. More than likely, you are experiencing unprecedented turnover in your county workforce and need help hiring quality replacements. We may have a solution to your problem.

#### **PROGRAM**

The 5-Stage Model to Attract and Retain Public Works Employees funded by the Federal Highway Administration (FHWA) and the Texas State Transportation Innovation Council (STIC) project is designed to assist cities and counties in the ongoing processes of attracting, onboarding, training, engaging, and providing succession planning for their Public Works and Road and Bridge personnel to fill the declining ranks.



The 5-Stage Model to Attract and Retain Public Works Employees, referred to as "the Guide", covers the below subjects in-depth and is available in hard-copy format from the University of Texas at Arlington's, TxLTAP Program.

#### **STAGE 1: RECRUITING AND SELECTION**

It all begins with getting the best pool of applicants you can and then hiring the best of the best. This stage provides resource information on how to level the attraction playing field and market your benefits, work environment, and values in ways you may have never considered telling candidates about. Checklists and strategies on how to get the word out about your city or county and why qualified applicants should come to work for you are provided. Benefits you may never have considered before to attract applicants are also offered. Strategic hiring tips and processes are covered. Posting, screening, interviewing, and making a job offer are covered to "snap up" the best candidate as quickly as possible are included.

#### **STAGE 2: ONBOARDING**

Remember, a lack of an abbreviated or ineffective onboarding



Source: R. L. Belk Consulting, LLC

process sets your organization up to potentially lose a new employee soon after hiring them. A well-defined and robust onboarding program is critical for you to succeed in keeping good employees. Orientation and onboarding are defined as they are not the same. What should be done in orientation and onboarding is covered in detail, and strategies and processes are given to help you set up and run an internal onboarding program.

#### **STAGE 3: TRAINING AND DEVELOPMENT**

This stage provides guides for setting up employee training and development programs. Always consider a mix of on-the-job training (such as familiarization on how to operate heavy equipment), internal training led by in-house experts for groups (such as flagging or safety topics), instructor-led training (such as the many courses delivered by TxLTAP for no cost, i.e., Planning Work Zone Traffic Control, Basic Supervision and Management, etc.), on-line training (such as AASHTO/TC3 training via the TxLTAP portal that is on-demand and no cost), safety and health training from the Texas Association of Counties, and other local training opportunities such as active shooter from your sheriff's department, and first aid from your fire and EMS departments.

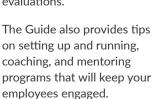
The Guide will provide information on how to perform a skills gap analysis, how to upskill your workforce to prepare them for more challenging or different types of work, and best practices in training and development activities to make the training "stick" with employees. Recommended training topics are provided for New Hires, Managers and Supervisors, and training targeted at Public Works/Road and Bridge employees.

#### **STAGE 4: EMPLOYEE ENGAGEMENT**

This stage focuses on how to keep employees actively engaged with their jobs throughout their careers with your organization. The primary focus areas are personal and professional development, coaching, mentoring, and performance evaluation via performance plans.

Often many employers need to pay more attention to the importance of having structured performance plans and conducting performance evaluations regularly. Employees that strive to do a good job want to know how they are doing. TxLTAP has developed a new training course, LTP405 Developing Employee Performance Plans and Conducting Performance

Evaluations, as a part of this project. The 8-hour course can be brought on-site to your county to teach your managers how to develop, monitor and close out effective performance evaluations.





#### **STAGE 5: SUCCESSION PLANNING**

This section deals with the misunderstanding that succession planning is an activity that is not required for their business. This is not true. While public sector employment is set up for a competitive hire system, succession planning should be a routine that cities and counties strongly consider using. Succession planning in the public sector means assessing your individual employees' potential, strengthening your talent pipeline by making your organization one in which people will want to work, recruiting in new ways, creating leaders throughout the organization, developing employees, and continuously planning succession for all key positions.

The Guide provides guidance on developing and implementing succession programs for your county. Additionally, on-site assistance with any 5 Stages to attract and retain public works employees can be provided with a simple email or phone request.

#### **FLEXIBILITY OF THE MODEL**

Often the question is asked, "Do we need to implement all of the five stages at the same time?" The answer is no. The 5-Stage Model was developed with the intent that you can start implementation with only one stage, two or three. You get to choose what fits you best. Example: You have no openings in your workforce, and do not foresee any soon. Turnover is not a real problem. You may want to start with Stage 3 Training and Development, and Stage 4 Employee Engagement, followed later by Stage 5 Succession Planning. If getting a good pool of applicants is your problem, then start with Stage 1 Recruiting and Selection. You get to pick and choose what will work best for you.



#### A WORD OF CAUTION

If you are considering implementing all five stages of the Model at the same time, you may be setting yourself up for challenges you were not ready for. Only organizations that have 100% support from the top down, coupled with dedicated experienced personnel who can dedicate a significant amount of time, and a willingness to implement and delay will be successful in implementing all five stages simultaneously. Start with your critical needs and build from there.

#### **RESULTS**

Following the tips, using the resources, participating in training, and trying things you have not done in the past, as provided in the Guide, will make a difference in the quality of applicants, will reduce your attrition rates, and will provide more engaged employees if you use them. These resources, tips, and guidance have been in place and work in both the private and public sectors. They are tried and proven. The Guide and the project support available to you takes the best of the best and puts it all into one resource for you to take advantage of. Get it today and make a difference!

To request more information, a program overview presentation, on-site assistance, or other no-cost services related to this project, contact Ray Belk, TxLTAP Consultant, at <a href="Raymond.belk@uta.edu">Raymond.belk@uta.edu</a> For a hard copy of the Guide, please get in touch with Kerri Farley, TxLTAP Program Coordinator, at <a href="Kerri.Farley@uta.edu">Kerri.Farley@uta.edu</a>, or call her at (817) 272-6698.

Ray Belk's certifications include Senior Professional in Human Resources (SPHR) as issued by the Human Capital Resource Institute, Senior Certified Professional as issued by the Society for Human Resources Management (SHRM-SCP), and Project Management Professional (PMP) as issued by the Project Management Institute. Should your organization require any assistance with Workforce Development strategies or Project Management advice or guidance, reach out to Ray through the TxLTAP Program and request Technical Assistance in those areas.

## TTI ADVANCES RESEARCH

#### ON EV SAFETY AND ROADWAY INFRASTRUCTURE

As the adoption of electric vehicles (EVs) accelerates, the Texas A&M Transportation Institute (TTI) is leading the charge in safety innovation. Roadway departure crashes, responsible for approximately one-half of all roadway fatalities, demand more attention. Understanding how traditional guardrail responds to EV impacts is just one crucial component for promoting roadway safety today and in the future.

On June 18, 2024, TTI and industry leaders convened for a first-of-its-kind crash test in Texas at the Texas A&M-RELLIS Campus. This test subjected a Tesla Model 3, weighing 3,897 pounds, to a 62-mph impact at a 25-degree angle with a thrie beam guardrail system, conditions matching those used in the Manual for Assessing Safety Hardware (MASH) crash testing. Leading the test at TTI included Senior Research Engineer and Associate Agency Director overseeing the Safety Group Lance Bullard, Assistant Research Scientist James Kovar and Senior Research Engineer and Manager of TTI's Roadside Safety Program Roger Bligh. Attendees included representatives from the Texas Legislative Budget Board, Texas Department of Transportation (TxDOT), Federal Highway Administration, Texas A&M Engineering Extension Service, The Texas A&M University System RELLIS Campus and Texas A&M University.



TTI researchers subjected a Tesla Model 3 to a 62-mph impact at a 25-degree angle with a thrie beam guardrail system — the same conditions used for MASH crash testing. The impact ruptured the thrie beam rail and allowed the test vehicle to penetrate through the barrier.

The impact of the crash ruptured the thrie beam rail, allowing the vehicle to penetrate through the barrier. This test failed to meet current crash testing evaluation criteria since the barrier did not contain and redirect the vehicle.

"Our vehicle fleet is ever-changing, and as industry continues the process of ensuring guardrails are meeting our safety needs, it's crucial to consider which vehicles we should be testing," says Bullard. "This crash test is another step in that ongoing process."

The last guardrail redesign process resulting from the adoption of MASH led to design changes in hardware systems, and the recent

crash test suggests that further iterations may be necessary. As one step in this process, TxDOT is initiating a new multi-state pooled fund study that will investigate the effects of EVs on roadside infrastructure. TTI will be the research agency for this effort. With approximately 210,000 registered EVs in Texas alone, the need for this research is evident.

"Guardrails have been tested extensively with traditional internal combustion engine vehicles, but we don't yet know how they respond to EVs, which have a lower center of gravity and are generally heavier," Bligh adds. "The results of the crash test do not indicate a call to panic but rather a call for more research."

The impact of EVs on roadway infrastructure is a growing concern, with states like California, Florida and Texas leading in EV registrations, according to data derived from the National Renewal Energy Laboratory and Experian Information Solutions. Nationally, EVs are continuing to represent an increased portion of new vehicle sales. As the trend continues to rise in the coming years, the safety implications of this shift necessitate proactive research and adaptation.

"Our goal is to encourage our roadway safety systems to evolve in tandem with the vehicle fleet," states Kovar. "Quick and readily implementable solutions may not be currently available. We need comprehensive research to investigate this further and develop robust safety measures."

TTI's crash test not only highlights the potential shortcomings of current guardrail systems but also underscores the importance of ongoing innovation in roadway safety. The Institute's commitment to research and collaboration with industry leaders ensures that Texas remains at the forefront of this vital work. TTI's unwavering commitment to safety grows in parallel with the momentum of EV adoption.

"As EV adoption grows, our commitment to safety must evolve," says TTI Agency Director Greg Winfree. "This test underscores the urgent need for further research to ensure our infrastructure can keep pace and protect all road users."

The next steps involve securing further funding and collaboration to address the evolving challenges posed by EVs. The pooled fund study led by TxDOT will help transportation agencies design safe, reliable and efficient infrastructure for the growing EV fleet, with a primary focus on improving roadside safety hardware to address performance limitations identified in tests with EVs. Learn more about the pooled fund study and how to get involved at www.pooledfund.org/Details/Solicitation/1612.



Example of synchronized emergency vehicle lighting. Credit: Colorado Department of Transportation

The attention-grabbing flashing lights at a traffic incident scene ahead are every driver's cue to slow down, move over, and be cautious. However, achieving better driver visibility for responders does not always mean adding more or brighter lights to their vehicles. In fact, the Manual on Uniform Traffic Control Devices (MUTCD) warns that "the use of too many lights at an incident scene can be distracting and can create confusion for approaching road users, especially at night."

Increasingly, traffic incident responders are looking for ways to communicate with approaching drivers while not blinding or distracting them. As part of Every Day Counts round 7 (EDC-7), the Next-Generation Traffic Incident Management (TIM) team is promoting a "SMART" approach to emergency vehicle lighting that can better inform roadway users, improve their ability to see roadside responders, and help them navigate around responders safely.

SMART, which stands for Strategic placement, Meaningful messaging, Automatic features, Reduced pattern intensity, and Tiered approach, leverages emergency lighting technology that is increasingly sophisticated and customizable with the use of LED lights and computer software.

#### STRATEGIC PLACEMENT

Many State laws dictate acceptable colors for the lights used by different responder disciplines, and the physical placement of the lights on responder vehicles is generally constrained by the shape of the vehicle body, automotive glass, and vehicle lamps. Near the traffic incident scene, flashing lights at the approximate height of a driver's head are most conspicuous, but if a roadside responder is visible from farther away, that means approaching drivers have more time to slow down and move over. Roof-mounted emergency lights and vehicle-mounted changeable message signs can enhance

advance warning, giving drivers added distance from the scene to reduce speed and to change lanes.

"too many lights at an incident scene can be distracting and can create confusion for approaching road users, especially at night."

#### **M**EANINGFUL MESSAGING

Motorists perceive red, blue, and amber in a descending order of most to least hazard present. Aside from communicating hazard, systems with a directional sequencing of lights give drivers additional visual information. For example, a sequencing of a responder vehicle's emergency lights from right to left can be recognized as a direction from emergency responders to drivers to move left, away from the shoulder.

Synchronization with other response vehicles is another important way that multiple response vehicles can work together to effectively convey a message to motorists. More than one responder vehicle displaying the sequencing lights from right to left is an even more powerful message to move left.

#### **A**UTOMATIC FEATURE

Emergency vehicle lighting systems are increasingly tied to the vehicle systems in which they are installed. Braking, doors opening, gear selection, and other vehicle functions can be linked to emergency lighting systems to elicit a specific response. For example, many fire apparatus now reduce forward facing lights when the parking brake is set, effectively reducing distraction for drivers in the opposite direction of travel.

Day and night light intensity is another way that responder vehicle lights can be adjusted automatically. Lights that are necessarily bright enough to see by drivers on a sunny day can become blinding to drivers at night.

A 30-minute <u>presentation</u> on "Good Practices and Current Research in Vehicle Lighting for Roadway Incidents" is located at https://youtu.be/lazvfCpfpVI.

#### REDUCED PATTERN AND INTENSITY

"Visual chaos" results when there are too many lights, too many different flash patterns, and light intensity is uncomfortable. For this reason, the National TIM Responder Training Program encourages responders to reduce lighting when multiple responder vehicles are present at a traffic incident scene. A "calm" scene is considered a safer scene where emergency lights are concerned. There is no one-size-fits-all solution for emergency lights, but technology is increasingly helping with user-selectable lighting displays that match the needs of the situation.

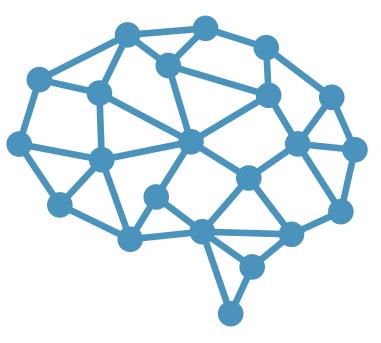
#### IERED APPROACH

Rushing to the scene of an emergency requires lights and siren to get attention and clear the path. Once on the scene, a calmer flash rate and fewer emergency lights can be used. The calmer scene with less modulation among lamps is viewed as a safer scene. Once temporary traffic control is in place, even fewer lights may be needed. Agency policy that addresses the use of reduced lighting is beneficial, and lighting technology is increasingly complementary to policy in helping change the use of lights in a variety of settings. Stepping lighting usage down from response mode, initial arrival activities, and at a stable scene are examples of how a tiered approach might look.

"Emergency vehicle lighting is an important technology for roadway safety," said NextGen TIM team co-lead Paul Jodoin. "Fortunately, advances in technology may help responders make better use of lights to communicate with drivers and ultimately protect both responders and motorists after traffic incidents."

Visit the <u>EDC-7 Next-Generation TIM webpage</u> for links to more resources. Contact <u>Joe Tebo</u>, <u>James Austrich</u>, or <u>Paul Jodoin</u>, FHWA Office of Operations, for details and technical assistance.

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# NOTICE OF FUNDING OPPORTUNITIES

#### MORE THAN \$1.1 BILLION AVAILABLE TO STRENGTHEN SAFETY AT RAIL CROSSINGS AND REDUCE BLOCKED CROSSINGS

The U.S. Department of Transportation's Federal Railroad Administration (FRA) recently issued a Notice of Funding Opportunity (NOFO) that makes available over \$1.1 billion in Railroad Crossing Elimination (RCE) Grant Program funding. As the only competitive discretionary grant program dedicated to improving railroad crossings' safety and efficiency, the RCE Program invests in projects that construct grade separations, upgrade safety devices at crossings, or close at-grade crossings where roads and train tracks intersect. Addressing collisions and blockages at grade crossings has been a top priority for FRA – especially as growing train lengths lead to more frequent and longer blocked crossings – and the funding announced will improve safety and access to communities separated by rail crossings.

"This program demonstrates how President Biden's infrastructure package is directly benefiting communities across America, serving to keep citizens safe and improve their quality of life," said U.S. Transportation Secretary Pete Buttigieg. "By making grade crossings safer or eliminating them altogether, we are acting to ensure Americans spend less time stuck in lengthy delays, can get around their neighborhoods more easily and safely, and can avoid

the needless tragedies that result from collisions with trains."

Project applications will be evaluated based on factors such as whether they improve safety, increase community connectivity, enhance access to emergency services, improve the mobility of goods, strengthen supply chains, and reduce noise. At least 20 percent of RCE Program funding (around \$230 million this round) will also be set aside for projects located in rural communities or on Tribal lands, and around \$38 million will be available to fund planning projects.

Last year, FRA announced over 63 RCE Program grants for major projects, such as the construction of a sealed rail corridor in Houston, Texas, as well as overpasses, underpasses, and rail bridges in Pelham, Alabama; Hammond, Indiana; and Washougal, Washington. FRA has also already made available billions more in grant funding this year through the Federal-State Partnership for Intercity Passenger Rail Program and the Consolidated Rail Infrastructure and Safety Improvements Program, both of which will improve safety and efficiency on the nation's rail network.

The NOFO is on public inspection in the *Federal Register* <a href="here">here</a>. Applications for funding are due no later than September 23, 2024 at 11:59 PM ET. More information about the RCE Program and the NOFO can be found on FRA's website <a href="railroads.dot.gov/grants-loans/railroad-crossing-elimination-grant-program">railroad-crossing-elimination-grant-program</a>.

#### FRA MAKES AVAILABLE \$153 MILLION IN FUNDING TO INITIATE, RESTORE, AND ENHANCE INTERCITY PASSENGER **RAIL SERVICES**

The U.S. Department of Transportation's Federal Railroad Administration (FRA) recently issued a Notice of Funding Opportunity (NOFO) that makes available over \$153 million in funding for the Restoration and Enhancement (R&E) Grant Program. Grant funding will assist with operating costs for eligible projects that will establish service on new routes, restore service on routes that formerly had intercity passenger operations, and enhance service on existing routes. These passenger rail upgrades will complement the dozens of major rail projects that are underway across the country and improve the intercity passenger rail network, thanks to the Bipartisan Infrastructure Law.

The R&E Program covers an array of expenses up to the first six years of service for newly initiated, restored, or enhanced passenger rail operations while the services build their ridership and revenue base and bolster their long-term potential. These expenses include operating costs, such as staffing costs for train crew members; station costs, such as ticket sales, customer information, and train dispatching services; train yard operations costs; routine planned maintenance costs of equipment and train cleaning costs; marketing costs; and administrative costs, among other expenses. By expanding the availability of passenger rail and providing riders with high-quality services, the R&E Program also encourages a modal shift to safe and environmentally friendly transportation options.

The funding announced represents the first round of R&E Program funding since the program was greatly increased by the infrastructure law. It also follows billions of dollars of funding already made available this year through the Federal-State Partnership for Intercity Passenger Rail Program and the Consolidated Rail Infrastructure and Safety Improvements Program. Taken together, these investments build on the Biden-Harris Administration's generational investment in passenger and freight rail that will revitalize local economies, strengthen rail safety, and modernize the nation's rail network.

The NOFO is on public inspection in the Federal Register here. Applications for funding are due no later than September 30, 2024 at 11:59 PM ET. R&E Program requirements as well as the evaluation and selection criteria for grant selections are outlined in the NOFO. FRA will also support applicants with live technical assistance to potential applicants prior to the deadline. More information about the R&E Program can be found on FRA's website railroads.dot.gov/grants-loans/restoration-andenhancement-grant-program.



#### INVESTING IN AMERICA: BIDEN-HARRIS ADMINISTRATION MAKES OVER \$600 MILLION AVAILABLE FOR PROJECTS THAT **RECONNECT COMMUNITIES**

The U.S. Transportation Secretary Pete Buttigieg recently announced a Notice of Funding Opportunity (NOFO) for the third round of the Department's popular Reconnecting Communities Pilot (RCP) Program, with the FY24 NOFO containing FY24-26 funding of more than \$600 million available for both capital construction and community planning grants. This continues the stream of investment from the Bipartisan Infrastructure Law flowing to communities across the country as part of our Infrastructure Decade.

This year, communities that are interested in the program but not yet ready to submit an application for funding can request free technical assistance through DOT's Reconnecting Communities Institute to explore project feasibility in their communities.

Last year, the Reconnecting Communities Pilot was combined with the Neighborhood Access and Equity (NAE) program, joining two initiatives created through President Biden's Investing in America agenda to help revitalize and reconnect communities cut off from opportunity by past transportation infrastructure decisions, with a combined \$3.3 billion in funding that supported projects in 130 communities. To date, 176 communities have benefited from RCP and NAE funding.

Even with last year's one-time infusion of funding from the Inflation Reduction Act, the program was oversubscribed and highly competitive.

The deadline for applications is September 30, 2024 at 11:59 pm ET. Applicants may find the Reconnecting Communities Pilot Program NOFO, Frequently Asked Questions, and other helpful resources at www.transportation.gov/reconnecting.

#### **USDOT AWARDS NEARLY \$60 MILLION**

#### in Advanced Vehicle Technology Grants to Arizona, Texas and Utah to Serve as National Models and Help Save Lives on Our Nation's **Roadways**

The U.S. Department of Transportation's Federal Highway Administration (FHWA) recently announced that it is awarding \$60 million in grants under the Saving Lives with Connectivity: Accelerating V2X Deployment program to advance connected and interoperable vehicle technologies. The grants to recipients in Arizona, Texas and Utah will serve as national models to accelerate and spur new deployments of vehicle-to-everything (V2X) technologies.

"As this Department explores every measure that can help reduce roadway fatalities, connected vehicle technology—like V2X—has potential to make roads safer and save lives," said U.S. Secretary of Transportation Pete Buttigieg. "The grants we're announcing today are helping accelerate the development and adoption of potentially life-saving V2X technology nationwide."

The Saving Lives with Connectivity: Accelerating V2X Deployment initiative is focused on road safety, mobility, and efficiency through technology that enables vehicles and wireless devices to communicate with each other and with roadside infrastructure and provide warnings. This means cars will be able to effectively communicate with traffic devices and the roadside.

"These grants are leading the way in promoting and deploying V2X technologies to explore the potential to save lives on our nation's highways," said Federal Highway Administrator Shailen Bhatt. "The funding provided today will help accelerate the technology so that we can deploy it on a national scale and provide new tools to reduce deaths on our nation's roads and highways."

The grants will promote the deployment of V2X technologies with the goal of advancing the full lifesaving potential of V2X communication, while ensuring connected technologies communicate securely and without harmful interference across a variety of devices and platforms.

"I'm proud of the partnerships between Federal, State, local and tribal government agencies for coordinating all of these technologies to improve safety," said Principal Deputy Assistant Secretary for Research and Technology Dr. Robert C. Hampshire.

#### THE GRANTS ANNOUNCED ARE AS FOLLOWS:

#### **ARIZONA:**

The Maricopa County DOT will receive \$19.6 million to lead a largescale deployment of V2X technologies, relying primarily on 5.9 GHz communications, to connect 750 physical roadside units and virtual roadside units to an estimated 400 vehicle onboard units targeting transit, emergency and freight fleets. The project will deploy Emergency Vehicle Preemption, Vulnerable Road User detection, Transit Signal Priority, and Freight Signal Priority applications in the Cities of Phoenix, Tolleson, Avondale and unincorporated Maricopa County, as well as along ADOT's US 60.

#### **TEXAS:**

Texas A&M Transportation Institute will receive \$19.2 million to deploy V2X technology in the Greater Houston area, the City of College Station, including near the campus of Texas A&M University (TAMU), and the corridors connecting these two metropolitan cities. The project serves to holistically enhance safety, efficiency, and overall mobility for vulnerable road users (VRU) situated at signalized intersections, emergency responders navigating through varying traffic scenarios, transit operators seeking efficient routes, workers operating within construction zones, and everyday motorists.

#### **UTAH:**

The Utah DOT will receive \$20 million toward V2X deployment sites in three states - Utah, Colorado and Wyoming each representing a broad variety of population densities, demographics, jurisdictions, topography, and transportation facilities. The project covers all of Utah, I-80 through the entire length of Wyoming, and major portions of Colorado, including the Denver Metro Area, I-70 from Denver to the Utah border, and I-25 through Colorado. The applications focus on safety, mobility, and environment, and support the ability to demonstrate measurable impact and address critical needs including connected intersection, weather impact, curve speed warning, traveler information and vulnerable road user and other safety alert technologies.

More information on the V2X grants is available here: FHWA Operations - Improving Day-to-Day Operations.

#### For more information, visit TxLTAP.org

Call 817-272-2581 or email txltap@uta.edu to request training, technical assistance or equipment.

#### WORKFORCE **DEVELOPMENT**

Contact TxLTAP to schedule training or request assistance with developing a no-cost training program tailored to the unique needs of your organization. TxLTAP serves all Texas cities and counties, and instructors deliver training in accordance with all local safety guidelines.

#### **BUILD A BETTER MOUSETRAP**

The BABM is a competition by the Federal Highway Administration to discover, share, and celebrate innovations in road construction. Submit your innovative ideas, then TxLTAP selects nominations to be federally recognized.

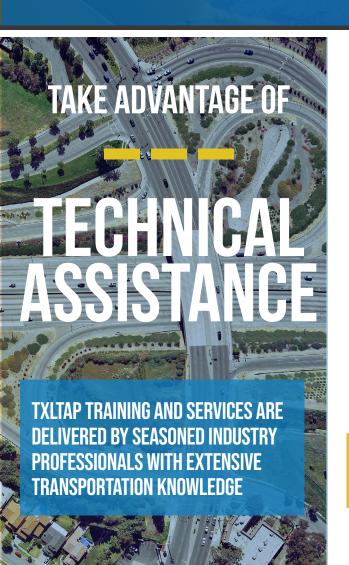
#### **EQUIPMENT LENDING LIBRARY**

Equipment, such as traffic counters, a portable radar speed sign, handheld retrorefelctometer, digital ball bank indicator, fall protection gear, dynamic cone penetrometer and more, is available for loan at nocost to local government agencies throughout Texas.

#### **HEAVY EQUIPMENT**

Heavy equipment operators will learn and practice new skills while stressing safety and excellence. Operators will use maintainers, backhoes, dump trucks, loaders, and more to steer through a series of exercises designed to test their abilities.





TxLTAP instructors, subject matter experts, and staff include former maintenance managers, heavy equipment operators, road crew chiefs, civil and transportation engineers, inspectors, and public works directors who have all worked on Texas' roads and have the unique experience and knowledge to support local safety, maintenance, and innovation efforts.

In addition to delivering training classes, publishing Better Roads, Safer Roads, and providing information exchange opportunities at conferences, TxLTAP provides local roadway agencies an opportunity to consult directly with carefully selected subject matter experts to specifically address organizations' unique issues and offer meaningful solutions. Like all resources TxLTAP offers, there is no charge to receive technical assistance.

Do you need information on proper methods for repairing your lingering road problem? Would it help if someone came out to watch your road crew perform a repair and offer suggestions on how to save time and money in the future? Could you use the help of a traffic engineer who could assess a problematic intersection? Would it be a benefit to you if a subject matter expert came to ride and evaluate local roads or develop a no-cost training model specific to the needs of your workforce?

Call 817-272-2581 or email txltap@uta.edu to request assistance.





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TxLTAP serves local government roadway agencies by providing no cost training, technical assistance, equipment lending & more. Learn more at TxLTAP.org.

Request training & services today!

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