The fourth 2-year cycle of EDC includes 11 innovations that will be deployed in 2017 and 2018.

In 2009, the Federal Highway Administration (FHWA) launched Every Day Counts (EDC) in cooperation with the American Association of State Highway and Transportation Officials (AASHTO) to speed up the delivery of highway projects and to address the challenges presented by limited budgets. EDC is a state-based model to identify and rapidly deploy proven but underutilized innovations to shorten the project delivery process, enhance roadway safety, reduce congestion and improve environmental sustainability.

Proven innovations and enhanced business processes promoted through EDC facilitate greater efficiency at the state and local levels, saving time and resources that can be used to deliver more projects for the same money. By advancing 21st century solutions, the highway community is making every day count to ensure our roads and bridges are built better, faster and smarter.

Automated Traffic Signal Performance Measures (ATSPMs)
Highway agencies typically rely on complaints or manual data collection to identify the need for signal retiming projects and their outcomes. These projects are typically scheduled on a 3- to 5-year cycle, at a cost of approximately $4,500 per intersection. The costs and effort associated with collecting performance data translates into congestion, reduced safety, and increased delays for vehicles, pedestrians, and bicyclists.

That's where automated traffic signal performance measures come in. They will revolutionize the management of traffic signals by providing the high-resolution data needed to actively manage performance. High-quality service can be delivered to customers with significant cost savings to agency maintenance and operations. A number of implementation options are available, ranging from a low-cost, open-source code framework to a fully integrated traffic signal system.

Collaborative Hydraulics: Advancing to the Next Generation of Engineering (CHANGE)
Current modeling techniques used for hydraulic design apply several assumptions that can lead to overly conservative or inaccurate results. Advanced hydraulic modeling technologies offer planners, scientists, and engineers tools to depict specific physical, environmental, and habitat characteristics more accurately through 3-D visualization of flow, velocity, and depth.

Community Connections
Many cities have highways that have reached, or exceeded, their useful lives. The timing is ripe to hold forums for transportation professionals to discuss and consider highway retrofitting, rehabilitation, or removal options to improve connections between urban cores and neighboring communities. This innovation underscores the value of transportation in community revitalization, such as improving connectivity between disadvantaged populations and essential services.

Data-Driven Safety Analysis (DDSA)
Data-driven safety analysis is the use of cutting-edge software to analyze crash and roadway data and determine the expected safety performance of roadway projects more reliably. This type of analysis enables agencies to predict the safety implications of their decisions with confidence. Engineers now can quantify the safety impacts when making investment decisions, just as they do with environmental, traffic, and other traditional impacts. The analyses result in more scientifically sound, data-driven approaches to committing resources, as well as fewer and less severe crashes on the Nation's roadways.

e-Construction and Partnering: A Vision for the Future
State DOTs have traditionally administered contracts and managed construction of highway projects using extensive, paper-based documentation systems. By using digital e-Construction technologies, DOTs can enhance

(Continued on page 4)
The National Indian Justice Center is located in Santa Rosa, California. NIJC’s building also houses the administrative offices of the California Indian Museum and Cultural Center, the Intertribal Court of California and the Regional Tribal Justice Center. Construction is currently underway for the California Indian Museum and Cultural Center, which will include a storytelling venue, Native plants garden, California Indian foods, a small Native village, audio-visual displays that highlight California Indian history and the contributions of California Indians, as well as Edward Curtis prints and traveling exhibits. If you are in the area, please come visit and tour the facilities.

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Table of Contents
Every Day Counts (EDC)4 Summary..............................1
Western TTAP Staff Directory...................................2
News and Announcements.........................................3
STIC: Creating a National Innovation Network.................4
Well-maintained Ditches Essential to Good Roads..............5
Traffic Incident Management Training Reaches Milestone.........................................................6
U.S.DOT Proposes Guidelines to Address Driver Distraction Caused by Mobile Devices in Vehicles........6
Road Diets (Roadway Reconfiguration)............................7
How Many Ways Can You Improve an Unsignalized Intersection?......................................................8
Creating Rural Road Safety Strategies That Go Beyond Crash History...........................................9
Coalition Building: Your Key to Resources..........................10
Best Practices Streamline Environmental Documents and Project Delivery.................................11
Save the Date: NTTC 2017.............................................32

TRANSPORTATION RESOURCES
Recent Transportation Legislation...............................12
Transportation Events Calendar....................................13
Tribal Transportation Partners Directory........................14
Tribal Transportation Resources..................................16
Tribal Transportation Funding Resources.........................29
The California Transportation Commission (CTC) Allocates $236 Million for State Transportation Projects

Continuing the push to rebuild and maintain California's infrastructure, the California Transportation Commission (CTC) has allocated $236 million to 40 transportation projects that will alleviate traffic delays, repair aging roads and bridges and encourage bicycling and walking.

"Allocations like those made today help Caltrans continue to invest in, maintain and modernize California’s transportation system. Each of these projects is an opportunity to improve safety, access and mobility for all travelers in California, whether you choose to travel via car, take transit or ride a bicycle", said Malcolm Dougherty, Director, Caltrans.

The newly allocated funding includes $190 million from the State Highway Operation and Protection Program for 10 projects that will maintain and preserve the investment in the state highway system and its supporting infrastructure. These capital improvements consist of projects covering maintenance, pavement repair and preservation work, safety improvements and upgrades to bridges throughout the state.

Also included among allocations:

- $31.6 million from the Active Transportation Program that will go toward 40 bicycle and pedestrian projects throughout the state.
- $4 million for Transit and Intercity Rail Program projects which seek to reduce greenhouse gas emissions, expand rail service to increase ridership, integrate various rail and bus systems and improve rail safety.
- $1.2 million for Traffic Congestion Relief Program projects that will relieve congestion, connect transportation systems and provide for better goods movement.

The remaining $9 million in allocations came from various state and federal transportation accounts.

To view the December 2016 List of CTC Allocations for more information about all projects that received allocations go to: [http://www.caltrans.ca.gov/d11/news/CTC%20Dec%202016%20Allocation%20List.pdf](http://www.caltrans.ca.gov/d11/news/CTC%20Dec%202016%20Allocation%20List.pdf)

The Commission also adopted the 2017 Active Transportation Program (ATP), Statewide and Small Urban & Rural components. The statewide component includes $131.7 million for 44 projects and $26.3 million for 10 small urban and rural projects. Together, these components represent 60 percent of available funding under the 2017 ATP. The CTC’s adoption of these 2017 components is not authorization to begin work on a project, which still require an allocation by the CTC for the project to begin work.

President-Elect Trump Nominates Elaine Chao Secretary of Transportation

President-elect Donald Trump Nov. 29 nominated Elaine Chao to be the next U.S. transportation secretary. Once confirmed, she would manage the agency’s annual $98.1 billion budget and oversee 56,000 employees.

Chao has a long and distinguished career in public service. She helped lead federal highway, transit and aviation programs as deputy secretary of the U.S. Department of Transportation (U.S. DOT) during the George H.W. Bush administration. She was labor secretary through both terms of the George W. Bush administration. Earlier, Chao was deputy administrator of the U.S. DOT’s Maritime Administration, and chairwoman of the Federal Maritime Commission.

The U.S. Senate must confirm all cabinet appointments. Chao is married to Senate Majority Leader Mitch McConnell (R-Ky.).

EPA’s New Webpage: Promoting International Human Rights, Rights of Indigenous Peoples and Environmental Justice

EPA’s Office of Environmental Justice has a new webpage to share information on the Agency’s efforts to promote international human rights, rights of indigenous peoples and environmental justice. It includes a list of the blog posts written for EPA’s EJ in Action Blog, on the work we and others are doing around international human rights. Please feel free to share with your colleagues and others who you think would be interested: [www.epa.gov/environmentaljustice/epas-role-promoting-international-human-rights-rights-indigenous-peoples-and](http://www.epa.gov/environmentaljustice/epas-role-promoting-international-human-rights-rights-indigenous-peoples-and).
partnering among stakeholders on project teams, while improving communications and workflow to streamline the delivery of projects.

**Integrating NEPA and Permitting**

Integrating the NEPA and permitting processes seeks to transform how agencies and stakeholders conduct concurrent, synchronized environmental and permitting reviews, saving time and cost for the agencies involved.

**Pavement Preservation (When, Where, and How)**

Applying a pavement preservation treatment at the right time (when), on the right project (where), with quality materials and construction (how) is a critical investment strategy to help meet performance expectations. This innovation helps deploy an array of different analyses, treatments, and construction methods to help infrastructure owners achieve and sustain a desired state of good road repair despite tight budgets.

**Road Weather Management – Weather-Savvy Roads**

Weather events lead to traffic delays, reduced operational effectiveness, and increases in crashes. This innovation deploys two distinct road weather management solutions: (1) Pathfinder, which brings together DOTs and the National Weather Service to provide consistent messaging on adverse weather and road conditions and (2) advanced vehicle-based technologies, also referred to as integrated mobile observations. These two solutions have the potential to be transformative, by enabling State and local agencies to be proactive when it comes to weather, so they can manage the road system ahead of heavy rain, snow, or other storms.

**Safe Transportation for Every Pedestrian (STEP)**

Pedestrians account for an estimated 15 percent of all roadway fatalities, the majority of which are at uncontrolled crossing locations (such as non-intersections) or at intersections with no traffic signal or STOP sign. This innovation helps transportation agencies address such crashes by promoting cost-effective countermeasures with known safety benefits.

**Ultra-High Performance Concrete Connections for PBES**

Prefabricated bridge elements and systems (PBES) offer superior durability and speed the onsite construction of bridges. The durability of prefabricated spans and how quickly they can be constructed is dependent on the connections between the elements. Ultra-high performance concrete can be used to help provide simple, strong, and durable connections for prefabricated bridge elements.

**Using Data to Improve Traffic Incident Management**

A TIM program is the systematic, planned, and coordinated use of human, institutional, mechanical, and other resources to shorten the duration and impact of incidents on U.S. roadways, and improve the safety of motorists, crash victims, and incident responders. This innovation focuses on improving the adoption and consistency of the collection of TIM data and increasing the volume of data from transportation, law enforcement, and other responder agencies. Further, this innovation promotes the use of low-cost, off-the-shelf technologies that streamline data collection, so agencies can measure and improve the performance of their programs.

For more information about Every Day Counts (EDC) go to: [https://www.fhwa.dot.gov/innovation/everydaycounts/](https://www.fhwa.dot.gov/innovation/everydaycounts/)

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(Continued from page 1)
Ditches are but one part of several that make up a road, along with the driving surface, shoulders, and other elements within the right-of-way, or overall width, of a road.

In Minnesota, road systems are dominated by rural or ditched sections, and thus are an important component of overall road maintenance. In fact, the state has more than 130,000 miles of gravel roads on the city, township, and county systems.

“We have a culture in Minnesota of maintaining a lot of local roads, and we do a pretty darn good job of it,” said retired Crow Wing County engineer Duane Blanck, one of the instructors at Demo Day this year.

Ditches serve an important function in drainage systems and are essential for the proper design, installation, and maintenance of good roads and roadsides. Specifically, a ditch supports the roadbed, conveys water, and provides for snow storage.

Since roads are designed, or at least intended, to drain water from rain and snowmelt away from the road toward the lower elevation of the roadside ditch, it is critical that the ditch functions to control moisture as a critical part of good road maintenance.

Ditches often carry water directly to public waters, too, so they also can be critical to area water quality. When ditches are unstable or when vegetation is disturbed, erosion can significantly impact water quality. Conversely, well-managed vegetated ditches slow down the flow of water.

“Three critical issues in maintaining gravel roads, in particular—and actually any type of roadway—are drainage, drainage, and drainage,” Blanck said. “You can’t say that often enough.”

According to Blanck, the best way to know if ditches are functioning properly is to observe and

Ditch Maintenance: Is That Permitted?

Legal questions can arise when considering ditch maintenance and/or repair. Be proactive and request assistance from your local Soil and Water Conservation District or other appropriate authority (e.g., County Land Services, P & Z) before beginning any work, especially if there are questions.

Permits may be needed. Ask these questions:
1. Is this a roadside upland ditch?
2. Does the ditch discharge to a special or impaired water?
3. Does the ditch look like a wetland (e.g., cattails, etc.), run through a wetland, or often hold water even during dry periods between rainstorms?

inspect them, especially during and after rain or snowmelt events when higher flows exist. Three critical elements or conditions suggest ditch problems: road appearance, ditch erosion or soil instability, and water flow.

Local maintenance staff may be able to address routine problems in the field without major analysis or engineering. But bigger problems or those requiring frequent routine maintenance to keep a ditch functional may necessitate a redesign and reconstruction to reduce such maintenance. Such work typically requires professional analysis or engineering and possibly one or more permits.

Some common problems with ditches that usually can be handled with routine maintenance include correcting sediment buildup, replacing damaged culverts, and managing vegetation.

Removing sediment buildup or washed-in excess material from a ditch is necessary to reestablish the original ditch flow or hydraulic capacity. In those situations, Blanck said, it is critical to maintain the slope to ensure ditch stability.

In many situations, maintenance staff can replace a culvert without engineering analysis if using the same material and design specifications. However, it is critical that the culvert be aligned to minimize future erosion issues.

Ditch vegetation typically provides habitat for wildlife, stabilizes soils, and increases the rate and quantity of infiltration, but it must be controlled. Ideally, a stable ditch has dense vegetation that doesn’t interfere or interrupt the water flowing through it. Common methods of control include mowing, brushing, and spraying.

Special consideration is needed for dealing with a variety of state and federally protected plants, invasive species, and noxious weeds. “The least expensive way to control invasive plants and noxious weeds is to avoid introducing them to new areas, if at all possible, and to eradicate new populations before they spread,” Blanck said.

Blanck also reminds maintenance personnel to clean up the work site when a ditch maintenance project has been completed. Leaving debris can undermine ditch maintenance efforts and eventually lead to more problems. In addition, it is important to maintain a record of routine maintenance as well as non-routine maintenance for defense of legal claims and to provide evidence in the use of right-of-way.

Resources:


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Traffic Incident Management Training Reaches Milestone

The 200,000th emergency responder has completed the Federal Highway Administration’s Traffic Incident Management Responder Training course on techniques to clear highway incidents safely and quickly.

The course helps build teams of police, firefighters, highway workers and emergency medical and towing personnel trained to respond to highway crash scenes. Participants learn a common set of practices, including quick clearance techniques that improve communication and reduce the amount of time needed to clear incidents from roadways.

The life-saving training is part of a national movement to improve the safety of first responders and others on crash scenes. Responders in all 50 states, Washington, D.C., and Puerto Rico have completed the training.

“This training is vital to the men and women who arrive at the scene of a highway crash who often risk their own lives bringing safety and care to others,” said U.S. Transportation Secretary Anthony Foxx. “Besides protecting emergency workers and ensuring crash victims receive immediate attention, these practices reduce the chance of secondary crashes and prevent traffic jams by keeping traffic moving for other drivers.”

The delays caused by such crashes and other traffic incidents are responsible for about half of all traffic delays—which limit freight movement, increase worker commute times and decrease highway safety.

“We are helping emergency responders learn safer practices at highway crash scenes,” Federal Highway Deputy Administrator David Kim said at a Washington, D.C., ceremony celebrating the training milestone.

Joining Kim for the ceremony were representatives of emergency responder groups, including the International Association of Fire Chiefs, International Association of Chiefs of Police and Towing and Recovery Association of America. These organizations signed a Traffic Incident Responder Safety Proclamation as part of the national call to improve safety on the scene of highway crashes.

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U.S. DOT Proposes Guidelines to Address Driver Distraction Caused by Mobile Devices in Vehicles
U.S.DOT-NHTSA, November 2016

The U.S. Department of Transportation’s National Highway Traffic Safety Administration (NHTSA) released proposed guidelines to help address driver distraction caused by mobile and other electronic devices in vehicles. Today’s announcement covers the second phase of voluntary guidelines to address driver distraction on U.S. roads. The first phase focused on devices or systems built into the vehicle at the time of manufacture.

"As millions of Americans take to the roads for Thanksgiving gatherings, far too many are put at risk by drivers who are distracted by their cellphones,” said U.S. Transportation Secretary Anthony Fox. "These commonsense guidelines, grounded in the best research available, will help designers of mobile devices build products that cut down on distraction on the road."

The proposed, voluntary guidelines are designed to encourage portable and aftermarket electronic device developers to design products that, when used while driving, reduce the potential for driver distraction. The guidelines encourage manufacturers to implement features such as pairing, where a portable device is linked to a vehicle’s infotainment system, as well as Driver Mode, which is a simplified user interface. Both pairing and Driver Mode will reduce the potential for unsafe driver distraction by limiting the time a driver’s eyes are off the road, while at the same time preserving the full functionality of these devices when they are used at other times.

"NHTSA has long encouraged drivers to put down their phones and other devices, and just drive," said NHTSA Administrator Dr. Mark Rosekind. "With driver distraction one of the factors behind the rise of traffic fatalities, we are committed to working with the industry to ensure that mobile devices are designed to keep drivers’ eyes where they belong — on the road."

The agency is seeking public comments on its proposed guidelines.

NHTSA continues to urge the driving public to take the following safety precautions to minimize distraction while driving:

- Be a safe, distraction-free driver, put your cell phone down and focus on the road;
- When using electronic devices for directions, set the destination prior to driving;
- Speak up when you're a passenger and your driver uses an electronic device while driving. Offer to call or text for the driver, so his or her full attention stays on the driving task; and
- Always wear your seat belt. Seat belts are the best defense against other unsafe drivers.
Road Diets (Roadway Reconfiguration)

Everyday Counts (EDC)-3 Innovations (2015-2016)

Improved safety and congestion relief on public roadways are high-priority national goals. Innovative reconfigurations such as Road Diets can help achieve these goals for motorists and non-motorists on mixed-use streets by reducing vehicle speeds and freeing space for alternative modes. Road diets can reduce collisions, increase mobility and access, and improve a community’s quality of life.

Road Diets are a safety-focused alternative to a four-lane, undivided roadway. The most common type of Road Diet involves converting an existing four-lane, undivided roadway segment that serves both through and turning traffic into a three-lane segment with two through lanes and a center, two-way left-turn lane (TWLTL). The reclaimed space can be allocated for other uses such as bike lanes, pedestrian refuge islands, bus lanes and parking.

On a four-lane undivided road, vehicle speeds can vary between travel lanes, and drivers frequently slow or change lanes due to slower vehicles or vehicles stopped in the left lane waiting to turn left. On three-lane roads with TWLTLs, left-turning vehicles are separated from through vehicles, and the vehicle speed differential is limited by the speed of the lead vehicle in the through lane. This reduces the vehicle-to-vehicle conflicts that contribute to crashes.

A Road Diet applied in Orlando, Florida, converted an existing four-lane undivided roadway segment into a three-lane segment consisting of two through lanes, a center TWLTL, and installed bike lanes. The result was a 34 percent reduction in the total number of crashes, a 30 percent increase in bike volumes, and a 23 percent increase in pedestrian volumes.

A Des Moines, Iowa, Road Diet also provided a benefit to buses: instead of stopping in a through lane and blocking traffic as they had done before the reconfiguration, the new design accommodated them with a bus turn out. In Pasadena, California, a Road Diet allowed pedestrians to safely cross the road more easily, which provided the unexpected benefit of eliminating the need for a pedestrian traffic signal at the crossing. This resulted in cost savings and eliminated the impact of the signal on traffic flow.

Benefits
- **Safety.** Road Diets can make the roadway environment safer for all users. Studies indicate a 19 to 47 percent reduction in overall crashes when a Road Diet is installed on a previously four-lane undivided facility. For pedestrians, Road Diets result in fewer lanes to cross and provide an opportunity to install refuge islands that slow vehicles in the midblock crossing area, which is where 70 percent of pedestrian fatalities occur.
- **Low Cost.** Road Diets make efficient use of the roadway cross-section. The majority are installed on existing pavement within the right-of-way. When planned in conjunction with reconstruction or simple overlay projects, the safety and operational benefits of Road Diets are achieved essentially for the cost of restriping pavement lanes.
- **Quality of Life.** Road Diets can make shared spaces more livable and contribute to a community-focused, Complete Streets environment. On-street parking and bike lanes can also bring increased foot traffic to business districts.

Current State of the Practice

Road Diets have been implemented for at least two decades and are steadily increasing in popularity. More than 600 state, regional and local jurisdictions have adopted or have committed to adopting Complete Streets policies, establishing the expectation that all future roadway projects will adhere to the principle that streets should be designed with all users in mind rather than merely providing enough capacity for vehicle throughput.

Reprinted from Federal Highway Administration (FHWA), Center for Accelerating Innovation.

How Many Ways Can You Improve an Unsignalized Intersection?
Kansas LTAP Newsletter, Fall 2015

Maybe more than you think. The Unsignalized Intersection Improvement Guide lists 75 ways and where each of those ways are most useful.[Editor’s note: The Institute of Traffic Engineers (ITE) website has an excellent resource on improving safety at unsignalized intersections. It is written for local agencies, it has a wealth of information without being overwhelming, it is very easy to navigate, and it’s free. The following is adapted from the Guide.]

From 2010 to 2012, more than 70 percent of all intersection related fatal crashes nationwide involved unsignalized intersections. These accounted for approximately one of every six fatal crashes on U.S. roadways. As such, and because the vast majority of intersections in the U.S. are unsignalized, it is vital that state and local transportation agencies consider how their design and management practices can better address safety performance, operations, and access for all users at these types of intersections.

Written for local agencies
The majority of unsignalized intersections are owned and operated by local agencies. Many smaller jurisdictions do not have professional traffic engineers on staff but must frequently make decisions on safety treatments and enhancements at unsignalized intersections. These agencies need practical guidance to assist them in arriving at, and justifying, these decisions to policymakers and the public. The Unsignalized Intersection Improvement Guide (UIIG) was developed to address this need.

Guide helps in identifying the problem and finding solutions
The UIIG is prepared to primarily aid local agency practitioners (city and county) in selecting design, operational, maintenance, enforcement, and other types of treatments to improve the safety, mobility, and accessibility of all users at unsignalized intersections. It is designed under the assumption that an unsignalized intersection (or group of unsignalized intersections) has been identified as having a problem related to traffic safety, operations, or access. The UIIG assists the user in confirming there is indeed a problem and identifying the type and potential cause of the problem, and then offers possible treatments—also identified as countermeasures or strategies—that address the problem. The selection of the desirable treatment for implementation is to be determined by the agency with input from and review by the affected stakeholders within the community.

Written for non-engineers
The UIIG’s primary audience is the agency (or individual) responsible for the roads within a local government jurisdiction, especially those agencies lacking staff with a formal education in highway and traffic engineering principles. However, even trained staff from state and local highway agencies may find this Guide helpful as they address various problems at their unsignalized intersections.

Designed to stay current
The UIIG is hosted by the Institute of Transportation Engineers (ITE) under the sponsorship of the Federal Highway Administration (FHWA), with full access by all interested parties at no cost. It has been prepared as a web-based resource with the intent that it will be used online and that it can be modified as necessary to incorporate new information. By using the UIIG online, users will have access to the latest information on the various treatments that can be used to improve safety, mobility, and access at unsignalized intersections.

Where to find the guide
Accessing the Guide is easy. Go to http://www.ite.org/uiig/ and you’re there.

This article appeared in The Link, Vol. 32, No. 4. Reprinted with the permission of the Kentucky Transportation Center, Technology Transfer Program.
The transportation safety community has largely embraced a data-driven approach to highway safety, but this approach traditionally relies on “worst first” analysis based on crash history data. Unfortunately, the traditional approach of using crash history alone does not always provide results, because serious crashes on the rural system are infrequent and appear to occur at random locations as a result of their low density. Now, however, transportation engineers are beginning to turn to a new “systemic” safety approach to reduce serious injury and fatal crashes on rural highway systems.

Similar to what doctors have been doing for a long time,” Lund said. “They ask about your health history, diet, and behaviors to assess your risk for developing certain diseases, then help you find a way to proactively address those risks so you don’t have to deal with more serious issues later in life.”

The systemic safety approach considers the metric of risk versus the traditional metric of crash history. Determining the risk of a highway facility requires considering characteristics such as geometry, traffic volume, and presence of key features such as railroad crossings. Then, network screening allows for the identification of high-risk locations.

“For example, we know that one of the most likely places for a serious injury or fatal crash to occur on a rural road is a four-legged, two-way-stop intersection, and that some additional risk factors for these intersections include skew, curve, distance to previous stop signs, and nearby railroad crossings,” Lund noted. “We can then rank all of our two-way-stop intersections based on risk and deploy proven, low-cost safety measures for every at-risk location within our system.”

According to Lund, a systemic approach offers a number of important advantages. First, it identifies a “problem” based on a system-wide analysis of data and then looks for the roadway characteristics that are frequently present in serious crashes, which become the risk factors. Next, it focuses on one or more proven, low-cost countermeasures that can be deployed across the entire system. Finally, it identifies and prioritizes locations across the network for implementation.

“The traditional approach says that ‘crashes equal risk’ and ‘no crashes equal no risk,’” Lund said. “When we use a systemic approach to focus safety strategies at high-risk locations—which are the minority of the system—we can start having an impact on the majority of crashes and make real progress towards our goal of toward zero deaths on Minnesota roadways.

To view the webinar go to:
http://www.roadwaysafety.umn.edu/events/seminars/2016/090816/index.html

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http://www.roadwaysafety.umn.edu/
Coalition Building:
Your Key to Resources
By Carrie Brown WTTAP Safety Circuit Rider

Coalition building may seem like a no-brainer when working with any type of grant funded program, but it is surprising how easily it is overlooked and under-utilized. In any event, coalitions can be a great tool for transportation programs to maximize their funding, make partnerships, and locate resources. Let’s start from the bottom.

A coalition is a group of individuals and/or organizations with a common interest who agree to work together toward a common goal. There are many types of coalitions ranging from formal to informal with the general purpose of advisory, project completion, policy development, or a combination of these three. Benefits from working in a coalition not mentioned above are wider community reach, greater range of perspectives, greater credibility, sharing forum, creativity stimulation, trust building among agencies, competition reduction and non-duplication of services. Coalitions also help you learn the trade of your industry through networking. By learning the trade, you will learn who the key players are and how you can help each other. A hallmark of coalitions is pooling resources to meet the groups goals and objectives.

In transportation, you may find that there are already existing groups that share your goals, ideas and passion. In those cases, it may make more sense to simply join that working group versus forming a new one. But, you may find that there isn’t an established group working on your topic and will have to establish your own. Also bear in mind, in tribal transportation, jurisdictional or other issues may require you to form your own coalition. If that is the case, there are 8 steps you can take to form your own coalition:

1. Determine whether to form a coalition
2. Recruit the right people
3. Devise objectives and activities (using SMART format)
4. Convene the coalition
5. Anticipate resources
6. Define elements of structure
7. Maintain vitality
8. Improve through evaluation

If the idea of sitting in another meeting that accomplishes little makes you cringe, there are a few things to keep in mind. Not all coalitions will meet indefinitely. For example, if your transportation department is planning a safety day/fair and decides to form a planning coalition, the life of this coalition will likely only last until the event over. It is important to come to each meeting with a focused agenda and assign someone to take minutes to track the group’s progress. When tasks are assigned to individuals or groups within your coalition, make sure it is recorded in the minutes and that roles and responsibilities are made clear to all parties. When your group accomplishes a goal or objective, celebrate! Celebrations keep up group morale and motivation to keep going. Pat your coalition and its key players on the back. Lastly, the most important resource your coalition has is time. Make sure to respect your members and their time by beginning each meeting promptly, being upfront about the commitment level expected of each member, and coming to each meeting prepared.

Recently, the National Indian Justice Center in conjunction with Indian Health Service conducted an Introduction to Injury Prevention “Level 1” training in Sacramento, California that focused on topics including coalition building. From October 25th through the 27th, 13 different tribes and agencies attended Level 1 training to learn about marketing, strategic planning, data collection, and program evaluation. Participants used the skills they acquired in training to present a project proposal to a mock tribal council.

If you have questions about coalition building or Level 1 training, feel free to contact WTTAP’s Safety Circuit Rider, Carrie Brown, at 775-432-4438 or cbrown@nijc.org.
Improving collaboration and quality environmental documentation helps agencies deliver projects more efficiently.

The Arizona Department of Transportation is one of many state agencies using innovative techniques and tools to shorten the time needed for National Environmental Policy Act approval for construction projects.

The agency rolled out a quality assurance and quality control process to help streamline reviews and approvals on environmental documents. The process promotes early and continuous coordination among project team members to identify and resolve schedule challenges.

The Arizona DOT is also working on a reference tool for local agencies to guide them through the process of developing quality environmental documents. The tool is expected to reduce errors and the time needed for reviews and revisions.

The Federal Highway Administration is encouraging strategies like the Arizona DOT’s through the Every Day Counts effort on improving collaboration and quality environmental documentation. The effort includes implementing best practices for developing quality environmental documentation, or IQED, and using FHWA’s eNEPA tool or other electronic documentation and collaboration systems to streamline environmental reviews.

Strategies to implement quality environmental documentation are now a mainstream practice in 11 states and Washington, D.C. Another 16 states are piloting the use of IQED principles on NEPA documents or preparing or full deployment of IQED. Conducting NEPA review processes electronically is a standard practice in four states, while another eight states are demonstrating and assessing eNEPA or another documentation and collaboration system.

Enhancing environmental processes

The Alaska Department of Transportation and Public Facilities is working on an Environmental Procedures Manual that incorporates IQED principles, including developing clear documents that tell the project story, keeping documents concise and ensuring that they meet legal requirements.

At Federal Lands Highway, applying IQED principles on all projects helps keep environmental documentation brief while ensuring legal sufficiency. An environmental assessment document for a project to improve Raphune Hill Road and Route 381 in the U.S. Virgin Islands is 32 pages and incorporates visualizations to help tell the project story.

The Illinois Department of Transportation is collaborating with FHWA to develop templates for environmental assessments and environmental impact statements to help those who produce the documents make Share Best Practices Streamline Environmental Documents and Project Delivery them clear, concise, consistent and legally sound. The Illinois DOT also updated the environmental policy chapters of its Bureau of Design and Environment Manual to include IQED principles and processes.

The Mississippi Department of Transportation is finalizing an Environmental Policy Manual and a local agency training course on transportation project reviews under Section 106 of the National Historic Preservation Act. The Mississippi DOT used State Transportation Innovation Council Incentive program funds to develop the manual and training materials.

New guidance developed by the Ohio Department of Transportation is aimed at improving the quality and streamlining the production of project feasibility studies and alternative evaluation reports. The Ohio DOT will use the guidance to produce reader-friendly documents that ensure efficient decision making. The agency added the guidance document to the topics covered in its project development process training and developed a web-based training class.

The Washington State Department of Transportation uses several tools to improve the quality of environmental documentation, including a reader-friendly environmental toolkit, Environmental Manual, quality assurance framework and library of NEPA document examples. As part of its implementation of the Practical Design concept, the agency is focusing on improving community engagement in project processes, especially during the planning, environmental review and design phases.

Implementation resources

Contact Carolyn Nelson of the FHWA Office of Project Development and Environmental Review for information, technical assistance and training on using IQED principles.

Contact Kreig Larson of the FHWA Office of Project Development and Environmental Review for assistance and training on using the eNEPA tool.

Watch a video on how the eNEPA portal enables collaborative interagency reviews that can help save time and money on and improve the quality of NEPA documents.

Read Preparing High-Quality NEPA Documents for Transportation Projects and Examples of Effective Techniques for Preparing High-Quality NEPA Documents, published by the American Association of State Highway and Transportation.

This article was reprinted with the permission of the FHWA, Center for Accelerating Innovation. To visit the website go to: https://www.fhwa.dot.gov/innovation/
This information is provided expressly for educational purposes. The Western TTAP hopes to inform and educate tribal communities about legislation that may impact California and Nevada tribal communities and their tribal transportation programs. The following legislation was current at the time of publication. Legislation may change or be repealed. For further information, please check the status of the legislation at the respective website sources noted below.

Due to the overwhelming number of pending transportation related bills in the California, Nevada, and Federal Legislatures we have created a downloadable file on the NIJC Website that lists each bill, the sponsor, the status, and a brief summary.

To view and download the file go to: http://www.nijc.org/ttap_legislation.html

STATE LEGISLATION

CALIFORNIA LEGISLATION
(For more information, go to http://www.leginfo.ca.gov/bilinfo.html)

New Laws Report 2010-2016
A list of all bills enacted in a calendar year during the Regular Session of the Legislature. unless otherwise noted. To view the report go to: http://www.leginfo.ca.gov/NewLaws.html

The 2017 session of the California Legislature is scheduled to convene on January 4, 2017.

NEVADA LEGISLATION
(For more information, go to http://www.leg.state.nv.us/Session/)

78th (2015) Session: All Bills that Became Law
To visit the website go to: http://www.leg.state.nv.us/Session/78th2015/Reports/AllBillsThatBecameLaw.cfm


FEDERAL LEGISLATION
(For more information go to: https://www.congress.gov/)

Browse Public Laws 114th Congress (2015-2016) and prior congressional sessions go to: https://www.congress.gov/public-laws/114th-congress

The 114th 2nd session of Congress has finished its work on December 8th and adjourned sine die “without day”.


ANNOUNCEMENTS

California Assembly Bill 1
Transportation Funding

Introduced: Assembly Member Frazier
(Co-authors Assembly Members: Low, Mullin, Santiago). December 5, 2016.

Status: 12/5/16 In Assembly. Read the first time and may be heard in committed on January 5, 2017.

This bill would create the Road Maintenance and Rehabilitation Program to address deferred maintenance on the state highway system and the local street and road system. The bill would require the California Transportation Commission to adopt performance criteria, consistent with a specified asset management plan, to ensure efficient use of certain funds available for the program. The bill would provide for the deposit of various funds for the program in the Road Maintenance and Rehabilitation Account, which the bill would create in the State Transportation Fund, including revenues attributable to a $0.012 per gallon increase in the motor vehicle fuel (gasoline) tax imposed by the bill with an inflation adjustment, as provided, an increase of $38 in the annual vehicle registration fee with an inflation adjustment, as provided, a new $165 annual vehicle registration fee with an inflation adjustment, as provided, applicable to zero-emission motor vehicles, as defined, and certain miscellaneous revenues described in (7) below that are not restricted as to expenditure by Article XIX of the California Constitution.

To view the entire bill go to: http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201720180AB1
Please visit the National Indian Justice Center web site to view more upcoming transportation events. go to: http://www.nijc.org/ttap_calendar.html

JANUARY 2017

January 8-12
96th Transportation Research Board (TRB) Annual Meeting
Walter E. Washington Convention Center
Washington, DC
For more information go to:
http://www.trb.org/Main/Blurbs/171889.aspx

FEBRUARY 2017

February 10-14
Phoenix Convention Center
Phoenix, AZ
For more information go to:
http://expo.atssa.com/

February 14-17
2017 AEMA-ARRA-ISSA Annual Meeting
Westin La Paloma Resort & Spa
Tucson, AZ
For more information go to:
http://www.atssastore.com/

MARCH 2017

March 7-11

2017 CONEXPO-CON/AGG
Las Vegas Convention Center
Las Vegas, NV
For more information go to:
https://registration.expertiseevent.com/ShowCON171/wizard/landing?
promocode=MA3C

March 26-28
Lifesavers National Conference on Highway Safety Priorities
Charlotte Convention Center
Charlotte, NC
For more information go to:
http://lifesaversconference.org/

APRIL 2017

April 4-6
Federal Highway Administration (FHWA), Nevada Department of Transportation (NDOT): Innovative and Effective Partnering Conference
Sparks-Reno Convention Center
Reno, NV
For more information go to:
http://projectteamintegration.com/innovative-effective-partnering/

April 9-13
National Association of County Engineers (NACE) Annual Meeting
Duke Energy Convention Center
Cincinnati, OH
For more information go to:
http://www.countyengineers.org/events/nace17/Pages/NACE17.aspx

April 18-20
FTA 12th Annual Drug and Alcohol Program National Conference
Hilton New Orleans Riverside Hotel
New Orleans, LA
For more information go to:
https://sites.ewu.edu/ntwtap2016/05/16/12th-annual-fta-drug-and-alcohol-program-national-conference-save-the-date/

April 23-25
APWA North American Snow Conference
Iowa Events Center Hy-Vee Hall
Des Moines, IA
For more information go to:
http://www3.apwa.net/snow

April 23-27
2017 Tribal Self-Governance Annual Consultation Conference
Spokane Convention Center
Spokane, WA
For more information go to:
http://www.tribalselfgov.org/events/event/2017-tribal-self-governance-annual-consultation-conference/

MAY 2017

May 8-10
5th International Conference on Roundabouts
Hyatt Regency Green Bay
Green Bay, WI
For more information go to:
http://www.event.com/events/5th-international-conference-on-roundabouts/event-summary-e41055e-aaabe48d9a23511bd919f3e2.aspx

JUNE 2017

No Events Scheduled

JULY 2017

July 10-14
Esri User Conference
AN Diego Convention Center,
San Diego, CA
For more information go to:
http://www.esri.com/events/user-conference?
adumks=branding&aduc=email&adum=conference&utm_Source=email&aduSF=conference&aduca=m17user_conference&adut=207304

July 14-17
12th National Conference on Transportation Asset Management
San Diego, CA
More details coming soon
For more information go to:
http://www.trb.org/Calendar/Blurbs/174677.aspx
TRIBAL TRANSPORTATION PARTNERS DIRECTORY

FEDERAL

Federal Highway Administration
United States Department of Transportation
1200 New Jersey Ave, SE
Washington, DC 20590
http://www.fhwa.dot.gov/index.html

Federal Highway Administration (FHWA) is charged with the broad responsibility of ensuring that America’s roads and highways continue to be the safest and most technologically up-to-date. Although State, local, and tribal governments own most of the Nation’s highways, FHWA provides financial and technical support to them for constructing, improving, and preserving America’s highway system.

Office of Federal Lands Highway
Federal Highway Administration
1200 New Jersey Avenue, SE
Washington, DC 20590
(202) 366-9494
http://flh.fhwa.dot.gov/

The Office of Federal Lands Highway (FLH) provides program stewardship and transportation engineering services for planning, design, construction, and rehabilitation of the highways and bridges that provide access to and through federally owned lands.

The primary purpose of the FLHP is to provide financial resources and technical assistance for a coordinated program of public roads that service the transportation needs of Federal and Indian lands.

Central Federal Lands Highway Division
Federal Highway Administration
12300 West Dakota Ave.
Lakewood, CO 80228
(720) 963-3500
E-mail: cfl.fhwa@dot.gov

The Central Federal Lands Highway Division (CFLHD) operates as part of the Federal Lands Highway Program, serving the needs of all central states. CFLHD actively administers the surveying, designing and constructing of forest highway system roads, parkways and park roads, Indian reservation roads, defense access roads, and other Federal lands roads. CFLHD also provides training, technology, deployment, engineering services, and products to other customers.

Federal Transit Administration
1200 New Jersey Avenue, SE
4th & 5th Floors East Building
Washington, DC 20590
http://www.fta.dot.gov/

FTA Region 9 Offices
Federal Transit Administration
201 Mission Street Suite 1650
San Francisco, CA 94105
(415) 744-3133
http://www.fta.dot.gov/about/region9.html

Federal Transit Administration (FTA) is one of 10 modal administrations within the U.S. Department of Transportation. Headed by an Administrator who is appointed by the President of the United States, FTA administers federal funding to support a variety of locally planned, constructed, and operated public transportation systems throughout the U.S., including buses, subways, light rail, commuter rail, streetcars, monorail, passenger ferry boats, inclined railways, and people movers.

Rural Transit Assistance Program (RTAP)
The mission is to address the needs of rural, small urban and tribal transit operators across the nation.

Union Station Business Center
Ten G Street NE, Suite 710
Washington, DC 20002
Main: 202-248-5043
Fax: 202-289-6539
http://www.nationalrtap.org/

National Local Technical Assistance Program Association (NLTAPA)
A not-for-profit organization representing and serving the 58 LTAP and TTAP Member-Centers in the United States and Puerto Rico. All staff of Member-Centers are entitled to Association services and opportunities to Serve. www.nltapa.org
TRIBAL TRANSPORTATION PARTNERS DIRECTORY

Bureau Of Indian Affairs
There are millions of acres of land held in trust by the United States for American Indians, Indian tribes, and Alaska Natives. There are 566 federal recognized tribal governments in the United States. Developing forestlands, leasing assets on these lands, directing agricultural programs, protecting water and land rights, developing and maintaining infrastructure and economic development are all part of the agency's responsibility. In addition, the Bureau of Indian Affairs provides education services to approximately 48,000 Indian students.

Bureau of Indian Affairs
1849 C Street, N.W.
Washington DC 20240
(202) 208-7163
www.bia.gov

Pacific Regional Office
Bureau of Indian Affairs
2800 Cottage Way
Sacramento, CA 95825
(916) 978-6000

Western Regional Office
Bureau of Indian Affairs
400 N. 5th Street, 2 AZ Center, 12th Floor
Phoenix, AZ 85004
(602) 379-6600

CALIFORNIA

California Department of Transportation
Division of Transportation Planning, Native American Liaison Branch
1120 N Street
Sacramento, CA 95814
(916) 653-3175
http://dot.ca.gov/hq/tpp/offices/ocp/nalb/

The Native American Liaison Branch was created in 1999 in the Department of Transportation to serve as a liaison between the Department, federal, state, local, and regional transportation agencies to establish and maintain government to government working relationships with Tribal Governments throughout California.

California Department of Transportation
Division of Local Assistance
http://www.dot.ca.gov/hq/LocalPrograms/index.htm

California LTAP
3000 State University Drive East, Napa Hall
Sacramento, CA, 95819
Contact: Michelle Gianini
Phone: (916) 278-6174, E-mail: gianinim@csus.edu
Website: http://www.californialtap.org/

NEVADA

Nevada Department of Transportation
1263 South Stewart Street
Carson City, NV 89712
(775) 888-7000
http://www.nevadadot.com

The Nevada Department of Transportation is responsible for the planning, construction, operation and maintenance of the 5,400 miles of highway and over 1,000 bridges which make up the state highway system.

Inter-Tribal Council of Nevada
680 Greenbrae Dr., Suite 280
Sparks, Nevada 89431
Phone: (775) 355-0600 Fax: (775) 355-0648
http://itcn.org/

Nevada Indian Commission
5366 Snyder Avenue
Carson City, NV 89701
(775) 687-8333 Fax: (775) 687-8330
http://www.nic.nv.gov

Nevada LTAP
TMCC Meadowood Campus
5270 Neil Road, Room 302
Reno, NV 89502
Program Director: Randy Bowling
Phone: (775) 829-9045
E-mail: rbowling@tmcc.edu
Program Director: Jim Nichols
Phone: (775) 829-9022
E-mail: jnichols@tmcc.edu
Website: http://www.tmcc.edu/ltap/
TRIBAL TRANSPORTATION RESOURCES

CALIFORNIA

California State Transportation Agency (CalSTA)
A new state agency focused solely on transportation.
To visit the website go to:
http://www.calsta.ca.gov/

California Department of Transportation (Caltrans)
Native American Liaison Branch
http://dot.ca.gov/hq/tpp/offices/ocp/nalb/

California Department of Transportation:
Division of Mass Transportation
http://www.dot.ca.gov/hq/MassTrans/

California Transportation Commission
http://www.catc.ca.gov/

California Bay Delta Authority
http://www.calwater.ca.gov/calfed/Tribal.html

California Environmental Protection Agency
http://www.calepa.ca.gov/

California Rural Transit Assistance Program (RTAP)
California Association for Coordinated Transportation (CalAct) is under contract to Caltrans to implement RTAP in California.

NEVADA

Nevada Department of Transportation (NDOT)
Local Governmental Liaison
http://www.nevadadot.com/

Southern Nevada Regional Transportation Commission
http://www.rtcsouthernnevada.com/

Regional Transportation Commission (RTC) of Washoe County, Nevada.
http://www.rtcwashoe.com/home

FEDERAL

US DOT Federal Highway Administration (FHWA)
http://www.fhwa.dot.gov/

US DOT Federal Transit Administration (FTA)
http://www.fta.dot.gov/

FTA Region 9 Offices
http://www.fta.dot.gov/about/region9.html

Office of Federal Lands Highway &
Central Federal Lands Highway Division
http://flh.fhwa.dot.gov/

Bureau of Indian Affairs
http://www.bia.gov/

US DOT/FHWA Federal Lands Highway
Coordinated Technology Implementation Program (CTIP)
The Federal Lands Highway Coordinated Technology Imple-
mentation Program is a cooperative technology deployment and sharing program between the FHWA Federal Lands Highway office and the Federal land management agencies. It provides a forum for identifying, studying, documenting, and transferring new technology to the transportation community. For more information go to:
http://www.ctiponline.org/

National Transportation Library (NTL)
Follow link: VDOT One Search
http://ntl.bts.gov/exit/vdot.html

ORGANIZATIONS

California Indian Basketweavers Association
http://www.ciba.org/

California Indian Manpower Consortium, Inc.
http://www.cimcin.org/

California Indian Museum & Culture Center
http://www.cimcc.org/

National Indian Justice Center
http://www.nijc.org/

Center for Excellence in Rural Safety
Launched a new interactive Web tool called Safe Road Maps. It was developed by CERS researcher Tom Horan and his team at Claremont University. Visit the CERS home page for links to the releases and to Safe Road Maps: www.ruralsafety.umn.edu

Office of Indian Energy and Economic Development
Tribal Energy and Environmental Information Clearinghouse (TEEIC)
The site includes information about energy resource development and associated environmental impacts and mitigation measures; guidance for conducting site-specific environmental assessments and developing monitoring programs; information about applicable federal laws and regulations; and federal and tribal points of contact.
http://teeic.anl.gov/

National Rural Transit Assistance Program (RTAP)
The program operates today under a cooperative agreement between the Federal Transit Administration and the Neponset Valley Transportation Management Association. Our overarching mission is to address the needs of rural, small urban and tribal transit operators across the nation.
http://www.nationalrtap.org/Home.aspx
TRIBAL TRANSPORTATION RESOURCES

**TRIBALGIS.com**
A technical forum for (and by) Tribal GIS Professionals across the country.
For more information go to: [www.tribalgis.com](http://www.tribalgis.com)

**LTAPP/TTAP Interchange-Podcasts**
An Audio Newsletter
Aims to share news between centers and the LTAPP/TTAP community.
To listen go to the news section at: [http://www.ltap.org/podcasts/](http://www.ltap.org/podcasts/)

**Community Transportation Association of America**
Technical Assistance for Rural and Tribal Communities
For more information go to: [http://web1.ctaa.org/webmodules/webarticles/anmviewer.asp?a=49&z=36](http://web1.ctaa.org/webmodules/webarticles/anmviewer.asp?a=49&z=36)

**National Association of County Engineers**
To visit the website go to: [http://www.countyengineers.org/](http://www.countyengineers.org/)

**Northern California APWA Chapter**
To visit the web site go to: [http://northernca.apwa.net/](http://northernca.apwa.net/)

**ENVIRONMENTAL**

**US Environmental Protection Agency Region 9**

**US EPA American Indian Environmental Office**
[http://www.epa.gov/indian/](http://www.epa.gov/indian/)

**US EPA Online Mapping Tool**
Interactive web-based mapping tool that provides the public with access and information on Environmental Impact Statements (EIS). To visit the website go to: [https://www.epa.gov/ejscreen](https://www.epa.gov/ejscreen)

**US DOT FHWA Roadside Vegetation Management**
A technical resource for the care of the land and vegetation management. 

**US DOT FHWA Livability Initiative**
This webpage is intended to provide information on the FHWA Livability Initiative as well as provide updates on the HUD/DOT/EPA Partnership for Sustainable Communities. To view this website go to: [http://www.fhwa.dot.gov/livability/index.cfm](http://www.fhwa.dot.gov/livability/index.cfm)

**General Climate Change Information**
Arnold & Porter Climate Change Litigation Summary Chart

**ENVIROMENT AND CLIMATE CHANGE**

**US EPA**
State and Local Government Climate Change Actions

**National Highway Traffic Safety Administration (NHTSA)**
Final Environmental Impact Statement Corporate Average Fuel Economy Standards, Passenger cars and Light Trucks, Model Years 2012-2016.
To view the document go to: [http://www.nhtsa.gov/Laws+&+Regulations/CAFE+-+Fuel+Economy/Final+EIS+for+CAFE+Passenger+Cars+and+Light+Trucks,+Model+Years+2012-2016](http://www.nhtsa.gov/Laws&Regulations/CAFE+-+Fuel+Economy/Final+EIS+for+CAFE+Passenger+Cars+and+Light+Trucks,+Model+Years+2012-2016)

**FHWA—Travel Modeling**
Using GIS in Planning and Environment Linkages (PEL) go to: [http://gis.fhwa.dot.gov](http://gis.fhwa.dot.gov)

**California Climate Change Portal**
[http://www.climatechange.ca.gov/state/index.html](http://www.climatechange.ca.gov/state/index.html)

**Multicultural Environmental Leadership Development Initiative (MELDI)**
University of Michigan
Staff conduct research on environmental workforce dynamics and provides resources to help enhance the leadership and career development opportunities available to students, activists and environmental professionals.
For more information go to: [http://www.snre.umich.edu/research/centers_and_institutes/MELDI](http://www.snre.umich.edu/research/centers_and_institutes/MELDI)

**California Research Bureau**
Environment, Growth Management, and Transportation Supplement
For more information and links go to: [http://www.library.ca.gov/sitn/crb/docs/20090504.pdf](http://www.library.ca.gov/sitn/crb/docs/20090504.pdf)

**AASHTO—Center for Environmental Excellence**
The new web page offers background and an overview of GIS technology and its importance for environmental applications in transportation.
For more information go to: [http://environment.transportation.org/environmental_issues/gis/](http://environment.transportation.org/environmental_issues/gis/)

**FHWA—Central Federal Lands Highway Division**
Promoting Geosynthetics Use on Federal Lands Highway Projects
To view the study go to: [https://flh.fhwa.dot.gov/innovation/td/geotech/promogeoflhp/documents/01_promoting_geosynthetics_use_entire_document.pdf](https://flh.fhwa.dot.gov/innovation/td/geotech/promogeoflhp/documents/01_promoting_geosynthetics_use_entire_document.pdf)
TRIBAL TRANSPORTATION RESOURCES

RESOURCES (Continued)

SAFETY RESOURCES

Tribal Road Safety Audits: Case Studies
Sponsored by FHWA (Office of Safety and Office of Federal Lands)
Road Safety Audits (RSAs) are an effective tool for proactively improving the future safety performance of a road project during the planning and design stages, and for identifying safety issues in existing transportation facilities.
For additional information and resources on RSA’s go to:
http://safety.fhwa.dot.gov rsa/

Arizona Department of Transportation
By Esther Corbett & Robert Mickelson at the Intertribal Council of Arizona, Inc.
592 Building Tribal Traffic Safety Capacity
And,
592 Tribal Traffic Safety Funding Guide
http://azmemory.azlibrary.gov/cdm/ref/collection/statepubs/id/7181

National Highway Traffic Safety Administration (NHTSA)
Fatality Analysis Reporting System (FARS)
FARS Native American Traffic Safety Facts

National Institute for Occupational Safety and Health (NIOSH)
Construction Equipment Visibility
http://www.cdc.gov/niosh/topics/highwayworkzones/BAD/

Interactive Highway Safety Design Model – 2016 Release
Includes a Beta version of crash prediction capabilities for freeway ramps/interchanges (including ramps, C-D roads and ramp terminals based on draft HSM Par C material developed under NCHRP Project 1-45. Available for free downloading at: https://www.fhwa.dot.gov/research/tfhrc/projects/safety/comprehensive/ihsdm/

Work Zone Law Enforcement
Safe and Effective Use of Law Enforcement in Work Zones
For more information go to

FHWA Office of Safety

Local and Rural Road Safety Program
The FHWA Local and Rural Safety Program provides national leadership in identifying, developing, and delivering safety programs and products to local and officials and governments to improve highway safety on local and rural roads.

To visit the site go to:
http://safety.fhwa.dot.gov/local_rural/

Improving Safety on Rural Local and Tribal Roads — Safety Toolkit
The Safety Toolkit provides a step-by-step process to assist local agency and Tribal practitioners in completing traffic safety analyses, identify safety issues
To view the toolkit go to:
Site Safety Analysis – User Guide #1
Network Safety Analysis – User Guide #2
http://safety.fhwa.dot.gov/local_rural/training/fhwasa14074/isrltr2.pdf

Safety Circuit Rider Programs-Best Practices Guide
This guide is intended to provide state DOT and LTAP/TTAP centers with an easy-to-use resources for implementing or enhancing a Safety Circuit Rider (SCR) program.
Available on-line at:
http://safety.fhwa.dot.gov/local_rural/training/fhwasa09019/

Nighttime Visibility Policy/Guidance
http://safety.fhwa.dot.gov/roadway_dept/night_visib/

Sign Visibility: Training, Technical Guidance, & Research
go to:
http://safety.fhwa.dot.gov/roadway_dept/night_visib/sign_visib/

Maintenance of Drainage Features for Safety
A guide for local street and highway maintenance personnel
To view the guide go to:
http://safety.fhwa.dot.gov/local_rural/training/fhwasa09024/

Intersection Safety Resources
To visit the web page go to:
http://safety.fhwa.dot.gov/intersection/resources/

Work Zone Mobility and Safety Program
Work Zone Training Compendium
The U.S. Federal Highway Administration has released a compendium of information on available work zone training and guides.
To view the training program go to:
http://www.ops.fhwa.dot.gov/wz/outreach/wz_training/index.htm

Roundabouts
Roundabouts are circular intersections. Roundabouts reduce traffic conflicts (for example, left turns) that are frequent causes of crashes at traditional intersections. Unlike a traffic circle or a rotary, a roundabout's incoming traffic yields to the circulating traffic.
For more information visit the website at:
http://safety.fhwa.dot.gov/intersection/roundabouts/
TRIBAL TRANSPORTATION RESOURCES

Roundabout Outreach and Education Toolbox
This Toolbox is designed to be a highly useable, online reference that connects transportation professionals with outreach resources from across the country to help them obtain public support for roundabouts.
To utilize the toolbox go to:
http://safety.fhwa.dot.gov/intersection/roundabouts/roundabouttoolbox/

Roadway Worker Safety Website
The U.S. Federal Highway Administration’s Office of Operations has launched a new page on its Work Zone Safety website designed to be a central source of data and links to information and technical resources on roadway worker safety.
To visit the website go to:
http://www.ops.fhwa.dot.gov/wz/workersafety/index.htm

Training, Tools, Guidance and Countermeasures for Locals
Local and Rural team is continuously looking for new ways to meet the needs of local and rural road owners and operators. Insuring that tools meet the needs of the users and that they have the resources and training they need to effectively use the tools is a critical part of the solution.
To visit the web site go to:
http://safety.fhwa.dot.gov/local_rural/training/

Local & Rural Road (LRR) Safety Peer-to-Peer (P2P) Program
Open to public highway agencies seeking to adequately address safety problems on their local and rural road network.
To visit the website go to:
http://safety.fhwa.dot.gov/local_rural/training/p2p/

Proven Safety Countermeasures
New website from the Office of Safety
To visit the website go to:
http://safety.fhwa.dot.gov/provencountermeasures/

Resources: Crash Modification Factors in Practice
To visit the website go to:

Roadway Safety Noteworthy Practices Database
To visit the website go to:
http://rspecb.safety.fhwa.dot.gov/noteworthy/

Horizontal Curve Safety
A focus on horizontal curves can prove to be a cost effective approach to reducing roadway departure crashes.
To visit the website go to:
http://safety.fhwa.dot.gov/roadway_dept/horicurves/

Unsignalized Intersection Safety Strategies
To view the guide go to:

Pedestrian Safety Guide and Countermeasure Selection System (Pedsafe)
An online toolbox that communities can use to improve pedestrian safety in their area.
To visit the website go to:
http://www.pedbikesafe.org/PEDSAFE/index.cfm

The National Work Zone Safety Information Clearinghouse
Work Zone Safety and Flagger Tutorial
The purpose of this tutorial is to provide the fundamentals of work zone safety and to explain the concepts of flagging in a work zone. It is not intended to replace comprehensive instruction of the topic.
To view the tutorial go to:
https://www.workzonesafety.org/training/work-zone-safety-and-flagging-tutorial/

The National Work Zone Safety Information Clearinghouse is dedicated to providing the transportation construction industry and the general public with comprehensive information to improve motorist, worker and pedestrian safety in roadway work zones.
Now a new international section in six languages.
For more information go to:
http://www.workzonesafety.org/

The National Work Zone Safety Information Clearinghouse held Traffic Management & Work Zone Safety Power Workshop at International Bridge Conference. The workshop was packed with timely information related to night work, federal regulations, worker protection and the latest strategies in temporary traffic control.
To view the workshop go to:
http://www.workzonesafety.org/news_events/wz_conferences/power_workshop2010_PA

3M Roadway Safety
Guidance for Improving Roadway Safety: Understanding Minimum Reflectivity Standards go to:
http://solutions.3m.com/wps/portal/3M/en_US/NA_roadway/safety/safetyinitiatives/minimumretroreflectivity/

Federal Transit Administration
Transit Bus Safety Online resources and tools, designed to help rural and small urban transit bus providers develop and strengthen their programs.
To access the website go to:

Utah DOT and the Utah Highway Safety Office
Zero Fatalities
To visit the website go to:
http://ut.zerofatalities.com/

Crash Modifications Clearinghouse (CFM)
The CMF Clearinghouse is funded by the U.S. DOT-FHWA and maintained by the University of North Carolina Highway Safety Research Center. A CMF is an estimate of the
SAFETY RESOURCES (Continued)

change in crashes expected after implementation of a countermeasure.
To visit the website go to:
http://www.cmfclearinghouse.org/

Impact Teen Driver
Impact Teen Drivers was organized for the purpose of providing awareness and education to teenagers, their parents, and community members about all facets of responsible driving, with the goal of reducing the number of injuries and deaths suffered by teen drivers as a result of distracted driving and poor decision making.
To view the website go to:
http://www.impactteendrivers.org/

Road Safety Foundation
To visit the web site go to:
http://www.roadwaysafety.org/about-us/

Center For Disease Control (CDC)
Native American Road Safety
To visit the web site go to:
http://www.cdc.gov/Motorvehiclesafety/native/index.html

Distraction.gov
The official U.S. Government website for distracted driving.
To visit the website go to:
http://www.distraction.gov/index.html

Safety Edge Resources
The Ohio LTAP Center is committed to providing our local roadway agencies the necessary information for implementing the Safety Edge on their paving projects across our state.
To visit the website go to:
http://www.dot.state.oh.us/Divisions/Planning/LTAP/Pages/SafetyEdge.aspx

Safe Routes to School Local Policy Guide
An additional effort to bring public health considerations into the development of transportation policies and practices. To view the guide go to:

The California Safe Routes to School Technical Assistance Resource Center (TARC)
Assists local communities with creating Safe Routes to School (SRTS) programs by providing trainings, technical assistance, and resources to implement safe and successful SRTS strategies throughout California. To visit the website go to:
http://www.casaferoutestoschool.org/

Department of Labor-OSHA
OSHA Construction Focus Four Hazards Training materials
For more information go to:
http://www.osha.gov/dte/outreach/construction/focus_four/index.html

LTAP/TTAP Safety Toolkit
To visit the website go to:
http://www.ltap.org/resources/safety/

University of Minnesota Center for Transportation Studies
"Distraction Dodger” Game
Distraction Dodger is an online game designed to help teens and young adults understand the importance of concentrating on driving.
To view the game go to:
http://www.its.umn.edu/DistractionDodger/

National Highway Traffic Safety Administration (NHTSA)
Emergency Medical Services
To reduce death and disability by providing leadership and coordination to the EMS community in assessing, planning, developing, and promoting comprehensive, evidence-based emergency medical services and 9-1-1 systems.
To visit the website go to:
http://www.ems.gov/

Everyone is a Pedestrian
A one-stop shop website safety tips and resources for local leaders, city planners, parents and others involved in improving pedestrian safety.
To visit the website go to:

Federal Government
Data.gov - Empowering People
Data.gov increases the ability of the public to easily find, download, and use datasets that are generated and held by the Federal Government.
To visit the website go to:
http://www.data.gov/

High Friction Roads
The Transtec Group is a pavement engineering firm
Surface Enhancements At Horizontal Curves (SEAHC)
To visit the website go to:
http://www.highfrictionroads.com/

National Highway Traffic Safety Administration (NHTSA)
Native American Data available in FARS
Native American fatalities, Native American fatalities on Tribal reservations, and all fatalities on Tribal reservations from 2007-2011
To visit the website go to:
http://www.nrd.nhtsa.dot.gov/departments/nrd-30/ncsa/STS/USA_WEB_REPORT.HTM

California Department of Public health
WalkSmartCA is part of the It's Up to All of Us public education campaign, which is designed to educate both pedestrians
TRIBAL TRANSPORTATION RESOURCES

and drivers on what steps they can take to keep our streets safe. To visit the website go to:
http://www.cdph.ca.gov/HealthInfo/injuriosaf/Pages/WalkSmartCA.aspx

California Pedestrian Safety (PedSafe) Program
PedSafe aims to create environments where these activities can happen safely by implementing a multi-faceted approach of education, media outreach and messaging, technical assistance, and training and facilitation. To visit the website go to:
http://www.cdph.ca.gov/programs/SACB/Pages/ItsUp2Us.aspx

Centers for Disease Control and Prevention (CDC)
CDC’s WISQARSTM (Web-based Injury Statistics Query and Reporting System) CDC’s WISQARSTM (Web-based Injury Statistics Query and Reporting System) To visit the website go to:
http://www.cdc.gov/injury/wisqars/

National Road Safety Foundation (NRSF)
To visit the website go to:
http://www.nrsf.org/

Animated Traffic Law
Visualizing traffic law To visit the website go to:
http://animatedtrafficlawnatlctc/a

Teens In The Drivers Seat
Texas A&M Transportation Institute To visit the website go to:
http://www.t-driver.com/

Tribal Transportation Safety
To visit the website go to:
http://www.tribalsafety.org/

California Department of Transportation (Caltrans)
Caltrans has begun the process of creating the State’s first Bicycle and Pedestrian Plan. They are seeking feedback and will be conducting public outreach over the next year. Caltrans has posted a public survey to provide input on their website here: www.cabikepedplan.org.

National Center for Rural Road Safety
The center was created to identify the most effective current and emerging road safety improvements and deploy them on rural roads. To visit the center’s website go to:
http://ruralsafetycenter.org/

Indian Health Service (IHS) Injury Prevention Program
To visit the website go to:
https://www.ihs.gov/InjuryPrevention/

National Aging and Disability Transportation Center
To visit the website go to:
http://www.nadtc.org/

University of Minnesota-Road Safety Institute (RSI)
To visit the website go to:
http://www.roadwaysafety.umn.edu/

UC Berkeley-Transportation Injury Mapping System
To visit the website go to:
https://tims.berkeley.edu/

Centers for Disease Control and Prevention (CDC)
Roadway to Safer Tribal Communities. Toolkit To view the toolkit go to:
https://www.cdc.gov/motorvehiclesafety/native/toolkit.html

Institute of Transportation Engineers (ITE)
Unsignalized Intersection Improvement Guide To visit the website go to:
http://www.ite.org/urig/

BIA-Tribal Leaders Directory
Provides contact information for each federally recognized tribe. The electronic, map based, interactive directory also provides information about each BIA region and agency that provides services to a specific tribe. Additionally, the directory provides contact information for Indian Affairs leadership. For more information go to:
http://www.indianaffairs.gov/WhoWeAre/BIA/OIS/TribalGovernmentServices/TribalDirectory/index.htm

California Office of the Tribal Advisor
Responsible for overseeing and implementing effective government-to-government consultation between the Governor’s Administration and California Tribes on policies that affect California tribal communities. To visit the website go to:
http://tribalgovtaffairs.ca.gov

TRB Committee on Native American Transportation Issues
TRB has provided links to examples of federal, state and non-governmental organization online resources related to tribal consultation policies and guidelines. To view the resources go to:
http://sites.google.com/site/trbcommitteeabe80/WELCOME/links

FHWA-Tribal Transportation Planning
Delivers products and services that provide information, training, and technical assistance to the transportation professionals responsible for planning for the capital, oper
TRIBAL TRANSPORTATION RESOURCES

CONSULTATION (Continued)

FHWA-Transportation Planning Capacity Building (TPCB) Tribal Planning Resources
Offers transportation planning professionals legislative, regulatory, and general guidance; technical resources; and relevant links related to Tribal planning issues.
To visit the website go to:
http://www.planning.dot.gov/focus_tribal.asp

FHWA-Tribal Transportation Self-governance Program (TTSGP)
As required by Section 1121 of the Fixing America’s Surface Transportation (FAST) Act, the Secretary shall, pursuant to a negotiated rulemaking process, develop a Notice of Proposed Rulemaking (NPRM) that contains the regulations required to carry the TTSGP. For more information go to:
https://flh.fhwa.dot.gov/programs/tp/tpsg/

Washington State Department of Transportation-Washington Indian Transportation Policy Advisory Committee
Tribal Consultation Best Practices Guide for Metropolitan and Regional Transportation Planning Organizations in Washington State. This guide was developed to help Tribes, MPOs and RTPOs who may not be familiar with one another’s purpose or planning processes to work together. It draws from best practices currently utilized across the state. To view the guide go to:

MORE TRANSPORTATION RESOURCES

U.S. DOT
U.S. Research and Innovative Technology Administration (RITA)
Research Program and Project Management Website
To visit the website go to:
http://www.rita.dot.gov/

U.S. DOT
U.S. Research and Innovative Technology Administration (RITA)
ITS ePrimer
Provides transportation professionals with fundamental concepts and practices related to ITS technologies.
To visit the website go to:
http://www.pcb.its.dot.gov/ePrimer.aspx

U.S. DOT
Transportation and Health Tool
A searchable database of the latest U.S.DOT-sponsored research, development and technology projects
To visit the website go to:
http://ntlsearch.bts.gov/researchhub/index.do

U.S. DOT
Transportation, Health and Technology
Developed by the U.S. DOT and the Centers for Disease Control and Prevention to provide easy access to data that practitioners can use to examine the health impacts of transportation systems.
To visit the website go to:
https://www.transportation.gov/transportation-health-tool

FHWA-National Highway Specifications
For more information go to:
http://www.fhwa.dot.gov/construction/

FHWA Resource Center Planning Team
The Planning Technical Service Team at the Federal Highway Administration (FHWA) Resource Center helps support the planning process through the provision of training, technical assistance, technology deployment, and partnerships.
For more information go to:
http://www.fhwa.dot.gov/resourcecenter/teams/planning/

FHWA Federal-Aid Program Administration
The guide is intended to provide basic information for FHWA and State personnel involved in the administration of the Federal-Aid Highway Program. It is not intended to be an eligibility guide, but contains basic descriptions and historical information on active and inactive programs. This guide should be of interest to FHWA, State highway agencies, local governments, and private sector personnel interested in a basic understanding of Federal-Aid programs, projects, or other program characteristics. In addition to basic information, sources of additional information are provided.
For more information go to:
http://www.fhwa.dot.gov/federalaid/

FHWA Soil Nail Analysis Program (SNAP) & Users Manual– Geotechnical.
FHWA-CFL/TD-10-004
A program for designing soil nail earth retaining structures.
TRIBAL TRANSPORTATION RESOURCES

including both the nail and wall-facing elements of the structure.
To download the program go to:

FHWA-Bureau of Indian Affairs (BIA)
Indian Reservation Roads Program: Stewardship Plan
To view the plan go to:
http://www.ewu.edu/Documents/CBPA/NWTTAP/StewardshipPlan.pdf

FHWA In Cooperation with the Federal Transit Administration (FTA)
Planning for Transportation in Rural Areas
To view the guide go to:
http://www.ewu.edu/Documents/CBPA/NWTTAP/RuralGuidebookfinal_7_10_01.pdf

FHWA Office of Planning, Environment, & Realty (HEP)
Livable Communities
To visit the website go to:
http://www.fhwa.dot.gov/livability/

FHWA The Federal-aid Highway Program Policy & Guidance Center
The PGC provides a central location of laws, policies, and guidance about the Federal-Aid Highway Program (FAHP)
To visit the website go to:
http://www.fhwa.dot.gov/pgc/

FHWA INVEST (Infrastructure Voluntary Evaluation Sustainability Tool) was developed by FHWA as a practical, web-based, collection of voluntary best practices, called criteria, designed to help transportation agencies integrate sustainability into their programs (policies, processes, procedures and practices) and projects.
To visit the website go to:
https://www.sustainablehighways.org/

FHWA Tribal Transportation Planning
To visit the website go to:
http://www.fhwa.dot.gov/planning/processes/tribal/

FHWA Federal-aid Essentials for Local Public Agencies
To visit the homepage go to:
http://www.fhwa.dot.gov/federal-aidessentials/

Federal-aid Program Overview. 24 videos.
http://www.fhwa.dot.gov/federal-aidessentials/catmod.cfm?category=overview

Civil Rights: Title VI/Nondiscrimination  17 videos

Finance: Administrative Requirements  9 videos

Environment: NEPA Regulatory Framework and Process 17 videos

Right-Of-Way 6 videos

Project Development: Required Approvals  19 videos
http://www.fhwa.dot.gov/federal-aidessentials/catmod.cfm?category=develop

Project Construction and Contract Administration: Safety and Operations 15 Videos

FHWA Asset Management
The mission of the Asset Management team is to provide leadership and expertise in the systematic management of highway infrastructure assets.
To visit the website go to:
http://www.fhwa.dot.gov/asset/about.cfm

FHWA National Transportation Atlas Database (NTAD) 2015 DVD.
To download the DVD go to:

FHWA-Federal Lands Highway (FLH)
Strategic Transportation Safety Plan Toolkit for Tribal Governments
To visit the web site go to:

FTA National Transit Data Base
To visit the website go to:
https://www.transit.dot.gov/ntd

FTA Transit Asset Management Guide
Updated 2016
To view the guide go to:

FTA National Resources & Technical Assistance For Transit-Oriented Development (TOD)
The TOD Technical Assistance Initiative is a project of the
MORE TRANSPORTATION RESOURCES (Continued)

Federal Transit Administration administered by Smart Growth America that provides on-the-ground and online technical assistance to support transit-oriented development, improve access to public transportation, and build new economic opportunities and pathways to employment for local communities. For more information go to: https://todresources.org/

Strategic Highway Research Program (SHRP 2)
Non-Destructive Testing (NDT) Toolbox
Web-Based electronic repository now available. To visit the site go to: http://shrp2.transportation.org/Documents/SHRP2_R06A_Renewal_Toolbox_Resource.pdf

Rural Transit Assistance Program (RTAP)
National RTAP proudly serves tribal communities residing in rural areas. Tribes are encouraged to access all of the National RTAP best practices, reports, training videos, workbooks, surveys and direct one-on-one technical assistance through our resource center. To visit the center go to: http://www.nationalrtap.org/Tribal-Transit

Victoria Transportation Policy Institute
Transportation Cost and Benefit Analysis
A guidebook for quantifying the full costs and benefits of different transportation modes. A comprehensive study of transportation benefit and costing research, and a guidebook for applying this information in planning and policy analysis. To view the guide book go to: http://www.vtpi.org/tca/

Partnership for Mobility Management
The Partnership for Mobility Management is a joint effort of technical assistance partners that work with local, state and regional leaders and organizations to realize the possibilities of improving transportation options for all Americans wherever they live and to assist those especially in need of alternative transportation options. For more information visit the website at: http://web1.ctaa.org/webmodules/webarticles/anmviewer.asp?a=2620

Research and Innovative Technology Administration (RITA): University Transportation Centers
The Research and Innovative Technology Administration (RITA) coordinates the U.S. T project with advancing the deployment of cross-cutting technologies to improve our Nation’s transportation system. Within the Office of RD&T, the University Transportation Centers (UTC) program funds transportation research at 136 colleges and universities and provides the education and training needed to advance the nation's transportation system. To view the UTC website go to: http://www.rita.dot.gov/utc/

Montana State University, Western Transportation Institute, (WTI)
The country’s largest National UTC focused on rural transportation issues. Because we live and work in rural communities, we understand the critical roles rural transportation plays in the lives of people, in the environment and in the economy. To visit the website go to: http://www.wti.montana.edu/

ArcGIS Online—Map Services
ArcGIS Online base maps published and hosted by Esri are now freely available to all users regardless of commercial, noncommercial, internal, or external use. This means that you no longer have to pay a subscription fee for including ArcGIS Online base maps in your commercial-use web applications. Base maps included in this new business model are World Imagery Map, World Street Map, World Topographic Map, USA Topographic Maps, and DeLorme World Base map. To visit the website go to: http://www.esri.com/

Go! Exploring the World of Transportation
A dynamic online magazine for teens ages 13–19 on careers in transportation. Published by the Institute for Transportation, Iowa State University. To visit the web site go to: http://www.go-explore-trans.org/

Rural Transit Assistance Program (RTAP)-Procurement Pro
Designed to give Indian tribes, non-profit organizations, municipalities and transportation agencies the appropriate federal clauses and certifications regarding federal procurement requirements and processes when utilizing federal funds. To visit the website go to: http://webbuilder.nationalrtap.org/WebApps/ProcurementPRO.aspx

Bicyclinginfo.org
Pedestrian and Bicycle Information Center
Provides resources and information to promote bike to work events and bike commuting. To visit the website go to: http://www.bicyclinginfo.org/index.cfm

Traffic Sign Retroreflectivity Maintenance Program
This resource publication/package was developed to assist Ohio local agencies in their efforts to meet the national January 2012 compliance date for implementing a program that can regularly address the new sign Retroreflectivity maintenance requirements. To download the program go to: http://www.dot.state.oh.us/Divisions/Planning/LocalPrograms/LTAP/Pages/ImplementingATrafficSignRetroreflectivityMaintenanceProgram.aspx

Indian Land Tenure Foundation (ILTF)
TRIBAL TRANSPORTATION RESOURCES

A national, community–based organization focused on American Indian land recovery and management. To visit the website go to:
http://www.iltf.org/

**Coordinated Technology Implementation Program (CTIP)**
Roadside Revegitation Portal- An Integrated Approach to Establishing Native Plants
To visit the website go to:
http://www.nativerevegetation.org/

**Interactive Map for Supplemental Transportation Programs**
Beverly Foundation's Interactive Map of 1038 Supplemental Transportation Programs (STP), community-based organizations providing transportation.
To visit the website go to:
http://beverlyfoundation.org/map-of-stps-in-america/

**One Call - One Click Transportation Services Toolkit**
Community Transportation Association of America (CTTA) Provides information for communities interested in working together-whether locally, regionally or statewide-to develop a one-call or one-click service for transportation.
To visit the website go to:

**ASHTO Systems Operations & Management Guidance**
An online tool that uses self-evaluation and best practice experience that managers can use to identify key program, process and institutional preconditions to achieve more effective SO&M.
To visit the website go to:

**Small Urban and Rural Transit Center (SURTC)**
The purpose is to increase the mobility of small urban and rural residents through improved public transportation.
To visit the site go to:
http://www.surtc.org/

**Transportation for Communities - Advancing Projects Through Partnerships (TCAPP)**
The CAPP website provides a systematic approach for reaching collaborative decisions about adding highway capacity that enhance the environment, the economy, and the community and improve transportation.
To visit the website go to:
http://transportationforcommunities.com/

**CalTrans Earth**
GIS interface as a resource for public use.
To visit the website go to:
http://earth.dot.ca.gov/

**California Department of Public Health (CDPH)**
California Environmental Health Tracking Program (CEHTP) To visit the website go to:
http://www.ehib.org/project.jsp?project_key=EHSS01

**National Transportation Consortium (NTC)**
The NTC is a non-profit corporation created for one purpose: provide tribal governments and their enterprises a better method for buying buses and transportation services.
To visit the website go to:
http://www.nativetransit.org/

**National Center for Mobility Management**
Focuses on transportation’s many customer groups: current and potential riders; employers, economic development groups, and local business associations; human service agencies and their clients; taxpayers and other funders; and local governments.
To visit the website go to:
http://nationalcenterformobilitymanagement.org/

**American Road and Transportation Builders Association (ARTBA)**
Transportation Investment Advocacy Center (TIAC)
The program is aimed at helping private citizens, legislators, organizations and businesses successfully grow transportation infrastructure resources at the state and local levels through the legislative and ballot initiative processes.
To visit the website go to:
http://www.transportationinvestment.org/

**Ready Indian Country**
The goal of Ready Indian Country is to collaborate with tribal governments to build emergency management capability and partnerships to ensure continued survival of Tribal nations and communities.
To visit the website go to:
http://www.ready.gov/make-a-plan/indian-country

**CalACT**
California Association for Coordinated Transportation is a statewide, non-profit organization that has represented the interests of small, rural, and specialized transportation providers since 1984.
To visit the website go to:
http://www.calact.org/home

**California Department of Transportation (Caltrans)**
California Transportation Plan (CTP) 2040 website CTP provides a long-range policy framework to meet our future mobility needs and reduce greenhouse gas emissions.
To visit the website go to:
http://www.dot.ca.gov/hq/tpp/californiatransportationplan2040/index.shtml

**California Transportation Commission**
California Road Charge Technical Advisory Committee and Pilot Program
The California Road Charge Technical Advisory Committee was established in 2014 by Senate Bill 1077 (Chapter 835, Statutes of 2014). SB 1077 created the California Road Us
MORE TRANSPORTATION RESOURCES (Continued)

age Charge Pilot Program and tasked the Chair of the Commis-
sion, in consultation with the California State Transportation
Agency (CalSTA) to convene a fifteen member Technical Advi-
sory Committee (TAC) to study road usage charge alternatives
to the gas tax, gather public comment, and make recommenda-
tions to CalSTA regarding the design of a road usage charge
pilot program.

To visit the website go to:
http://www.ctca.ca.gov/meetings/Committees/Road_Charge

Community Transportation Association of America (CTAA)
FedCentral
The site offers news and analysis of Congressional hearings,
regulatory news, important resources and more
To visit the website go to:
http://web1.ctaa.org/webmodules/webarticles/
anmviewer.asp?a=2923&z=37

TripSpark
TripSpark makes this possible by linking the latest technolo-
gies with a dedicated focus to help you grow your operation and
meet evolving community transit needs.
To visit the website go to:
http://www.tripspark.com/

National Aging and Disability Transportation Center (NADTC)
The goal is to promote the availability and accessibility of trans-
portation options for older adults, people with disabilities and
caregivers.
To visit the website go to:
http://www.nadtc.org/

National Cooperative Highway Research Program (NCHRP)
TRB Straight to Recording for All: Framework for a Pavement
Maintenance Database System
To view the video go to:

WEBSITE APPLICATIONS—APPS

Heat Safety Tool App
U.S. Department of Labor (DOL), Occupational Safety and
Health Administration (OSHA)
The App allows workers and supervisors to calculate the heat
index for their worksite.
To download the app go to:
https://www.osha.gov/SLTC/heatillness/heat_index/
heat_app.html

Transportation Construction Advocate App
American Road & Transportation Builders Association (ARTBA)
Available for both Android and Apple devices.

To download the app go to:
Google Play or iTunes.

Asphalt Calculator+ App
This iPhone/iPod Touch app will calculate the amount of cu-
ubic yards needed for a given job. It will also calculate hot mix
tonnage. Polyclef Software.
To download the app go to:
Google Play or iTunes.

Life Saver Apps
Distracted driving for parents and students.
Android and IPhone.
To visit the website go to:
http://lifesaver-app.com/

TC3 Free Mobile App
TC3 is an AASHTO technical service program focused on the
web-based training of front-line workers in the areas of con-
struction, maintenance, and materials.
Download the app today at:
http://tc3app.com/install/

B4UFLY App
Federal Aviation Administration
Helps unmanned aircraft operators determine whether there
are any restrictions or requirements in effect at the location
where they want to fly.
For more information go to:
http://www.faa.gov/uas/b4ufly/

# Hands Off App
A project developed by the Milt Olin Foundation to raise
awareness about the dangers of distracted driving. Users com-
mit to safe driving by downloading #HandsOff and taking the
#HandsOff pledge, then sharing their video pledge with
friends. Download the app from iTunes or Google Play.
For more information go to:
http://miltolinfoundation.org/

Pocket Guide to Transportation App
The 50th anniversary of the U.S. Department of Transporta-
tion, Bureau of Transportation Statistics (BTS) is introducing
its most innovative product yet – a smartphone app for the
Pocket Guide to Transportation.
For more information go to:
https://www.transportation.gov/fastlane/introducing-pocket-
guide-transportation-app
TRIBAL TRANSPORTATION RESOURCES

TRANSPORTATION PROGRAMS AND DEVELOPMENT

FHWA Resource Center
The Mission to advance transportation technologies and solutions through training, technical assistance, technology deployment, and partnerships.
For more information go to:
http://www.fhwa.dot.gov/resourcecenter/

The FHWA has developed an extensive list of resources that focus specifically on the latest culvert technology. To view this list go to:

Pavement Construction and Safety Training on Demand
New free Web-based courses sponsored by the Federal Highway Administration (FHWA)
To view the courses go to:
http://www.fhwa.dot.gov/publications/focus/13jul/13jul02.cfm

National Transit Institute (NTI)
Rutgers, The State University of New Jersey, The mission of the National Transit Institute is to provide training, education, and clearinghouse services in support of public transportation and quality of life in the United States.
To visit the website go to:
http://www.ntionline.com/

National Highway Institute (NHI)
Free web-based training:

  • NEW. Culvert Hydraulic Analysis and Design Program (HY-8) (WBT) 135094.
  • Introduction to FRP Materials and Applications for Concrete course 130105A.

The following updated training is available.

  • National Traffic Incident Management Responder Training course 133126.
  • 30093W Introduction to Earthquake Engineering is a web based prerequisite to 130093A Displacement-Based LRFD Seismic Analysis and Design of Bridges
  • 132010A entitled "Earthquake Engineering Fundamentals" is a Web-based prerequisite to 132094A and
  • 2094B. Participants will generally be notified to take the WBT course about 1 month before the following two sessions.
  • 132094A entitled "LRFD Seismic Analysis and Design of Geotechnical Features".

  • 132094B entitled "LRFD Seismic Analysis and Design of Structural Foundations and Earth Retaining Structures".

2016 New and Updated Instructor-led Courses
To view the course details go to:

Federal Emergency Management Agency (FEMA)
Emergency Management Institute Tribal Curriculum
To collaborate with tribal governments to build emergency management capability and partnerships to ensure continued survival of Tribal nations and communities.
To view the course go to:
https://training.fema.gov/tribal/

FHWA Wildlife Vehicle Collision Reduction Study Training Course
A national study was conducted on the causes and impacts of wildlife vehicle collisions (WVCs). This study also provides recommendations and solutions for reducing these collisions.
To view the course go to:
www.environment.fhwa.dot.gov/WVCtraining/index.asp

National Cooperative Highway Research Program (NCHRP)
Report 667
Model Curriculum for Highway Safety Core Competencies presents course materials, including the instructor’s guide and student workbook, for a fundamental highway safety training course. The course is designed to address the core competencies highway safety practitioners should have or acquire. An accompanying CD-ROM includes a brochure and short Microsoft PowerPoint presentation for marketing the training course.
To view the report go to:

Paul S. Sarbanes Transit in Parks Technical Assistance Center (TRIPTAC)
The TRIPTAC is available to all Federal Land Management Agencies (FLMAs), not only those applying for or receiving funds from the Transit in Parks program. State, local or tribal governments who are working in collaboration with an FLM to expand public lands access are also welcome to use TRIPTAC services to obtain alternative transportation information and assistance.
To view available training courses go to:
http://www.triptac.org/

University of California, Berkeley, Institute of Transportation Studies
Technology Transfer Program
To visit the website go to:
http://www.techtransfer.berkeley.edu/

University of California, Berkeley, Safe Transportation Research and Education Center (SafeTREC)
Affiliated with the School of Public Health and the Institute of Transportation Studies, with additional partnerships with the
TRANSPORTATION PROGRAMS AND DEVELOPMENT (Continued)

of City and Regional Planning, Public Policy, and Transportation Engineering.
To visit the website go to:
https://safetrec.berkeley.edu/

U.S. Small Business Administration (SBA)
Online Courses for Starting Your Business
Several free online courses are offered by the SBA to help prospective and existing entrepreneurs understand the basics about writing a business plan.
For more information go to:
http://www.sba.gov/content/online-courses-starting-your-business

Community Transportation Association of America (CTAA)
Passenger Service and Safety PASS Basic Training Program
The PASS Basic program consists of 6 modules and includes comprehensive training on the assistance that drivers should be providing to passengers with special need.
For more information go to:
http://training.ctaa.org/

Community Transportation Safety and Security Accreditation (CTSSA)
The program is designed to promote the safety and security of the customers of community and public transportation systems and also to promote the safety and security of the women and men who deliver these services and provide mobility for the riding public every day.
For more information go to:

Minnesota Local Technical assistance Program (LTAP)
Gravel Road Maintenance and Design (Online)
This course helps supervisory personnel and operators better understand the materials, techniques, and equipment needed for maintaining gravel roads.
To enroll in the course go to:
http://www.mnltap.umn.edu/training/topic/maintenance/gravel/online.html

Curbing Transit Employee Distracted Driving
The 30-minute course, was developed by FTA in conjunction with the Florida Department of Transportation. It’s an excellent tool to educate, inform, and increase awareness among all transit workers about the dangers and challenges associated with distracted driving.
For more information go to:

Work-Zone Safety Tutorial
Minnesota LTAP has launched a new online free tutorial that offers a convenient opportunity for new, seasonal, or temporary staff to learn about the fundamentals of work-zone safety and the basic concepts of the work-zone area before arriving at the job site.
There is no cost to take the tutorial, and registration is not required.
To view the tutorial go to:
http://www.mnltap.umn.edu/training/online/workzone/

Cal EPA
Training: California Indian Tribal Relations
CalEPA’s step forward toward meeting our “commitment to educate appropriate staff, to become informed about the cultural setting of California Native Americans, their environmental issues and Tribal histories, for the purpose of improving CalEPA’s understanding of and connection to California Native American Tribes.”
To visit the website go to:
http://calepa.ca.gov/tribal/training/

Minnesota Local Road Research Board (LRRB)
YouTube video library with 34 videos to date.
For more than 50 years, the Local Road Research Board (LRRB) has brought important developments to transportation engineers throughout Minnesota. Those developments range from new ways to determine pavement strength to innovative methods for engaging the public. Today, the LRRB remains true to its important mission: supporting and sharing the latest transportation research applications with the state’s city and county engineers.
To view the videos go to:
https://www.youtube.com/user/lrrbmn

FHWA-Developing a Transportation Safety Plan
How to conduct transportation safety planning and develop Transportation Safety Plans. It is based on the Developing a Transportation Safety Plan module, which is one of 12 modules in the series Transportation Decision-making: Information Tools for Tribal Governments. The FHWA Office of Planning produced this series to educate tribal planners and decision makers about the tribal transportation planning process and to provide them with useful program information.
To visit the website go to:

Newly Revised Emergency Procedures for Rural Transit Drivers Training Module
National RTAP
The Emergency Procedures module offers the most current training on preparedness for hazards and threats that transit operators may encounter. The free module contains a Learner’s Guide, a Self-paced eLearning Course Disc, an Instructor’s Guide, a disc with videos and a trainer's PowerPoint presentation. Email info@nationalrtap.org or call 888-589-6821 to order.
CALIFORNIA

On September 26, 2013, Governor Brown signed legislation creating the Active Transportation Program (ATP) in the Department of Transportation (Senate Bill 99, Chapter 359 and Assembly Bill 101, Chapter 354). The ATP consolidates existing federal and state transportation programs, including the Transportation Alternatives Program (TAP), Bicycle Transportation Account (BTA), and State Safe Routes to School (SR2S), into a single program with a focus to make California a national leader in active transportation. The ATP administered by the Division of...
FUNDING (Continued)

Local Assistance, Office of Active Transportation and Special Programs.
The purpose of ATP is to encourage increased use of active modes of transportation by achieving the following goals:
- Increase the proportion of trips accomplished by biking and walking,
- Increase safety and mobility for non-motorized users,
- Advance the active transportation efforts of regional agencies to achieve greenhouse gas (GHG) reduction goals,
- Enhance public health,
- Ensure that disadvantaged communities fully share in the benefits of the program, and
- Provide a broad spectrum of projects to benefit many types of active transportation users.

Cycle 3 FY2016 is closed.
For more information go to: http://www.dot.ca.gov/hq/LocalPrograms/atp/index.html

California Department of Resources Recycling and Recovery (CalRecycle)
CalRecycle offers a variety of grant funding opportunities to assist public and private entities in safely and effectively managing California’s waste stream.

Application materials forthcoming:
- Beverage Container Recycling Grants.
- Farm and Ranch Cleanup Grants. FY 2016-17 deadline February 2, 2017
- Illegal Disposal Site Abatement Grant Program.
- Legacy Disposal Site Abatement Partial Grant Program.
- Rubberized Pavement (TRP) Grant Program.
- Tire-Derived Aggregate (TDA) Grant Program. FY 2016 -17 deadline is February 16, 2017.
- Tire-Derived Product (TDP) Grant Program.

Additional grant information and list of active grants can be found at: http://www.calrecycle.ca.gov/Funding/

Highway Safety Improvement Program (HSIP)
It is never too early for local agencies to analyze their roadway network to 1) identify their highest crash locations and corridors, 2) consider effective and efficient countermeasures to improve the safety of these locations/corridors, and 3) identify projects that have the highest Benefit-to-Cost ratios. Cycle 8 is closed
http://www.dot.ca.gov/hq/LocalPrograms/hsip.html

NEVADA

Nevada Department of Transportation (NDOT) Transportation Alternatives Program (TAP)
The Nevada TAP provides federal transportation funds for projects that improve non-motorized mobility, historic preservation, scenic accessibility, safe routes to school (SRTS) and environmental/vegetation management The FY 2016-2018 cycle is now open.

Nevada Transportation Enhancement Program
The Nevada Department of Transportation (NDOT) and the Federal Highway Administration (FHWA) share your interest in these projects and others that enhance the transportation experience in your area and make our communities more livable. The TE program was developed to fund projects that go beyond where typical transportation projects usually stop.

Applications due the second Monday each March
For more information go to: http://www.nevadadot.com/Projects_and_Programs/Landscape_and_Aesthetics/Landscape_Aesthetics_Program.aspx

FEDERAL

U.S. DEPARTMENT OF TRANSPORTATION

Transportation Alternatives Program (TAP)
- Safe Routes to School Program.
- National Scenic Byways

The Moving Ahead for Progress in the 21st Century Act (MAP-21) authorized the Transportation Alternatives Program (TAP) to provide funding for programs and projects defined as transportation alternatives, including on- and off-road pedestrian and bicycle facilities, infrastructure projects for improving non-driver access to public transportation and enhanced mobility, community improvement activities, and environmental mitigation; recreational trail projects; safe routes to school projects; and projects for planning, designing, or constructing boulevards and other roadways largely in the right-of-way of former divided highways. The TAP replaced the funding from pre-MAP-21 programs including the Transportation Enhancement Activities, Recreational Trails Program.
For more information go to: http://www.fhwa.dot.gov/environment/transportation_alternatives/

IDEA Program
TRB’s Innovations Deserving Exploratory Analysis (IDEA)
TRIBAL TRANSPORTATION FUNDING RESOURCES

annual program announcement solicits funding proposals for the upcoming review cycles. The announcement explains the IDEA programs, describes the types of eligible projects and their funding structures, suggests general areas for which IDEA proposals can be submitted, and provides guidelines and forms for submitting proposals.

- The Transit IDEA program has one or more cycles each year. **FY 2016 is closed**
- NCHRP IDEA cycles are twice each year. **FY 2016 is closed**
- The Rail Safety IDEA program has one review cycle per year.

If the proposal submission due date for any IDEA program falls over a weekend or on a federal holiday, the due date automatically moves to the next business day. The IDEA programs provide start-up funding for promising, but unproven, innovations in surface transportation systems. The programs’ goals are to seek out and support new transportation solutions that are unlikely to be funded through traditional sources.

Top 3 Criteria by Which Selection Committees Evaluate IDEA Proposals:

1. **Innovation** -- Emphasize the innovation. Say it first, say it fast, and make it clear. What problem does your project address? How is your solution better than current practice?
2. **Benefits** -- Describe the expected benefits. Why is this project worth investing in?
3. **Science** -- Stick to the science. Be sure the research approach is sound and sensible.

For more information go to: [The IDEA Program](http://www.fhwa.dot.gov/idea/idea_program.htm)

**FHWA**

**Strategic Highway Research Program (SHRP2)**
The objective of the SHRP2 Education Connection is to incorporate SHRP2 products into collegiate level lesson plans and curricula. FHWA anticipates awarding up to 10 cooperative agreements to help professors and instructors bring state of the practice solutions to their classrooms. **Round 7 is closed.**

For more information go to: [http://www.fhwa.dot.gov/goshrp2/](http://www.fhwa.dot.gov/goshrp2/)

**Accelerated Innovation Deployment Demonstration (AID)**
The final notice announces the availability of funding and requests grant applications for FHWA's Accelerated Innovation Deployment (AID) Demonstration authorized within the Technology and Innovation Development Program (TIDP) under the Moving Ahead for Progress in the 21st Century Act (MAP-21).

Consistent with other FHWA funding provided to tribes, federally recognized tribe identified on the list of “Indian Entities Recognized and Eligible to Receive Services from the Bureau of Indian Affairs” (published at 77 FR 47868) is eligible to apply for AID Demonstration.

All applications will be evaluated on a rolling basis and be assigned a rating of “Qualified” or “Not Qualified.”


**Pedestrian and Bicycle Funding Opportunities**

FHWA updated the resource on Pedestrian and Bicycle Funding Opportunities / U.S. Department of Transportation Transit, Highway, and Safety Funds to account for the Fixing America's Surface Transportation (FAST) Act and provide more project examples. The table indicates potential eligibility for pedestrian and bicycle projects, notes basic program requirements, and links to program guidance.

Project sponsors should fully integrate non-motorized accommodation into surface transportation projects. Section 1404 of the FAST Act modified 23 U.S.C. 109 to require Federally-funded projects on the National Highway System to consider access for other modes of transportation, and provides greater design flexibility to do so. For more information contact: christopher.douwes@dot.gov.

To view the updated funding resource go to: [http://www.fhwa.dot.gov/environment/bicycle_pedestrian/funding_funding_opportunities.cfm](http://www.fhwa.dot.gov/environment/bicycle_pedestrian/funding_funding_opportunities.cfm)

**U.S. Department of Agriculture (USDA)**

**Water & Waste Disposal Loan & Grant Program**

Provides funding for clean and reliable drinking water systems, sanitary sewage disposal, sanitary solid waste disposal, and storm water drainage to households and businesses in eligible rural areas. Tribal lands in rural areas. Applications for this program are accepted through your local offices year round.

For more information go to: [https://www.rd.usda.gov/programs-services/water-waste-disposal-loan-grant-program](https://www.rd.usda.gov/programs-services/water-waste-disposal-loan-grant-program)

**Emergency Community Water Assistance Grants**

This program helps eligible communities prepare for, or recover from, an emergency that threatens the availability of safe, reliable drinking water for households and businesses. Tribal lands in rural areas. Applications for this program are accepted through your local offices year round.

For more information go to: [https://www.rd.usda.gov/programs-services/emergency-community-water-assistance-grants](https://www.rd.usda.gov/programs-services/emergency-community-water-assistance-grants)
NATIONAL INDIAN JUSTICE CENTER
5250 Aero Drive
Santa Rosa, CA  95403
Phone: (707) 579-5507
Fax: (707) 579-9019
Email: nijc@aol.com
Http://www.nijc.org

NIJC SERVICES
The National Indian Justice Center (NIJC) provides a range of services, including regional and local training sessions under contracts with tribes, court evaluation and court planning services, and other resource services.

MOUNTAIN WEST TRIBAL TECHNICAL ASSISTANCE PROGRAM

SAVE THE DATE | NATIONAL TRIBAL TRANSPORTATION CONFERENCE 9.25 - 9.29 2017
WWW.TTAPNTTC.COM

TUCSON - ARIZONA

WESTERN TTAP
For more details, please contact Western TTAP Coordinators
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