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Safety Sidekick Newsletter

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The Safety Center is pleased to announce that we have been funded for a third year! A few of the projects we will be working on in the new year include assisting FHWA with the update of the Low Cost Safety Improvements Training, finishing up several training videos, finalizing the ITS Toolkit, and hosting workshops at the annual NACE conference.

Along with these we will also continue hosting our monthly webinar series. You can find more information about the upcoming topics [here](#).

Did you know that the Safety Center takes technical assistance requests? Not sure what kind of requests we take? Then, please read about how we helped SERTPO [here](#). Did you also know that the Safety Center has two, in-person trainings that are available upon request? Those include Road Safety 365 and Roadside Safety Basics for Locals. To make a technical assistance and/or in-person training request, please contact us at info@ruralsafetycenter.org or at (844) 330-2200.

Have a safe and happy holiday season! And remember to contact your safety sidekick in the new year!

Sincerely,

A handwritten signature in black ink, which appears to read "Steve Albert".

Steve Albert
Director
National Center for Rural Road Safety
info@ruralsafetycenter.org

Safety Center Update

Safety Center Stakeholder Group Member Spotlight

In this issue of the Safety Sidekick, we would like to introduce one of our Stakeholder Group members, Timothy E. Barnett, P.E., PTOE. Tim is the State Safety Operations Engineer for the Alabama Department of Transportation.

Even a quick glance at Tim's background will illustrate his commitment to roadway safety. From an early age, he cultivated an interest in traffic engineering due to his involvement in a minor intersection crash at the age of twelve. Later that month, he was assigned a social studies project for school and chose "Improving Safety at an Intersection" as the topic. Tim developed an alternative design and operation for the intersection where the crash occurred, and his design led to several meetings with city and ALDOT officials. Subsequently, the city's Transportation Director offered him a job when he turned 16. At that age, Tim took the city Transportation Director up on his employment offer and began a career with the City of Huntsville, Alabama while attending college. He ultimately became their Traffic Engineer.



After twenty years with Huntsville, Tim joined the Alabama Department of Transportation as a Right-of-Way Engineer and later took a position as a Highway Design Engineer. About seven years ago, the ALDOT Chief Engineer asked him to lead the newly formed Office of Safety Operations, where he works to advance roadway safety on all roadways throughout Alabama, through planning, design, construction, maintenance, and operations of the roadway system.

Tim's career focuses on traffic operations and traffic safety at the federal, state, and local levels. He holds a B.S. and M.S. in Civil Engineering from the University of Alabama in Huntsville. Tim maintains a professional engineer's license in Alabama, Florida, Georgia, Louisiana, and Mississippi and is a certified Professional Traffic Operations Engineer.

The National Center for Rural Road Safety has selected Tim as a Stakeholder Group team member for his ability to provide both state and local agency perspectives. Since Tim's career started at the local level, he understands the importance of providing assistance, training, and opportunities for local roadway safety workers. With the numerous demands on local agencies, roadway safety is often not given the same priority as other critical issues, such as bridges and road maintenance. To help advance safety at the local level, Tim identified the need to implement opportunities for local agencies to learn from state and national roadway safety experts. In addition to one-on-one consulting with local agencies, Tim hosts an annual Rural Road Safety Conference and Workshop. The conference location is a serene rural state park lodge with a spectacular view along the Tennessee River. Approximately 125 participants learn and discuss topics as varied as low cost safety measures, rural roundabout design, and safety management legal aspects. The isolated location provides relaxed and positive opportunities for continuous networking and interaction during meals and the evening hours. The event's target audience includes county and small city/town engineers; the conference agenda varies from year-to-year to keep the conference fresh. Speakers include federal professionals with expertise on safety countermeasures and state and local engineers and consultants who work in areas that effect roadway safety. The ALDOT Traffic & Safety Operations Section leads the successful Rural Road Safety Conference and Workshop, with Stuart Manson, P.E., Safety Systems Engineer from the Traffic & Safety Operations Section, heading up the agenda development. The event is coordinated with assistance from the Alabama LTAP at Auburn University.

In addition to response and resolution of highway safety concerns on the Alabama public roadway system, he is responsible for managing the implementation of the Highway Safety Manual, Highway Safety Improvement Program, and other safety activities for ALDOT. Tim is a Fellow of ITE, and a member of ASCE, ASEM, and IMSA.

Tim is a dedicated and respected professional with a reputation extending far beyond his home state. Consequently, he is often recruited to serve on AASHTO and TRB Committees, Panels, and Working Groups, speak at statewide and national conferences,

and participate in peer exchanges. Among other things, he is making numerous contributions to road safety workforce development in a field where formal multidisciplinary, multimodal road safety training and education are nonexistent at present.

We asked Tim if he could share one sentiment with the safety community, what would that sentiment be? "In most states the majority of severe crashes occur on rural roads. These crashes have common typologies where simple safety countermeasures applications can effectively and efficiently reduce crash occurrence and severity. Generally, persons with local level road safety responsibility are deeply committed to community safety, and it is only a lack of knowledge that prevents safety countermeasure implementation. As Benjamin Franklin once said, "An investment in knowledge always pays the best interest." To that end, I have always placed a high priority on knowledge advancement and transfer amongst my colleagues and friends."

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Southeast Regional TPO Develops Safety Performance Metrics

National Center for Rural Road Safety staff assisted the Southeast Regional Transportation Planning Organization (SERTPO) in developing performance and outcome measures for the strategies and objectives related to the safety goal in the Southeast Regional Transportation Plan. The RTPO's regional transportation plan was developed as a part of the New Mexico Transportation Plan (NMTP).

SERTPO Planning Program Manager, Mary Ann Burr presented a list of potential performance measures and outcomes for the SERTPO Regional Plan safety goal to the SERTPO working group/subcommittee in early October. Center staff recommended performance measures and outcomes consistent with the new Moving Ahead for Progress in the 21st Century (MAP-21) legislation and the Fixing America's Surface Transportation Act (FAST Act) performance measurement requirements that transformed the Federal-aid highway program by establishing new performance management requirements to ensure State Departments of Transportation (DOTs) and Metropolitan Planning Organizations (MPOs) choose the most efficient investments for Federal transportation funds. While the Southeast Regional TPO is not required to establish these performance measures, it is recommended good practice that the RTPO use the same measures as overall indicators of safety performance.

SERTPO will track the approved list of measures and outcomes and evaluate its progress achieving the action steps set for in the plan. More information on the SERTPO Regional Transportation Plan can be found [here](#).

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Safety Center Blog

When it's Good to be Fenced In!

There is more to falling snow than painting the landscape into a winter wonderland; it can also create a plentiful amount of additional roadway safety hazards. Snow drifts, which are created by wind moving snow onto roadways, significantly impact safe travel. Snow drifts are common in rural areas where stretches of farmland or open fields exist, and can reduce visibility, sometimes to white-out conditions. Not only can visibility be severely diminished, but snow drifts may result in ice formation and a loss of control when driving, as well as burying informational roadway signage and pavement markings.



Photo Credit: Arizona Department of Transportation

While a vast expanse of fluffy white snow might be aesthetically pleasing, it does not make for good traveling conditions. What happens when the roadway disappears?! How do agencies mitigate snow drifts? Often times, snow fences are used to greatly reduce the likelihood of dangerous snow drifts. Properly installed snow fences are economical- it supplements snow removal and reduces the chances for crashes. Read more about snow fences in the December [Safety Center Blog](#) post.

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Road User

FHWA Releases New Data Showing Nearly 20 Percent of U.S. Drivers Are Over 65

Source: Federal Highway Administration Press Release

Older Drivers Remain One of Fastest Growing Demographics, Confirms USDOT's 30-Year 'Beyond Traffic' Estimates

The U.S. Department of Transportation's Federal Highway Administration (FHWA) published preliminary data [this month] showing that there are more drivers than ever before - an estimated 217.9 million - and that 42.8 million, or nearly one in five, are over 65 years old. The final data are expected to be published later this year.



Drivers over 65 remain one of the fastest-growing demographic groups among U.S. drivers. With a 2 percent increase, representing 4.4 million more drivers over 65 than in the previous year, it is the biggest single-year percent increase on record for that population.

These new figures support U.S. Transportation Secretary Anthony Foxx's "[Beyond Traffic](#)," a 30-year vision for future transportation, which predicts a 77 percent increase among drivers over age 65 by 2045.

To read the entire press release, please go [here](#).

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Webinar Promotes Walking in Rural Communities

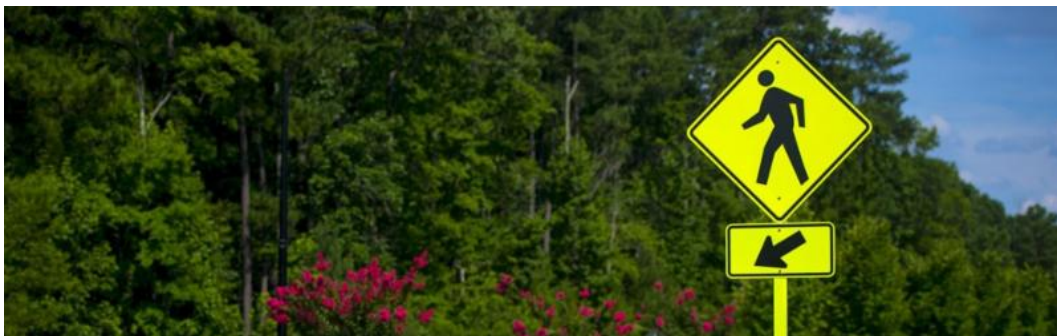


Photo Credit: [FHWA Every Day Counts](#)

America Walks, a 501(c)(3) nonprofit national organization is a voice for walking and walkable communities with federal agencies, provide strategy support, training and technical assistance to statewide, regional, and local organizations. They have recently posted a [webinar on walking in rural communities](#).

Different environments or types of communities offer different opportunities and challenges for promoting walking and walkability. One of the most common questions we get at America Walks is about resources available for walking in rural communities. This webinar discusses some of the challenges that come with working in rural environments and a selection of resources that provide unique opportunities to promote walking and walkability in rural communities. Presenters from WalkBoston talk about their work in promoting

walking and walkability across the state of Massachusetts followed by resources and research available at Safe Routes to School National Partnership and Active Living Research.

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Minnesota Safe Ride Program Spotlight: Isanti County "SafeCab"

The Minnesota Toward Zero Deaths website features one of their county Safe Ride Programs. The Isanti County "SafeCab" program, which was started in 2003, is a response to the need for alternative transportation in the county.

An excerpt from the spotlight recants a resident's story: *We had been [out] drinking for several hours when I told a friend (who lived in our town for many years) that we needed to call a cab for a ride home. He laughed and told me they did not have a cab service. I said that our city needed a cab. He laughed again and then told me I was right.*

To read about the program, click [here](#).

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Safety Culture

Volpe Future of Transportation Series Features NHTSA Administrator Rosekind

The *Future of Transportation: Safety, Opportunity, and Innovation* speaker series, hosted by the Volpe National Transportation Systems Center, brought together top transportation innovators moving forward the framework for the future in [Beyond Traffic 2045](#). The concluding speaker was National Highway Traffic Safety Administration (NHTSA) Administrator Mark Rosekind, who provided a pointed discussion of roadway safety.

In reflecting upon the staggering number of 35,092 lives lost on America's roadways in 2015, Rosekind said "Why it's a crisis now is because that number in 2015 went up by 7.2 percent," he said. "When you look at that as a percentage jump, that is the highest percentage increase in over 50 years."

To view the video highlights of Rosekind's presentation, visit the [Volpe Center's YouTube](#) channel.

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Engineering

FHWA Data-Driven Safety Analysis Introductory Video

[Data-Driven Safety Analysis](#) is the application of the latest generation of tools for analyzing crash and roadway data. This video gives an overview of this approach, which enables safety professionals to make more informed safety management and project development decisions in order to better target highway safety investments and reduce the number of severe crashes on roadways.

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Addressing Motorcycle Safety through Road Safety Audits

By: Rebecca Crowe, FHWA Office of Safety

In a continued effort to address the safety of vulnerable users, many agencies are turning to Road Safety Audits (RSA). An RSA is a formal safety performance examination of an existing or future roadway or off-road facility and is conducted by an independent, experienced, multidisciplinary team. FHWA recently published a case study document that chronicles the efforts of several agencies to address motorcycle safety through RSAs.

Motorcyclists are at a greater risk than many other roadway users. In 2012, motorcycles made up three percent of all registered vehicles in the United States, yet motorcycle fatalities accounted for 15 percent of total vehicle-related fatalities.



Motorcyclists Riding on North Carolina (NC) Route 28.

The *Motorcycle Road Safety Audit Case Studies* provides a review of the RSA process and three case study examples of RSAs at locations that had a demonstrated high frequency of crashes involving motorcyclists. The case studies include photographs, a project background, and key RSA findings and suggestions and will help Federal, State, tribal, and local agencies better understand conditions that affect motorcyclists and how to effectively address safety in the RSA process.

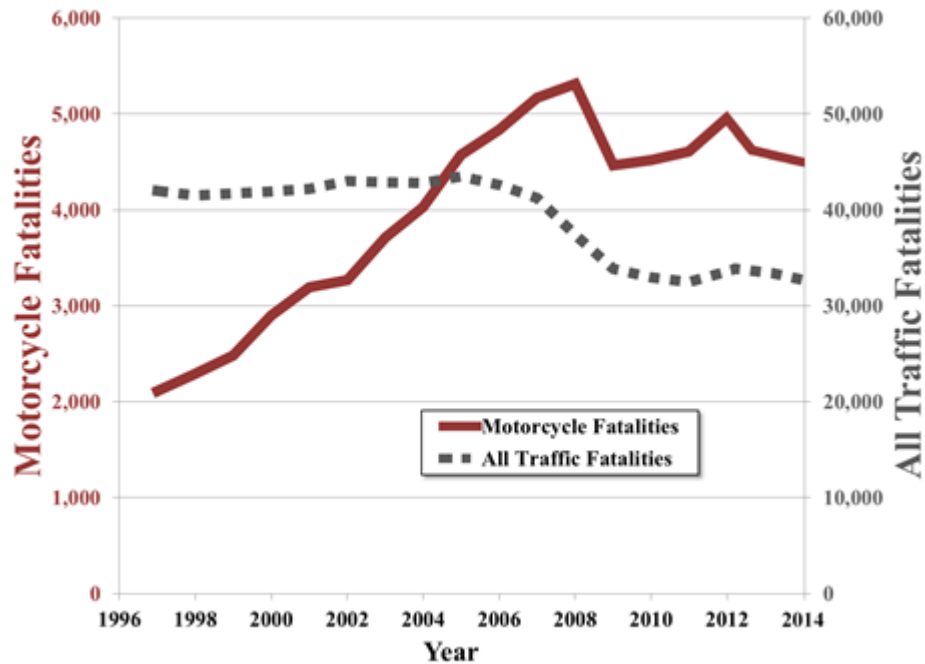
The case study report describes three RSAs conducted from 2012 to 2014 on facilities with documented motorcycle crashes. The RSA host agencies and locations included:

- North Carolina Department of Transportation - North Carolina (NC) Route 28 and NC Route 143 in Graham County.
- Washington State Department of Transportation - Washington State Route 7, east of Tacoma.
- National Park Service - Blue Ridge Parkway near Asheville, NC.

For these locations, motorcycles were incorporated into the RSA process by ensuring that some of the team members had expertise in motorcycle safety and had experience riding motorcycles. Some of the RSA teams included law enforcement officers who had riding experience or who were part of active motorcycle patrols, individuals at the Department of Licensing that provide motorcycle training, or members of motorcycle safety clubs. Additionally, during the kickoff meeting, RSA team members familiar with riding described and interpreted data to help determine contributing factors to crashes and their potential effect. They also provided details concerning critical conditions or locations.

During the audits, the RSA teams concluded that certain conditions appear to present challenges to motorcyclists. Some of these include:

- The inability to recover from lane departures, including pavement edge drop-off, and lack of area for recovery (e.g., lack of shoulder).
- The effect of roadway designs that include compound or spiral curves and changes in roadway superelevation-changes in short sections of road in particular.
- The presence of debris on the roadway.



Trends in All Traffic-Related and Motorcycle-Related Fatalities in the U.S. from 1997 - 2014. (Source: NHTSA, FARS Encyclopedia.)

RSA teams identified existing countermeasures, or those under review, to improve the safety of motorcyclists. These include the use of motorcycle-specific warning signage and the creation of pull-off areas that provide a respite and key safety and trip planning information for motorcyclists. However, a lack of detailed data is a key issue inhibiting a fuller understanding of the factors that affect the safety of motorcyclists. This includes detailed crash data, but is particularly true with regard to motorcycle count data.

In each of the case study locations, the team applied the RSA process to understand the safety needs of motorcyclists. The RSAs helped bring attention to safety issues affecting motorcyclists by highlighting the effects of design and maintenance practices and by bringing together a multidisciplinary and multi-modal group of safety professionals that were able to clarify issues that may not have been adequately understood previously.

For a copy of the *Motorcycle Road Safety Audit Case Studies*, click [here](#). For more information, please contact [Rebecca Crowe](#).

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EMS

Post-Crash Support

The World Health Organization has released a report that outlines policies for improving health care and other systems to provide the key elements of post-crash support. As relates to the post-crash response, survivors and families affected by road traffic crashes have a range of physical, psychological and legal needs. An effective post-crash response requires integration of injury care, mental health services, legal support and legislation, and data on road traffic crashes and injuries. The report includes case studies from various countries. To download the report, click [here](#).

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Upcoming Trainings and Events

Upcoming Safety Center Webinars

January 2017 - Results of the Safety Center's Research Project: Assessing the Operational and Cultural Environment

Date: January 31, 2017

Time: 11:00 AM to 12:30 PM Mountain/1:00 PM to 2:30 PM Eastern

The National Center for Rural Road Safety (Safety Center) is hosting a FREE , 1.5-hour online webinar. This webinar will provide an overview of the program of research undertaken by the Safety Center to understand the cultural and operational factors within traffic safety organizations that predict utilization of (effective) resources and tools for workforce training and education.

To register for this webinar, click [here](#).

Link: <http://events.r20.constantcontact.com/register/event?oeidk=a07edm5gq8h6fb034f0&llr=ngyyawuab>

February 2017 - Small Town and Rural Multi-modal Networks Guide

March 2017 - Safety Performance Measurement

April 2017 - Unpaved Roads

May 2017 - Incorporating Safety Data into the Planning Process at the Rural Level

Dates and Times TBA...check the [Safety Center Trainings](#) page for more information.

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Upcoming Forum will Explore Data Analysis and Infrastructure Connectivity

The American Traffic Safety Services Association (ATSSA) has approved an effort to gauge industry support for developing a new road safety data forum. The initiative targets companies, agencies, authorities and organizations involved in the collection, storage and analysis of crash and roadway infrastructure safety data. An Open Forum discussion is being planned in conjunction with *ATSSA's 47th Annual Convention & Traffic Expo* at the Phoenix Convention Center, Feb. 10-14, 2017. Participants need not be ATSSA members to attend the initial discussion forum.

During the Open Forum, attendees will receive detailed briefings on two new US Department of Transportation safety data initiatives, a presentation discussing the current impact of enhanced road safety data in developing state-level strategic highway safety plans and a final presentation examining the role of data in better understanding the impact of connected automated vehicles (CAVs) on future infrastructure planning. At the end of these presentations, participants will have an opportunity to share their thoughts on the proposed data forum.

The important role of crash and infrastructure data analysis in the roadway safety industry cannot be overstated. Congress, for example, requires that states develop "data-driven" strategic highway safety plans prior to allocating projects authorized under the Highway Safety Improvement Program (HSIP). Recent developments in automated vehicle technologies stretch our understanding of how new machine technologies interface with signs, pavement markings, signals and work zone devices. Improved roadway infrastructure and crash data will be invaluable in better understanding the needs of CAVs as part of strategic planning and asset management processes.

The analytics derived from improved infrastructure and crash data collection will eventually result in updates to key documents used to justify road safety investments. These documents include Federal Highway Administration (FHWA) Crash Modification Factors (CMF), the FHWA Interactive Highway Safety Design Model (IHSDM), and the American Association of State Highway and Transportation Officials' Highway Safety Manual.

The emerging road safety data industry is comprised of companies that supply crash documentation systems and digital infrastructure capture and assessment technologies (LiDAR, Photogrammetry, GPS, Retroreflectometers, Friction Testers, etc.), data storage and analytics software (GIS, Asset Management), and traffic management data collection and analysis, including for pedestrians and bicyclists. A number of these same technologies are incorporated into CAV systems as part of enhanced guidance and braking systems. Developing synergies between CAV and infrastructure assessment technologies

should provide a clearer picture regarding how to systemically improve roadway safety. At present, there is no industry forum that focuses on infrastructure safety data for the discussion of agency needs and exchange of information with private sector providers.

While law enforcement is the primary collector of crash data, engineering and consulting firms are often tasked with the collection and processing of digital infrastructure data for use by transportation agencies. Once the data is brought together, agency staff and private sector analysts review the data as part of the planning process. Determinations on which data sets are collected and used may have significant impacts on how plans are developed and implemented.

Interested private sector companies, associations, state and local agencies, metropolitan planning organizations, bridge, toll and turnpike authorities, and non-profit entities and educational institutions should email safetydataplanning@atssa.com to be placed on an email list for more information regarding the upcoming Open Forum. Visit ATSSA to learn more.

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What's Hot Off the Press?

Toward Zero Deaths New Marketing Video Available for Use

A new [marketing video](#) is now available to use from the Toward Zero Deaths: A National Strategy on Highway Safety website. This video demonstrates how safety efforts can help reduce the number of traffic fatalities down to the zero goal.



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Investigation of Interaction Between Traffic Safety, Law Enforcement, and Environment

For highways located in different counties and cities across the country, specific conditions of weather, terrain, traffic characteristics, highway conditions, population and economic development are all different. Driving environments, traffic accidents and injury risks have strong interactions, which have not been fully explored. To effectively mitigate traffic accidents and injury severity on these highways, both rational risk prediction and law enforcement efforts are important. This study conducts an investigation on interactions between those traffic accidents, various driving environments and also mitigation efforts, such as law enforcement. The Upper Great Plains Institute at North Dakota State University has recently published a [report](#) on this subject.



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Cannabis and Road Safety: Policy Challenges

The Traffic Injury Research Foundation (TIRF) is pleased to announce the release of a new report entitled, "Cannabis & Road Safety: Policy Challenges," funded by the Canadian Automobile Association (CAA).

Click [here](#) to download the report.



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Improving Pedestrian and Bicycle Connectivity During Rehabilitation of Existing Bridges

The Pedestrian and Bicycle Information Center has released a [report](#) that serves to acknowledge that pedestrian and bicycle considerations should be addressed at all planning levels per the USDOT Policy Statement of Bicycle and Pedestrian



Accommodation Regulations and Recommendations, demonstrate that providing such facilities as part of bridge rehabilitation projects is a win-win for communities; and to share positive case studies.

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Recently Released FHWA Information Sheets

FHWA has released the following informational fact sheets:

- [Safer Routes to School Road Diets Flyer](#)
- [Road Diets Myth Buster Flyer](#)
- [Rumble Strip Fact Sheets](#)
- Four new detail sheets for the [RSDP Toolbox](#)



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