This fact sheet reports on initiatives that have been explored by the Safety Technical Advisory Group (TAG), reviewed by the State Transportation Innovative Council (STIC), and forwarded to the Department of Transportation (PennDOT) for implementation. Information on their concept and status are provided in this fact sheet.

### Rumble Strips on Thin Pavement Overlay

Under this initiative, PennDOT has developed a collection of best practices from other states to help determine how to address the process and procedures for installing and reinstalling centerline and edgeline rumble strips on thin pavement overlay projects (seal coats, microsurfacing, warm-mix and hot-mix asphalt).

**What are the benefits?**
- Reduces crashes and saves lives.
- Ensures 10,000 miles of rumble strips are not lost as thin pavement overlay becomes a more cost-effective replacement for full-depth paving during road rehabilitation projects.
- Improves the safety of roads by ensuring that rumble strips remain on centerlines and edgelines of roadways.

**What does the future hold?**

PennDOT is in the process of implementing new guidance related to this technology in the District Highway Safety Guidance Manual (Pub. 638) and PennDOT Specifications (Pub. 408).

### High-Friction Surface Treatments

This initiative uses high-quality aggregates at critical locations, such as curves and intersections, to help motorists maintain better control in dry or wet driving conditions. In the past five years, Pennsylvania has averaged nearly 200 fatalities and 500 major injuries as a result of crashes involving slippery and wet pavement. These aggregates can create a channelizing effect to prevent water buildup and improve pavement surface friction to reduce accidents.

**What are the benefits?**
- Reduces crashes and related injuries and fatalities.
- Installs quickly with minimal impact on traffic.
- Costs less than geometric improvements to a roadway although more expensive than standard wearing courses.

**What is the status of this initiative?**

PennDOT has installed high-friction surface treatment (HFST) overlays at 42 locations with 102 more planned in 2015. A work plan to evaluate the construction and performance of HFST using four different binder materials has been approved and is currently under way. PennDOT has developed HFST specification and user guidelines.
Integrating the Highway Safety Manual in Practice

This initiative aims to integrate the Highway Safety Manual procedures and practices into project development at PennDOT. Applying contemporary road safety management methods embodied in the manual is expected to improve safety delivery to Pennsylvania residents.

What are the benefits?

- Improved confidence that safety funds are applied most effectively.
- Ability to quantify the safety effects of planning, priority programming, design, traffic operations, and maintenance decisions.
- Meaningful quantitative safety measures to guide project decisions.
- Better integration of safety in the overall transportation program and project development process.
- Incorporation of substantive safety improvements in PennDOT projects.
- Demonstration of direct and meaningful safety project return on investment to sponsors and stakeholders.

What does the future hold?

Changes made to safety performance and crash modification factor specifications contained in PennDOT publications will be applied on all applicable projects with safety review submission on or after July 1, 2015. PennDOT is encouraging the processes and analysis to be implemented sooner, if possible. Eight opportunities for training on the changes will be provided in 2015.

Data-Driven Approaches to Crime and Traffic Safety

This initiative strives to reduce crime, crashes, and traffic violations with targeted enforcement and countermeasures by police departments by helping them to implement and sustain the Data-Driven Approaches to Crime and Traffic Safety (DDACTS) model. DDACTS is a policing model that uses both crime and crash data to target enforcement patrols within a jurisdiction.

What are the benefits?

- Reduces crash frequency and severity along with crime at targeted locations in the community.
- Encourages partnerships among municipalities, local law enforcement, and community leaders.
- Allows municipalities to conduct crash and crime analysis that focuses on improving safety.

What is the status of this initiative?

Since implementation in Pennsylvania, 22 police departments have received training in the DDACTS policing model. The training focuses on the integration of location-based crime and crash data to determine the most effective methods for deploying enforcement resources. Through cooperation between PennDOT and the GIS Department of California University of PA, the university began to offer its data analysis services free of charge to DDACTS-trained police departments. This new partnership is expected to grow and help police departments with the difficult task of crime and crash data analysis.

Pennsylvania Safety Symposium

The Pennsylvania Safety Symposium was held June 10, 2014, in Harrisburg as an initiative of the State Transportation Innovation Council. Attended by 175 transportation safety experts, legislators, researchers, and planners from Pennsylvania and neighboring states, the symposium sought to collectively identify key methods for reducing roadway fatalities in four areas:

- Unbelted occupants
- Impaired driving
- Young driver safety
- Work zone safety

Attendees shared accomplishments and discussed some of the most pressing transportation safety policy matters in Pennsylvania. A report on the findings was developed and distributed to legislators. Each report was individualized to include data on crash statistics related to these four specific areas for each legislative district.

What is STIC?

Pennsylvania’s State Transportation Innovation Council is a unique forum that blends together expertise and experience of various stakeholders to provoke discussions on how to deploy successful transportation innovations quickly. The main goal of STIC is to get innovation into practice as soon as possible so that users can reap the benefits of a smoother, safer, more efficient transportation system.