

# TRANSPORTATION SAFETY AND SECURITY

*Safety and security are high priorities for TxDOT. Throughout the Texas Transportation Plan (TTP) planning process, TxDOT, stakeholders and the public have consistently listed safety as the most important concern for the state. Safety and security needs are captured in the TTP through the modal needs assessments; a separate needs assessment was not done specifically for safety- or security-related projects. The following sections provide a summary of current planning documents related to safety and security and explains the rationale behind the inclusion of the safety and security goal areas and performance measures that have been included in the TTP.*

## 7.1 Transportation Safety Planning

Moving Ahead for Progress in the 21<sup>st</sup> Century (MAP-21) Act establishes seven national performance goals for the federal highway program, one of which is to achieve a significant reduction in traffic fatalities and serious injuries on all public roads. MAP-21 planning rules call for consideration of eight planning factors, one of which is to increase the safety of the transportation system for motorized and non-motorized users.

### 7.1.1 Safety Plans

TxDOT's previous statewide plan – the Statewide Long-Range Transportation Plan (SLRTP) 2035, Section 6 – addressed transportation safety and security. It provided a brief description of TxDOT responsibilities in administering federal and state grant programs to improve safety on various modes of the transportation systems in Texas. The SLRTP 2035 also listed information on safety programs for bicycle and pedestrian, public transportation, freight rail, airport, waterways, pipeline, water ports, and border ports of entry.

TxDOT continues to incorporate safety considerations in all planning documents and has developed the following plans that specifically address transportation safety and security: the Texas Strategic Highway Safety Plan (SHSP), the Texas Highway Safety Plan (HSP) and the Texas Strategic Action Plan for Motorcycles 2013–2018. In addition, metropolitan planning organizations (MPOs) across the state have incorporated safety considerations into the long-range transportation planning processes and plans.

- Texas Strategic Highway Safety Plan. The Texas SHSP was first produced in 2006, establishing statewide goals, objectives, and key emphasis areas for transportation safety and identifying key safety needs for guiding investment decisions to reduce fatalities and serious injuries on all public roads. A progress report is produced annually for the SHSP and discusses whether goals and objectives are being met while identifying countermeasures and programs that could be considered to help meet statewide safety goals. The Texas SHSP was updated in 2014.



- Texas Highway Safety Plan. The Texas HSP identifies goals, strategies, performance measures and objectives Texas has set for improving the behavioral safety performance of the roadway system. The plan also lists other programs goals for each of the Texas Traffic Safety Program's areas, specifies the strategies employed to accomplish the goals, and reports the status of the performance measures based on the most current data. The HSP was updated in 2014.
- Texas Strategic Action Plan for Motorcycles 2013–2018. Motorcycle deaths in Texas increased by 10 percent in 2011 and accounted for 16 percent of total traffic fatalities in 2011. To reduce the rate of motorcycle crashes per registered motorcycle and reduce the rate of fatal and severe motorcycle injuries, TxDOT and the Texas A&M Transportation Institute developed the Texas Strategic Action Plan for Motorcycles 2013–2018 (published June 2013). The plan is organized under 13 key focus areas. For each area, the plan identifies several initiatives and action steps, prioritized by motorcycle safety experts.

These plans and others are further described in *Technical Memorandum 11: Safety and Security*. Complete versions of the plans can be found on TxDOT's website (<http://www.txdot.gov/>).

### 7.1.2 Existing Safety Plans – Emphasis Areas

There are common characteristics and general patterns among the transportation safety documents and plans from different state departments and local jurisdictions. Generally, emphasis areas are identified for transportation safety planning are developed using historic crash data, roadway network characteristics, federal and state policies on transportation safety management, and other relevant information. The most common emphasis areas are:

- Motorcyclist, bicyclist, and pedestrian safety;
- Drivers under the influence (DUI);
- Speeding;
- Aggressive or distracted driving;
- Seatbelt usage; and
- Child safety and safety seats.

The State of Texas has developed a data-driven process for identifying the emphasis areas and setting the targets on transportation safety performance. To meet the goals and performance measures that the state set for transportation safety, the following issues have been identified as ones that should be addressed.

- Safety planning documents or guidance for non-motorized users of the roadway system such as pedestrians and bicyclists.
- Safety planning at the local level should be emphasized. Though many Texas MPOs include transportation safety as an integral part of their transportation planning efforts, some still do not.
- Safety performance reviews of commercial vehicles – especially trucks that are oversized and overweight – and traffic code enforcement should be enhanced.

To improve safety statewide for all users of highways and local roadways, transportation safety must be incorporated into comprehensive transportation planning processes at both the state and local levels.



### 7.1.3 Transportation Safety Goals and Performance Measures

The TTP incorporates the safety goal areas from existing plans by reference. The following performance measures are recommended to track and measure the effectiveness of efforts to improve safety the meet safety goals discussed in Chapter 3 of the TTP.

- Number of fatalities
- Number of serious injuries
- Number of fatalities/serious injuries per 100 million vehicle miles traveled
- Number of fatalities/serious injuries per million population
- Number of crashes between train and vehicle
- Number of crashes between train and vehicle resulting in fatalities or serious injuries
- Number of pedestrian and bicyclist fatalities and serious injuries
- Number of pedestrian and bicyclist fatalities per million population
- Number of fatal and serious injury crashes involving cell phone use
- Number of fatal and serious injury crashes involving speeding
- Safety belt usage rate
- Number of fatal crashes due to DUI
- Average incident response time/incident clearance time

## 7.2 Transportation Security Planning

### 7.2.1 Security Plans

Texas has critical transportation infrastructure that could be vulnerable to a myriad of natural and manmade disasters. As a result, the Texas Department of Public Safety has developed the State of Texas Emergency Management Plan and the Office of the Governor developed the Texas Homeland Security Strategic Plan 2010-2015. In addition, some MPOs across the state have incorporated security considerations into their transportation planning processes and plans.

- The State of Texas Emergency Management Plan. This plan describes how the state will prepare for, respond to, mitigate, and recover from the impacts of hazards to public health and safety. It establishes operational concepts and identifies tasks and responsibilities required to carry out a comprehensive emergency management program. It describes the state's emergency management organization and a statewide system of coordination, as well as the emergency responsibilities of TxDOT.
- The Texas Homeland Security Strategic Plan 2010–2015. This plan provides high-level guidance that informs other state, regional, and local homeland security and emergency management plans and operations.



### 7.2.2 Transportation Security Goals and Performance Measures

The focus for transportation security is to ensure the security of the critical infrastructure in Texas and minimize the possible impacts when natural and manmade disasters occur. Goals include:

- Development of a comprehensive database for all critical infrastructures within the state;
- Establishment of an integrated statewide emergency response system minimize response times;
- Coordination of transportation security activities at the state, county, and local levels of government; and
- Transportation security training for law enforcement and first responders.

The following performance measures are recommended to track and measure the effectiveness of efforts to improve security and meet safety goals:

- Percentage of critical infrastructure identified and archived in the state critical infrastructure database;
- Emergency response time;
- Frequency of transportation security training and drills held among state, county and city agencies; and
- Percentage of state population that receive training and/or educational materials on transportation security response protocol.