TEXAS SAFETY ENGINEERING INITIATIVES

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Proven Safety Countermeasures
Proven Safety Countermeasures

Rumble Strips
Proven Safety Countermeasures

Widening
Proven Safety Countermeasures

Barriers
Proven Safety Countermeasures

Curve Improvements
Proven Safety Countermeasures

Intersection Improvements
Proven Safety Countermeasures

Grade Separation
Systemic Improvements
Systemic Improvements

Crash Tree Analysis

Stateswide 81,530 (4 yrs)

State Maintained 39,402 (48%)
Non-State Maintained 22,128 (28%)

Urban 20,269 (51%)
Rural 19,133 (49%)

Inters-Related 7849 (38%)
Driveway/Unknown 1288 (6%)
Non Inters-Related 11,332 (66%)

Signalized 4164 (54%)
Unsignalized 3485 (46%)

Single vehicle - 555 (13%)
Angle - 2771 (67%)
Rear end - 818 (19%)
Sideswipe (SD) - 20 (1%)

Single vehicle - 870 (25%)
Angle - 1836 (53%)
Rear end - 722 (20%)
Sideswipe (SD) - 57 (2%)

Single vehicle - 58 (7%)
Angle - 508 (68%)
Rear end - 173 (23%)
Sideswipe (SD) - 10 (1%)

Single vehicle - 687 (21%)
Angle - 1929 (60%)
Rear end - 571 (19%)
Sideswipe (SD) - 23 (<1%)

Interstates 4413 (39%)
US&State highways 5590 (49%)
FM roads 1329 (12%)

Two-lane 3738 (54%)
Multi-lane/Unknown 3150 (48%)
Two-lane 4638 (92%)
Multi-lane/Unknown 429 (8%)

SV ROR - 2023 (54%)
Rear end - 285 (8%)
Sideswipe (SD) - 49 (2%)
Head on - 906 (24%)
Other - 475 (12%)

SV ROR - 1658 (52%)
Rear end - 503 (14%)
Sideswipe (SD) - 149 (6%)
Head on - 334 (11%)
Other - 505 (18%)

SV ROR - 3217 (66%)
Rear end - 178 (3%)
Sideswipe (SD) - 36 (1%)
Head on - 589 (13%)
Other - 629 (14%)
Systemic Improvements

Crash History vs. Roadway Characteristics
Systemic Improvements

Total Risk Factor Weight (TRFW)

- Total Crashes
- Crash Overrepresentation
Systemic Improvements

Systemic Widening Program (SSWP)
Intersection Safety Implementation Plan
Systemic Improvements

Systemic Barriers
Systemic Curve Improvements
Systemic Rumble Strips
Pedestrian Safety Focus Cities

Map showing cities with pedestrian safety focus in the United States, including:

- CA: San Francisco, Stockton, Los Angeles, San Diego, Phoenix, Tucson
- AZ: Albuquerque
- NM: Austin, San Antonio, New Mexico
- TX: Fort Worth, Dallas, Houston, Austin
- LA: New Orleans, San Antonio
- IL: Chicago, St. Louis, Detroit
- MO: St. Louis, Kansas City
- KY: Louisville, Lexington
- NY: New York City, Newark
- PA: Philadelphia, Pittsburgh
- NJ: New York City
- FL: Orlando, Miami, Fort Lauderdale, Tampa, St. Petersburg
- GA: Atlanta
- AZ: Phoenix
- PR: San Juan

Image courtesy of the U.S. Department of Transportation, Federal Highway Administration.
Pedestrian Focus

Pedestrian Improvements

- Pedestrian Signals
- Crosswalks
- Safety Lighting
- Sidewalks
- Pedestrian Overpass
- Pedestrian Hybrid Beacon
High Friction Surface Treatments
FHWA Initiatives

Roundabouts
Road Diets