



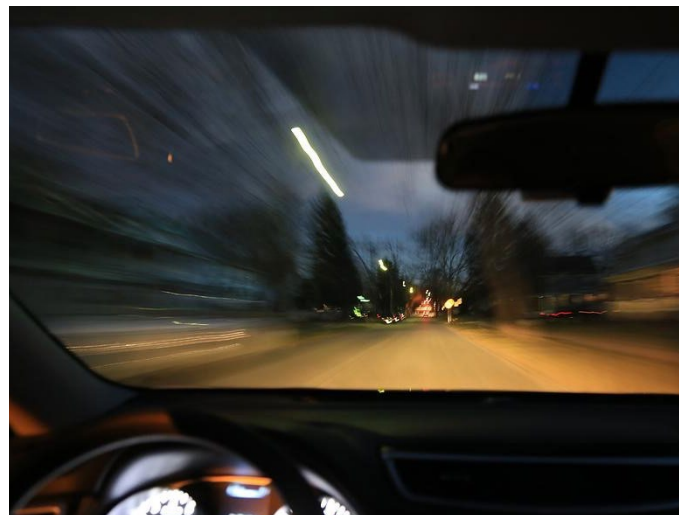
CITY OF AUSTIN, TEXAS

ISSUE	STRATEGIES	TAKEAWAYS
<ul style="list-style-type: none">➤ Speeding is the top contributing factor in fatal crashes➤ Vulnerable road users are overrepresented in severe crashes➤ Austin is experiencing significant population growth	<ul style="list-style-type: none">➤ Adopted a citywide vision zero goal➤ Identified leading causes of fatal and serious injuries➤ Defined High Injury Network➤ Engaged community➤ Established speed management program	<ul style="list-style-type: none">➤ Comprehensive speed management activities➤ Developed key indicators and targeted achievement metrics➤ Integrated effort including enforcement

Background

The City of Austin became a Vision Zero city in 2015 with the goal of zero traffic-related fatalities for this rapidly growing, diverse, and active community. Identifying a High Injury Network (HIN) exposed that the majority of fatal and serious injury crashes were occurring on collector and arterial streets. This perspective helped focus their program beyond neighborhoods and onto the more complex roadways which made up their HIN¹.

Addressing speed limits on the HIN required consideration of the Texas Transportation Code which mandates an 85th percentile method be used for setting speed limits with allowances made where crashes are above average. The city determined that any roadway on the HIN meets the state's definition of roadways with above average crash rates and therefore will be using USLIMITS2 extensively to support setting new speed limits on collector and arterial roadways. This moment represents a paradigm shift in how the city approaches transportation planning, codifying in city policy the preservation of human life as the paramount priority for Austin's transportation network. Citizens are asking for their transportation network to be safe, accessible, and inclusive for all members of the community. The city is determined to achieve this by promoting a culture of safety education, focusing on behaviors that cause traffic injuries and fatalities, and through integrating safe design principles across their multimodal infrastructure¹.



Interior of speeding vehicle. Source: Getty Images

In addition, the Austin Police Department is using a data-driven approach towards enforcement strategies. This includes participating in a Fatality Review Board, which meets monthly to review all fatal crashes, and then meets quarterly to review overall crash statistics and serious injury crashes².



Austin’s busy multimodal roadways. Image Source: Neal Hawkins

The Challenges

Speeding – In Austin, speeding was recorded as the primary contributing factor in 24 percent of traffic crashes resulting in death from 2013 to 2017. Speeding is the leading contributor to fatal crashes with the top four being speeding, failure to yield, distraction, and driving while intoxicated. On average, more than 70 people lose their lives on Austin area streets each year, another 450 suffer life-altering injuries, and countless other crashes and near-misses are unreported.

Vulnerable Road Users – The city found that vulnerable road users make up a disproportionate share of severe crashes. The proportion of all serious injury and fatal crashes by mode are 61 percent motor vehicle, 17 percent pedestrian, 16 percent motorcycle, and 6 percent bicycle. Austin’s African-American population is also overrepresented given that their 7 percent share of the population makes up 16 percent of the serious injury and fatal crashes¹.

Significant Growth – Since the last transportation plan was adopted in 1995, Austin has added more than 450,000 people and the region’s population is slated to double in the next 30 years.

Developing a Speed Management Program

The objective of the Austin Transportation Department (ATD) speed management program is to improve safety and enhance the livability of Austin streets through context-appropriate speed reduction strategies². ATD developed a framework for their new Speed Management Program through several actions including a workshop with ITE and the Vision Zero Network in February 2019 and in researching best practices from national studies and other leading cities. This framework relies on objective criteria, informed by community and policy objectives, to prioritize streets with the most serious speeding problems for targeted speed mitigation strategies³. The seven key Speed Management Program elements are as follows:

1. Data and information
2. A toolkit of engineering countermeasures
3. Methods for setting speed limits
4. Holistic approach with education and enforcement
5. Coordination with other programs
6. Equity
7. Evaluation

Strategic Speed Management Program

This approach provides different tools and strategies by roadway contextual factors applied to street levels including the following:

- Street Levels 1 & 2 (neighborhood and collector streets)
- Street Levels 3 & 4 (corridor and arterial roadways)



Images of several physical engineering countermeasures used are shown above: Rain Garden Bulb Out (top left), Median and Speed Cushions (top right), and Mountable Traffic Circles (bottom). *Source: City of Austin*

Key Takeaways and Lessons Learned

- **Community Engagement** – The final measures and criteria used for the new speed management program framework included community conversations from three open houses, seven public meetings, and an online survey that received more than 1,100 responses.
- **High Injury Network** – While all streets should function with safe speeds, some streets have egregious and more persistent speeding problems than others. Given limited resources, ATD will prioritize how and where to apply speed management strategies.
- **Behavior** – Crash locations change but driver behaviors are constant. The city identified the top four behaviors contributing to serious injury and fatal crash and is focused on coordinating education and enforcement strategies to influence change. City policy seeks to advance innovative approaches toward enforcing traffic regulations and aligning penalties for traffic violations with the severity of the offense.
- **Target Speeds** – Austin’s approach to speed management begins with selecting safe target speeds for all streets based on their context. Target speed refers to the speed at which the city want cars to drive on the street. Surrounding land uses, traffic volumes, and pedestrian activity all affect the appropriate target speed. Target speed informs the design speed which is specific to geometric features or the elements of a roadway necessary to achieve the target speed. Staff uses design criteria that are at or below the target speed of a given roadway. The posted speed limits are set to help communicate and reinforce target speeds. After setting the target speed, and implementing design speeds, staff analyze operating speed, which refers to the observed speed of motorists using the roadway. Using target instead of operating speeds to influence the design speed allows the community to prioritize safety and the agency to design for safety in support of the goal to reduce the likelihood that any crash will result in a fatal or serious injury.
- **Indicators and Targets** – The city has established specific measures to gauge achievement, for example, the indicator to “Reduce serious injury and fatal crashes at locations where major capital improvement projects have been implemented” is matched with a target to “Achieve at least 40% reduction over a five-year period, on average.”
- **Enforcement** – Speeding is expected to be substantially underreported as a contributing factor given the difficulty in determining the actual travel speed of a vehicle after a crash has occurred. Austin seeks to promote driver adherence to posted speed limits through coordinated education and enforcement campaigns and policy reforms around automated enforcement. In addition, police officers can assign one or more contributing factors to a crash in their crash report. This information provides valuable insights into some of the human behaviors that most frequently contribute to crashes. As an example, the rise in the use of alternative transportation modes, such as electric scooters, creates a new data demand for traditional crash forms. Austin Police are working with TxDOT to consider adding “scooter” as a vehicle type on their crash form to quantify crash experience, target enforcement, and to support selection of potential safety improvements³.

1 Austin Strategic Mobility Plan. [Report]. Retrieved December 28, 2019 from <http://app.box.com/s/7aiksxmwwgymalsty0lm21wingk0slug>

2 Miesse, Eric (July 21, 2019). *Speed Management: Law Enforcement Perspective* [Presentation]. Noteworthy Speed Management Practices, ITE Annual Meeting, Austin, TX.

3 Spillar, Robert (June 24, 2019). *Speed Management Program - Draft Framework* [Memorandum]. City of Austin, TX. <http://www.austintexas.gov/edims/pio/document.cfm?id=322565>