Effectiveness of Transportation Safety Improvement Projects in Austin, Texas

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Austin Transportation Department
Fatalities Outlook

• 3773 Total Fatalities in a Year

• in USA last year? 2016 → 37,461 1.18 per 100 MVMT

• in Canada last year? 2016 → 1,898 0.77 per 100 MVMT

• in Texas last year? 2016 → 3,773 1.44 per 100 MVMT

• in Colorado last year? 2016 → 608 1.15 per 100 MVMT
Transportation Safety Improvement Program

• Spike in fatalities in 2015 in Austin, Texas (over 100 fatalities)

• City Council Appropriated about $4 million for Transportation Safety Improvement Program

• Subsequently Vision ZERO Action Plan was Adopted on May 19 2016

• A Commitment to Reduce Deaths and Serious Injuries to Zero by 2025
Major Safety Improvements at Five High Priority Intersections

$4 Million Funding
Five High Priority Intersections
For Safety Improvements

• N Lamar Boulevard / Parmer Lane
• N Lamar Boulevard / Rundberg Lane
• US 183 Service Road / Cameron Road
• IH-35 Service Road / MLK Boulevard
• Slaughter Lane / Manchaca Road
Selection of Locations For Safety Improvements

• Historical Crash Data Used in Determination
  – Considered crash frequency and crash rates
  – Considered casualties (fatalities and injuries)

• Other Criteria for Determination
  – Discernable crash clusters / patterns
  – Mitigated by engineering improvements
  – High safety benefits and cost-effective implementation
N. Lamar Boulevard / Parmer Lane
Featured Safety Improvements

Conventional Right-turn Channel

- High speeds
- Low visibility of pedestrians
- A real head turner

Urban Smart Channel

- Slower vehicle speeds
- Good visibility of pedestrians

70 degree Entrance Angle

Shoulder Checking Increased
Driver Workload
AFTER IMPROVEMENTS
Before-After Study (Annual Reductions)

- Total Crash: Before Period = 9, After Period = 5, Reduction = 59%
- Severe Crash: Before Period = 7, After Period = 4, Reduction = 56%

Before-After Study: EB Method (Safety Effectiveness)

- Total Crash: Before Period = 9, After Period = 5, Safety Effectiveness = 40%
- Severe Crash: Before Period = 7, After Period = 3, Safety Effectiveness = 47%
AFTER IMPROVEMENTS

A TRAFFIC SIGNAL

A PHB
BEFORE IMPROVEMENTS

AFTER IMPROVEMENTS
AFTER IMPROVEMENTS
Before-After Study (Annual Reductions)

Before-After Study (Effective Reduction EB Method)
Transportation Safety Improvement Program

- Continuing Intersection Improvement Projects under 2016 Mobility Bond Program

- $15 Million Funding
No Matter What We Do...
Questions??