Improving Safety at Signalized Intersections

June 15, 2018
San Antonio
Vision Zero Summit

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• Crashes at Signalized Intersections
• Techniques to improve pedestrian safety
• Impacts of signal timing on safety
• Smart City applications
• Highway Safety Improvement Program
Your Route Guidance is Starting Now....
WHY DO SIGNALIZED INTERSECTIONS MATTER?

2017 Statewide KAB Crashes

- Signalized: 82%
- Other: 18%
WHY DO SIGNALIZED INTERSECTIONS MATTER?

2017 Statewide KAB Crashes at Intersections

- Signalized: 46%
- Other Intersections: 54%

Signalized vs. Other Intersections
IMPROVING PEDESTRIAN SAFETY

- Leading Pedestrian Intervals (LPIs)
- Modified Flashing Yellow Arrow Operation
- Other Treatments
LEADING PEDESTRIAN INTERVAL
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OTHER TREATMENTS

- Exclusive Pedestrian Phase
- Pedestrian Hybrid Beacons (HAWKs)
- Rectangular Rapid Flashing Beacons (RRFBs)
- Audible Pedestrian Signals (APS)
- Bicycle Signals
CORRIDOR TIMING

- Assumed Speed
- The Racing Effect
- Traffic Control – Not Traffic Calming
SMART SIGNALS FOR A SMART CITY
• Applicable HSIP Categories
  • 107 – Install Traffic Signal
  • 108 – Improve Traffic Signals
  • 110 – Install Pedestrian Signals
  • 131 – Improve Pedestrian Signals
  • 138 – Install Flashing Yellow Arrow

• City of San Antonio is currently constructing or designing 24 HSIP funded traffic signals! (16 on-system, 8 off-system – 1 new, 23 rebuilds)
You Have Arrived at Your Destination.
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