

# Using Data to Move from Reactive to Proactive about Pedestrian Safety

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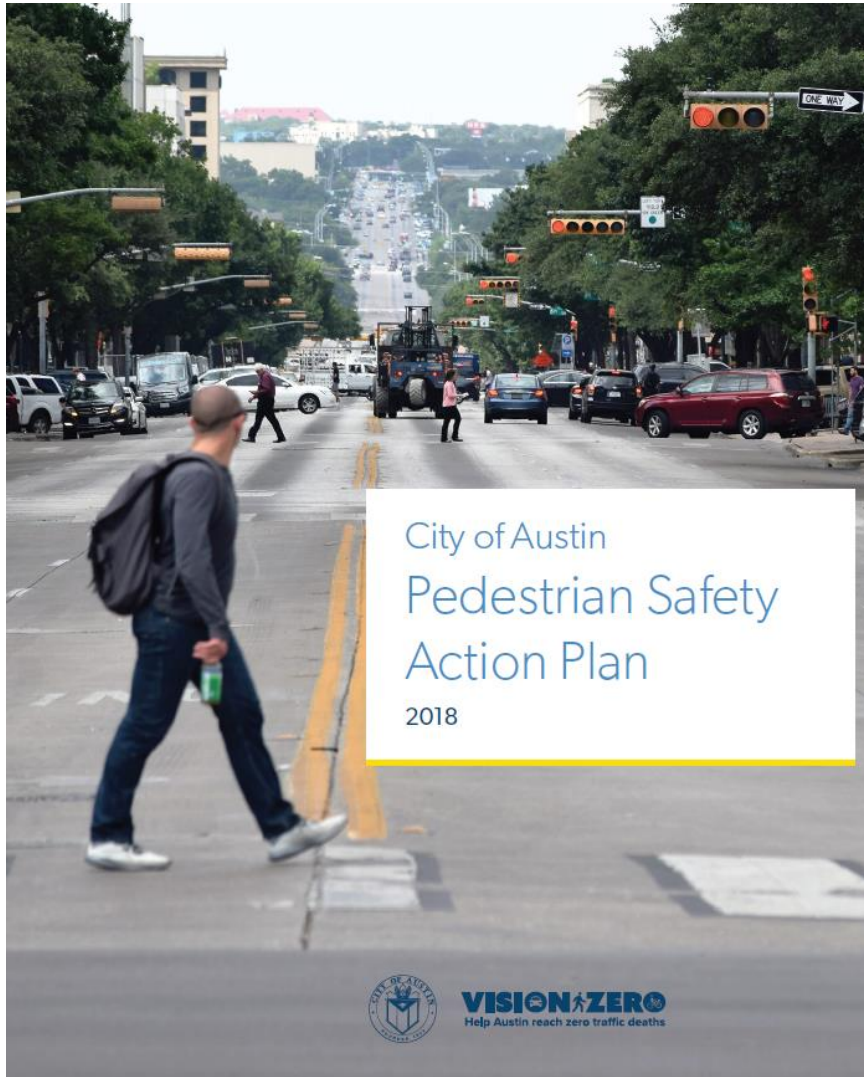
**Toole**DesignGroup

context



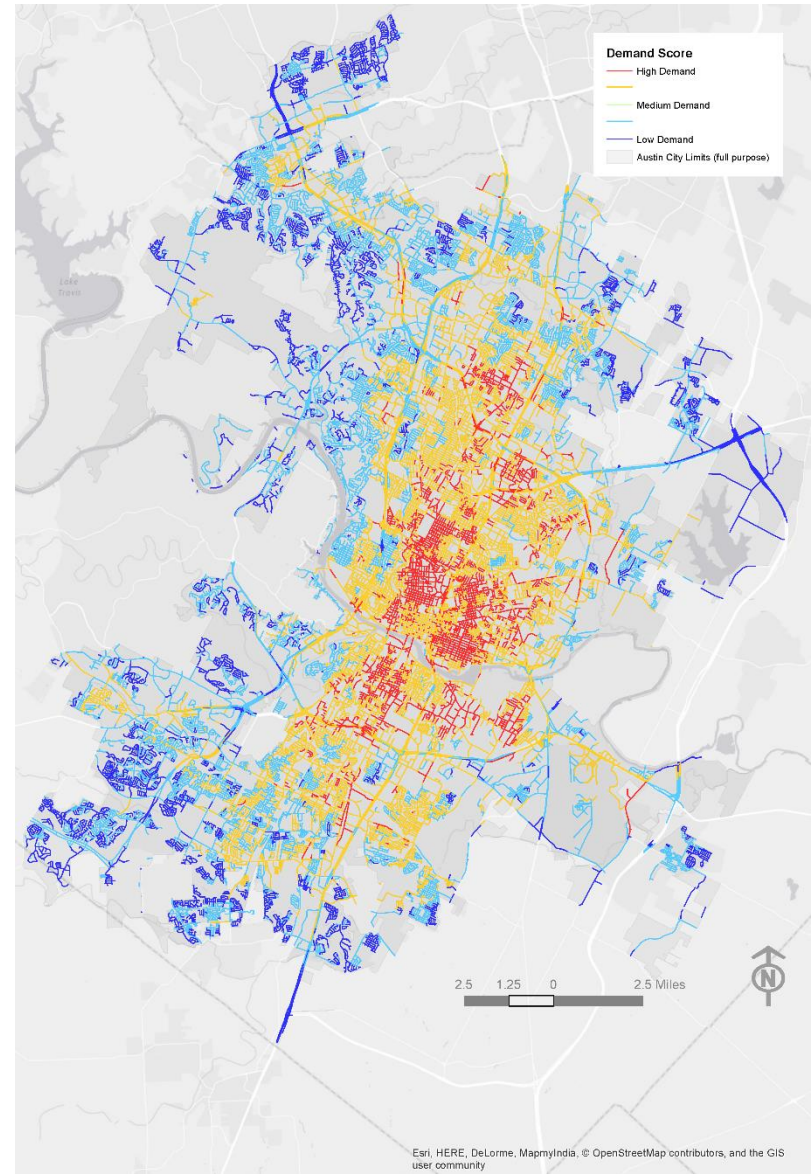
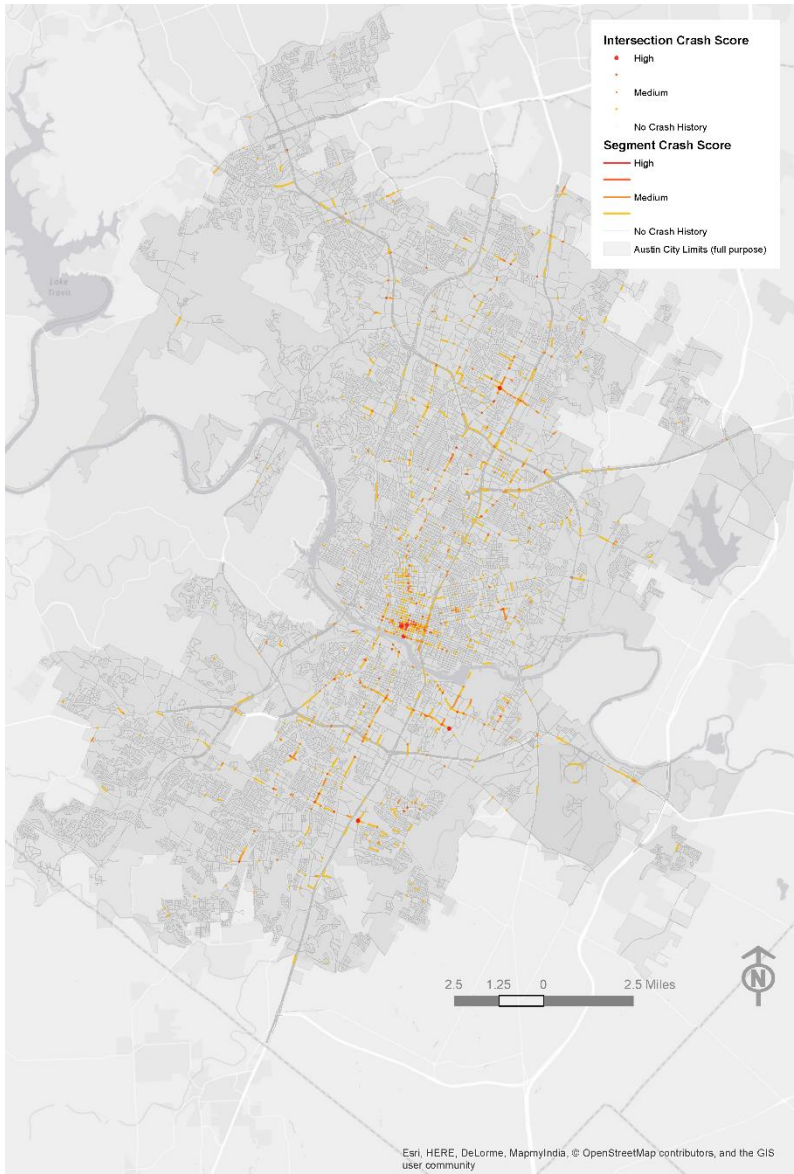
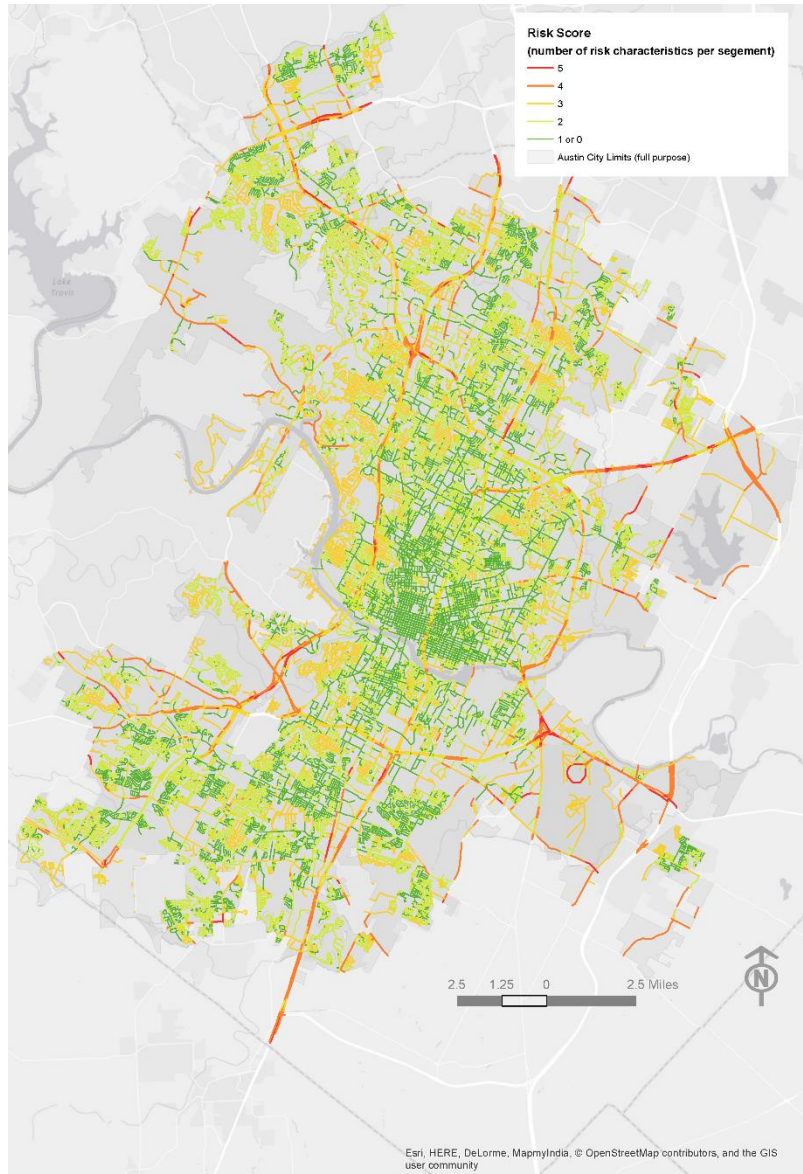
# we know the indicators...





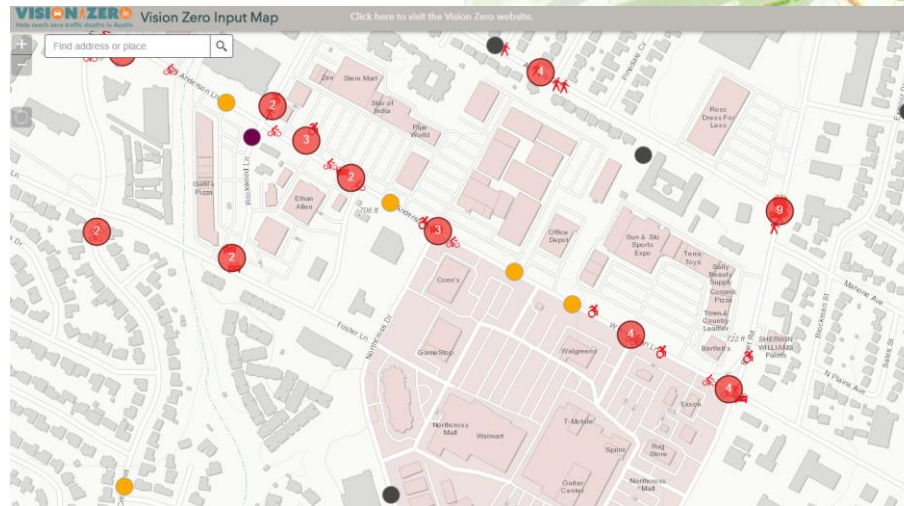
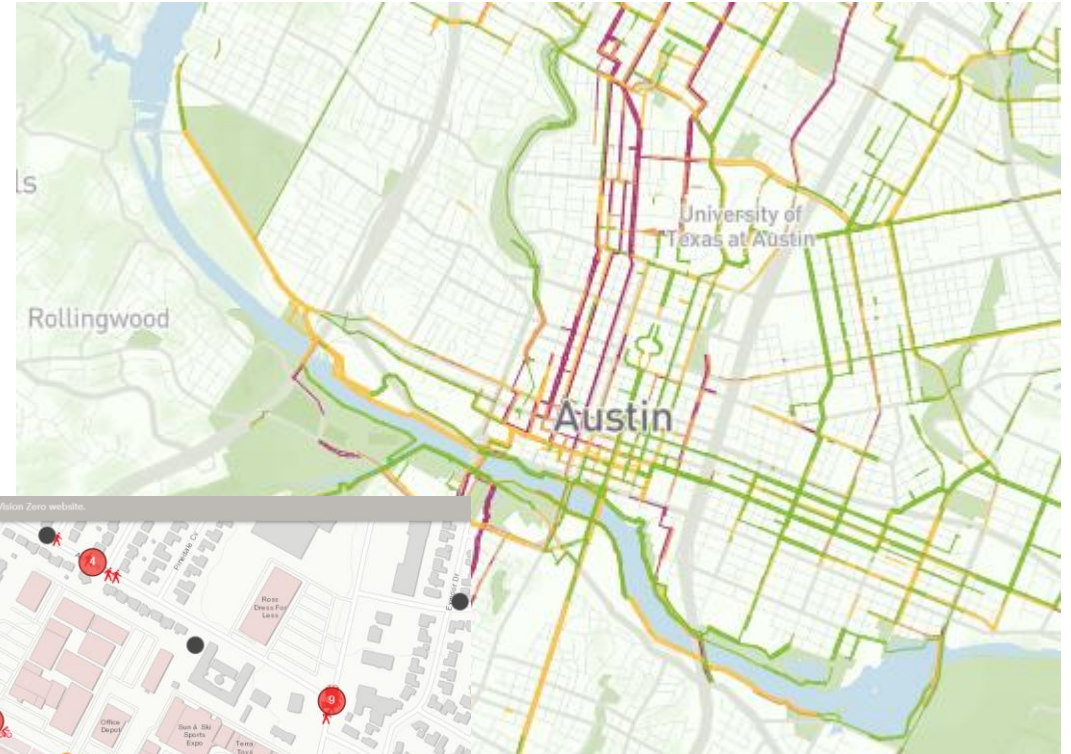
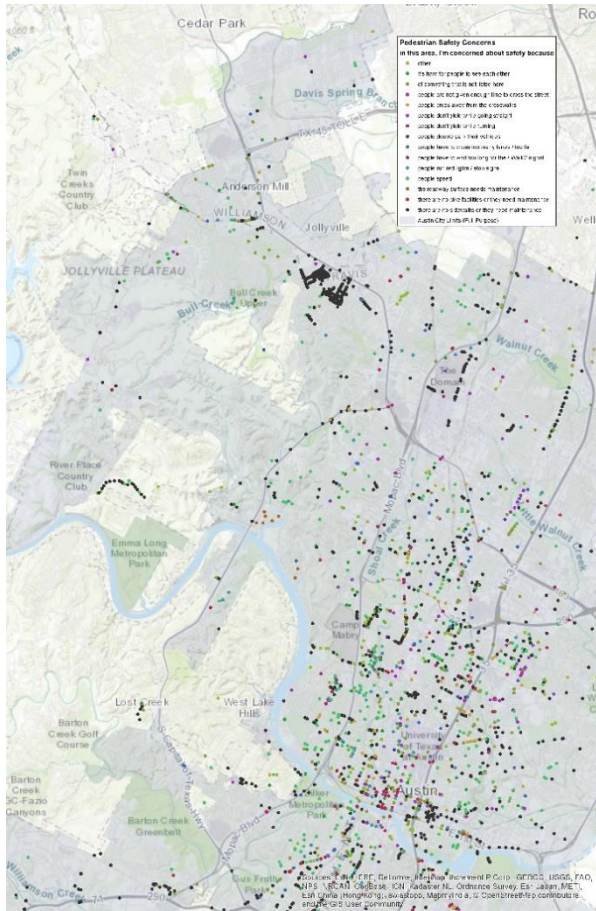
Crash Analysis  
Community Priorities  
**Pedestrian Safety Priority Network**  
Action Plan  
Engineering  
Education  
Enforcement  
Policy + Land Use  
Evaluation  
Partners and Funding







## other sources and inputs



# “Hidden” data points

- ▶ Where do people walk
- ▶ Where do people want to walk
- ▶ How are short trips being made
- ▶ Before and after metrics on countermeasures



# Reactive to Proactive, thinking in context





# CTR Yielding Study

- ▶ Testing yield compliance of drivers
- ▶ 25 crossings at each location
- ▶ Time, date, yielding vehicles, weather, observed speed, posted speed, traffic volume, pedestrian volume, visibility



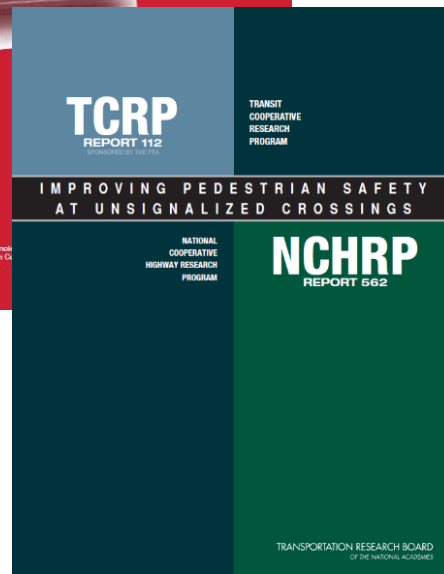
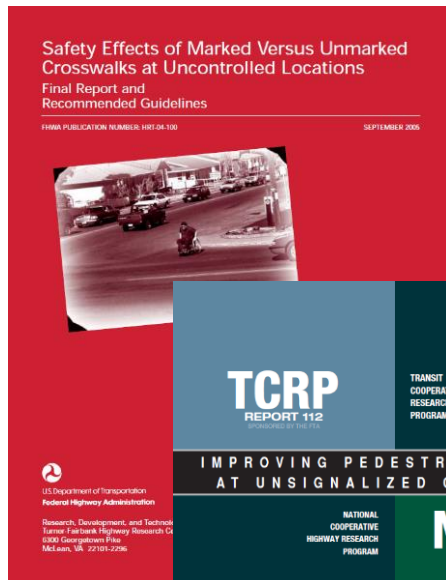
# Coordination

- ▶ Cap Metro
- ▶ Sidewalks and Special Projects
- ▶ Urban Trails
- ▶ Safe Routes to School
- ▶ Street and Bridge
- ▶ 2016 Mobility Bond

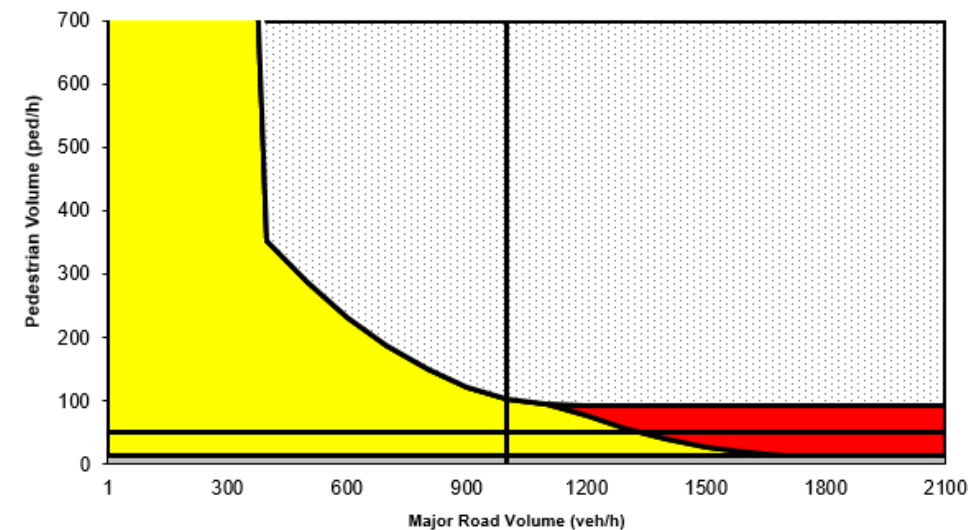




# Crossing Guidelines Development

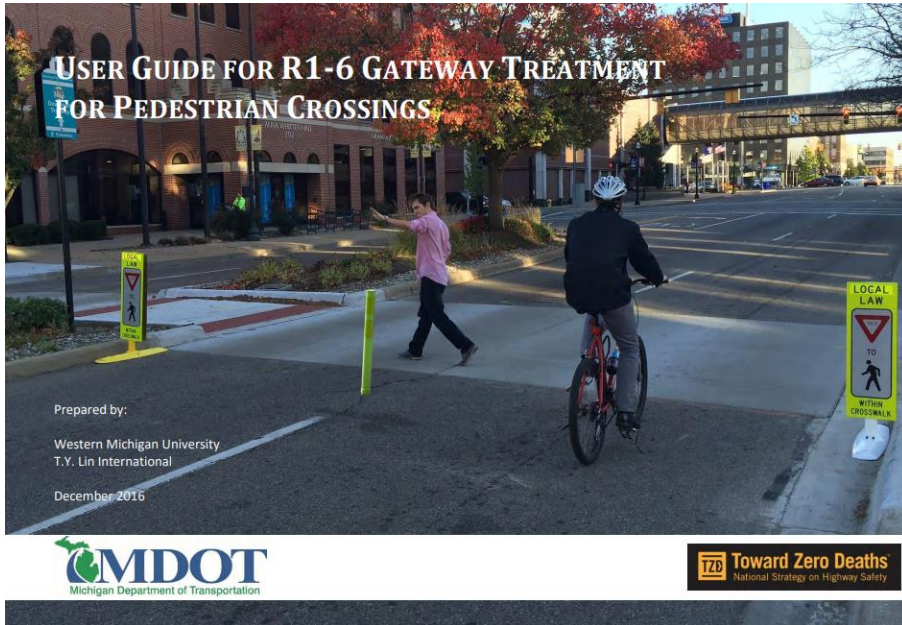


Analyst and Site Information			
Analyst Name		Major Street	
Analysis Date		Minor Street or Location	
<b>Speed:</b> 85th percentile speed if known, or posted or statutory speed limit on the major street (mph)	40	mph	
<b>Pedestrian Volume:</b> pedestrian crossings per hour in peak hour	50	peds/hr	
<b>Crossing Distance:</b> curb to curb pedestrian crossing distance (feet)	25	feet	
<b>Vehicle Volume:</b> total peak hour volume of both approaches OR approach being crossed if refuge island is present	1,000	vehicles/hr	
<b>Treatment Recommendation</b>	<b>ACTIVE OR ENHANCED</b>		



<b>NO TREATMENT</b>	Treatment typically not recommended -- use engineering judgement	<b>ACTIVE OR ENHANCED</b>	Devices that increase visibility of the crossing and/or warn motorists of pedestrian presence + curb ramps:  - RRFB - In-street signage/Gateway treatment - Advance yield bars - In-roadway warning lights - Overhead flashing beacons	<b>RED</b>	Pedestrian Hybrid Beacon + curb ramps
<b>CROSSWALK</b>	Marked crosswalk + curb ramps			<b>SIGNAL</b>	Traffic signal, if warrants are met + curb ramps

# Quick Build Treatments



## R1-6 Gateway Treatment

In-street signage

Complements existing infrastructure

**Rectangular Rapid Flashing Beacons**  
New Interim Approval, covers all of Texas  
10 installations to evaluate compliance





# Research with Toole Design Group

## High Injury Network

- ▶ HIN and GIS script/tool

## Systemic Safety Analysis

- ▶ pedestrian and bicycle exposure where known
- ▶ estimate volumes for the entire network
- ▶ risk factors associated with known safety issues
- ▶ locations that have a greater likelihood of a crash, **regardless of whether crashes have been reported there in the past**

## Pedestrian Signal Guidelines

- ▶ Timing
- ▶ Locations
- ▶ Prioritization
- ▶ Phasing
- ▶ Signal actuation

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