

# Existing & Emerging Practices for Addressing Speed Limits

## City Council Mobility Committee

December 7, 2016



AUSTIN  
TRANSPORTATION  
DEPARTMENT



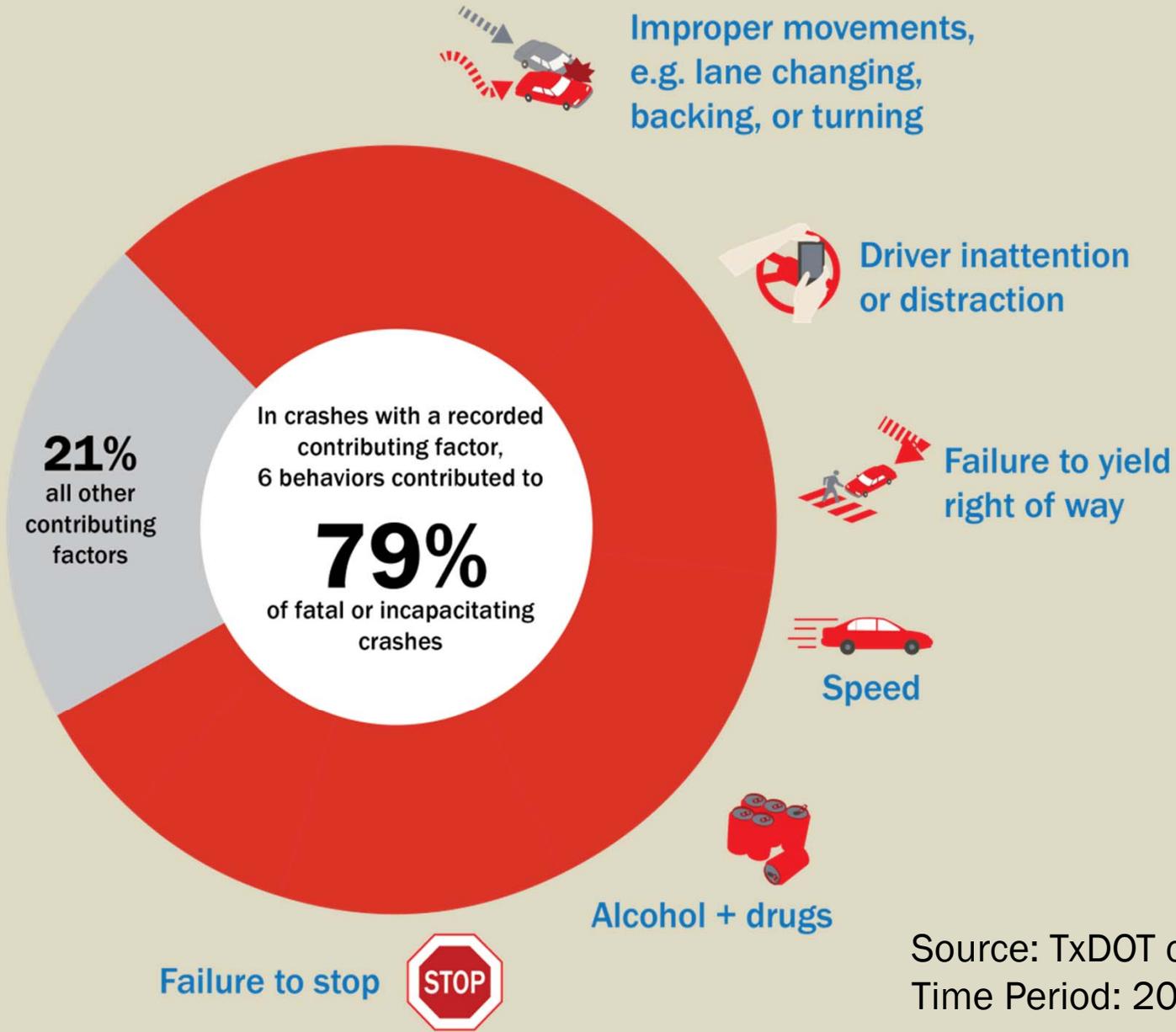


# Action Plan Vision

requires a concerted, **multi-pronged approach** that addresses:

- land use, transportation, infrastructure, engineering, & design;
- enforcement & prosecution;
- education, culture change, public health, & equity.

# Focus on Key Dangerous Behaviors



Source: TxDOT crash data  
Time Period: 2010-2014

# Affect of Speed on Crash Outcomes

A PEDESTRIAN HIT BY A  
VEHICLE TRAVELING AT

**20 MPH**



HAS A **98%** CHANCE OF  
SURVIVAL

A PEDESTRIAN HIT BY A  
VEHICLE TRAVELING AT

**30 MPH**



HAS A **92%** CHANCE OF  
SURVIVAL

A PEDESTRIAN HIT BY A  
VEHICLE TRAVELING AT

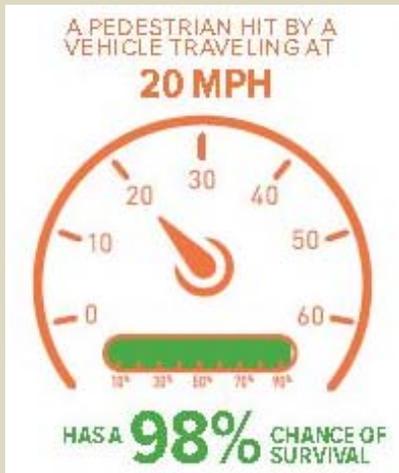
**40 MPH**



HAS A **62%** CHANCE OF  
SURVIVAL

Source: Rosen and Sander. *Pedestrian fatality risk as a function of car impact speed*. *Accident Analysis and Prevention* 41 (2009) 536-542.

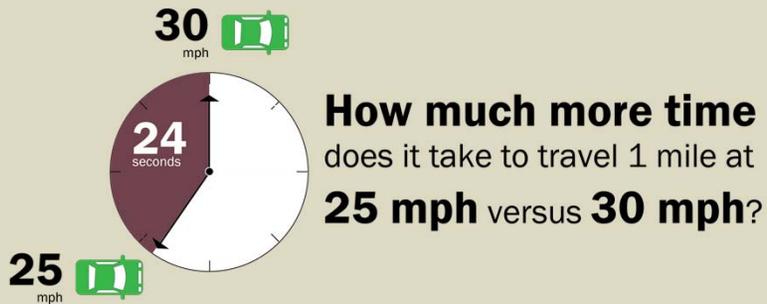
# Benefits of Lowering Speeds



Improved Safety



Greater Use of Active Transportation



Minimal Effect on Travel Times



## Vision Zero Action Plan

**Policy Action 44:** “Work at the local and state level to lower default speed limits congruent with research on speed and best practices.”

## Resolution 20160519-049

“The City Manager is directed to analyze existing and emerging transportation practices related to the establishment of posted roadway speeds, with equal emphasis between high speed roadways, secondary streets, and neighborhood streets; identify methods and opportunities to reduce posted speed limits (especially in neighborhoods, and potentially as pilot project studies)...”



## Existing Practices for Setting Speed Limits

**85<sup>th</sup> percentile speed:** “a speed at or below which 85 percent of people drive at any given location under good weather and visibility conditions may be considered as the maximum safe speed for that location.”

The speed limit through an urban district is **30 miles per hour**, unless designated otherwise by the proper authority.

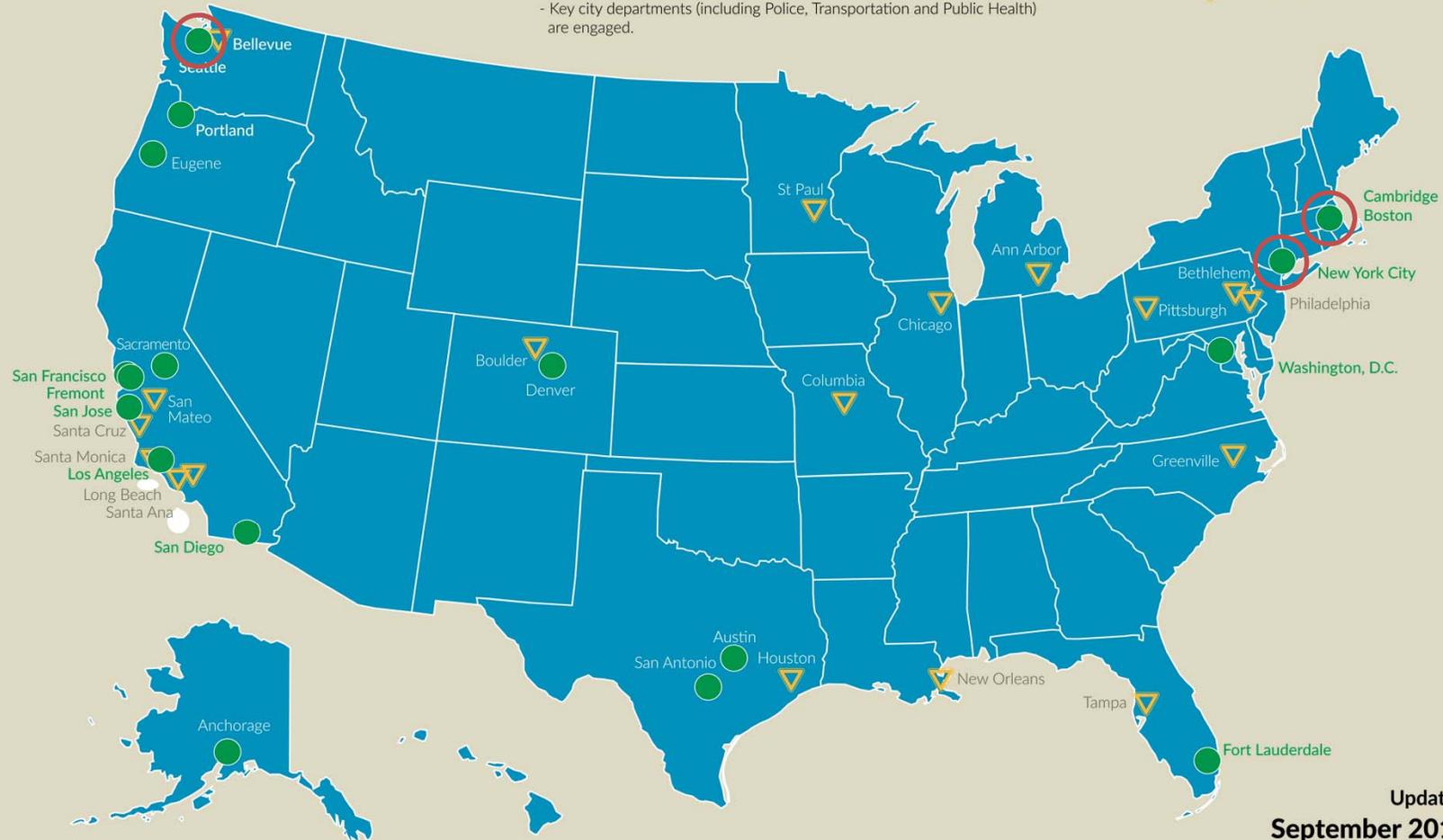
# Existing Practices for Lowering Limits

Method	Requirements
<b>Sec. 545.356 Authority of Municipality to Alter Speed Limits</b>	<p>Can lower to any speed supported by a traffic investigation.</p> <p>Can lower to 25 mph if the City finds the prima facie speed limit to be unreasonable or unsafe. City would annually submit to TxDOT a 2-year comparison of speeding citations &amp; collisions.</p>
<b>Greater-Than-Average Crash Rates</b>	<p>Can lower 7 mph or more below the 85th percentile speed due to a crash rate greater than the statewide average for the same type of roadway section.</p>
<b>Rechecks of Speed Zones</b>	<p>Lower due to changes to road conditions, including improvements to the road, new development, or increases in traffic volumes</p>
<b>School Zones</b>	<p>Below 55 mph: Not more than 15 mph below 85th percentile 55 mph: 20 mph below 85th Greater than 55 mph: Use buffer zones</p>

# Vision Zero Cities

## A Vision Zero City meets the following minimum standards:

- Sets clear goal of eliminating traffic fatalities and severe injuries
- Mayor has publicly, officially committed to Vision Zero
- Vision Zero plan or strategy is in place, or Mayor has committed to doing so in clear time frame
- Key city departments (including Police, Transportation and Public Health) are engaged.



Updated  
September 2016

## Emerging Methods & Best Practices

Reducing urban speed limits is a practice embraced by other Vision Zero cities.

# NYC's, Boston's & Seattle's approaches

City	Default Speed	Other Speed-Related Measures
<b>New York City</b>	Originally 30, lowered to 25 MPH*	20 MPH Neighborhood Slow Zones, with traffic calming
<b>Boston</b>	Originally 30, lowered to 25 MPH*	15 MPH municipally designated zones around parks, schools, etc.
<b>Seattle</b>	Originally 30, lowered to 25 MPH*	20 MPH zones in 10 areas, coupled with traffic calming

\*All 3 cities required state legislation changes.

# Recommendations

# 1. Support State Legislative Change



## City of Houston Legislative Priorities

85<sup>th</sup> Legislative Session



### Reduction of Prima Facie Speed Limit on Local Roadways

#### Current Law

The current statute sets the prima facie speed limit on local roadways at 30 miles per hour (mph).

#### Problem

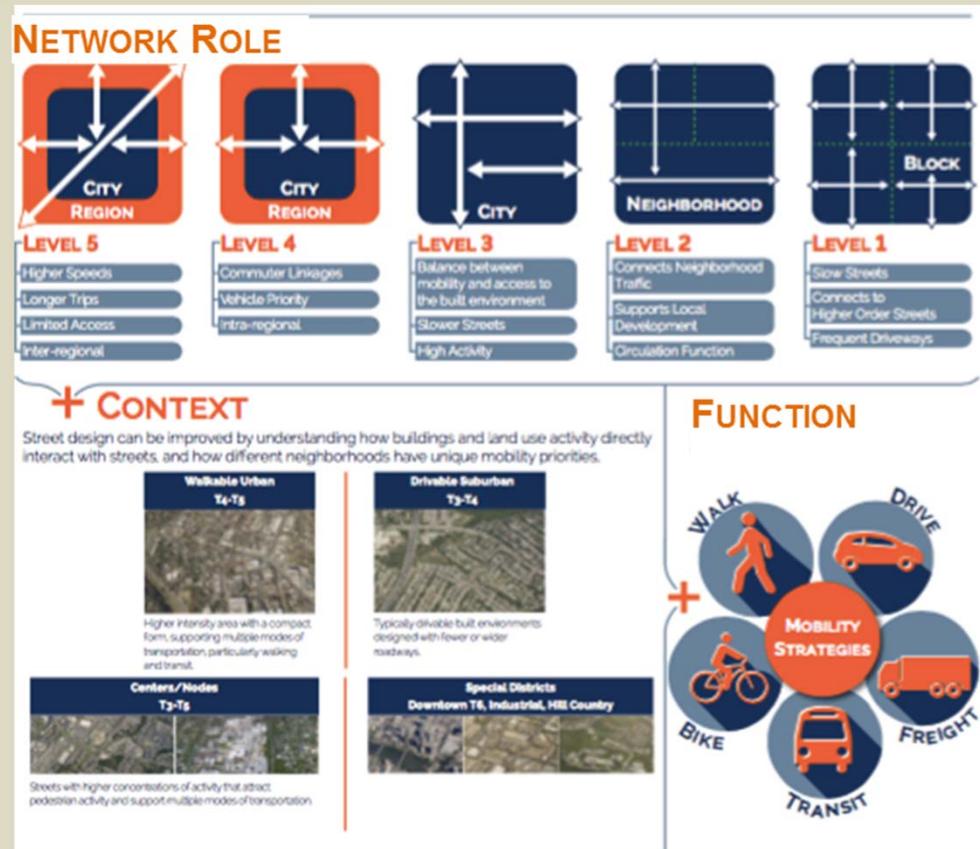
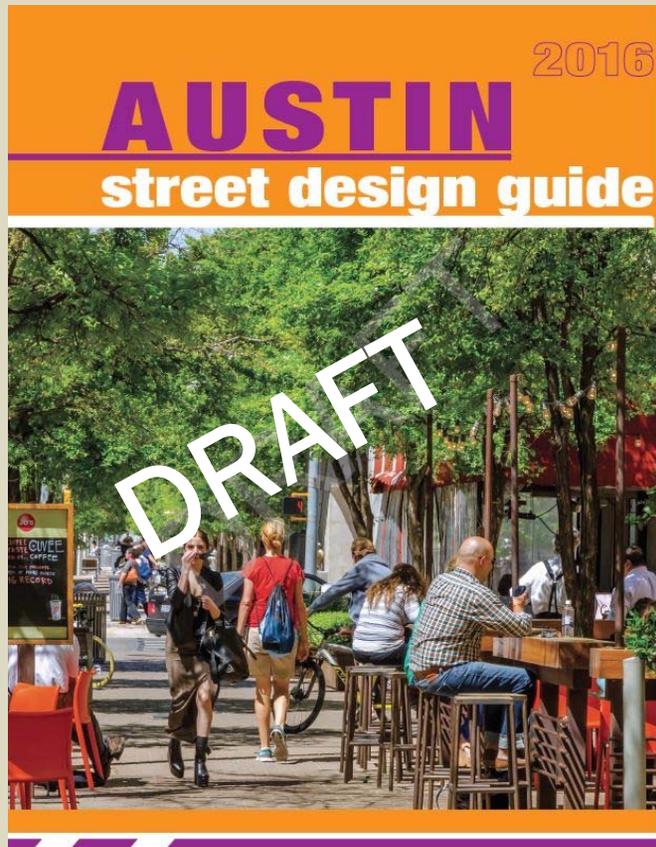
Recent studies, such as a 2011 AAA Traffic Safety Foundation report "Impact Speeds and a Pedestrian's Risk of Severe Injury or Death," find that higher speeds increase the risk to pedestrians. This study found that there is a significant difference in risk in crashes involving pedestrians and vehicles traveling at or above 30 mph versus those traveling at or below 25 mph. Current law allows for a reduction of speed, but requires specific signing. For instance, if the City were to reduce the speed limit within the Rice Military neighborhood (approximately ½ sq. mile) to 25 mph, the City would need to install almost \$100,000 in signs. By reducing the prima facie speed limit, the City would not be required to post signs in neighborhoods unless the City wanted to raise a speed limit above 25 mph. Most roadways that require higher speeds (25 to 45 mph) already have signage.

The reduction in prima facie speed limit will improve safety and save cities money.

#### Proposed Legislative Change

Reduce the prima facie speed limit on local roadways to 25 mph by amending Texas Transportation Code Section 545.352.

# 2. Incorporate Target Design Speeds into Plans & Manuals



- Austin Strategic Mobility Plan
- Update to the Transportation Criteria Manual

# Speeds should match context



**SPEED LIMIT 30**

Arterials

Lower density development, set back from road



**SPEED LIMIT 20**

Neighborhood Streets



**SPEED LIMIT 60**

Highways



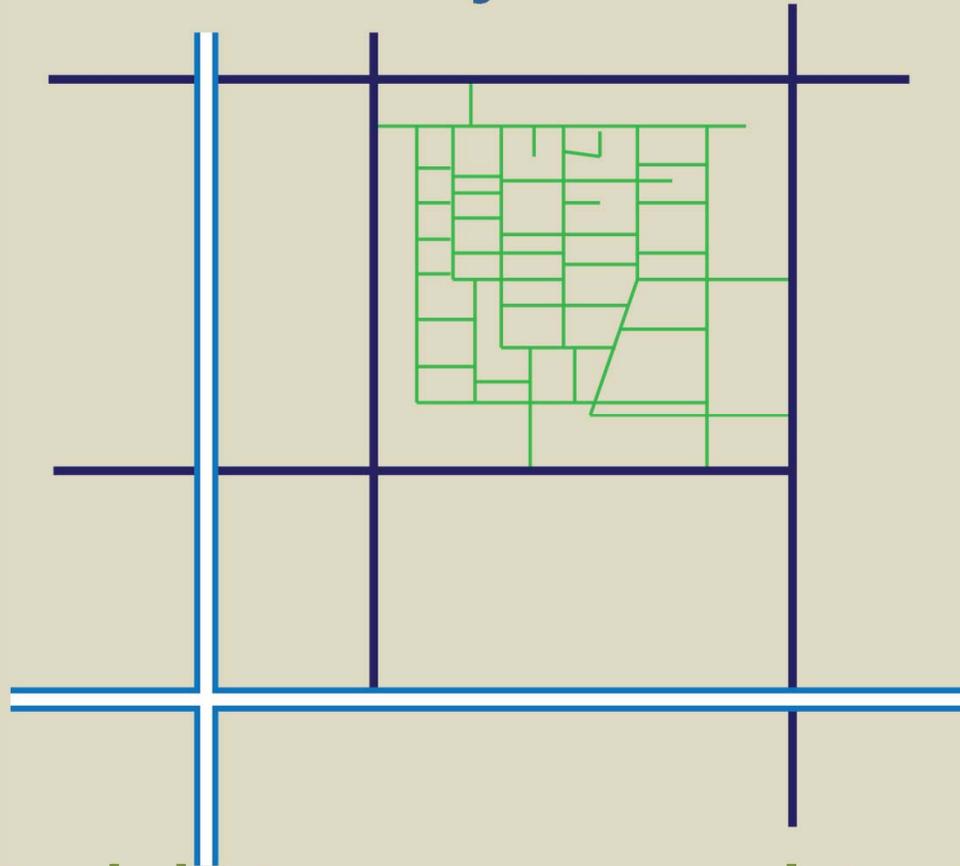
**SPEED LIMIT 25**

Arterials



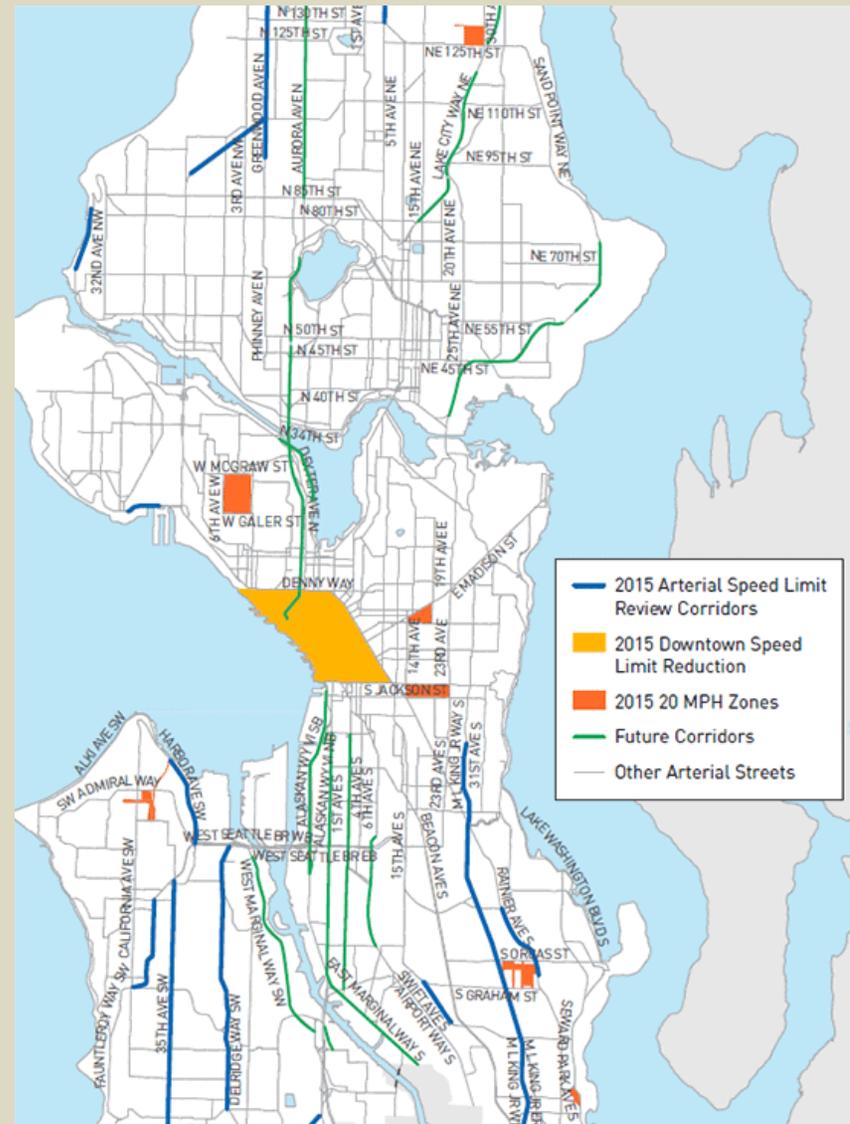
Walkable commercial, residential, & mixed use development

### 3. Evaluate arterial speed limits for appropriateness citywide



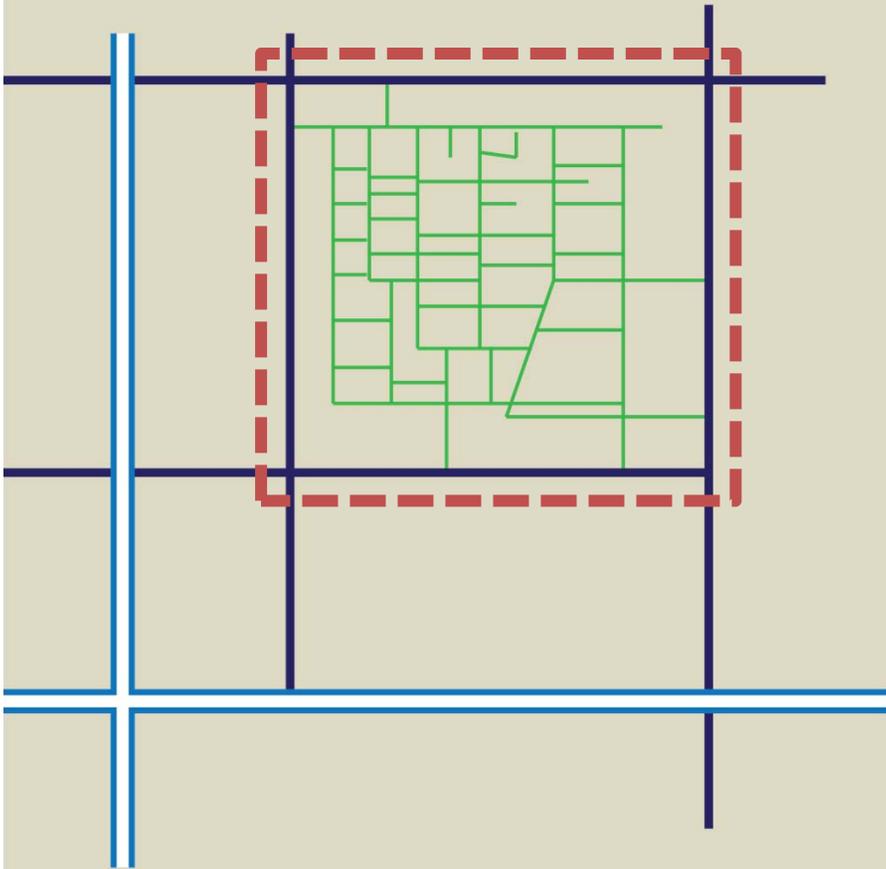
Evaluate arterials to ensure consistent speed limits set for streets with similar operational and design characteristics.

# 4. Create a Slow Zone Pilot



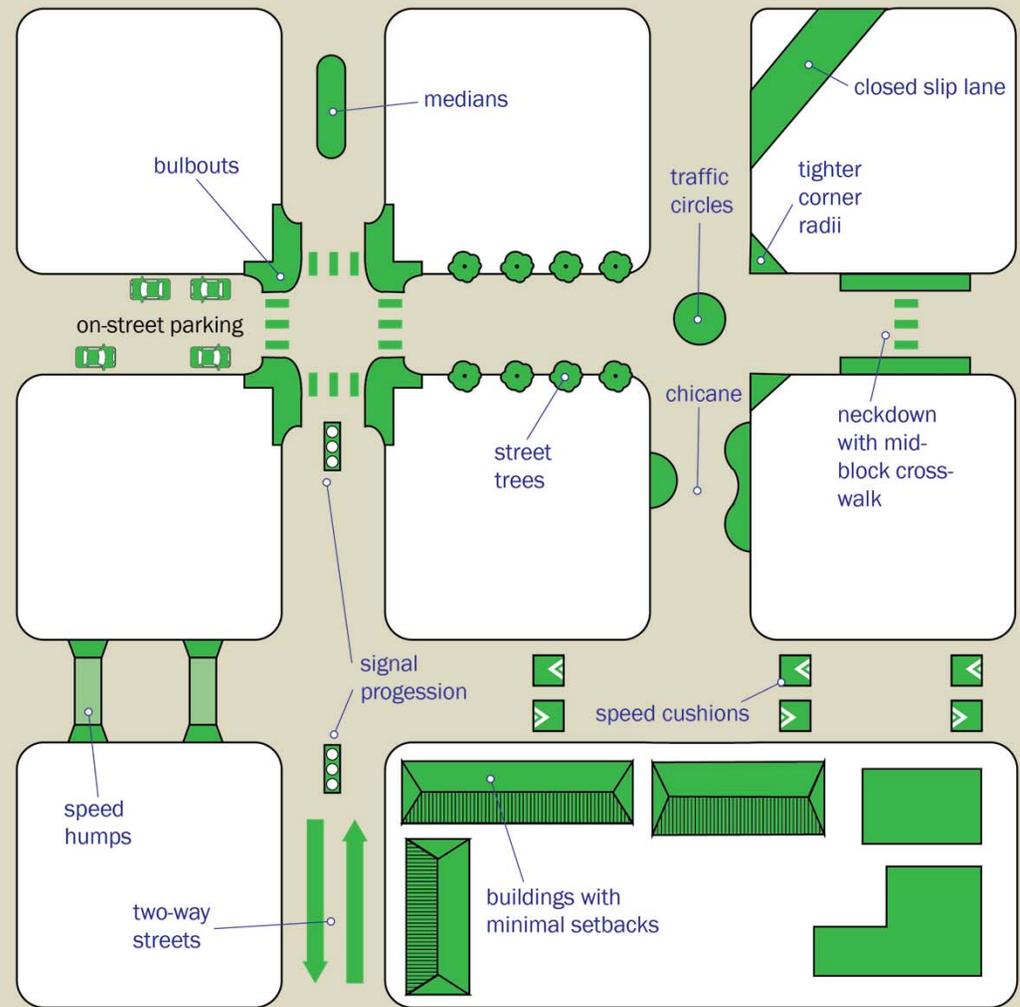
# Slow Zone Pilot

Lower speed limit within the **pilot area** to 25 MPH under existing req. of Transportation Code Sec. 545.356



# Slow Zone Pilot

Pair signage with traffic calming as needed.

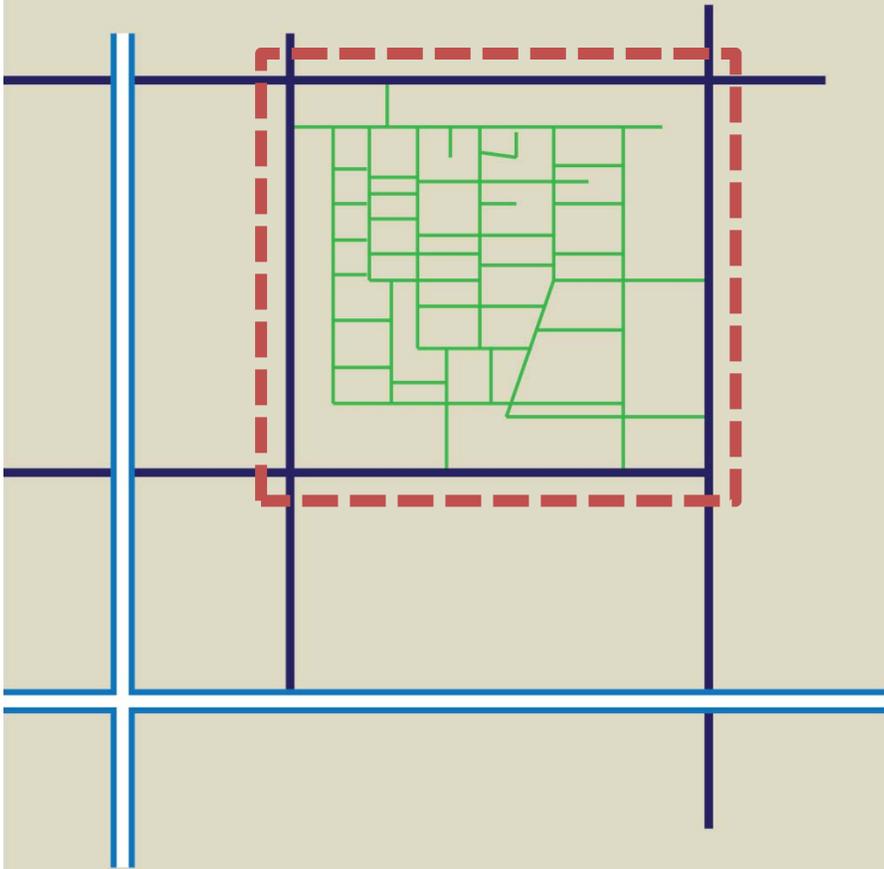


shorter vs. longer blocks

# Slow Zone Pilot

Report to TxDOT in accordance with State Transportation Code Sec. 545.356:

- Number of traffic citations
- Number of warning citations
- Number of speed-related crashes



# SUMMARY OF RECOMMENDATIONS

1. Support legislative efforts introduced by the City of Houston to lower the prima facie speed to 25 mph.
2. Incorporate target design speeds into plans & manuals.
3. Systematically evaluate arterial speed limits citywide for appropriateness.
4. Establish a neighborhood slow zone pilot.

# THANK YOU



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TRANSPORTATION  
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any traffic death is too many

