



TRANSPORTATION

# Vision Zero Update

Lewis Leff | Transportation Safety Officer | 10.7.21



# Years of Life Lost

3,221

(1/1/21 through 9/25/21)

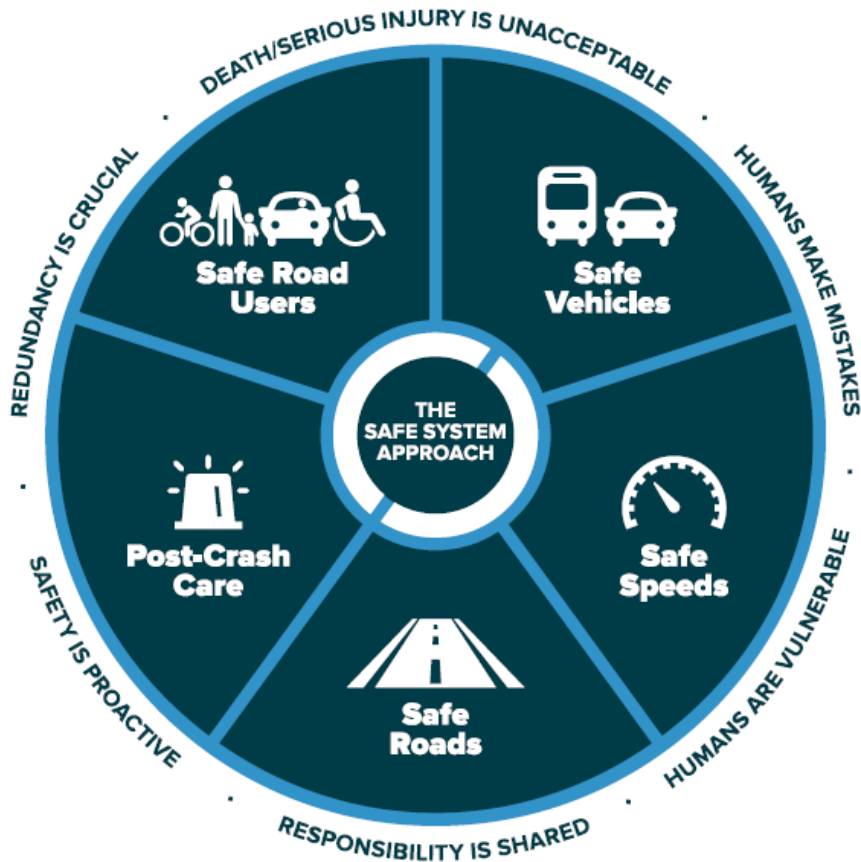


# Key Points

- Fatalities are rising over the past few years
- Serious injuries are trending lower than recent “normal” years
- We continue to scale up engineering solutions as they are the primary strategy to reduce severe crashes, with a focus on safer designs and speed management
- Additional narrowly defined speed and impaired driving enforcement during overnight/early morning hours and on high-speed roadways is a critical need



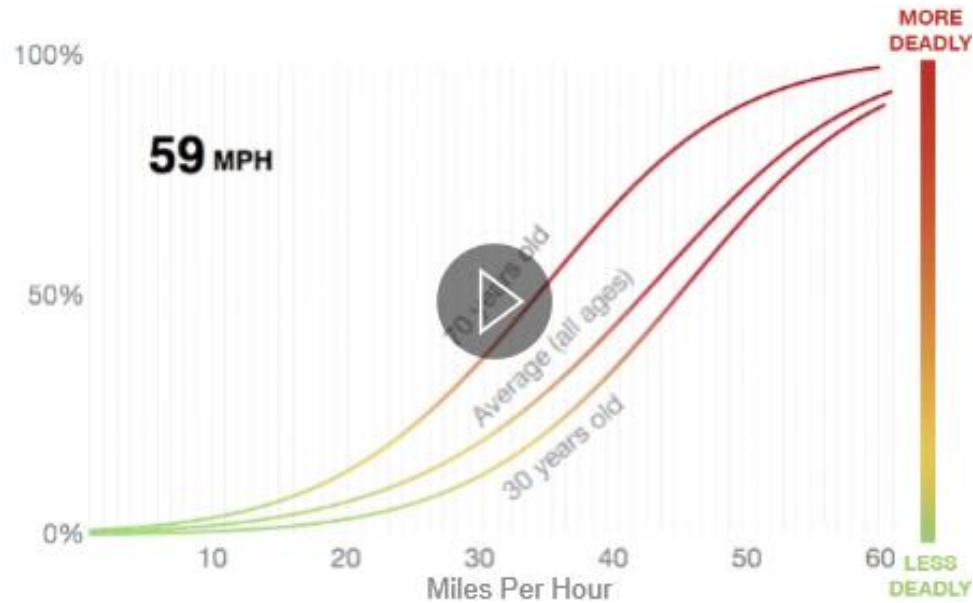




## Vision Zero, Safe Systems Approach

- An ethical approach to safety and mobility; fatalities and serious injuries should not be acceptable
- Human body is vulnerable, humans make mistakes
- Take a holistic view of the resources required post-crash

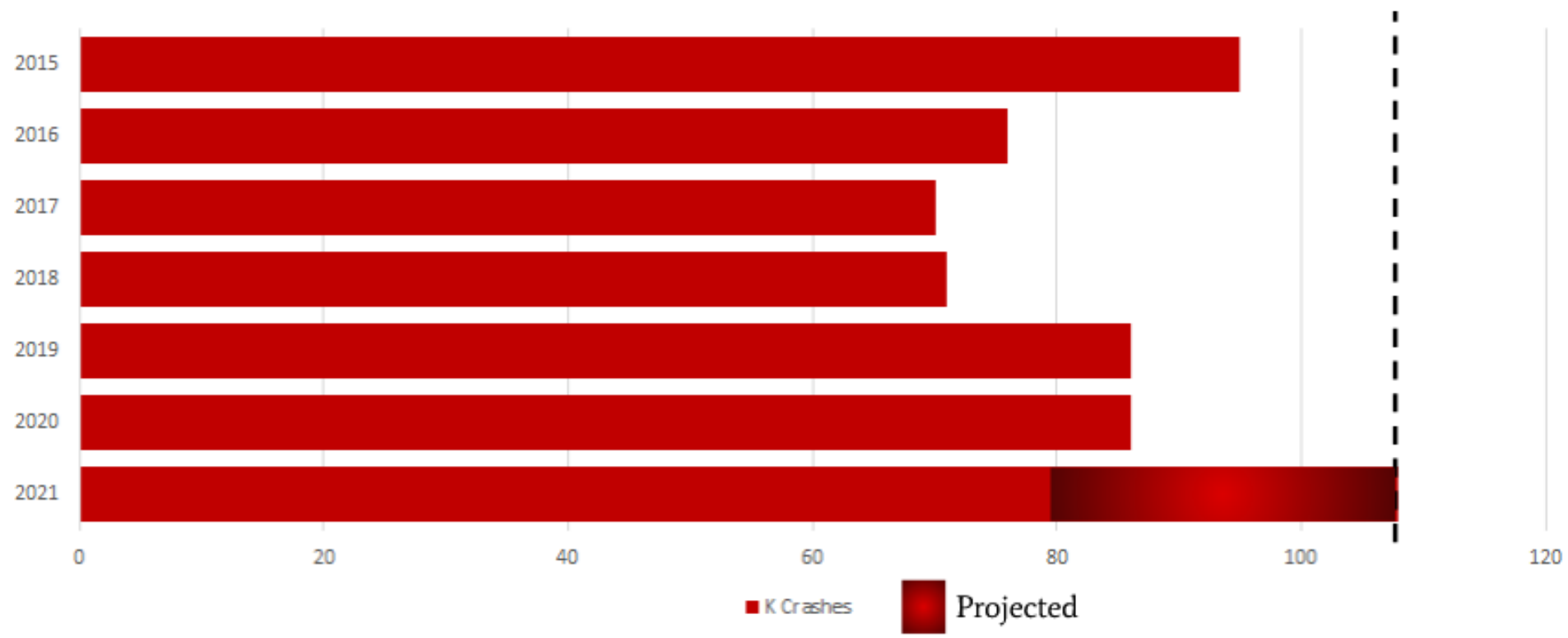
## Vision Zero, Safe Systems Approach



- An ethical approach to safety and mobility; fatalities and serious injuries should not be acceptable
- Human body is vulnerable, humans make mistakes
- Take a holistic view of the resources required post-crash
- Speed is the factor that determines crash severity

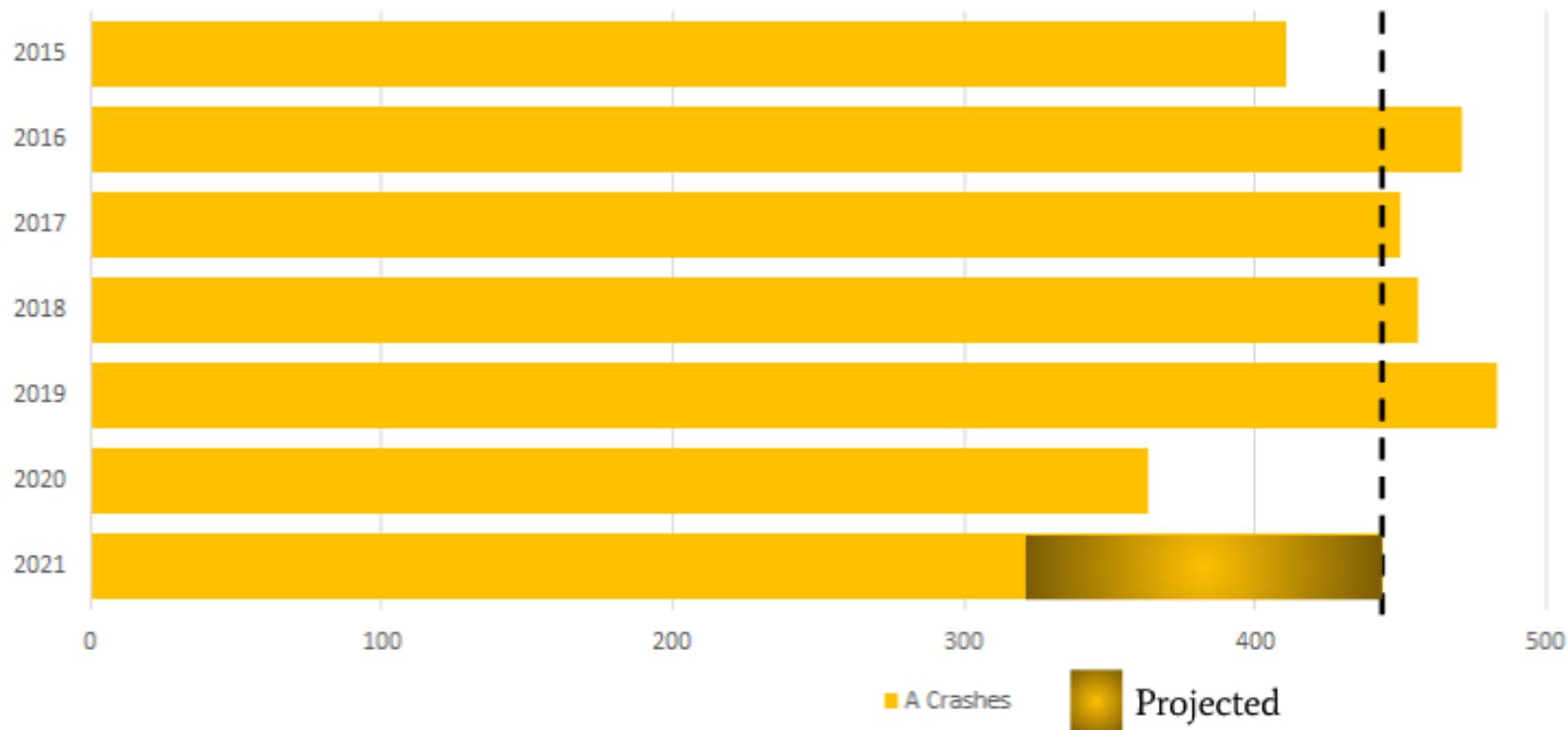
# Austin Data

FATALITY CRASHES (2015 - 2021)  
Actual data through 9/25/21



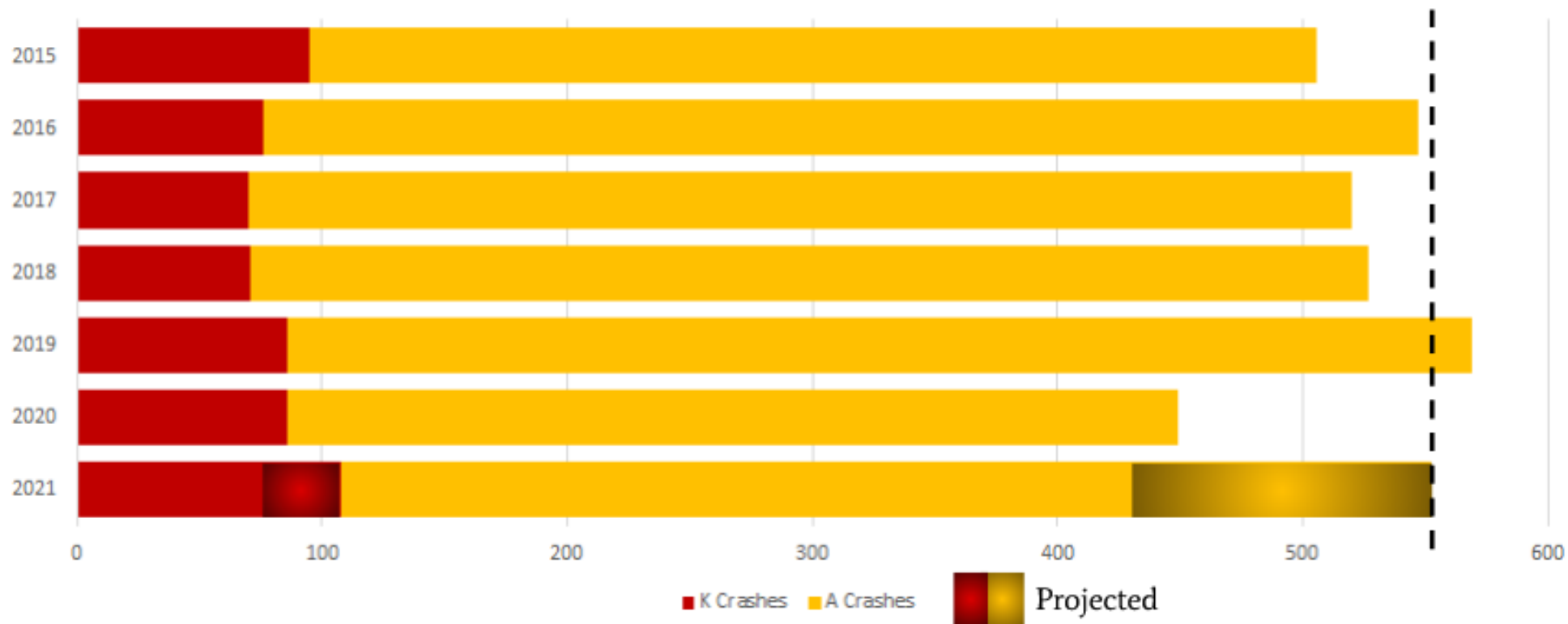
# Austin Data

SERIOUS INJURY CRASHES (2015 - 2021)  
Actual data through 9/25/21



# Austin Data

FATALITY + SERIOUS INJURY CRASHES (2015 - 2021)  
Actual data through 9/25/21





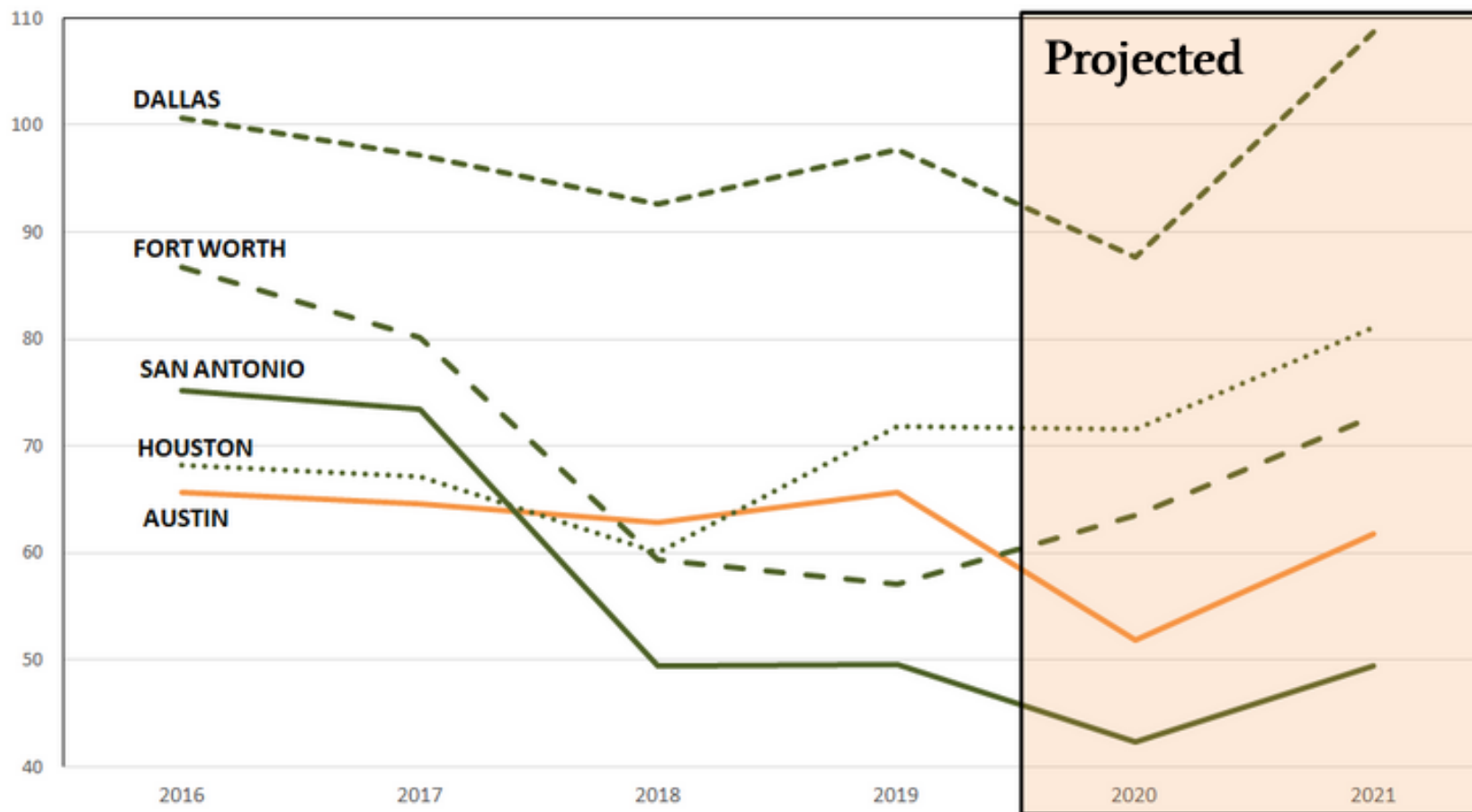
# Austin Data

TIME OF DAY/DAY OF WEEK  
(FATAL + SI CRASHES - 2021)

|     | 12 AM | 1 AM | 2 AM | 3 AM | 4 AM | 5 AM | 6 AM | 7 AM | 8 AM | 9 AM | 10 AM | 11 AM | 12 PM | 1 PM | 2 PM | 3 PM | 4 PM | 5 PM | 6 PM | 7 PM | 8 PM | 9 PM | 10 PM | 11 PM |     |
|-----|-------|------|------|------|------|------|------|------|------|------|-------|-------|-------|------|------|------|------|------|------|------|------|------|-------|-------|-----|
| MON | 3     | 1    | 6    | 1    | 1    | 2    | 1    | 4    | 2    | 1    | 2     | 2     | 1     | 5    | 2    | 2    | 1    | 2    | 1    | 3    | 1    | 0    | 0     | 1     | 45  |
| TUE | 2     | 1    | 2    | 0    | 1    | 1    | 4    | 1    | 2    | 2    | 3     | 4     | 7     | 2    | 0    | 0    | 3    | 3    | 5    | 4    | 3    | 2    | 4     | 1     | 57  |
| WED | 2     | 2    | 3    | 2    | 0    | 0    | 2    | 4    | 1    | 1    | 2     | 4     | 1     | 3    | 0    | 0    | 2    | 6    | 4    | 1    | 3    | 2    | 4     | 5     | 54  |
| THU | 1     | 3    | 1    | 1    | 0    | 2    | 4    | 0    | 1    | 1    | 2     | 3     | 3     | 2    | 2    | 3    | 2    | 5    | 6    | 1    | 1    | 4    | 1     | 1     | 50  |
| FRI | 0     | 2    | 4    | 3    | 1    | 0    | 0    | 1    | 1    | 2    | 0     | 2     | 5     | 0    | 5    | 2    | 0    | 3    | 2    | 4    | 3    | 5    | 3     | 5     | 53  |
| SAT | 4     | 10   | 4    | 3    | 2    | 2    | 0    | 1    | 2    | 5    | 4     | 1     | 3     | 1    | 4    | 3    | 5    | 3    | 2    | 3    | 3    | 4    | 2     | 1     | 72  |
| SUN | 2     | 6    | 9    | 8    | 1    | 2    | 2    | 2    | 1    | 0    | 2     | 2     | 1     | 1    | 4    | 3    | 2    | 2    | 5    | 2    | 5    | 0    | 3     | 3     | 68  |
|     | 14    | 25   | 29   | 18   | 6    | 9    | 13   | 13   | 10   | 12   | 15    | 18    | 21    | 14   | 17   | 13   | 15   | 24   | 25   | 18   | 19   | 17   | 17    | 17    | 399 |

# Context - State Data

FATALITIES + SERIOUS INJURIES PER 100K  
1/1/16 TO 12/31/21 (Projected w/data\* through 9/25/2021)

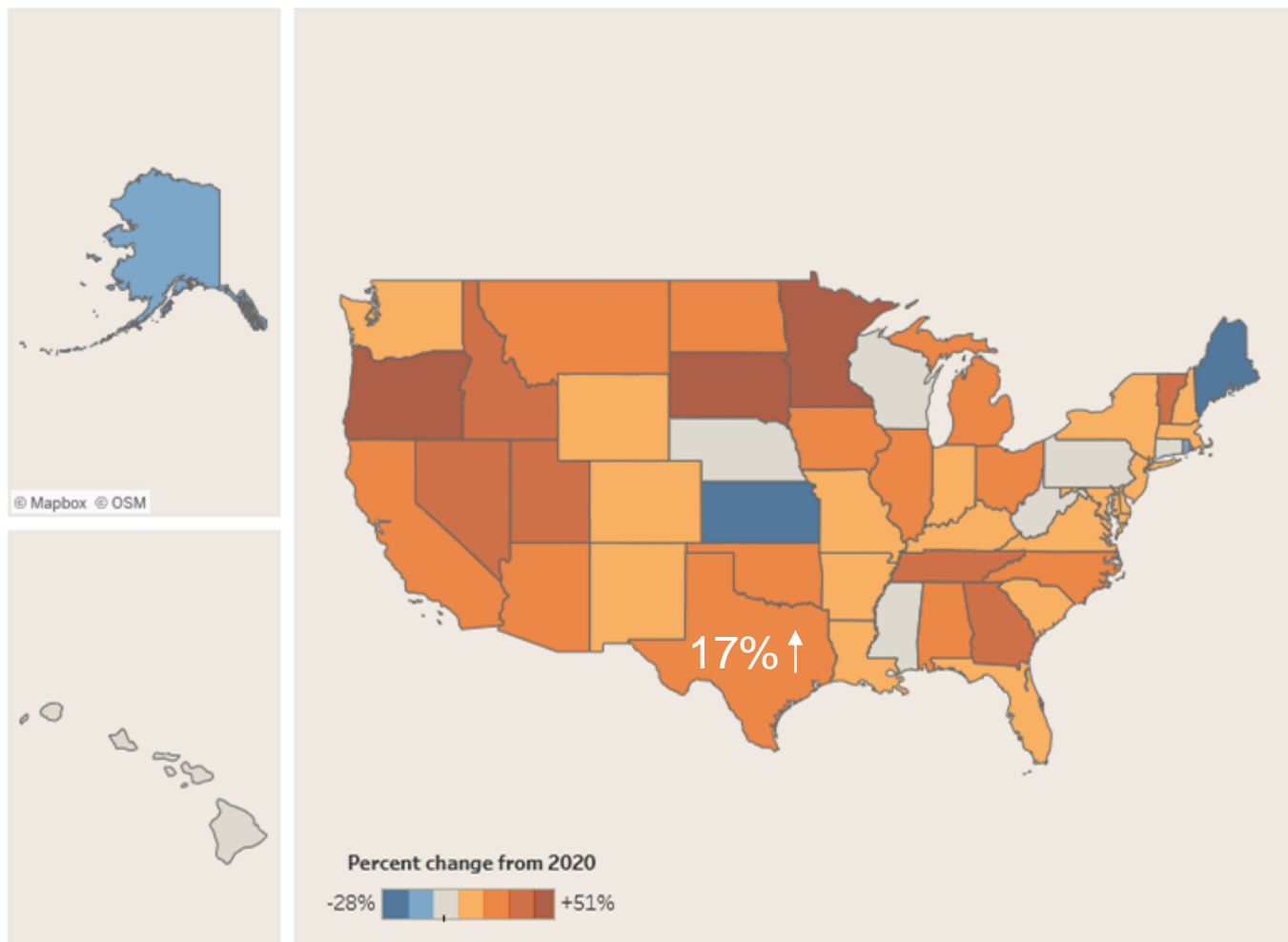


\*Based on available data through CRIS as of 10/4/21

# Context - National Data

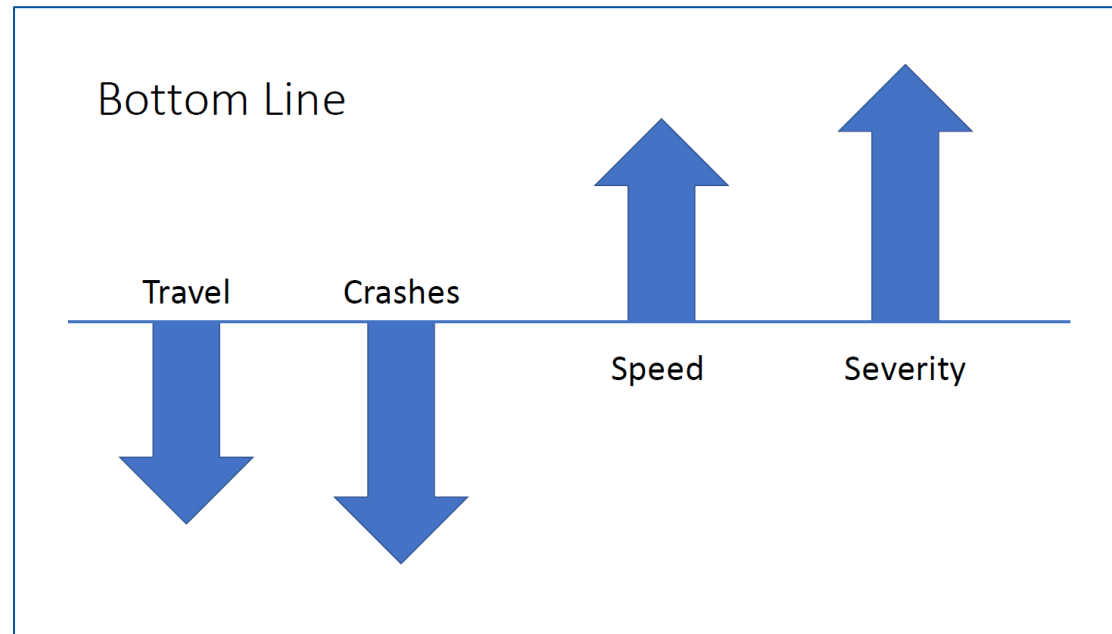
Percent change in 2021 preliminary six month NSC estimates from 2020

US Deaths in 2021: 21,450 Percent Change from 2020: +16%



# Context - Pandemic Impacts

Texas Transportation Institute  
(August 2020)



## Research Papers



Short Communication

Coronavirus disease 2019: What could be the effects on Road safety?

Evelyn Vingilis<sup>a,\*</sup>, Doug Beirness<sup>b</sup>, Paul Boase<sup>c</sup>, Patrick Byrne<sup>d</sup>, Jennifer Johnson<sup>e</sup>, Brian Jonah<sup>f</sup>, Robert E. Mann<sup>g</sup>, Mark J. Rapoport<sup>h</sup>, Jane Seeley<sup>i</sup>, Christine M. Wickens<sup>j,k,l,m,n</sup>, David L. Wiesenthal<sup>o</sup>



“...increased stress and anxiety brought about by the pandemic, more “free” (idle) time, increased consumption of alcohol and drugs, and greater opportunities for speeding and stunt driving...”

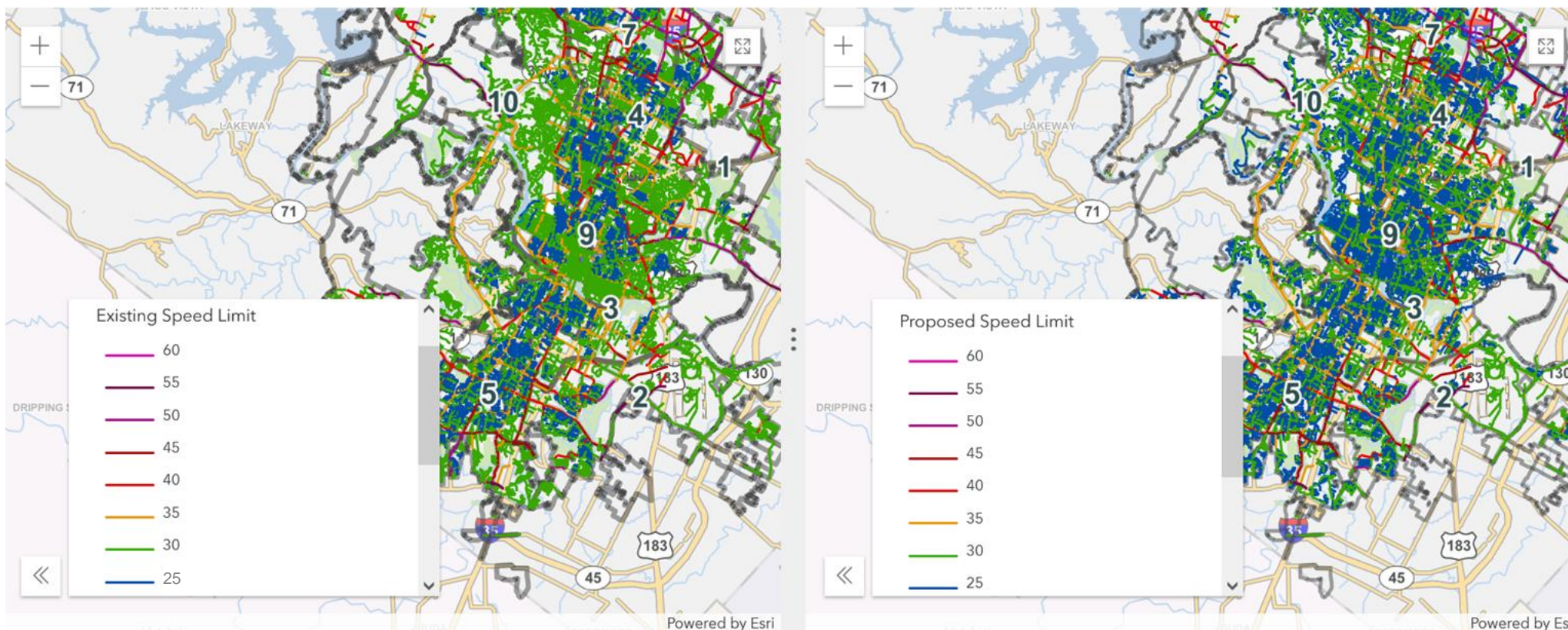




# Vision Zero Initiatives and Impact

## POLICY: SPEED MANAGEMENT

### Austin Speed Limit Changes



# Vision Zero Initiatives and Impact

## ENGINEERING



### BOND PROJECTS

2016 - 12 projects complete + 3 in active design by 2022  
2018/2020 - 15 priority locations selected and scoping initiated

- 20 interim treatments implemented



### SYSTEMIC SAFETY

Citywide analysis of built environment conditions that align with historical crash types

Deploy countermeasures at dozens of locations



# Vision Zero Initiatives and Impact

## ENGINEERING

| Year | Total Opposite Direction -<br>Straight/Left Crashes |
|------|---|
| 2017 | 1605  |
| 2018 | 1752  |
| 2019 | 1691  |
| 2020 | 1125  |
| 2021 | 1109 (Projected)                                    |



### COLLISION TYPE ANALYSIS

With best-in-class data management, we can analyze the whole network for particular crash types and make rapid, low-cost improvements.

- 30+% reduction in OD-OSOL crashes, a top severe crash type

### COORDINATION WITH TXDOT

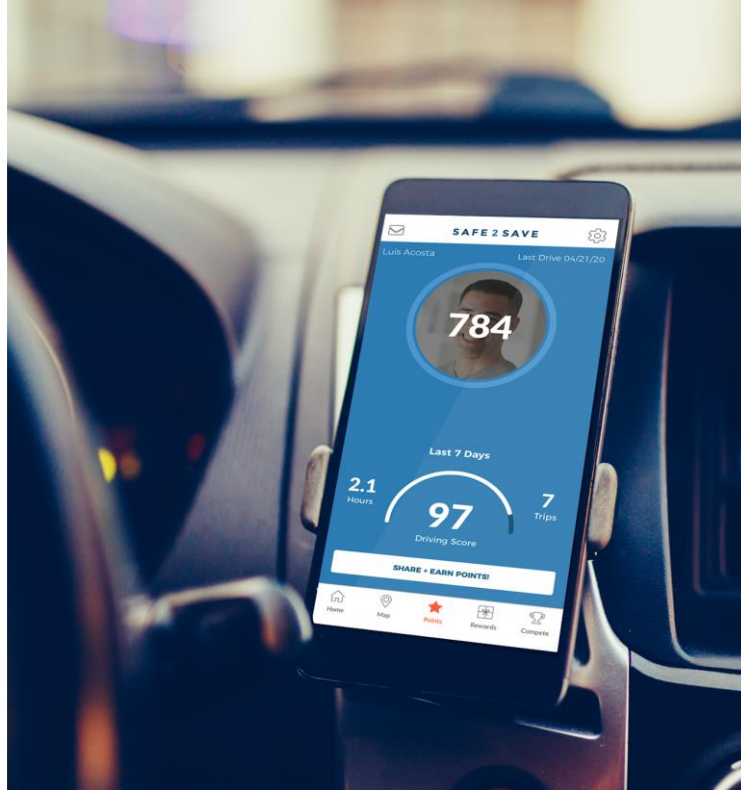
IH-35 Median Barrier: 4 pedestrian deaths/year in '18, '19 to 1 in last 18 months

Highway Safety Improvement Program (HSIP)



# Vision Zero Initiatives and Impact

COMMUNICATIONS AND ENGAGEMENT



New pedestrian safety State laws campaign

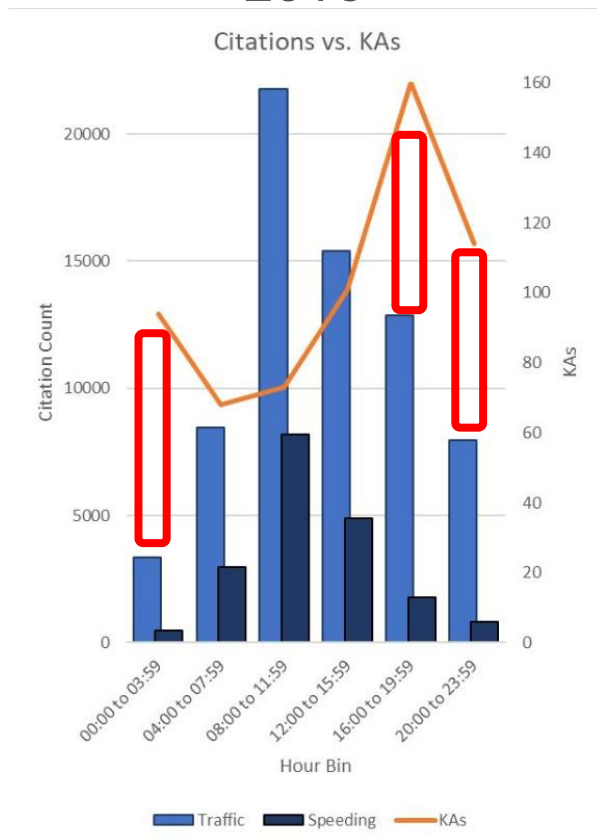
Safest Driver Competition  
(Sept. 13th - Oct. 15th)

Vision Zero Stories  
(Fall/winter 2021)

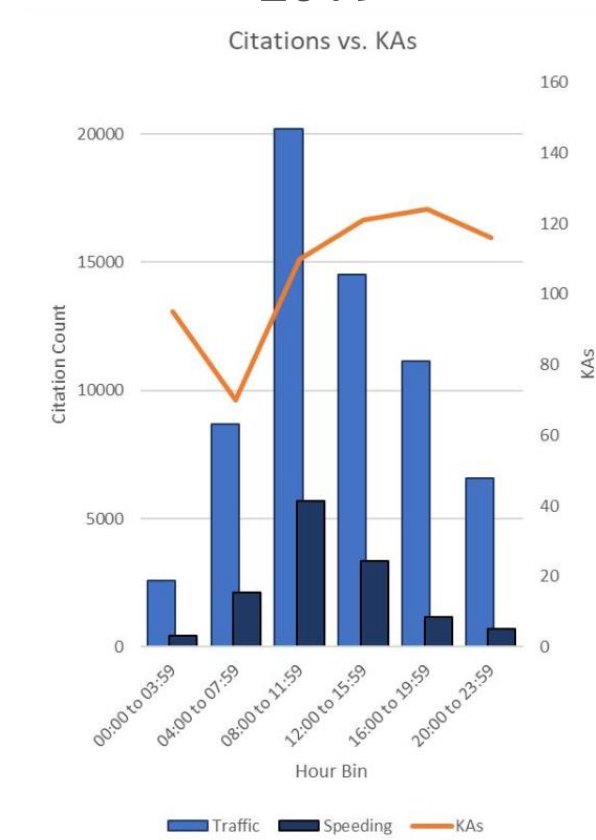
# Vision Zero Initiatives and Impact

## TRAFFIC ENFORCEMENT

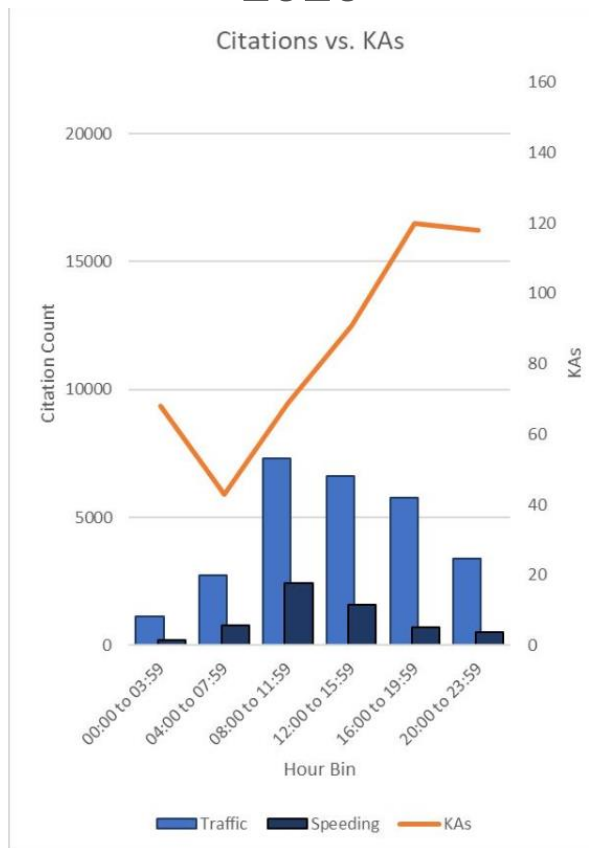
2018



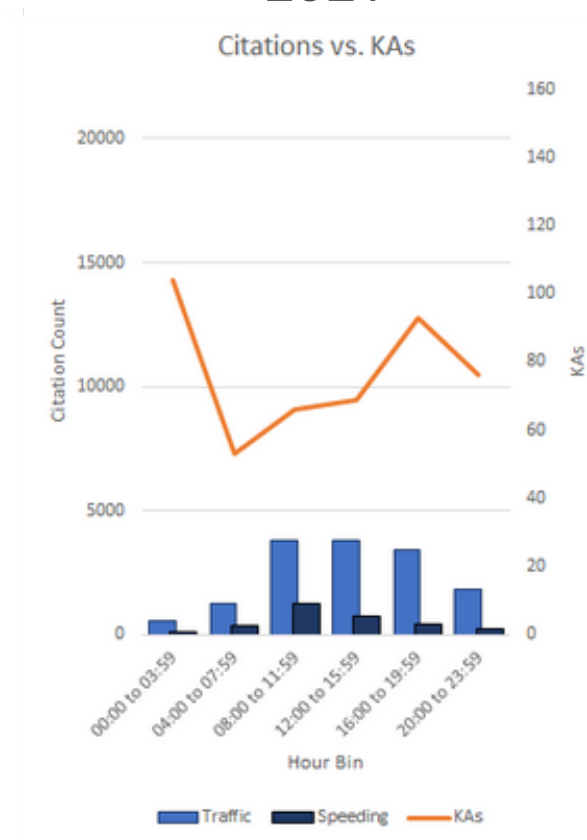
2019



2020



2021



\*Source: Municipal Court Caseload information, Open Data Portal;  
2021 data through 9/25/21



# Short-Term

In addition to continuing current initiatives:

- Identify a path forward for increasing traffic enforcement - narrowly focused on speeding and impaired driving, overnight/early morning hours on high-speed roadways
- Increase communications with the public for the fall/winter
- Implement signal timing improvements for protecting turns
- Pilot Dynamic Speed Display Devices at high crash locations

# Long-Term

- Scale up engineering safety projects at priority locations
- Support legislative changes
  - enable automated enforcement (i.e. speed, red light running)
  - increased penalties for causing collisions resulting in severe injuries/death
  - lower blood alcohol content (BAC) limits
- Dedicate resources for proactive, equitable traffic safety enforcement focused on safety outcomes
- Implement Project Connect and Transportation Bond Programs for additional safety benefits



THANK YOU



TRANSPORTATION