



**THE
SAFE
SYSTEM**

APPROACH

**Zero is our goal. A Safe System
is how we get there.**

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Mini and Modular Roundabouts Objective

Objective - Consider roundabouts, a top tier Safe System Approach countermeasure, as the first design alternative

- If it isn't a fit, you may *reluctantly defer* to traffic signals and stop signs



What is Vision Zero and the Safe System Approach?

Vision Zero – A goal that declares even one death on our transportation system is unacceptable

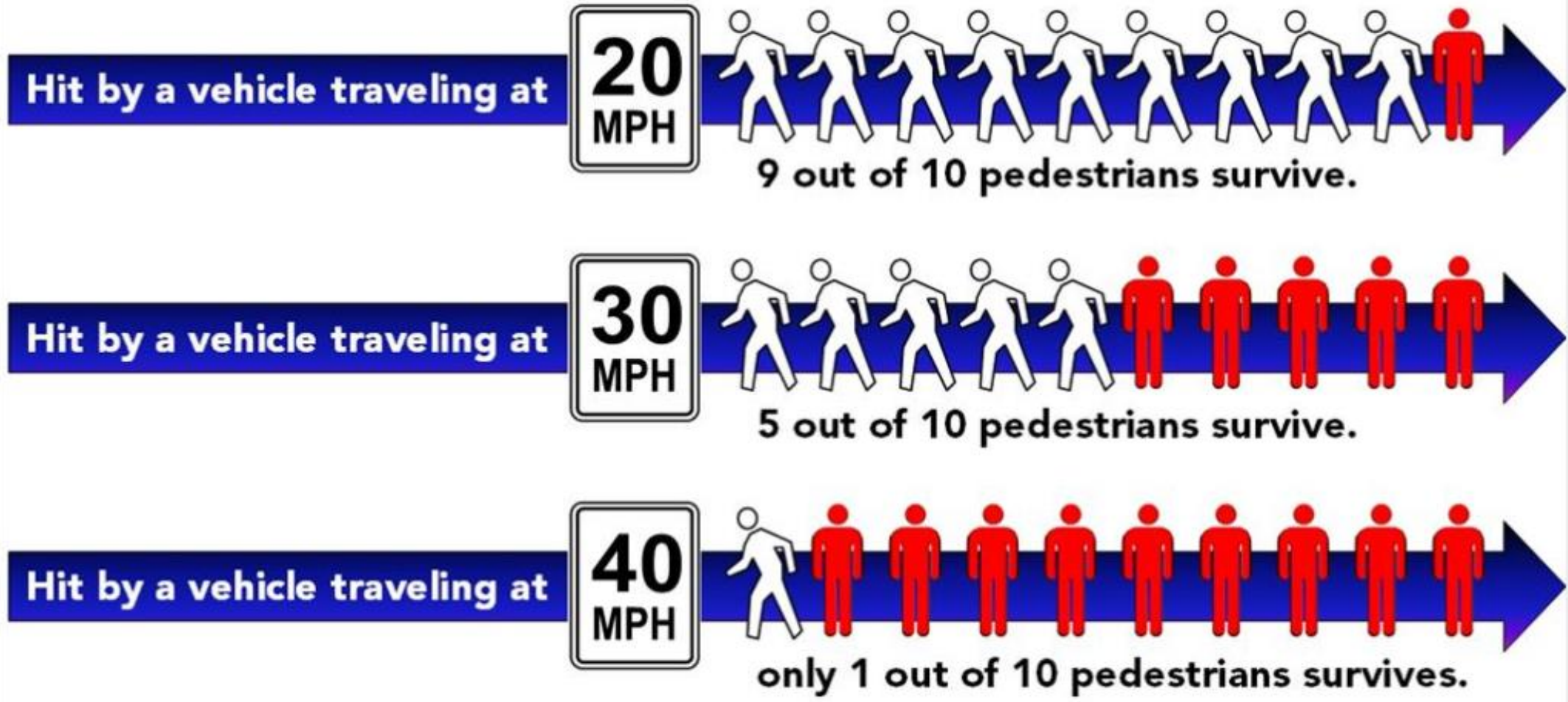
- Adopted in Sweden in 1997 and has spread around the world

What is the dollar value of human life?

Safe System Approach – Enhances roadway safety by acknowledging human errors are inevitable

- Methodology to achieve goal of Vision Zero

Why is a Safe System Approach important to EVERYONE?



Why is the Safe System Approach Important?

Improves Safety – Reduces fatal and serious injury crashes for motorized vehicles, bike, ped, etc.

Sustainable – Creates safe and efficient road systems for all transportation modes

Personal Responsibility – Encourages individuals to be aware of actions and surroundings

Community Impact – Improves public health and reduces economic costs of crashes

What does the Safe System Approach look like?

Six Key Principles – Universal guidance when evaluating road safety

Five Six elements – Considerations that must be designed and implemented when enhancing safety

- Safer Land Use added!



SAFE SYSTEM PRINCIPLES



**Death/Serious Injury
is Unacceptable**



**Humans
Make Mistakes**



**Humans Are
Vulnerable**

SAFE SYSTEM PRINCIPLES



**Responsibility
is Shared**



**Safety is
Proactive and Reactive**



**Redundancy
is Crucial**



Element: Safe Road Users

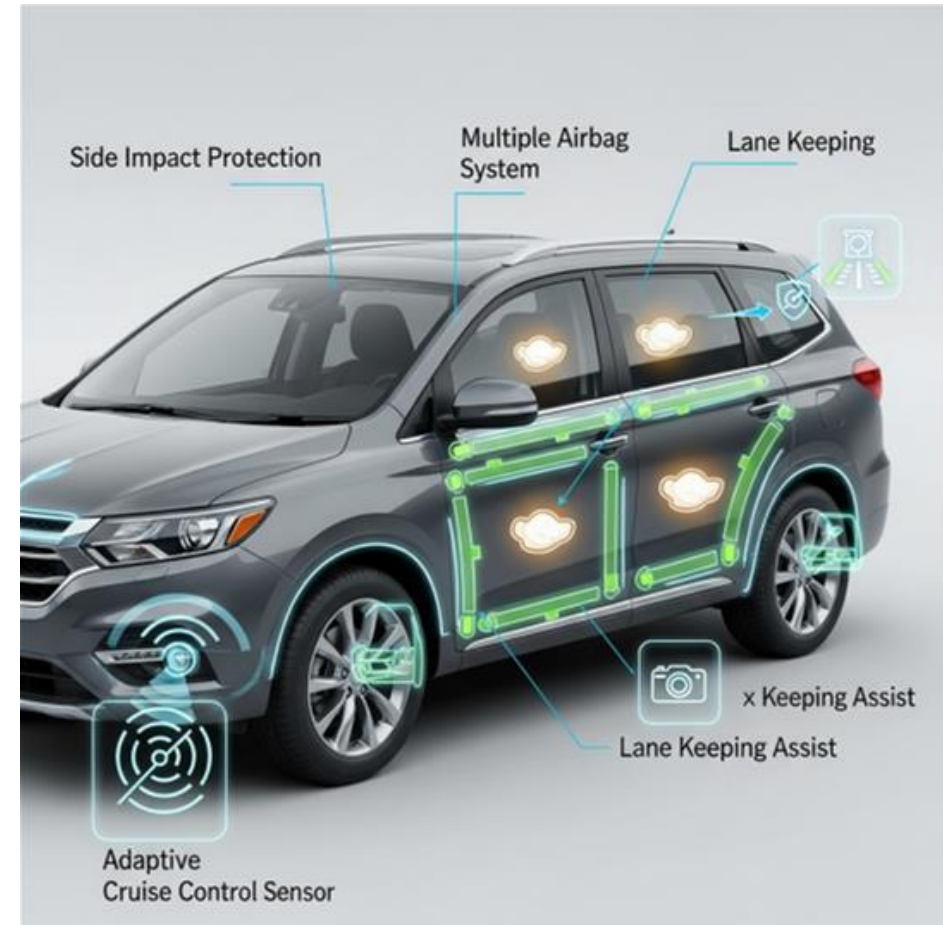
Safe Road Users – What do we see in this picture that makes this a safe road for all transportation modes?

- What could be improved?



Element: Safe Vehicles

- Features that minimize the occurrence and severity of collision
- While important for roundabouts
 - Caltrans doesn't have much control
 - Reduces the emphasis for safe vehicles



New Element: Safer Land Use

Integrates land use planning, engineering and community design

- Reduces conflicts
- Infill friendly – shorter travel distances
- Connectivity to transit and rideshare options

Aligns with roundabouts

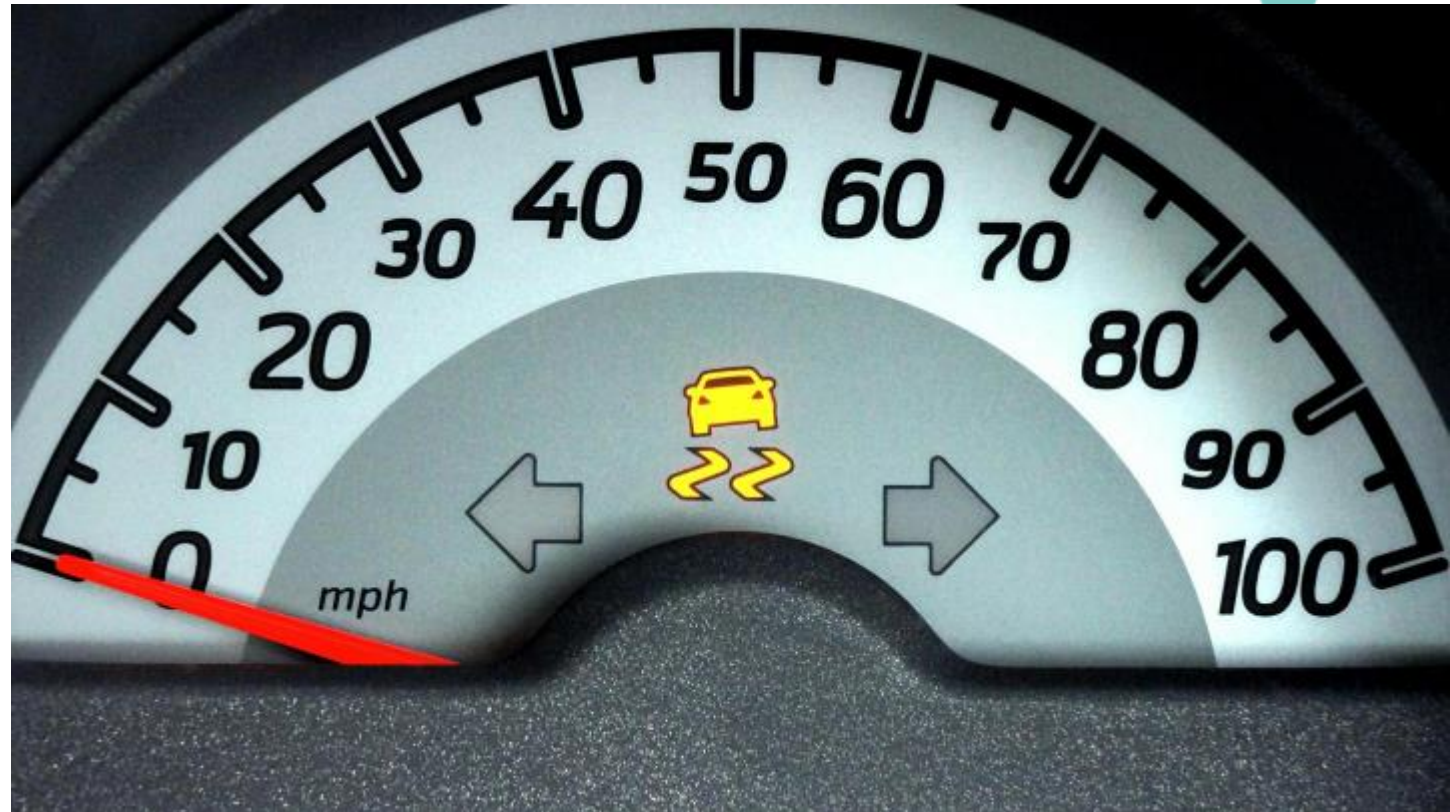


Element: Safe Speeds

Three factors:

- Reduce impact forces
- Provide time for drivers to slow
- Improve visibility

When considering the roundabouts you've seen: What characteristics satisfy the three factors?



Element: Safe Roads

Designed to minimize human mistakes, reduce crash severity, and eliminate hazards



What features on this street make it a poor fit for a safe road?

Any doubts?
Traffic signals are not a safe system approach

Element: Post-Crash Care

First responders must quickly locate, extract, transport, analyze, document, and provide care

Important for roundabouts, but not a primary focus



Is the Safe System Approach for Local Public Agencies and Tribes?

- Senate Bill 932 of 2022:
 - The general plan shall incorporate the principles of the Federal Highway Administration's Safe System Approach

Is this an appropriate system for local public agencies and Tribes?



Summary

- Safe System Approach is a methodology to implement Vision Zero
- Six guiding principles and six elements to assist in safety decision making
- Vision – Use a Safe System Approach, such as a roundabout, as the first design alternative



The logo features the word "THE" in a blue circle, followed by "SAFE SYSTEM" in large, bold, dark blue letters, and "APPROACH" in white letters on an orange rectangular background.

THE SAFE SYSTEM APPROACH

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