



Feature Presentation

# Safe System Approach in New Jersey

**Jeevanjot Singh**

Safety and Data Development



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# Safe System Approach

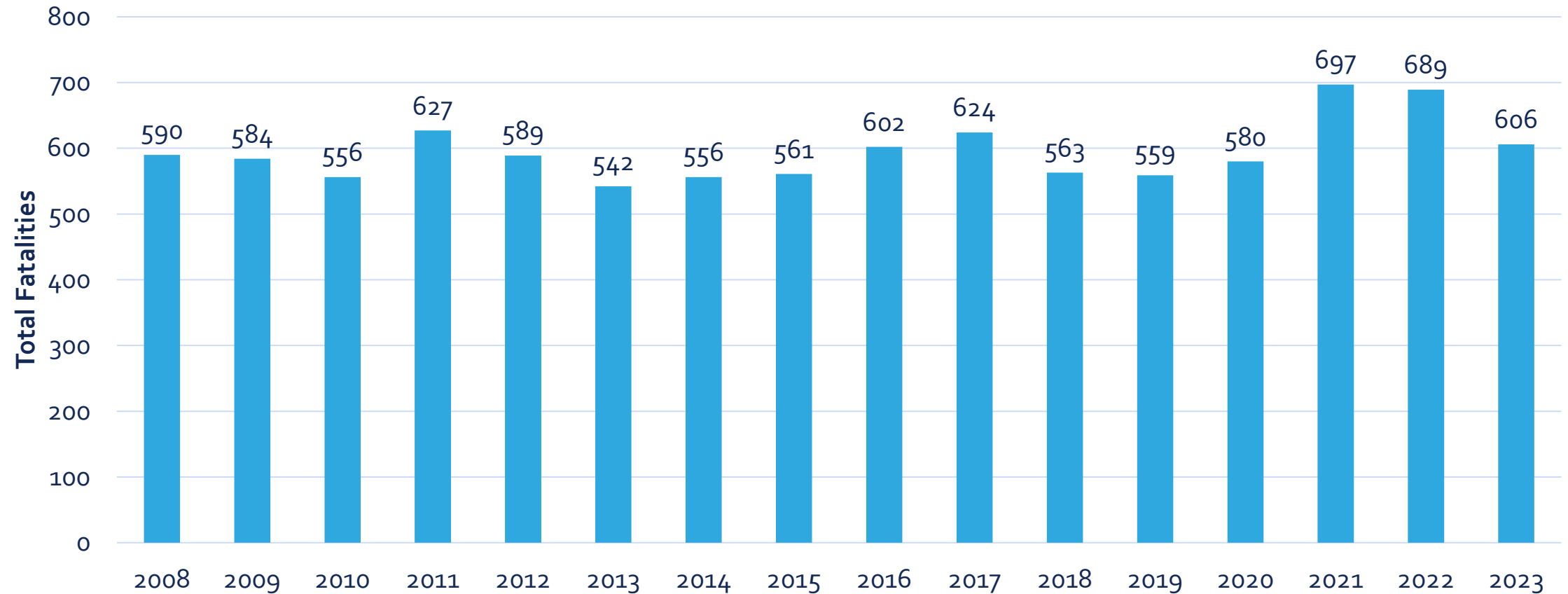
Imagine our country  
as a place where  
*nobody* has to die  
from crashes.





# Why do we need the SSA?

## New Jersey Fatalities | 2006-2023





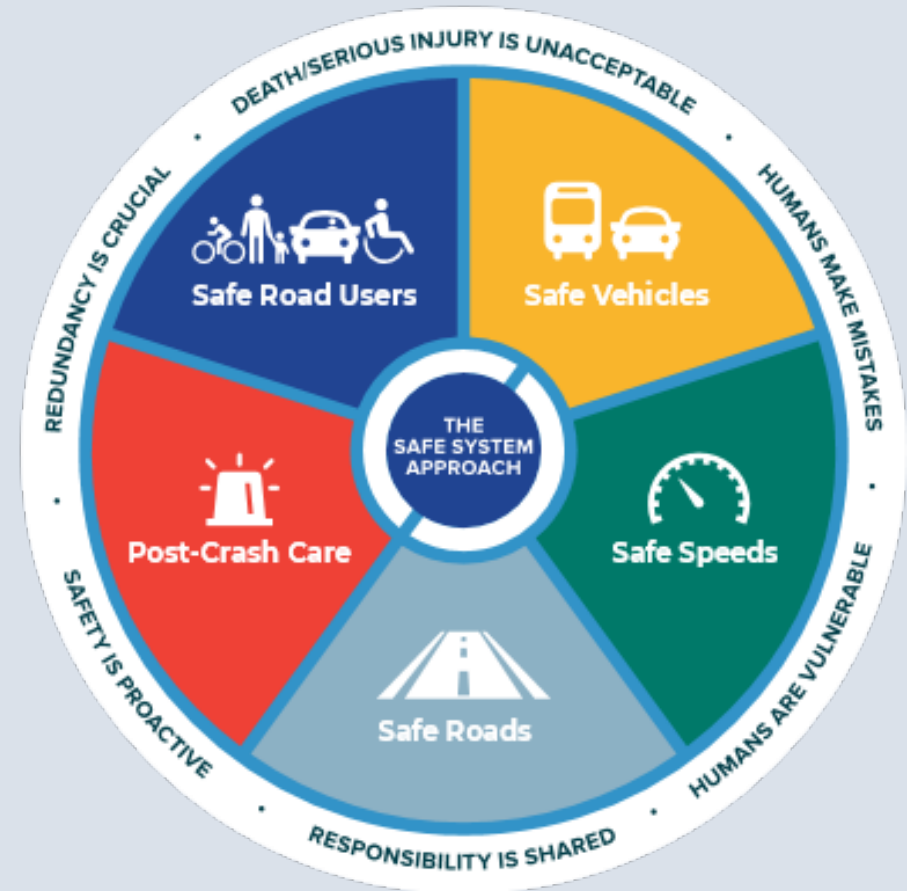
# 2025 Safety Targets

Performance Measures	2025 Annual Target
Number of fatalities	494
Rate of fatalities <sup>1</sup>	0.65
Number of serious injuries	2032.8
Rate of serious injuries <sup>1</sup>	2.66
Number of non-motorized fatalities & serious injuries	568

<sup>1</sup>Rate per 100,000 VMT

# What is a Safe System Approach (SSA)?

- SSA focuses on eliminating fatalities and serious injuries.
  - *2025 Safety Targets!*
- It is a paradigm shift of thinking about roadway safety.
- The SSA is an effective way to address and mitigate inherent risks.
- SSA is a continuum.



# The Six SSA Principles



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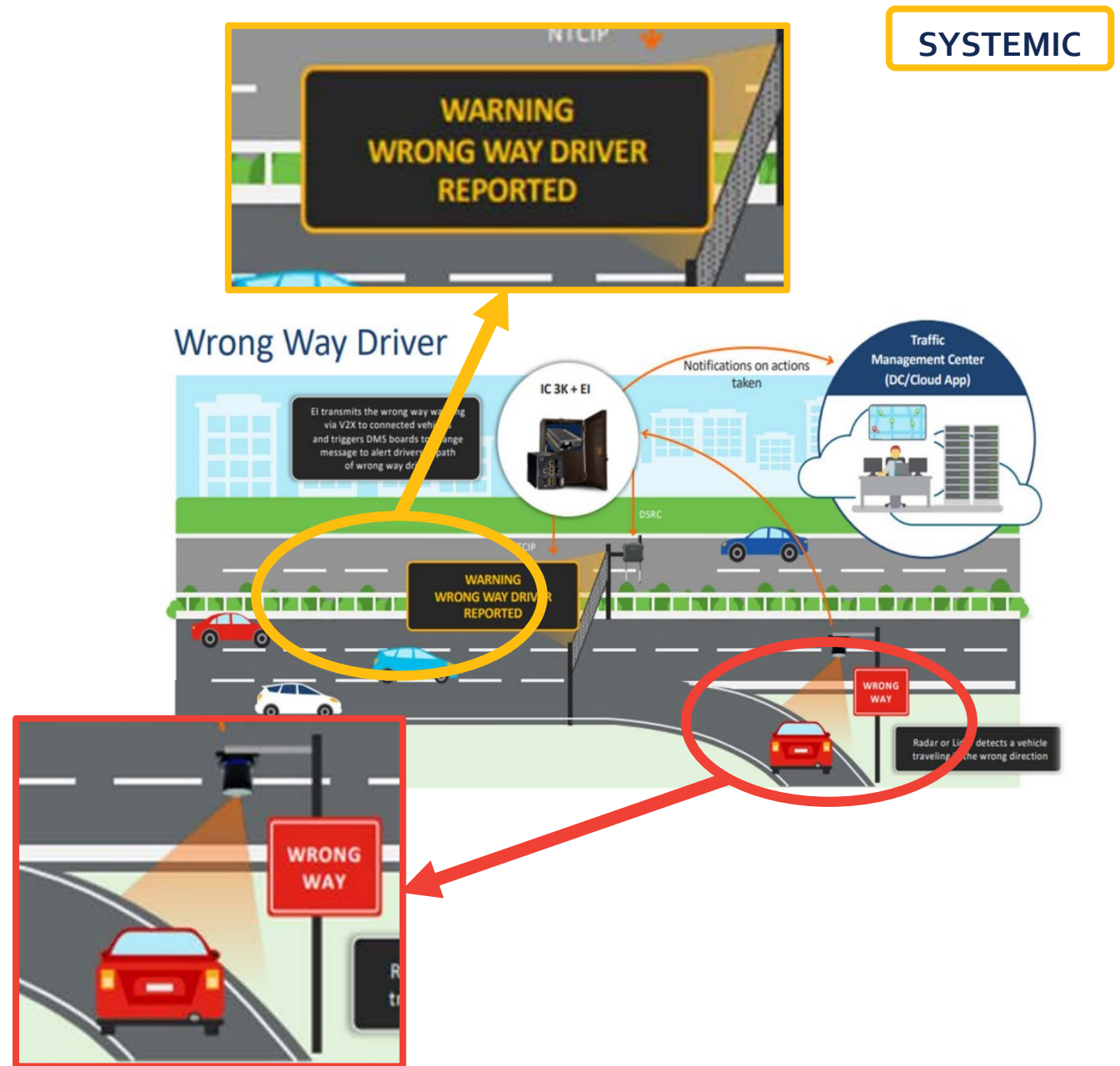


# The Six SSA Principles



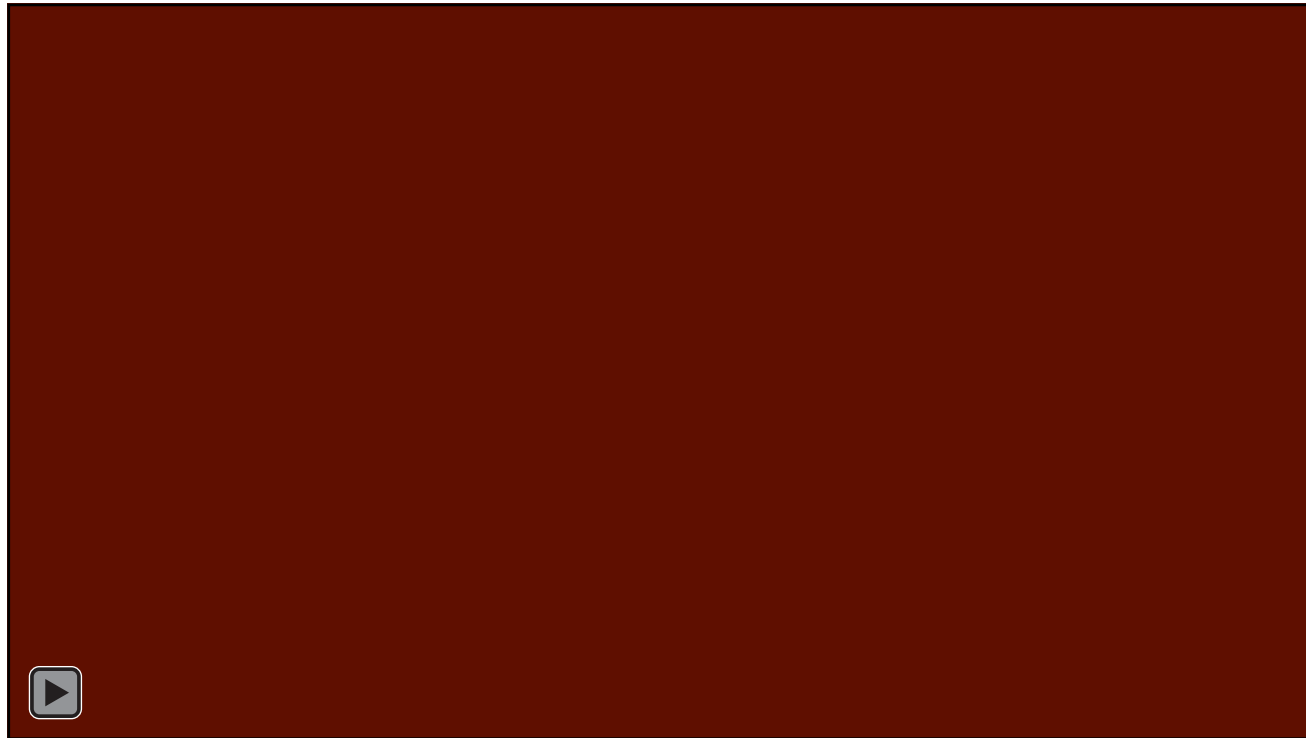
# Wrong-Way Driving (WWD) Detection

- Dynamic Flashing Warning Lights activated by wrong-way driver
  - Paired with additional signing and pavement markings
- Analyzing roadway attributes to identify locations for WWD detection.
- *NJ Project Highlight: Rt. 80*
  - 26-mile stretch from Landing Rd (CR 631) to Riverview Dr (CR 640)





# Wrong-Way Driving Detection in Action



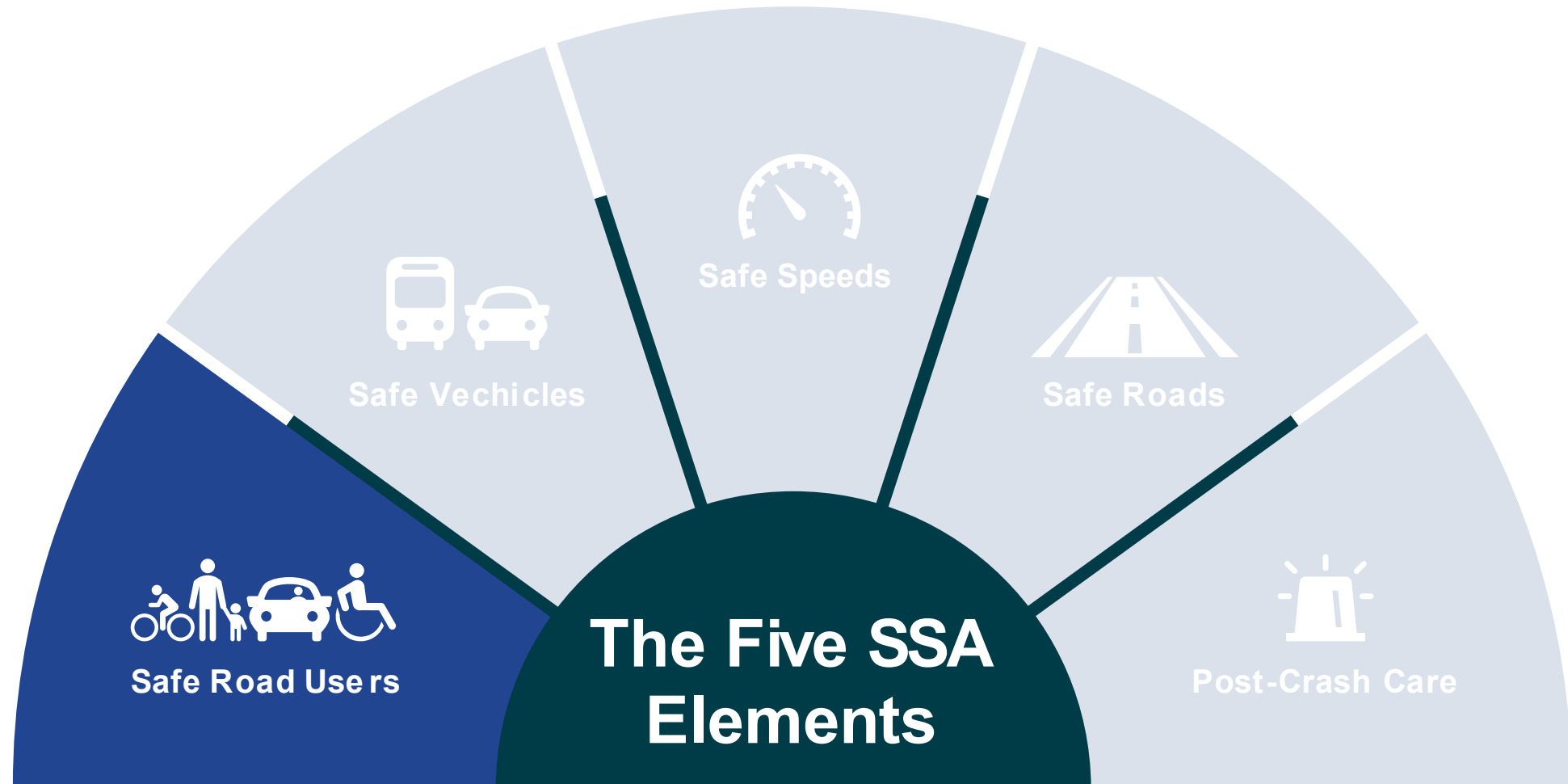
NB US 1 at Old Post Road (Edison, NJ)  
Wrong-Way Driving Detection System

# The Five SSA Elements

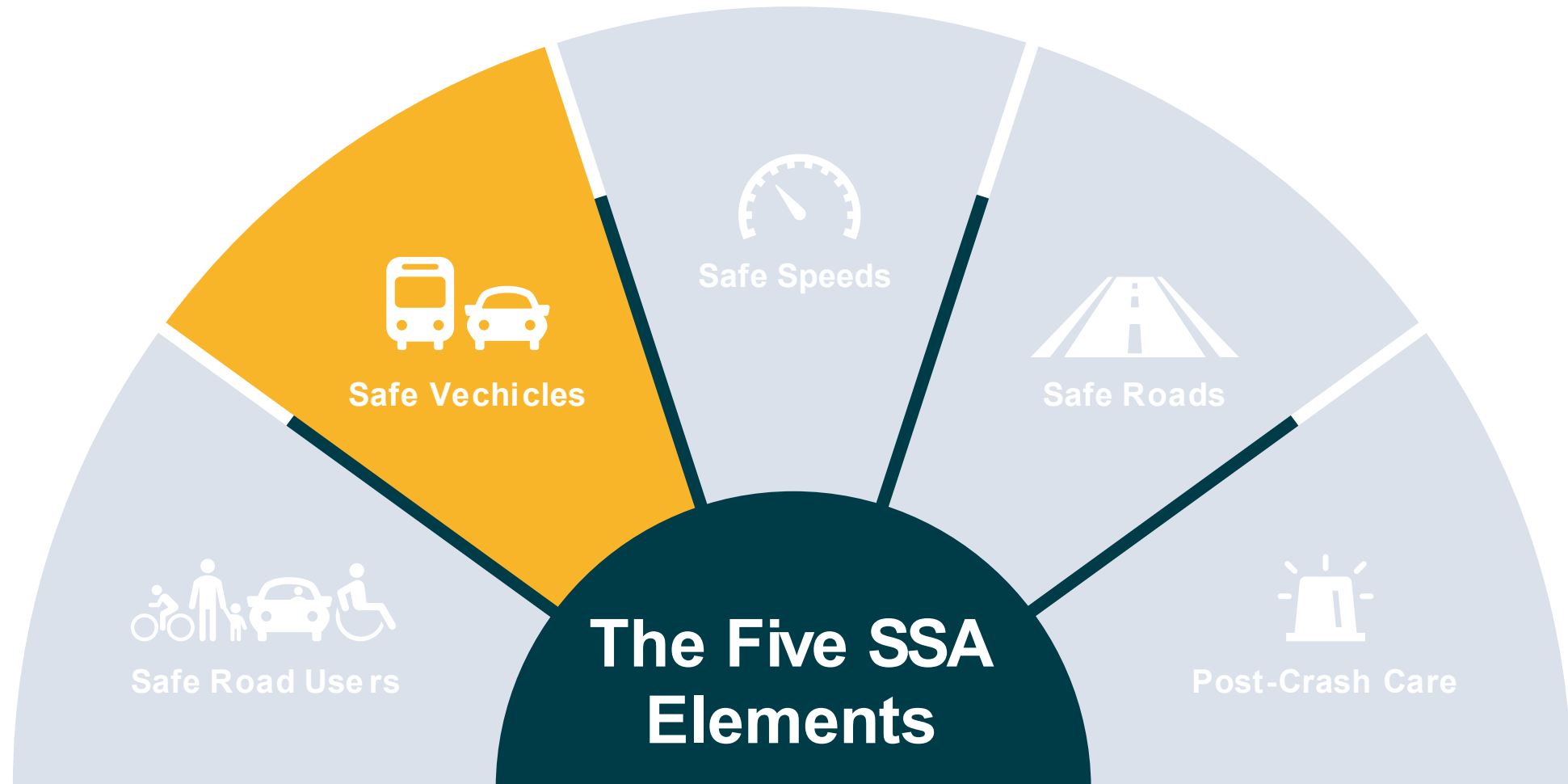




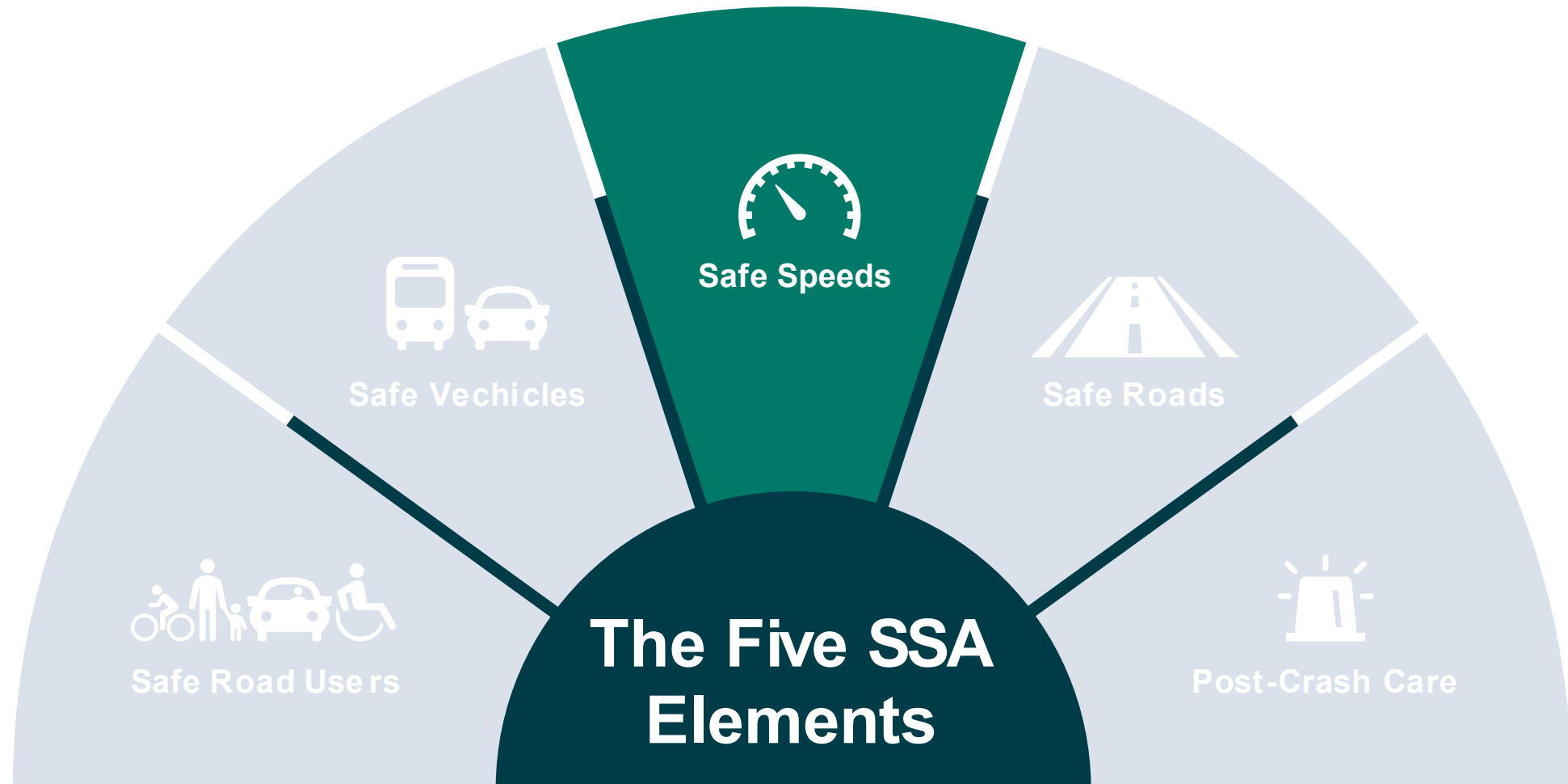
# The Five SSA Elements



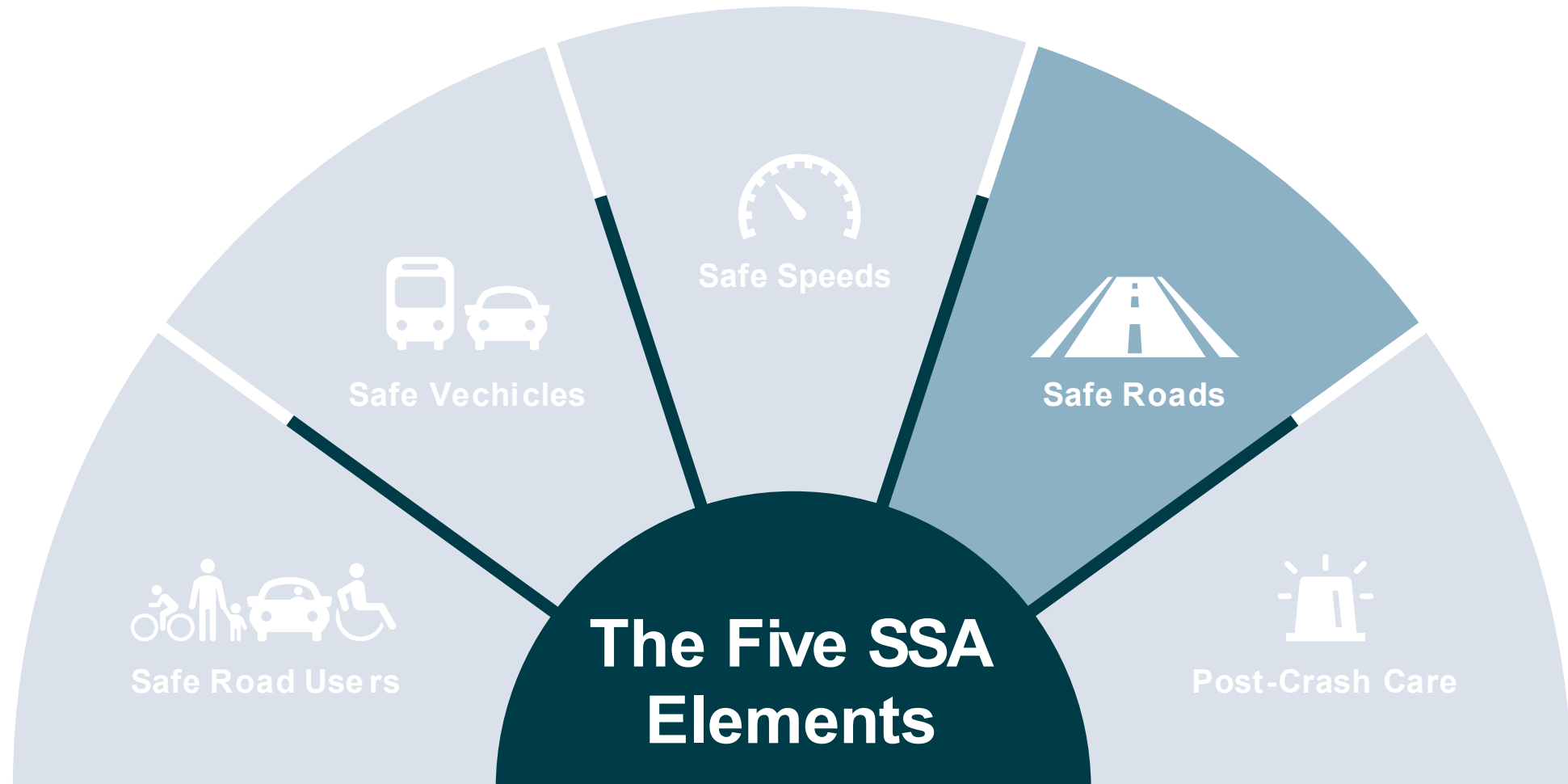
# The Five SSA Elements



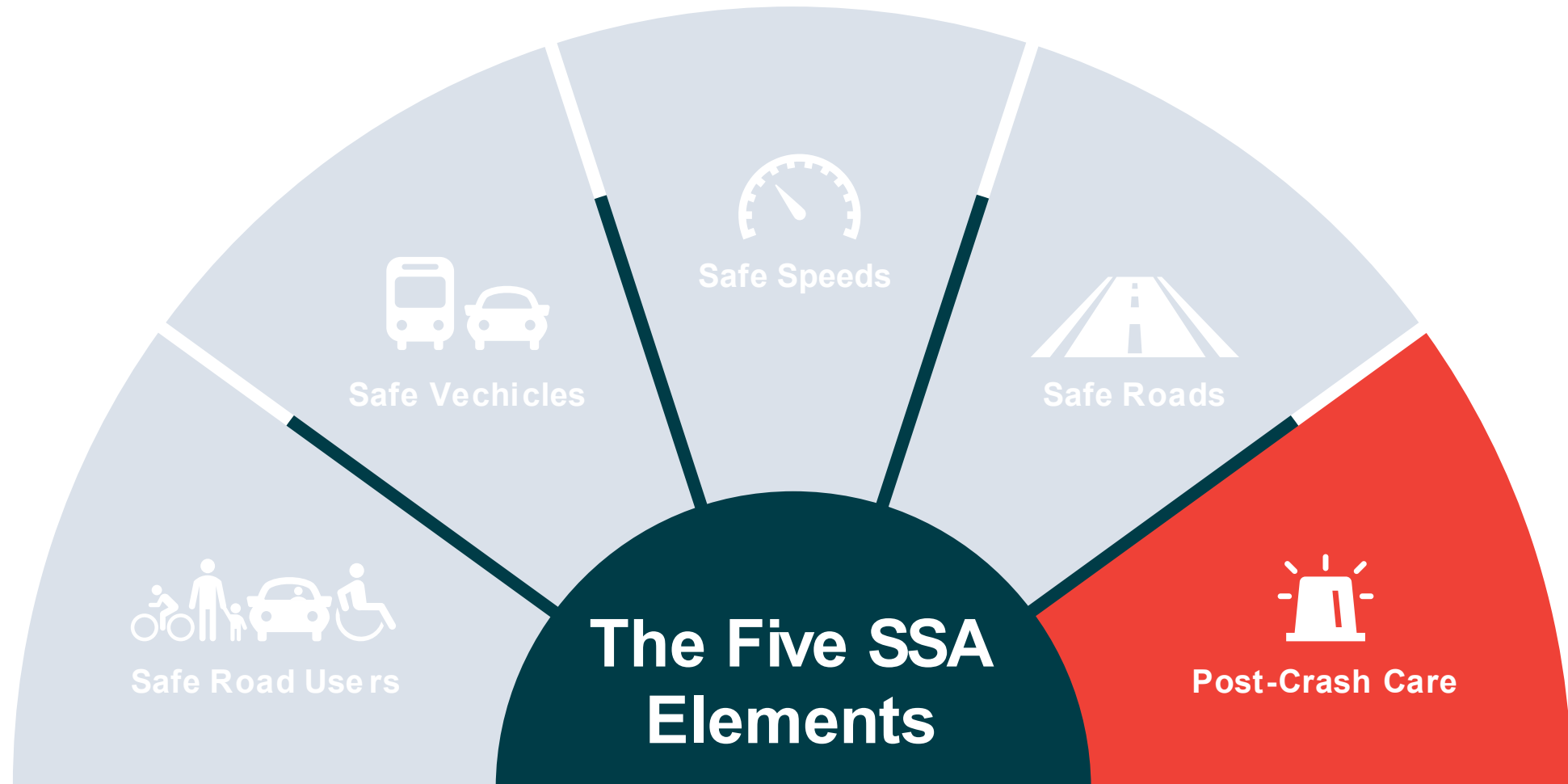
# The Five SSA Elements



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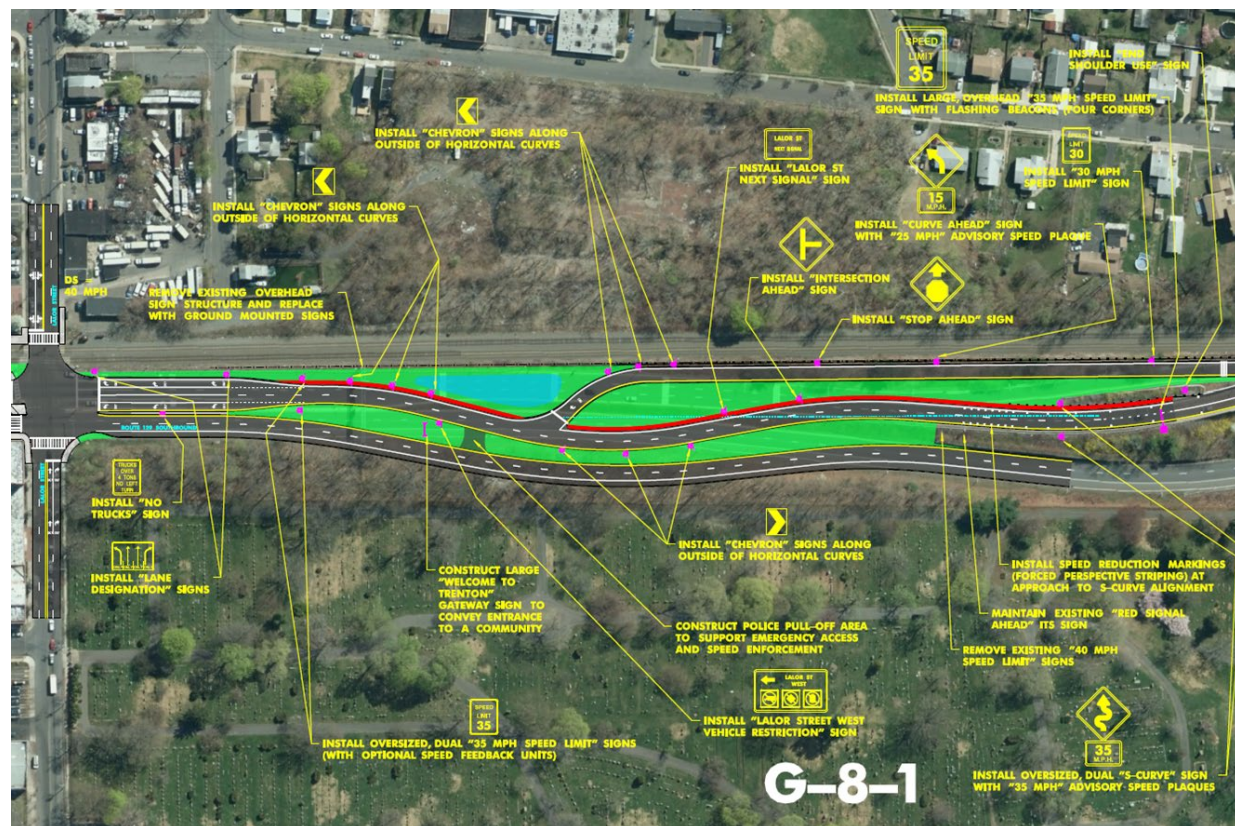
# The Five SSA Elements



# Project Highlight – Route 129, Mercer County



- Pedestrian and bike safety improvements
- Interim short-term improvements
  - Red Clearance Extension
- Designing for target speed
  - Existing posted speed = 45mph
  - Target speed = 35mph
  - Proposed posted speed = 30mph



# Available FHWA Tools & Resources



[highways.dot.gov/safety/zero-deaths/resources](https://highways.dot.gov/safety/zero-deaths/resources)

A screenshot of the FHWA Highway Safety Programs website. The page features a blue header with the U.S. Department of Transportation logo and the text "U.S. Department of Transportation Federal Highway Administration". A search bar is located in the top right corner. Below the header, the page is titled "FHWA Highway Safety Programs". The main content area is divided into two columns. The left column contains a list of links: "Zero Deaths and Safe System", "Safety Culture", "FHWA's Commitment to Safety", "National Efforts", "Resources", "Equity in Roadway Safety", and "Vision Zero Community of Practice". The right column is titled "Resources" and includes a "Relevant Links" section with a list of links such as "FHWA Vision Zero Community of Practice", "Safe Streets and Roads for All Clearinghouse", "National Roadway Safety Strategy", "Safe Streets and Roads for All", "FHWA Complete Streets", "Vision Zero Network", "ITE Safe System", "ITE Vision Zero", "CSCRS Creating Safer Systems and Healthier Communities: Resource Hub", "NSC Safety for All Roadway Users", and "MSU Center for Health and Safety Culture". Below the "Relevant Links" section is an "Outreach Materials" section with a list of items, including a video titled "How Do You Know You Have a Strong Road Safety Culture" and a document titled "Know Your Agency's Level of Road Safety Culture".

# Safe System Road Design Hierarchy (RDH)

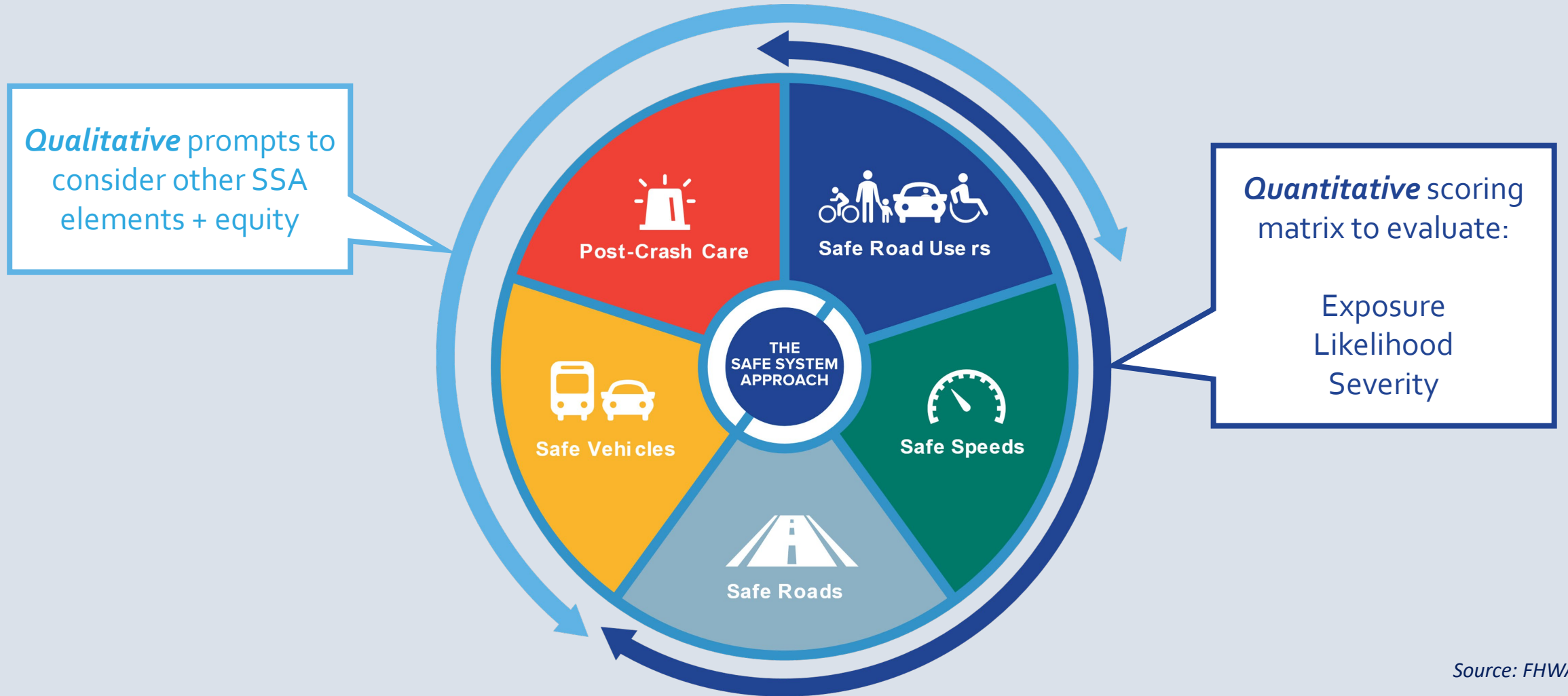
- RDH is a **tool based on SSA principles and elements** to think about planning and designing safer roads.
- Consists of **four tiers** of potential solutions.
- **Tier one strategies most closely align with a safe system** and should be prioritized.



*based on  
FHWA graphic*



# Safe System Project-Based Alignment Framework



Source: FHWA

# SSA Workshop

- Multiagency collaboration
- Understand SSA
- Identify opportunities for implementation
- Identify needs to build momentum



# Upcoming SSA Training

## Training objectives:


- Introduce Safe System Approach
- Recognize Personal and Professional Role in Implementation
- Key Takeaways
  - Principles based
  - Strengthen all five elements
  - Introduce Tools
  - We all play a role and that can start today!



Practitioners with day-to-day roles planning, designing, operating, maintaining and enforcing our system

# Updated NJDOT Complete Streets Policy

- Policy No. 703 – Effective 11/26/24
- Promotes a “comprehensive, integrated, connected multimodal network by providing connections to bicycling and walking trip generators...”
  - Consideration of users of **ALL** modes
- Complete Streets Checklist for limited & full scope projects

	<b>DEPARTMENT OF TRANSPORTATION POLICY/PROCEDURE</b>	Policy No. 703
		Supersedes: 703 Dated: 12-03-2009
		Page 1 of 6
<b>Complete Streets</b>	Effective Date:	Commissioner: <i>Frank K. O'Leary</i>
	11/26/2024	Sponsor Approval: Assistant Commissioner Statewide Planning, Safety and Capital Investment <i>[Signature]</i> Contact Telephone #: (609) 963-2255

## I. PURPOSE AND SCOPE

This policy provides for the New Jersey Department of Transportation's ("NJDOT" or "the Department") integration of Complete Streets into the planning, design, construction, maintenance, and operation of all new, rehabilitated, and retrofitted transportation facilities, public highways, and public transportation projects funded or administered under the NJDOT Capital Program, to provide safe and equitable access for all users.

This policy and the associated Comprehensive Solutions Handbook and checklists are intended to apply only to NJDOT Capital Program projects. The policy is not applicable to Local System Support projects.

## II. DEFINITIONS

**Complete Streets** – streets that are designed to be safe and feel safe for all roadway users, supported by policies and implementation strategies across all transportation projects and public agencies, to provide safe, connected, and equitable transportation networks.

**Complete Streets Checklist** – a document intended to guide the selection of Complete Streets solutions that adhere to the Department's project delivery process and is used by project managers to record existing roadway conditions, Complete Streets Policy considerations and exemptions, as applicable.

**Complete Streets Comprehensive Solutions Approach** – an approach that considers a wide range of Complete Streets solutions (Type A, Type B, Type C) for all user types and follows a standardized process that ensures thorough consideration of Complete Streets solutions at the earliest stages of the project delivery process.

**Constraint** – a limitation to implement a preferred "Type" of Complete Streets Comprehensive Solution that is based on the criteria listed within the Major Constraints and Moderate Constraints.

**Constraint Criteria Determination** – the use of criteria listed within the Major Constraints and Moderate Constraints to make a decision on the feasibility of including Complete Streets Comprehensive solutions of Type A, Type B, or Type C by the project manager or job manager.

**Department Head** – a director, manager, and/or equivalent title.

**Exemption** – project will not be implementing Complete Streets solutions.

**Full Scope Project** – an NJDOT project that aligns with Federal Highway Administration regulations and follows a standardized project delivery process that consists of the following five phases: Problem Screening, Concept Development, Preliminary Engineering, Final Design, and Construction. A Full Scope Project considers Complete Streets at the earliest stages of the

# Vision for SSA in New Jersey

*Safer roadways start here.*

