SPEEDING

Self Enforcing Roads

Self-enforcing roads are designed with physical and visual elements that naturally encourage drivers to travel at safe speeds without the need for frequent enforcement.

Implementation Strategy

How and Where to Apply

- These treatments are ideal for corridors with speeding concerns—especially in residential, school, or transition zones between high-speed and low-speed areas.
- They can be implemented through new designs or retrofitted using speed-reducing geometry, narrowed lanes, horizontal deflection, and high-contrast pavement markings.
- According to **FHWA**, roads should be "designed to match the desired operating speed" through consistent visual cues and roadway geometry.

Use in a Safe System Approach

Supports safer speeds and roads by relying less on enforcement and using roadway design to naturally reinforce speed limits. Self-enforcing roads reduce kinetic energy exposure and promote predictable driver behavior, aligning with the Safe System goal of minimizing injury severity.

Key Stakeholders

State and local roadway design engineers
Traffic safety and speed management planners

Proactive Implementation

Agencies can apply systemic analysis to identify corridors where observed speeds exceed posted limits. Integration into complete streets policies and corridor reconstruction projects can yield low-cost, long-term speed compliance benefits. Treatments such as gateway signage, narrow lane striping, and roadside environment changes can create intuitive, self-regulating environments.

Countermeasure Overview

Objective: Keep vehicles from encroaching into opposite lane

Strategy: Provide center two-way left-turn lanes for four- and two-lane roads

Selected Related Countermeasures

- CM1 Narrowed lane widths and edge lines
- CM2 Horizontal alignment or chicanes
- CM3 Raised crosswalks and curb extensions

Cost: High

Service Life: 20 years

Benefit-Cost Ratio: 2.7:1

Targeted Solution

CONTRIBUTING FACTORS	▪ Speeding ▪ Driver complacency
TARGET CRASH TYPE	▪ Speeding ▪ VRUs
ROAD FACILITY TYPE	▪ N/A
AREA TYPE	▪ Urban ▪ Suburban

Safety Linkage

NCHRP 500 Series	SAFE SYSTEM APPROACH
Speeding	Safer Speeds
AASHTO'S TOWARD ZERO DEATHS	SAFE SYSTEM ROADWAY DESIGN TIER 1 TIER 2 TIER 3 TIER 4
Safer Infrastructure	Tier 2

Self Enforcing Roads. Source: Roads

Safety Benefits

Road design encourages drivers to maintain safe speeds and behaviors.

Resources

- Self-Enforcing Roadways Guidance
- FHWA Self-Enforcing Roadways