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 highcontrast pavement markings.
- Best suited for urban and suburban roads with high crash risks, where features like narrow lanes and visual cues naturally slow drivers. Avoid where high-speed rural highways or emergency routes, where restrictive designs may impede access or delay response times.

Use in a Safe System Approach

Self-enforcing roads support the Safe Speeds and Safe Roads pillars of the Safe System Approach. They use design elements to naturally slow drivers, addressing human errors and vulnerabilities to prevent crashes and serious injuries.

Kev Stakeholders

State and local roadway design engineers, traffic safety and speed management planners, Law enforcement agencies

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 cost higher but it can be low cost if integrated at the design state 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 leftturn lanes for four- and two-lane roads.

Cost: \$\$\$\$ (High)

Service Life: 20 years

Benefit-Cost Ratio: 2.7:1

Infrastructure

Targeted Solution



- Speeding
- Driver complacency



TARGET CRASH TYPE

- Speeding
- VRUs



N/A



- Urban
- Suburban

Safety Linkage



Speeding



Safer

APPROACH

Safe Road Users



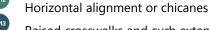
TIER 1

Tier 2

Selected Related Countermeasures



Narrowed lane widths and edge lines





Raised crosswalks and curb extensions



This treatment does not have an established CMF but has promise for improving safety performance.



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

