



ENGINEERING E-Team Charter

Background

Iowa's Strategic Highway Safety Plan (SHSP) 2019-2023 was developed to meet the significant challenge of reducing fatal and serious injury crashes on Iowa's roadways. According to the Federal Highway Administration (FHWA), an SHSP "is a statewide coordinated safety plan that provides a comprehensive framework for reducing highway fatalities and serious injuries on all public roads." Iowa's SHSP was developed in consultation with a multidiscipline team of representatives that prioritized eight safety emphasis areas. For each emphasis area, the team identified strategies that provide the greatest opportunity to reduce fatalities and serious injuries on Iowa's roadways.

Five E's

Four primary categories of safety professionals drive the development of the strategies defined in Iowa's SHSP. These professionals include those in education, emergency medical services, enforcement, and engineering. Each discipline has a unique perspective on how to improve traffic safety while also remaining connected to the other disciplines. Iowa's SHSP also considers a fifth E of everyone because ultimately it is the responsibility of every driver on Iowa's roadways to make safe choices and drive responsibly.

The focus on safety within engineering begins with designing and constructing our roadways. Transportation engineers use design principles that are reliable and reduce the risk of crashes. National standards are used for signs and traffic markings to provide consistency for the traveling public. In addition to using proven design methods, engineers continue to research new ways to make transportation safer. Below are the engineering strategies that were identified in the SHSP.

Strategies



Lane departures and roadside collisions

- Evaluate high-friction surface treatments (HFST) at targeted locations on state-owned and local systems.
- Place centerline and/or shoulder rumble strips on rural two-lane highways on state-owned and local systems. Where necessary, install or widen paved shoulders.
- Continue median cable barrier installations on the Interstate system. Initiate median cable barrier installations on multi-lane divided highways.



Speed-related

- Evaluate and implement signing and geometric design strategies to moderate speeds and enhance safety.
- Implement speed feedback signs at targeted locations



Intersections

- Use systemic approaches to improve visibility and awareness of intersections.
- Implement alternative intersection designs that reduce conflict points and enhance safety and mobility.
- Develop an intersection configuration/evaluation tool to aid planners and designers in selecting appropriate intersection types.



Impairment involved

- Implement countermeasures at access locations to reduce wrong-way driving on multi-lane divided highways.

Implementation and Evaluation

Implementation of the above strategies will ultimately support Iowa's long-term vision of Zero Fatalities. The implementation and progress of these strategies will be evaluated on an annual basis over the five-year planning period starting January 2019 and ending December 2023.