

Revision	Date	By	Revisions
1.0	01 Jul 2020	C Stokes	First release

Introduction:

Crashes at intersections and lane departures along high speed roads form a considerable proportion of the harm done to motor vehicle users. While well-aligned treatments exist for mitigating the harm done at these locations, their use has, until recently, been sporadic at best. Much of the reason for this has been the perception that the many other, more commonly used treatments work well enough. However, research and experience both show that Safe System-aligned treatments such as roundabouts and continuous-length flexible barriers achieve much higher levels of harm mitigation.

Instructions:

Part One

Students should review Module 3, Snippet 2, *Eliminating harm at intersections* of Safe System for Universities before undertaking this activity.

Form a group of 2-4 students. As a group, review the case study *Lance Creek Roundabout Safe System Assessment*. As a group, discuss and answer the following questions while considering how a roundabout works and in what ways it can achieve safe interactions between intersecting vehicles:

Questions

1. Historically, the hierarchy of treatment at intersections has focussed on the way in which vehicle priority is controlled. Where stop and give way signs are deemed insufficient to cope with the volume of traffic at an intersection, signalisation has been employed. In what ways do you think roundabouts are able to out-perform both of these solutions in terms of harm elimination? Consider each treatment's ability to affect consequence as well as likelihood.
2. Can you think of reasons why a conventional intersection design, such as the use of stop signs, would be preferable over a roundabout? These reasons could, for example, be economically or efficiency motivated. Why do you think such reasons would or would not be justifiable for implementing a less safe type of intersection?

Part Two

Students should review Module 3, Snippet 3, *Eliminating harm from road departures* of Safe System for Universities before undertaking this activity.

Form a group of 2-4 students. As a group, review the case study *Hume Freeway Safe System Transformation*. As a group, discuss and answer the following questions while considering how

continuous-length flexible barriers work and in what ways they can achieve safe outcomes along high speed roads:

Questions

1. Consider the comparison between clear zones and continuous-length flexible barriers. In what ways do you think each treatment is able to deal with the harm caused by crashes with roadside objects and opposing direction traffic, and by roll-overs. Consider each treatment's ability to affect consequence as well as likelihood.
2. Both clear zones and continuous-length flexible barriers require a considerable investment to implement along long lengths of road. The cost alone means it is difficult to imagine implementation of these treatments across our entire road network. Along which types of roads do you think these treatments are suitable? For other high speed roads, what do you think is a reasonable solution?