

Roundabouts: Making Them Work for Pedestrians



Roundabouts: Learning Objectives:

At the end of this module, you will be able to:

- Explain why roundabouts reduce crashes: *slow speeds, fewer conflicts and no left turns*
- Describe the safety benefits for pedestrians and motor vehicles of roundabouts
- Describe how roundabout safety depends on correct design; *there are no signals*



A roundabout is a type of intersection control

Why roundabouts are safer for all users:

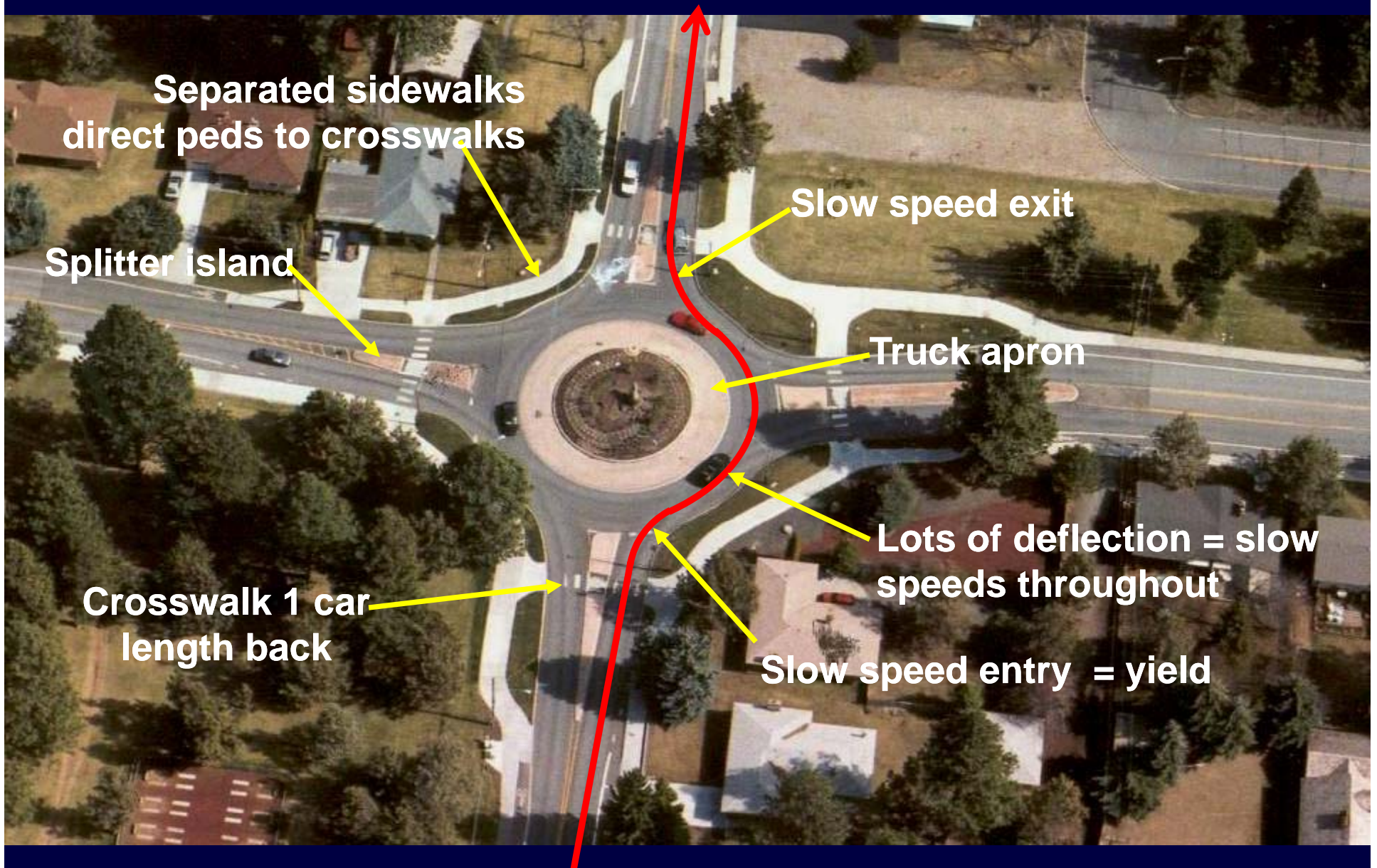
- Slow speed:
 - *Deflection, truck apron, splitter islands, “reverse super”*
- Reduced conflicts
- No left turns
- Yield on entry



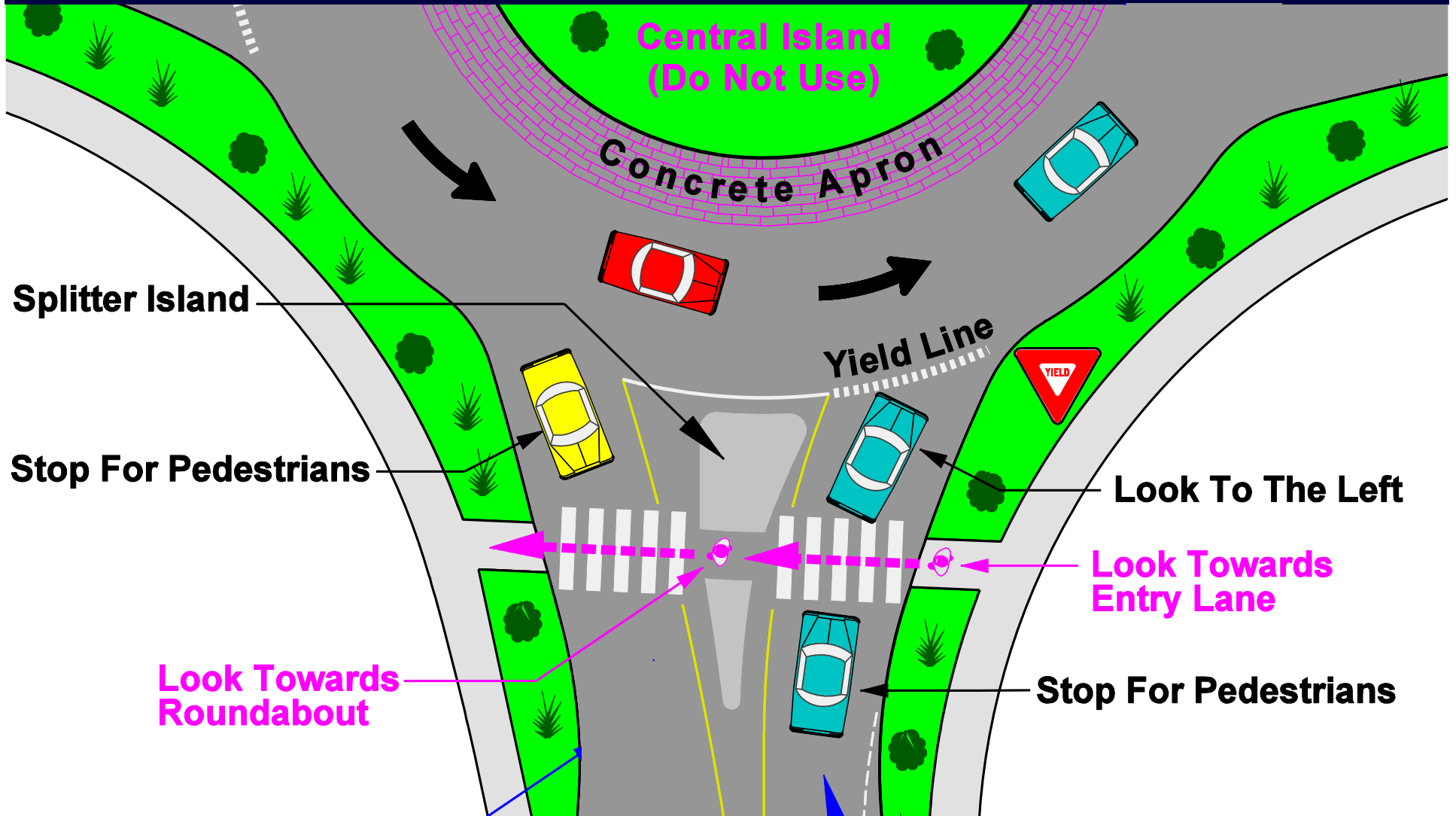
CRF (all users):

- About 54% overall
- 27% pedestrian crashes
- Up to 76% fatalities and serious injuries

Essential roundabout characteristics



Pedestrian movements at roundabout





Constrained entry slows drivers



1. At entry lane

Well defined crossings & splitter islands



2. At exit lane

Well defined crossings & splitter islands



Truck apron keeps roadway narrower



Multi-lane roundabouts have “multiple threat” potential and higher speed – drivers can “cheat”

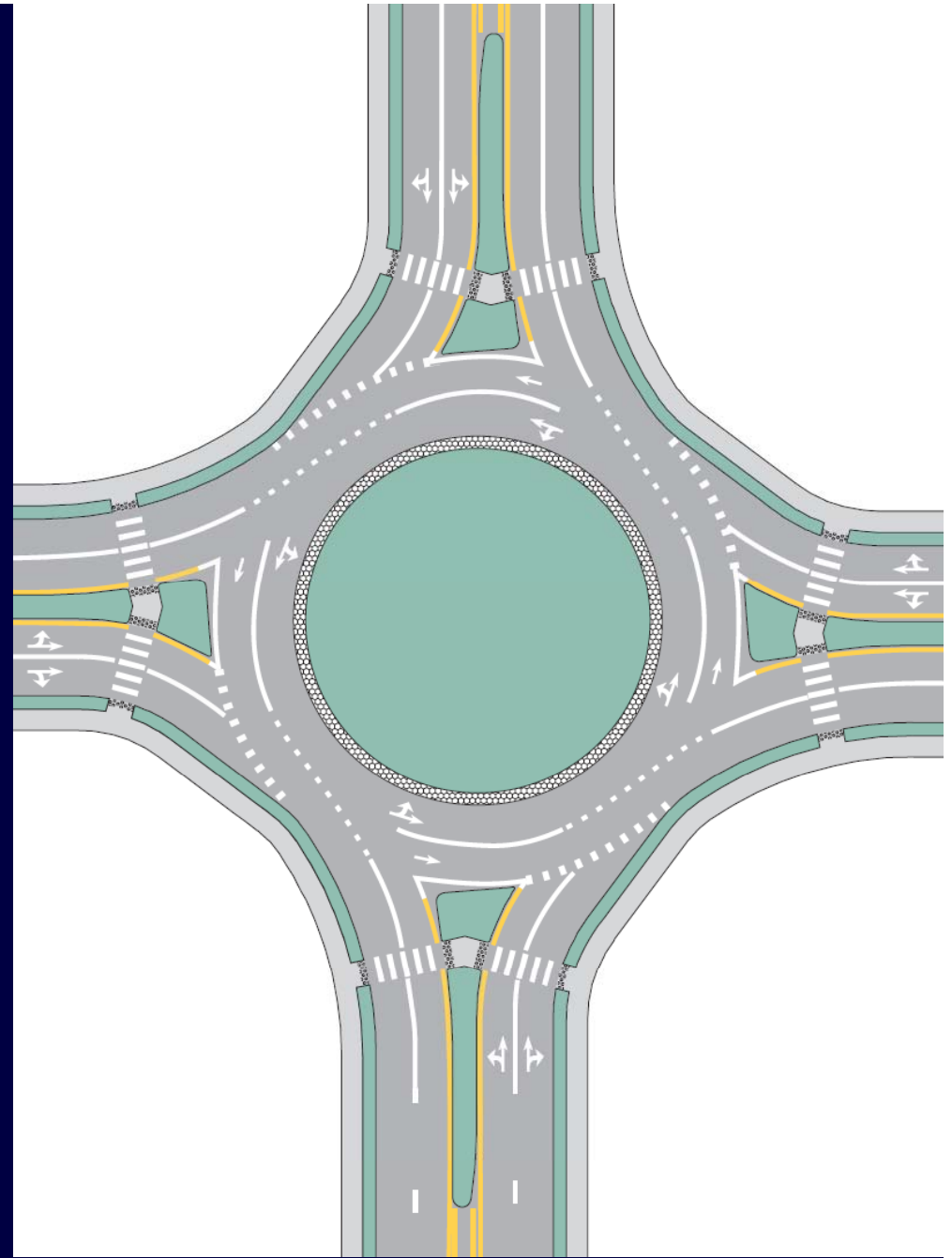


Multi-lane roundabouts have “multiple threat” potential and higher speed – drivers can “cheat”

Recommended striping for 2-lane roundabout

Lane striping
discourages “cheaters”

*(Diagram from
draft 2009 MUTCD)*





Signs helps drivers choose correct lane

2009 MUTCD
Section 2B.19
Section 2B.45
Section 2D.38

Designing for Pedestrian Safety – Roundabouts

8-14



Roundabout problems for blind pedestrians:

- **Circulating traffic masks the sound cues the blind use to identify gaps and masks the sound of yielding vehicles**
- **Tangential circulating roadway, tangential exit => high speed (worse at 2-lane roundabouts)**

Possible Mitigation For 2-lane Roundabout Ped signal at selected leg(s)



**Signalized Pedestrian
Crossing**



Roundabouts can be used in residential neighborhoods if well-designed

Questions?