

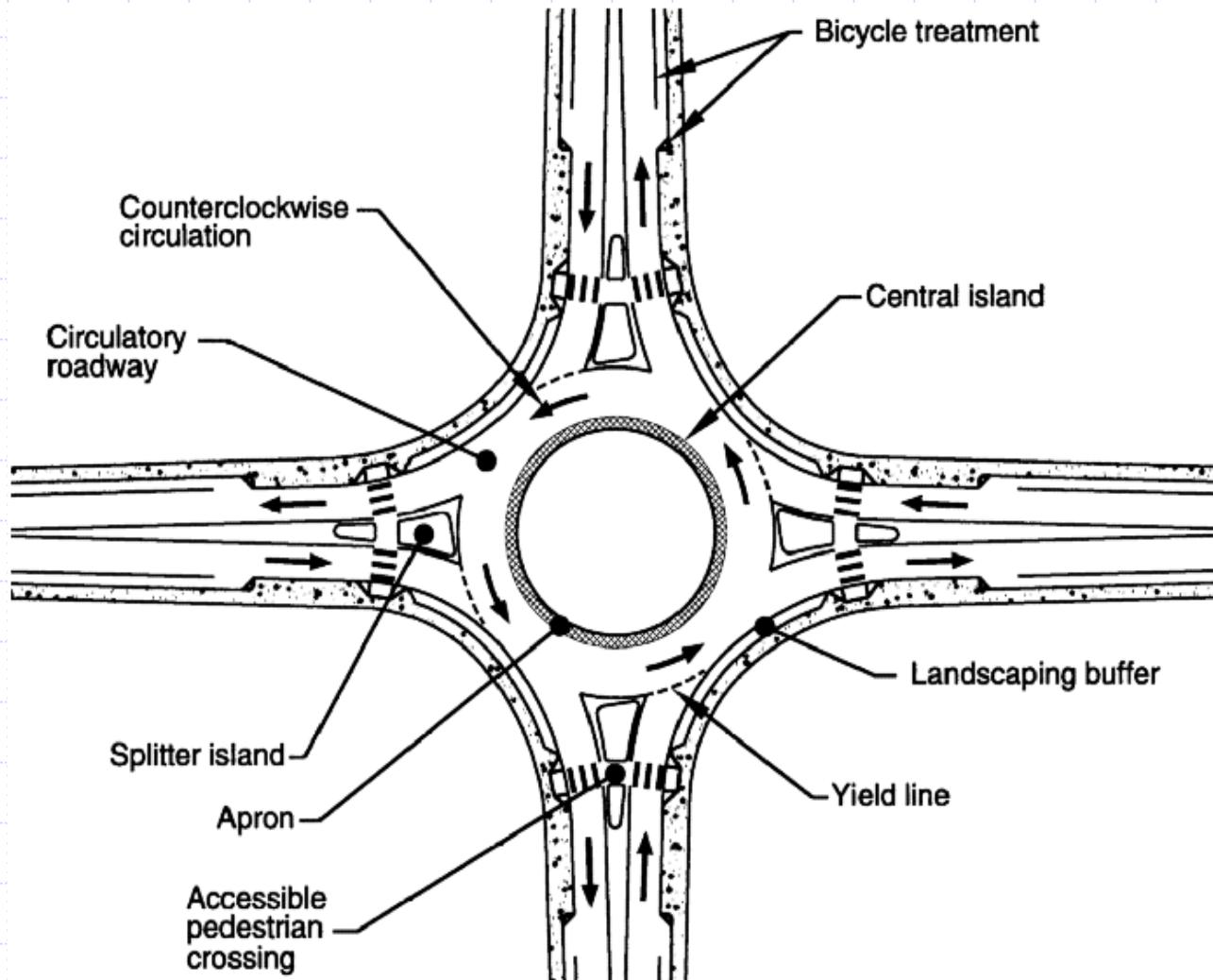


Highland Roundabouts

**What to Expect and
How to Use Them**



Single-lane Roundabout



Typical Approach

Okemos, MI



Typical Truck Apron



Public Attitude

	<u>Before</u>	<u>After</u>
◆ Very Negative	23%	00%
◆ Negative	45%	00%
◆ Neutral	18%	27%
◆ Positive	14%	41%
◆ Very Positive	0%	32%

Benefits

- ◆ Safer for motorists due to low speeds
- ◆ Safe for pedestrians and bicyclists
- ◆ Increased intersection capacity
- ◆ Provides safe U-turn movement
- ◆ Not affected by power outages

Safety

Pedestrian

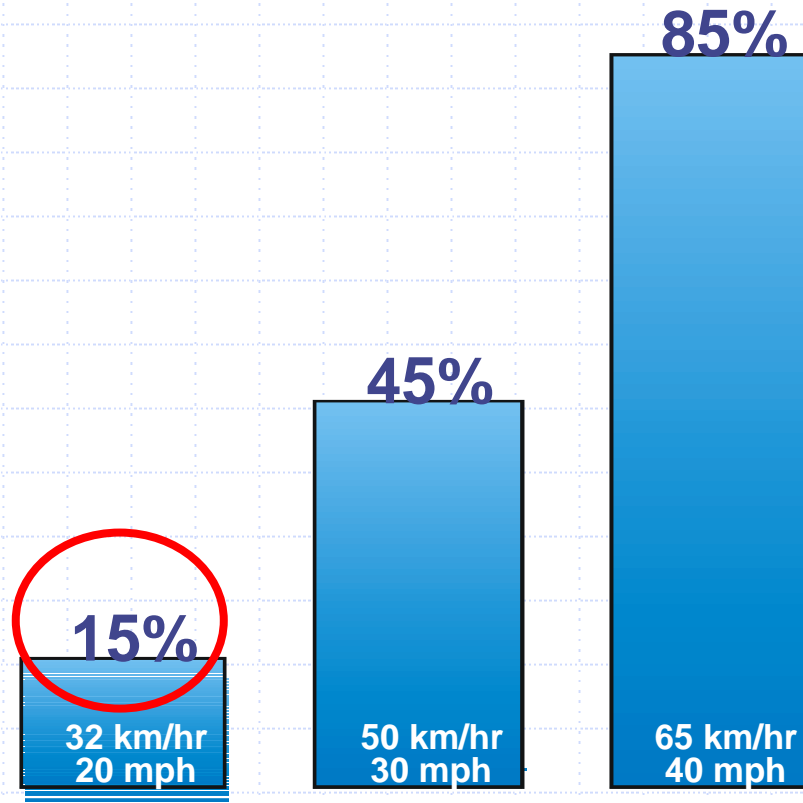
Bicycle

Motor Vehicle

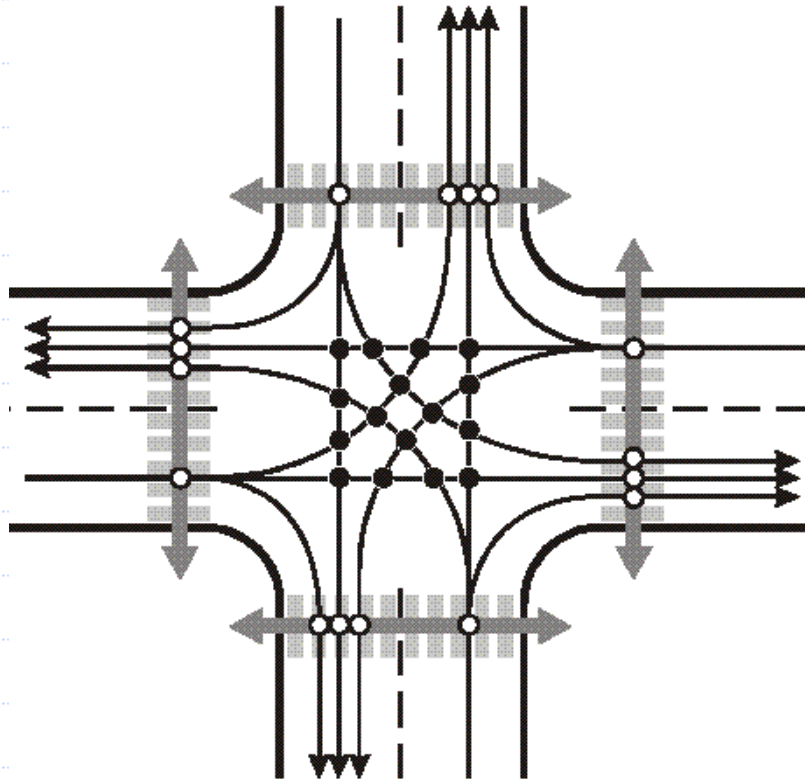
Pedestrian Safety

- ◆ Shorter travel distance
- ◆ Simplified decision making
- ◆ Slower vehicle speeds
- ◆ Fewer conflict points

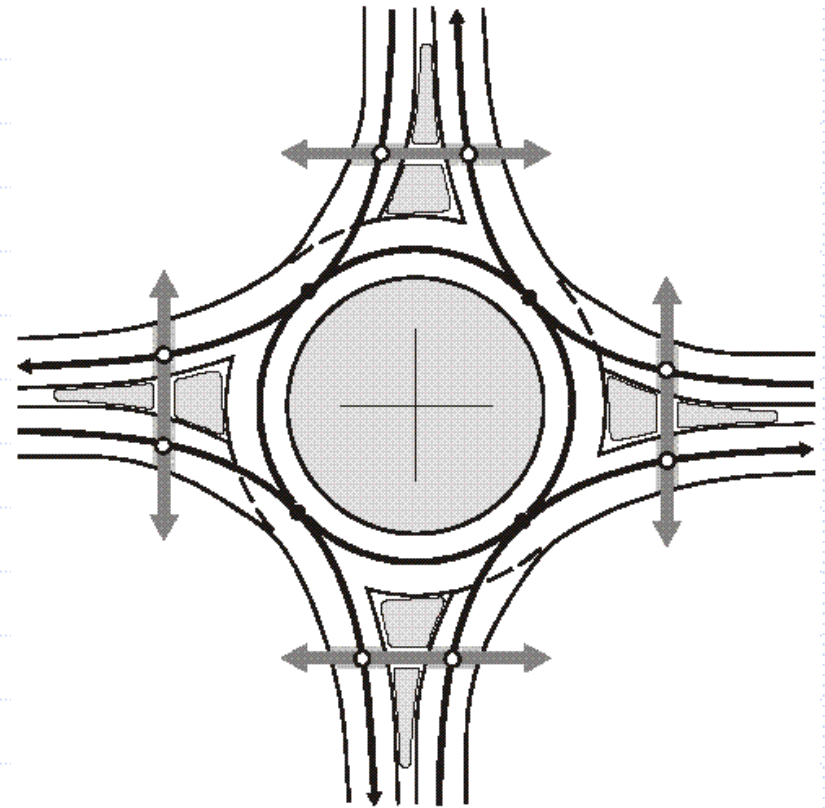
Probability of Death if Hit by Cars



Vehicle – Pedestrian Conflicts

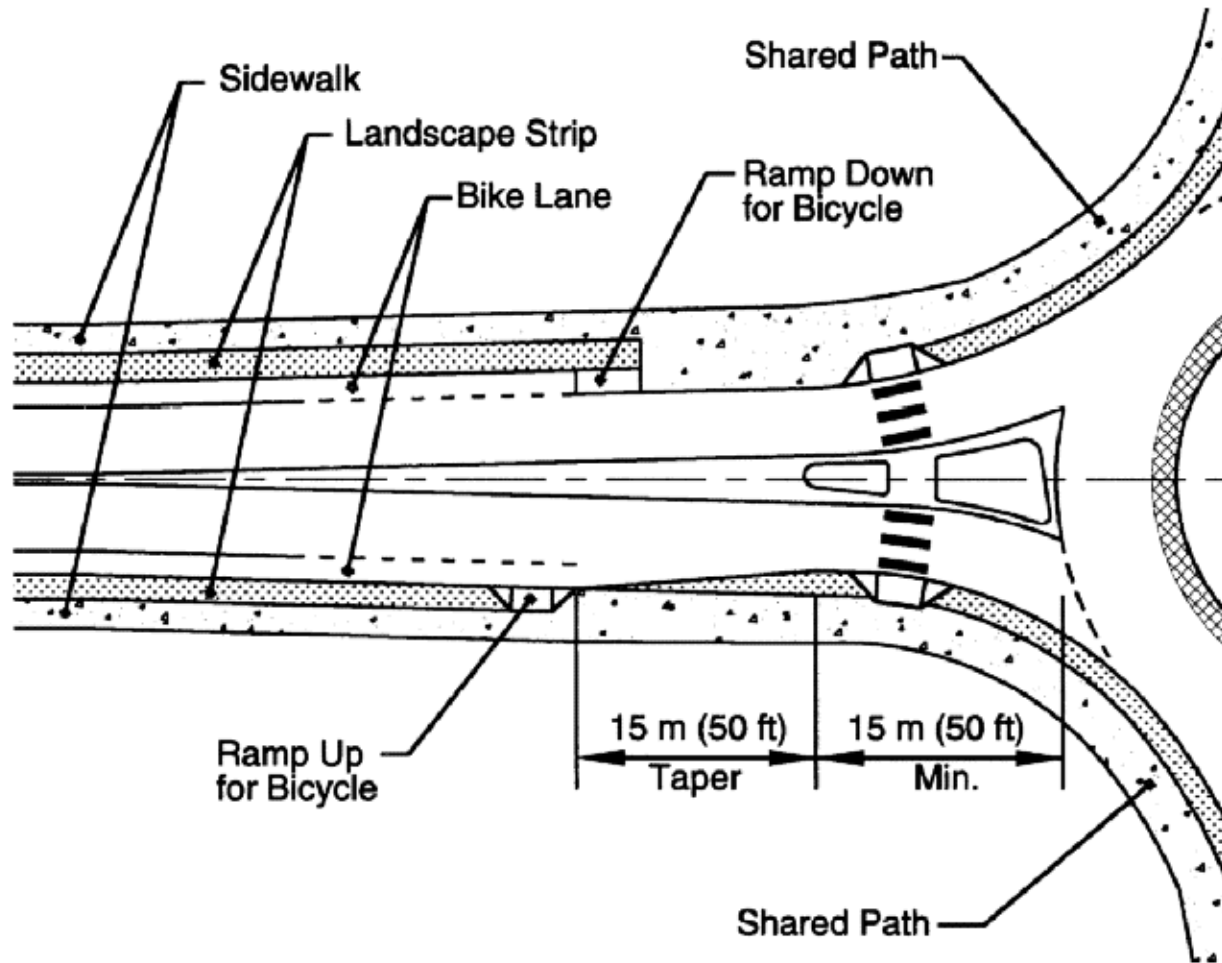


○ Vehicle/Pedestrian Conflicts



○ Vehicle/Pedestrian Conflicts

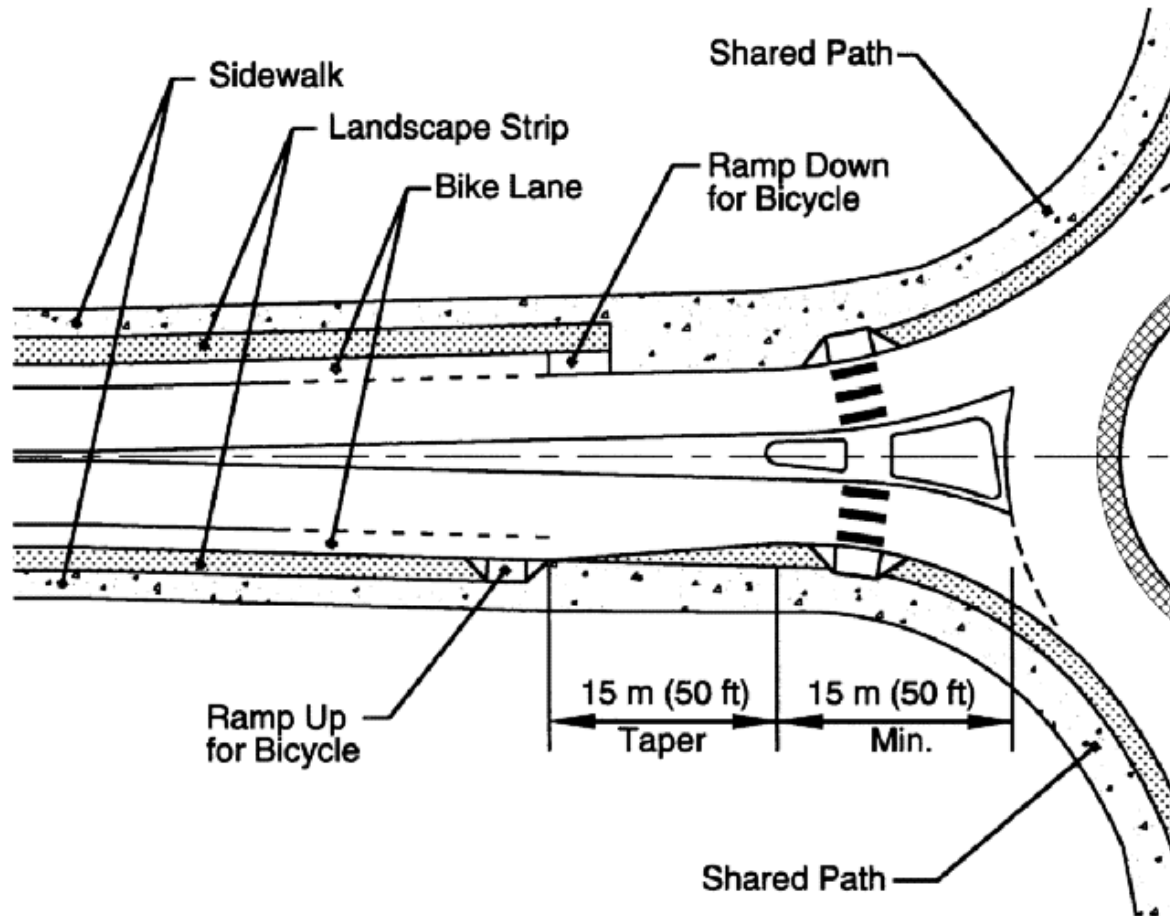
Pedestrian Considerations



Bicycle Safety

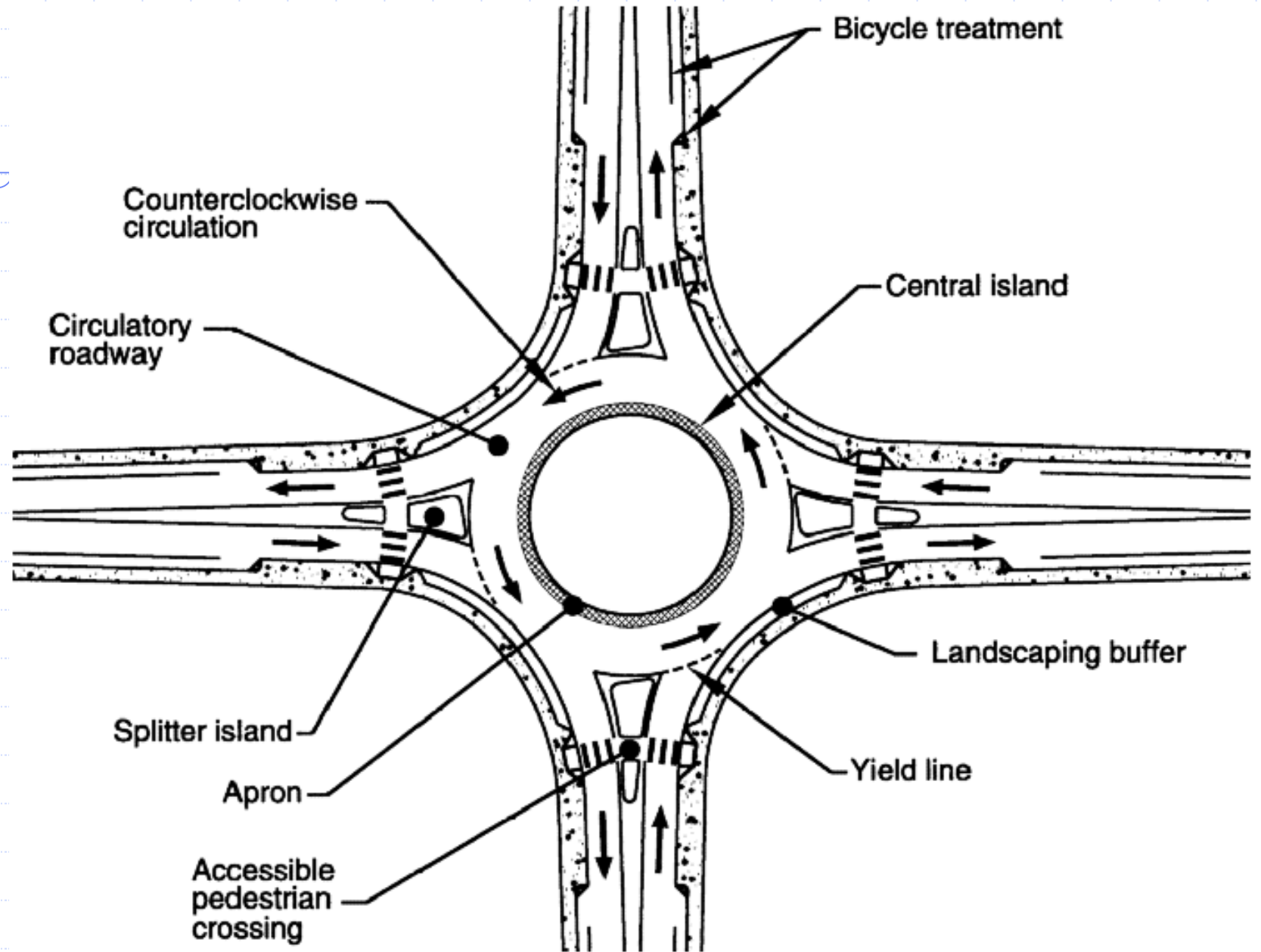
- ◆ Low motor vehicle entry speeds
- ◆ Mix with motor vehicles
- ◆ Can use sidewalks
- ◆ Do not stripe bicycle lanes in the circulatory roadway

Bicycle Considerations

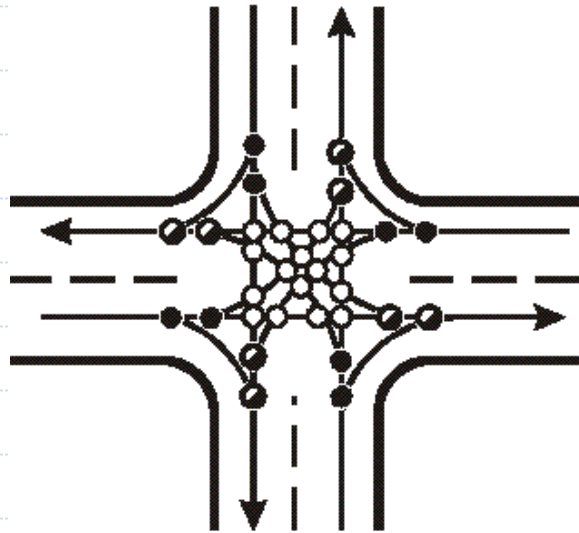


Motor Vehicle Safety

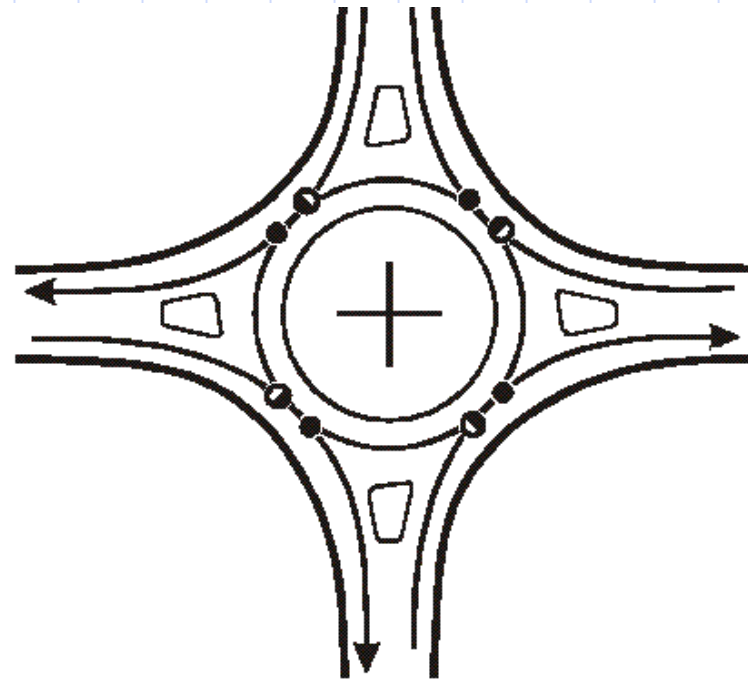
- ◆ Simplified decision making
- ◆ Slower vehicle speeds
- ◆ Fewer conflict points
- ◆ Less severe accidents



Comparison of Vehicular Conflict Points

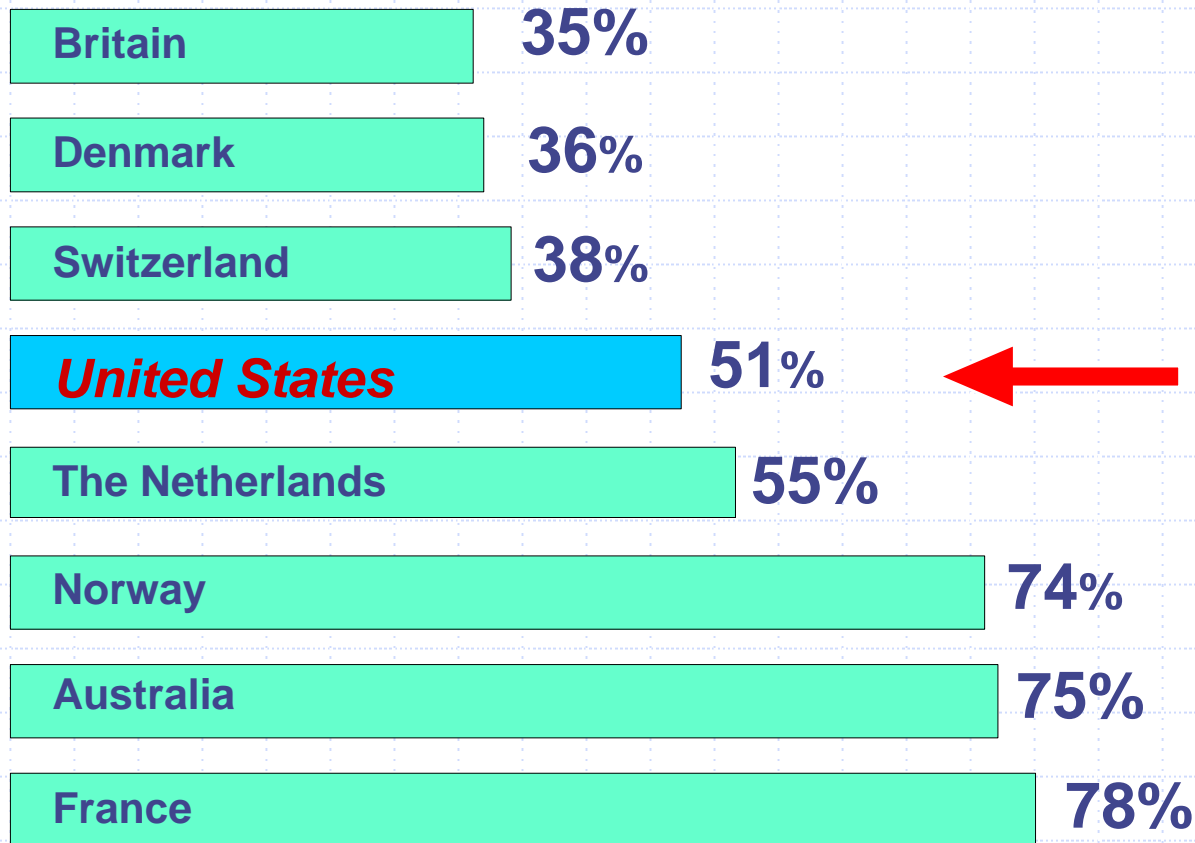


◐	Merging	8
●	Diverging	8
○	Crossing	16
		<hr/>
		32



◐	Merging	4
●	Diverging	4
○	Crossing	0
		<hr/>
		8

Injury Crash Reductions



Source: Maryland Department of Transportation; NCHRP synthesis

Maryland Roundabouts

MARYLAND ROUNDABOUTS									
TRUCK CRASH SUMMARY									
LOCATION	BEFORE						AFTER		
	YEARS	TOTAL ACCIDENTS	Accidents per Year	TRUCKS	Truck % of Total	YEARS	TOTAL ACCIDENTS	Accidents per Year	
MD 94/MD 144 - LISBON	1989-1992	33	8.3	3	9%	1994-1998	14	2.8	
MD 63/MD 58 - CEARFOSS	1991-1994	15	3.8	1	7%	1996-1998	2	0.7	
MD 213 @ LEEDS ROAD	1991-1994	15	3.8	0	0%	1996-1998	9	3.0	
MD 2 @ MD 408/MD 422 - LOTHIAN	1991-1994	27	6.8	3	11%	1996-1998	12	4.0	
MD 140 @ MD 832 - TANEYTOWN	1992-1995	24	6.0	2	8%	1997-1998	3	1.5	
TOTALS		114		9	8%		40		

65% REDUCTION

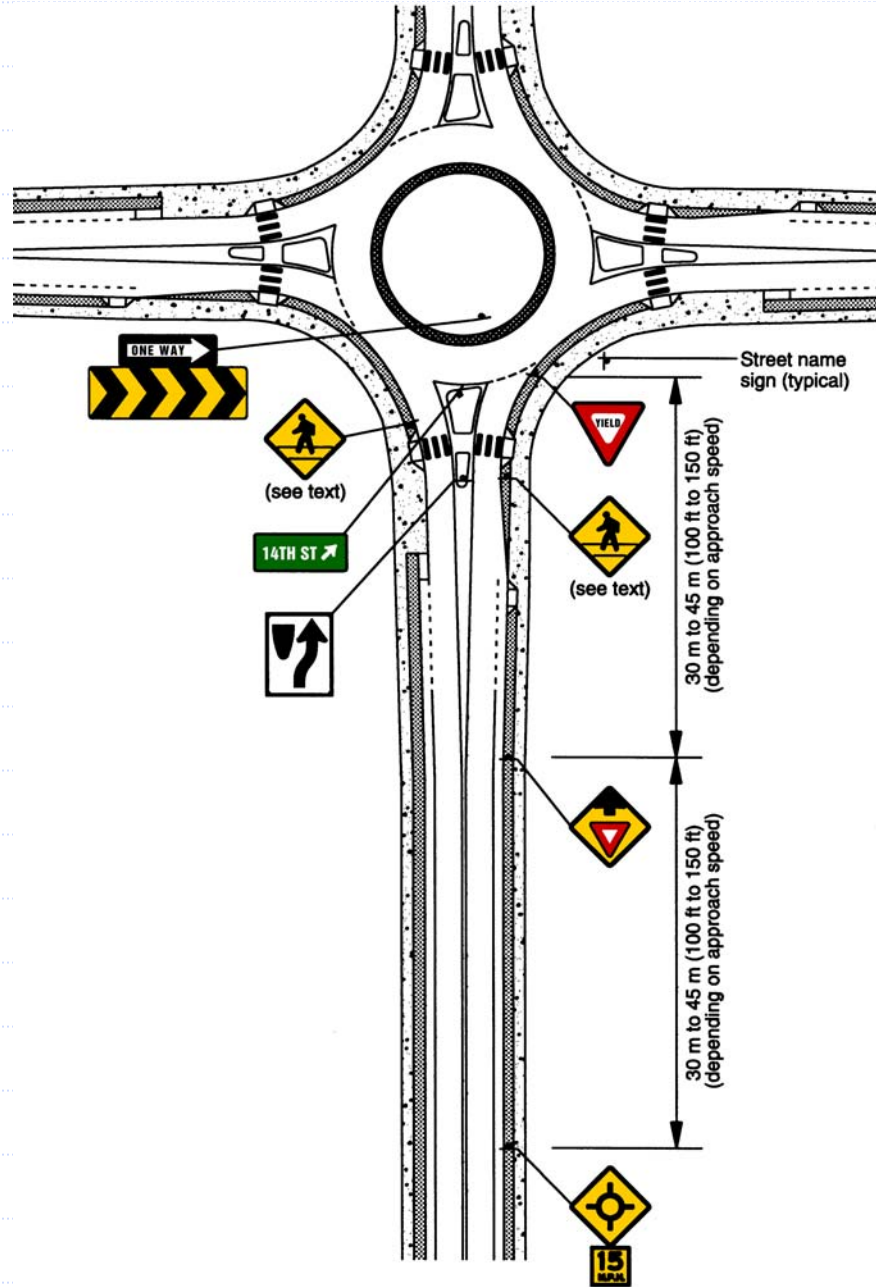
Taneytown – MD 140 @ MD 142



◆ 87% Accident Reduction



Traffic Control Devices



Thank you for learning about Highland's new Roundabouts

To end the slideshow and return to the City of Highland's website, click on the shields.

