

Design Element	Mini-Roundabout	Single-Lane Roundabout	Multi-lane Roundabout
Desirable maximum entry design speed	15 to 20 mph	20 to 25 mph	25 mph to 30 mph
Maximum number of entering lanes per approach	1	1	2+
Typical inscribed circle diameter	45 to 90 ft.	90 to 180 ft.	150 to 220 ft. (two-lanes)
Central island treatment	Fully traversable	Raised (w/ traversable apron)	Raised (w/ traversable apron)
Typical daily service volumes on 4-leg roundabout below which may be expected to operate without requiring a detailed capacity analysis (veh/day)*	Up to approximately 15,000	Up to Approximately 25,000	Up to Approximately 45,000 for two-lane roundabout
*Operational analysis needed to verify upper limit for specific applications or for roundabouts with more than two lanes or four legs.			

Roundabout Category Comparison*

Bicycle and Pedestrian Accommodations

Bicycle and Pedestrian accommodations should be considered when designing roundabouts.

For pedestrians, the risk of being involved in a severe collision is lower at roundabouts than at other forms of intersections due to the slower vehicle speeds (20-30 mph). Likewise, the number of conflict points at roundabouts is also lower and thus can lower the frequency of crashes. For pedestrian design consideration, see Chapter 6 of the *NCHRP Report 672, Roundabouts: An Informational Guide, Second Edition* at http://onlinepubs.trb.org/onlinepubs/nchrp/nchrp_rpt_672.pdf.

For bicyclists, safety and usability of roundabouts depends upon the roundabout design. Since typical on-road bicyclists travel is between 12 and 20 mph, roundabouts that are designed to constrain vehicle speeds to similar values will minimize the relative speeds between bicyclists and motorists, and thereby improve the safety and usability for bicyclists.

Single-lane roundabouts are much easier for bicyclists than multi-lane roundabouts since they do not require bicyclists to change lanes to make left-turn movements or otherwise select the appropriate lane for their direction of travel.

* Rev. 7/14