

Consequently, functional classification (hierarchy) of the intersecting roads needs to be assessed when considering the construction of a roundabout.

VDOT Policy

VDOT recognizes that roundabouts are frequently able to address the above safety and operational objectives better than other types of intersections in both urban and rural environments and on high-speed and low-speed highways.

Therefore, it is VDOT policy that roundabouts be considered when a project includes reconstructing or constructing new intersection(s), signalized or unsignalized. The Engineer shall provide an analysis of each intersection to determine if a roundabout is a feasible alternative based on site constraints, including right-of-way, environmental factors and other design constraints. The advantages and disadvantages of constructing a roundabout shall be documented for each intersection. The documentation shall include, at a minimum, the criteria outlined in this section.

When the analysis shows that a roundabout is a feasible alternative, it is considered the Department's preferred alternative due to the proven substantial safety and operational benefits.

Roundabouts should not be considered as a feasible alternative when the following criteria exist:

- Where adequate horizontal and/or vertical approach sight distances cannot be met.
- When there are signalized intersections close to the proposed roundabout.
- Where high volume entrances are in close proximity (within 100') to the outer edge of the inscribed diameter.
- Where left turns are not the predominant turning movement.
- When deemed unsuitable due to other engineering factors by the District or Central Roundabout Review Committee.

Design/Resources

The maximum daily service volume of a single-lane roundabout varies between 20,000 and 26,000 vehicles per day (2,000 -2,600 peak hour volume), depending on the left-turn percentages and the distribution of traffic between the major and minor roads.

Roundabout designs shall be based on Federal Highway Administration Publication Number FHWA-RD-00-067, Roundabouts: An Informational Guide. See the following link: <http://www.fhrc.gov/safety/00068.htm>.

Additional information can also be found in VDOT's Roundabout Brochure at <http://www.virginia-dot.org/info/resources/Roundabouts.pdf> and on VDOT's roundabout web site at [Roundabouts in Virginia](#).

Spacing standards for Roundabouts are presented in Table 2-2 and the notes listed under the table.