

SECTION 4 – ENTRANCE DESIGN

Entrance Design Principles

All* entrances are, in effect, at-grade intersections and are designed consistent with the intended use. Entrance design and location merit special considerations in order to reduce the number of crashes that occur at entrances.

At Intersections: Entrances shall not be situated within the functional area of an intersection or in the influence area of an adjacent entrance. The functional area extends both upstream and downstream from the physical intersection area and includes the longitudinal limits of auxiliary lanes, see Figure 4-2A.

Entrance Angle: The entrance centerline should be perpendicular to the state highway centerline and extend tangentially for a minimum distance of 40 feet beyond the near-side edge line. An acute angle between 60 degrees and 90 degrees may be permitted if significant physical constraints exist. Acute angles less than 60 degrees shall require special approval of the Department.

Type of Entrance	Design	Sight Distance	Access Management*	Permit
Commercial	Figures 4-8 to 4-14	Intersection	Yes	Commercial
Commercial: Moderate Volume	Figure 4-15	Intersection	Yes	Commercial
Low Volume Commercial	Figure 4-1	Stopping	No	Commercial
Private	Figure 4-1	Best possible	No	Private

TABLE 4-1 ENTRANCE TYPES AND RULES

*NOTE: See [Access Management Regulations 24VAC 30-73-120 Commercial Entrance Access Management](#)

Entrance Definitions

Commercial Entrance: Any entrance serving land uses that generate more than 50 vehicular trips per day or the trip generation equivalent of more than five individual private residences or lots for individual private residences using the methodology in the Institute of Transportation Engineers *Trip Generation*. See Figures 4-8 to 4-14.

Private Subdivision Road/Street Commercial Entrance: Any entrance for a road or street that serves more than five individual properties and is privately owned and maintained.

Low Volume Commercial Entrance: Any entrance, other than a private entrance, serving five or fewer individual residences or lots for individual residences on a privately owned and maintained road or land uses that generate 50 or fewer vehicular trips per day using the methodology in the Institute of Transportation Engineers *Trip Generation*.

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