

## Access Management Frequently Asked Questions (FAQ):

### Driveway Width

Along older urban arterial streets, it is common to find many narrow driveways. Older commercial driveway and parking lot designs tended to use ten to fifteen foot wide driveways. This type of design will safely accommodate only one vehicle at a time, either an entering or an exiting vehicle. Another common problem is driveways in urban and rural areas that are too wide. In some cases, the driveway may have no discernable boundaries or curbs. Both situations create operational and safety concerns. A properly designed driveway helps turning traffic move off the roadway more quickly and reduces the likelihood of crashes.

#### Why is driveway width important?

Driveway width is important because it impacts speed differential, the difference between the speed of vehicles that are continuing along the main roadway versus those that are turning into driveways. The more a turning vehicle must slow to enter a driveway, the greater the speed differential. As the speed differential increases, the likelihood of crashes involving faster-moving through vehicles and turning vehicles increases quickly. When the speed differential is high, it is also more likely that crashes will be more severe, cause greater property damage, and have a greater chance of injury or fatalities.

In general, vehicles must slow to a greater extent to negotiate narrower driveways than wider driveways—although the use of longer turn radii and/or tapers will improve operating performance. An additional concern is created when a driveway is so narrow that it can only operate in one direction at a time. In this case, vehicles must wait for others to exit the driveway before entering. This can create a dangerous situation of left-turning or right-turning vehicles stopped in a through traffic lane.



This driveway on US 218 in southeastern Iowa is too wide. It lacks curbs and discernable boundaries. This creates confusion for motorists and very unsafe conditions for pedestrians.

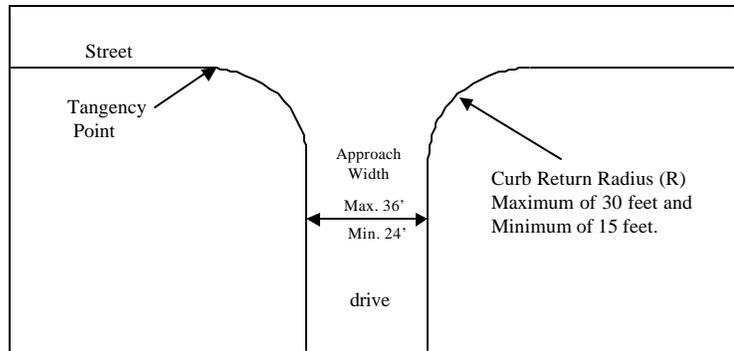
At the other extreme, driveways that are too wide may create confusion for motorists, who may have a hard time deciding where to position themselves, and to pedestrians, who will have a greater distance of pavement to cross where they are vulnerable to being struck by an entering vehicle (see photograph). Such driveways create opportunities for crashes that are fatal or injurious.

#### What is a reasonable driveway width?

*Commercial* driveways may vary in size depending on the number of lanes needed. The optimal width for a one-way in or out driveway is 14 to 16 feet. Maximum width driveways usually have two inbound and three outbound lanes, with each lane being at

least 11 feet wide. Where more than one inbound and outbound lane is provided, a median divider is generally desirable. This median should be at least 4 feet wide; however, median widths of 10 to 16 feet are preferable because they improve driver maneuvering and provide opportunities for landscaping. Median widths over 16 feet are undesirable because they create turning problems and greatly expand the intersection size (NCHRP Report 348).

Driveways that enter the public roadway at traffic signals should have at least two outbound lanes—one for right turns and one for left turns (with a minimum width of 22 feet) and one inbound lane of 14 feet minimum width. Dual left-turn lanes into driveways and dual right-turn lanes onto public streets should be used only with traffic control.



The above diagram shows a driveway width standard from the City of College Station, Texas for 2-way commercial and multifamily driveways. In this case, the maximum width shall not exceed 36 feet and the minimum width shall not be less than 24 feet. Turn radii may vary between 15 and 30 feet.

All *noncommercial* (residential) driveways should normally have a width between 14 feet and 24 feet. Where larger vehicles (farm equipment or trucks) will use a driveway, at least a 20-foot width should be provided.

Many different combinations of turn radius and driveway width provide the same level of driveway operations. For a given level of service, shorter radii require wider driveways than longer radii. For example, a 33-foot wide two-lane driveway with 5-foot turn radii provides about the same level of service as a 37-foot wide drive with a square corner. NCHRP Report 348 recommends that agencies select a very limited number of standard designs for driveways so designs are consistent.

### **When is driveway width most important?**

Narrow driveways are not ideal under any circumstances, however they can best be tolerated on local streets and roads that carry little of no through traffic. Narrow driveways are more tolerable for residential properties than for retail businesses, since businesses generate many more vehicles entering and exiting driveways per hour. Increasing driveway width thus becomes a very important consideration along roadways that:

- Carry considerable through traffic volumes;
- Have relatively high travel speeds—say 35 to 40 miles per hour or more;
- Have commercial land uses along them, especially retail and service businesses that generate many hourly auto trips.

### **What are some related issues?**

Driveway turn radius, driveway grade, internal circulation in land developments (includes driveway throat length), driveway-related crashes, and speed differential between turning vehicles and through traffic.