



ENGINEERING DEPARTMENT
Traffic Engineering Division

MEMORANDUM

DATE: January 29, 2008
TO: David Moody, P.E., Director of Engineering
FROM: Jamal Rahimi, P.E., City Traffic Engineer
SUBJECT: **Access Management Guidelines - Driveway Criteria**

Access Spacing

Minimum access spacing provides with sufficient perception-reaction time to address one potential conflict area at a time. Guidelines for minimum unsignalized driveway or local street spacing should consider the speed of the major roadway, stopping sight distance, the elimination of right-turn conflict overlays and the functional area of the access points. When a driveway is to be located upstream of a major intersection, the possibility of weaving, or lane shifts, to make a left turn at the major intersection should also be considered.

The functional area of any access point should be kept clear of any additional points of access. Guidelines for minimum access spacing are presented in Table 1.

Table 1. Minimum Access Spacing (feet)

| <u>Speed (mph)</u> | <u>Spacing</u> |
|--------------------|----------------|
| 30 | 150 |
| 35 | 180 |
| 40 | 230 |
| 45 | 260 |
| 50 | 290 |

Corner Clearance

Corner clearance is the distance between an access drive and the nearest cross road intersection. It should provide drivers with adequate perception-reaction time to access potential downstream conflicts and is aimed at preventing the location of driveways within the functional area of an intersection. It will also minimize driveway/intersection conflicts by preventing blockage of driveways upstream of an intersection due to standing traffic queues. Minimum driveway setback distances should take into consideration typical traffic queue lengths

while permitting sufficient movement to driveway traffic. The corner clearance on the upstream side of the intersection should be longer than the longest expected queue, or at a minimum, the distances indicated in Table 2. On the downstream side, the minimum distance should conform to Table 2. Driveways on corner lots should be located on the lesser street and near the property line most distant from the intersection.

Table 2. Minimum Corner Clearance (feet)

| <u>Speed (mph)</u> | <u>Distance From Near Side of Street to Near Side of Access Driveway</u> | |
|--------------------|--|------------------------|
| | <u>Major Generator</u> | <u>Minor Generator</u> |
| 30 | 200 | 145 |
| 35 | 295 | 230 |
| 40 | 390 | 310 |
| 45 | 425 | 325 |
| 50 | 450 | 345 |

Major generators are those developments that are estimated to generate 500 vehicle trips or more during either of the a.m. or p.m. peak hours. Other development projects are considered minor generators.

Vehicle service stations, which are almost always on corner lots, will want to have up to two driveways on each street. Only one driveway on the major street, located near the property is desirable. Depending on the classification of the intersecting street, one driveway is desirable, two are maximum.

On streets with posted speed limits or prima facie speed limits of less than 30 mph the minimum access spacing may be reduced to 50 feet. Other provisions of Peoria Detail PE-251-3 (Driveway Criteria) will remain in effect.

Notes:

Location and spacing of driveways affect the safety and functional integrity of streets and highways. Too many closely-spaced streets and driveways increase accident potential and delays. Increasing the spacing and providing a greater separation of conflict points, reduce the number and variety of events to which drivers must respond. This translates into fewer accidents, travel time savings, and preservation of capacity.

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Reasonable spacing between driveways is important to the safety and capacity of a road, as well as the appearance of a corridor. Managing driveway spacing is essential on roads intended for higher speeds. At higher speeds drivers have less time and distance to react to unexpected situations.

Inadequate corner clearances can result in poor traffic operation (ingress and egress) along with safety backups and capacity problems. Driveways located too close to intersections can add to traffic congestion.

References:

1. Institute of Transportation Engineers (ITE), Traffic Engineering Handbook, 5th Edition, Washington, DC, 1999.
2. Access Management Manual, Transportation Research Board (TRB), 2003.
3. American Association of State Highway and Transportation Officials (AASHTO “Green Book”), A Policy on Geometric Design of Highways and Streets. Washington, DC, 2001.
4. Federal Highway Administration, “Access Management, Location and Design”. National Highway Institute Course No. 15225, June 1998.
5. U.S. Department of Transportation – Federal Highway Administration, Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD), Washington, DC 2003.