



**APPENDIX C  
2001 CASA GRANDE MULTIMODAL TRANSPORTATION STUDY  
ACCESS CONTROL GUIDELINES**

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## 8. ACCESS MANAGEMENT

The purpose of this chapter is to provide an overview of access management issues confronting the City and to provide recommended practices for the management of vehicular access to all City-owned roadways and state highways. Current access management practice in Casa Grande is provided in Appendix A. The Appendix includes access management material from Chapter 17.56, Off-Street Parking, of the *Casa Grande Municipal Code*.

### DEFINITION OF ACCESS MANAGEMENT

Access management is defined as the regulation of vehicular access to public roadways from adjoining property. Access management is provided through legal, administrative, and technical strategies available to a political jurisdiction under its police powers in order to maintain the health, safety, and welfare of the jurisdiction's residents. Moreover, access management regulates the level of access control on roadways and is needed to help retain the capacity of public highways, access to private land, and maintain public safety.

Different types of roadways are administered by different entities such as the State, a municipality, or a county. The land use decisions made by the local jurisdiction that a roadway passes through influences the functionality of that particular roadway. An example is the functionality of SR 287 (Florence Boulevard), which is administered by ADOT. The functionality is very much dependent on the land use decisions made by Casa Grande. Therefore, all jurisdictions responsible for transportation systems and land use planning should be aware of this particular relationship and adopt formal access management guidelines. These may be published as a separate document, contained in zoning codes, established in roadway planning and development procedures, or in some combination. The implementation of the guidelines or regulations should be a shared responsibility of both the planning and engineering departments. The regulations should be approved by the jurisdiction's elected body and be readily available for use by developers, real estate agents, and the general public.

The guidelines presented in this chapter provide basic design criteria for the location, spacing, and geometric aspects of driveways. The guidelines are intended for use in investment decisions by land developers, for site planning, and for facility design. Availability of the guidelines reduces project review and approval time, as well as assuring that adequate access is available to serve a proposed land use.

### LEGAL ISSUES OF ACCESS CONTROL

This section presents an overview of legal issues in regard to access control. The discussion is based on a review of Arizona Revised Statutes and on a 1990 ADOT report entitled *Access Management: Practices in Other States and Improvement for Arizona*.

Access rights are property rights protected by the U.S. Constitution as well as the Arizona State Constitution. According to the Arizona Constitution (Article 2, Section 17) “no property shall be taken or damaged for public or private use without just compensation...” An owner of a property abutting a public highway has a private right or easement for the purpose of ingress and egress to and from his property. This easement may not be taken or substantially impaired without compensation. However property right of access is not an absolute right and is subject to the public’s right of passage.

All private property rights, including access rights, are susceptible to condemnation through the State’s power of eminent domain. Access rights are also always subject to reasonable regulation through police powers of local governments and the state for the public health, safety, and welfare. The right of access is a right of reasonable access and is not a private right of direct access. However, once a direct access has been provided to a non-controlled access highway the property owner has an access easement. Any destruction or unreasonable restriction of that access requires compensation. The landowner must retain reasonable access which is access suitable for the highest and best use of the property.

Local governments and the state has the power to regulate traffic on the highway including the following:

- curbing highways and restricting driveway location, spacing, size, and design
- regulating traffic flow
- determining the types of vehicles that may use a highway
- restricting traffic movement to one direction of travel
- striping a highway or constructing a median divider which permanently limits property ingress and egress to one direction of travel

Local governments and the state may close direct access to a property and provide alternative indirect access via a frontage road or another public road abutting the property. If the indirect access provides reasonable access for the highest and best use of the property, the owner is not entitled to damages. Also, the property owner is not necessarily due compensation even if the access is more circuitous unless the property owner suffers a unique injury.

#### **AUTHORITY TO CONTROL ACCESS ALONG STATE ROUTES**

The director of ADOT is given the authority to exercise powers and duties as are necessary to fully carry out the policies, activities and duties of the transportation department. The director exercises complete and exclusive operational control and jurisdiction over the use of state highways and routes and prescribes rules as are necessary for public safety and convenience. The director has the authority to coordinate the design, right-of-way

purchase and construction of controlled-access highways, and related grade separations of controlled-access highways, and the extension and widening of arterial streets and highways (ARS 28-108).

Access control can be categorized as either full access control or partial access control. Full access control means that properties abutting a highway do not have direct access to the highway and that access is provided only at grade separated interchanges. A freeway is an example of a full access control highway with access provided only at grade separated interchanges. Full access control is implemented by the designation of a controlled-access highway by the State Transportation Board. Partial access control permits some crossing at grade and some private driveway connections. Uncontrolled access means that all abutting properties can have direct access to the highway. The current authority for partial access control is through ADOT administrative rule, Rule R17-3-712, *Encroachments in Highway Rights-of-way*. Other methods to control access along a highway include subdivision approval and site plan review through local government ordinance.

#### **Arizona's Rule R17-3-712**

On uncontrolled-access highways, ADOT controls access on state highways by administrative rule. *Rule R17-3-712, Encroachments in Highway Rights-of-way* guides the granting of encroachment permits. Permits for driveways onto a state highway are granted by ADOT's Engineering Districts in accordance with Rule R17-3-712.

#### **EFFECTIVENESS OF ACCESS CONTROL**

The effectiveness of access control measures has been reported in a report, *Access Management Awareness Program: Phase II Report*, December 1997, Iowa State University. The following findings were reported in regard to access control:

- Access management may be expected to lead to a reduction in annual accidents of 10 and 65 percent.
- Access management raised the level of traffic service to motorist at peak hour along a corridor by one level.
- Access management projects generally do not have an adverse effect on the majority of businesses.
- Ninety to 100 percent of motorists surveyed had a favorable opinion of improvements made to roadways that involve access management.

## METHODS TO CONTROL ACCESS

Access can be controlled through the use of planning and regulatory tools and through the implementation of technical methods.

## PLANNING AND REGULATORY TOOLS

The following are planning and regulatory tools that are available to the City to control access to properties.

- 1. Land Division.** Controlling lot dimensions has an impact on driveway spacing, on-site circulation, and driveway lengths. Lot dimensions can be controlled through minimum lot size, minimum lot frontage, set back requirements, etc.
- 2. Subdivision Regulation.** The following procedures and regulations are access management techniques.
  - a.) Site Review Process.* The site plan review process can require documentation of all access points. Traffic signals, medians and on-site circulation controls can be required to ensure that standards are followed.
  - b.) Regulating Lot Splits and Further Subdivisions.* Various types of lot configurations encourage inadequate spacing between access points. The regulation of lot splits by jurisdictions could help to ensure increased spacing between access points.
  - c.) Subdivision Regulation.* Regulations could orient lots and access points to local streets away from the high traffic volume arterials.
- 3. Access Controls.** Access to properties can be regulated through the following controls:
  - a.) Location and Design.* Control the number of access points in relation to road deceleration and acceleration lanes to avoid conflict points. Provide adequate design of driveway throat length to avoid a conflict with flow of off-site traffic. Provide adequate driveway spacing requirements, corner clearance, and joint and cross access configurations.
  - b.) Retrofitting Non-Conforming Access.* Require conformance to access control guidelines with new permit requests for new driveways, land use intensity changes, and site improvements.
- 4. Zoning Regulations.** Zoning techniques can be used to regulate access such as:
  - a.) Overlay Zoning.* Standards can be tailored by priority or intensity access, safety, and congestion problems with corridor overlays for access control problem areas.

*b.) Flexible Zoning.* Flexible zoning can allow for alternative site design, buffering, and screening between incompatible uses.

## **TYPE OF ACCESS MANAGEMENT PROJECTS**

Projects to control access include: driveway consolidation, provision of adequate corner clearance, implementation of two-way continuous left-turn lanes, construction of frontage roads, and construction of a raised median. These techniques are desirable below:

- 1. Driveway Consolidation.** Driveways are consolidated to limit the number of driveways per mile along a road and provide adequate spacing between driveways in order to reduce the number of conflicts.
- 2. Corner Clearance.** This type of project involves providing adequate corner clearance by keeping or moving driveway entrances away from intersections. Improving corner clearance reduces conflicts that cause read-end accidents. In some cases driveways are moved from the main streets to side streets to clear corners.
- 3. Continuous Two-way Left Turn Lanes.** An additional dedicated left-turn lane is provided in the center of the street to separate left-turning traffic from through traffic. Generally, these left-turn lanes are used where moderate levels of turns occur.
- 4. Alternative Access Ways (Frontage and Backage Roads).** Access is provided to sites adjoining the main road by either frontage or backage roads. These roads separate turning movements from the through traffic on the main road.
- 5. Raised Medians at Intersections.** Raised medians at intersections provide a center barrier near intersections to prevent some turning movements into driveways near the intersection. This reduces conflicts near the intersection.
- 6. Full Raised Medians.** Full raised medians are barriers the full length of the main roadway that prevent both left turns and cross traffic. Full raised medians eliminate conflict points along the stretch of the median where traffic volumes are high.

## **RECOMMENDED ACCESS CONTROL GUIDELINES**

The City should form an internal access management team to formalize a continuous access management process including: 1) the access permitting procedures; 2) identifying responsibilities; 3) reviewing development plans; 4) coordinating on planning new and relocated roadways; and preparing Access Management Plans. For SR 287, SR 387, and SR 84, a joint partnership on access control between ADOT and the City of Casa Grande will ensure that the interests of both agencies are maintained while managing access using the state and local powers to control access. Therefore, it is imperative that the City

establishes an ongoing process in cooperation with ADOT to coordinate zoning and subdivision approval with ADOT's access permitting process.

The general policies of the Access Control Guidelines are as follows:

- Traffic signals will only be installed at major intersections when warranted in accordance to the *Manual on Uniform Traffic Control Devices*.
- Left and right turn lanes should be provided on all approaches to major intersections. Left turn lanes should be provided on all approaches to intermediate intersections. Right turn lanes should be provided where warranted by projected traffic demands at arterial-collector and arterial-local intersections.
- The collector street network should provide access to streets with intersections on SR 287, SR 387, and SR 84 as part of land use development.
- Existing driveway access points should be eliminated or consolidated as redevelopment occurs.
- Any median openings along state and local routes would have to be applied for through the ADOT Regional Traffic Engineer.
- The minimum spacing of signalized intersections along SR 287, SR 387, and SR 84 should be one mile in rural areas and one-half mile in urban areas.

#### **ACCESS APPLICATION PROCEDURE ON STATE ROUTES**

The police power to grant or deny access to SR 287, SR 387, and SR 84 rests with ADOT's District Engineer. Thus, the district should be brought into any discussion of new access to the highway early in the development process. Moreover, it is important that coordination with ADOT and the City be established to ensure that interests of both agencies are maintained. The following access application procedures are to be followed:

- The county or municipality informs ADOT of pending developments as soon as possible. This should occur through written notification to the District Engineer.
- ADOT and the municipality coordinate and agree on the access which will be allowed. Department staff should attend regular meetings that may have any traffic impacts regarding state routes through the city.
- Following ADOT Traffic Impact Study guidelines, a traffic impact study is prepared by the developer for the development. In addition to the information required under the guidelines the impact study should include the type of access requested relative to the allowable access, the type of proposed traffic control, the

distance to the nearest intersection on state routes in both directions, and alternative access available, and the need.

- The ADOT District Permits Engineer, in coordination with the ADOT Regional Traffic Engineer, and local government, approves or denies access.

## **ACCESS MANAGEMENT PLANS**

Access management plans should be prepared on selected city streets and for state routes. These plans should include

- An introduction defining the study corridor and discussing the purpose of the access management plan.
- An existing conditions section presenting traffic and geometric conditions on the highway under evaluation.
- A specific access management plan including signal locations, driveway access policies, median type and location, and median break spacing. The plan should be presented in both tabular form and on aerial photos.
- An implementation section outlining how the access management plan will be carried out including responsibilities and intergovernmental cooperation.
- A procedure to adopt the access management plans including how the plans can be updated.

The access management plans should also include a comprehensive review of existing driveways to identify driveways which have not been permitted and driveways which can be consolidated as redevelopment occurs. Those driveways which have not been permitted should be closed by the City and ADOT for city streets and state routes, respectively. The access permitting process should be coordinated with the requirements in Chapter 9, Traffic Impact Analysis.

## **LAND USE AND LOCAL ACCESS**

The City should use its zoning and subdivision powers to influence the location and design of access to the state routes. The concept for access to adjacent properties in regard to how these properties currently access city streets to state routes and how they can access the highway in the future should be carefully reviewed. A critical issue will be whether to maintain existing access points or relocate access points. The concept of relocating some existing access points to maintain a minimum spacing between access points must be carefully examined in order to ensure that property rights are upheld.

## RECOMMENDED PRACTICE

One element of current access management practice includes driveway spacing minimums for principal arterial, minor arterial, and collector streets. The standards need to be updated to include all functional classification system roadways defined in the 2000 Casa Grande Transportation Plan. The recommended clearances are presented in Figure 8-1.

In addition, a new driveway or a driveway with changed access should not be allowed under the following conditions:

- Within 10 feet of any commercial property line, except when it is a joint-use driveway serving two abutting commercial properties and access agreements have been exchanged and recorded by the two abutting property owners
- Within 25 feet of a guardrail ending
- Within 100 feet of a bridge or other structure, except canal service roads
- Within the minimum spacing as established in this section
- When adequate sight distance cannot be provided for vehicles on the driveway attempting to access the street since those movements will be prohibited
- When the nearest edge of any driveway flare or radius must be at least 2 feet from the nearest projection of a fire hydrant, utility pole, drop inlet and/or appurtenances, traffic signal, or light standards
- For parking or loading areas that require backing maneuvers in a public right-of-way, except for single-family or duplex residential uses on local roads

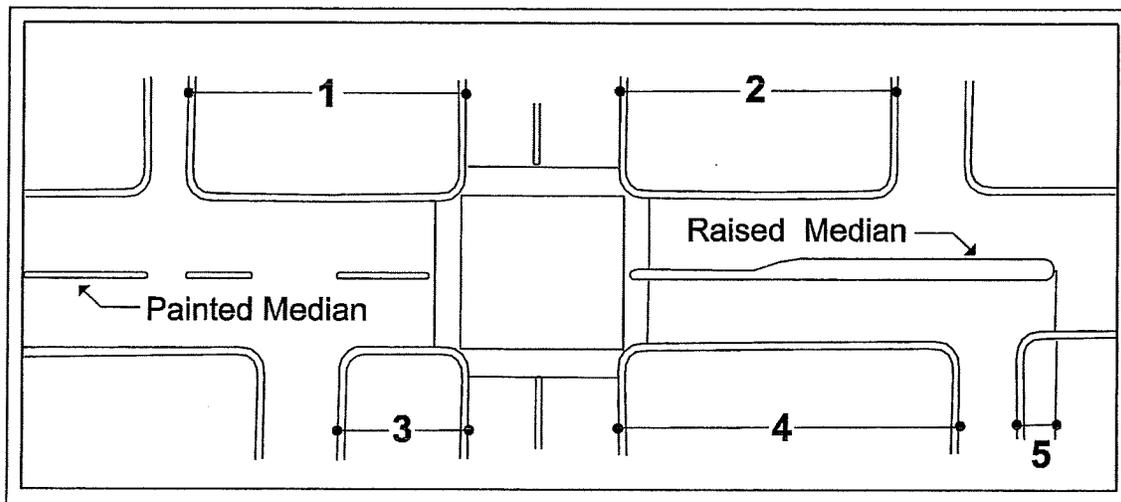
If a property has frontage on more than one street, access will be permitted only on those street frontages where standards contained in this manual and other City Regulations can be met.

If any access point meeting these standards cannot serve a property, the City may designate one or more access point(s). This designation can be based on traffic safety, operational needs, and conformance to as many of the requirements in these guidelines as possible. This does not constitute a guarantee by the City to provide access to a property.

Exceptions may be made by the City in cases where the application of these standards would create an undue hardship to the abutting property owners and good traffic engineering practice can be maintained.

### FIGURE 8-1. MINIMUM CORNER CLEARANCES

(Distances Measured From Near Side Of Street To Near Side Of Driveway)



- 1 Subject intersection to downstream driveway (without median)
- 2 Upstream driveway to subject intersection (with median)
- 3 Upstream driveway to subject intersection (without median)
- 4 Subject intersection to downstream driveway (with median)
- 5 Downstream driveway to median break

<b>Signalized Intersection</b>			
<b>Item</b>	<b>Principal Arterial</b>	<b>Major Collector</b>	
	<b>Minor Arterial</b>	<b>Minor Collector</b>	<b>Local</b>
1	230	175	50
2	115	85	50
3	230	175	50
4	230	175	50
5	75	0	0

<b>Stop Sign Controlled Intersection</b>			
<b>Item</b>	<b>Principal Arterial</b>	<b>Major Collector</b>	
	<b>Minor Arterial</b>	<b>Minor Collector</b>	<b>Local</b>
1	115	75	50
2	115	85	50
3	85	85	50
4	115	75	50
5	75	0	0

### **Driveway Location Coordination**

The location of access for properties on opposite sides of the highway shall be coordinated so that they do not interfere with each other.

- Driveways should be located directly opposite each other to ensure that they share a single access location.
- Where lots are not large enough to allow access points on opposite sides of the street to be aligned, the center of driveways not in alignment will normally be offset a minimum of 150 feet on all collector roads and 330 feet on all industrial, major, and arterial roads. Greater distances may be required if left turn storage lanes require them.
- Joint access will be required for two adjacent developments where a proposed new access will not meet the spacing requirements set forth in this section. Casa Grande must approve joint access.

**APPENDIX A. CURRENT ACCESS MANAGEMENT PRACTICE IN  
CASA GRANDE**

Access management is included in Chapter 17.56, Off-Street Parking, of the *Casa Grande Municipal Code*. The applicable sections are repeated here.

**17.56.60 Drive access-Approval required for alteration**

The city encourages sharing access drives between separate parcels. Some of the following standards may be relaxed if shown during the site design review process that more efficient design can be accomplished without jeopardizing the public's health, safety, and welfare. All changes are subject to approval by the planning and zoning commission. All drive accesses shall be approved by the city engineer for width and location. (Ord. 1178 § 6.10.2(E), 1987)

**17.56.70 Drive access-required when**

All nonresidential off-street parking spaces shall have access from a drive access and not directly from the public street. Access drives shall be not less than twenty-four feet in width for two-way traffic nor less than twelve feet in width for one-way traffic. Residential drive accesses shall be not less than ten feet in width. (Ord. 1178 § 6.10.2(F), 1987)

**17.56.80 Drive access-Required distance from intersection**

Driveway access distances from street intersections shall be subject to the minimum dimensions set out in Table 17.56.080. (Ord. 1178.39 § 2 (part), 1990)

**17.56.090 Drive access-Required spacing**

Drive accesses to a public street except for single, two-family and townhouse dwellings shall be located as measured from inside of drive to inside of drive according to the specified distances, set out in Table 17.56.090, unless granted approval by the planning and zoning commission. (Ord. 1178.39 § 2 (part), 1990)

**TABLE 17.56.090. MINIMUM DRIVEWAY SPACING**  
(Centerline to Centerline)

Facility	Land Use	Min. Spacing (Feet)
Principal Arterial:	Commercial; High Density/High Activity	200
	Industrial/Office Park; Low to Moderate Activity	275
Minor Arterial:	Commercial; High Density/Activity	150
	Industrial/Office Park; Low to Moderate Activity	230
	Multifamily Residential; Low to Moderate Activity	150

**17.56.100 Drive access-Number required**

Each property shall be allowed at least one drive access for each one hundred feet of street frontage. Single-family uses shall be limited to one drive access per property. These conditions shall apply unless otherwise granted approval by the planning and zoning commission. (Ord. 1178 § 6.10.2(I), 1987)

**TABLE 17.56.080. MINIMUM CORNER CLEARANCES**

Facility	Intersection Control Dimensions (Feet)				
	1	2	3	4	5
Principal Arterial (S)	230	120	230	230	100
Minor Arterial / Collector (S)	175	85	175	175	0
Principal Arterial (U)	120	120	85	120	100
Minor Arterial / Collector (U)	75	85	85	75	0

Note: S = Signalized, U = Unsignalized

