



A G E N D A

Farmington Metropolitan Planning Organization Technical Committee

****Work Session****

Conference Room
Farmington Downtown Center
100 W. Broadway
Farmington, NM

**June 3, 2008
1:30 p.m.**

AGENDA
FARMINGTON METROPOLITAN PLANNING ORGANIZATION
TECHNICAL COMMITTEE **WORK SESSION**
June 3, 2008 1:30 PM

This meeting will be held in the Conference Room, Farmington Downtown Center, 100 W. Broadway, Farmington, New Mexico.

ITEM	PAGE
1. Call meeting to order.	
2. Access Management Plan. a. Finalize typical road sections for access management. b. Review and develop spacing standards for access management.	1
3. Business from: a. Chairman b. Members c. Staff	
4. Business from the Floor	
5. Adjournment	

ATTENTION PERSONS WITH DISABILITIES: If you are an individual with a disability who is in need of a reader, amplifier, qualified sign language interpreter, or any other form of auxiliary aid or service to attend or participate in the hearing or meeting, please contact the MPO Officer at the Farmington Community Development Office, 805 Municipal, Farmington, New Mexico, at least one week prior to the meeting or as soon as possible. Public documents, including the agenda and minutes, can be provided in various accessible formats. Please contact the MPO Officer at the Farmington Community Development office if a summary or other type of accessible format is needed.

**FARMINGTON METROPOLITAN PLANNING ORGANIZATION
Agenda Item**

Subject:	Access Management
Prepared by:	Joe Delmagori, MPO Planner
Date:	May 28, 2008

BACKGROUND or PREVIOUS WORK

- Access Management policies have been finalized with the Technical Committee.
- Definitions and functions for eight road classifications and their respective typical road sections have been developed.
- Standards and objectives to support the policies have been identified.
- The Technical Committee requested a Work Session to continue development of access management.

CURRENT WORK

- Elements and dimensions for each urban and rural road section are being finalized.
- Intersection and access spacing standards from NMDOT and other MPOs are provided to guide development of spacing standards for the FMPO.

ANTICIPATED WORK

- Develop intersection and driveway spacing and corner clearance standards.
- Access management standards for medians.

BACKUP MATERIAL

- Summary of draft policies and standards.
- Draft urban and rural road section diagrams (to be provided at the meeting).
- Intersection spacing standards from NMDOT and other MPOs.

RECOMMENDATION

- It is recommended that the Technical Committee:
 - Finalize typical road sections for access management.
 - Review and develop spacing standards for access management.

*DRAFT POLICIES & STANDARDS
FOR FMPO ACCESS MANAGEMENT*

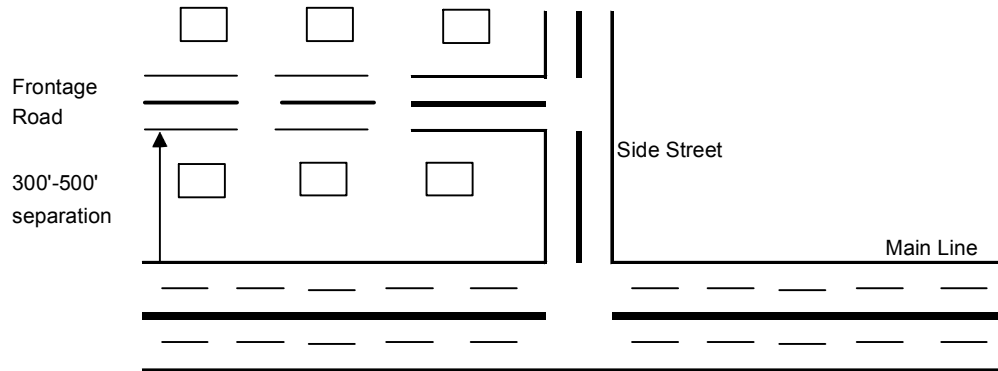
POLICY #1 – Establish access management standards to maintain capacity of roadways, improve safety, and minimize the number of access points on arterials and collectors.

Objectives

- Ensure coordination and consistency across local planning and development functions and among jurisdictions with regard to access management.
- Support access management through land use planning and organize land uses into activity centers to support local street network development and alternative access.
- Establish and apply a traffic impact analysis process to help ensure access management principles are applied in the planning of new developments.
- In situations where proposed development would not comply with the access management plan, the developer and the city would work together to mitigate off-site impacts.

Standards

- Adjacent developments along arterials should have interconnected parking lots that encourage internal circulation.
- Consolidate or share driveways where possible.
- Businesses along rural principal arterials should have access via frontage roads.
- No driveways for residential properties shall have direct access to arterial roads.
- Residential driveways are permitted to access local and collector roads only.
- Promote interior roads that access property (subdivisions and businesses) from collectors rather than from the arterial.
- Locate frontage roads 300' to 500' from the intersection of the main street it is accessing (diagram below).



POLICY #2 – Road classifications for arterials and collectors shall have specific definitions, functions, and purposes.

	DEFINITION	FUNCTION	PURPOSE	CLASSIFICATION EXAMPLE
<i>Urban Principal Arterial (UPA)</i>	The Urban Principal Arterial provides the greatest mobility for through movements and forms an integrated network without stub connections for long distance, intercity/cross town travel. It shall have designated access points.	Mobility with limited access points	Serves the major centers of activity in a metropolitan area and serves intra- and inter-regional trips. Provides access to major traffic generators.	Piñon Hills Blvd
<i>Urban Minor Arterial (UMA)</i>	The Urban Minor Arterial interconnects with and augments the urban principal arterial system. It is intended for trips of moderate lengths. It shall have designated access points with a reduced spacing requirement.	Maintain mobility while providing access points	Provide intra-community connectivity but ideally should not penetrate identifiable neighborhoods.	20 th Street (F) Chaco St (A) E Blanco (B)
<i>Urban Collector (UCol)</i>	The Urban Collector distributes trips between the arterial system and the local road network.	Access & Mobility for connecting all types of roads	Provide land access & traffic circulation for residential and commercial neighborhoods	Farmington Ave (F) Mesa Verde (A) W Blanco (B)

<i>Rural Principal Arterial (RPA)</i>	The Rural Principal Arterial provides minimal interference to through movements for long distance trips. It handles a high percentage of heavy commercial vehicles and forms an integrated network without stub endings except where unusual geographic conditions exist. It is part of the critical transportation infrastructure.	Mobility with limited access points	Provides access to important traffic generators and major cities not served by the Interstate; provides access to inter-modal facilities.	CR 350
<i>Rural Minor Arterial (RMA)</i>	The Rural Minor Arterial provides a high level of mobility and minimizes interference to through movements. It forms an integrated network without stub endings except where unusual geographic conditions exist.	Maintain mobility	Provide inter-county access; used for long distance trips.	CR 390 CR 3000
<i>Rural Major Collector (RCol)</i>	The Rural Major Collector connects urban areas with populations over 5,000 and tends to collect traffic from local roads to rural minor arterials.	Maintain mobility while providing access points	Serve traffic generators typically of intra-county importance and serves trips between low density residential & commercial areas.	CR 3950 CR 6100 CR 5500
<i>Rural Local (RLoc)</i>	The Rural Local collects traffic from local roads to rural major collectors and has the lowest traffic volumes.	Dual function of maintaining mobility and providing access	Serves small population centers and provides access to residences and businesses	
<i>Frontage Road</i>	A road that provides access to local properties from an arterial.	Direct access to properties	Separation of mobility and through movement on the main line from accessing property	

POLICY #3 – Each road classification shall have a typical road section, standard driveway width and spacing, intersection spacing, corner clearance dimensions, sidewalk buffer zone, speed limit range, and be in compliance with ADA requirements.

Urban Sections

	NUM. LANES	ROW	SIDEWALK	BUFFER ZONE	BIKE LANE	TRAVEL LANE	CURB/GUTTER	MEDIAN/TURN LN	PARK/EMER. LN
<i>Urban Principal Arterial (UPA)</i>	4	100'	6'	5'	5'	12'	2'	14'	None
<i>Urban Minor Arterial (UMA)*</i>	4	100'	6'	5'	5'	12'	2'	14'	None
	2	80'	6'	4'	5'	12'	2'	14'	None
<i>Urban Collector (UCol)**</i>	2	80'	6'	4'	5'	12'	2'	14'	None
	2	60'	5'	4'	5'	12'	2'	None	None
	2	80'	5'	None	5'	12'	2'	None	11'

* - *The Urban Minor Arterial has two variations: one at 100' ROW and one at 80' ROW*

** - *The Urban Collector has three variations: one for Commercial areas, one for Residential areas, and one for either type of area*

Rural Sections & Frontage Road

	NUM. LANES	ROW	SIDEWALK	BUFFER ZONE	BIKE LANE	TRAVEL LANE	CURB/GUTTER	MEDIAN/TURN LN	PARK/EMER. LANE	SLOPE
<i>Rural Principal Arterial (RPA)*</i>	4	100'	5'	None	None	12'	2'	14'	11'	None
	2	100'	10' (Bike/Ped Trail)	3' (adjacent to bike/ped trail)	10' (Bike/Ped Trail)	12'	None	16'	6' (paved shoulder)	12'
	2	100'	Part of shoulder	None	Part of shldr	12'	None	16'	13' (paved shoulder)	12'
<i>Rural Minor Arterial (RMA)**</i>	2	80'	5'	4'	5'	12'	2'	14'	None	None
	2	80'	Part of shoulder	None	Part of shldr	12'	None	14'	12'	12'
<i>Rural Major Collector (RCol)**</i>	2	80'	5'	4'	5'	12'	2'	None	10'	None
	2	80'	Part of shoulder	None	Part of shldr	12'	None	None	12' (paved shoulder)	12'
<i>Rural Local (RLoc)***</i>	2	60'	None	None	None	12'	None	None	5' (paved shoulder)	12'
	2	60'	5'	4'	None	Varies	2'	None	Varies	None
<i>Frontage Road</i>	2	60'	5'	4'	None	11'	2'	14'	None	None

* - The Rural Principal Arterial has three variations: one adjacent to urban areas, one with a bicycle/pedestrian sidepath, and one for outlying, rural areas

** - These rural road sections have variations: one adjacent to urban areas and one for outlying, rural areas

*** - The Rural Local is based on San Juan County road sections. A variation is provided to include sidewalks, parking, and bike lanes.

**Intersection Access Spacing
(Centerline to Centerline)**

ROAD CLASS	SPEED RANGES*	SIGNAL SPACING	INTERSECTION SPACING (Unsignalized)	ROAD CLASS	SPEED RANGES*	SIGNAL SPACING	INTERSECTION SPACING (Unsignalized)
UPA				RPA			
UMA				RMA			
UCol				RCol			
				RLoc			

* - *Should speed ranges determine spacing requirements?*

NOTE: Possibly combine unsignalized intersection spacing with driveway-to-driveway and call it “connection” spacing as described in Corpus Christi MPO AM manual, p 60-61.

Driveway Spacing & Corner Clearance

ROAD CLASS	SPEED RANGES*	DRIVEWAY TO DRIVEWAY DISTANCE**	CORNER CLEARANCE (Dist. from Driveway to Intersection)**	ROAD CLASS	SPEED RANGES*	DRIVEWAY TO DRIVEWAY DISTANCE**	CORNER CLEARANCE (Dist. from Driveway to Intersection)**
UPA		NMDOT Access (Table 18.C-1)	Corner clearances should be consistent with the access spacing standards defined Table 18.C-1)	RPA		NMDOT Access (Table 18.C-1)	Corner clearances should be consistent with the access spacing standards defined Table 18.C-1)
UMA				RMA			
UCol				RCol			
				RLoc			

* - Should speed ranges determine spacing requirements?

** - need to determine where distance is measure – from edge to edge? Or from centerline to centerline?

	ACCELERATION/ DECELERATION LANES CRITERIA	DRIVEWAY WIDTH
<i>Urban Principal Arterial</i>		
<i>Urban Minor Arterial</i>		
<i>Urban Collector</i>		
<i>Continue with Other Road Classifications</i>		

POLICY #4 – All arterial roadways shall have access control using medians.

	REQUIRED WHEN?	MEDIAN WIDTH	DIST. BETWEEN MEDIANS OPENINGS	SPACING BETW. MEDIANS
<i>Urban Principal Arterial</i>				
<i>Urban Minor Arterial</i>				
<i>Urban Collector</i>				
<i>Continue with Other Road Classifications</i>				

POLICY #5 - Locate applicable bicycle and pedestrian facilities in a safe and efficient manner on all arterial and collector streets.

Standards

- Require development of median refuge islands on all arterials 4 lanes or more. *(are more details required?)*
- Require bicycle and pedestrian access (e.g. by way of an easement) at the end of cul-de-sacs. *(this requires more discussion)*
- Require a buffer zone (detached sidewalks) on all arterials. *(See table under Policy #2 for dimensions)*
- Encourage, but do not require, detached sidewalks on all collectors.
- Require facilities to meet ADA requirements, especially where pedestrian use may be expected across an access point. The vertical and horizontal design characteristics of the access shall be designed in accordance with the *Americans with Disabilities Act* (see Sub-Section 9.J) and applicable NMDOT standards (see Paragraph 18.P.3).

NMDOT ACCESS MANAGEMENT MANUAL

Table 18.C-1
Access Spacing Standards for Intersections and Driveways
 (centerline to centerline spacing in feet)

Access Category	Posted Speed (mph)	Intersection Spacing (feet) ¹		Driveway Spacing (feet) ²		
		Signalized	Unsignalized ³	Non-Traversable Median		Traversable Median ⁴
				Full Access	Partial Access	
Controlled-Access, Non-Interstate Highways	All Speeds	5,280	2,640	2,640	2,640	-NA-
UPA	≤ 30 mph	2,640	1,320	1,320	200	200
	35 to 40 mph	2,640	1,320	1,320	325	325
	45 to 50 mph	2,640	1,320	1,320	450	450
	≥ 55 mph	5,280	1,320	1,320	625	625
UMA	≤ 30 mph	1,760	660	660	175	175
	35 to 40 mph	1,760	660	660	275	275
	45 to 50 mph	2,640	660	660	400	400
	≥ 55 mph	5,280	1,320	1,320	600	600
UCOL	≤ 30 mph	1,100	330	330	150	150
	35 to 40 mph	1,320	330	330	225	225
	45 to 55 mph	1,760	660	660	350	350
RPA	≤ 30 mph	2,640	1,320	1,320	225	225
	35 to 40 mph	2,640	1,320	1,320	350	350
	45 to 50 mph	5,280	2,640	2,640	500	500
	≥ 55 mph	5,280	2,640	2,640	775	775
RMA	≤ 30 mph	1,760	660	660	200	200
	35 to 40 mph	2,640	660	660	325	325
	45 to 50 mph	2,640	1,320	1,320	450	450
	≥ 55 mph	5,280	2,640	2,640	725	725
RCOL	≤ 30 mph	1,320	330	330	200	200
	35 to 40 mph	1,760	660	660	300	300
	45 to 50 mph	2,640	1,320	1,320	425	425
	≥ 55 mph	2,640	1,320	1,320	550	550

- Notes:
1. Intersection - Public street or other access serving a large area or a major traffic generator(s) where full access is typically provided.
 2. Driveway - Public or private access serving a limited area where traffic signal control is not required.
 3. In urban areas, spacing should be consistent with the established street spacing along the state highway facility.
 4. Includes highways with no median or a painted median. The type of access, full or partial, is determined at the discretion of the Department. See Sub-Sections 7.AO and 7.BP.

TRB Access Management Manual Guidelines

- Long and uniform signal spacing are an essential access management standard (p. 144).
- Studies have shown ½ mile signal spacing can reduce vehicle hours of delay by 60% and vehicle hours of travel by 50% compared to ¼ mile signal spacing in corridors with full median openings (p. 144).
- Studies indicate a four lane divided arterial with uniform ½ mile signal spacing could carry the same volume of traffic as a 6-lane divided arterial with ¼ mile signal spacing (p. 144).
- The following tables (p. 153 & 156) provide guidance on driveway and unsignalized access spacing:

TABLE 9-8 Driveway Influence Distances (f)

Speed (mph)	Spill-Back Rate*				
	2%	5%	10%	15%	20%
30	380	335	290	260	245
35	405	355	310	280	260
40	460	400	340	305	285
45	530	450	380	340	315
50	620	520	425	380	345
55	725	590	480	420	380

* Spill-back occurs when a through vehicle must brake in response to another vehicle making a right turn at an access connection. The spill-back rate represents the percentage of through vehicles experiencing such an event.

TABLE 9-10 Example of Guidelines for Access Spacing (ft) on Rural Roads (23)

Functional Class of Roadway	Undivided Roadway	Divided Roadway		
		Full Median Opening	Right In/Out Only	Directional Median Opening ^a
Strategic arterial	Not applicable ^b	2640	Typically not permitted	Typically not permitted
Principal arterial	2640	2640	990	1320
Minor arterial	1500	1320	660	660
Collector	660		Not applicable, medians typically not used	
Local road	600		Not applicable, medians typically not used	

^a Typically designed for left turns from the major roadway or left turns and U-turns.

^b Not applicable; strategic arterials are divided roadways with a nontraversable median.

TABLE 9-11 Example of Guidelines for Access Spacing (ft) on Suburban Roads (23)

Functional Class of Roadway	Undivided Roadway	Divided Roadway		
		Full Median Opening	Right In/Out Only	Directional Median Opening ^a
Strategic arterial	Not applicable ^b	2640	Typically not permitted	Typically not permitted
Principal arterial	2640	2640	1320	1320
Minor arterial	660	1320	330	660
Collector	330		Not applicable, medians typically not used	
Local road	100		Not applicable, medians typically not used	

^a Typically designed for left turns from the major roadway or left turns and U-turns.

^b Not applicable; strategic arterials are divided roadways with a nontraversable median.

- Corner clearance is determined by the functional area of the intersection, stopping sight distance, expected queue, distance related to perception-reaction time, and other factors (p. 156).

Access Spacing Comparison from other Access Management Plans

Plan	Road Class	Signal Spacing	Unsignalized Spacing	Driveway Spacing	Corner Clearance
Minnesota DOT	Principal Arterial	1/4 mi in Urban 1 mile in Rural	300-660' in Urban 1/2 to 1 mi in Rural	N/A	N/A
	Minor Arterial	1/4 mi in Urban 1/2 mi in Rural	300-660' in Urban 1/4 to 1/2 mi in Rural	N/A	N/A
	Collectors	1/8 mi in Urban 1/2 mi in Rural	300-660' in Urban 1/4 to 1/2 mi in Rural	N/A	N/A
Corpus Christi MPO	Principal Arterial	1,320' - 2,640' (1/4 – 1/2 mi)	200'-425'	N/A	200'-425' (TxDOT)
	Minor Arterial	1,320' - 2,640' (1/4 – 1/2 mi)	200'-425'	450'	125'
	Collector	1,320' - 2,640' (1/4 – 1/2 mi)	200'-425'	325'	75'
Waco TX MPO	Principal Arterial	2,640' (1/2 mi)	N/A	≥ 45 mph = 660' ≤ 45 mph = 440'	Based on Median Type, intersection approach or departure, and allowed access. Corner clearance ranges from 75-230'
	Minor Arterial	≥ 45 mph = 2,640' ≤ 45 mph = 1,320'	N/A	≥ 45 mph = 440' ≤ 45 mph = 245'	
	Collector	1,320' (1/4 mi)	N/A	125'	
Richmond MPO	Principal Arterial (45-55 mph)	2,540' (1/2 mi)	N/A	660'	660'
	Minor Arterial (45-55 mph)	1,320' (1/4 mi)	N/A	440'	440'
	Collector	1,320' (1/4 mi)	N/A	245'	245'