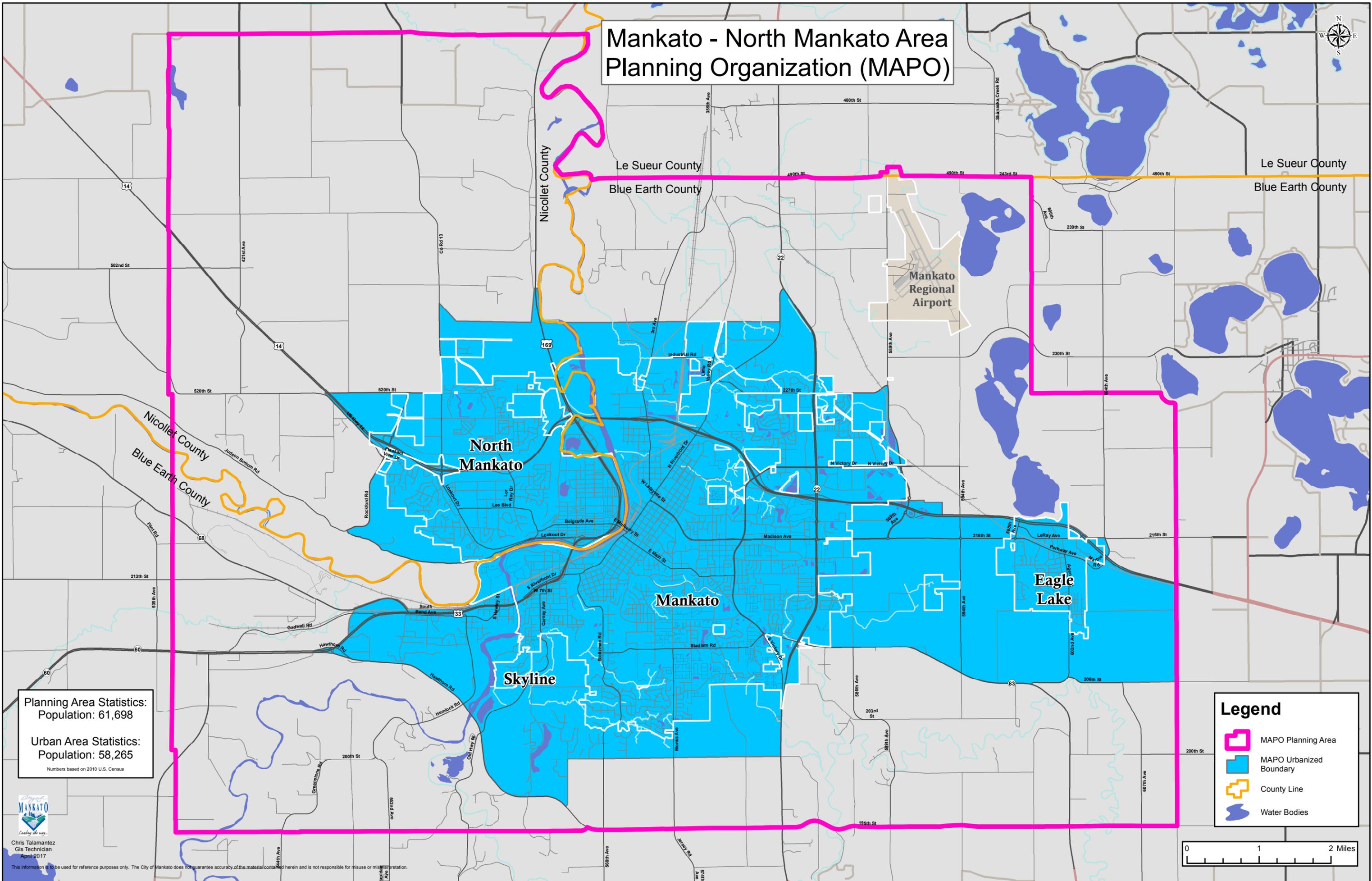

Appendix M – Access Management (MATAPS and/or MAPO)

Map of Mankato Area Planning Organization (MAPO) Planning Area and Urbanized Boundary

Mankato Area Transportation and Planning Study (MATAPS) - Appendix B: Access Management



Mankato - North Mankato Area Planning Organization (MAPO)



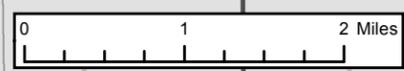
Planning Area Statistics:
Population: 61,698

Urban Area Statistics:
Population: 58,265

Numbers based on 2010 U.S. Census

Legend

-  MAPO Planning Area
-  MAPO Urbanized Boundary
-  County Line
-  Water Bodies

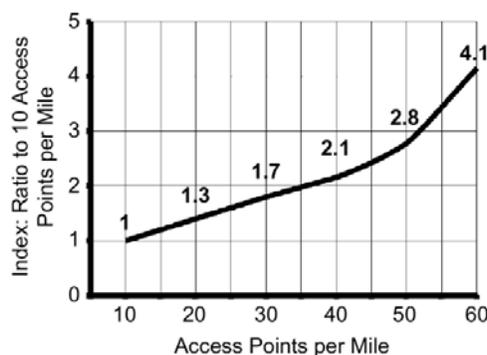


Appendix B: Access Management

Access guidelines are important because they define a starting point for balancing property access, safety and mobility concerns. Transportation agencies regularly receive requests for additional access (e.g., new public streets, commercial driveways, residential and field accesses), which are evaluated by numerous agencies and committees. Because of the number of individuals and agencies involved, it is easy to have inconsistent application of access policies. This can result in confusion between agencies, developers and property owners, as well as long-term safety and mobility problems. Standard access guidelines can be used to improve communication, enhance safety, and maintain the capacity and mobility of important transportation corridors. In addition, access guidelines may be used to respond to access requests and to promote good access practices such as:

- Aligning access with other existing access points
- Providing adequate spacing to separate and reduce conflicts
- Encouraging indirect access rather than direct access on high-speed, high-volume arterial routes (e.g., providing lower volume street network to support appropriately spaced access on arterials)

Providing access management in some form, whether it is through grade-separated crossings, frontage roads or right-in/right-out access, reduces the number of conflicts resulting in improved safety. A number of studies, including the figure below, demonstrate a direct relationship between the number of access points and crash rate.



Access Management Manual, Figure 2-1: Composite Crash Rate Indices, Transportation Research Board, 2003, page 16.



Public road authorities have been directed by Minnesota State Statues to provide “reasonable, convenient, and suitable” access to property unless these access rights have been purchased. Courts have interpreted this to:

- Allow restrictions of access to right-in/right-out
- Allow redirection of access to another public roadway that meets the definition of reasonable, convenient and suitable

In special circumstances, broader authority (police power) has been given to public agencies if the situation is deemed to jeopardize public safety. However, this is a very high standard to meet and is seldom used by public agencies.

In addition to the above, land use authorities may exercise additional authority in limiting access through their development rules and regulations. Land use authorities can require:

- Dedication of public rights-of-way
- Construction of public roadways
- Mitigation measures of traffic and/or other impacts
- Changes in and/or development of new access points
- Zoning that is compatible with the area roadway and other transportation uses

These types of access controls are processed through local elected officials (e.g., planning commissions, town boards, City Councils and County Commissions).

Since stronger land use and access controls are available at the county and city level, and these units of government are usually involved at the planning stages, access guidelines and corridor management practices should be focused at this level. However, the potential long-term benefits of access management require support and good communication at all governmental levels.

How Does Access Management Benefit Multimodal Planning?

“A comprehensive access management program supports safe and efficient operations for all modes of transportation. Although the emphasis of access management is on reducing the problems attributable to unmanaged vehicular access, the strategies in the manual [Access Management Manual] reflect consideration of the full range of transportation modes. Mixed-use activity centers, improved density of local and collector streets, enhanced network connectivity, nontraversable medians, and bicycle/pedestrian connections at key locations are among the many strategies discussed in the manual that advance access management and multimodal needs.”

– *Access Management Manual*, Transportation Research Board, 2003, page 4.



Access Management Guidelines

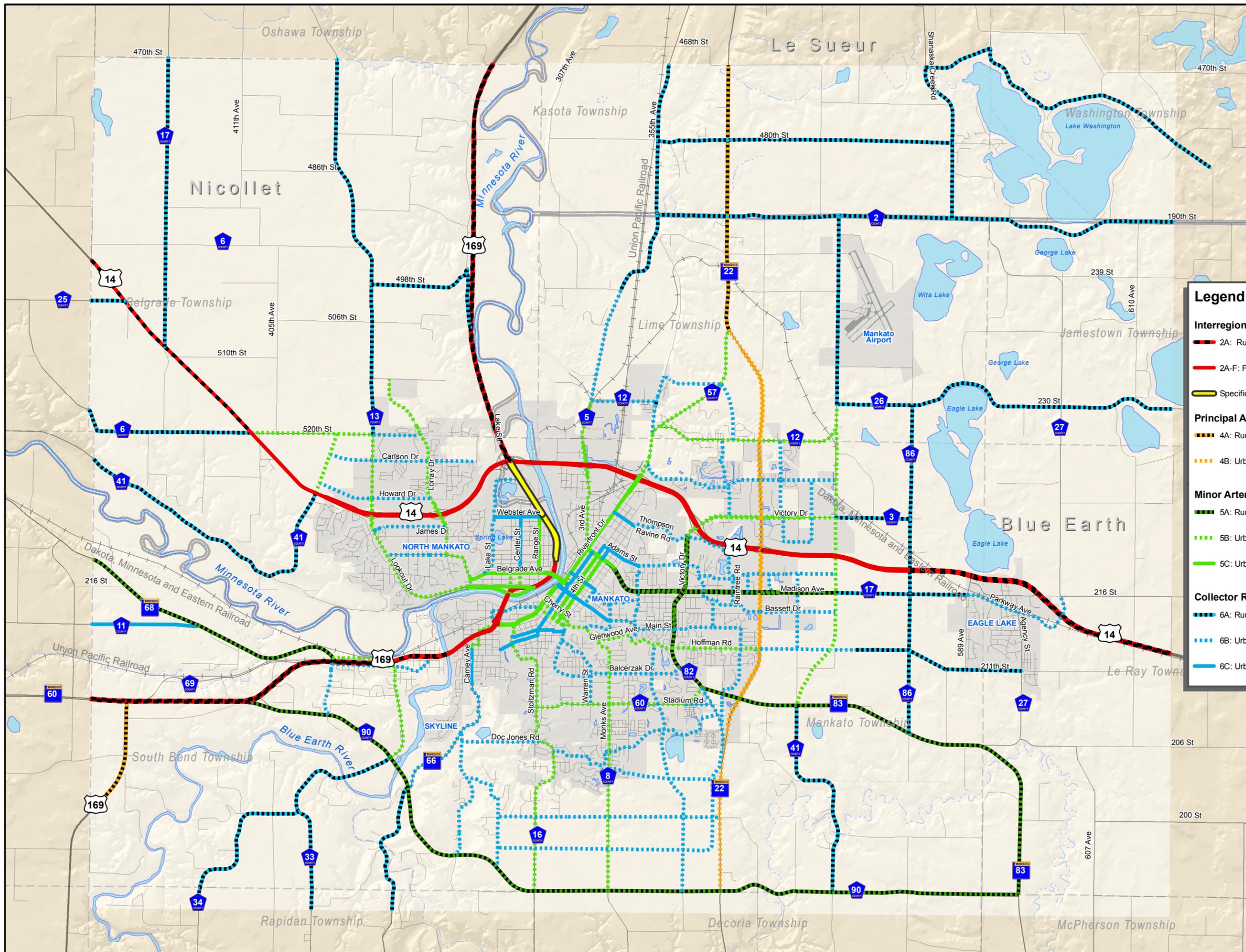
While these spacing guidelines were intended to be used to manage the State Highway System, many of the recommendations can be applied to the city and county systems. The access management guidelines promote coordination between land use and transportation strategies, the same issues that affect decisions on the local city and county level. Establishing the appropriate spacing between public streets and private driveways is an important step toward maintaining the safety and mobility of the traveling public without sacrificing the accessibility needs of local residents.

Tables B-1 through B-3 list the access spacing guidelines for state roadways in the MATAPS area, while the map shows the access categories as they have been assigned to the roadway network. This map should be considered a Category 7 (specific area access management plans) according to the Mn/DOT Access Management Manual. As with any policy, there will be a need to deal with special circumstances. The conditions under which private driveways would be allowed on these facilities are addressed in Table B-4.

The implementation of the guidelines can be done through a number of different methods (e.g., land use regulations, subdivision regulations, access permit processes and access/transportation advisory committees). These processes should be developed so that they deal with situations that either are outside the guidelines or are hardship cases. In existing corridors where significant development has occurred, the number of existing access points are likely to exceed the access guidelines. Unless these areas are undergoing redevelopment, their access must be addressed or approached differently. The proposed access management strategy in these areas is to aggressively minimize any new accesses while consolidating/reducing existing access points as redevelopment occurs.



Desired Access Management Designations

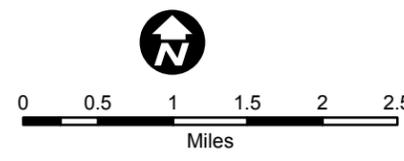


Legend

Interregional Corridors	
	2A: Rural 1 mile full intersection spacing; 1/2 mile secondary intersection spacing
	2A-F: Freeway Full grade separation; Interchange access only
	Specific Plan Access guidelines under development
Principal Arterials	
	4A: Rural 1 mile full intersection spacing; 1/2 mile secondary intersection spacing
	4B: Urban/Urbanizing 1/2 mile full intersection spacing; 1/4 mile secondary intersection spacing
Minor Arterials	
	5A: Rural & Study Designated 1/2 mile full intersection spacing; 1/4 mile secondary intersection spacing
	5B: Urban/Urbanizing 1/4 mile full intersection spacing; 1/8 mile secondary intersection spacing
	5C: Urban Core 300 - 600 feet intersection spacing (block length)
Collector Roadways	
	6A: Rural 1/2 mile full intersection spacing; 1/4 mile secondary intersection spacing
	6B: Urban/Urbanizing 1/8 mile full intersection spacing
	6C: Urban Core 300 - 600 feet intersection spacing (block length)

Source: City of Mankato, Counties of Blue Earth, Nicollet and Le Sueur

December 2010





Who Benefits from Access Management?

Who Benefits...	...and how
Motorists	<ul style="list-style-type: none"> • Face fewer decision points and traffic conflicts, which simplifies the driving task and increases driver safety. • Experience fewer traffic delays and arrive more quickly at their destinations
Cyclists	<ul style="list-style-type: none"> • Face fewer decision points and conflicts with traffic, which simplifies the cycling task and increases safety for cyclists. • Benefit from more predictable motorist travel patterns. • Can choose alternative travel routes as local supporting roadway system are developed.
Pedestrians	<ul style="list-style-type: none"> • Face fewer and less frequent access points where motorists enter and exit the roadway, thereby making it safer to walk along major roadways. • Can use medians as a refuge when crossing several lanes of traffic.
Transit Riders	<ul style="list-style-type: none"> • Experience reduced delay and reduced travel times. • Benefit from a safer walking environment. • Experience more convenient access to transit stops as connectivity of streets, sidewalks, and pedestrian ways is improved.
Business Persons	<ul style="list-style-type: none"> • Are served by a more efficient roadway system that captures a broader market area. • Benefit from stable property values due to a well-managed roadway corridor. • Experience a more predictable and consistent development environment.
Freight Industry	<ul style="list-style-type: none"> • Benefits from reduced delay and increased safety, which results in lower transportation costs and shorter delivery times.
Government Agencies	<ul style="list-style-type: none"> • Benefit from the lower cost of delivering an efficient and safe transportation system. • Benefit from improved internal and intergovernmental coordination. • Are more effective in accomplishing their transportation objectives.
Communities	<ul style="list-style-type: none"> • Receive a safer transportation system. • Benefit from less need for road widening, which causes displacement of businesses, homes, and communities. • Benefit from more attractive roadway corridors. • Help protect and preserve their investment in transportation facilities and may reduce capital improvement costs for new or reconstructed roadways.

SOURCE: *Access Management Manual*, Transportation Research Board, 2003, pages 4 and 5.



Table B-1: Access Management Categories

Category	Land-Use or Facility Type	Typical Functional Classification	Typical Posted Speed
1 - High-Priority Interregional Corridors (IRCs)			
1F	Interstate Freeway	Interstate Highways	55 – 75 mph
1AF	Non-Interstate Freeway	Principal Arterials	55 – 65 mph
1A	Rural	Principal Arterials	55 – 65 mph
1B	Urban / Urbanizing	Principal Arterials	40 – 55 mph
1C	Urban Core	Principal Arterials	30 – 40 mph
2 - Medium-Priority Interregional Corridors			
2AF	Non-Interstate Freeway	Principal Arterials	55 – 65 mph
2A	Rural	Principal Arterials	55 – 65 mph
2B	Urban / Urbanizing	Principal Arterials	40 – 55 mph
2C	Urban Core	Principal Arterials	30 – 40 mph
3 - Regional Corridors			
3AF	Non-Interstate Freeway	Principal Arterials	55 – 65 mph
3A	Rural	Principal/Minor Arterials	45 – 65 mph
3B	Urban / Urbanizing	Principal /Minor Arterials	40 – 45 mph
3C	Urban Core	Principal/Minor Arterials	30 – 40 mph
4 - Principal Arterials in the Twin Cities Metropolitan Area and Primary Regional Trade Centers (Non-IRCs)			
4AF	Non-Interstate Freeway	Principal Arterials	55 – 65 mph
4A	Rural	Principal Arterials	45 – 55 mph
4B	Urban / Urbanizing	Principal Arterials	40 – 45 mph
4C	Urban Core	Principal Arterials	30 – 40 mph
5 - Minor Arterials			
5A	Rural	Minor Arterials	45 – 55 mph
5B	Urban / Urbanizing	Minor Arterials	40 – 45 mph
5C	Urban Core	Minor Arterials	30 – 40 mph
6 - Collectors			
6A	Rural	Collectors	45 – 55 mph
6B	Urban / Urbanizing	Collectors	40 – 45 mph
6C	Urban Core	Collectors	30 – 40 mph
7 - Specific Area Access Management Plans			
7	All	All	All



Table B-2: Summary of Recommended Street Spacing – Interregional Corridors

Category	Area or Facility Type	Typical Functional Class	Public Street Spacing		Signal Spacing
			Primary Full-Movement Intersection	Secondary Intersection	
1 High-Priority Interregional Corridors & Interstate System (IRCs)					
1F	Interstate Freeway	Principal Arterials	Interchange Access Only		See Section 3.2.5 for Signalization on Interregional Corridors
1AF	Non-Interstate Freeway		Interchange Access Only (see Section 3.2.7 for interim spacing)		
1A	Rural		1 mile	1/2 mile	
1B	Urban/Urbanizing		1/2 mile	1/4 mile	
1C	Urban Core		300-660 feet dependent upon block length		
2 Medium-Priority Interregional Corridors					
2AF	Non-Interstate Freeway	Principal Arterials	Interchange Access Only (see Section 3.2.7 for interim spacing)		See Section 3.2.5 for Signalization on Interregional Corridors
2A	Rural		1 mile	1/2 mile	
2B	Urban/Urbanizing		1/2 mile	1/4 mile	
2C	Urban Core		300-660 feet, dependent upon block length		
3 Regional Corridors					
3AF	Non-Interstate Freeway	Principal and Minor Arterials	Interchange Access Only (see Section 3.2.7 for interim spacing)		Interim
3A	Rural		1 mile	1/2 mile	See Section 3.2.5
3B	Urban/Urbanizing		1/2 mile	1/4 mile	1/2 mile
3C	Urban Core		300-660 feet, dependent upon block length		1/4 mile

Table B-3: Summary of Recommended Street Spacing – Non-Interregional Corridors

Category	Area or Facility Type	Typical Functional Class	Public Street Spacing		Signal Spacing
			Primary Full-Movement Intersection	Secondary Intersection	
4 Principal Arterials in the Twin Cities Metropolitan Area and Primary Regional Trade Centers (Non-IRCs)					
4AF	Non-Interstate Freeway	Principal Arterials	Interchange Access Only (see Section 3.2.7 for interim spacing)		Interim
4A	Rural		1 mile	1/2 mile	See Section 3.2.5
4B	Urban/Urbanizing		1/2 mile	1/4 mile	1/2 mile
4C	Urban Core		300-660 feet, dependent upon block length		1/4 mile
5 Minor Arterials					
5A	Rural	Minor Arterials	1/2 mile	1/4 mile	See Section 3.2.5
5B	Urban/Urbanizing		1/4 mile	1/8 mile	1/4 mile
5C	Urban Core		300-660 feet, dependent upon block length		1/4 mile
6 Collectors					
6A	Rural	Collectors	1/2 mile	1/4 mile	See Section 3.2.5
6B	Urban/Urbanizing		1/8 mile	Not Applicable	1/4 mile
6C	Urban Core		300-660 feet, dependent upon block length		1/8 mile
7 Specific Area Access Management Plans					
7	All	All	By adopted plan		

Table B-4: Summary of Recommended Driveway Allowance

Category	Area or Facility Type	Driveway Allowance
1F	Interstate Freeways	<ul style="list-style-type: none"> No private driveways are allowed
1AF, 2AF, 3AF & 4AF	Non-Interstate Freeways & High-Priority IRCs	<ul style="list-style-type: none"> On facilities transitioning to full access control, driveways should not be permitted if reasonably convenient and suitable alternative access is available. Where reasonably convenient and suitable alternative access is not available, an interim driveway may be permitted, and if possible, it should be designed so that traffic can be redirected to another road when the facility becomes fully access-controlled.
1A, 2A, 3A, 4A & 5A	Rural (Not planned for full access control)	<ul style="list-style-type: none"> If a property retains access rights but no reasonably convenient and suitable alternative access is available, a driveway is permitted. The driveway should be located and designed to minimize the impact on the safety and operations of the highway. All driveways (Types 1, 2, and 3) should be spaced in accordance with Figure 3.27.
1B, 2B, 3B, 4B & 5B	Urban/Urbanizing	<ul style="list-style-type: none"> If a property retains access rights but no reasonably convenient and suitable alternative access is available, a driveway is permitted. It is Mn/DOT's preference to permit public street connections rather than driveways in Urban/Urbanizing areas. Where possible, Mn/DOT should work with local agencies to encourage the development of a supporting road system to serve the property. High-volume (Type 3) driveways should be spaced in accordance with Figure 3.27. Driveways should be permitted as interim where a future supporting street system is anticipated.
1C, 2C, 3C, 4C & 5C	Urban Core	<ul style="list-style-type: none"> If a property retains access rights but no reasonably convenient and suitable alternative access is available, a driveway is permitted. The spacing of driveways will vary based on reasonableness of use and driver expectancy.
6A, 6B & 6C	All Collectors	<ul style="list-style-type: none"> If a property retains access rights and no reasonably convenient and suitable alternative access is available, a driveway is permitted. The spacing of driveways will vary based on reasonableness of use and driver expectancy.
7	Specific Access Plan	<ul style="list-style-type: none"> The adopted Category 7 Plan should address the allowance and spacing of driveways.

It is important to consider the following points when reviewing the guidelines and addressing access issues:

- The MATAPS Study Partners agree with the Mn/DOT access guidelines in general and determine the specific guidelines according to map.
- The guidelines were developed for the state highway system and apply primarily to routes with a collector functional classification or above; however, the Study Partners may also determine that the guidelines could apply to some local streets.
- The guidelines should be used as long-term goals, not as absolute rules.
- Maintaining some flexibility is important in promoting access consolidation.
- The approach to implementation is as important as the guidelines themselves.



- Existing physical barriers or constraints need to be considered.

The following access suggestions provide some alternatives for minimizing access and access problems in areas where the guidelines cannot be met:

- **Encourage shared driveways and internal circulation plans:** If indirect access cannot be achieved during plat reviews, promote internal site circulation using shared access points.
- **Restrict turning movements to reduce conflicts:** If access points cannot be eliminated, consider turning movement restrictions (e.g., left-in only or right-in/right-out only) through installation of raised median or other channelization or signing. Eliminating a single turning movement can significantly reduce vehicle conflicts and potential crashes.
- **Develop good parallel street systems for carrying local traffic:** Make sure that important arterial routes have a good parallel street system to provide the local access function and to carry shorter local trips.
- **Develop proper setbacks for future frontage roads:** If frontage roads cannot be justified (benefits do not outweigh costs), make sure that proper building and parking lot setbacks are established so that future frontage roads can be installed with minimal impacts.
- **Consider backage roads:** Backage roads serve a second tier function and provide more stacking space at main intersections. As such, the backage roads may in some cases be more appropriate than frontage roads.
- **Develop proper secondary street spacing:** When reviewing plats and new development proposals, be sure that they provide proper intersection spacing for future signals. As a guideline, signalized intersections should be limited depending upon the type of street. Collector streets should provide some continuity and connectivity with other street systems.
- **Encourage proper lot layout to minimize access points:** Promote direct residential access points onto local routes, not arterials or major collectors. Direct residential access to arterial or collector routes can result in complaints when traffic levels increase. In rural areas, where farms have one access point per 40-acre entitlement and where they cluster lots in one portion of the farmstead, access should be encouraged off local roads, not high-speed, high-volume state or county roads.



- **Encourage connectivity between developments:** Individual developments should align streets to provide access to existing developments or reserve right-of-way to provide for future connections to adjacent developments. This promotes neighborhood connectivity, good emergency services and more efficient travel for mail, garbage and bus services, as well as street maintenance activities.
- **Consider Official Map Process for Important Corridors:** Important arterial corridors or future interchange areas that are located in development-prone areas can be protected through an official mapping process. Local agencies should revise zoning ordinances and subdivision regulations to provide for dedication of officially mapped corridors at the time of platting.
- **Consider Local Zoning to Preserve Future Transportation Corridors:** Short of official mapping, local governments can zone in ways to manage future development. In doing so, this will help ensure that future developments do not conflict with long-term transportation improvements.