



Chapter 7: Transportation

- 7.1 Introduction
- 7.2 Current Conditions
- 7.3 Trends and Challenges
- 7.4 Goals and Policies: Transportation
- 7.5 Implementation

7.1 INTRODUCTION

Background

Effective transportation planning is critically important for a community such as Edina. Residents must be provided with transportation facilities and services that meet mobility needs in an efficient and safe manner. Transportation facilities, at the same time, need to be planned and constructed so as to limit negative social, environmental, and aesthetic impacts to the greatest degree feasible. In addition, residents who cannot or choose not to drive need to have transportation options to meet their daily needs.

There is a fundamental link between transportation planning and land use planning. Successful land use planning cannot take place without taking transportation considerations into account. Conversely, transportation planning is driven by the need to support existing and future land uses which the community supports and/or anticipates. Chapter 4 of this Comprehensive Plan identifies existing and planned future land uses. The remainder of this section has been prepared with the goal of supporting the land use vision identified in Chapter 4.

In 2003, the City formed the Edina Transportation Commission (ETC). It is made up of citizens appointed by the City Council. It advises the City Council on transportation issues facing the City, including congestion, roadway improvement projects, and non-motorized transportation needs. This transportation chapter was prepared under the guidance of the ETC.

Objectives

There are three primary objectives of this Transportation chapter:



- To provide a guidance document for City staff and elected officials regarding the planning and implementation of effective transportation facilities and systems over the planning horizon.
- To give citizens and businesses background on transportation issues and allow them to be better informed regarding the City's decision-making on transportation issues.
- To communicate to other government agencies Edina's perspectives and intentions regarding transportation planning issues.

The preparation of the document also has provided stakeholders with the opportunity to have input into the transportation planning process.



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York Avenue, south of Hazelton Road



Transportation Planning Context

Transportation facilities should effectively serve land uses which the City supports and/or anticipates. The remainder of this chapter was prepared with the goal of supporting the land use vision identified and discussed in Chapter 4. This includes the future land use map provided on **Figure 4.3**. Other aspects of the planning context are studies that the City has performed such as the *Northeast Edina Traffic Study* and the *Edina Promenade Urban Design Plan*.

A key aspect of transportation planning is effective coordination between different government agencies as transportation authorities. In the case of Edina, these include the Metropolitan Council, Mn/DOT, Hennepin County, and neighboring communities. As part of the process of preparing this transportation chapter, transportation planning documents prepared by other agencies were reviewed and considered. This included the following:

- Metropolitan Council *2030 Transportation Policy Plan*
- Mn/DOT *Statewide Transportation Plan*
- Hennepin County *Transportation System Plan*
- Transportation plans of adjacent communities

Previous Transportation Plan

The previous Edina Transportation Plan was prepared in 1999. The work in this Chapter has used that document as a base. The key changes relative to the 1999 document are as follows:

- Update of transportation policies
- Revised traffic forecasts based on trends over the last 5-10 years and on an updated land use map
- Presentation of most current crash data and preliminary evaluation
- Update of roadway network planning and improvement needs
- Preliminary evaluation of additional transit service (circulator service for western Edina, and shuttle service for Greater Southdale area)
- Provision of sidewalk policy and plan
- Summary of *City of Edina Comprehensive Bicycle Transportation Plan* (2007), and inclusion of the entire document as an Appendix
- Summary of design guidelines for transportation facilities from a community/aesthetic design perspective

7.2 CURRENT CONDITIONS



Roadway Network

Overview/Existing Traffic Levels

The City of Edina within the regional roadway network is depicted on **Figure 7.1**. It can be seen that Edina is a first-tier suburb within the I-494 beltway. Important regional roadways which pass through or adjacent to the City are: I-494, Trunk Highway (TH) 169, TH 100, and TH 62 (Crosstown). Cities which are adjacent to Edina are: Minneapolis, St. Louis Park, Minnetonka, Eden Prairie, Bloomington, and Richfield. **Figure 7.2** provides an aerial photograph of Edina roadways and the land uses they support. **Figure 7.3** depicts the number of lanes on roadways in Edina, and **Figure 7.4** shows current traffic volumes.



Functional Classification

The functional classification system is the creation of a roadway and street network which collects and distributes traffic from neighborhood streets to collector roadways to arterials and ultimately, the Metropolitan Highway System. Roads are placed into categories based on the degree to which they provide access to adjacent land versus provide higher-speed mobility for “through” traffic. Functional classification is a cornerstone of transportation planning. Within this approach, roads are located and designed to perform their designated function.

It should be noted that while functional classification is an important factor to determine the engineering/technical design parameters for roadways, aesthetic considerations in Edina will be directed by community design guidelines as discussed in Chapter 4 of this Comprehensive Plan and summarized under a heading later in this Transportation Chapter.



The functional classification system used in the City of Edina, as described below and shown in **Figure 7.5**, conforms to the Metropolitan Council standards. The Metropolitan Council has published these criteria in the *Transportation Development Guide/Policy Plan*. This guide separates roadways into five (5) street classifications, including principal arterials, minor arterials, collectors, and local streets. These classifications address the function of state, county and city streets from a standpoint of the safe and efficient movement of traffic through the City while providing satisfactory access to residents and businesses located within the City. The Metropolitan Council's criteria and characteristics for the respective functional classifications are provided in **Appendix T-1**.

Under the following headings, information is provided for each of the respective functional classes, as well the roadways that fall under those classes in Edina. The descriptions of the characteristics of the functional classes provided below are based on Metropolitan Council information. It may be noted that these descriptions represent "ideal conditions" and that not all roadways within that functional class will fit the specific description due to unique local conditions, history of the roadway, or other factors.

Principal Arterial Roadways. The metropolitan highway system is made up of the principal arterials in the region. Principal arterials include all Interstate freeways. Interstate freeways connect the region with other areas in the state and other states. They also connect the metro centers to regional business concentrations. The emphasis is on mobility as opposed to land access. They connect only with other Interstate freeways, other principal arterials, and select minor arterials and collectors. The principal arterials through or adjacent to Edina are:

- I-494
- TH 100
- TH 169
- TH 62 (Crosstown)

Minor Arterials. The emphasis of minor arterials is on mobility as opposed to access in the urban area; only concentrations of commercial or industrial land uses should have direct access to them. The minor arterial should connect to principal arterials, other minor arterials, and collectors. Connection to some local streets is acceptable. The Metropolitan Council has identified "A" minor arterials as streets that are of regional importance because they relieve, expand, or complement the principal arterial system. The "A" minor arterials in the Edina area are summarized in **Table 7.1**, below.



Table 7.1 - “A” Minor Arterial Roadways

Roadway	From	To	Type
France Ave. (CSAH 17)	Southern City Limit	Northern City Limit	Reliever Arterial
Valley View Rd.*	TH 62	W. 66 th St.	Reliever Arterial
66 th St.*	Valley View Rd.	Eastern City Limit	Reliever Arterial
Vernon Ave/Gleason Road (CSAH 158)	TH 62	TH 100	Reliever Arterial
TH 169 E. Frontage Rd./78 th St./Edina Ind. Blvd./77 th St./76 th St.	Western City Limit	Eastern City Limit	Reliever Arterial
W. 50 th St. (CSAH 21)	TH 100	France Ave. (CSAH 17)	Augmenter Arterial

* Please note that another segment or segments of this roadway may have a different functional classification as identified in Tables 7.2 and/or 7.3.

All other minor arterials are considered “B” minor arterials, which have the same function as “A” minor arterials, but are not eligible for federal funds. The “B” minor arterial roadways in Edina are identified in Table 7.2, below.

Table 7.2 – “B” Minor Arterial Roadways

Roadway	From	To
York/Xerxes Ave. (CSAH 31)	TH 62	Southern City Limit (ultimately to American Drive, Bloomington)
Valley View Rd./W. 69 th St.*	W. 66 th St.	York Ave. (CSAH 31)

* Please note that another segment or segments of this roadway may have a different functional classification as identified in Tables 7.1 and/or 7.3.

Collector Streets. The collector system provides connection between neighborhoods and from neighborhoods to minor business concentrations. It also provides supplementary interconnections of major traffic generators within the metro centers and regional business concentrations. Mobility and land access are equally important. Direct land access should predominately be to development concentrations. In order to preserve the amenities of neighborhoods while still providing direct access to business areas, these streets



are usually spaced at one-half mile intervals in developed areas. Collector roadways in the Edina are summarized in Table 7.3, below.

Table 7.3 Collector Streets

Street	From	To
Blake Rd./Interlachen Rd.	North City Limit	Vernon Ave. (CSAH 158)
Blake Rd./Olinger Blvd.	Interlachen Blvd.	Tracy Ave.
Londonderry Rd./Lincoln Dr./Vernon Ave.	TH 169	Gleason Rd.
Gleason Rd	TH 62	W. 78 th St.
Valley View Road/Tracy Ave.	TH 169	Vernon Ave.(CSAH 158)
Cahill Rd.	W. 78 th St.	W. 70 th St.
Normandale R./Valley View Rd.*	Benton Ave.	TH 62 (Crosstown)
Normandale Rd./Grange Rd.	Benton Ave.	W. 50 th St.
Minnesota Dr.	Parklawn Ave.	Edinburgh Way
Edinburgh Way	W. 76 th St.	Xerxes Ave. (CSAH 31)
Wooddale Ave.	W. 50 th St.	Valley View Rd.
7 th St. W./Lincoln Drive	TH 169	Maloney Ave.
Maloney Avenue	Lincoln Drive	Blake Road
Brookside Ave.	Interlachen Blvd.	North City Limit
44 th St.	Brookside Ave.	East City Limit
Link Rd./Eden Avenue	Vernon Ave.	W. 50 th St.
W. 49 1/2 th St./W. 51 st St.	France Ave. (CSAH 17)	France Ave. (CSAH 17)
W. 54 th St.	Wooddale Ave.	East City Limit
Southview Lane	Normandale Rd.	Concord Ave.
Concord Ave.	Southview Ln.	Valley View Rd.
W. 58 th St.	Concord Ave.	France Ave. (CSAH 17)
W. 60 th St.	France Ave. (CSAH 17)	Xerxes Ave. (CSAH 31)
Benton Ave.	Tracy Ave.	TH 100
Hansen Rd.	Benton Ave.	Vernon Ave. (CSAH 158)
Hillary Lane/Dewey Hill Rd.	Valley View Rd.	Cahill Rd.
Cahill Rd.	W. 78 th St.	W. 70 th St.
McCauley Trail	Gleason Rd.	Valley View Rd.
TH 100 West Frontage Rd/Arcadia Ave.	Benton Ave.	W. 50 th St.
Valley Lane/Ridgeview	Valley View Rd (west of	Valley View Rd.(east of



Dr./66 th St.	TH 100)	TH 100, south of TH 62)
Antrim Rd.	Valley View Rd.	W. 70 th St.
W. 70 th St.	Antrim Rd.	York Ave. (CSAH 31)
Valley View Rd.	W. 70 th St.	W. 69 th Street
Hazelton Rd.	France Ave. (CSAH 17)	York Ave. (CSAH 31)
Parklawn Ave.	France Ave. (CSAH 17)	York Ave. (CSAH 31)
York/Xerxes Ave. (CSAH 31)*	North City Limit	TH 62
Metro Boulevard	Edina Industrial Boulevard	W. 70 th St.
W. 62 nd Street	France Ave. (CSAH 17)	Valley View Rd.
W. 66 th St.*	York Ave. (CSAH 31)	East City Limit
Washington Ave.	Valley View Rd.	W. 78 th St.

* Please note that another segment or segments of this roadway may have a different functional classification as identified in Tables 7.1 and/or 7.2.

Local Streets provide the most access and the least mobility within the overall functional classification system. They allow access to individual homes, shops, and similar traffic destinations. Through traffic should be discouraged by using appropriate geometric designs and traffic control devices. Local streets in the City are depicted on **Figure 7.5**.

Jurisdictional Classification

Roadways are classified on the basis of which level of government owns and has jurisdiction over the given facility. The three levels of government that have involvement are the State of Minnesota (Mn/DOT), Hennepin County, and the City of Edina. Mn/DOT owns/maintains the Trunk Highway (TH) system, Hennepin County the County State Aid Highway (CSAH) and County Road (CR) system. The City owns/maintains the local streets, including Municipal State Aid (MSA) streets. **Figure 7.6** provides a graphic depicting the jurisdictional classification of the overall roadway network serving Edina and its residents, businesses, and institutions.

Municipal State Aid Streets

Cities in Minnesota with populations greater than 5,000 are eligible to receive Municipal State Aid (MSA) funding from the state Highway User Tax Distribution Fund. The basic purpose of this program is to help local governments construct and maintain collector and arterial roadways which have consistent design standards and which are well integrated into the overall network of collector and arterial roadways. The State Aid office of Mn/DOT has established clearly defined design requirements for MSA streets. These requirements ensure that



capacity, operational, and safety goals are met in a uniform manner from community to community, and that street systems are well coordinated with each other.

Based on State Statute, sections 169.80 and 169.87, Mn/DOT does not allow cities to restrict truck traffic on MSA streets.

Edina's current (2007) MSA network is identified on **Figure 7.7**. These roadways are eligible to receive MSA funds for maintenance and/or improvement projects. The MSA network is reviewed every year and may be revised subject to Mn/DOT State Aid review and approval.



Problem Locations

The primary current problem locations are identified below.

Trunk Highway system congestion – Peak period congestion occurs on nearly all of the trunk highway segments passing through or adjacent to the City. This includes I-494, TH 169, TH 100, and TH 62 (Crosstown Highway). In addition to the mainline congestion, queuing from ramp meters provides a source of localized congestion on the City street system as discussed under the following heading.

Freeway interchange queues – Peak period queuing occurs at most freeway ramps. In particular, the older freeway interchanges with TH 62 at Xerxes Avenue and France Avenue have inadequate bridge width and storage capacity to accommodate vehicles waiting at the queue. Similar problems exist along TH 100 at West 70th Street and West 77th Street.

Through traffic on local streets – Various residential areas experience, or perceive that they experience, large amounts of through traffic.

France Avenue/West 50th Street Intersection – This intersection, in the middle of a popular older commercial area, is affected by high pedestrian traffic levels as well as high vehicular traffic volumes. It is a destination for local as well as many non-local visitors.

France Avenue from the TH 62 interchange through the Greater Southdale area – The TH 62/France Avenue interchange does not have enough storage capacity for queued vehicles as discussed under a previous heading. The flow of traffic on France Avenue south of TH 62 is compounded by traffic accessing major medical, office, and retail traffic generators along France Avenue.

West 70th Street east of TH 100 – This roadway segment, with a freeway interchange at one end, and a major commercial area on the other, experiences traffic volumes and speeds which cause difficulties for adjacent homeowners.

West 77th Street/Edina Industrial Boulevard interchange with TH 100 – This interchange experiences congestion related to freeway access and local traffic.

Safety Analysis

Five-year Mn/DOT crash data for the period 2002-2006 was obtained in Geographic Information System (GIS) format. The locations and frequencies of



crashes during this timeframe for Edina are depicted on **Figure 7.8**. Much of this data is consistent with what would be intuitively anticipated:

- The highest crash locations are at interchanges involving trunk highways
- The overall France Avenue corridor has a relatively high number of crashes, particularly at the TH 62 interchange, and at higher-volume cross streets

However, locations of particular interest are those that seem surprisingly high relative to traffic volumes, and therefore may have unique design or other problems which should be corrected. These locations include the following:

- TH 100/TH 62 interchange – While the interchanges generally have high accident counts, this one has the most crashes of the interchanges by a significant margin. The majority of these crashes appear to be where the eastbound-to-northbound loop merges onto northbound TH 100. The City should coordinate with Mn/DOT to further investigate this location and potential deficiencies that may be corrected.
- Northbound TH 100 at exit ramp to W. 50th Street/Eden Avenue
- TH 62/Gleason interchange
- France Avenue at W. 58th Street
- France Avenue at W. 65th Street
- France Avenue at Minnesota Drive
- W. 70th Street at Metro Boulevard
- Vernon Avenue at Interlachen Boulevard

These locations should be monitored and further evaluated as deemed appropriate. In addition to the locations above, the 50th Street and France intersection is an ongoing location of safety concern which should be monitored.

The Mn/DOT data files are such that individual intersections, areas, or corridors can be analyzed in detail. For each given study area, crashes can be sorted/analyzed in terms of severity of accident, type of accident, and other factors. For severity, the categories range from fatality to property (vehicle) damage only. The primary types of accidents include rear-end, head-on, sideswipe, right angle, left turn. Different types of intersection conditions and/or deficiencies will lead to different patterns of crash types. The outcomes for given study areas can be compared to statewide averages for a given type of facility to



assess the magnitude of the problem relative to expected conditions for that facility type.

Existing Transit Service and Facilities

Paratransit

Paratransit services are provided by Edina Dial-a-Ride Transportation. Door to door service is provided using a wheelchair lift-equipped van on a first come-first served basis. 2008 hours of operation are Monday through Friday, 9 a.m. to 3 p.m.

Scheduled Transit

The key transit facility in Edina is the Southdale Transit Center. This is part of the Southdale Shopping Mall. It includes a covered shelter area with route/schedule information. The Southdale Transit Center is one of the busier transit centers in the Twin Cities, with eight transit lines which stop and link at this location. There are also 100 parking spaces at a Metro Transit park and ride lot at this location.

Scheduled transit service for Edina residents is currently provided by Metro Transit (a division of the Metropolitan Council) and by Southwest Metro Transit. The existing scheduled service to Edina residents is depicted on **Figure 7.9** and summarized on **Table 7.4**, below.

Table 7.4 – Scheduled Transit Service in Edina (2008)

Route Number	Service Route/Area	Service Description
6	Edina (includes Southdale Transit Center), Uptown, downtown Minneapolis, University of Minnesota	High frequency local service, all day/evening, all week; 5-15 minute headways
46	Edina (includes 50 th /France), south Minneapolis, St Paul	Local service all day/evening, all week; 30-60 minute headways



114	Edina (includes Southdale Transit Center), south Minneapolis, Uptown, University of Minnesota	Commuter/student service during a.m. and p.m. rush hours, weekdays
146	Edina (Vernon Ave.), southwest Minneapolis, downtown Minneapolis	Commuter express (I-35W) service during a.m. and p.m. rush hours, weekdays
152	Edina (includes Southdale Transit Center), Lake Street, University of Minnesota	Commuter/student express (I-35W) service during a.m. and p.m. rush hours, weekdays
515	Edina (Includes Southdale Transit Center), Richfield, South Minneapolis, Bloomington (includes Mall of America), Veterans Medical Center (alternate route)	Local service, all day/evening, all week; 10-30 minute headways
538 (B-E Service)	Edina (includes Southdale Transit Center), Bloomington (includes Mall of America)	Local service, all day/evening, all week; 30-60 minute headways
539 (B-E Service)	Edina (includes Southdale Transit Center), Bloomington (includes Normandale Community College, Mall of America)	Local service, all day/evening, all week; 30-60 minute headways
540	Edina, Richfield (includes Best Buy Headquarters), Bloomington (includes Mall of America)	Local service, all day/evening, all week; 15-30 minute headways during a.m./p.m. rush hours, otherwise 30-60 minute headways
568	Downtown Minneapolis, south Minneapolis, Edina, Minnetonka (Opportunity Partners)	Weekdays only, one a.m. run from Minneapolis to Opportunity Partners; one p.m. run from Opportunity Partners to Minneapolis



578	Edina (includes Southdale Transit Center), downtown Minneapolis	Commuter express service (TH 62 and I-35W) during a.m. and p.m. rush hours
587	Edina, downtown Minneapolis	Commuter express service (TH 100 and I-394) during a.m. and p.m. rush hours, weekdays
631 (Southwest Metro Transit)	Chanhassen, Eden Prairie, Edina (Southdale Transit Center)	Weekday service, morning through evening; approximately 10 runs per day each direction

Note: all routes are Metro Transit with the exception of 631, which is Southwest Metro Transit. Routes 538 and 539 comprise what is termed Bloomington-Edina (B-E) Area Transit Service, which is planned and financed by Metro Transit, but is contracted out to private operators. B-E service uses smaller van-type buses rather than full-sized 40-foot buses.

Pedestrian Facilities

The existing and proposed network of sidewalks and pathways serving the City of Edina is depicted on **Figure 7.10**. Potential future sidewalk strategies and improvements are further addressed in Section 7.3.





Bicycle Facilities

The existing and proposed Bicycle facilities are depicted on **Figure 7.11**.

In 2006, the City initiated the Bike Edina Task Force (BETF), made up of interested citizens and City staff. The City of Edina applied for and received a Blue Cross Blue Shield Physical Activity Promotion grant to prepare a *Comprehensive Bicycle Transportation Plan*. This document has been prepared under the supervision of the BETF. Its primary findings and recommendations are summarized in Section 7.3 of this chapter. The full plan is attached as **Appendix T-2**.



7.3 TRENDS AND CHALLENGES

Roadway Network Planning

Traffic Forecasting

To evaluate and plan for future network improvements, it is necessary to project what future traffic levels will be. Consistent with Metropolitan Council guidelines, traffic forecasts were made for the year 2030. These forecasts were made using the Metropolitan Council Regional Model.

The foundation of the traffic forecasting model is the use of Transportation Analysis Zones (TAZs). The boundaries of TAZs within the metropolitan area are



defined by the Metropolitan Council. The TAZs used in the forecasts for this transportation chapter are identified on **Figure 7.12**. Information regarding planned/anticipated future land use is established for individual TAZs. This data includes population, household, and retail/non-retail employment information. The TAZ information used for the Edina 2030 traffic forecasting analysis is summarized in **Table 7.5**

Table 7.5 –Transportation Analysis Zone (TAZ) 2030 Demographic Information

Metropolitan Council TAZ	Households	Population	Retail Jobs	Non-Retail Jobs	Total Jobs
327	203	430	17	88	105
512	597	764	208	1,016	1,224
513	2,039	3,085	2,525	2,525	5,050
514	310	540	2,420	3,630	6,050
515	1,044	1,646	840	3,960	4,800
516	1,021	2,368	24	55	79
517	481	741	531	4,460	4,991
518	1,963	4,278	200	4,300	4,500
519	729	1,821	400	2,900	3,300
520	1,240	2,928	50	750	800
521	1,299	3,327	320	960	1,280
522	965	2,892	350	830	1,180
523	746	1,844	149	816	965
524	1,982	4,277	41	639	680
525	698	1,790	360	780	1,140
526	540	1,390	8	173	181
527	902	2,206	0	961	961
528	1,186	2,441	50	1,650	1,700
529	644	1,812	10	60	70
530	176	505	0	363	363
531	604	1,618	0	91	91
532	1,176	3,175	0	135	135
533	358	603	1,987	11,263	13,250
534	30	51	13	1,211	1,224
535	18	33	16	667	683
536	1,488	3,290	16	239	255
537	61	145	72	1,224	1,296
542	0	0	6	638	644



544	0	0	6	397	403
Total	22,500	50,000	10,619	46,781	57,400

The regional model uses the social and job data from each zone, combined with roadway information, regional travel tendencies identified from Travel Behavior Inventory surveys, and other factors, to generate and allocate trips throughout the study area. The regional model is very complex; using it for specific locations or cities requires appropriate application procedures and local adjustments consistent with industry standards for travel demand forecasting. The modeling methodology is further discussed in **Appendix T-3**.

The TAZ inputs used to generate 2030 results were based on the land use information discussed in Chapter 4 of this Comprehensive Plan. The resulting traffic volumes are provided on **Figure 7.4**.

Deficiencies and Improvement Needs

General

The City of Edina is considered fully developed and therefore it is not expected to see substantial traffic increases over the planning horizon in many locations. However, with the anticipated redevelopment of land use in some locations, combined with regional traffic trends and considerations, there will be some areas of significant traffic growth. Taking into account projected future traffic conditions, together with current issues, the following areas have been identified for recommended improvements and/or monitoring and further evaluation:

- Gateway area redevelopment
- France Avenue (I-494 to TH 62) – TH 62/France Avenue interchange and other issues
- W. 70th Street
- East-west connector corridor
- Other interchange projects

These areas will be addressed under the following headings. The final heading will address a summary of implementation considerations and requirements. Within the context of this planning level information, individual projects will be identified to be included in the City's Capital Improvement Programs over the next ten years (until the next Comprehensive Plan Update is required).

Gateway Redevelopment Area Improvements



In 2007 the City prepared an Alternative Urban Areawide Review (AUAR) for an area generally bounded by TH 100 to the west, Fred Richards Golf Course/76th Street to the north, France Avenue to the east, and Minnesota Drive to the south (see **Figure 7.13**). The impetus for the AUAR was purchase by a private developer of a group of parcels within the Study Area and subsequent discussions with the City regarding their redevelopment. The City decided to review the potential for further redevelopment within the commercial and industrial area along West 77th Street adjacent to these recently acquired parcels.

The AUAR reviewed four different scenarios: 1 – Comprehensive Plan (1998), 2 – Master Plan (proposed by developer), 3 – Maximum Commercial, and 4 – Maximum Residential. Each of these scenarios required its own set of roadway improvements to accommodate the development envisioned for the given scenario. Perhaps the most notable observation is that Scenario 3 (Maximum Commercial) would require reconstruction of the W. 77th Street Bridge over TH 100 to provide additional through and turning lanes. Funding requirements may preclude the implementation of this scenario in the foreseeable future.

The AUAR identifies improvements that will be required for various types and intensities of development outcomes. The specific improvements which will be required, and the schedule of those improvements, will be dictated by the development projects which are actually proposed and occur over time. It is recommended that the City clarify to developers early in the plan review procedures for this overall area that they must address transportation improvement needs in a proactive manner. The City will coordinate with developers regarding the planning and funding of the improvements, but developers will be required to perform their “fair share” such that needed improvements are identified and implemented in advance of the added traffic volumes.

A conceptual east-west connector corridor north of I-494 has been identified for further evaluation and potential long-term implementation. This corridor, identified on **Figure 7.14** and using W. 78th Street, Viking Drive, W. 77th Street, and W. 76th Street with enhanced continuity, will be further discussed under a separate heading, below. The improvements addressed in the Gateway Area AUAR are considered short to mid-range improvements, with the east-west connector corridor being a long-range concept.



France Avenue (TH 62 to I-494)

France Avenue between TH 62 and I-494 carries high volumes of traffic. The design of the roadway, 4-lane divided with turn lanes, has a high level of capacity, and roadway actually operates better than what perhaps is the common perception. For example, motorists must wait more than one signal cycle to proceed through an intersection only infrequently even at peak travel times. However, as traffic levels increase into the future as projected on **Figure 7.4**, congestion on the main portion of this stretch of roadway will become more of a concern. The largest operational problems for this stretch of roadway have to do with France Avenue's connections to TH 62 at the north, and I-494 at the south.

TH 62 and central areas

The primary issue at TH 62 is that there is not enough bridge width to provide storage for vehicles waiting in queues on France Avenue at the interchange. For the France Avenue/TH 62 interchange, the option to make physical improvements is severely limited based on funding availability. To reconstruct the bridge and interchange to allow more vehicle storage and better geometrics would be very costly, and neither Mn/DOT nor Hennepin County (France Avenue is a County roadway) has identified funding for such a project.

One means to improve this situation is through traffic management, attempting to spread the traffic more equally between the interchanges at Valley View Road, France Avenue, and Xerxes Avenue. Both the Valley View Road and Xerxes Avenue interchanges currently do serve to relieve the France Avenue interchange, but efforts can be made to increase this affect. Options which could be further explored include employee training for businesses in the area to promote use of the alternate interchanges as much as possible, and improved signage indicating the option of using alternate interchanges. However, it is not known how effective such measures could be, short of significant operational or infrastructure projects.

There currently do not appear to be any physical/infrastructure projects which could readily be implemented and would have clear benefits in terms of re-directing traffic from France Avenue to York/Xerxes Avenue. However, as redevelopment takes place in the Greater Southdale area, the City should promote access and street design that helps make Xerxes/York Avenue a viable alternative to France Avenue.

An important limitation of Xerxes/York Avenue in terms of serving as an alternate route for France Avenue is that it does not have an interchange at I-494. As will



be discussed under a separate heading, the City should investigate an enhanced east-west connector corridor north of I-494. This would tie into Richfield's W. 76th /77th Street corridor. A conceptual alignment is provided on **Figure 7.14**. One of the benefits of such a connector route is that it could make the use of Xerxes/York Avenue as an alternate to France Avenue more viable. East-west traffic flow would be enhanced in the southern portion of the City with connections to both France Avenue and York Avenue.

I-494 Area

The primary operational difficulty on France Avenue at the south end at I-494 relates to the single southbound right turn lane to accommodate both motorists using the ramp to westbound I-494 and those using the loop to eastbound I-494. This causes excessive southbound queuing in the right lane. The proximities of Minnesota Drive and W. 78th Street to the interchange exacerbate this problem. Hennepin County has identified a roadway re-striping plan which would help address this problem. This plan separates the traffic turning onto the westbound I-494 ramp from the traffic turning onto the eastbound loop. The City will work with the County to ensure that this improvement takes place.

W. 70th Street

The section of W. 70 Street between TH 100 and France Avenue is problematic because it experiences relatively high traffic levels for a roadway passing through a residential setting. The traffic levels are due in large part to the basic location and context of the segment. At one end of the segment is an interchange with major highway (TH 100), and at the other end is an important "A" minor arterial roadway (France Avenue) and a major commercial center (greater Southdale area). Traffic levels are currently at the high end of the capacity for a 2-lane roadway with turn lanes, and residents in the vicinity have difficulties with traffic conditions.



East-West Connector Corridor

A significant transportation difficulty facing the City is that there is not a continuous east-west reliever roadway on the north side of I-494. Motorists making east-west trips north of the freeway must proceed through a series of roadway segments which are currently not well coordinated or tied into a larger roadway network. Coordinating with adjacent communities, a conceptual corridor has been identified which is depicted on **Figure 7.14** (see "Bridge and Continuity Improvement area"). This improvement area would tie into W. 78th Street west of TH 100 at its west end, and would tie into W. 76th Street at its east end. It would involve a new bridge crossing of TH 100, which would relieve traffic levels on the W.77th Street/Edina Industrial Boulevard bridge over TH 100.

The rationale behind this concept is to provide a roadway which would serve a similar function to American Boulevard in Bloomington and the W. 76th/77th Street corridor in Richfield. It would tie directly into the Richfield corridor. As stated above, it would relieve congestion through the TH 100/W. 77th Street/Edina Industrial Boulevard interchange. It would generally allow more efficient east-west movements and tie into the larger Edina network more effectively. For example, it would make Xerxes/York Avenue easier and more logical to use as an alternative to France Avenue to relieve traffic levels on France. It would allow access to France Avenue to be closed at Minnesota Drive. It would likely make this portion of Edina a more attractive location for business and office development because of improved mobility and access. The Gateway Redevelopment discussed under an earlier heading may provide the opportunity



to begin roadway reconstruction efforts associated with implementation of the overall East West Connector concept.

Because this roadway would support and improve operations on trunk highways (TH 100 and I-494), Mn/DOT and the Federal Highway Administration (FHWA) would be supportive of such a project. The City should explore the availability of state and federal funding to help advance this concept if it is deemed viable.

It should be emphasized that this long-term corridor improvement plan is only conceptual at this point. However, it is recommended that the City continue to explore the concept and discuss it with adjacent communities, Mn/DOT, and Hennepin County. The City will also coordinate roadway reconfiguration and reconstruction with the redevelopment of the Gateway area as appropriate. The potential benefits of such a corridor could be quite significant, just as American Boulevard has benefited Bloomington, and the W. 76th/77th corridor has benefited Richfield.

Since Metro Transit has five bus lines and a bus terminal on Minnesota Drive, Metro Transit is an important stakeholder in the planning and development of this overall corridor improvement concept.

Other Interchange Projects

The need for reconstruction of the TH 62/France Avenue bridge and interchange has been summarized above. Three other interchange projects are important to the City of Edina:

- I-494/TH 169
- TH 169/Bren Road/Londonderry Road
- TH 62/CSAH 31 (Xerxes Avenue)

Of these projects, the I-494/TH 169 interchange has the highest priority for the City of Edina. While the interchange itself is not within the City (it is in Bloomington), its operations have an important effect on Edina residents. Many Edina residents use it to meet their transportation needs, and when it experiences severe congestion, this causes them delays. In addition, when the facility is congested, this leads to "cut-through" traffic on Edina roadways. The City looks to other agencies, primarily Mn/DOT, to secure the funding necessary to advance this important project. It also looks to Mn/DOT to provide a design which will provide good operational characteristics for an extended period of time and not need to be replaced within a relatively short timeframe.



The need for the TH 169/Bren Road/Londonderry Road interchange is being driven primarily by a planned major expansion of a large employer in Minnetonka. The City of Edina supports the efforts to improve this interchange; however, it views the responsibility to fund these improvements to lie with other government bodies and the employer which is expanding.

Summary of Key Implementation Considerations and Requirements

TH 62/France Avenue Bridge Reconstruction – The congestion at this interchange is excessive and this has been a difficult problem for a number of years. This was identified in the transportation section of the 1999 Edina Comprehensive Plan and discussed under a previous heading in this document. The only way to adequately address the problem is to reconstruct the bridge at this location. This project would cost approximately \$15 million. Given that TH 62 is a state highway and France Avenue is a County roadway, it is incumbent upon Mn/DOT and Hennepin County to secure the bulk of this funding for this long-needed project.

The implementation actions recommended for this project include the following:

- Continue to coordinate with Hennepin County, Mn/DOT, and the City of Minneapolis to communicate the ongoing need for this project and attempt to identify funds.
- Apply for grant funding for the project.
- Coordinate with commercial and medical entities which are served by the interchange to identify their willingness to participate in the financing of the necessary improvements to help serve their own interests.

W. 70th Street – This issue has been addressed in detail in a separate study. The City will take appropriate and timely steps to implement the recommendations from the study. ,,

Gateway Redevelopment Area Improvements – The City should require, early in the plan review procedures for redevelopment projects proposed in this area, that transportation improvements be clearly identified and addressed. The City will expect developers to plan, coordinate and finance their fair share of the required improvements in a proactive manner. Any roadway reconfiguration associated with the Gateway redevelopment will need to be consistent with the long term vision of the East-West Connector roadway summarized below.



East – West Connector Roadway – The City should continue to coordinate with neighboring communities, Hennepin County, and Mn/DOT to advance the planning and evaluation of the general corridor identified on **Figure 7.14**. It is likely a long-term concept, but as redevelopment is proposed and implemented in the southern portion of Edina, consideration should be given to this potential corridor in terms of long term right-of-way issues and access design.

Roadway Functional Classification

The role and importance of functional classification as a central transportation planning concept has been discussed in Section 7.2. The existing roadway functional classification map is provided as **Figure 7.5**. For "B" minor arterials and above, the Metropolitan Council determines functional classification for individual roadways. Local authorities may request changes (either from arterial to collector or from collector to arterial), but must provide sound justification for the request, and the Metropolitan Council makes the final determination. For collector roadways, the jurisdiction which owns and operates the facility has the authority to define functional classification status.

The City of Edina will coordinate with Hennepin County and/or the Metropolitan Council regarding the appropriate functional classification for the following roadway segments:

- Vernon Avenue/Gleason Road (CSAH 158) between TH 100 and TH 62
- York/Xerxes Avenue (CSAH 31) between TH 62 and American Boulevard (will also require coordination with the City of Bloomington)
- Valley View Road/W. 69th Street between W. 66th Street and York Avenue (CSAH 31)

Roadway Jurisdictional Issues

In general, it is good policy that Hennepin County and Mn/DOT assume responsibility for and jurisdiction over the arterial network, and cities assume responsibility for the collector and local street systems. This is, to a large extent, the situation in Edina. The existing roadway jurisdictional classification system is depicted on **Figure 7.6**.

At present, there are no roadways in the City under State (Mn/DOT) jurisdiction that are being considered for turnback to Hennepin County or the City of Edina.



However, Hennepin County, in its *Transportation System Plan*, identifies three roadway segments that are candidates for turnback to the City of Edina:

- CSAH 20 (Blake Road/Interlachen Boulevard) from north City limit to Vernon Avenue
- CSAH 31 (York/Xerxes Avenue) from 50th Street to south City limit (see **Figure 7.15**)
- CSAH 158 (Vernon Avenue/Gleason Road) from TH 100 to TH 62 (see **Figure 7.15**)

At the time of the 1999 Transportation Plan, the City of Edina felt that the turnback of CSAH 20 was logical given roadway use and access characteristics, and the transfer has in fact taken place. Regarding the other segments, the City of Edina does not support either turnback option. These segments should remain under County jurisdiction for the following reasons:

CSAH 31 – This roadway serves an inter-community function, connecting Bloomington, Edina and Minneapolis. It also links with TH 62. It carries a significant percentage of traffic not originating or terminating in Edina.

CSAH 158 – This roadway is an arterial roadway serving an inter-community function and is therefore appropriate for Hennepin County jurisdiction. It carries a substantial percentage of traffic not originating or terminating in Edina.

In the event the City is ultimately required to accept one or both of the transfers identified above, it should ensure that the roads are brought up to the appropriate design and maintenance standards prior to accepting transfer.

Access Management

Access management refers to balancing the need for access to local land uses with the need for mobility and safety on the roadway system. Arterials generally have limited access, collectors allow a greater degree of access given their combined mobility/access function, and local streets allow the most access of the roadway functional categories. Appropriate access control preserves the capacity on arterial streets and improves safety by reducing the need for traffic to divert to local streets. It separates local turning movements from higher speed “through” traffic, concentrating traffic linkages at intersections controlled with traffic signals, roundabouts, or other measures.



Mn/DOT and County roadways serving Edina are identified on **Figure 7.6**. For Mn/DOT roadways, Mn/DOT's access management guidelines apply. These guidelines are included in **Appendix T-4**. For County roadways, Hennepin County access management guidelines apply. These guidelines were established in the Hennepin County *Transportation System Plan*, and are included in **Appendix T-4**. In instances of local site redevelopment, the City will continue to work with these guidelines in the site plan review and approval process.

The City's existing ordinance on curb cut placement limits the placement and number of accesses to local and collector roadways under City jurisdiction. General guidelines include the following:

- No driveway on a local street is to be within 50 feet of a street intersection
- When properties adjoin two streets, the access should be to the lower volume street

Transportation Demand Management

The primary emphasis of Transportation Demand Management (TDM) is to reduce the number of vehicular trips on congested roadways during peak travel times. Since the many or most of these trips are commuter (work) trips, TDM strategies primarily involve places of employment and associated travel behavior.

The primary methods or strategies are identified below:

- transit
- car/van-pooling
- telecommuting
- flex-time
- non-motorized commuting

In general, the policies or incentives to promote TDM activities are provided through employers. For example, employers can provide monthly discounts or passes to employees to use transit. They can provide coordination services to match up individuals for car/van pooling activities. They can allow or promote telecommuting, particularly in various industries for which face-to-face contact is not important for task performance. Similarly, employers can allow or promote flex time, which enables employees to travel to/from work at non-peak travel



times. Regarding non-motorized commuting, the provision of shower and changing facilities is often helpful to promote bicycle commuting.

There are a number of reasons for employers to promote TDM activities. In some cases, vehicle parking is at a premium and anything they can do to reduce parking requirements is beneficial. Another example may be a large employer or group of employers accessed by congested road systems. If these employers can reduce rush hour trips into their facilities and associated congestion, it benefits their workers and makes their places of business more attractive places to work. Some employers wish to reduce vehicle trips to their facilities simply because it is "the right thing to do" for environmental reasons.

Cities can increase TDM activities through promotional activities and by coordinating with key employers to identify and implement TDM plans. Cities may require TDM plans for new developments if they are large enough to have significant traffic impacts. The City of Minneapolis actively uses this approach, for example. Cities can also form or coordinate the formation of Transportation Management Organizations (TMOs). These organizations pool resources and strategies to get the biggest "bang for the buck" for reducing traffic levels in a given area. The City of Edina is an active member of the 494 Corridor Commission, which is a TMO striving to limit single occupancy vehicle trips on I-494.

It is difficult to project the quantitative benefits of Transportation Demand Management activities with confidence. However, as fuel prices increase and congestion on major roadways in the metro region increase into the future, the demand for and potential of this approach will increase accordingly.

The City of Edina currently requires developers proposing projects with the potential for significant traffic impacts to submit TDM plans as part of the plan review and approval process. The thresholds which are currently in place requiring these plans to be generated are projects that would:

- generate 1,000 or more vehicle trips per day, or
- generate 100 or more trips during any one-hour period, or
- increase the traffic levels on an adjacent roadway by 50 percent or more

The City's requirements in terms of commitment to TDM activities and programs within the TDM plans are currently not rigorous. For example, these plans often simply identify existing transit service within the vicinity of the proposed project to



suggest future TDM activities. It is recommended that the City evaluate the option of adding "teeth" to TDM requirements for developers, perhaps using the Minneapolis program as a guide.

Community/Aesthetic Design for Transportation Facilities

Community design goals and treatments were discussed in detail in Chapter 4 of this Comprehensive Plan. Roadways are an important component in community design because they represent a significant percentage of the overall land area of any community, they represent public space over which the City has jurisdiction (the municipal right-of-way area), and because they are obviously very visible to many travelers, local and non-local.

Chapter 4 established a number of guidelines which included creating a hierarchy of thoroughfares from a character/aesthetic perspective. *It is emphasized that such a hierarchy would be distinct from the functional classification system discussed in this chapter.* While there may be significant overlap, the functional classification network is used to determine functional design parameters such as number/width of lanes and access spacing, as well as more general network planning to promote efficient movement (motorized and non-motorized) throughout the entire City. On the other hand, the community design hierarchy of thoroughfares involves aesthetic or contextual design elements such as landscaping/streetscaping, as well as guidelines that promote safe and enjoyable pedestrian and biking activity.

As discussed in Chapter 4, the recommended hierarchy of thoroughfares includes the following:

- Primary Thoroughfares – Centrally located streets that service multiple land uses. Only France Avenue south of TH 62 is in this category.
- Residential Thoroughfares – Important, linking roadways that run through largely residential neighborhoods, including Vernon Avenue, Interlachen Boulevard, and North France Avenue.
- Business District Thoroughfares – Serve commercial and office centers. Examples include York Avenue, W. 66th Street, W. 77th Street, and Metro Boulevard.

The locations of these thoroughfares are provided on **Figure 4.5**, and more detailed discussion and guidance is provided in Chapter 4.



Another important component of the Community Design Plan which pertains to transportation and roadways is the guideline for gateways. Gateways define areas with character and a sense of place, and can include such features as street or other lighting, signage, street furniture and public art, and other streetscape improvements. Many of these elements are in place in various districts throughout the City, but other locations could be identified and improved. Further detail on this topic is provided in Chapter 4 of this Comprehensive Plan.

Transit Plan

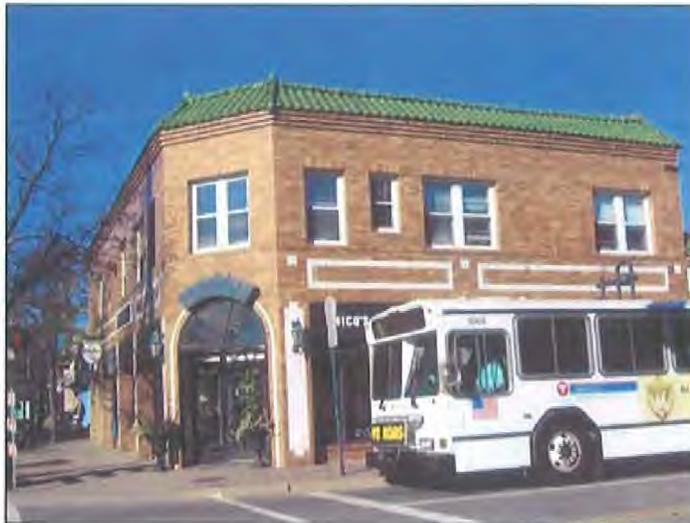
Scheduled Service

The City of Edina, as an inner ring suburb, has good transit service relative to much of the overall metro region. The existing service and facilities are identified on **Figure 7.9**. The Southdale Transit Center is one of the busiest transit facilities in the region, and there is generally good commuter service to downtown Minneapolis. However, transit service in western portions of the City is quite limited. Additionally, the need has been identified to evaluate additional park and ride capacity to improve the usability of commuter service for Edina residents. This will be discussed further under the facilities heading below.

As has been discussed in Chapter 3 of this Comprehensive Plan, the population of Edina is aging to a greater degree than many communities in the region. This trend will likely increase the demand for transit services in the coming years. The City should track this and other factors including increasing gasoline costs to assess on-going demand for enhanced scheduled transit service. The City



should work with Metro Transit and Southwest Metro Transit to advance such service as demand is identified. Metro Transit provides the great majority of transit service in Edina, and it would make the determination if service revisions or enhancements would be viable for its service areas. The ability to plan and provide additional transit service is subject to state and regional funding that Metro Transit receives.



Facilities

Metro Transit's Central-South (Sector 5) Plan (revised 2004) identifies that a park and ride facility (300-500 car facility) is envisioned at TH 100 and Vernon Avenue. A park-and-ride facility in this location would be of significant benefit for City residents desiring express service to downtown Minneapolis. This is particularly true given that there currently is only limited transit service in the western portion of the City. An assessment of local traffic and other impacts will be required prior to implementing a park and ride facility at this or any other location within the City. Local mitigation measures will be provided as deemed necessary through analysis and local input.

Local Circulator Service

As discussed above, there is very limited Metro Transit Service in the western portions of Edina. The City has had discussions with Metro Transit regarding additional service to the western areas, perhaps as circulator service. This would involve smaller vehicles which would seat between 12 and 18 riders. Metro Transit has determined that there is not enough demand in this area for it to viably provide such service, given its funding limitations. Metro Transit staff has



cited the relatively high income levels and high rates of car ownership as factors limiting the demand for additional transit service in these areas.

The City has evaluated, on a preliminary basis, the option of providing its own circulator service. This would provide service to the western portions of the City and would give those who cannot drive or choose not to an alternative travel mode to use. Information on the analysis of circulator service is provided in **Appendix T-5**. In summary, the capital costs for the lowest level of service ("baseline") evaluated would be approximately \$150,000 (three vans), and the annual operating costs would be over \$250,000. The more extensive operational scenario evaluated resulted in costs substantially higher.

The evaluation summarized above is intended to stimulate preliminary but systematic consideration of circulator service which could increase transit coverage in western Edina. To move this issue forward, a more detailed study will be required to address the following issues:

- Clarify the City's understanding of potential ridership; who will use the service and at what times?
- Preferred service type and frequency
- If fixed route, identify the optimal routes and stops
- If a hybrid fixed route/flex service, identify optimal operating parameters
- Hours of operations
- Fare structure

Greater Southdale Area Shuttle Service

Studies conducted for the City of Edina have performed preliminary assessments of potential shuttle transit service in the greater Southdale area. Most recently, the *Edina Promenade Urban Design Plan* (URS Corporation) identified a concept involving small bus or tram service shuttling passengers from the Southdale hospital complex to the north to Edinborough on the south end. The study recommends use of an alignment partially down the center of the study area, and partially along its east side on York Avenue as depicted on **Figure 7.16**

It is recommended that the City perform a study, potentially in conjunction with circulator service referenced above, to assess the viability and implementation requirements associated with proposed shuttle service for the Greater Southdale area. Such a study would address the following topics:



- Clear definitions of what function the service is supposed to provide and who its patrons would be
- Review of similar systems elsewhere
- Assessment of vehicle types
- Service delivery (City operation vs. contractor)
- Preferred route alignment (efficient running time vs. comprehensive "front door" service)
- Infrastructure improvement requirements
- Traffic control requirements
- Overall cost considerations
- Business coordination issues
- Recommendations for pilot project

Light Rail Transit

During the public involvement portion of the Comprehensive Plan preparation process, residents expressed a desire for Light Rail Transit (LRT) service and asked about the possibility of such service in Edina. Therefore, a brief overview of LRT issues as they pertain to the City of Edina is provided below.

LRT projects are very capital intensive because they require dedicated rights-of-way with rail and electric power installations, and the cars themselves are expensive. Due to the costs involved, LRT corridors generally need to be on a regional scale to justify the necessary investments. Therefore, the planning and implementation of LRT systems are primarily the responsibility of the Metropolitan Council and the metro-area counties. Because of their size, the cities of Minneapolis and St. Paul have also been very involved in the planning process for certain corridors.

The Metropolitan Council has identified a series of transitway corridors for planning purposes. This network is included as **Figure 7.17**. The Hiawatha LRT Corridor, connecting downtown Minneapolis, the MSP International Airport, and the Mall of America, has been completed. The Central LRT Corridor, connecting Downtown Minneapolis and Downtown St. Paul has received federal funding and is anticipated to be operational in the next 4-5 years.

The transitway corridor which has the most relevance for Edina is the Southwest Corridor. This corridor would connect downtown Minneapolis to Eden Prairie, and LRT has been chosen as the transit technology. The lead agency performing the planning for this project is the Hennepin County Regional Railroad Authority. Various alignment alternatives are still under consideration, but in the vicinity of Edina they follow the railroad right-of-way which is between Highway 7



and Excelsior Boulevard. This corridor passes just north of the northwest corner of Edina. Perhaps of most interest to Edina residents are two park and ride transit stations which are currently identified for the overall line; one at Blake Road just north of Excelsior Boulevard, and the other at Excelsior Boulevard just west of TH 169.

County information indicates that the earliest the Southwest Corridor LRT line could be operational is 2015. Pending funding and other considerations, it may take longer than this. While not a formal partner in the SW Corridor planning process, the City has been tracking the project closely and will continue to do so, coordinating as needed with Hennepin County and adjacent communities.

Bus Rapid Transit (BRT) is another form of express transit service which often is less expensive than LRT. However, the costs are significant because of the need for a dedicated transitway (or, at minimum, substantial transit advantages), and the nature of the service is that these routes are regional in scale. No regional BRT routes in the vicinity of Edina are currently under consideration.

The Dan Patch corridor has been identified as a possible commuter rail corridor by the Metropolitan Council. Development of this corridor for commuter rail is beyond the time horizon of this plan (2030).

Metro Transit Central-South (Sector 5) Plan

As referenced previously, Metro Transit has completed a study and plan addressing service improvements and facility planning in the Central-South sector, which includes Edina. The City looks to Metro Transit to update this document as needed in light of changing transit demand conditions such as increased roadway congestion, high fuel costs, and an aging population.

Pedestrian and Bike Facilities

Pedestrian Facilities

The goal of this section is to build upon the current City practices to create a framework for planning and implementation of future sidewalks. Sidewalks and other pedestrian facilities are an important component of the City's transportation infrastructure. Sidewalks and paths provide safe movement for individuals of all ages, decrease the dependency on motor vehicles, and encourage active lifestyles. An effective municipal sidewalk system provides network continuity



such that there is broad geographic coverage for a range of users and uses, without notable gaps.

A thorough review of the existing sidewalk and path network has been completed by City Staff. The following categories were used to evaluate existing facilities and help determine appropriate locations for future sidewalks. These categories are generally listed in descending order of priority:

- Public school walking zones
- Park and activity center walking zones
- Retail business walking zones
- Public transit facilities
- Roads where high vehicle traffic volumes create an impediment to pedestrian movements
- Roads defined as Collectors and above
- Roads with State-Aid designation
- Sidewalks internal to larger sites

Citizen- and/or business-petitioned locations will also receive important consideration as they are brought forward for City review.

A walking zone of 0.7 miles was used for public and private elementary schools, retail business centers and parks. A one-mile walking zone was used for middle and senior high schools (both public and private). These zones are consistent with the Edina School District guidelines.

Sidewalks within the City are divided into the following four categories:

State-Aid sidewalks are located adjacent to Municipal State-Aid Streets (MSAS) and are funded from MSAS funds.

School Zone sidewalks are identified by the City and Edina School District and are located within the identified school walking zones.

Destination Zone sidewalks are typically located along roadways that link existing systems and carry over 750 vehicles per day. Examples of destination nodes are business districts, parks and other community activity areas.



Local / Low Volume Street Zone sidewalks are any sidewalks that do not meet any of the above definitions, but have importance from access and system continuity perspectives.

Figure 7.10 depicts existing and proposed future sidewalk locations based on information and criteria provided above. The construction of new sidewalks and pathways is performed in accordance with current practices as directed by the City of Edina Engineering Department.

A boulevard style sidewalk is recommended for new construction wherever feasible to maximize safety conditions for pedestrians. Sidewalks should be designed to minimize impacts to large trees, avoid steep grades, and generally accommodate other site constraints. Geometric limitations may force a sidewalk to be placed along the edge of a roadway.

Sidewalks are typically five feet wide; however, a four foot width is acceptable for boulevard style sidewalks when not maintained by the City of Edina. Boulevard widths should be approximately five feet wide to allow proper growth of sod.

Financing of the proposed sidewalks are separated into four categories:

1. **State-Aid** Costs cover any proposed sidewalk located adjacent to a State-Aid designated roadway and are paid 100 percent by State-Aid funds.
2. **Public School Zone** Costs will be split using 25 percent City funds, 25 percent School funds, and 50 percent Special Property Assessments.
3. **Destination Zone** Costs will be split between 25 percent City funds and 75 percent Special Property Assessments.
4. **Local / Low Volume Street Zone** Costs will be financed 100 percent through Special Property Assessments.

Special property assessment policy should be reviewed for each individual project. The City has the discretion to order a project assessed on a per-adjacent lot basis, per local area assessment, or a combination of both.

The City should search out additional funding sources, such as grants or partnering with other agencies, for larger projects that have regional significance. One potential important source is the Safe Routes to School Program in which Mn/DOT allocates federal funds to projects of merit selected on a competitive basis.



Sidewalks located on State-Aid roads or within the Public School Zones will be maintained by the City of Edina. Typical City maintenance includes snow removal and repair of broken or shifted sidewalks. Sidewalks located on Local/Low Volume Street Zones and Destination Zones must be maintained by the property owners.

Bike Facilities

In 2006, the City Council appointed the Bike Edina Task Force (BETF), made up of citizens interested in bicycle issues and planning. The BETF has overseen the preparation of the *City of Edina Comprehensive Bicycle Transportation Plan*, which is hereby adopted by reference and included as **Appendix T-2**. This document provides a detailed identification of current conditions and problem areas regarding bicycle facilities within the City. It also provides a vision regarding system-wide improvements to the City's bicycling facilities.

It is the goal of the City to improve conditions for bicycling by reducing hazards and by developing and improving Edina's bicycle transportation infrastructure so as to invite Edina residents, workers, and visitors to include bicycling as part of their daily mobility activities. Bicycle improvements will be implemented to support safe, efficient, and inviting travel for children riding to school and adults riding to work, as well as recreational users. It is hoped that enhancing biking activities will remove a significant number of vehicular trips from Edina's roadway system.

The guiding principles for improving bicycle facilities in Edina are as follows:

- Improve safety conditions for cyclists, pedestrians, and motorists
- Provide safe routes for all ages and ability levels
- Improve connections to local and regional destinations
- Provide a useful and realistic transportation method within the City
- Promote bicycling to improve community health

One of the key tools that will be used by the City to improve its overall bicycling system as outlined above is a recommended route network as identified in the *Edina Comprehensive Bicycle Transportation Plan*. This network is provided as **Figure 7.11** of this Comprehensive Plan Update. It is divided into primary routes and secondary routes. The City intends to first focus on integrating the primary routes into existing infrastructure before proceeding with the secondary routes. Prior to system improvements being implemented in this manner, they will need



to be reviewed by the City's Engineering and Planning Departments to confirm technical feasibility and to refine design elements as warranted.

Implementation of bicycle system infrastructure improvements will be a relatively long-term undertaking that will be broken down into implementation phases or time periods. The planning and implementation of these improvements take into account regional trail systems and associated improvements, as well as more general infrastructure planning on the part of the City and Hennepin County.

Goods Movement

No major trucking operations exist within the City. Edina has one rail line, a branch of the Canadian Pacific, which has low utilization.

Most goods movement in Edina is associated with the Cahill light industrial/warehouse area which is generally bounded by Cahill Road to the west, West 70th Street to the north, TH 100 to the east, and Edina Industrial Boulevard to the south. Trucks in this area have adequate access to Trunk Highways, primarily via Cahill Road and West 70th Street to TH 100, or via Edina Industrial Boulevard to TH 100 and I - 494. These routes do not require trucks to pass through residential neighborhoods. No major improvements to accommodate goods movement are anticipated to be required over the planning horizon. The City will continue to attempt to keep truck traffic out of residential neighborhoods.

Aviation

There currently are no airports within the City of Edina. The closest airport is the Minneapolis-St. Paul International Airport (MSP), which is approximately three and one half miles east of the City. Edina is not in the influence area of MSP as determined by Metropolitan Council Guidance (*Transportation Policy Plan*, Appendix H).

Any person or organization who intends to sponsor the construction or alteration of a structure affecting navigable airspace as defined in Federal Regulation Title 14, Part 77 needs to inform the Federal Aviation Agency (FAA) of the project. This notification is accomplished through the completion and submittal to FAA of Form 7460. In the case of Edina, this requirement applies to the following circumstances:

- any construction or alteration exceeding 200 feet above ground level



- any construction or alteration of greater height than an imaginary surface extending outward and upward at a slope of 100 to 1 for a horizontal distance of 20,000 feet from the nearest point of the nearest runway (Runway 17/35 at MSP)

There is currently one heliport in the City of Edina. It is located at the Fairview Southdale Hospital. Heliports are regulated through City ordinance.

7.4 GOALS AND POLICIES: TRANSPORTATION

The goals and policies provided in this section are based on the policies from the 1999 *Edina Transportation Plan*, the 2005 *Edina Transportation Commission Policy*, and current discussions and deliberations by the City.

Goals

1. Maintain and enhance mobility for residents and businesses through creation and maintenance of a balanced system of transportation alternatives.
2. Implement a fully multi-modal transportation system that supports the land use vision and future land use plan for managing and shaping future growth.
3. Minimize the impacts of the transportation system on Edina's environment and neighborhood quality of life.
4. Reduce the overall dependence on and use of single-occupant vehicles by promoting land use patterns that allow for shorter vehicular trips and the use of alternative travel options.
5. Ensure that all Edina's residents, workers, and visitors, including those with transportation disadvantages, have viable travel options.
6. Promote a travel demand management program through a coordinated program of regulations, marketing, and provision of alternative travel options.
7. Provide multiple travel options for transit users, pedestrians, bicyclists, and rideshare users, as well as for drivers of private automobiles.



8. Support attractive and high performance transit service and connections.
9. Manage parking provision to encourage joint and shared use of facilities, ride-sharing (car pools and van pools), bicycle parking, and increased transit use.
10. Provide for efficient movement of goods within Edina, while minimizing the impacts of freight traffic on other trips and reducing negative impacts on land uses on freight corridors.

Policies

Roadway Design

1. Design roadway facilities constructed in conjunction with redevelopment projects according to the intended function.
2. Upgrade existing roadways when warranted by demonstrated volume, safety or functional needs, taking into consideration environmental limitations.
3. Emphasize improvements to management, maintenance and utilization of the existing street and highway system.
4. Design/enhance *residential street systems* to discourage through traffic and to be compatible with lower speed bicycling and walking. This includes consideration of traffic calming measures on local streets and, in some cases, collector streets.
5. Design/enhance *collector and arterial roadways* to minimize through traffic on local streets in the functional classification system, and to be compatible with other transportation modes including transit, bicycle and pedestrian.
6. Use adequate transitions and buffers including, but not limited to, earth berms, walls, landscaping and distance to mitigate the undesirable impact of high volume roadways.
7. Consider the use of sound mitigating features for residential development adjacent to high volume roadways, and make property owners and land



developers responsible for noise attenuation at new developments near high volume roadways.

8. Encourage beautification of local roadways, where appropriate, with amenities such as boulevard trees, decorative street lighting, and monuments.
9. Monitor and address transportation requirements associated with demographic trends, such as an aging population.

Roadway Function and Access

1. Provide logical street networks to connect residential areas to the regional highway system and local activity centers.
2. Adequately control access points to the regional roadway system (including minor arterials) in terms of driveway openings and side street intersections.
3. Provide access to the local street system (including collector and local streets) in a manner that balances the need to safely and efficiently operate the street system with the need for access to land.
4. Encourage, through roadway design and signage, intra-area trips on minor arterials rather than the principal arterial system, and promote serving regional trips on the metropolitan highway system.
5. Separate, to the extent possible, conflicting uses on the roadway system in order to minimize safety problems. Give special attention to pedestrian and bicycle routes.
6. Provide access to redeveloping sites using current functional classification and standards rather than the existing access at the sites.
7. Review and update regional and local functional street classification and coordinate with adjacent cities and Hennepin County. Establish subcategory classifications and criteria for local streets if warranted. Revise local roadway classifications when warranted.



8. Review and monitor citywide traffic volumes, congestion, existing traffic calming devices and measures, accident history, vehicle violation history, speed limits and enforcement.
9. Educate public on vehicle operations including public relations campaigns that focus on individual responsibilities to each other rather than individual rights only.
10. Review and recommend traffic calming policies and consider traffic calming implementation where requested by residents.
11. Implement measures to reduce non-local, cut-through traffic in cooperation with County and State efforts by developing a local traffic calming policy to mitigate the effects of cut-through traffic. Identify the origin and destination of cut-through traffic.
12. When requested by the Edina Transportation Commission and/or the Planning Commission, review land use that may impact traffic implementations. Continue to monitor adjacent community redevelopment and other activity that potentially impacts the City of Edina.
13. Evaluate and implement measures required for school safety.

Roadway Maintenance and Operation

1. Cooperate with other agencies having jurisdiction over streets and highways in Edina to assure good roadway conditions and operating efficiency.
2. Continue the implementation of the I-494 frontage road system through ongoing coordination with Mn/DOT, Hennepin County, and the cities of Richfield and Bloomington.
3. Maintain roads by repairing weather-related and other damage. Continue current on-going pavement improvement plan.
4. Use economic and environmentally sound management techniques for snow and ice removal.
5. Replace substandard bridges and bridges that present safety or traffic problems.



6. Track developments regarding the most current transportation systems and technologies, evaluate and implement as warranted.
7. Support state legislation to decrease statutory urban speed limits from 30 to 25 miles per hour.
8. Complete speed zone studies and establish speed zones for Safe Routes to School.

Transit/Transportation Demand Management (TDM)

1. Participate in the I-494 Corridor Commission to encourage all forms of travel demand management in order to reduce single occupancy vehicle travel, overall vehicle miles of travel, reduce petroleum consumption, and improve air quality.
2. Review and recommend policies necessitating a Transportation Demand Management Plan and/or a mass transit component with all types of development. Review and implement substantive requirements associated with these TDM Plans, potentially including TDM escrow accounts, transit passes, preferential parking for car-poolers, and other measures.
3. Find a location for an additional Park and Ride facility to be established in close proximity to major mass transit routes including TH 100 and Vernon Ave./W. 50th Street. Review the potential need to expand capacity at the existing Southdale park and ride facility.
4. Review all major new developments in light of the potential for ridesharing including bus accessibility, preferential parking for carpools/vanpools, and mixed-use development.
5. Support High Occupancy Vehicle (HOV) bypasses and other preferential treatments for transit and high occupancy vehicles on streets and highways.
6. Include transit planning in the construction or upgrading of streets and highways.
7. Pursue development of a circulator system within the City.



Parking

1. Review new developments for adequacy of parking based upon need, the potential for joint use of parking facilities and opportunities to encourage ridesharing.
2. Continue to limit on-street parking in and near congested commercial areas.
3. Work with appropriate commissions such as Planning and Zoning to review City Code, Section 850.08 Parking and Circulation to identify parking based upon needs.
4. Address specific parking requirements in small area plans for given study areas.

Pedestrian/Bicycle

1. Provide accessibility to pedestrians and bicycles at major activity centers, including necessary storage facilities.
2. Create pedestrian and bicycle interconnections among major generators, with continuity across major roadways and other barriers.
3. Review and recommend construction of pedestrian and bike paths throughout Edina cooperatively with the Three Rivers Park District and Hennepin County.
4. Promote safe walking, bicycling and driving. Promote vehicle driver respect for bicycles and pedestrians along with bicyclists and pedestrian observance of signs and use of designated paths for travel.
5. Support inclusion of pedestrian and bicycle access planning when upgrading roadways, bridges and redevelopment projects.
6. Provide sidewalks and safe crossings for areas of potential pedestrian/vehicle conflicts, including high-traffic streets, commercial areas, areas with transit access, and in high-density residential locations.



7. Provide appropriate signage in areas of potential conflict between pedestrians and automobile traffic.
8. Separate pedestrian traffic from bicycle traffic to ensure desired safety conditions. When a bicycle facility is provided, consideration should also be given to providing a corresponding pedestrian way where possible. This could be as a separate facility or through striping.
9. Support recommendations of the *Comprehensive Bicycle Transportation Plan* for implementation.

Goods Movement

1. Serve major truck users and intermodal facilities with good minor arterial access to the metropolitan highway system.

Funding and Jurisdiction

1. Pursue and support regional or multi-community funding sources for improvements that provide regional or multi-community benefit.
2. Support research efforts into more efficient and cost-effective management, maintenance and replacement of street surfaces.
3. Support governmental jurisdiction over roadways that reflect the role of the roadway in the overall transportation system.
4. Encourage the legislature to continue a dedicated source for funding for efficient mass transit.
5. Encourage the legislature to provide stable, long-term roadway funding for capital, operating/traffic management, and maintenance.
6. Develop and support legislation permitting a transportation utility.

7.5 IMPLEMENTATION

Previous sections of this chapter have examined existing conditions, as well as future issues, needs, and recommendations. This section discusses implementation of the City's transportation objectives.



Transportation Plan Adoption

By adopting the overall Comprehensive Plan Update including the Transportation Chapter, the City Council will establish the guidelines by which decisions regarding transportation facilities and programs will be made in Edina. The City should periodically review the assumptions under which the plan was developed, including estimates of future development, changing financial resources, citizen and governmental input, and other factors which may arise, and update the plan as appropriate.

Roadway Network

- TH 62/France Avenue Bridge reconstruction – continue to promote the advancement of this project, working with Mn/DOT, Hennepin County, and local organizations including adjacent landowners. Partner with these organizations in efforts to secure future funding for the necessary improvements.
- France Avenue – work with Hennepin County to ensure the overall operation and safety of this roadway, particularly at its interchanges with TH 62 and I-494.
- W. 70th Street – consider study recommendations, balancing local concerns with transportation network factors.
- Gateway redevelopment project area – continue to work with the local developer to define roadway needs and ensure that the developer (s) participates appropriately in the funding of improvements.
- East-west connector roadway – continue to coordinate with adjacent communities, Mn/DOT, and Hennepin County to discuss and advance this concept (identified on **Figure 7.14**) as appropriate.
- Functional classification – work with the Metropolitan Council and other agencies as needed regarding the appropriate functional classification of the following roadway segments:
 - Vernon Avenue/Gleason Road (CSAH 158) between TH 100 and TH 62
 - Xerxes/York Avenue between TH 62 and American Boulevard (Bloomington)
 - Valley View Road/W. 69th Street between W. 66th Street and York Avenue (CSAH 31)



- Jurisdictional Classification – Hennepin County has identified two roadway segments as potential candidates to turn back to the City. The City opposes these reclassifications. The City should coordinate as needed with Hennepin County to demonstrate that turning back jurisdictional authority to the City is not appropriate for the following locations:
 - Vernon Avenue/Gleason Road (CSAH 158) between TH 62 and TH 100
 - York/Xerxes Avenue (CSAH 31) between I-494 and 50th Street (CSAH 21)

Transit

- Continue efforts to establish a park-and-ride facility at TH 100/50th Street.
- Continue to evaluate the feasibility of circulator service focusing on the western portion of the City, and shuttle service in the Greater Southdale area. Work with Metro Transit to implement such service if feasible.

Transportation Demand Management (TDM)

- Review and potentially implement the option of increasing TDM requirements for developers.

Non-motorized Transportation

- Use the *Comprehensive Bicycle Transportation Plan* to identify ongoing projects for feasibility review and implementation as warranted.
- Working in conjunction with roadway or other infrastructure improvement projects, construct sidewalks on an on-going basis consistent with the future network plan identified on **Figure 7.10**.
- Sidewalks not identified on **Figure 7.10** will be considered on a case-by-case basis.
- Review special assessment methodology for funding the construction of sidewalks and trails.

Funding Considerations

Funding for transportation improvements and programs can be obtained from a variety of sources, as summarized below:



General Ad Valorem (Property) Taxes – Transportation projects can be funded with the general pool of municipal revenues raised through property taxes.

State Aid – Cities with populations of greater than 5,000 are eligible for funding assistance from the Highway User Tax Distribution Fund (funded with the state gas tax and vehicle taxes, as well as federal transportation funds through Mn/DOT). These funds are allocated to a network of Municipal State Aid (MSA) streets. Currently, the City of Edina receives an apportionment per year for improvements to its MSA streets, which are typically collector roadways higher in functional classification.

Federal Transportation Funds – The guidelines for direct federal funding for transportation projects are established under the Safe, Accountable, Flexible, Efficient Transportation Equity Act (SAFETELU). These funds are allocated by the Metropolitan Council which serves as the Metropolitan Planning Organization for the Twin Cities metropolitan area. Roadway, transit, non-motorized, and other transportation-related projects are selected on a competitive basis based on evaluation, prioritization, and recommendation by the Metropolitan Council's Transportation Advisory Board (TAB). The process of solicitation for project proposals and resulting allocation of federal funding to selected projects occurs every two years. The next round of solicitation for proposals will take place in 2009.

Cooperative Agreements with Mn/DOT and/or Hennepin County – Different levels of government can cooperate on planning, implementing, and financing transportation projects which provide benefits to all the concerned agencies. The financial terms and obligations are generally established at the front end of the projects.

Tax Increment Financing (TIF) – This is a method of funding improvements that are needed immediately by using the additional tax revenue anticipated to be generated because of the given project's benefits in future years. The difference between current tax revenues from the targeted district and the increased future tax revenues resulting from the improvements is dedicated to retiring the municipal bonds used to finance the initial improvement(s).

Developer Contributions/Impact Fees – Under this approach, the impact of the additional traffic from a proposed development on the local



roadway system is projected, using standard traffic engineering procedures. Costs associated with improving the roadway system to handle the additional traffic at an acceptable level of service are assessed to the developer. This approach generally involves some level of negotiation between the local government and the developer to work out a cost-sharing agreement that allows the development to move forward.

Assessments – Properties that benefit from a roadway scheduled for improvement may be assessed for the cost of construction. In order to assess the owner, it must be demonstrated that the value of their property will increase by at least the amount of the assessment.

In addition to these methods, the City should always consider negotiating with business and medical centers to help fund transportation improvement projects, large or small, which would have direct benefits to those centers.

Two potential sources of transportation funding have been proposed and discussed for a number of years, but are not currently allowed under state law. They are:

Road Access Charge – All new developments would be charged based on the trip generation rates of the given development, without an estimation or documentation of specific traffic impacts or improvement requirements. It would be analogous to the Sewer Access Charge (SAC) for access to the Metropolitan Council's sanitary sewer system. Revenues from this source could be used to build or improve collector and arterial roadways within the local jurisdiction collecting the tax.

Transportation Utility Billing – All properties within the local jurisdiction would be subject to a periodic fee, based on the number of vehicle trips generated by the type of property. The pool of funding generated in this manner would be used for community-wide transportation improvements such as preventive maintenance and road reconstruction. The periodic nature of the billing would be beneficial in terms of supporting on-going or routine roadway maintenance projects through the entire network.

The City should continue to support and promote the passage of legislation at the state level which would allow these forms of dedicated local transportation revenue generation.

Capital Improvement Program



The City has a Capital Improvement Program that is used to guide transportation investments within the community. The process includes analyzing projects that contribute to the maintenance and improvement of the transportation network based on the policies set forth within the Transportation Plan.

The City Council updates the Capital Improvement Program yearly to reflect the changing needs of our transportation network.

Appendix T-1

**Metropolitan Council Roadway Functional Classification
Characteristics/Criteria**

**Table F-3
Functional Classification System Criteria for Minor Arterials**

Criterion	Minor Arterial ("A" or "B")	
	Urban	Rural
Place Connections	Provide supplementary connections to metro centers and regional business concentrations within the MUSA. Provide interconnection of major traffic generators within the metro centers and regional business concentrations.	Connect the MUSA with cities and towns in Minnesota outside the Twin Cities region. Interconnect rural growth centers inside the Twin Cities region and comparable places near the Twin Cities region.
Spacing	Metro centers and regional business concentrations: 1/4-3/4 mile. Fully developed area: 1/2-1 mile. Developing area: 1-2 miles.	Permanent Rural and Agricultural Areas: As needed, in conjunction with the major collectors, provide adequate interconnection of places identified in "Place Connections" criterion.
System Connections	To most Interstate freeways and other principal arterials, other minor arterials and collectors and some local streets.	To most Interstate freeways and other principal arterials, other minor arterials and collectors, and some local streets.
Trip-Making Service	Medium-to-short trips (2-6 miles depending on development density) at moderate speeds. Longer trips accessing the principal arterial network. Local and limited-stop transit trips.	
Management	Maintain the following minimum average speed during peak-traffic periods: Metro centers and regional business concentrations - 15 mph. Fully developed area - 20 mph. Developing area - 30 mph.	Retain ability to meet urban speed objective if and when area urbanizes.
Mobility vs. Land Access*	Emphasis on mobility rather than on land access. Direct land access within the MUSA restricted to concentrations of commercial/industrial land uses.	Emphasis on mobility rather than on land access.

*The key objective is stated under "Management" heading in this table.

Table F-4
Functional Classification System Characteristics for Minor Arterials

Characteristics	Minor Arterial ("A" or "B")	
	Urban	Rural
System Mileage	Suggested limits for principal arterials and minor arterials at 15-25% of system.	Suggested limits for principal arterials and minor arterials at 6-12% of system
Percent of Vehicle Miles Traveled	Suggested limits for principal arterials and minor arterials at 65-80% of system.	Suggested limits for principal arterials and minor arterials at 45-75% of system.
Intersections	Traffic signals and cross-street stops.	Cross-street stops.
Parking	Restricted as necessary.	Restricted as necessary.
Large Trucks	Restricted as necessary.	Restricted as necessary.
Management Tools	Traffic signal progression and spacing, land-access management/control, preferential treatment for transit.	Land-access management/control.
Vehicles Carried Daily	5,000-30,000	1,000-10,000
Posted Speed Limit	35-45 mph	Legal limit
Right-of-Way	60-150 feet	60-150 feet
Transit Accommodations	Preferential treatment where needed.	None.

**Table F-5
Functional Classification System Characteristics for Collectors and Local Streets**

Criterion	Collector		Local	
	Urban	Rural	Urban	Rural
Place Connections	Interconnect neighborhoods and minor business concentrations within the MUSA. Provide supplementary interconnection of major generators within the metro centers and regional business concentrations.	Provide supplementary interconnection among rural growth centers inside the Twin Cities region and comparable places near the Twin Cities region.	Interconnect blocks within residential neighborhoods and land parcels within commercial/industrial developments.	
Spacing	Metro centers and regional business concentrations: 1/8 - 1/2 mile. Fully developed area: 1/4 - 3/4 mile. Developing area: 1/2 - 1 mile	Permanent Rural and Agricultural Areas: As needed in conjunction with minor arterials, to provide adequate interconnection of places identified in "Place Connections" criterion. In addition, minor collectors should be designated at an average spacing of not less than 4 miles.	As needed to access land uses.	As needed to access land uses.
System Connections	Sometimes to Interstate freeways and other principal arterials. To minor arterials, other collectors and local streets.	To minor arterials, other collectors and local streets.	To a few minor arterials. To collectors and other local streets.	To a few minor arterials. To collectors and local roads.
Trip-Making Service	Short trips (1-4 miles depending on development density) at low-to-moderate speeds. Longer trips accessing the arterial network. Local transit trips.		Short trips (under 2 miles) at low speeds. Longer trips accessing the collector or collector and arterial network.	
Mobility vs. Land Access	Equal emphasis on mobility and land access. Direct land access predominantly to development concentrations.		Emphasis on land access, not on mobility. Direct land access predominantly to residential land uses.	Emphasis on land access, not on mobility. Direct land access predominantly to agricultural land uses.

**Table F-6
Functional Classification System Characteristics for Collectors and Local Streets**

Criterion	Collector		Local	
	Urban	Rural	Urban	Rural
System Mileage	Suggested federal limitations: 5-10%.	Suggested federal limitations: 20-25%.	Suggested federal limitations: 65-80%.	Suggested federal limitations: 63-75%
Percent of Vehicle Miles Traveled	Suggested federal limitations: 5-10%.	Suggested federal limitations: 20-35%.	Suggested federal limitations: 10-30%.	Suggested federal limitations: 5-20%.
Intersections	Four-way stops and some traffic signals.	Local street traffic should be required to stop.	As required.	As required.
Parking	Restricted as necessary.	Unrestricted.	Permitted as necessary.	Permitted as necessary.
Large Trucks	Restricted as necessary.	Restricted as necessary.	Permitted as necessary.	Permitted as necessary.
Management Tools	Number of lanes, traffic signal timing, land-access management.	Land-access management.	Intersection control, cul-de-sacs, diverters.	.
Vehicles Carried Daily	1,000-15,000	250-2,500	Less than 1,000	Less than 1,000
Posted Speed Limit	30-40 mph	35-45 mph	Maximum 30 mph	Maximum 30 mph
Right-of-Way	60-100 feet	60-100 feet	50-80 feet	50-80 feet
Transit Accommodations	Cross-sections and geometrics designed for use by regular-route buses.	None.	Normally used as bus routes only in nonresidential areas.	None.