

CITY OF EDINA

TRANSPORTATION COMMISSION POLICY

April 2005

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I. INTRODUCTION

BACKGROUND

Sustaining, improving and operating a sound street and transportation system are integral parts of the long-term vision of the City. Congestion on the regional roadway system and the failure of that system to accommodate the continued growth in traffic volumes has both created and exacerbated traffic volumes, speed and congestion on local streets. These conditions adversely affect the quality of life of the City's residents and the activities of the businesses located in the City.

The Edina City Council in December 2003 established the Transportation Commission to address these issues and to work to improve the local transportation system, consistent with the Comprehensive Plan and Vision 20/20.

PURPOSE

The Edina Transportation Commission (ETC) was established to advise the Council on matters relating to the operation of the local street system with respect to traffic volumes, congestion, and functional classification, but not maintenance activities, of the City; to review and comment on plans to enhance mass transit opportunities in the City; to evaluate methods for traffic calming and other speed and volume mitigation measures and to recommend their implementation where appropriate; and to review the findings of the Local Traffic Task Force (2002-2003) and offer recommendations for implementation of those findings.

VISION

Edina will maintain a transportation system that will accommodate the efficient movement of people and goods throughout the City while fostering safe and livable neighborhoods and business areas connected by aesthetically beautiful, pedestrian and bicycle friendly streets and pathways.

II. POLICY FRAMEWORK

INTRODUCTION

The *Edina Transportation Commission Policy* ("Policy") was developed as a supplement to the City of Edina *Transportation Plan* (March 1999). The purpose of the Policy is to guide the ETC in the identification and evaluation of traffic and transportation issues in the community and prioritize projects and improvements to the transportation system. The Policy is created to encourage public input and decisions that will be based upon objective and subjective factors.

CITY OF EDINA TRANSPORTATION COMMISSION POLICY

The *City of Edina Transportation Commission Policy* implements the purposes and objectives of the ETC as provided in Section 1225 of the City Code (Transportation Commission). Except with respect to maintenance issues, the Policy also incorporates the policies of the *Transportation Plan* as follows:

Roadway Design

1. Design roadway facilities constructed in conjunction with new developments 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 residential street systems to discourage through traffic and to be compatible with other transportation modes including transit, bicycle and walking, including traffic calming measures on local streets and, in some cases, collector streets.
5. 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.
6. Promote 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.

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 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 public street 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.

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 and Integrated Corridor Traffic Management 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.
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.

Transit/TDM

1. Participate in the I-494 Commission to encourage all forms of travel demand management in order to reduce vehicle miles of travel, reduce petroleum consumption, and improve air quality.
2. Review all major new developments in light of the potential for ridesharing including bus accessibility, preferential parking for carpools/vanpools, and mixed-use development.
3. Support HOV bypasses and other preferential treatments for transit and high occupancy vehicles on streets and highways.
4. Include transit planning in the construction or upgrading of streets and highways.
5. Pursue development of a demonstration project to provide a circulator system within the Greater Southdale Area.

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.

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. Provide sidewalks and safe crossing in high pedestrian danger areas, including high-traffic streets, commercial areas, areas with transit access, and in high-density residential locations.
4. Provide adequate signage along all bike paths including areas of conflict with pedestrians and automobile traffic.

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. Develop and support legislation permitting a transportation utility.

In addition to the policies contained in the Transportation Plan, the Edina Transportation Commission has adopted the following policies:

Roadway Design

1. Design collector and arterial roadway corridors to be compatible with other transportation modes including transit, bicycle and pedestrian.
2. Encourage beautification of local corridors, where appropriate, with amenities such as boulevard trees, decorative street lighting, and monuments.

Roadway Function and Access

3. 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.
4. Review and monitor citywide traffic volumes, congestion, existing traffic calming devices and measures, accident history, vehicle violation history, speed limits and enforcement.
5. Educate public on vehicle operations including public relations campaigns that focus on individual responsibilities to each other rather than individual rights.
6. Review and recommend traffic calming policies and consider traffic calming implementation where requested by residents.
7. 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.
8. When requested by the Planning Commission, review landuse that may impact traffic implementations. Continue to monitor adjacent community redevelopment and other activity that potentially impacts the City of Edina.

Transit/TDM

9. Encourage the legislature to both increase and establish a dedicated source for funding for efficient mass transit. Review and recommend policies necessitating a Transportation Demand Management and/or a mass transit component with all types of development.

Parking

10. Find a location for an additional Park and Ride facility to be established in close proximity to major mass transit routes.
11. 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.
12. Evaluate present City parking facilities. Where appropriate, amend Section 850 to provide Transportation Demand Management and transit users some spaces in City-owned ramps.

Pedestrian/Bicycle

13. Review and recommend construction of pedestrian and bike paths throughout Edina cooperatively with the Three Rivers Park District and Hennepin County.
14. 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.
15. Support inclusion of pedestrian and bicycle access planning when upgrading roadways, bridges and redevelopment projects.

III. PLAN IMPLEMENTATION

This section generally describes the steps necessary to implement the provisions of the Policy and discusses a general strategy for carrying out the Policy provisions.

TRANSPORTATION COMMISSION POLICY ADOPTION

By adopting the *Transportation Commission Policy*, the City Council establishes the guidelines by which decisions regarding transportation facilities are made in Edina. It should be revised as necessary to respond to changing conditions and needs, both locally and regionally.

The Policy should be circulated widely so the residents and the business community are aware of the opportunities and limitations that the Policy provides, thus enabling all interested parties to voice their concerns and issues with full knowledge of the process.

ACTION PLAN

Short Term (Immediate):

- Review and approve Transportation Commission Policy:
 - Review and identify problems and causes of Edina traffic issues (determine what is fact versus perception).
 - Review volume and speed criteria.
 - Present Draft Policy to Council.
 - Open public comment period.
 - Recommend to Council for approval.
- Review Local Traffic Task Force Findings and Recommendations as it reflects the adoptive policies and procedures. Rank the six Local Traffic Task Force identified traffic “issue areas” and review and recommend action for them as Neighborhood Traffic Management Projects to the City Council.
- Review and approve a Neighborhood Traffic Management Plan (NTMP).

- Publicize transportation issues to be studied by ETC.
- Establish a means for public communication for transportation issues including, as appropriate:
 - City of Edina Website
 - *About Town*
 - Edina Community Channel 16
 - Edina Sun Current Newspaper
 - Local Schools
 - E-mails to Neighborhood Associations
 - Utility Bill
 - City Hall's Electronic Billboard
- Create a citizen's guide to transportation issues

Long Term (Continually):

- Review and recommend Neighborhood Traffic Management Plans.
- Review and update local roadway functional classification.
- Hold yearly public open house for transportation issues.
- Review and update Transportation Commission Policy annually.
- Review and make recommendations for collector and arterial roadway planned improvements.

SOURCES OF FUNDING

The following sources of funding are explained in more detail in the *Transportation Plan*.

Existing Sources of Revenue:

- Federal Surface Transportation Program Funds
- Congestion Management and Air Quality (CMAQ)
- State Aid
- Special Assessments
- Livable Communities Grants
- Ad Valorem Taxes
- Tax Increment Financing

Potential Sources of Revenue:

- Impact Fees
- Road Access Charges
- Transportation Utility

PLAN ACCEPTANCE REQUIREMENTS AND COSTS

Plan acceptance requirements include educating residents in the Benefited Area about the possibility that they may be asked to fund the installation and maintenance of NTMP Projects through additional taxes and/or special assessments. A typical project includes all costs accrued for the improvement including all costs to perform the preliminary studies and data collection, temporary test installations, final studies, final design and actual construction costs. All costs associated with a Neighborhood Traffic Management Plan study and project will be assessed to the Benefited Area if the Council approves the project for final implementation.

IV. NEIGHBORHOOD TRAFFIC MANAGEMENT PLANS (“NTMP”)

INTRODUCTION

Neighborhood Traffic Management Plan (NTMP) studies are intended to respond to requests to deal with speeding and excessive volumes of traffic on streets in residential neighborhoods and on multiple streets in one or more neighborhoods, yet are intended to be sensitive to areas where, due to the implementation of calming measures, there may be a potential for diversion of traffic onto other streets and/or into other neighborhoods. These plans are required to respond to traffic problems that are symptomatic of wider problems, such as congestion or lack of capacity on the arterial system.

NTMP studies include local, collector and arterial street studies and neighborhood area studies. While solutions will be considered for collector and arterial streets, only a limited number of management devices or measures will be allowed on collectors and arterials due to State design standards and funding requirements (see Appendix B). Studies will be conducted by the City Engineering Department with the involvement of other City departments and upon the approval of the ETC and the City Council. Studies will be scheduled based on available resources. Priority for studies will be based upon factors that include, but are not limited to, the following:

- Previous efforts, requests and studies in the area
- Intensity and extent of the problems
- Degree of conflict between traffic conditions and land uses
- Availability of data
- Regional improvement projects scheduled or planned
- Feasibility of solutions

PROCESS AND SCHEDULE

This section generally details the process and schedule for Neighborhood Traffic Management Plans (See Table 1).

Table 1. Neighborhood Traffic Management Plans Schedule

| Step | Item | Period (Typical) |
|---------|--|------------------------|
| - | General Traffic Management Information Open House | Late September |
| Step 1 | Neighborhood Traffic Management Plan Applications Due | 2nd Monday in February |
| Step 2 | Initial Screening, Scoring and Ranking of Applications Before data collection | March/April/May |
| Step 3 | <ul style="list-style-type: none"> • Petition-to-study prepared and circulated by City staff • Presentation to ETC for recommendation and to Council for approval to order plan development | May/June |
| Step 4 | Plan Development <ul style="list-style-type: none"> • Review and comment by Fire, Police, Public Works and Engineering, Transit and School (transportation) agencies • Public Open House • Survey-to-test circulated and evaluated by City staff • Trial Project Plan prepared | June |
| Step 5a | Presentation to ETC for recommendation | June |
| Step 5b | <ul style="list-style-type: none"> • Council approval of trial projects • Schedule temporary installations, removals and after data collection (minimum period of 2 weeks after installation) | July |
| Step 5c | • Temporary installations | July/August |
| Step 6 | <ul style="list-style-type: none"> • After data collection (trial projects) • Review and comment by Fire, Police, Public Works, Transit, and School (transportation) agencies • Prepare evaluation summaries | September |
| Step 7a | Mail Surveys | October |
| Step 7b | <ul style="list-style-type: none"> • Summarize returned surveys • Open House | November |
| Step 8a | Recommendations to ETC, Public comment | December |
| Step 8b | Recommendations to Council, Improvement Hearing, Preliminary Assessment Hearing, Order Project | January |
| Step 9a | Survey and Design | February / March |
| Step 9b | Final approval of plans by Council, Set bid schedule | April |
| Step 9c | Letting, Assessment Hearing | May |
| Step 9d | Construction | June / July |
| Step 10 | After data collection | July / August |
| Step 11 | Follow-up Evaluation | Within 3 to 5 yrs |

NTMP PROCESS:

Step 1. Study Request (Application)

A Neighborhood Traffic Management Plan (NTMP) study application can be filed by any individual, a business or by a neighborhood organization. Applications to consider a NTMP study must be in writing and are due by 4:30 p.m. on the second Monday in February of each year. (See Appendix C for an NTMP application form).

Step 2. Preliminary Review and Priority Ranking

In response to each NTMP study application filed, City staff gathers and reviews preliminary data including data related to volume, speed, accidents and other pertinent safety information. City staff also applies the criteria for screening and ranking to prioritize studies for trial and evaluation of a NTMP. The Engineering Department ranks the studies based on the methodology outlined under “Scoring for Ranking” as defined herein, and prioritizes the trial studies for ETC review. The number of trial studies depends on equipment and personnel availability. Some trial studies may be deferred if not feasible due to conflicting construction, development in the area, county or state restrictions or other concerns.

Applications are subject to review by the Engineering Department for possible solutions other than a NTMP study. If preliminary review indicates an immediate hazard to the public exists, the City may choose to address the described matter separately from the NTMP process.

The City also notifies the ETC of the status of all ranked studies and asks for comments. The City notifies all study requestors of the status of their request after the completion of the Step 2 process.

A selected study is considered in the annual priority-ranking step for up to 3 years. If, after 3 years, a study has not received a high enough priority to proceed, it is no longer eligible for consideration. This time limitation ensures that the study request has not become obsolete because of changing traffic conditions and/or new residents in the area.

The study requestor is notified when the 3-year limit expires. A new request may thereafter be made to re-enter the study in the NTMP process. Step 1 is then repeated to obtain current information.

Step 3. Petition-to-Study

A petition-to-study shall be circulated within the defined study area (Benefited Area – see page 17 and Appendix A-1) for all studies selected to proceed to Step 3.

The Transportation Commission establishes the Benefited Area, based on information obtained in the Preliminary Review stage of the process (Step 2). At a minimum, this area

is generally defined as those households and businesses fronting on the affected segments of the Benefited Area.

The petition-to-study defines the issue and surveys the Benefited Area to determine if the residents within the Benefited Area agree with the issue that has been requested to be addressed. City staff prepares the petition, describing the issue and the procedures to be followed if a study is undertaken. The City then circulates the petition-to-study. Each household is entitled to one signature. Property owners not living in the Benefited Area are not included in the petition-to-study process. In order to proceed further, a minimum of 51% of all petitions-to-study must be returned with 65% of those returned indicating agreement to study the identified issue.

Qualifying petitions-to-study and the underlying NTMP applications are thereafter presented to the ETC and the City Council. The ETC must recommend and the City Council must order the plan development for the study to move to Step 4.

Step 4. Plan Development

Based on approval from the Council, the NTMP study is commenced. The NTMP is initially reviewed by the City's Fire, Police, Public Works, Planning and Engineering Departments, and by transportation agencies, including transit agencies, and the school district.

The ETC then provides notice to the Impacted Area (as defined herein) and holds a public meeting for the Impacted Area and the general public to inform residents of the proposed project, to describe the NTMP process, and to gather additional information about the study issue and related concerns within the Impacted Area.

Plan development consists of the following:

- (a) Assessment of study issues and concerns
- (b) Identification of project goals and objectives
- (c) Identification of evaluation criteria
- (d) Establishment of threshold criteria (on project-by-project basis)
- (e) Development of alternative plans/solutions

Steps 4(a) and (b) are accomplished through public meetings, neighborhood association meetings, and ETC meetings. Steps (c) through (e) are determined by City staff and the ETC. Additionally, City staff prepares a survey-to-test describing the proposed project and calling for a temporary test installation. Staff then circulates by U.S. Mail the survey-to-test within the Impacted Area.

Each household and business within the Impacted Area is entitled to file one survey response. The survey responses are evaluated by City staff. Possible criteria, solutions and their impacts are proposed based on the citizen responses and sound engineering principles and are evaluated by the ETC, City staff and other affected agencies. Based upon that evaluation, a trial installation plan is prepared.

Step 5. Test Installation

The proposed NTMP test installation plan is presented to the ETC and the City Council. If recommended by the ETC and approved by Council, the test will be installed for a trial period of between 3 and 12 months. If the City Traffic Engineer finds that an unforeseen hazard is created by the test installation, the test installation may be modified or removed.

Step 6. Project Evaluation

Following the test period, the City evaluates the performance of the test NTMP in terms of the previously defined study issues and objectives. The evaluation includes the subject street and other streets affected by the project, and is based on before-and-after speeds and volumes, impacts on emergency vehicles or commercial uses, and other evaluation criteria determined during Step 4. If, in the evaluation, measurable improvements are not met to the satisfaction of the ETC and City staff, the NTMP may be modified and additional testing conducted.

The test results are thereafter reviewed with the ETC, Impacted Area, and relevant City staff, and the information is distributed during the survey stage.

The City will not proceed to Step 7 if the test results show the NTMP may be unsafe or otherwise violates the Policy or other relevant City policies or regulations.

Step 7. Survey

To forward the project to the stage where permanent implementation is approved (Step 8), a survey from households, businesses and non-resident property owners within the Impacted Area is obtained through a mail survey administered by the City. The ETC then holds an open house for the Impacted Area to update residents about the proposed project.

Step 8. City Council Action

Based on the project evaluation and survey, City staff members prepare a feasibility report and recommendations for the ETC and City Council. The report outlines the process followed, includes the project findings, states the reasons for the recommendations and includes a preliminary assessment roll. The feasibility report and preliminary assessment roll will be presented for a recommendation by the ETC before final action by the City Council. If the feasibility report is adopted and the preliminary assessment roll is approved by the City Council, the project is ordered.

If the feasibility report and preliminary assessment roll are not adopted by the Council, the plans and specifications will not be ordered and the project will be terminated. The project will thereafter be removed from the list and the Benefited Area is not allowed to reapply for a same or similar study for five years.

Step 9. Design, Final Assessment Roll and Construction

Final design and construction supervision are administered by the City and are generally completed within 12 months after final approval and assessment by the City Council. City staff prepares and recommends the final assessment roll as required under authority granted by Minnesota Statute Chapter 429

Step 10. Monitoring

City staff shall monitor the NTMP and gather data, including volume, speed and accident information for use in its follow-up evaluation.

Step 11. Follow-up Evaluation

Within the 3 to 5 year period following construction of an NTMP project, the City shall conduct a follow-up evaluation to determine if the project's goals and objectives continue to be met. This evaluation may entail traffic studies of volumes, speeds and accidents, as well as public opinion surveys. The follow-up evaluation will be conducted by City staff and presented to the ETC.

CRITERIA FOR SCREENING

Each NTMP study application is initially reviewed and screened for general qualification for this process. The following prescribes the general criteria used by staff to determine the eligibility for a NTMP study:

1. Roadway Classifications

- Eligible: All Edina streets under the Public Works Department jurisdiction.
- Not Eligible: All roadways within Edina designated as County, State, or Federal Highways.

2. Minimum Distance of the traffic calming device from the following (all must apply for eligibility):

- Traffic Signals (except neckdowns) 300 ft.
- Stop Signs (except neckdowns) 300 ft.
- Other Traffic Calming Devices or Measures 300 ft.
- Driveway/Alleys 20 ft.
- Horizontal or Vertical Curves affecting sight lines 200 ft.
- Railroad Crossing 300 ft.
- Dead End 400 ft.

3. Access:

- No dead-end created without adequate turn around on public roadway right-of-way roadway.

4. Not-Critical Emergency Route:

- To be reviewed and approved by the City Fire Chief.

All four eligibility requirements must be met for scoring and consideration.

SCORING FOR RANKING

The following criteria defines the scoring for ranking that is used to prioritize a requested NTMP study application as described in Step 2 of the NTMP process:

1. Sidewalk adjacent to the benefited area (0 to 100 points):

- None + 100
- All of 1 side + 50
- All of 2 sides + 0

2. Public school yard, play lot, playground development adjacent to benefited area (0 to 200 points):

- None + 0
- All of 1 side + 100
- All of 2 sides + 200

3. Residential development adjacent to benefited area (0 to 100 points):

- None + 0
- All of 1 side + 50
- All of 2 sides + 100

4. Number of reported correctable crashes based on last 5 years of available data (0 to 200 points):

- 20 per crash; maximum of 200 points

5. Average residential density adjacent to benefited area (0 to 50 points):

- 50 points maximum
- (0 dwelling units per adjacent 100 lin. ft. = 0 points
- 5+ dwelling units per adjacent 100 lin. ft. = 50 points)

6. Average Daily Traffic Volumes - ADT (0 to 200 points):

- ADT divided by 10; maximum 200 points
- For intersection, street segments or multiple streets, use higher volume street

7. Percent over speed limit - ADT (0 to 200 points):

- Percent over speed limit times 2.5 (times 100); maximum 200 points (80% over limit)
- For intersection, street segments or multiple streets, use street with higher speeds

Scoring is based on the criteria pertaining to the Benefited Area. Correctable crashes are determined by the Engineering Department.

REMOVAL OF TRAFFIC MANAGEMENT DEVICES/MEASURES

The City of Edina’s Traffic Calming program is intended to avoid the costly installation and later costly removal of traffic calming devices and measures. On occasion, however, it may be determined to be desirable to terminate the NTMP. .

If the removal is City initiated due to safety/crash issues, the removal will be at City expense. If the removal is at the request of the Benefited Area, the removal will be charged to the property owners in the defined Benefited Area. The following procedure will be used for removals initiated by the Benefited Area:

1. Petition requesting removal is submitted to the City Traffic Engineer.
2. A survey, including estimated cost for removal and data collected previously for the NTMP, is mailed to each property owner in the Benefited Area.
3. Surveys are summarized 30 days after mailing. Staff makes recommendation to the ETC.
4. ETC forwards a recommendation to the Council. If the recommendation is for removal, improvement and assessment hearings are scheduled by the Council with notice to the Benefited Area.
5. Final approval of plans by Council. Set bid schedule.
6. Letting, final assessment and construction.
7. A new NTMP will not be considered for five years following the removal of a NTMP in the Benefited Area.

TRAFFIC MANAGEMENT DEVICES/MEASURES – CITY OF EDINA APPROVED OPTIONS

This section lists traffic management devices and measures that are approved for use in the City of Edina. Appendix B contains a detailed description and overview of each item.

Speed Reduction Traffic Calming Measures:

- Speed Hump
- Speed Table
- Raised Crosswalk
- Raised Intersection
- Textured Pavements
- Center Island Narrowings
- Gateway Treatments
- Neckdowns
- Choker
- Chicane
- Realigned Intersections
- Traffic Circle
- Roundabout

Volume Reduction Traffic Calming Measures:

- Diagonal Road Closure
- Partial Street Closure
- Cul-de-sac
- Median Barriers
- Forced Turn Islands

Education and Enforcement:

- Targeted Police Enforcement
- Radar Speed Display Units
- Neighborhood Traffic Safety Campaigns

Regulatory Measures:

- Stop Sign
- Turn Restrictions
- One Way Streets
- Traffic Signals (“Rest on Red” and “Rest on Green”)
- Pavement Striping (Centerline, Edge and Transverse)

BENEFITED AREA (ASSESSED AREA)

This section generally defines the Benefited Area of the traffic management devices and measures for use in determining the assessment area. The following prescribes the typical Benefited Area, but may be adjusted by the ETC on a project-by-project basis.

Speed Hump, Speed Table, Raised Intersection, Raised Crosswalk, Textured Pavement, Center Island Narrowings, Neckdowns, Gateway Treatments, Choker, Chicane, Traffic Circle:

- Benefited Area extends 300 feet from the device along the street affected by the device, or to the nearest stop sign or traffic signal, whichever is less.

Diagonal Road Closure, Round-a-bout:

- Benefited Area extends to the next intersection on each leg of the intersection.

Partial Street Closure, Realigned Intersection, Forced Turn Island, Median Barrier:

- Benefited Area extends to the next intersection on the leg of the intersection partially closed, realigned or restricted.

Cul-De-Sac:

- Benefited Area extends from the point of closure to the next intersection on the leg that is closed.

APPENDICES

APPENDIX A – DEFINITIONS

APPENDIX B – TRAFFIC MANAGEMENT DEVICES / MEASURES

APPENDIX C – APPLICATION REQUEST FOR NEIGHBORHOOD TRAFFIC MANAGEMENT PLAN

APPENDIX D – ACKNOWLEDGMENTS AND REFERENCES

APPENDIX E – FUNCTIONAL CLASSIFICATION ROAD MAP

APPENDIX A - DEFINITIONS

Definitions

Benefited Area – The properties expected to receive the majority of the positive impacts from the proposed traffic calming strategy and which are subject to assessment for the cost of installation or removal of a NTMP improvements. (Assessed Area)

Center Island Narrowings – An island or barrier in the center of a street that serves to segregate traffic. (Midblock medians, median slowpoints, median chokers, central islands.)

Chicane – Mainline deviations to deter the path of travel so that the street is not a straight line (by the installation of offset curb extensions). (Deviations, serpentine, reversing curves, twists.)

Choker – Physical street narrowing to expand sidewalks and landscaped areas; possibly adding medians, on street parking, etc. (Pinch points, lane narrowing, midblock narrowings, midblock yield points, constrictions.)

Circulator Service – A means provided within a major activity center, (such as a regional business concentration, a metro center or community) for movement from place to place within the center; such a system may be entirely pedestrian or may use transit.

Collector Street – Roadways that are designated to “collect” traffic from neighborhood streets and get that traffic to arterial streets. Collector streets are described in the City of Edina Comprehensive Plan.

Corridor Studies – Typically, highway corridor studies focus on a segment of a particular travel corridor or travel shed. Land use, access issues, capacity, level of service, geometries and safety concerns are studied; alternatives analyzed; and recommendations made. Corridor studies are usually prepared with the participation and cooperation of the affected communities and governmental agencies. Recommendations for improvements are often incorporated into the local comprehensive plans of the participating cities and continue to be used by implementing agencies as improvements in the corridor are made.

Cul-de-sac – Physical street closure resulting in a dead end (no outlet) constructed with a circular turn-around area.

Cut-through Traffic – Traffic that intrudes into a residential subdivision to avoid congestion or other problem from an arterial or other high level street.

Diagonal Road Closures – A barrier placed diagonally across a four-legged intersection, interrupting traffic flow across the intersection. This type of barrier may be used to create a maze-like effect in a neighborhood. (Diagonal diverter.)

Feasibility Report – A report analyzing the recommended type of construction, the estimated construction cost, estimated engineering cost and the estimated assessment.

Forced Turn Islands – Small traffic islands installed at intersections to channel turning movements. (Forced turn barriers, diverters.)

Functional Classification (of Roadways) – In accordance with the City of Edina *Transportation Plan* (March 1999), the City has adopted the Metropolitan Council’s functional classification system designation and guidelines for use in the City’s roadway system. Functional classification involves determining what role each roadway should perform and ensures that certain transportation and non-transportation factors are taken into account in the planning and design of roadways. A complete description of the functional classification system criteria is found in Appendix D of the *Transportation Plan* (March 1999). The following criteria lists typical vehicle volumes carried on roadways:

| | |
|----------------------|------------------------------------|
| Principal Arterials: | 15,000 to 200,000 vehicles per day |
| Minor Arterials: | 5,000 to 30,000 vehicles per day |
| Collector Streets: | 1,000 to 15,000 vehicles per day |
| Local Streets: | Less than 1,000 vehicles per day |

Gateway Treatment – Treatment to a street that includes a sign, banner, landscaping or other structure that helps to communicate a sense of neighborhood identity.

Guide Signs – A sign that shows route designations, destinations, directions, distances, services, points of interest, or other geographical, recreational, or cultural information.

Impacted Area - Area for a project that is defined as those residences and businesses along local residential streets that are positively or negatively impacted by excessive through traffic volumes and speeding, or that may be positively or negatively impacted by proposed traffic calming.

Infrastructure – Fixed facilities, such as roadways or railroad tracks; permanent structures.

Level of Service (as related to highways) – The different operating conditions that occur on a lane or roadway when accommodating various traffic volumes. It is a qualitative measure of the effect of traffic flow factors, such as speed and travel time, interruption, freedom to maneuver, driver comfort and convenience, and indirectly, safety and operating costs. It is expressed as levels of service “A” through “F.” Level “A” is a condition of free traffic flow where there is little or no restriction in speed or maneuverability caused by presence of other vehicles. Level “F” is forced-flow operation at low speed with many stoppages, the highway acting as a storage area.

Local Street – A roadway that connects blocks within neighborhoods.

Local Traffic – Traffic that originates from or is destined to a location within a neighborhood or area.

Major Street – The street normally carrying the higher volume of vehicular traffic (vs. Minor Street).

Median Barriers – Raised island or barrier in the center of the street that serves to segregate traffic.

Metropolitan Urban Service Area (MUSA) – The portion of the metropolitan area identified in the *Regional Blueprint* where development and redevelopment is to occur and in which urban facilities and services are to be provided. The purpose of the MUSA is to define the areas within the Twin Cities Metropolitan Area that are eligible for "urban services", specifically sewers, municipal water systems and particular types of transportation systems. This boundary line is defined and maintained by the Metropolitan Council to assist in the orderly development of the metropolitan area. All of Edina is within the MUSA area.

“A” Minor Arterials – Roadways within the metropolitan area that are more regionally significant than others. These roadways are classified into the following groups:

- a) **Relievers** – Minor arterials that provide direct relief for traffic on major metropolitan highways. These roads include the closest routes parallel to the principal arterials within the core, urban reserve and urban staging areas. These roadways are proposed to accommodate medium-length trips (less than eight miles) as well as to provide relief to congested principal arterials. Improvements focus on providing additional capacity for through traffic.
- b) **Expanders** – Routes that provide a way to make connections between developing areas outside the interstate ring or beltway. These routes are located circumferentially beyond the area reasonably served by the beltway. These roadways are proposed to serve medium to long suburb-to-suburb trips. Improvements focus on preserving or obtaining right-of-way.
- c) **Connectors** – This subgroup of “A” minor arterials are those roads that would provide good, safe connections among town centers in the urban reserve, urban staging and rural areas within and near the seven counties. Improvements focus on safety and load-carrying capacity.
- d) **Augmenters** – The fourth group of “A” minor arterials are those roads that augment principal arterials within the interstate ring or beltway. The principal arterial network in this area is in place. However, the network of principal arterials serving the area is not in all cases sufficient relative to the density of development that the network serves. In these situations, these key minor arterials serve many long-range trips. Improvements focus on providing additional capacity for through traffic.

Minor Street – The street normally carrying the lower volume of vehicular traffic (vs. Major Street).

Municipal State Aid (MSA) Route – A designated City roadway that receives state funds as allocated from the State gas tax for maintenance and construction. Approximately 20 percent of the City roadways are designated as MSA routes. State of Minnesota rules and standards, in addition to local jurisdiction guidelines, apply to these roadways.

Neckdowns – Physical curb reduction of road width at intersections. Similar to lane narrowing but used at intersection(s). Widening of street corners at intersections to discourage cut-through traffic, to improve pedestrian access and to help define neighborhoods. (Nubs, bulb-outs, knuckles, intersection narrowings, corner bulges, safe crosses.)

Neighborhood Traffic Management Plan (NTMP) – Formalized process where residents, commissioners and City staff evaluate the various requirements, benefits and tradeoffs of traffic calming projects within neighborhoods. The overall objectives for the Neighborhood Traffic Management Plan are to improve neighborhood livability by mitigating the impact of vehicular traffic on residential neighborhoods; to promote safe and pleasant conditions for motorists, bicyclists, pedestrians and residents on neighborhood streets; to encourage citizen involvement and effort in neighborhood traffic management activities; to make efficient use of City resources by prioritizing traffic management requests; and to support the Comprehensive Plan policy that livability and safety of established residential neighborhoods be protected in transportation operations.

Non-Local Traffic – Traffic that does not originate from or is not destined to a location within a neighborhood or area.

Off-Peak Period – Time of day outside the peak period (see peak period).

Partial Street Closure – Physical blockage of one direction of traffic on a two-way street. The open lane of traffic is signed “One way”, and traffic from the blocked lane is not allowed to go around the barrier through the open lane. (Half closure.)

Peak Hour – The hour during the peak period when travel demand is highest. Typically, peak hours are found to be from 7 to 8 a.m. and from 4:30 to 5:30 p.m.

Peak Period – Typically, the time between 6:30 and 9:00 a.m. and between 3:30 and 6 p.m. on a weekday, when traffic is usually heavy.

Person Trip – A one-way journey between two points by one person in a vehicle.

Photo-radar Speed Enforcement – An automated camera system used to enforce speed limits. It includes the camera, an attached radar "gun" and a display that shows the speed of each passing vehicle. When a speeding vehicle is detected, the photo radar system

takes a picture of the driver and the license plate. The registered owner of the vehicle then receives a ticket in the mail. This enforcement method is not legal in Minnesota.

Photo-Red Light Enforcement – Implementation of a photo red light, an automated camera and computer system can be mounted on a traffic signal pole at an intersection for red light enforcement. Photo red light takes pictures of any vehicles that run a red light, records the time elapsed since the light turned red and the vehicle entered the intersection, and issues a ticket. The photo red light systems are typically installed at key intersections that have a high number of accidents. This enforcement method is not legal in Minnesota.

Platoon – A group of vehicles or pedestrians traveling together as a group, either voluntarily or involuntarily because of traffic signal controls, geometrics, or other factors.

Principal Arterials – The high capacity highways that make up the metropolitan highway system, including all interstate freeways.

Radar Speed Display Units – Driver feedback signs that use radar to provide motorists with an instant message, displayed on a reader board, telling them how fast they are driving.

Raised Crosswalk – A speed table designed as a pedestrian crossing, generally used at mid-block locations. (Raised crossings, sidewalk extensions.)

Raised Intersection – A raised plateau where roads intersect. The plateau is generally 4” above the surrounding street. (Raised junctions, intersection humps, plateaus.)

Realigned Intersections – Physical realignment of intersection typically used to promote better through movements for a major roadway (vs. a minor roadway). (Modified intersections.)

Regional Blueprint – The Metropolitan Council plan that sets a general direction for future development patterns in the metropolitan area and establishes guidelines for making decisions about major regional facilities that are needed to support the commercial, industrial and residential development of the area. It establishes urban and rural areas and certain development policies for different geographic policy areas.

Regulatory Signs – A sign that gives notice to road users of traffic laws or regulations.

Right-of-Way (Assignment) – The permitting of vehicles and/or pedestrians to proceed in a lawful manner in preference to other vehicles or pedestrians by the display of sign or signal indications.

Roadway striping – Highlighting various areas of the road to increase the driver’s awareness of certain conditions (e.g., edge of road striping to create a narrowing/slowing effect while defining space for cyclists).

Roundabout – Raised circular areas (similar to medians) placed at intersections. Drivers travel in a counterclockwise direction around the circle. Modern roundabouts are “yield upon entry”, meaning that cars in the circle have the right of way and cars entering the circle must wait to do so until the path is clear. When a roundabout is placed in an intersection, vehicles may not travel in a straight line. (Rotaries.)

Signal Preemption – Usually referred to in this plan as a technology that triggers the green go-ahead on meters or signal lights to allow emergency vehicles (and sometimes transit vehicles) to move more quickly through signalized intersections.

Speed– Speed is defined based on the following classifications:

- a) **Advisory Speed** – A recommended speed for all vehicles operating on a section of highway and based on the highway design, operating characteristics, and conditions.
- b) **Design Speed** – A selected speed used to determine the various geometric design features of a roadway.
- c) **85th-Percentile Speed** – The speed at or below which 85 percent of the motorized vehicles travel.
- d) **Posted Speed** – The speed limit determined by law and shown on Speed Limit signs.
- e) **Statutory Speed** – A speed limit established by legislative action that typically is applicable for highways with specified design, functional, jurisdictional and/or location characteristic and is not necessarily shown on Speed Limit signs.

Speed Hump –Wave-shaped paved humps in the street. The height of the speed hump determines how fast it may be navigated without causing discomfort to the driver or damage to the vehicle. Discomfort increases as speed over the hump increases. Typically speed humps are placed in a series rather than singularly. (Road humps, undulations.)

Speed Limit – The maximum (or minimum) speed applicable to a section of highway or roadway as established by law.

Speed Table – Trapezoidal shaped speed humps in the street, similar to speed humps. (Trapezoidal humps, speed platforms.)

Speed Zone – A section of highway with a speed limit that is established by law but which may be different from a legislatively specified statutory speed limit.

Street Closure – Street closed to motor vehicles using planters, bollards, or barriers, etc.

Targeted Police Enforcement – Specific monitoring of speeding and other violations by police due to observed, frequent law disobedience.

Textured Pavements – A change in pavement texture (e.g., asphalt road to brick crossing) that helps to make drivers aware of a change in the driving environment.

Traffic Calming – A combination of mainly physical measures that reduce the negative effects of motor vehicle use, alter driver behavior and improve conditions for non-motorized street users. Traffic calming involves changes in street alignment, installation of barriers, and other physical measures to reduce traffic speeds and cut-through volumes in the interest of street safety, livability and other public purposes. Traffic calming measures are intended to be self-enforcing. Traffic calming measures rely on the laws of physics rather than human psychology to slow down traffic.

Traffic Circle – Circular, raised island placed within the middle of intersections, requiring vehicles to divert around them, potentially forcing drivers to slow down as they traverse around the circle. (Intersection islands, similar to roundabouts.)

Traffic Signal Control Systems – The degree of traffic management of an arterial is grouped and defined as follows:

- a) **Fixed Time** – The traffic signals on an arterial are controlled locally through a time clock system. In general, the progression of a through band (the amount of green time available along an arterial at a given speed) along the arterial in the peak direction is determined by past experience and is not a function of immediate traffic demand.
- b) **Semi-actuated** – The traffic signals along the arterial are designed to maximize the green time on the major route in the major direction. Timing and through band are based upon historical records. Use of green time on the minor leg dependent upon real-time demand and maximized based upon total intersection delay.
- c) **Interconnection** – A traffic signal system in which data collected at individual signals is shared with a central processor or controller. Adjustments in traffic signal control can be made based upon incoming data as opposed to historical data.
- d) **Optimization** – The process in which a traffic signal or system is modified to maximize the amount of vehicles passing through the intersection for all approaches or on the major road in the peak direction.
- e) **Real-time Adaptive Control** – An advanced traffic control system that incorporates current technologies in communications, data analysis, and traffic

monitoring to provide real-time traffic control of arterials, corridors or roadway networks.

Transportation Comprehensive Plan – Assists the City in making correct transportation-related decisions today by anticipating the character, magnitude and timing of future transportation demand.

Transportation Demand Management (TDM) – Programs and methods to reduce effective demand. In the broadest sense, any activity or facility that reduces vehicle trips would fall within this classification. The highest priority in the region is given to reducing single-occupant vehicle trips in the peak periods. Techniques that might be utilized are carpooling, vanpooling, transit, alternative work hours, transportation management organizations, and land development or ordinances that discourage vehicle trips and encourage walk, bike, rideshare and transit trips.

Transportation Policy Plan - This document is one chapter of the *Metropolitan Development Guide*, as provided for in Minnesota Stat. 473, Sections 145 and 146. Section 145 states: “The Metropolitan Council shall prepare and adopt...a comprehensive development guide for the metropolitan area.”

Vehicle Trip – A one-way journey made by an auto, truck or bus to convey people or goods.

Volume-to-capacity Ratio (v/c) – The hourly number of vehicles expected to use a roadway in the busiest hour, divided by the number of moving vehicles the roadway can safely accommodate in an hour.

Warning Signs – A sign that gives notice to road users of a situation that might not be readily apparent.

APPENDIX B – TRAFFIC MANAGEMENT DEVICES/MEASURES

APPENDIX C – APPLICATION REQUEST FOR NEIGHBORHOOD TRAFFIC MANAGEMENT PLAN

APPENDIX D – ACKNOWLEDGMENTS AND REFERENCES

APPENDIX E –FUNCTIONAL CLASSIFICATION ROAD MAP