



# Mn/DOT POLICY GUIDELINE

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Policy and Procedures for Cooperative Construction Projects with Local Units of Government

**Guideline:**

## TABLE OF CONTENTS

### I. GUIDELINES

A.	Background, Purpose, Application .....	5
1.	Background .....	5
2.	Purpose.....	6
3.	Application.....	6
B.	Categories of Local Units of Government and Division of Costs .....	8
C.	Funding .....	8
1.	Federal Aid Formula Funds .....	9
2.	State Funds.....	10
3.	Local Funds.....	10
4.	Transportation Revolving Loan Funds .....	10
5.	Local Road Improvement Program.....	11
D.	Application of Policy Guidelines to Projects.....	11
1.	Studies, Preliminary Engineering, and Design .....	11
a.	Joint Powers Agreement .....	12
b.	Cooperative Construction Agreement.....	12
2.	Right-of-Way Acquisition .....	13
a.	Locally-initiated Projects .....	13
b.	Mn/DOT-initiated Projects .....	14
3.	Cooperative Construction Projects .....	14
a.	Roadways .....	15
b.	Interchanges and Grade Separations.....	22

- c. Drainage..... 28
- d. Lighting, Signals, and Intelligent Transportation Systems (ITS) 32
- e. Sidewalks, Bikeways, and Multi-use Trails..... 37
- f. Aesthetic Elements..... 40
- g. Utilities Owned by Local Units of Government ..... 49
- 4. Construction Engineering ..... 51
- 5. Maintenance ..... 52
  - a. Roadway ..... 52
  - b. Bridge..... 53
  - c. Drainage..... 54
  - d. Lighting, Signals, and Signing..... 54
  - e. Sidewalks, Bikeways, and Multi-use Trails..... 57
  - f. Aesthetics..... 57

**II. PROCEDURES**

- A. Agreement Procedures ..... 58
  - 1. Minimum Agreement Amount ..... 58
  - 2. Pro-Rata Items ..... 58
  - 3. Cost Estimates during Project Development ..... 59
  - 4. Two-party and Multi-party Agreements ..... 59
  - 5. Federal Aid Funds Applied to the Local Cost Share ..... 60
  - 6. Cost Share Information in Construction Plans..... 60
  - 7. Procedures and Responsibilities for Cooperative Construction Projects. 61
    - a. STIP ..... 62
    - b. Resolution ..... 62
    - c. District Responsibilities ..... 62
    - d. District Review of Locally-initiated Projects ..... 62
    - e. District Approval of Locally-initiated Projects..... 63
    - f. Project Turn-in to Mn/DOT Central Office ..... 63
    - g. Construction Plan Review..... 64
    - h. Advertising for Bids..... 64
    - i. Award of Contract..... 65
    - j. Payment by a Local Unit of Government to Mn/DOT ..... 66
    - k. Payment by Mn/DOT to a Local Unit of Government ..... 66
      - 1. As-built Construction Plans Submitted by a Local Unit of Government..... 66
- B. Methods for Computing Cost Shares..... 66
  - 1. Composite Percentage..... 67
  - 2. As-built Quantities (Schedule I) ..... 68
  - 3. Lump Sum ..... 69
  - 4. Bid-priced Lump Sum..... 69
  - 5. Design Build Procedures..... 69

C.	Policy Liaisons and Compliance Oversight.....	70
1.	STIP Identification.....	70
2.	Development of Cost Participation Responsibilities .....	70
3.	Plan Information and Agreement Preparation .....	71
D.	Policy Revisions.....	71
E.	Exception Procedures.....	71
F.	Other Types of Agreements .....	71
1.	Landscape Partnership .....	71
2.	Joint Powers .....	72
3.	Interagency.....	72
4.	Maintenance.....	72
5.	Detour .....	72
6.	Consultant .....	73
7.	Technical Assistance.....	73
8.	Partnership .....	73
9.	Unofficial Detour .....	74
10.	Utility .....	74
11.	Railroad.....	74
12.	State Aid.....	74
G.	Permits .....	75
1.	Limited Use.....	75
2.	Construction.....	75
3.	Utility .....	76
4.	Drainage.....	76
5.	Access .....	76

**APPENDIX**

A.	Minnesota Constitution, Statutes, and Rules References.....	77
B.	Mn/DOT Cost Participation in Bridge Replacement Before End of Structural Life.....	80b
C.	Aesthetic Participation Example.....	81c
D.	Cooperative Construction Agreement Process Timeline .....	83e

<b>GLOSSARY.....</b>	<b>80f</b>
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<b>Guidelines for Cooperative Construction Projects DS11.doc</b>	<b>Table of Contents Page 4 of 89</b>	<b>6-6</b>
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# **I. GUIDELINES**

## **A. Background, Purpose, Application**

### **1. Background**

Where a mutual benefit and a demonstrated transportation need exists, Mn/DOT endorses cooperative construction projects with local units of government. Mn/DOT's ability to expend trunk highway funds for cooperative construction projects is limited by the State of Minnesota Constitution, Article XIV, section 2 and section 6, and by Minnesota Statutes § 161.20 to the construction, improvement, and maintenance of the trunk highway system.

Specifically, Minnesota Constitution Article XIV, section 2 establishes "... a trunk highway system which shall be constructed, improved and maintained as public highways of the state," and section 6 establishes "... a trunk highway fund which shall be used solely for the purposes specified in section 2 of this article."

Minnesota Statutes § 161.20 defines the general responsibilities of the Commissioner of Transportation. Minnesota Statutes § 161.20, subdivision 2 permits the commissioner to make arrangements with, and cooperate with, any governmental authority for the purpose of effecting the provisions of Minnesota Statutes § 161.20. Minnesota Statutes § 161.20, subdivision 3 states "The commissioner may expend trunk highway funds only for trunk highway purposes."

Minnesota Statutes § 161.38, subdivision 1 provides that "The road authorities of any county, city or township may enter into an agreement with the commissioner for the construction of a roadway or structure of greater width or capacity than would be necessary to accommodate the normal trunk highway traffic upon any trunk highway within its boundaries and may appropriate from any funds available and pay into the trunk highway fund such sums of money as may be agreed upon."

Cooperative construction projects may be initiated by Mn/DOT requesting local participation in a trunk highway project, or by a local unit of government either:

- Requesting improvements or otherwise indicating its willingness to share the cost of a Mn/DOT project; or,
- Requesting Mn/DOT cost participation in a locally-initiated project.

<b>Guidelines for Cooperative Construction Projects</b> DS11.doc	<b>Section I A1</b> <b>Page 5 of 89</b>	<b>6-7</b>
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## 2. Purpose

This Guideline has been developed to determine the extent to which trunk highway funds may be expended on elements of a cooperative construction project. The basis of the policy is that Mn/DOT participation is limited to trunk highway purposes.

## 3. Application

This Guideline is for internal Mn/DOT purposes only, and it is not intended to provide any claim or expectation of legal entitlement to financial participation except where Mn/DOT has specifically contracted at its sole discretion for such participation. Mn/DOT retains the final authority to determine whether it will participate in the cost of any project.

This Guideline applies to:

- State trunk highway funds, including formula federal-aid funds made available to Mn/DOT through Area Transportation Partnership procedures, and discretionary and other federal-aid funds apportioned to Mn/DOT projects, which are included in the State Road Construction account.
- Cost participation for elements of a Mn/DOT-programmed construction project.
- Determination of whether a local unit of government's funding participation is necessary for portions of a Mn/DOT-programmed trunk highway construction project.
- Determination of the extent to which Mn/DOT may participate in a locally-initiated project.

Mn/DOT participation, in accordance with this policy, is limited to the project scope determined by the district to be necessary to address the trunk highway purposes. Costs for items requested by local units of government, beyond those determined as necessary by the district, will be the responsibility of the local unit of government.

This Guideline is written for application to Mn/DOT-initiated projects. Mn/DOT participation will typically be applied at the amount identified in this policy for Mn/DOT-initiated projects.

Mn/DOT's cost participation identified in this policy may also be applied to a locally-initiated project, with eligible trunk highway items. However, trunk highway funding is not available to address all trunk highway system needs or opportunities presented by locally-initiated projects. Mn/DOT funding available for participation in a locally-initiated project, project priority, scope,

<b>Guidelines for Cooperative Construction Projects</b> DS11.doc	<b>Section I A3</b> <b>Page 6 of 89</b>	<b>6-8</b>
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and the extent of participation in a particular project is determined during development of the district transportation improvement program. The Mn/DOT programming process, in cooperation with Area Transportation Partnerships and Municipal Planning Organizations, is based on overall system needs and resource availability. Details of the Mn/DOT project programming process are addressed in *Guidance for the Development of the State Transportation Improvement Program*.

Mn/DOT participation amounts in locally-initiated projects, as identified in this policy, are maximums, and actual Mn/DOT participation may be less than the policy maximum for any project element. The willingness of a local agency to participate in excess of cost participation identified in this policy may influence Mn/DOT programming priorities because of the opportunity to address recognized needs at a reduced cost to Mn/DOT.

Cost participation from local units of government will typically be required for locally requested project elements, for design beyond what Mn/DOT has determined as necessary for the trunk highway project scope, for design beyond applicable design criteria, or for items that produce negative impacts on the trunk highway system, such as traffic control signals, local road access, or parking. Local cost participation is also likely for locally requested replacement of the existing trunk highway infrastructure in advance of obsolescence. Locally owned utility relocation costs are determined in accordance with applicable Minnesota statutes and rules.

It is recognized that many projects will have both trunk highway and local purposes. In many situations, those purposes may not be easily assigned as either Mn/DOT or local responsibility. In these cases, costs are assigned in this policy on the basis of jurisdictional ownership or as a cooperative construction item as identified in Section IB.

Trunk highway improvements directly necessitated by a specific development adjacent to the trunk highway, by other projects, or by locally-initiated projects, may be required by Mn/DOT at 100% local unit of government cost responsibility. Such improvements are handled as part of Mn/DOT's permitting procedures and are briefly described in Section IIG of this policy.

Existing cooperative construction agreements are to remain in effect under the terms and conditions specified in those agreements. The policy and procedures within this document shall apply only to the development of new cooperative construction agreements with local units of government.

Wherever practical, Mn/DOT's cost participation responsibilities should be developed using a wholistic approach that includes all items required for the particular project, in accordance with this policy. As an example, Mn/DOT participation in a frontage road project should be the same as for the roadway, drainage, aesthetics, utilities, right-of-way, and other items necessary to construct the frontage road.

**B. Categories of Local Units of Government and Division of Costs**

Two categories of local units of government will be used in determining cost participation for cooperative construction items. Local units of government in Category A are not eligible for apportionments from the Municipal State Aid Street Fund established by Minnesota Statutes §162, while the local units of government in Category B are eligible for these apportionments.

Category A consists of the following:

- Those cities having a population of less than 5,000; and,
- All townships.

Category B consists of the following:

- Those cities having a population of 5,000 or more; and,
- All counties.

The cost of items identified as cooperative construction items in this policy will be divided as follows:

- Category A: 90% Mn/DOT and 10% local unit of government
- Category B: 60% Mn/DOT and 40% local unit of government

All other items will have costs divided in accordance with the specific provisions of this policy.

**C. Funding**

Mn/DOT biennially requests an appropriation of funds from the legislature based on the estimate of state funds dedicated to the trunk highway fund, federal aid formula funds made available to Mn/DOT through ATP procedures for each of two fiscal years, federal discretionary and high-priority funds apportioned for trunk highway projects and any bond or general fund revenues apportioned for trunk highway projects. The appropriation which consists of Mn/DOT's portion of funds from these sources comprise Mn/DOT's State Road Construction (SRC) account. SRC account dollars may be expended only on projects or those elements of projects that are necessary for trunk highway purposes.

Funds apportioned to Mn/DOT outside of the SRC account may not be governed by the same statutes and rules that apply to SRC account funds.

Projects or project elements not eligible for SRC account funds are identified by this policy as the responsibility of local units of government. The local units of government are responsible for identifying funding to be used for local shares of cooperative construction projects. Mn/DOT will assist local governments in identifying various sources of funding that may be available and will explain how each source works.

Mn/DOT should make project scope and cost participation estimates available to local units of government as soon as possible in the project development process.

This information should be available early enough to enable local governments to seek federal aid fund participation, Transportation Revolving Loan Fund (TRLF) loans, or other local funding sources to assist in paying their share of the project costs.

The local share of a project must be identified in the State Transportation Improvement Program (STIP) as a separate line from the Mn/DOT share. If federal funds or advance construction funds are being used, those amounts should be placed in the proper column and the match should be shown under the "Other" funds column. If TRLF funds are being used, the entire amount should be in the "Other" funds column.

**1. Federal Aid Formula Funds**

The rules for formula federal aid fund eligibility are much different from the rules for state fund eligibility. Federal funding is not bound by many of the barriers placed on the use of SRC funds through the state constitution and statutes. In most cases, federal aid funds may be spent only on roadways classified as rural major collectors, urban collectors, or higher functional classifications. In general, federal aid funds may pay for almost anything that is eligible under the state trunk highway or state aid programs. However, federal aid funding eligibility varies by specific federal funding source.

The Area Transportation Partnership (ATP) determines how federal aid funds will be applied to projects, and in most districts, determines which projects will receive federal funding. Federal aid funds applied toward the local share of a cooperative construction project shall be identified through the ATP process. Mn/DOT and local units of government are strongly encouraged to develop traffic signal and other cooperative construction projects as a single project and jointly pursue any federal aid funds that may be applied.

Some federal aid funds may be distributed to projects at Mn/DOT's discretion in accordance with ATP procedures and this policy. These funds are typically applied to trunk highway projects initiated by Mn/DOT in accordance with district priorities and are charged against the SRC account and the district target transportation improvement program.

Mn/DOT may not apply federal aid funds included in the SRC account towards the local share of cooperative construction projects. Such expenditures are a violation of the State of Minnesota Constitution and Statutes, which limit expenditure of SRC account funds to trunk highway purposes. Such expenditures would also reduce the anticipated revenues to the SRC account and would require a reduction in the trunk highway budget.

For further information on federal aid formula funds, contact the Project Authorization Unit in the Mn/DOT Office of Investment Management.

## **2. State Funds**

State funds include all state trunk highway funds constitutionally dedicated for trunk highway purposes and identified in the SRC account. This policy may also apply to other state funding sources, such as bonds or general funds appropriated by the legislature for transportation purposes. However, these funding sources may have greater or reduced flexibility for application due to statutory requirements for their use.

## **3. Local Funds**

Local funds include all federal aid funds made available for a local unit of government project or for a portion of a cooperative construction project through ATP procedures, county and municipal state aid funds, and other local funds provided by a local unit of government.

## **4. Transportation Revolving Loan Funds (TRLF)**

The TRLF loan fund is available to Mn/DOT and local governments for any United States Code Title 23 purpose or United States Code Title 49 capital expenditure. Title 23 is the title for regulations dealing with federal aid highways and outlines eligibility for funding a project with federal aid highway funds. Title 49 is the title for federal aid transit funds. TRLF loans are treated as federal funds. Therefore, the work to be performed with TRLF loan proceeds must be eligible for federal aid under Title 23 or Title 49.

<b>Guidelines for Cooperative Construction Projects</b> DS11.doc	<b>Section I C4</b> <b>Page 10 of 89</b>	<b>6-12</b>
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Much of the local share of cooperative construction projects that is not eligible for Mn/DOT funding under this policy is eligible for a TRLF loan. It is important that Mn/DOT inform local units of government of their potential project costs early enough in the project development process to enable application for a TRLF loan. TRLF loans normally carry a lower interest rate than does the issuing of bonds, and they allow payments to be spread out over a period of up to 30 years. Specific language relating to the TRLF can be found in Minnesota Statutes § 446A.085. Additional information regarding TRLF loans and the application process can be found at [www.oim.dot.state.mn.us/trlf/index.html](http://www.oim.dot.state.mn.us/trlf/index.html).

## **5. Local Road Improvement Program**

In 2002, the Legislature created the Local Road Improvement Program [Minnesota Statutes § 174.52]. The fund for this program has two accounts. The Trunk Highway Corridor Projects Account is specifically intended to provide funding assistance to local units of government with the local share of costs of improving Trunk Highways through their communities. This account is administered through the Mn/DOT Division of State Aid for Local Transportation, which receives the project applications and depending on the availability of funds, makes awards either in the form of grants or loans or a combination of each, using eligibility and ranking criteria to be developed which may include an ability to pay factor.

### **D. Application of Policy Guidelines to Projects**

#### **1. Studies, Preliminary Engineering, and Design**

The commissioner's ability to undertake studies for the location and design of highways and to cooperate with local units of government is defined in Minnesota Statutes § 161.21, subdivision 1 and 2.

Mn/DOT will typically be responsible for all study, preliminary engineering, and design costs for Mn/DOT-initiated projects. Local units of government will be responsible for all study, preliminary engineering, and design costs for locally-initiated projects.

Project-specific circumstances may warrant joint Mn/DOT and local participation in a study, preliminary engineering or design. The extent of Mn/DOT cost participation in such joint studies will be decided by the district on a case-by-case basis relative to trunk highway needs and priorities.

<b>Guidelines for Cooperative Construction Projects DS11.doc</b>	<b>Section I D1 Page 11 of 89</b>	<b>6-13</b>
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**1.a. Joint Powers Agreement**

Cooperative cost sharing for studies, preliminary engineering, and design costs are typically administered separately from cooperative construction agreements through Mn/DOT’s Consultant Agreements Office by development of a Joint Powers Agreement between Mn/DOT and the participating local unit of government. Such costs are paid out of the district consultant budget allocation rather than out of construction funds. This type of agreement is briefly described in section IIF2 of this document, but is beyond the scope of this policy.

**1.b. Cooperative Construction Agreement**

Project-specific circumstances may warrant inclusion of studies, preliminary engineering, and design costs in the cooperative construction agreement for subsequent trunk highway construction. These costs are paid for with construction program funds. Project-specific circumstances may include:

- Mn/DOT reimbursement of all direct costs for studies, preliminary engineering, and design by local units of government staff, provided they are preparatory to subsequent trunk highway construction that is included in the same agreement.
- Costs for studies, preliminary engineering, and design prepared by a consulting firm retained by a local unit of government when such costs are relatively small and incidental to the cost of the subsequent trunk highway construction, and preparation of a separate agreement for these costs is not cost-effective. The district must ensure that selection of the consultant was conducted in a fair, open and competitive process in accordance with applicable federal and state laws and regulations.

Justification for use of construction program funds for such costs must be documented by the district, concurred with by the director of the Program Delivery Group, and submitted to the director of the Program Support Group for approval on a case-by-case basis. Any reimbursement for studies, preliminary engineering, or design costs will be included in the cooperative construction agreement as a lump sum amount.

For further information regarding agreement procedures for studies, preliminary engineering, and design, contact Mn/DOT’s Consultant Agreements Office.

<b>Guidelines for Cooperative Construction Projects</b> DS11.doc	<b>Section I D1b</b> <b>Page 12 of 89</b>	<b>6-14</b>
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## **2. Right-of-Way Acquisition**

The following procedures describe standard right-of-way acquisition practices, and have been developed to assist districts in coordinating projects with local units of government. Right-of-way acquisition for projects which include any local federal aid funds, SRC funds, or any property that will be conveyed to Mn/DOT must be reviewed and certified by Mn/DOT. This certification is to ensure that all property needed for any portion of the project was acquired in accordance with applicable state and federal statutes and policies. This certification must be completed prior to approval of the construction plan by the director of the Office of Land Management and the State Design Engineer, and is a condition for payment of construction costs by Mn/DOT.

### **2.a. Locally-initiated Projects**

When a cooperative construction project is initiated by a local unit of government, the local unit of government will typically acquire the necessary right-of-way. The width of trunk highway right-of-way necessary for a cooperative construction project is subject to Mn/DOT approval.

The local unit of government will obtain all locally acquired, permanent right-of-way, fee title, permanent easements, and temporary easements and permits, including the right to discharge drainage, in the name of the local unit of government. The documents showing that the local unit of government has obtained the property rights needed for the project must be transmitted to Mn/DOT when the plan and other documents are submitted for preparation of the cooperative construction agreement. Information as to form and acceptability can be obtained from the district. It is advised that the local unit of government contact and coordinate with the district Right-of-Way Office prior to right-of-way activities, especially when it is necessary to relocate residences or businesses.

Where Mn/DOT deems it appropriate, Mn/DOT may incorporate all or portions of such locally-acquired right-of-way into the trunk highway system. Mn/DOT may also participate in acquisition of right-of-way required for frontage and construction. Mn/DOT will typically reimburse the local unit of government for right-of-way conveyed to Mn/DOT in the same ratio as Mn/DOT's participation in the construction work requiring the trunk highway or frontage road right-of-way acquisition.

<b>Guidelines for Cooperative Construction Projects</b> DS11.doc	<b>Section I D2a</b> <b>Page 13 of 89</b>	<b>6-15</b>
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Project-specific circumstances may warrant Mn/DOT acquisition of right-of-way for a locally-initiated project.

The local unit of government shall be responsible for 100% of the right-of-way costs for right-of-way not acquired for frontage road construction or incorporated into the trunk highway right-of-way.

## **2.b. Mn/DOT-initiated Projects**

When a cooperative construction project is initiated by Mn/DOT, Mn/DOT will typically acquire all necessary right-of-way for the entire portion of the cooperative construction project. Mn/DOT participation in such right-of-way costs will be in the same ratio as the construction work requiring the right-of-way acquisition.

The local unit of government will acquire and fund necessary right-of-way for any portion of construction in which Mn/DOT has no cost participation. Project-specific conditions may warrant Mn/DOT acquisition of such right-of-way. In such cases, the local unit of government is responsible for right-of-way costs associated with construction work in which Mn/DOT has no participation.

Project-specific circumstances may warrant local unit of government acquisition of the cooperative construction portion of a Mn/DOT-initiated project. Mn/DOT will typically reimburse the local unit of government for such right-of-way conveyed to Mn/DOT. Acquisition of right-of-way by local units of government will be on a case-by-case basis. The amount, location, acquisition process, and cost of right-of-way to be acquired by a local unit of government for a Mn/DOT-initiated cooperative construction project must be approved by the district right-of-way engineer and the Director of the Mn/DOT Office of Land Management prior to acquisition.

## **3. Cooperative Construction Projects**

This policy applies to all construction items included in cooperative construction projects.

Unless otherwise stated in this policy, Mn/DOT funding participation on local roadways, including frontage roads and bridges, is limited to the design criteria required to accommodate the traffic projection factor applied to existing traffic, as determined by Mn/DOT, in coordination with the local unit

<b>Guidelines for Cooperative Construction Projects</b> DS11.doc	<b>Section I D3</b> <b>Page 14 of 89</b>	<b>6-16</b>
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of government. All costs for project elements beyond what is required for these design criteria or traffic projections shall be 100% the responsibility of the local unit of government.

Mn/DOT will participate in costs for signing and striping in accordance with the Minnesota Manual on Uniform Traffic Control Devices, in the same ratio as Mn/DOT participation in the construction work which necessitates the signing and striping. All other signing costs will be the responsibility of the local unit of government.

Responsibility for costs associated with legally-required mitigation of project impacts will be apportioned to each agency in the same ratio as the cost participation in the project or project element causing the need for mitigation.

The cost participation as described below is for construction costs only and does not apply to right-of-way acquisition. Right-of-way acquisition costs shall be in accordance with section ID2 of this policy.

Construction cost responsibility for cooperative construction projects shall be determined in accordance with the policies outlined below regarding roadways; interchanges and grade separations; drainage; lighting, signals, and intelligent transportation systems; sidewalks, bikeways, and multi-use trails; aesthetic elements; and utilities owned by local units of government.

### **3.a. Roadways**

#### **1. Background**

Mn/DOT may participate in roadway projects on the trunk highway and on roadways under the jurisdiction of a local unit of government if the projects directly improve the safety, operation or maintenance of the trunk highway system through access control or trunk highway intersection improvements, or if the projects effect changes in the local roadway design, location or operation required by other trunk highway improvements.

#### **2. Application**

For the purposes of this policy, roadway costs include all items necessary for construction of the roadway. These costs include, but are not limited to the following:

<b>Guidelines for Cooperative Construction Projects</b> DS11.doc	<b>Section I D3a 2</b> <b>Page 15 of 89</b>	<b>6-17</b>
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- Excavation and backfill
- Through-lanes
- Turn lanes
- Ramp meters and ramp-meter bypasses
- Entrances to the trunk highway
- High occupancy vehicle (HOV) lanes
- Subsurface drainage
- Shoulders
- Curb and gutter
- Signing
- Bus turnouts
- Removals
- Bus lanes
- Retaining walls
- Surfacing
- Auxiliary lanes
- Median islands
- Striping
- Fencing
- Turf establishment
- Noise walls

**i. Trunk Highways**

Mn/DOT will be responsible for 100% of all roadway costs for Mn/DOT-initiated and programmed trunk highway improvements to applicable design criteria as determined by Mn/DOT. Additional items requested by a local agency beyond the applicable design criteria for the trunk highway must be approved by Mn/DOT, and all associated costs, except for aesthetic elements in accordance with section ID3f of this policy, will be the responsibility of the local unit of government.

**ii. Trunk Highway Parking**

Mn/DOT will participate in the perpetuation of existing parking along the trunk highway. Parking lane construction includes pavement, aggregate base, borrow items and removals. If milling and overlay, then participation includes the mill and overlay. Participation will be in accordance with the following:

- Where parallel or angle parking currently exists, and the local agency wishes to perpetuate parking, the commissioner must approve continued parking along the trunk highway in writing in accordance with Minnesota Statutes § 169.04 and § 169.35. In these situations, the parking will be considered a cooperative construction item, and Mn/DOT’s share will be limited to 90% or 60%, in accordance with section IB of this policy.
- Mn/DOT participation is limited to the parking lane reconstruction, up to 12 feet for parallel parking, and up to 22 feet for angled parking, as measured from the outside edge of the traffic through-lane. All other costs will be local costs.

- Curb and gutter, when required for the project, will be 100% Mn/DOT responsibility.
- This cost participation will also apply to parking lanes where parking is restricted during peak hours.
- Mn/DOT will be responsible for 100% of all construction costs related to the removal of parking from the trunk highway. Mn/DOT may also provide additional funding for the relocation of an equal number of parking spaces off the trunk highway. Mn/DOT funding to relocate parking off the trunk highway will be handled on a case-by-case basis.
- Where parking does not currently exist, Mn/DOT will not participate in costs associated with creation of parking on the trunk highway.

**iii. Local Roadways**

Mn/DOT will be responsible for up to 100% of local roadway construction costs, including frontage roads and right-of-way costs, in accordance with section ID2 of this policy, required as a result of trunk highway construction. Mn/DOT’s participation will be in the same ratio as the trunk highway improvement necessitating the local roadway construction in accordance with the following:

- Minnesota Statutes § 161.24, subdivision 1, for costs associated with reconstruction of local roadway as necessitated by a change of grade at an intersection with a trunk highway to the original geometric and structural section, to a reasonable touchdown point.
- Minnesota Statutes § 161.24, subdivision 4, for costs associated with relocation and construction of portions of the local roadway system to provide for its continuity and operation at a level that approximates its condition prior to construction. This includes costs for new local roadways, frontage roads, and improvements necessary to adequately accommodate diverted traffic when a Mn/DOT trunk highway project modifies traffic patterns on local roadways.

<p><b>Guidelines for Cooperative Construction Projects</b> DS11.doc</p>	<p><b>Section I D3a 2iii</b> <b>Page 17 of 89</b></p>	<p><b>6-19</b></p>
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- Minnesota Statutes § 161.24, subdivision 3, for costs associated with improvements necessary to adequately accommodate trunk highway traffic detoured onto a local roadway during trunk highway construction.
- For costs to improve local roadways to adequately accommodate traffic turning from the trunk highway onto a local roadway due to the addition of turn lanes on the trunk highway.
- Mn/DOT may participate in the costs to close a local access on to the trunk highway.

Participation by Mn/DOT and a local unit of government in other local roadway construction costs, not required as a result of trunk highway construction, will be in accordance with the following:

- If a local roadway intersecting a trunk highway is to be reconstructed to a design different from that of existing roadway, such as the adding of medians, turn lanes, through-lanes or other additional width, the local unit of government will be responsible for 100% of those costs.
- Mn/DOT may participate in costs for reconstruction of local roadways at intersections with trunk highways to a design different from that of the existing roadway. Mn/DOT participation will be limited to those situations where the local roadway project directly improves the operation or safety of the trunk highway. Mn/DOT participation will be limited to the benefit/cost ratio for costs associated with local roadway construction beyond the existing condition. The benefits will be limited to accident reduction and delay reduction on the trunk highway that directly result from the local road improvement. The costs will be those of the local road improvement beyond the existing condition. Mn/DOT participation may not exceed 100% of the local roadway improvement cost.
- Mn/DOT will participate in costs for roadway construction on local roadways necessitated by frontage road construction in the same proportion as Mn/DOT's responsibility for participation in the frontage road construction.

<p><b>Guidelines for Cooperative Construction Projects</b> DS11.doc</p>	<p><b>Section I D3a 2iii</b> <b>Page 18 of 89</b></p>	<p><b>6-20</b></p>
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- The local unit of government shall be responsible for 100% of the costs to improve the trunk highway to adequately accommodate the traffic turning from the local roadway onto a trunk highway due to the addition of turn lanes on the local roadway or due to the addition of a new local roadway accessing the trunk highway.

The local unit of government will be responsible for 100% of all local roadway construction costs not identified above.

**iv. Frontage Roads**

Mn/DOT’s ability to participate in the construction and maintenance of frontage roads as part of trunk highway improvements is defined in Minnesota Statutes § 161.38, subdivision 3. This policy recognizes that frontage roads serve both trunk highway and local roadway system purposes. Mn/DOT may participate in frontage road costs for improvements to the operation and safety of the adjacent trunk highway by appropriately limiting access to the trunk highway and accommodating predominately local traffic on the frontage road.

The jurisdiction of frontage roads included in cooperative construction projects should be addressed early in the project development process. New frontage roads, and any frontage road which is under Mn/DOT jurisdiction in which Mn/DOT participates in reconstruction, will be released to the local unit of government upon completion of construction activities, either as part of the cost sharing agreement or as part of a separate turnback agreement.

Mn/DOT’s participation in frontage road construction, on a locally initiated project, shall not exceed the cost of acquiring access control for the adjacent trunk highway.

Mn/DOT’s base participation in frontage road construction, where access to the trunk highway is being eliminated or reconstruction costs for frontage road improvements that provide safety and operational improvements to the trunk highway, including right-of-way costs in accordance with section ID2 of this policy, will be 90% or 60%, in accordance with section IB of this policy. Mn/DOT’s participation may be increased up to

<p><b>Guidelines for Cooperative Construction Projects</b> DS11.doc</p>	<p><b>Section I D3a 2iv</b> <b>Page 19 of 89</b></p>	<p><b>6-21</b></p>
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100%, based on compliance with applicable Mn/DOT Access Management Policy, in the following fashion:

- Total Mn/DOT frontage road participation =

Mn/DOT base participation + (Access Ratio x Local participation)

Where; Mn/DOT base participation is 60% or 90% in accordance with section IB;

The Access Ratio is the number of trunk highway access points that do not meet applicable access spacing guidelines, but are determined by the district to be necessary for the project, divided by the total number of access points that do not meet Mn/DOT Access Management Policy;

Local participation is 40% or 10% in accordance with section IB. Where all trunk highway access points meet applicable Mn/DOT Access Management Policy Mn/DOT participation will be 100%.

- Local participation for frontage roads required as a result of other trunk highway improvements, such as interchange construction, will be in the same ratio as the local share of the base trunk highway improvement.
- For new frontage roads, Mn/DOT participation will be limited to a maximum roadway width of 32 feet, or the applicable design criteria for the traffic projection factor applied to the opening day traffic forecast.

Mn/DOT may participate in additional frontage road capacity width when diverted traffic from permanent access closure or other changes in the local roadway system, required by trunk highway construction, increases the capacity needs beyond the anticipated background traffic needs. The additional width determination is calculated after the design for the existing local road system is determined for the projected background traffic.

<b>Guidelines for Cooperative Construction Projects</b> DS11.doc	<b>Section I D3a 2iv</b> <b>Page 20 of 89</b>	<b>6-22</b>
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- Mn/DOT will not participate in frontage road construction where full access control already exists, or in the reconstruction of an existing frontage road that does not provide safety or operational improvements to the trunk highway system, except for improvements to a frontage road on trunk highway right-of-way necessary for release of the frontage road to a local unit of government.
- In the absence of other frontage road improvements, Mn/DOT participation will be 100% for costs necessary to improve frontage roads, currently under Mn/DOT jurisdiction, to applicable design criteria and satisfactory structural integrity, prior to release of the frontage road to the local unit of government.

The local unit of government will be responsible for 100% of frontage road costs, including all parking costs, not identified as Mn/DOT participation above.

**v. Park-and-Ride Lots**

Mn/DOT may contribute to the construction of park-and-ride facilities that are determined to improve operation of the trunk highway system by reduction of single occupancy vehicle (SOV) use on the trunk highway system thru the use of car pool, van pool, or ride-share sites. The park-and-ride facility may be located on Mn/DOT right-of-way or on property owned by the local unit of government, provided that the same trunk highway improvement is achieved.

Mn/DOT participation is typically limited to the right-of-way necessary for these facilities. Participation of the local unit of government is usually required for utilities, shelters, structures, lighting, and other above-ground elements of these facilities. Mn/DOT participation will be determined on a case-by-case basis. Design of the park and ride facility needs to take into account future operation, maintenance and security needs.

The jurisdiction or the operation, maintenance and security responsibilities of park-and-ride facilities included in cooperative construction projects should be addressed early in the project development process. The park-and-ride lot that is constructed on Mn/DOT right-of-way will either be constructed with a

<p><b>Guidelines for Cooperative Construction Projects</b> DS11.doc</p>	<p><b>Section I D3a 2v</b> <b>Page 21 of 89</b></p>	<p><b>6-23</b></p>
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limited use permit or will be released to the local unit of government upon completion of construction activities, either as part of the cost sharing agreement or as a separate agreement.

**vi. Transit Facilities**

Mn/DOT recognizes the need for transit facilities as an element of the trunk highway system. Varying degrees of safety and operational improvement to the trunk highway result from inclusion of transit facilities. Mn/DOT participation in construction of transit facilities will be considered based on each facility’s function and on the anticipated safety and operational improvements to the trunk highway system that will result from the facility.

Mn/DOT participation is typically limited to the right-of-way and construction of the roadways, and to the parking necessary for these facilities. Local participation is usually required for utilities shelters, structures, lighting, and other above-ground elements of these facilities. Mn/DOT participation will be determined on a case-by-case basis.

The jurisdiction or the operation, maintenance and security responsibilities of transit facilities included in cooperative construction projects should be addressed early in the project development process and, if necessary, be identified in an agreement or permit. Any transit facility that is constructed on Mn/DOT right-of-way will either be constructed with a limited use permit, a partnership agreement, or will be released to the transit authority upon completion of construction activities.

**3.b. Interchanges and Grade Separations**

**1. Background**

Interchanges or grade separations must be warranted and consistent with federal, regional or local policies applicable to interchanges and grade separations. Mn/DOT Interchange and Bridge Warrants are documented in Chapter 6 of Mn/DOT’s Road Design Manual.

This policy assigns cost participation to roadway and bridge costs as part of interchange and grade separation projects on an overall project cost basis. Bridge costs include, but are not limited to, the bridge deck, girders, piers, abutments, bridge rail, approach panels,

<b>Guidelines for Cooperative Construction Projects</b> DS11.doc	<b>Section I D3b 1</b> <b>Page 22 of 89</b>	<b>6-24</b>
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and guardrail necessary to protect bridge elements. Exceptions to the overall interchange or grade separation project cost include traffic control signal systems, lighting, sidewalk and other multi-modal facilities, aesthetic elements, and typical roadway costs. Participation in these items is identified elsewhere in this policy.

## **2. Application**

This policy applies to the construction, replacement and improvement of intersections between trunk highways and local roads where there exists currently, or there is proposed to be, one or more grade separation structures. This includes grade separations with and without access between the roadways, as well as pedestrian and non-motorized vehicle crossings. The bridge may carry either the trunk highway or the local road or path.

### **i. Trunk Highway-to-Trunk Highway Interchanges and Grade Separations**

Mn/DOT will typically be responsible for 100% of costs associated with trunk highway-to-trunk highway interchanges and grade separations.

Construction costs for specific local actions or for development that creates new or expands existing traffic generators that directly necessitate the need for such improvements will be viewed as cooperative construction items. All associated costs will be apportioned in accordance with section IB of this policy.

### **ii. New Local Road Interchanges or Grade Separations on New Freeways**

Mn/DOT is responsible for 100% of the costs associated with those interchanges or grade separations supported by Mn/DOT as a necessary element of the trunk highway project. The local unit of government will be 100% responsible for all other interchanges and grade separations approved by Mn/DOT for inclusion in the project.

### **iii. New Local Road Interchanges or Grade Separations on Existing Freeways**

New interchanges and grade separations on existing freeways are frequently requested by local units of government to enhance

Guidelines for Cooperative Construction Projects DS11.doc	Section I D3b 2iii Page 23 of 89	6-25
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local access and transportation systems. The addition of interchanges can be detrimental to freeway operations because they introduce traffic conflicts along the trunk highway. Therefore, all costs associated with a new interchange or grade separation on an existing freeway must be approved by Mn/DOT and will typically be 100% local responsibility. These costs will include any improvements, such as auxiliary lanes on the existing freeway deemed necessary by Mn/DOT to accommodate the new interchange or grade separation.

It is recognized that in some situations, an additional interchange or grade separation may improve operation of the freeway by relieving trunk highway congestion or safety issues at adjacent interchanges. In these situations, Mn/DOT may participate up to the benefit/cost ratio of the benefits directly attributable to the safety and operational improvements to the trunk highway system. The benefits must account for any reduction in safety or operation of the trunk highway system caused by the addition of the new interchange or grade separation. The costs considered for this determination will be total cost of the new interchange or grade separation.

**iv. New Local Road Interchanges or Grade Separations on Expressways**

For the purposes of this policy, it is assumed that the new interchange or grade is consistent with Mn/DOT’s Access Management Policy and replaces one or more existing at-grade intersection of a local road with a trunk highway. The term expressway includes current expressways that are being converted to freeway design.

Mn/DOT participation will begin at 50% of the construction costs associated with those interchanges supported by Mn/DOT, in recognition of the safety and mobility benefits to both the trunk highway and local roadway.

Mn/DOT may participate beyond 50% of the interchange or grade separation costs and up to 85%, based on the criteria below. Ten percentage points may be added to Mn/DOT’s share for each of the criteria met below, up to a maximum of 85% if the proposed interchange:

<p>Guidelines for Cooperative Construction Projects DS11.doc</p>	<p>Section I D3b 2iv Page 24 of 89</p>	<p>6-26</p>
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- Is on an Interregional Corridor;
- Is on a High Priority Regional Corridor or trunk highway principal arterial within the Twin Cities urban interstate ring;
- Is on an under performing IRC, High Priority Regional Corridor or principal arterial;
- Reduces or consolidates local roadway access to the trunk highway, consistent with Mn/DOT's Access Management Policy.
- Eliminates one of the intersections on Mn/DOT's list of the 200 highest crash cost intersections, at the time of programming.
- Eliminates a traffic control signal or a future planned and warranted signal on the trunk highway.

Districts may reduce their participation from the level calculated above if the local unit of government has not developed an adequate supporting local roadway system, or if the interchange is proposed primarily to serve local development.

Mn/DOT may participate beyond 85%, with the approval of the Transportation Program Committee.

Local contributions of ROW necessary for project construction may be counted toward the local share of costs, as determined to be appropriate by Mn/DOT.

The local jurisdiction is responsible for 100% of roadway, right of way and bridge improvement costs beyond those needed to accommodate the traffic forecast based on the applicable state-aid 20-year traffic projection factor.

The local unit of government will be 100% responsible for all interchanges or grade separations that do not replace existing at grade intersections or access as required above, but are approved by Mn/DOT.

**v. Reconstruction of an Existing Local Roadway Interchange or Grade Separation with Trunk Highway Bridge Construction**

For the purposes of this section of the policy, it is assumed that Mn/DOT is the owner of any interchange or grade separation bridge(s) and that reconstruction includes replacement of these bridge structures.

<p>Guidelines for Cooperative Construction Projects DS11.doc</p>	<p>Section I D3b 2v Page 25 of 89</p>	<p>6-27</p>
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Mn/DOT cost participation in the reconstruction of an interchange or grade separation with trunk highway bridge construction, including replacement of existing local roadways disturbed by such construction to their original geometric and structural condition, to a reasonable touchdown point, is comprised of two components:

structural and functional participation. Mn/DOT's participation in the reconstruction of an interchange or a grade separation with trunk highway bridge construction is the sum of these components.

Mn/DOT's structural cost participation percentage is expressed by the equation:

$$\text{Participation \%} = 143 * (\text{Current Age} / \text{Expected Life}) - 28.6$$

The structural cost participation component is based on the premise that Mn/DOT will pay the full cost of replacing the existing bridge, to applicable design standards to accommodate the existing number of through lanes, at the end of its structural life. However, if the bridge is replaced prior to the end of its structural life, Mn/DOT will participate at a reduced level based on the present value of the replacement cost minus the current depreciated (remaining) value of the bridge.

If the structural cost participation percentage calculated with the above equation is less than zero, then the participation is 0%, and if greater than 100, the participation is 100%. A chart showing the results of this equation is included in Appendix B. For further information regarding the derivation of Mn/DOT structural cost participation, contact Mn/DOT's Office of Investment Management. The functional cost participation component addresses widening or lengthening of the existing bridge beyond the structural replacement width on the premise that the local unit of government will be responsible for the relative cost of roadway widening as part of the bridge widening or lengthening necessary to accommodate the local road widening. Mn/DOT participation will be limited to the additional width necessary to accommodate the design criteria for the applicable State Aid projection factor, as follows:

<b>Guidelines for Cooperative Construction Projects</b> DS11.doc	<b>Section I D3b 2v</b> <b>Page 26 of 88</b>	<b>6-28</b>
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- For local roadways under the trunk highway, Mn/DOT will be responsible for 80%, and the local unit of government will be responsible for 20%, of additional bridge costs associated with the bridge lengthening necessitated by the local roadway widening; and,
- For local roadways over the trunk highway, Mn/DOT will be responsible for 80%, and the local unit of government will be responsible for 20%, of additional approach panel costs and bridge costs associated with the bridge widening necessitated by the local road widening.

The local unit of government will be responsible for 100% of approach panel costs and of bridge widening and bridge lengthening costs associated with widening local roadways beyond the design necessary to accommodate the design criteria for the applicable State Aid projection factor.

Costs for widening and all other improvements to local roadways at interchanges and grade separations with trunk highway bridges beyond the touchdown point will be 100% the responsibility of the local unit of government.

**vi. Improvements to Roadways, Ramps and Loops at Interchanges or Grade Separations That Do Not Require Bridge Reconstruction**

Improvements to existing roads at local road interchanges or grade separations at a trunk highway typically improve the operation and safety of both the local roadway and the trunk highway. For the purpose of this policy, the improvements are considered to accrue predominately for the roadway system on which they are made. Therefore:

- Mn/DOT will be responsible for 100% of the costs of improvements to trunk highways and for the costs of ramps and loops at interchanges or grade separations, including improvements to local roads necessary to accommodate the addition of turn lanes on the trunk highway, ramps or loops.

<p>Guidelines for Cooperative Construction Projects DS11.doc</p>	<p>Section I D3b 2vi Page 27 of 89</p>	<p>6-29</p>
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- The local unit of government will be responsible for 100% of the costs for improvements of local roadways at interchanges or grade separations, including improvements to the trunk highway, ramps or loops necessary to accommodate the addition of turn lanes on the local roads.
- The local unit of government will be responsible for 100% of costs for the addition of a new ramp or loop to an existing interchange or grade separation.

### **3.c. Drainage**

#### **1. Background**

Minnesota Statutes § 103E pertains to drainage. This policy is developed on the premise that the landowner is obligated to perpetuate existing drainage. The cost responsibility of Mn/DOT and the local unit of government for drainage beyond the existing condition is determined on the basis of drainage benefit. For purposes of this policy, drainage benefit is defined as accommodating flow beyond the existing drainage condition, or enhancing the water quality treatment of storm water. Mn/DOT is responsible for costs to perpetuate existing drainage and to drain the trunk highway right-of-way. The local unit of government is responsible for costs necessitated by local roadway improvements, local drainage improvements and increased drainage capacity beyond the existing condition.

#### **2. Application**

##### **i. Drainage Cost Participation**

- Mn/DOT will be responsible for up to 100% of the cost for perpetuation of existing drainage affected by, or required for, a trunk highway improvement, in the most effective manner as determined by Mn/DOT in cooperation with local and regulatory agencies. Mn/DOT participation in drainage costs will be in the same proportion as the roadway, interchange or grade separation work necessitating the drainage work.
- Costs for a storm sewer drainage system in lieu of a rural drainage system, for strictly aesthetic purposes, except as provided for in section ID3g of this policy, will be 100% the local unit of government responsibility.

<p><b>Guidelines for Cooperative Construction Projects</b> DS11.doc</p>	<p><b>Section I D3c 2i</b> <b>Page 28 of 89</b></p>	<p><b>6-30</b></p>
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- Costs for drainage associated with local roadway improvements, improvements to local drainage systems such as additional capacity over the existing condition, or other drainage improvements not required for a trunk highway improvement, will be 100% the local unit of government's responsibility.
- Items related to, and necessary for, the drainage system construction, such as the removal of existing pipes and structures, rip-rap, culvert markers, and sod at pipe outlets are considered part of the drainage system and will have the same cost participation as the rest of the system.
- Cost responsibility for storm water drainage system will extend to an adequate outlet necessary to accommodate drainage.

**ii. Stormwater Treatment and Other Drainage Ponds**

- Mn/DOT promotes the opportunity to work with local units of government to enhance storm water treatment in conjunction with trunk highway projects that affect drainage. Federal aid enhancement funds may be available through the ATP process and should be considered by Mn/DOT and local units of government as an option for funding eligible storm water treatment.
- Mn/DOT and local participation in pond construction and other items necessary for water quality treatment of drainage generated within the limits of a cooperative construction project will be proportioned to each agency in the same ratio as is the construction work that generates the need for the storm water treatment.
- Mn/DOT and local participation in pond construction and in other items necessary for water quality treatment of drainage from outside the limits of a cooperative construction project will be proportioned to each agency based on the ratio of each agency's water volume entering the pond or other treatment facility. The water volume from the trunk highway right-of-way will be Mn/DOT's share, and the water volume from the non-trunk highway right-of-way will be the local unit of government's share.

<p><b>Guidelines for Cooperative Construction Projects</b> DS11.doc</p>	<p><b>Section I D3c 2ii</b> <b>Page 29 of 89</b></p>	<p><b>6-31</b></p>
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- Costs associated with the cooperative construction of storm water treatment facilities include construction and right-of-way costs. The costs to the local unit of government for acquisition of right-of-way required for the storm water treatment facility may be applied to, but may not exceed, the local share of cooperative construction costs for storm water treatment facilities.
- The local unit of government must provide documentation to Mn/DOT for review and certification to ensure that the right-of-way was acquired in accordance with applicable federal and state statutes and regulations. If the local unit of government received the property as a donation, or if the property has been owned by the local unit of government for a considerable amount of time, Mn/DOT will determine the contributing value of the property based on the appraised market value of that property.
- The donated property must be dedicated for street and highway purposes by resolution of the governing entity.
- Mn/DOT and local participation in drainage system elements and pond construction for hydraulic purposes, such as pipe reduction, will be proportioned to each agency based on the ratio of each agency's costs for the pipe entering the pond.
- Mn/DOT and local participation in ponds, constructed for the combination of water quality treatment and hydraulic purposes will be proportioned to each agency in consideration of the above factors. Mn/DOT participation in ponds constructed for combined purposes may not exceed the maximum amount that Mn/DOT would participate for either single purpose.

**iii. Drainage Cost Participation Procedures**

- When local drainage participation is required, cost participation for storm sewers will be determined by ratio of peak discharges by methods identified in the Mn/DOT drainage manual. This approach considers that each party's share, as identified in section ID3c2i of this policy, is the ratio of their peak flow to the summation of each agency's peak flow in a given reach of the storm sewer drainage system.

<p><b>Guidelines for Cooperative Construction Projects</b> DS11.doc</p>	<p><b>Section I D3c 2iii</b> <b>Page 30 of 89</b></p>	<p><b>6-32</b></p>
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- Drainage improvements that alter or divert drainage from the existing drainage condition will be documented in the cooperative construction agreement as the responsibility of the agency diverting or altering the drainage with regard to future costs associated with the drainage system.
- The cooperative construction agreement will state that no party may direct any additional drainage into the storm water drainage system that was not included in the drainage for which the system was designed, without first obtaining permission to do so from the other party. The drainage areas served by the storm water drainage facilities constructed for the project must be kept on file in the office of Mn/DOT District Hydraulics Engineer and referenced in the cooperative construction agreement as the existing condition.
- Cost participation for treatment ponds will be determined by the ratio of contributing volume (CA) as determined by multiplying the runoff coefficient and contributing area of each party. This method considers that each party participates in proportion to their share of the total runoff.

**iv. Storm Water Utility Fees**

Storm water utility fees have been proposed as an assessment against Mn/DOT to pay for annual maintenance of storm water drainage systems. These fees are not applicable to Mn/DOT because they are not directly linked to a specific benefit provided to the trunk highway system. In some cases, responsibility for maintenance of storm water drainage systems is identified in cooperative agreements between Mn/DOT and local units of government. In cases where responsibility is not identified by agreement, Mn/DOT participation in the maintenance of storm water drainage systems will be as defined in section ID5c of this policy.

**v. Storm Water Connection Fees**

Mn/DOT will participate in storm sewer connection fees for properties other than trunk highway right-of-way, such as office and maintenance facilities, as follows:

<p><b>Guidelines for Cooperative Construction Projects</b> DS11.doc</p>	<p><b>Section I D3c 2v</b> <b>Page 31 of 89</b></p>	<p><b>6-33</b></p>
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- Mn/DOT will pay a one-time connection fee on existing city storm drain systems for non-trunk highway right-of-way, such as new office and new maintenance facilities, in a fashion similar to payment of connection fees for commercial/industrial properties in the city. This connection fee will apply only to new facilities that also use other city utilities, such as water and sanitary sewer. The Mn/DOT facility must directly discharge storm water into an existing city storm water drainage system.
- For proposed construction or reconstruction of storm water drainage systems by a local unit of government, Mn/DOT will participate in accordance with applicable provisions of this policy.

**vi. Public Ditches**

In accordance with Minnesota Statutes § 161.28, Mn/DOT will be responsible for 100% of the costs of impacts to public ditches, under the jurisdiction of a county board or joint county ditch authority, required for a trunk highway project.

**3.d. Lighting, Signal, and Intelligent Transportation Systems (ITS)**

**1. Background**

This policy assigns cost participation to traffic control signal systems, lighting, or to ITS construction costs that may be part of a roadway, interchange, grade separation, or an independent project. Any new or revised traffic control signal systems or lighting systems must be approved by Mn/DOT.

**2. Application**

**i. Lighting**

Mn/DOT will participate in, and will approve the installation of, only those lighting systems that are justified in accordance with Mn/DOT’s Traffic Engineering Manual, Chapter 10. Lighting systems shall be comprised of standard Mn/DOT lighting equipment unless otherwise approved by Mn/DOT. A limited number of standard pole and fixture types that provide illumination with lighting intensities and uniformity ratios in accordance with Mn/DOT standards have been approved for

<p>Guidelines for Cooperative Construction Projects DS11.doc</p>	<p>Section I D3d 2i Page 32 of 89</p>	<p>6-34</p>
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trunk highway use. Mn/DOT participation is based on standard Mn/DOT lighting equipment.

Additional costs for non-standard or aesthetic lighting will be distributed in accordance with section ID3f of this policy, where applicable, or where they are 100% the responsibility of the local unit of government. Aesthetic lighting must meet minimum illumination guidelines and be approved by Mn/DOT for inclusion in trunk highway lighting systems. Additional maintenance costs may also be incurred by the local unit of government for lighting systems with non-standard Mn/DOT lighting equipment.

See section ID5d of this policy for lighting system maintenance and power cost responsibilities.

Cost participation for lighting system construction will be as follows:

- Mn/DOT will be responsible for 100% of the costs of those lighting units which it deems necessary for the trunk highway system, including lighting along the main traveled roadways, ramps and loops, and the intersections of ramps with cross streets at interchanges.
- Mn/DOT will be responsible for 100% of all costs for those lighting units it deems necessary for the trunk highway on bridges.
- For trunk highways under local road bridges, Mn/DOT will be responsible for 100% of all costs of those lighting units under the bridges which it deems necessary to light the trunk highway. The local unit of government will be responsible for lighting the roadway on the bridges.
- The lighting of frontage roads not connected with trunk highway entrance or exit ramps will be 100% the responsibility of the local unit of government.
- The local unit of government will be responsible for 100% of all costs for all unwarranted lighting installations. Such lighting systems must be approved by Mn/DOT prior to installation.

<b>Guidelines for Cooperative Construction Projects</b> DS11.doc	<b>Section I D3d 2i</b> <b>Page 33 of 89</b>	<b>6-35</b>
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- If a local unit of government desires to install a continuous or intersection lighting system on the trunk highway within corporate city limits, Mn/DOT participation may be up to 50% of the construction costs for locally-initiated continuous or intersection lighting systems on trunk highways, or up to 100% of the construction costs for trunk highway intersections with trunk highways. The lighting system must be approved by Mn/DOT prior to installation. Mn/DOT participation will be determined on a case-by-case basis as determined by district lighting priorities and funding made available for lighting systems in the district construction program. The lighting system plan preparation will be determined on a case-by-case basis.
- The local unit of government is responsible for illuminating local roads under trunk highway bridges. Mn/DOT may participate in the cost for underpass lighting when the length of a single bridge underpass exceeds 50 feet and underpass lighting is requested by the local unit of government.
- Any lighting system installed on the right of way by Mn/DOT or a local unit of government, with less than 100% Mn/DOT participation, requires the local unit of government to apply for a utility permit Form 2525. Maintenance will be provided by the local unit of government in accordance with section ID5d of this policy and in accordance with Minnesota Statutes § 161.45. The local unit of government is also responsible for the source of power and future electrical costs.
- If a local unit of government is the owner of a lighting system on a trunk highway, and the reconstruction of the trunk highway requires relocation of all or part of the lighting system, the local unit of government will be required to relocate the system at their own expense.

## ii. Traffic Signals

A Signal Justification Report must be prepared for each proposed traffic signal installation or revision, and must be concurred with by Mn/DOT. Highway traffic signal justification criteria set forth in the Minnesota Manual on Uniform Traffic Control Devices, and in Chapter 9-5.00 of the Traffic Engineering Manual, as interpreted by Mn/DOT, shall be used in the preparation of a Signal Justification Report.

Mn/DOT will normally enter into a two-party agreement with the local unit of government responsible for the roadway legs intersecting the trunk highway at the intersection to be signalized. In some cases where a local unit of government has a policy of sharing the costs with another local unit of government, Mn/DOT will prepare and enter into a multi-party agreement. See section IIA4 of this policy for information regarding multi-party agreements. Each local unit of government involved must submit a resolution to Mn/DOT indicating its willingness to share in the costs of the signal project. The agreement may involve construction costs, construction maintenance and power, or solely maintenance and power responsibilities.

Traffic signal system construction costs will be distributed as follows:

- Mn/DOT will not participate in traffic signal installations where Mn/DOT determines the traffic signal is not justified.
- At trunk highway intersections with local roadways or pedestrian walks, where Mn/DOT determines a signal system is justified, the construction and state furnished material costs will be pro-rated in the same ratio as the number of roadway legs of the intersection, under each jurisdiction, to the total number of roadway legs of the intersection. This applies to all new traffic signal systems and signal system revisions. If a leg is split by a local government boundary, that leg is equally pro-rated between bordering local governments. Private entrances are considered as a local unit of government leg.

<b>Guidelines for Cooperative Construction Projects DS11.doc</b>	<b>Section I D3d 2ii Page 35 of 89</b>	<b>6-37</b>
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Legs under Mn/DOT jurisdiction include trunk highways, and ramps and loops at trunk highway interchanges. The combination of a ramp and loop at folded diamond interchanges will be considered as two legs.

- Mn/DOT will be responsible for 100% of the costs for trunk highway legs, and if the project has been initiated by Mn/DOT, 90% of the costs for local share legs for traffic signal systems which are using the Federal Hazard Elimination Safety (HES) Program.
- When a local road project or a specific adjacent development directly necessitates the need for a new traffic control signal system, or the revision of an existing traffic control signal system, the local unit of government will be responsible for 100% of the signal system and for other costs necessary to provide the safe and efficient operation of the trunk highway, as determined by Mn/DOT.
- There will be no additional division of costs for wireless interconnect system equipment that is located at each intersection. The cost will be included and pro-rated at each signal system.
- Hardwire interconnected system equipment, including the master controller and cabinet, related equipment, and hardwire interconnect, will be pro-rated in the same ratio as the total number of interconnected legs of the system under each jurisdiction to the total number of legs in the interconnected system. Any additional equipment necessary in each signal system cabinet will be included and pro-rated at each signal system.
- The costs for temporary (wood pole/span wire type system) signal systems, or revision of in-place signal systems that are needed during roadway construction activities (traffic rerouting, detours and bypasses) will be 100% the responsibility of the agency causing the roadway construction activities that require the temporary signals.

<b>Guidelines for Cooperative Construction Projects</b> DS11.doc	<b>Section I D3d 2ii</b> <b>Page 36 of 89</b>	<b>6-38</b>
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### **iii. Intelligent Transportation Systems (ITS)**

ITS is the application of advanced technologies, information systems, and management techniques to improve the safety and operation of transportation systems.

Some elements of ITS may include traffic signal control, electronic fare payment, freeway management, railroad crossings, transit management, emergency response, incident management, regional and state-wide multi-modal traveler information, electronic toll collection, or intelligent vehicle initiatives. These elements continually change with technology.

For projects with other cooperative construction costs, cost participation for individual components of ITS projects should, to the extent possible, be pro-rated to each agency involved, in the same proportion as cost responsibility for the element of the project to which the ITS elements are being applied.

Stand-alone ITS projects that involve participation by a local unit of government will be handled on a case-by-case basis.

Mn/DOT's project manager for the ITS project will develop a memorandum of understanding (MOU) early in the project development process to document roles and responsibilities of each partner. The MOU will address all aspects of the ITS project, including design, construction, maintenance and operation costs, and responsibilities.

### **3.e. Sidewalks, Bikeways, and Multi-use Trails**

#### **1. Background**

Mn/DOT recognizes sidewalks, bikeways, and multi-use trails as important elements of the transportation system. Mn/DOT will participate in costs associated with these items when they are affected by a trunk highway project, or to promote the safe and efficient operation of these facilities as part of the trunk highway system.

<b>Guidelines for Cooperative Construction Projects</b> DS11.doc	<b>Section I D3e 1</b> <b>Page 37 of 89</b>	<b>6-39</b>
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## 2. Application

### i. Sidewalks

- Mn/DOT will be responsible for 100% of the construction costs of a new, standard-width sidewalk and pedestrian ramps where Mn/DOT has funding identified for the highway improvement and determines that a new sidewalk is necessary for the safe operation of the trunk highway and accommodation of pedestrians.
- Mn/DOT will be responsible for 100% of the construction costs of independent pedestrian ramps that are constructed directly adjacent to a trunk highway where Mn/DOT determines they are necessary for the safe operation of the trunk highway.
- Mn/DOT will be responsible for costs to reconstruct existing sidewalks and pedestrian ramps disturbed as a result of a project, with Mn/DOT participation being in the same ratio as Mn/DOT's participation in the work that disturbed the existing sidewalk. Mn/DOT participation in sidewalk reconstruction will be limited to the existing-width or standard-width sidewalk, whichever is greater.
- Costs for locally-initiated replacement of a deteriorated sidewalk and pedestrian ramps within Mn/DOT right-of-way will be considered a cooperative construction item, with Mn/DOT participation limited to 90% or 60%, in accordance with section IC of this policy.
- Mn/DOT will participate in costs for sidewalk reconstruction on bridge replacement projects in the same ratio as Mn/DOT participation in the rest of the bridge project when Mn/DOT, in cooperation with the local unit of government, determines that the sidewalk on the bridge is necessary to connect existing sidewalks on the bridge approaches.
- Mn/DOT will participate in costs for sidewalk construction on new bridges in the same ratio as Mn/DOT participation in the rest of the bridge project when Mn/DOT, in cooperation with the local unit of government, determines that the sidewalk is necessary to replace previously existing at-grade pedestrian crossings of the trunk highway that has been

<b>Guidelines for Cooperative Construction Projects</b> DS11.doc	<b>Section I D3e 2i</b> <b>Page 38 of 89</b>	<b>6-40</b>
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removed by the bridge project, and that the sidewalk is necessary for the safe operation of the bridge.

- Mn/DOT may participate in construction costs for a reasonable number of pedestrian bridges, as determined by Mn/DOT, to replace at-grade pedestrian access severed by conversion of an expressway to a freeway. Mn/DOT participation in such pedestrian bridges will not exceed Mn/DOT participation in adjacent interchange or grade-separation construction required to convert the expressway to a freeway.
- The local unit of government will be responsible for 100% of the construction costs for a new sidewalk and independent pedestrian curb ramps where Mn/DOT determines that the sidewalk is not necessary for the safe operation of the trunk highway or the safe accommodation of pedestrians.
- The local unit of government will be responsible for 100% of the construction costs of new sidewalks along frontage roads and local roadways.

**ii. Bikeways and Multi-use trails**

When developing a trunk highway improvement project, Mn/DOT will determine what facilities are necessary to safely accommodate bicycles and other non-motorized transportation modes in accordance with Mn/DOT Technical Memorandum No. 99-04-ES-01.

- Mn/DOT will be 100% responsible for costs of facilities which Mn/DOT determines are necessary to accommodate bicycle and other non-motorized transportation modes within the trunk highway right-of-way of a Mn/DOT-initiated project.
- Mn/DOT may initiate and be 100% responsible for costs associated with stand-alone bikeway and other non-motorized transportation construction projects within trunk highway right-of-way.

Guidelines for Cooperative Construction Projects DS11.doc	Section I D3e 2ii Page 39 of 89	6-41
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- Mn/DOT participation in local, locally-initiated bikeway projects, or other bikeway or multi-use trail facilities not covered above, will be limited to the use of trunk highway right-of-way. Such use must be arranged with the appropriate Mn/DOT district and must be documented through execution of a limited use permit.
- All other bikeway and multi-use trail construction will be 100% local responsibility.

### **3.f. Aesthetic Elements**

#### **1. Background**

In recent years, the importance of transportation design that is sensitive to the surrounding environment has been brought to the forefront with increased emphasis and strengthened direction. Mn/DOT’s context sensitive design (CSD) approach to project development is intended to preserve and enhance the state’s environmental, scenic, historic and cultural values while addressing transportation objectives.

CSD is a means of incorporating aesthetic and cultural values into design so that all of the structures and features enhance the beauty and character of the immediate environment and contribute to community identity and its sense of place. CSD embodies the many technical and non-technical aspects of the project development process to tailor transportation design to the individual purposes of a specific project, thereby creating excellence in design.

The growing emphasis on producing aesthetically-pleasing and environmentally-sensitive transportation projects has been exhibited at the federal level through environmental policy statements; through establishment of the Transportation Enhancements Program; through various transportation acts, including ISTEA and TEA-21; at the state level by the American Association of State Highway and Transportation Officials; and by Mn/DOT as part of the CSD process.

<p><b>Guidelines for Cooperative Construction Projects</b> DS11.doc</p>	<p><b>Section I D3f 1</b> <b>Page 40 of 89</b></p>	<p><b>6-42</b></p>
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## 2. Application

This policy has been prepared to identify Mn/DOT cost participation in aesthetic elements of trunk highway projects. Mn/DOT cost participation identified in this policy should not be interpreted as a required level of spending on a particular project. This policy is intended to establish a reasonable and equitable limit for Mn/DOT participation in aesthetic elements of projects, depending on the project setting, type of project, and specific project elements.

Aesthetics are an integral component of a highway corridor. However, expenditures for aesthetic elements must be balanced with the recognition that there is not sufficient funding available to meet the growing needs of the trunk highway system. Transportation needs in excess of available funding necessitate prudent investments in project design, including aesthetics elements. Mn/DOT districts, in consultation with coordinating agencies, local units of government, and the public, need to balance aesthetic needs with all other needs of the project, and in consideration of the transportation needs of the district. Aesthetic participation levels applicable to a project will be determined on a project-by-project basis by the district.

Aesthetics should be considered early in the project development process. When impacts on visual quality are likely to be widespread, substantial, or adverse, the six-step Visual Impact Assessments (VIA) process is typically used as the threshold criteria for guidance in project development. VIA is a tool and methodology to inform visual resource inventory, analysis and design, for the purposes of mitigating and enhancing the affected visual resources associated with transportation projects. The VIA process guidance is included in Mn/DOT's "Highway Project Development Process Handbook 2, part II, section D, Subject Guidance (Visual Quality)."

Aesthetic elements in which Mn/DOT may participate must be linked to the trunk highway system in a manner that reflects, criteria established for the federal aid Transportation Enhancement Program.

Aesthetic elements must have a substantial relationship to the trunk highway system to warrant Mn/DOT participation. The relationship can be one of proximity and function, or one of proximity and impact, but not one of proximity alone.

<b>Guidelines for Cooperative Construction Projects DS11.doc</b>	<b>Section I D3f 2 Page 41 of 89</b>	<b>6-43</b>
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- Proximity is a relationship that enhances the immediate view shed of the trunk highway corridor or the view of the trunk highway corridor from adjacent properties.
- Function is a relationship that facilitates the transportation needs of the trunk highway system, such as planned pedestrian facilities.
- Impact is a relationship that improves the interrelationship between the transportation user and the surrounding environment, such as signing or improvements to a scenic overlook.

**i. Items Considered as Aesthetic Elements**

Items typically considered as aesthetic elements for application of Mn/DOT aesthetic cost participation include:

- Design elements, such as highway location, alignment, and profile and cross sectional elements to minimize impacts on the surrounding environment and to maximize opportunities for improvements to the roadside environment, where such design elements are chosen for strictly aesthetic purposes. This would include additional costs to upgrade a rural trunk highway design to an urban design strictly for aesthetic purposes.
- Aesthetic treatments, such as surface finishes and pavement coloration, that enhance the appearance of necessary elements of the transportation project beyond the aesthetic features included as a standard component of a project element, such as standard rustication on retaining walls, as identified in Mn/DOT standard plans and specifications.
- Aesthetic features, such as structural elements, landscaping, lighting units other than Mn/DOT standards, special utility relocation and other items incorporated into a project to enhance visual and social quality beyond the basic items and features necessary to address the safety, operation and maintenance needs of the project.

<p><b>Guidelines for Cooperative Construction Projects</b> DS11.doc</p>	<p><b>Section I D3f 2i</b> <b>Page 42 of 89</b></p>	<p><b>6-44</b></p>
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- Bicycle, pedestrian or multi-use trail facilities that are not considered to be an essential element of the trunk highway project in accordance with this policy and are not part of an established or planned state, regional, or local pedestrian, bicycle or multi-use trail facility.

**ii. Items Not Considered as Aesthetic Elements**

For the purpose of this policy, those items that are necessary for the project, aside from any aesthetic considerations, are not attributable to Mn/DOT aesthetic funding participation for a project. Project items required for these purposes are included as part of Mn/DOT or local cost participation responsibility, in accordance with this policy, as a non-aesthetic cost of the project. Items typically not considered as aesthetic elements include:

- Design elements, such as highway location, alignment, and profile and cross sectional elements are typically influenced by many factors, including aesthetics. Design of the trunk highway will not usually be attributable to Mn/DOT cost participation for aesthetic purposes unless aesthetic considerations were the primary basis for the choice of a design element.
- Basic aesthetic treatments and features included as a standard component of a project element, such as standard rustication on retaining walls and abutments, and standard surface treatment for wood or concrete noise walls, as identified in Mn/DOT standard plans and specifications.
- Legally-required mitigation, including but not limited to 4(f) regulations, noise and wetland requirements, and guidelines of the State Historic Preservation Office and the Minnesota Department of Natural Resources.
- Snow control landscaping elements.
- Warranted lighting, included on the project for safety and operation of the trunk highway, using standard Mn/DOT lighting equipment.

<p><b>Guidelines for Cooperative Construction Projects</b> DS11.doc</p>	<p><b>Section I D3f 2ii</b> <b>Page 43 of 89</b></p>	<p><b>6-45</b></p>
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- Bicycle, pedestrian, or multi-use trail facilities that are considered to be an essential element of the trunk highway project in accordance with this policy, replacement of an existing bicycle, pedestrian or multi-use trail, or facilities or elements of an established or planned state, regional, or local bicycle, pedestrian, or multi-use trail facility.
- Mn/DOT programmed aesthetic, landscape, and site development projects. The intent of these projects is development and improvement of the aesthetic elements of roadsides, state entrances, rest areas, and pedestrian and bike trails. These projects are often independent of other highway projects or program categories. Typical Mn/DOT program categories include Bike Trail (BT), Junk Yard Screening (JY), and Rest Area/Beautification (RB), which includes highway landscaping.

**iii. Aesthetic Participation Factors**

Mn/DOT cost participation in aesthetic elements of a trunk highway project is dependent on the following three factors:

- The level of impact of the project on the existing setting as determined through the VIA and other assessment processes;
- Specific item categories based on bridges, retaining walls, and noise wall costs; and,
- Project type categories based on all project item costs other than bridges, retaining walls, and noise walls.

These factors will be determined on a project-by-project basis by the district in coordination with partnering agencies, local units of government, and the public.

**iv. Level of Impact**

The level of impact of the project on the existing setting will be determined as one of the following three levels:

- **LEVEL A:** For a limited number of projects that are of major state or federal aesthetic significance. The project has a high level of visual impact on an existing setting that clearly exhibits unique or sensitive features. Aesthetic

<p><b>Guidelines for Cooperative Construction Projects</b> DS11.doc</p>	<p><b>Section I D3f 2iv</b> <b>Page 44 of 89</b></p>	<p><b>6-46</b></p>
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features may substantially control the design of these projects or project elements. This level includes projects that are located in highly sensitive, social, economic, environmental or historic locations, or may affect items that are historic themselves. The aesthetic impacts of these projects are often addressed in partnership with other federal and state agencies.

- **LEVEL B:** For projects that have a moderate visual impact on the surrounding setting. Aesthetic treatment may be appropriate, but not to the extent that it may substantially control the design. These projects typically involve trunk highway corridors that have had substantial prior development on the adjacent land. This level includes projects in urban settings, and settings near recreation areas, parks or other waterways not categorized as unique or sensitive. The aesthetic impacts of these types of projects are often addressed in coordination with state agencies and local units of government.
- **LEVEL C:** For projects that have little or no negative impacts on the surrounding setting. The existing setting is not unique or sensitive. The aesthetic impacts of these types of projects can often be addressed without coordination with other agencies.

**v. Specific Item Categories**

Specific item categories apply to bridges, retaining walls, and noise walls due to their prominent aesthetic impact on a project. Participation factors and limits have been established for these specific items. These factors are applied to the estimated cost of the specific item to determine Mn/DOT aesthetic cost participation limits for that item. The aesthetic cost participation is for treatments beyond the basic aesthetic features included as a standard component of the element, such as standard rustication on retaining walls, as identified in Mn/DOT standard plans and specifications.

**vi. Project Type Categories**

The project type category is determined based on the type, the intent and the program funding category of the project in the following fashion:

<p><b>Guidelines for Cooperative Construction Projects</b> DS11.doc</p>	<p><b>Section I D3f 2vi</b> <b>Page 45 of 88</b></p>	<p><b>6-47</b></p>
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- Project Type Category 1: Major Construction**  
 The intent of major construction projects is to improve or increase the capacity and the operational characteristics of a highway by adding lanes, by building new roadways or bridges, or by converting at-grade intersections to interchanges.

These projects typically involve grading, base, surfacing, bridge replacement and additional right-of-way. The Mn/DOT program category is Major Construction (MC).

- Project Type Category 2: Reconstruction**  
 The intent of reconstruction projects is to reconstruct segments of the highway system to an accepted standard. These projects involve grading, base, resurfacing, and bridge replacement. They usually do not include the addition of through-lanes, but may involve auxiliary lanes, turn lanes, increased shoulder width, bridge widening and access management improvements. The reconstruction of freeway or controlled access facilities with lane additions substantially within existing right-of-way and with limited modification to access locations would be included in this category. Right-of-way acquisition is common. Replacement of lighting, signals, and other infrastructure is also common. The Mn/DOT program categories include Reconstruction (RC), Bridge Replacement (BR), and Safety Capacity (SC).

- Project Type Category 3: Preservation, and Safety, Maintenance**  
 The intent of preservation, safety, and maintenance projects is to repair or preserve the roadway infrastructure or to address specific safety issues. Minor grading in the form of shoulder widening, grade corrections and turn lanes may be undertaken with these projects, but do not involve major changes to the roadway cross section. They may also involve the replacement of roadway infrastructure such as culverts and guardrail. These projects usually have minimal impact on the surrounding environment and involve little or no right-of-way acquisition. The Mn/DOT program categories include Reconditioning (RD), Resurfacing (RS), Road Repair (RX- BARC), Safety Hazard Elimination (SH), Safety Rail (SR), Traffic Management (TM), and Bridge Improvement and Repair (BI).

Guidelines for Cooperative Construction Projects DS11.doc	Section I D3f 2vi Page 46 of 89	6-48
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**vii. Aesthetic Participation Factors**

Mn/DOT aesthetic participation factors for eligible aesthetic elements of a trunk highway project are determined by the level of impact, specific item, and project type categories according to the following table:

**Maximum Mn/DOT Aesthetic Participation Factors And Limits As A Percentage Of Estimated Mn/DOT Project Construction Costs**

	Level of Impact		
	Level A	Level B	Level C
<b>Specific Item Categories:</b>			
Bridges	15% not to exceed \$3,000,000 per bridge	7% not to exceed \$300,000 per bridge	5% not to exceed \$200,000 per bridge
Retaining Walls	10%	5%	1% or standard treatments
Noise Walls	7%	4%	1%
<b>Project Type Categories:</b>			
Category 1 - Major Construction	5%	3%	2%
Category 2 - Reconstruction	3%	2%	1%
Category 3 - Preservation, Safety & Maintenance	0%	0%	0%

Preservation, safety, and maintenance projects and associated funding sources are intended to address specific infrastructure and safety needs of the trunk highway system. These types of projects and associated funding are not typically used for aesthetic enhancements of a trunk highway corridor. Therefore, participation factors for these types of projects have been identified as 0%. However, aesthetics should be considered during development of these projects and should be consistent with other corridor design features or any applicable corridor design guidance. Aesthetic elements for these types of projects are handled through separate contracts and programs, such as landscape development and beautification, but may be included in these project types at the discretion of the district. Inclusion of planned aesthetic improvements in these projects, or tied contracts, may provide significant cost savings.

### **viii. Mn/DOT Aesthetic Participation**

Mn/DOT limits for participation in eligible aesthetic elements of a trunk highway project are determined by application of the appropriate participation factor to Mn/DOT's share of estimated project costs.

- The amount of Mn/DOT participation for bridge aesthetic costs is determined on a structure-by-structure basis. The amount of Mn/DOT participation for bridge aesthetics is not transferable to other project elements. Bridges within the same level of impact category may be considered in aggregate to allow for uniform treatments of these bridges. Aesthetic considerations on bridge rehabilitation projects are evaluated on a case-by-case basis, but should be consistent with other corridor design features or with applicable corridor design guidance.
- The amount of Mn/DOT participation for retaining wall and noise wall costs is determined on the total estimated cost of these items for the project to allow uniform treatment in consideration of cost variability based on height and structural requirements. Mn/DOT participation for retaining wall aesthetic and noise walls is not transferable to other project elements.

Aesthetic elements of a project extend beyond bridges, retaining walls and noise walls. Therefore, project type categories have been established to address aesthetics not associated with bridges, retaining walls or noise walls.

- In addition to aesthetic participation for costs for bridges, retaining walls, and noise walls, Mn/DOT will participate in the cost of aesthetic elements of the project based on the application of the appropriate project type category participation factor to the remaining estimated project cost. The remaining project cost equals the total estimated cost of Mn/DOT participation in the project, less estimated bridge, retaining wall and noise wall costs. Local project costs are not considered in this determination.
- Mn/DOT's aesthetic participation for the remaining project cost may be applied to aesthetic participation for bridges, retaining walls and noise walls included in the project.

<b>Guidelines for Cooperative Construction Projects DS11.doc</b>	<b>Section I D3f 2viii Page 48 of 89</b>	<b>6-50</b>
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The maximum amount of Mn/DOT participation in the costs for aesthetic elements of a project is the sum of the bridge, retaining wall, noise wall and remaining project cost components. Costs for aesthetic elements beyond those established as eligible for Mn/DOT participation, or beyond Mn/DOT's maximum participation in accordance with this policy, will be 100% local responsibility.

More than one aesthetic participation factor may be used on a project. For example, one bridge may be of greater significance than another bridge and could have a higher level of impact for determination of Mn/DOT aesthetic participation. Similarly, one segment of a project may fall within an area that warrants a different level of impact than the rest of the project, such as an urban area on a longer rural project, or a specific, environmentally-sensitive location along a longer project. In these cases, the project may be segmented to determine the level of impact and project type in order to arrive at the appropriate Mn/DOT cost participation factors to address specific project settings and features. In these cases, participation factors and costs are considered on a segment-by-segment basis. Mn/DOT aesthetic cost participation is limited to the sum of participation for all segments.

**ix. Aesthetic Funding Considerations**

Participation percentages for aesthetic elements will not be modified or adjusted based on bid prices of the successful bidder.

Federal aid community enhancement funds which may be available through the ATP procedures, and the Mn/DOT Landscape Partnerships Program should be considered as options for funding of aesthetic improvements.

**3.g. Utilities Owned by Local Units of Government**

In conjunction with a trunk highway construction project, the most frequently encountered utilities owned by local units of government include, but are not limited to:

- Sanitary sewer systems;
- Water mains and associated hydrants, gate valves and manholes;
- and,

<p><b>Guidelines for Cooperative Construction Projects</b> DS11.doc</p>	<p><b>Section I D3g</b> <b>Page 49 of 89</b></p>	<p><b>6-51</b></p>
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- Locally-owned street lighting.

Based on Minnesota Statutes § 161.46, the following factors determine which agency is responsible for the cost of the adjustment or relocation of utilities owned by a local unit of government.

**1. Local Responsibility for Utilities Owned by Local Units of Government**

- If the affected utility is within trunk highway right-of-way by permit, the local unit of government is responsible for 100% of the cost of all utility relocation or adjustment required for the trunk highway project, except as defined in section ID3g2 below.
- The local unit of government is responsible for 100% of the costs associated with improvements or betterment of existing facilities.

Betterment occurs when the relocated facility is upgraded or replaced with functionally superior facilities.

- The local unit of government is 100% responsible for costs associated with the removal and replacement or the relocation of items, such as street signs, parking meters or impacts by the utility work which would not have been impacted by Mn/DOT construction.
- The local unit of government is responsible for 100% of the cost of utility relocation and adjustments that are necessitated by construction in which Mn/DOT has no cost participation.

**2. Mn/DOT Responsibility for Utilities Owned by Local Units of Government**

- If the affected utility was in place prior to Mn/DOT taking over the roadway as a trunk highway, Mn/DOT will pay for the utility relocation or adjustment in accordance with the first move clause as defined in Minnesota Rules 8810.3300. Mn/DOT will pay for the relocation of ‘in kind,’ functionally-equivalent facilities only, and will not pay for the additional costs associated with betterment. The local unit of government must furnish data regarding the installation of the existing utility to invoke the provisions of this clause. Mn/DOT may include the relocation work in the contract, or pay the local unit of government to accomplish this work. Mn/DOT will not pay for utility relocation or adjustment in accordance with the first move clause when the

<p>Guidelines for Cooperative Construction Projects DS11.doc</p>	<p>Section I D3g 2 Page 50 of 89</p>	<p>6-52</p>
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relocation is necessitated by construction without Mn/DOT participation. The local unit of government is responsible for 100% of the cost of any utility adjustment or relocation that is necessitated by such construction.

- The agency that initiates a project pays for 100% of all utility relocations necessitated by construction on interstate trunk highways, except in cases where the majority of project costs are shared then the utility relocation costs will be shared.
- Previous agreement language that provides for payment of adjusted or relocated utilities by Mn/DOT. The local unit of government must be able to furnish such agreement language regarding the installation of the existing utility to invoke the provisions of this clause.
- Mn/DOT will participate up to 100% for the cost of adjustment and the relocation of locally-owned utilities that is necessitated by work on local roadways, locally-owned frontage roads and locally-owned property or easements on a Mn/DOT initiated and let project, in which the Right-of-Way is taken over by Commissioner Orders. Mn/DOT participation in such costs will be in the same ratio as Mn/DOT participation in the work causing the need for the locally- owned utility adjustment or relocation.

Information regarding whether a municipally-owned utility is within trunk highway right-of-way by permit or is subject to the first move clause is available from Mn/DOT's Utility Agreements Engineer.

### **3. Construction Engineering**

The agency that supervises the construction of a cooperative construction project will be reimbursed by the non-supervising agency for construction engineering costs at a rate of 8% of the non-supervising agency's total construction cost responsibility, including any federal aid participation. Payment for construction engineering costs includes the cost of inspection, materials testing, surveying and staking, and construction administration required for the cooperative construction project.

<b>Guidelines for Cooperative Construction Projects</b> DS11.doc	<b>Section II A3</b> <b>Page 51 of 89</b>	<b>6-53</b>
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The non-supervising agency may undertake the following construction engineering activities, when agreed to by the supervising agency, at the following percent reduction in the non-supervising agency's construction engineering costs:

- Construction Inspection      2%
- Surveys and Staking          2%
- Materials Inspection          1%

The minimum construction engineering reimbursement to the supervising agency for construction administration will be 3% of the non-supervising agency's total construction cost responsibility, including any federal aid participation.

**4. Maintenance**

The maintenance responsibilities of the local unit of government for cooperative construction projects will be documented in the cooperative construction agreement or in a separate maintenance agreement. Maintenance responsibilities include all necessary costs, personnel and materials.

The following maintenance responsibilities will apply to Mn/DOT cooperative construction projects when included in the cooperative construction agreement. Maintenance responsibilities other than those identified in this policy, continuation of pre-existing agreement conditions, or ongoing cost reimbursement for maintenance activities will require a separate maintenance agreement.

**4.a. Roadway**

- Mn/DOT will be responsible for maintenance activities associated with all trunk highway roadway items, trunk highway parking if located immediately adjacent to the trunk highway driving lanes within the shoulder area, ramps and loops at interchanges, and other portions of the trunk highway right-of-way.
- Local units of government will be responsible for maintenance activities associated with all roadways under local jurisdiction, including local roadways constructed or reconstructed due to impacts associated with trunk highway construction, in accordance with Minnesota Statutes § 161.24, subdivision 5. Local units of government will also be responsible for maintenance activities associated with parking lanes located beyond the shoulder area of the

<p><b>Guidelines for Cooperative Construction Projects</b> DS11.doc</p>	<p><b>Section II A4a</b> <b>Page 52 of 89</b></p>	<p><b>6-54</b></p>
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trunk highway, approach roadways to interchanges and grade separations up to the bridge approach panels, frontage roads, and all other portions of the local road right-of-way.

#### **4.b. Bridge**

- For interchange or grade separation bridges under Mn/DOT jurisdiction, Mn/DOT will be responsible for bridge inspection, all structure-related maintenance, including painting, re-decking and rehabilitation of the bridge, including the deck, rails, sidewalk and supporting structural elements, and structurally-supported signing on the bridge. The local unit of government will be responsible for such items if the bridge is under local jurisdiction.
- If the approach roadways to a bridge are under local jurisdiction, the local unit of government will be responsible for all non-structural maintenance activities on the bridge, including but not limited to, keeping the roadway, bridge deck, shoulders, medians, gutters, sidewalks and trails clear of ice, snow, litter and debris, appropriate disposal of such material, pavement markings, guardrail, and non-structurally supported signing. Mn/DOT will be responsible for such items if the approach roadway is a trunk highway.
- Lighting and aesthetic items that may be included on bridges will have maintenance cost responsibilities in accordance with applicable sections of this policy.

#### **4.c. Drainage**

Routine drainage maintenance is defined as any work needed to preserve the existing drainage facility and to prevent conditions such as flooding, erosion, sedimentation or accelerated deterioration of the system which would cause adverse safety, environmental, traffic capacity, aesthetic or cost concerns to governmental and regulatory agencies, and the public. Such work typically does not require replacement of existing drainage infrastructure and may include removal of sediment, debris, vegetation, and ice from structures, grates and pipes, repair of minor erosion problems, and minor structure and pipe repair.

Non-routine drainage maintenance is defined as replacement, reconstruction, rehabilitation, or improvement of portions of storm water drainage infrastructure such as castings, manhole or catch basin structures, and pipe segments or aprons, including rip-rap.

<b>Guidelines for Cooperative Construction Projects DS11.doc</b>	<b>Section II A4c Page 53 of 89</b>	<b>6-55</b>
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- Mn/DOT is responsible for routine drainage maintenance of drainage elements located on freeway right-of-way, on controlled access trunk highway right-of-way, on partially-controlled access trunk highway right-of-way not within corporate city limits, or as determined by the District if safety is a concern. This includes all portions of trunk highway-to-trunk highway interchanges and other interchange ramps and loops, and all trunk highway right-of-way outside incorporated cities not covered by previous permit or agreement.
- Mn/DOT is responsible for non-routine drainage maintenance of all storm water drainage system elements located on trunk highway right-of-way.
- Local units of government are responsible for routine drainage maintenance of drainage system elements located on uncontrolled or partially controlled access trunk highway right-of-way within incorporated cities, frontage road right-of-way, and local roadway right-of-way or private property.
- Costs for maintenance of ponds, including sediment control and dredging, will be proportioned to Mn/DOT and local units of government at the same ratio as costs for construction of the ponds. The lead agency to initiate maintenance will be the owner of the pond right-of-way. Execution of a maintenance agreement is necessary before maintenance costs are incurred.

**4.d. Lighting, Signals, and Signing**

**i. Lighting**

- Maintenance of electrical lighting systems includes everything within the system, from the point of attachment to the power source or utility, to the last light on the feed point, including but not limited to, re-lamping of lighting units, repair or replacement of all damaged luminaire glassware, loose connections, luminaires when damaged or when ballasts fail, photoelectric control on luminaires, defective starter boards, damaged fuse holders, blown fuses, knocked down poles including wiring within the poles, damaged poles, pullboxes, underground wire, damaged bases, equipment pad, installation of approved splices or replacement of wires, repair or extending of conduit, lighting cabinet maintenance including photoelectric cell, electrical distribution system, and painting of poles and other equipment.

<p><b>Guidelines for Cooperative Construction Projects</b> DS11.doc</p>	<p><b>Section II A4di</b> <b>Page 54 of 89</b></p>	<p><b>6-56</b></p>
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- Power costs include all energy costs associated with the lighting system after the system has been turned on.
- The local unit of government will be responsible for 100% of the maintenance and power costs for all lighting systems without 100% Mn/DOT participation, for lighting systems installed at the local agency's request, and for all non-freeway lighting systems installed on the trunk highway within corporate city limits of the local unit of government.
- The local unit of government will be responsible for 100% of the maintenance of all non-standard (aesthetic) Mn/DOT lighting equipment.

**ii. Signals**

The division of maintenance and operational responsibilities of signal systems located on trunk highway will be divided into two classes: cities of the first class, and all other local units of government. Maintenance and operational responsibilities are shared throughout the life of the traffic signal system. Cities of the first class typically have traffic engineering and maintenance departments to operate and maintain signal systems. These cities are typically more familiar with local traffic patterns to most effectively operate and maintain these signal systems. Signal system operation and maintenance is defined as follows:

- Mn/DOT will provide major and minor maintenance of the signal system and will operate the system at trunk highway intersections with a trunk highway.
- For traffic signal systems on trunk highway intersections with local roads within cities of the first class, the city shall provide traffic signal system major maintenance, minor maintenance and operation.
- For all other signals or trunk highway intersections, Mn/DOT will provide traffic signal major maintenance. Mn/DOT will provide signal system operation. The local unit of government will provide minor maintenance.

<p><b>Guidelines for Cooperative Construction Projects</b> DS11.doc</p>	<p><b>Section II A4dii</b> Page 55 of 89</p>	<p><b>6-57</b></p>
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- Relamping of a signal system will consists of replacing the lamp and cleaning the reflector and lens, for all the signal heads and any intersection roadway lighting.
- In certain larger local units of government, Mn/DOT may elect to have the local unit of government, by mutual agreement, maintain and operate the signal system. The local unit of government must have a qualified traffic engineer in its employ. The local unit of government must have proven capabilities to the satisfaction of Mn/DOT, including maintenance facilities, service equipment, standby equipment, and capable service personnel. Mn/DOT will reimburse the local unit of government for Mn/DOT's share of the major maintenance work as specified in the paragraph above. A separate reimbursable maintenance and operation agreement must be executed.
- In the case of coordinated signal systems, the maintenance and operation of these systems will be determined on a negotiated basis. The coordinated signal system should be maintained and operated by one agency, especially in the case of computer-monitored systems. The agency that is responsible for the most intersections in the coordinated system will typically be the agency responsible for the maintenance, operation, timing and coordination of the coordinated traffic signal system.
- When the local unit of government is responsible for maintenance and operation of the coordinated traffic signal system, it must have a qualified traffic engineer in its employ. The local unit of government must have proven capabilities to the satisfaction of the Mn/DOT including maintenance facilities, service equipment, standby equipment, and capable service personnel. Either Mn/DOT or the local unit of government will be reimbursed for the actual cost of maintaining the signal system for which the other agency is responsible. A separate reimbursable maintenance agreement will be prepared for these situations.

**iii. Signing**

- Mn/DOT will maintain all signs installed by Mn/DOT at the following locations: on Mn/DOT right-of-way, on local roadways between the ends of all ramps, and advance junction signs at interchanges.

<p><b>Guidelines for Cooperative Construction Projects</b> DS11.doc</p>	<p><b>Section II A4diii</b> <b>Page 56 of 89</b></p>	<p><b>6-58</b></p>
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- Local units of government will be responsible for signs installed on local roadway right-of-way and on Mn/DOT right-of-way by permit.
- Trail blazing signs installed on local streets will be installed and maintained by the local unit of government.

**4.e. Sidewalks, Bikeways, and Multi-use Trails**

- Costs for routine maintenance of all sidewalks, bikeways, and other multi-use trails, including but not limited to patching, plowing, sweeping, debris removal, mowing, trimming, signs and pavement markings will be the responsibility of the local unit of government.
- Sidewalks, bikeways, and other multi-use trails included in Mn/DOT-owned rest areas will be maintained by Mn/DOT.
- Bikeways located, on trunk highway shoulders will be maintained by Mn/DOT.
- Costs for non-routine maintenance such as resurfacing, seal coating, and bridge rehabilitation, will be proportioned to Mn/DOT and the local unit of government in the same ratio as the initial cost of construction.

**4.f. Aesthetics**

For cooperative construction projects with aesthetic elements, maintenance will be in accordance with the provisions of this policy. Aesthetic improvements made under other programs or agreement types, such as Landscape Partnerships, may have different maintenance responsibilities.

- Mn/DOT will be responsible for maintenance activities for all aesthetic elements located within the roadway and shoulder portion of all trunk highways. Mn/DOT will be responsible for all maintenance activities associated with aesthetic elements included within the trunk highway right-of-way for freeways, expressways, and rural trunk highways outside of incorporated cities, except for:
- Benches, planters, landscaping, pavement, surface treatments, and other aesthetic features and treatments on local roads, under or on top of trunk highway bridges.

<p><b>Guidelines for Cooperative Construction Projects</b> DS11.doc</p>	<p><b>Section II A4f</b> <b>Page 57 of 89</b></p>	<p><b>6-59</b></p>
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- Lighting, signals, and signing in accordance with this policy.

These costs will be the responsibility of the local unit of government.

- Local units of government will be responsible for all other maintenance activities for aesthetic elements of cooperative construction projects.

## II. PROCEDURES

### A. Agreement Procedures

#### 1. Minimum Agreement Amount

A cooperative construction agreement will not be required for a Mn/DOT construction contract when the local unit of government's total estimated cost for construction and construction engineering is less than \$5,000. In such instances, Mn/DOT will assume 100% of what would otherwise be local costs.

Mn/DOT will not participate in the cost of a local project when Mn/DOT's share of cooperative construction and/or construction engineering is less than \$5000. Justification for exceptions to this policy must be documented by the local unit of government and submitted as a request to the Transportation District Engineer. If the Transportation District Engineer believes that costs associated with preparation of a cooperative construction agreement for Mn/DOT cost participation of less than \$5000 is justified, the district will submit a request for an exception from this policy in accordance with section IIE.

#### 2. Pro-Rata Items

The cost of the following pay items will be pro-rated among participating agencies in the same ratio as their share of the project to the total project cost.

2021.501	Mobilization	Lump Sum
2031.501	Field Office, Type___	Each
2031.503	Field Laboratory, Type___	Each
2563.601	Traffic Control	Lump Sum

In most cases, maintenance and restoration of haul roads will no longer be pro-rated because of small costs typically associated with this item. Items such as computer equipment, cellular phones, pick-up truck, etc. will have no direct local participation.

Guidelines for Cooperative Construction Projects DS11.doc	Section II A2 Page 58 of 89	6-60
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These costs are typically included in construction engineering costs.

The pro-rata value assigned to each cost split shown in the plans is determined by dividing the dollar value of work associated with that split by the total dollar value of the contract, less the pro-rata items. The pro-rata percentage assigned to each cost split is determined using estimated quantities and estimated prices, and does not change through- out the life of the contract. The actual dollar amount paid by each split is adjusted by applying the split percentage to the actual contract bid price for the pro-rata items.

### **3. Cost Estimates during Project Development**

Responsibility for project cost should be determined by Mn/DOT's project manager, in coordination with Mn/DOT's Municipal Agreements Engineer and local unit of government representatives, early in the project development process. Local units of government must often plan their budgets for several years prior to a project to determine funding sources and to generate funds to pay for local shares of cooperative construction projects.

Responsibilities for local cost participation must be kept current during project development. Local responsibility and associated costs for cooperative projects will be provided to each local unit of government by Mn/DOT's project manager each time project cost estimates are updated, in accordance with Mn/DOT's "Cost Estimating Procedures during Project Development." A document outlining items and their associated costs for each local unit of government will also be included with the information provided when municipal approval is requested by Mn/DOT. Copies of cost estimate information provided to the local unit of government will also be provided to the Municipal Agreements Engineer. Care must be taken to clearly establish that cost estimates during project development, including the share identified as local responsibility, are preliminary and are subject to change until actual contract prices are established in the successful bid and award of contract.

### **4. Two-party and Multi-party Agreements**

Two-party agreements are written to define the costs and maintenance of cooperative construction items with one agency other than Mn/DOT.

Multi-party agreements are written for traffic control signal systems, where costs and maintenance responsibility other than Mn/DOT's is shared by more than one local unit of government through mutual agreement. These agreements are prepared by the District Traffic Office or the Municipal Agreements Unit.

<b>Guidelines for Cooperative Construction Projects</b> DS11.doc	<b>Section II A4</b> <b>Page 59 of 89</b>	<b>6-61</b>
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**5. Federal Aid Funds Applied to the Local Cost Share**

Mn/DOT encourages coordinated development of cooperative construction projects that may involve application of federal aid funds. Cooperative construction projects with federal aid funds must be developed in accordance with ATP procedures and applicable provisions of this policy.

In order for the local share of a cooperative construction project to receive federal aid funds, the project must be selected by the ATP and identified in the STIP. The federal aid funds to be applied to the local share must be identified in a separate line in the STIP that indicates the amount of federal aid and local funds. Increased costs that may affect the amount of federal aid funds necessary for the project shall be addressed in accordance with ATP procedures.

For cooperative construction projects let by Mn/DOT, the agreement and “Schedule I” must be prepared to identify the total local unit of government liability for the local share. This total liability includes both the local funds and the federal aid funds that will be applied to the local share of the cooperative construction project. When the local unit of government is invoiced for the local portion of the total local liability identified in the agreement, the trunk highway construction account is credited for the federal aid share of the total local liability of funds that Mn/DOT will collect from the federal government on behalf of the local unit of government. Mn/DOT reserves the right to determine actual funding to be applied to all shares of projects let and administered by Mn/DOT.

In the unlikely event that federal aid became unavailable for the local portion of the cooperative construction project, the local unit of government would be responsible for the total local liability. These requirements are necessary to meet the legislative intent of the trunk highway construction account. At completion of the contract and with the determination of final costs, the state’s construction account will be credited accordingly.

**6. Cost Share Information in Construction Plans**

Cooperative construction cost participation must be identified in the construction plan. Quantities on the estimated quantities sheets must be split into as many columns as there are separate funding groups. Each group will have its own column.

The factors that determine funding groups are funding source, project number, and percentage of participation. Each different combination of these factors requires a separate funding group. Specific funding information should be included at the top of each group column in the following manner:

<b>Guidelines for Cooperative Construction Projects</b> DS11.doc	<b>Section II A6</b> <b>Page 60 of 89</b>	<b>6-62</b>
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- Federal aid participation should be indicated by showing the percentage of federal aid participation for each group. When there is more than one Federal Project Number, each separate federal aid funding source is shown as a separate group and the appropriate Federal Project Number should be indicated.
- Mn/DOT participation should be indicated by showing the percentage of Mn/DOT participation for each group. When there is more than one State Project Number, each separate state funding source is a separate group and the appropriate State Project Number should be indicated.
- Local participation should be indicated by showing the percentage of local participation, and if applicable, the State Aid Project Number. The absence of a State Aid Project Number indicates the use of 100% local funds.
- Lump sum agreements should be identified in the “Construction Notes” of the construction plan.
- The funding percentages must total 100% for each column.
- When space is limited at the top of the column, footnotes may be used.

The tabulation sheets within the construction plan should list quantities attributable to each funding group, to act as supporting documentation for the funding participation shown on the estimated quantities sheets.

Funding information is also included on the construction plan title sheet. Each Federal Project Number, State Project Number, and State Aid Project Number must be shown.

For further information regarding cost participation information required in the construction plan, see the “Metro Sample Plan,” Mn/DOT Design Scene, or contact Mn/DOT’s Design Liaison Engineer, the Funding Program Coordinator in the Mn/DOT Office of Investment Management, or Mn/DOT’s Municipal Agreements Engineer.

## **7. Procedures and Responsibilities for Cooperative Construction Projects**

These procedures apply to both Mn/DOT-initiated and locally-initiated projects.

<p><b>Guidelines for Cooperative Construction Projects</b> DS11.doc</p>	<p><b>Section II A7</b> <b>Page 61 of 89</b></p>	<p><b>6-63</b></p>
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Mn/DOT considers the Mn/DOT-funded portion of a locally-initiated cooperative construction project to be a trunk highway project and must review and approve the construction plan and right-of-way acquisition procedures. This approval must be provided before the cooperative construction agreement can be completed.

**7.a. STIP**

A cooperative construction project must be included in the STIP to insure that Mn/DOT and local agency funding is identified for the project.

**7.b. Resolution**

A resolution, indicating the local unit of government's intention to make certain improvements and requesting Mn/DOT cost participation in the project, or approving local participation in a Mn/DOT-initiated project, must be adopted by the governing body of the local unit of government and concurred with by the district.

**7.c. District Responsibilities**

The district will assign a project manager to facilitate development of locally-initiated projects. The district project manager will guide the preparation of plans and special provisions and will arrange for Mn/DOT programming of locally-initiated projects. The district will furnish the local unit of government's engineer and/or their consultant with a copy of these procedures early in the project development stage.

Local units of government will communicate with the district project manager on all matters relating to project funding and the cooperative construction agreement.

**7.d. District Review of Locally-initiated Projects**

The process for district review locally-initiated projects of is somewhat is variable. The project will be submitted to the district project manager for review by associated district functional groups. In general, district functional groups will review the following:

- Plan;
- Proposal and/or special provisions;
- Engineer's estimate;
- Drainage area maps and hydraulics computations, if applicable;

Guidelines for Cooperative Construction Projects DS11.doc	Section II A7d Page 62 of 89	6-64
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- Soils/geotechnical report indicating pavement recommendations or computations;
- Right-of-way documentation for all work included in the project. Documentation is requested for all permanent, temporary, slope or drainage easements;
- All approved permits from the Corps of Engineers, NPDES, DNR, PCA, watershed districts, and other regulatory bodies; and,
- Laboratory testing services request form.

The functional groups will review the plan and supporting documents and will provide comments to the district project manager. The district project manager will compile all the comments and return them to the local agency for incorporation and revision.

The plan, the proposal, and the engineer’s estimate will then be submitted to the district project manager to route for final approval and agreement preparation.

**7.e. District Approval of Locally-initiated Projects**

The local unit of government will review the project documents listed in Section IIA7d with the district. Changes to the project documents pertaining to portions of the project with Mn/DOT cost participation, or affecting the trunk highway, will be made by the local unit of government when requested by the district. Approval of project documents by the district requires the same signatures on the construction plan title sheet as on a Mn/DOT-initiated project. If a local unit of government is using state aid funds for a construction project, these documents must also be reviewed and approved by the District State Aid Engineer.

**7.f. Project Turn-in to Mn/DOT Central Office**

After approval of a locally-initiated project by the district, the following documents are forwarded by the district to the Signal Unit, Office of Traffic Engineering, for stand-alone signal projects, or to the Municipal Agreements Engineer for all other projects. The following documents must be submitted a minimum of 12 weeks before project letting to begin preparation of the cooperative construction agreement:

- Original plan and three copies;
- Two copies of the proposal;
- A colored layout which shows Mn/DOT and local cost participation;

<p><b>Guidelines for Cooperative Construction Projects</b> DS11.doc</p>	<p><b>Section II A7f</b> <b>Page 63 of 89</b></p>	<p><b>6-65</b></p>
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- A schedule of quantities and an estimate of construction costs for the cooperative construction;
- An itemized cost estimate for the entire contract; and,
- A scheduled bid opening or letting date. This date is critical for prioritizing project reviews and agreement preparation.

Project turn-in for Mn/DOT-initiated and let projects will be in accordance with present procedures for project turn-in and pre-letting activities.

The activities and timeframes associated with agreement preparation are detailed in Appendix D.

**7.g. Construction Plan Review**

Mn/DOT’s Design Liaison Engineer will review the cooperative construction plan within 30 days of receipt by Mn/DOT’s Municipal Agreements Engineer. Changes to the project documents pertaining to portions of the project with Mn/DOT cost participation, or affecting the trunk highway, will be made by the district or local unit of government when requested by the Design Liaison Engineer. Following completion of any such changes, and provision of the revised plan to Mn/DOT’s Design Liaison Engineer, Mn/DOT approval of the plan will occur within five days. The Municipal Agreements Engineer will complete the cooperative agreement based on the approved construction plan.

After the plan has been reviewed and approved by Mn/DOT, the original plan will be returned to the local unit of government.

**7.h. Advertising for Bids**

Mn/DOT shall not advertise a Mn/DOT-let cooperative construction project until the agreement has been signed by the local agency.

A local unit of government shall not advertise for bids until Mn/DOT has reviewed and approved the plans and proposal on a locally-let cooperative construction project, and has prepared a cooperative construction agreement for the project.

**7.i. Award of Contract**

An itemized abstract of all bids received and a certified copy of the low bidder's proposal will be sent to the Transportation District Engineer, along with the local unit of government's recommendation for the award of the project. The construction contract shall not be awarded, and the contractor will not be allowed to commence construction activities, prior to complete execution of the cooperative construction agreement and concurrence by all parties in that award.

Minnesota Statutes §16A.15, subdivision 3, states the following:

“An obligation may not be incurred against any fund, allotment, or appropriation unless the commissioner has certified a sufficient unencumbered balance or the accounting system shows sufficient allotment or encumbrance balance in the fund, allotment, or appropriation to meet it....An expenditure or obligation authorized or incurred in violation of this chapter is invalid and ineligible for payment until made valid. A payment made in violation of this chapter is illegal. An employee authorizing or making the payment, or taking part in it, and any person receiving any part of the payment, are jointly and severally liable to the State for the amount paid or received.”

An obligation is incurred when construction begins on a cooperative project that is let by a local unit of government. If an agreement is not fully executed, and the necessary funds encumbered at that time, a violation of Minnesota Statutes § 16A.15, subdivision 3, has occurred. A violation form then must be filled out and submitted to Mn/DOT’s Director of the Budget Section and the Deputy Commissioner/Chief Financial Officer for approval before the necessary funds can be encumbered. This form explains why the violation occurred, and what will be done in the future to prevent similar violations.

A violation of Minnesota Statutes § 16A.15, subdivision 3, also occurs when the cost of Mn/DOT participation construction covered under an agreement exceeds the amount of the funds encumbered for the agreement. A violation form must then be filled out and processed as explained in the preceding paragraph. To avoid this situation whenever possible, Mn/DOT’s Municipal Agreements Unit adds a contingency amount to each encumbrance for a cooperative construction agreement to cover the cost of overruns of estimated quantities of Mn/DOT cost

<b>Guidelines for Cooperative Construction Projects</b> DS11.doc	<b>Section II A7i</b> <b>Page 65 of 89</b>	<b>6-67</b>
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participation construction and/or Mn/DOT-approved additional construction.

**7.j. Payment by a Local Unit of Government to Mn/DOT**

After award of the construction contract, Mn/DOT will revise the Schedule “I” cost estimates based on actual bid prices per the applicable method of computing cost shares, and will forward the fully-executed agreement to the local unit of government with a notice that an invoice from Mn/DOT will be forthcoming. Mn/DOT’s Department of Finance will invoice the local unit of government per the terms of the agreement.

**7.k. Payment by Mn/DOT to a Local Unit of Government**

Advance payment by Mn/DOT to a local unit of government is made after the award of the construction contract, and upon receipt of an invoice from the local unit of government. The amount of the advance payment will be the total amount of Mn/DOT’s estimated construction costs, based on contract unit prices, but will not include payment for construction engineering.

Final payment is made after completion of all the work in the contract, final payment to the contractor, and acceptance of the work by the Transportation District Engineer. Procedures for payment are included in the cooperative construction agreement and in the payment processing package which is furnished to the local unit of government by the Municipal Agreements Engineer. The amount of the final payment will be Mn/DOT’s final construction costs, plus the related construction engineering costs, less the amount of any previous payment.

**7.l. As-built Construction Plans Submitted by a Local Unit of Government**

Upon completion of the cooperative construction, the local unit of government shall furnish the Transportation District Engineer with an as-built plan for all construction performed on Mn/DOT right-of-way.

**B. Methods for Computing Cost Shares**

The methods that may be used in a cooperative project agreement to identify amounts that Mn/DOT and local units of government will pay for their respective shares of a cooperative construction project. Agreements may be written using one or a combination of any of the methods below.

Guidelines for Cooperative Construction Projects DS11.doc	Section II B Page 66 of 89	6-68
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In some instances, it may be difficult to identify or keep track of a portion of an agency's participation based on pay items. For that portion, a lump sum amount or a percentage of construction costs may work, for the other portion, a schedule I might fit the situation.

An example may be defined in the case of an upgrade to the lighting system. Mn/DOT would pay for 50% of standard lighting unit or system in a lump sum credit (based on estimate), the pay items for the non standard lighting unit or system would be 100% local. The agreement would reflect the credit.

Another example would be watermain and the city share of parking lane construction. The city would have 100% of the watermain construction as a schedule I, and a lump sum based on bid or lump sum for the 10% paving items of the parking lane construction.

**1. Composite Percentage**

Each agency's participation in the cooperative construction project is determined in accordance with section ID of this policy. Estimated quantities as shown in the plan, and in the estimated unit prices, are used to compute the preliminary cost of each agency's participation. Each agency's cost participation is then converted from a dollar amount to a preliminary percentage of the total project cost, less the cost of any items that are included in a separate traffic signal agreement. This preliminary percentage is used to prepare the cooperative construction agreement. The cooperative construction agreement is signed by each agency and agreed to by resolution from each local unit of government before the contract can be let out for bids.

After bids are received, each agency's percentage will be revised using the estimated quantities, as shown in the plan, and using the contract unit prices of the successful bidder. These revised final percentages will not change throughout the life of the project. The cooperative agreement is revised accordingly and must be executed by all agencies prior to the contract being awarded to the successful bidder. Each agency having work performed for them will then advance their cost share to the agency performing the work before any costs can be accrued.

All supplemental agreements and change orders that are written to the project must identify the appropriate cost participation, as determined in section ID of this policy, for the work contained therein.

<b>Guidelines for Cooperative Construction Projects</b> DS11.doc	<b>Section II B1</b> <b>Page 67 of 89</b>	<b>6-69</b>
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After completion of the project, each agency's final cost participation amount will be determined using the final percentage applied to the final project costs, plus any applicable supplemental agreements and change orders. The difference between the advanced amount and the final amount will be computed and paid to the appropriate agency.

This method of computing cost shares is the recommended method for most cooperative construction projects. This method greatly reduces the amount of record keeping which is required of construction personnel to document the "schedule I" method.

## **2. As-built Quantities (Schedule I)**

Each agency's participation in the cooperative construction project is determined in accordance with section ID of this policy. Estimated quantities as shown in the plan, and in the estimated unit prices, are used to compute the preliminary cost of each agency's participation. These preliminary costs are used to prepare the cooperative construction agreement. The cooperative construction agreement is signed by each agency and agreed to by resolution from each local unit of government before the contract can be let out for bids. The cooperative agreement must be executed by all agencies prior to the contract being awarded to the successful bidder.

After bids are received, each agency's cost will be revised using the estimated quantities, as shown in the plan, and the contract unit prices of the successful bidder. The preliminary costs are revised accordingly. Each agency having work performed for them will then advance their cost share of the construction costs to the agency performing the work before any costs can be accrued.

All supplemental agreements and change orders that are written to the project must identify the appropriate cost participation, as determined in Section ID of this policy, for the work contained therein.

After completion of the project, each agency's final cost participation amount will be determined using the actual final as-built quantities and the contract unit prices, plus any applicable supplemental agreements, work orders, change orders, "back sheet" adjustments and construction engineering charges. The difference between the advanced amount and the final amount will be computed and paid to the appropriate agency.

<b>Guidelines for Cooperative Construction Projects</b> DS11.doc	<b>Section II B2</b> <b>Page 68 of 89</b>	<b>6-70</b>
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**3. Lump Sum**

Lump sum agreements are written for a specific dollar amount that is mutually agreed upon by Mn/DOT and the local unit of government before bids are received for the cooperative construction project. When the agreement is fully executed and the construction contract is awarded, payment is made and the agreement is closed out. No adjustment in the cost participation is made to reflect contract unit prices or final quantities.

This type of agreement is most appropriate when the division of quantities or costs by another method is not practical or where the scope of the work is well-defined and the chance of significant changes in quantities or the need for supplemental agreements is minimal. It should also be considered when an agreement is being prepared for a small dollar amount.

**4. Bid-priced Lump Sum**

This agreement uses the estimated quantities in the plan and the bid prices received to determine each agency's costs. A preliminary schedule "I" is used for the estimate and then revised based upon unit item bid prices.

Payment is made after the contract is awarded and the agreement is closed out. No adjustment in the cost participation is made to reflect contract final quantities.

If the scope of the contract work changes significantly, a lump sum agreement may be supplemented or another agreement written to reflect the revised scope of work.

**5. Design Build Procedures**

**i. Utility**

Master Utility Agreement (MUA) is an agreement between three parties; Mn/DOT, the contractor and the utility owner. This agreement is written specifically for the utilities affected by trunk highway construction. These agreements hold the design build contractor, the local unit of government and Mn/DOT accountable for the utility design, relocation, construction and, if requested, betterments. The MUA's detail the roles and responsibilities of all three parties in accomplishing the required utility relocations. As construction requires, a work order is written under the MUA to address the specific project utility relocations. Mn/DOT Utility Agreements Office writes this type of agreement.

<p><b>Guidelines for Cooperative Construction Projects</b> DS11.doc</p>	<p><b>Section II B5i</b> <b>Page 69 of 89</b></p>	<p><b>6-71</b></p>
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**ii. Other project costs**

Local unit of government costs for other elements of the project are included in a cooperative agreement signed by Mn/DOT and the local unit of government. If costs are small compared to the overall project costs, a lump sum based on engineer’s estimate is the most simplistic methodology.

**C. Policy Liaisons and Compliance Oversight**

The Municipal Agreements Engineer, Office of Technical Support, and the Funding Program Coordinator, Office of Investment Management, are liaison contacts and provide compliance oversight for application of this policy.

District project managers are encouraged to work in coordination with the policy liaisons to determine cost participation responsibilities and to identify funding sources early in the project development process. Ongoing coordination is also encouraged. At a minimum, copies of cost estimate information provided to local units of government shall also be provided to the Municipal Agreements Engineer.

Policy liaison activities and compliance oversight will primarily occur in three following areas.

**1. STIP Identification**

The Office of Investment Management will work with districts to ensure that cost estimates for Mn/DOT and local shares of projects are correctly identified in the STIP and that appropriate anticipated funding sources are identified for each participating agency share.

**2. Development of Cost Participation Responsibilities**

The Office of Investment Management and the Municipal Agreements Unit are available to provide assistance with application of this policy during project development as requested by the districts. These offices will also review documentation of project cost responsibilities and notify the districts of cost participation responsibilities that may be inconsistent with this policy.

<b>Guidelines for Cooperative Construction Projects</b> DS11.doc	<b>Section II C2</b> <b>Page 70 of 89</b>	<b>6-72</b>
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### **3. Plan Information and Agreement Preparation**

During preparation of cooperative construction agreements, Mn/DOT's Municipal Agreements Engineer will ensure that construction plan information and cooperative agreement documents are consistent with the STIP, with the cost participation responsibilities developed during project development, and with this policy.

#### **D. Policy Revisions**

This policy is maintained by the Municipal Agreements Unit in Mn/DOT's Office of Technical Support. Revisions to this policy will be made approximately every three years to correspond with implementation of new federal funding acts and at mid-points of those acts. Revisions to this policy may also be initiated by districts and offices in response to changing standards, regulatory requirements, or to other policies or project development procedures. Revisions to this policy shall be developed in coordination with the Municipal Agreements Engineer, affected Mn/DOT Offices, districts and local units of government.

As a minimum, review of proposed policy revisions will be provided through the Technical Memorandum "Yellow Sheet Process" and through State Aid for Local Transportation.

Other review and coordination for development of proposed policy revisions may be necessary. Significant policy revisions will be presented to Mn/DOT's Transportation Program Investment Committee for concurrence and recommendation for approval by Mn/DOT's Senior Management Team (SMT). Final approval of such policy revisions is by SMT.

#### **E. Exception Procedures**

Justification for exceptions to the application of this policy shall be documented by the district, submitted by the Transportation District Engineer to the Municipal Agreements Unit, who will forward the request to Mn/DOT's Director of Operations for concurrence, and forwarded to Mn/DOT's Director of Engineering Services for approval. The merits of such requests will be determined on a case-by-case basis.

#### **F. Other Types of Agreements**

##### **1. Landscape Partnership**

This type of agreement is written in conjunction with the Community Roadside Enhancement Partnership Program that provides for landscape design services and financial assistance to applicants to help beautify state

<b>Guidelines for Cooperative Construction Projects</b> DS11.doc	<b>Section II F1</b> <b>Page 71 of 89</b>	<b>6-73</b>
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highway right-of-way. Landscape partnership agreements reimburses the applicant for the purchasing of landscape materials to be planted by the applicant in accordance with Mn/DOT-approved plans. Applicants include home rule charter and statutory cities or towns. Mn/DOT's Landscaping Unit administers all application requests, and the Municipal Agreements Unit writes the agreement. Funding is programmed through the district and encumbered and paid by the Municipal Agreements Unit.

**2. Joint Powers**

This type of agreement is with one or more local units of government, other states, or the federal government and is written to share resources, do work for each other, share work, or allow units joint or cooperative execution of any power common to the contracting parties.

**3. Interagency**

This type of agreement is written between two state agencies, such as the Department of Natural Resources or the Department of Administration.

**4. Maintenance**

This type of agreement is written with another road authority to transfer maintenance responsibilities and to provide payment for those responsibilities. A maintenance agreement is also required when pre-existing agreement conditions, or otherwise negotiated maintenance responsibilities, differ from maintenance responsibilities identified in this policy. These agreements may be referred to as Technical Assistance agreements. Each District offices writes maintenance agreements. Funds are encumbered and paid by each district.

**5. Detour**

This type of agreement is written with another road authority for a local roadway that the district has decided to use as an official detour route, in accordance with Minnesota Statutes §161.25. The districts involve all appropriate road authorities in the selection of an official detour route. Once established, the detour will become a temporary trunk highway for the duration of the detour. The detour route and payments are determined in accordance with the 1990 Detour Management Study Report. The Municipal Agreements Unit will write complex detour agreements, the District will write simple detour agreements. The District will inform the local unit of

government of the removal of detour signing and the duration of the detour. The Municipal Agreement Unit will encumber the funds, and make the payment. No agreement is written for less than \$500.

**6. Consultant**

This type of agreement is for professional technical services that are intellectual in character of that do not involve the provision of supplies or materials; that include consultation analysis, evaluation, prediction, planning or recommendation; and that result in the production of a report or the completion of a task. Consultant agreements are written and administered by Mn/DOT's Consultant Services Office.

**7. Technical Assistance**

This type of agreement is in accordance with Minnesota Statutes § 161.39 entitled "Aid to Other Road Authorities and State Departments." These agreements are receivable by Mn/DOT and provide funds to the trunk highway account. These agreements allow Mn/DOT to provide aid to other road authorities in the form of services, such as engineering advice, surveying, engineering design, inspection, and performance of maintenance on any highway, road or bridge. Technical assistance agreements are written in various offices and districts.

**8. Partnership**

This type of agreement is governed by Minnesota Statutes § 174.02 with either a governmental or a non-governmental partner to promote efficiencies in providing governmental services or to further the development of innovation in transportation for the benefit of the citizens of Minnesota. A partnership agreement may involve services "in-kind" or an exchange of resources with a non-governmental party. The legislation requires that Mn/DOT annually report what partnerships were formed and how much money was involved.

A receivable partnership agreement, governed by Minnesota Statutes § 174.02 Subdivision 6, requires the establishment of a specific fund to cover the project costs or expenses of the Office or District. The money is used for non-trunk highway purposes. All receivable partnership agreements require the advance payment from the partner. Partnership agreements are usually written by Mn/DOT's Partnership Coordinator, but may be written by Municipal Agreements, Consultant Agreements, or the district.

<b>Guidelines for Cooperative Construction Projects</b> DS11.doc	<b>Section II F8</b> <b>Page 73 of 89</b>	<b>6-75</b>
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**9. Unofficial Detour**

This type of agreement is written with a local unit of government, most often a township, to allow Mn/DOT to compensate them for increased maintenance costs associated with local or through-traffic using local roads rather than an official detour route that was established as part of a construction or reconstruction project. Increased costs of maintenance on the local roadway, not including improvement costs, are documented by the local road authority and submitted to the Mn/DOT district/division for payment consideration. If the district concurs in the additional costs, an unofficial detour agreement is written to provide payment to the local road authority. If Mn/DOT and the local road authority cannot agree upon the amount of additional maintenance costs that should be paid, the "Gas Tax Method," used for determining payment for a detour placed on paved roadways, may be used. The average daily traffic volume is used in the Gas Tax Method calculation and is limited to 25% of the traffic volumes diverted from the detoured trunk highway. An agreement or payment will not be written for less than \$500. Unofficial Detour Agreements are written by the Municipal Agreements Unit in Mn/DOT's Office of Technical Support.

**10. Utility**

This type of agreement is governed by Minnesota Statutes § 161.45 and §161.46 and Minnesota Rules 8810.3300, subpart 3. Utility agreements are contracts between private or public utility companies to reimburse or recover the costs associated with relocation due to highway construction. Utility Agreements are prepared by the Utility Agreements Unit in Mn/DOT's Office of Technical Support.

**11. Railroad**

This type of agreement is written with a railroad when a road construction project requires payment to the railroad for services or materials. Agreements are also required when Mn/DOT or the contractor may encroach within the track area, or when there is a potential for equipment encroachment, or when long term maintenance or cost issues arise regarding a crossing or bridge. The office of Freight, Railways and Waterways writes and administers these agreements.

**12. State Aid**

A project with state aid funding requires an agreement in the following circumstances:

<b>Guidelines for Cooperative Construction Projects</b> DS11.doc	<b>Section II F12</b> <b>Page 74 of 89</b>	<b>6-76</b>
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- A Mn/DOT let construction contract with local participation where the local unit of government uses state aid funds for the local share of costs. The Municipal Agreements Unit will write a cooperative construction agreement to receive the state aid funds into the trunk highway fund.
- A local agency let contract, using federal-aid funds. The State Aid Office writes the agreement which allows the local unit of government to receive the federal-aid funds.
- A local agency let contract, using state aid funds and trunk highway funds. The State Aid Office writes the agreement.
- A Delegated Contract Process (DCP), the State Aid Office writes the funding agreement for the reimbursement of federal funds to the local agency. If the project also involves trunk highway funds, there is a cooperative construction agreement written by Municipal Agreements, to pay the trunk highway funds for the construction.
- For force account agreements. The State Aid Office writes an agreement to reimburse a local agency for work or materials provided by city or county forces.

**G. Permits**

Locally-initiated projects on trunk highway right-of-way that do not have Mn/DOT cost participation are not considered as cooperative construction projects. Such projects will require a permit from Mn/DOT before work may begin on the trunk highway right-of-way. The permit process involves review of the proposed work and its impact on the right-of-way, trunk highway design standards, traffic operations, and safety. The permit stipulates provisions for construction operations within Mn/DOT right-of-way, and further maintenance responsibilities. Typical permit types include:

**1. Limited use**

Required for placement of non-Mn/DOT owned facilities, such as a locally-owned bicycle trail, on Mn/DOT right-of-way.

**2. Construction**

Required for local construction or reconstruction of roadway or related items, grading, and other miscellaneous work within Mn/DOT right-of-way.

<p><b>Guidelines for Cooperative Construction Projects</b> DS11.doc</p>	<p><b>Section II G2</b> <b>Page 75 of 89</b></p>	<p><b>6-77</b></p>
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### **3. Utility**

Required for the installation of private and public utilities; including water, sanitary sewer, storm sewer, and lighting, within Mn/DOT right-of-way. These permits are coordinated through the Utility Permit Unit in Mn/DOT's Office of Technical Support.

### **4. Drainage**

Required for any increased drainage or other drainage impacts to the trunk highway right-of-way.

### **5. Access**

Required for construction modification in design or use of any access to the trunk highway.

The initial contact for permit procedures and requirements is made through the District Permit Office or District Right-of-Way Office for limited-use permits.

## Appendix A: Minnesota Constitution, Statutes, and Rules References

### 1. Constitution

Article XIV, section 2: Establishes a trunk highway system which shall be constructed, improved, and maintained as public highways of the state. (Pages 1, 6)

Article XIV, section 6: Establishes a trunk highway fund which shall be used solely for the purposes specified in section 2. (Pages 1, 6)

### 2. Statutes

Minnesota Statutes §16A.15, subdivision 3: Provisions for allotment and encumbrance of state funds. (Page 58)

Minnesota Statutes §103E: Provisions for general drainage. (Page 26)

Minnesota Statutes §161.20: Defines the general powers of the Commissioner of Transportation. (Pages 1, 6, 76)

Minnesota Statutes §161.20, subdivision 2: Permits the commissioner to make arrangements with and cooperate with any governmental authority for the purposes of effectuating the provisions of Minnesota Statutes 161.20. (Pages 1, 6, 76)

Minnesota Statutes §161.20, subdivision 3: States that the commissioner may expend trunk highway funds only for trunk highway purposes. (Page 1, 6)

Minnesota Statutes §161.21, subdivisions 1 and 2: Defines the commissioner's ability to undertake studies for the location and design of highways and to cooperate with local units of government in such studies. (Page 12)

Minnesota Statutes §161.24: Defines Mn/DOT's ability to pay for local roadway work required as a result of trunk highway construction, improvement, or maintenance. (Pages 17, 44)

Minnesota Statutes §161.25: Provisions for temporary trunk highway detours and haul roads. (Page 65)

Minnesota Statutes §161.28: Provisions for altering a public ditch by construction or maintenance of a trunk highway. (Page 26)

Minnesota Statutes §161.38, subdivision 1: Provides that road authorities of any county, city, or township may enter into an agreement with the commissioner for the construction of a roadway or structure of greater width or capacity. (Pages 1, 6, 76)

<b>Guidelines for Cooperative Construction Projects</b> DS11.doc	<b>Appendix A2</b> Page 77 of 89	<b>6-79</b>
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Minnesota Statutes §161.38, subdivision 3: Defines Mn/DOT's ability to participate in the construction and maintenance of frontage roads, and provides a general definition of a frontage road. (Pages 18, 77)

Minnesota Statutes §161.38, subdivision 5: Provides a definition of municipalities identified as local units of government in this policy. (Page 76)

Minnesota Statutes §161.39: Provisions for preparation of technical assistance agreements as aid to other road authorities and state departments. (Page 65)

Minnesota Statutes §161.45: Relocation of utilities on trunk highway right-of-way. (Page 32, 66)

Minnesota Statutes §161.46: Provision for costs associated with adjustment or relocation of utilities. (Pages 44, 66, 76)

Minnesota Statutes §162: Establishes a state aid highway system and apportionment of funds. (Page 7)

Minnesota Statutes §169.01, subdivision 62: Defines bicycle routes, which are a roadway or shoulder signed to encourage bicycle use. (Page 75)

Minnesota Statutes §169.01, subdivision 69: Defines bicycle paths, which are designed for exclusive or preferential use by people using bicycles and constructed and developed separately from the roadway shoulder. (Page 75)

Minnesota Statutes §169.01, subdivision 70: Defines bicycle lanes, which are a portion of the roadway or shoulder designed for preferential use by people using bicycles. (Page 75)

Minnesota Statutes §169.01, subdivision 72: Defines bikeways, which collectively includes bicycle lanes, bicycle paths, and bicycle routes. (Page 75)

Minnesota Statutes §169.04, identifies provisions for parking on trunk highways. (Page 17)

Minnesota Statutes §169.35: Identifies provisions for parking on trunk highways. (Page 14)

Minnesota Statutes §174.02, subdivision 6: Provisions for the development of partnership agreements. (Page 66)

Minnesota Statutes §174.52, establishes the local road improvement program. (Page 12)

Minnesota Statutes §446A.085: Establishes a transportation revolving loan fund. (Page 11)

<b>Guidelines for Cooperative Construction Projects DS11.doc</b>	<b>Appendix A2 Page 78 of 89</b>	<b>6-80</b>
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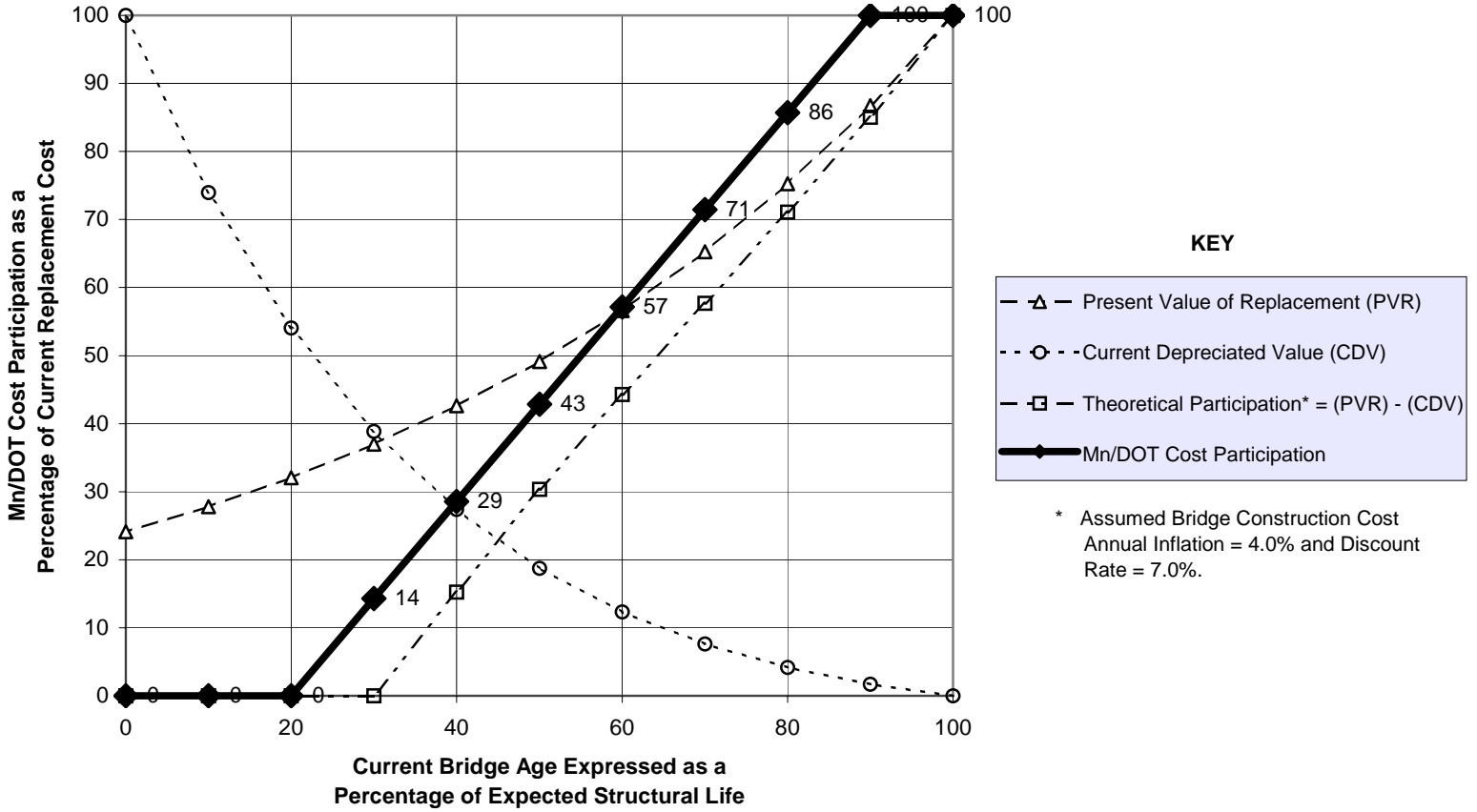
**3. Rules**

Minnesota Rules § 8810.3300: Provisions for costs associated with utility relocation associated with trunk highways. (Pages 45, 66)

Minnesota Rules § 8820: Provisions for state aid highway design practices. (Page 75)

<b>Guidelines for Cooperative Construction Projects DS11.doc</b>	<b>Appendix A3 Page 79 of 89</b>	<b>6-80a</b>
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### Appendix B Mn/DOT Cost Participation in Bridge Replacement Before End of Structural Life



## Appendix C: Aesthetic Participation Example

The following is an example of how to determine Mn/DOT and local aesthetic participation on a fictitious project.

The example project is a two-mile-long project in an urban setting. It is the primary entrance into the community. The first mile is reconstruction in an area with several historic elements and properties. There is a small bridge that will be reconstructed, and small retaining walls, in the first mile of the project. The second mile of the project is major construction expansion from two lanes to four lanes. There are no unique environmental or historic elements or properties along this segment.

The estimated costs of the project prior to inclusion of costs associated with aesthetic elements are:

	<u>Cost</u>
Bridge cost	300,000
Retaining wall cost	150,000
Other Mn/DOT project costs	4,000,000
<u>Local project costs</u>	<u>600,000</u>
Total project costs	5,050,000

The aesthetic participation factors were determined to be:

Bridge: Considered as Participation Level A	15%
Retaining Walls: Considered as Participation Level A	10%
Other Mn/DOT project costs:	
Mile 1; Participation Level A, Category 2; Reconstruction	3%
Mile 2; Participation Level B, Category 1; Major construction	3%

The limits of Mn/DOT aesthetic participation were determined as follows:

	<u>Cost</u>	<u>Mn/DOT</u>	<u>Mn/DOT Aesthetic</u>
		<u>Factor</u>	<u>Participation Limit</u>
Bridge	300,000 x	15%	45,000
Retaining wall	150,000 x	10%	15,000
<u>Other Mn/DOT project costs</u>	<u>4,000,000 x</u>	3%	<u>120,000</u>
Total Mn/DOT Aesthetic Participation costs			180,000

The visual assessment process and corridor design guide for the project identified the following aesthetic elements and associated estimated costs for the project:

Bridge aesthetic treatments	60,000
Retaining wall aesthetic treatments	40,000
Sidewalk and Median Surface Treatments	50,000
<u>Decorative roadway lighting</u>	<u>60,000</u>
Total Cost of Aesthetic Elements	210,000

For this project, the costs for the desired aesthetic elements were distributed as follows:

<b>Aesthetic Elements</b>	<b>Mn/DOT Specific Item Participation</b>	<b>Mn/DOT Participation from Other Project Costs</b>	<b>Local Participation</b>
Bridge	45,000	15,000	0
Retaining Wall	15,000	25,000	0
Sidewalk and Median	0	50,000	0
Decorative Lighting	0	30,000	30,000
Total	60,000	120,000	30,000

This agreement was written to reflect that all items associated with the aesthetic treatments for the bridge, retaining walls, sidewalk, and median are 100% Mn/DOT participation, and items associated with decorative lighting are 50% Mn/DOT and 50% local participation.



## Glossary

The following definitions apply to cooperative construction agreements and their development.

**Advance Construction Funds.** A financing tool that is used for project funding. Advance Construction is a federal program that allows an entity to fund a project with their own funds and convert it to federal funds at a later date when those federal funds are available. The project must be treated as a federal project from its inception and must receive all federal approvals/authorizations prior to letting.

**Applicable Design Criteria.** Design criteria applicable to a certain segment or portion of a roadway as identified in the current version of the Mn/DOT Road Design Manual Part I and II for trunk highway improvements, in Minnesota Rules 8820 for roadways identified as part of the State Aid System, and in the American Association of State Highway and Transportation Officials “Policy on Geometric Design of Highways and Streets” for other roadways.

**Area Transportation Partnership.** Area Transportation Partnerships (ATPs) may consist of local elected officials, local transportation planning representatives, other transportation partners, and state transportation officials within each of the eight Mn/DOT State Aid district boundaries. The ATPs are responsible for integrating the priorities for Highway and Transit Capital projects, which will use federal aid transportation funds, into a draft Area-wide Transportation Improvement Program (ATIP).

**Auxiliary Lane.** An auxiliary lane is the portion of a roadway that is adjacent to a through-lane and is used for passing, weaving, truck climbing, or other purposes that promote the safe and efficient movement of through-traffic. A parking lane is not an auxiliary lane.

**Bikeway.** In accordance with Minnesota Statutes § 169.01, subdivision 72, a bikeway collectively includes bicycle lanes, which are a portion of a roadway or shoulder designed for exclusive or preferential use by people using bicycles (Minnesota Statutes §169.01, subdivision 70), bicycle paths, which are facilities designed for exclusive or preferential use by people using bicycles and constructed or developed separately from the roadway or shoulder (Minnesota Statutes §169.01, subdivision 69), and bicycle routes, which are a roadway or shoulder signed to encourage bicycle use (Minnesota Statutes §169.01, subdivision 62).

**Bus Lane.** A through-lane provided exclusively for use by buses.

**Bus Turnout.** An area adjacent to a through-lane, but which is not part of a parking lane or shoulder, and is provided for buses to collect and discharge passengers.

Guidelines for Cooperative Construction Projects DS11.doc	Glossary 1 of 6 Page 84 of 89	6-80f
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**Cities of the First Class.** Those cities having more than 100,000 inhabitants.

**Commissioner.** The Commissioner of the Minnesota Department of Transportation or authorized representative.

**Cooperative Construction Agreement.** A cooperative construction agreement is an agreement between Mn/DOT and a local unit of government pursuant to Minnesota Statutes §161.20, §161.38 and §161.46, concerning construction in which both parties have an interest.

**Cooperative Construction Project.** A construction project, including trunk highway improvements, in which costs are shared between Mn/DOT and a local unit of government. These projects may be either locally- or Mn/DOT-initiated.

**Cooperative Construction Items.** Items in a cooperative construction project that have cost-sharing responsibilities, as identified in accordance with this policy.

**Coordinated Signal Systems.** Coordinated traffic signals consist of interconnected signal systems, either pre-timed or traffic actuated, to maximize the efficiency of the whole system.

**Debt Management Funds.** A financing tool that is used to advance project construction. Debt Management is used where a local government constructs a project for Mn/DOT in advance of the projects' scheduled date in Mn/DOT's program. Mn/DOT pays back the local government during the fiscal year in which the project was scheduled to be let for construction in Mn/DOT's program.

**Design.** Design includes, but is not limited to, the preparation of detailed construction plans, construction specifications and an engineer's cost estimate.

**District.** A district is one of the eight organizational subdivisions of the Minnesota Department of Transportation. This term refers to the Metropolitan Division and to the seven greater Minnesota districts.

**Emergency Vehicle Preemption (EVP) Systems.** The primary function of these systems is to preempt the normal operation of a traffic signal to give a green indication to emergency vehicles so they may proceed through the intersection more quickly and safely with minimal disruption to normal traffic flow. These systems provide a mutually-desirable service in the movement of vehicles, such as local police, fire, ambulance and State Patrol vehicles, through-traffic signals. Other functions include railroad preemption and bus preference. EVP systems may be installed with new or existing traffic signals.

**Expressway.** A trunk highway of four or more through-lanes with a divided median, at-grade intersections, or a combination of interchanges and at grade intersections, with partial or full access control.

<b>Guidelines for Cooperative Construction Projects</b> DS11.doc	<b>Glossary 2 of 6</b> <b>Page 85 of 89</b>	<b>6-80g</b>
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**Freeway.** A trunk highway on the interstate system or other roadways with fully-controlled access and interchanges, and with grade separations at intersections with other trunk highways and local roadways.

**Frontage Road.** A frontage road is a roadway that provides for local traffic circulation while controlling access to the trunk highway. In accordance with Minnesota Statutes §161.38, subdivision 3, a frontage road may be directly adjacent to the main traveled lanes of the trunk highway or may be constructed a reasonable distance from the limits of the trunk highway right-of-way if, in the judgment of the commissioner, such location is necessary to eliminate unreasonable circuitry of travel or to provide access to properties otherwise denied access to public highways by construction of the trunk highway. Such frontage roads shall connect at least at one end with the trunk highway or with another public highway.

**Frontage Road Setback.** The distance between a local roadway intersection with a frontage road and the intersection of the same local roadway with a trunk highway.

**Grade Separation.** Any bridge or structure that vertically separates modes of travel, such as bridges carrying a roadway over/under another roadway, or bridges carrying a trail over/under a roadway.

**Highway, Street, and Road.** Highway, street, and road are general terms that denote a public way for the use of motor vehicles, including the entire area within the right-of-way.

**Interchange.** An interchange connects two roadways that are grade-separated. A system of ramps and/or loops provides for turning movements between the roadways. An interchange may include frontage roads, auxiliary lanes, signals, signs, lights and other items.

**Intersection.** An intersection connects two roadways that are not grade-separated. An intersection may include turn lanes, auxiliary lanes, signals, signing, lighting and other items.

**Island.** An island is a raised area constructed between the edges of traffic lanes to separate traffic movements. The island may be located in the median to separate opposing traffic movements or at an intersection for the channelization of turning movements.

**Intelligent Transportation System (ITS).** ITS is the application of advanced technologies, information systems and management techniques to improve the safety and operation of transportation systems.

**Legs of an Intersection.** Legs of an intersection shall mean the physical roadways of the intersection, including interchange ramp legs which require a signal. A leg may carry two-way traffic, one-way traffic going either direction or may be exclusively pedestrian traffic (e.g., mid-block pedestrian crossing).

**Local Roadway.** A roadway under the jurisdiction of a local unit of government.

<b>Guidelines for Cooperative Construction Projects</b> DS11.doc	<b>Glossary 3 of 6</b> <b>Page 86 of 89</b>	<b>6-80h</b>
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**Local Unit of Government.** A road authority other than Mn/DOT, including but not limited to a municipality including cities, counties or townships in accordance with Minnesota Statutes §161.38, subdivision 5 or other governing authorities, such as park boards, other state agencies or other states.

**Locally-initiated Project.** A transportation project in which the need, scope, or means to accomplish the project is predominantly a determination of, and priority for, the local unit of government.

**Mn/DOT.** The State of Minnesota Department of Transportation, acting through the Commissioner of Transportation.

**Mn/DOT-initiated Project.** A transportation project in which the need, scope, or means to accomplish the project is predominantly a determination of and priority for Mn/DOT.

**Multi-use Trail.** A trail designated for use only by bicycles or other non-motorized uses (non-motorized includes electric wheelchairs).

**Municipal Agreements Unit.** The Mn/DOT Municipal Agreements Unit, which is located in the Transportation Building in St. Paul, prepares cooperative construction agreements between Mn/DOT and the local unit of government.

**Municipal Agreements Engineer.** The Municipal Agreements Engineer manages the Mn/DOT Municipal Agreements Unit.

**Non-participating Roadway Width.** Non-participating roadway width is the portion of a roadway which is outside the limits of Mn/DOT participation as defined in this policy.

**Parking Lane.** A parking lane is the portion of a roadway adjacent to a through-lane and is used for on-street parking.

**Programmed Project.** A Mn/DOT - or locally-initiated project that appears in a Mn/DOT District Project Study Plan, Project Work Plan, or State Transportation Improvement Program.

**Roadway.** A roadway is the portion of a highway, including through-lanes and turn lanes, on which motor vehicles travel.

**Shoulder.** A shoulder is the portion of the roadway between the edge of the outside through-lane and the outer curb (or inslope) which is normally used for purposes other than on-street vehicular parking.

**Sidewalk.** A sidewalk is a surfaced way designed for preferential use by pedestrians.

<b>Guidelines for Cooperative Construction Projects</b> DS11.doc	<b>Glossary 4 of 6</b> <b>Page 87 of 89</b>	<b>6-80i</b>
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**Standard Width Concrete Sidewalk.** A width of six feet for sidewalks separated from the adjacent roadway by grass, pavers, or other non-concrete sidewalk boulevards, and eight feet for sidewalks that directly abut the adjacent roadway to allow for signs, sidewalks and roadside obstructions.

**State Road Construction Account.** The biannual appropriation of funds by the legislature which may only be expended for trunk highway purposes. This appropriation is comprised of federal aid funds made available to Mn/DOT through ATP procedures and state funds dedicated to the trunk highway fund.

**State Transportation Improvement Program (STIP).** Mn/DOT's State Transportation Improvement Program is a document that identifies all planned Mn/DOT and local unit of government transportation capital and construction projects receiving federal aid funds through the Federal Highway Administration and Federal Transit Administration within the State of Minnesota for the subsequent three-year period. The STIP is developed annually by the districts, Area Transportation Partnerships (ATPs), Metropolitan Planning Organizations (MPOs), and Mn/DOT's Office of Investment Management.

**Studies and Preliminary Engineering.** A process of research and fact-finding that includes, but is not limited to, traffic analysis, needs analysis, alternative development and evaluation, geometric design layouts and environmental documents, and associated mapping, visualization, surveys, traffic counts, public and agency involvement, soil boring and other necessary data gathering prior to commencing a roadway design.

**Surfacing.** Surfacing consists of roadway pavement, including aggregate, bituminous, and concrete base courses, but does not include curb and gutter.

**Through-lane.** A through-lane is that portion of a roadway available for the movement of vehicles, excluding shoulders, turn lanes, auxiliary lanes and parking lanes.

**Touch-down Point.** A touch-down point is the limit of construction necessary to match trunk highway improvements with the existing alignment, grade, and geometric design of the intersecting street.

**Traffic Control Signal System.** A type of highway traffic signal by which traffic is alternately directed to stop and permitted to proceed. Integral components of the traffic control signal include the control equipment, electrical wiring, signal hardware, intersection roadway lighting, intersection roadway signs, and emergency vehicle preemption, and other minor construction, such as curb, sidewalk, pedestrian curb ramps and minor surfacing considered to be a necessary element of the traffic signal system. Also included within this definition are pedestrian signals, and flashing beacons at intersections.

**Traffic Projection Factor.** The 20-year county project factor identified in Figure 4(1) - 892.810 of the Mn/DOT State Aid Manual for County State Aid Highways and the 20-year Standard Projection factor of 1.5 for all Municipal State Aid Streets and other local roadways.

<b>Guidelines for Cooperative Construction Projects</b> DS11.doc	<b>Glossary 5 of 6</b> <b>Page 88 of 89</b>	<b>6-80j</b>
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**Traffic Signal System Operation.** Consists of all aspects of timing, timing studies and optimization, monitoring, responding to inquiries, field review, and functional checks of a traffic control signal system.

**Traffic Signal System Major Maintenance.** Maintenance of a traffic control signal system which consists of maintaining all components and needs of the traffic control signal system, including the control equipment, electrical wiring, signal hardware, and replacing equipment knockdowns.

**Traffic Signal System Minor Maintenance.** Maintenance of a traffic control signal system which consists of relamping, cleaning and painting, and payment responsibility for the electrical energy to operate the traffic control signal system.

**Transportation District Engineer.** A Transportation District Engineer is the chief administrator of one of the Minnesota Department of Transportation districts. This term refers to the Metropolitan Division Engineer, the seven Greater Minnesota Transportation District Engineers, and their authorized representatives.

**Trunk Highway.** A trunk highway is an interstate or other highway which is under the jurisdiction of the Minnesota Department of Transportation.

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**Douglas H. Differt, Deputy Commissioner  
and Chief Engineer**

**Any questions regarding this guideline should be directed to:**  
Municipal Agreements Engineer, MS 682 Transportation Building, Phone: 651-296-0969.

<b>Guidelines for Cooperative Construction Projects DS11.doc</b>	<b>Glossary 6 of 6 Page 89 of 89</b>	<b>6-80k</b>
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<b>Guidelines for Cooperative Construction Projects DS11.doc</b>		<b>6-801</b>
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