

# **2012 MUNICIPAL SCREENING BOARD DATA**



## **DULUTH'S AERIAL LIFT BRIDGE**



**JUNE 2012**



## Duluth's Aerial Lift Bridge project

The painting and repair to Duluth's iconic Aerial Lift bridge (on MSAS 140) was a two year effort including lead paint removal and abatement, replacement of structural steel and repair to the concrete abutments. The lift bridge spans the entry to the busy Duluth harbor, so a majority of the work was done while commercial shipping was closed for the winter. The structure was wrapped in tarps to help contain the lead paint being removed and provide a heated area when painting was in progress. At night, passersby were often greeted by what appeared to be a large glowing white dragon haunting the waterfront. This scene was created by the illumination of the shrouded towers as construction workers put in long hours to complete their task. By often working two ten hour shifts each day, the impact to shipping and tourist traffic to the popular Canal Park destinations was kept to a minimum.

Construction began on January 21<sup>st</sup> 2008, and was completed in July of 2009.

LHB was the consultant during construction, and Rainbow Inc. was the primary contractor.





# The State Aid Program Mission Study

## Mission Statement:

**The purpose of the state-aid program is to provide resources, from the Highway Users Tax Distribution Fund, to assist local governments with the construction and maintenance of community-interest highways and streets on the state-aid system.**

## Program Goals:

The goals of the state-aid program are to provide users of secondary highways and streets with:

- Safe highways and streets;
- Adequate mobility and structural capacity on highways and streets; and
- An integrated transportation network.

## Key Program Concepts:

*Highways and streets of community interest* are those highways and streets that function as an integrated network and provide more than only local access. Secondary highways and streets are those routes of community interest that are not on the Trunk Highway system.

A community interest highway or street may be selected for the state-aid system if it:

- A. Is projected to carry a relatively heavier traffic volume or is functionally classified as collector or arterial
- B. Connects towns, communities, shipping points, and markets within a county or in adjacent counties; provides access to rural churches, schools, community meeting halls, industrial areas, state institutions, and recreational areas; serves as a principal rural mail route and school bus route; or connects the points of major traffic interest, parks, parkways, or recreational areas within an urban municipality.
- C. Provides an integrated and coordinated highway and street system affording, within practical limits, a state-aid highway network consistent with projected traffic demands.

The function of a road may change over time requiring periodic revisions to the state-aid highway and street network.

*State-aid funds* are the funds collected by the state according to the constitution and law, distributed from the Highway Users Tax Distribution Fund, apportioned among the counties and cities, and used by the counties and cities for aid in the construction, improvement and maintenance of county state-aid highways and municipal state-aid streets.

The *Needs* component of the distribution formula estimates the relative cost to build county highways or build and maintain city streets designated as state-aid routes.



# 2012 MUNICIPAL SCREENING BOARD DATA

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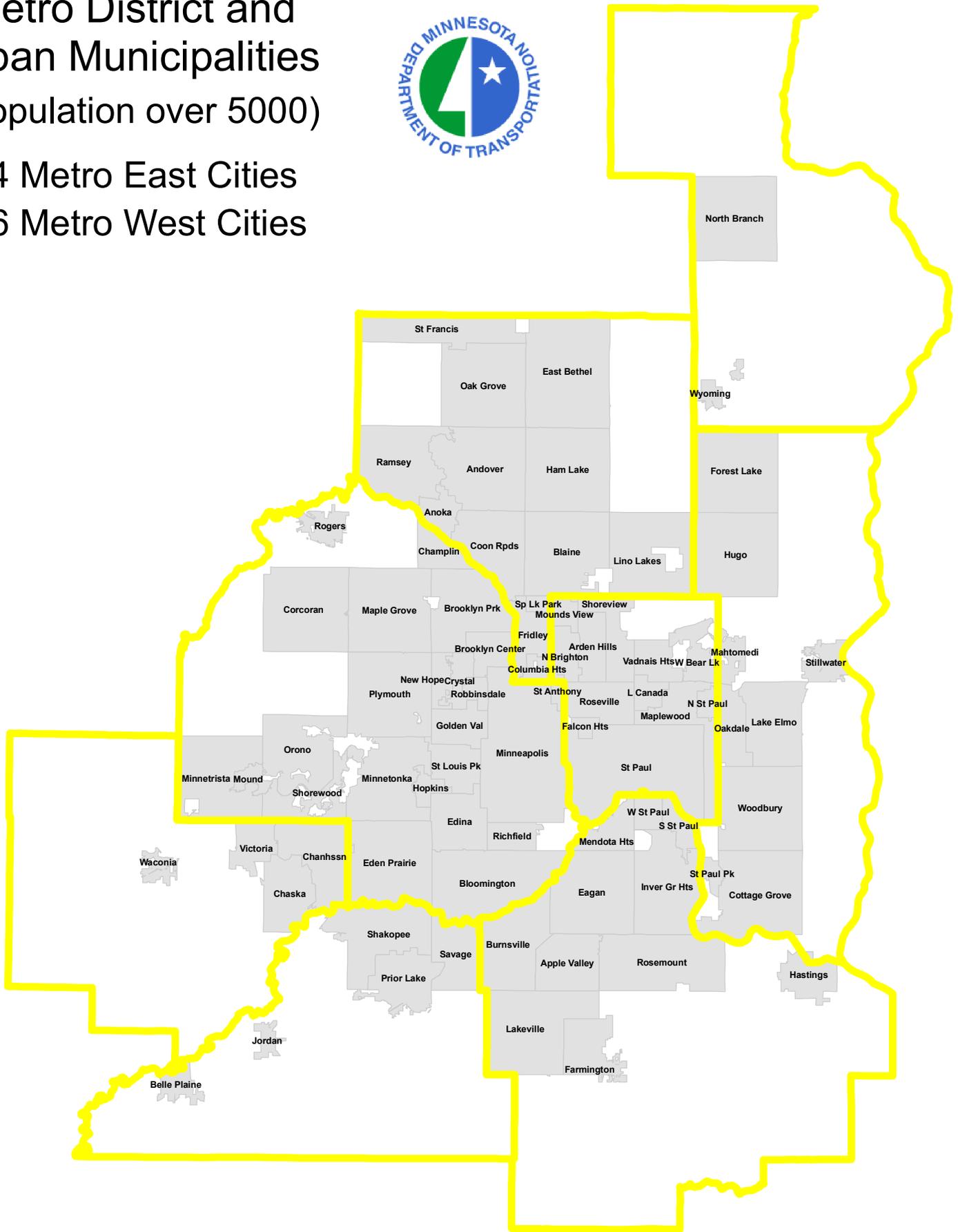
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# State of Minnesota Metro District and Urban Municipalities (Population over 5000)

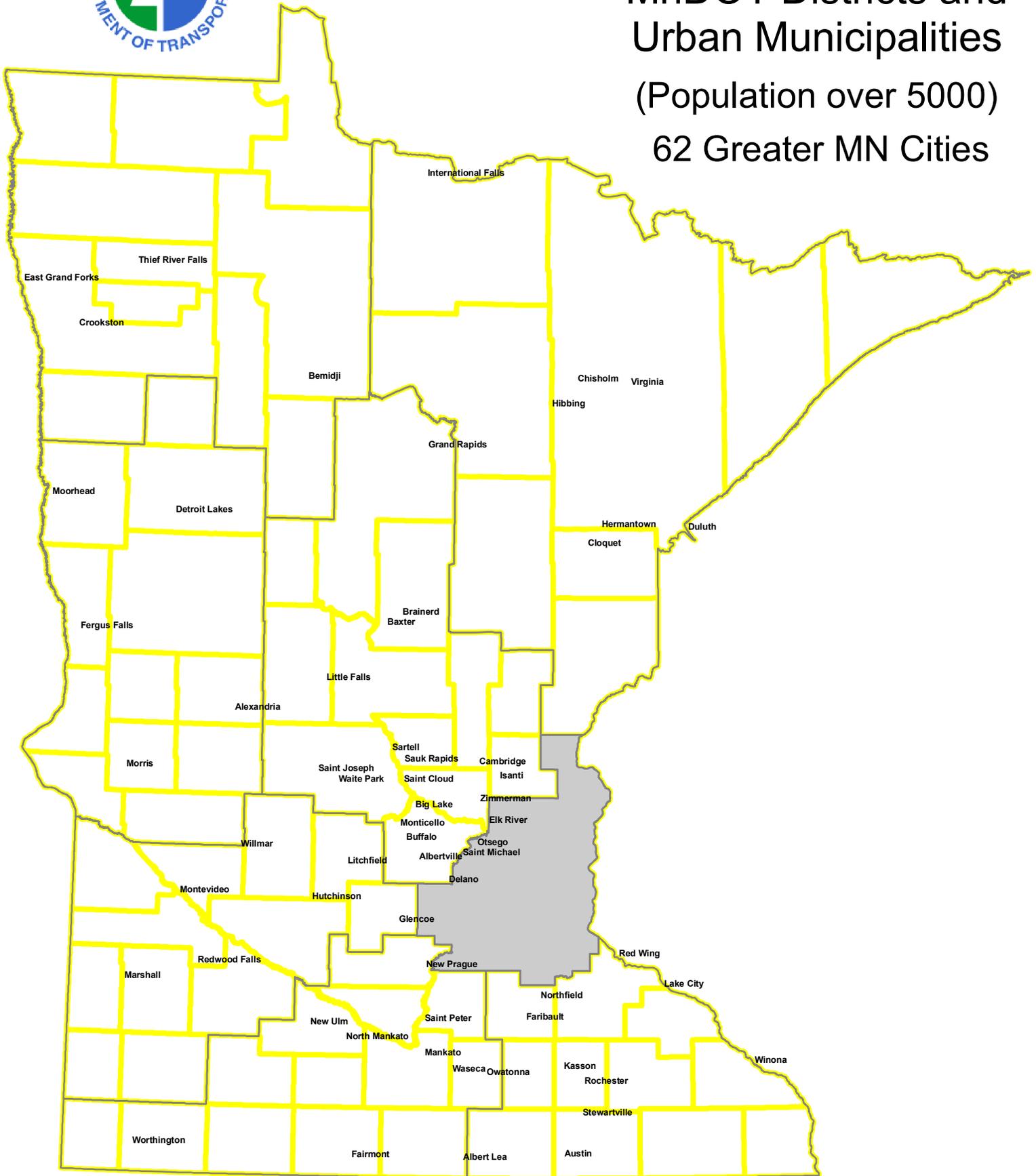


34 Metro East Cities  
46 Metro West Cities





# State of Minnesota MnDOT Districts and Urban Municipalities (Population over 5000) 62 Greater MN Cities



# 2012 MUNICIPAL SCREENING BOARD

N:/MSAS/BOOKS/2012 June BOOK/SCREENING BOARD MEMBERS 2012.XLS

04-Apr-12

<b>OFFICERS</b>			
<b>Chair</b>	<b>Kent Exner</b>	<b>Hutchinson</b>	<b>(320) 234-4212</b>
<b>Vice Chair</b>	<b>VACANT</b>		
<b>Secretary</b>	<b>Steve Bot</b>	<b>St. Michael</b>	<b>(763) 497-2041</b>

<b>MEMBERS</b>				
<b>District</b>	<b>Years Served</b>	<b>Representative</b>	<b>City</b>	<b>Phone</b>
1	2011-2013	David Salo	Hermantown	(218) 727-8796
2	2012-2014	Dave Kildahl	Thief River Falls	(218) 281-6522
3	2012-2014	Brad DeWolf	Buffalo	(320) 231-3956
4	2010-2012	Tim Schoonhoven	Alexandria	(320) 762-8149
<b>Metro-West</b>	2010-2012	Tom Mathisen	Crystal	(763) 531-1160
6	2010-2012	David Strauss	Stewartville	(507) 288-6464
7	2011-2013	Troy Nemmers	Fairmont	(507) 238-9461
8	2012-2014	John Rodeberg	Glencoe	(952) 912-2600
<b>Metro-East</b>	2011-2013	Mark Graham	Vadnais Heights	(651) 204-6050
<u>Cities</u>	Permanent	Cindy Voigt	Duluth	(218) 730-5200
<u>of the</u>	Permanent	Don Elwood	Minneapolis	(612) 673-3622
<u>First</u>	Permanent	Richard Freese	Rochester	(507) 328-2426
<u>Class</u>	Permanent	Paul Kurtz	Saint Paul	(651) 266-6203

<b>ALTERNATES</b>				
<b>District</b>	<b>Year Beginning</b>	<b>Representative</b>	<b>City</b>	<b>Phone</b>
1	2014	Jesse Story	Hibbing	(218) 262-3486
2	2015	Rich Clauson	Crookston	(218) 281-6522
3	2015	Bruce Westby	Buffalo	(763) 271-3236
4	2013	Dan Edwards	Fergus Falls	(218) 332-5416
<b>Metro-West</b>	2013	Rod Rue	Eden Prairie	(952) 949-8314
6	2013	Jon Erichson	Austin	(507) 437-7674
7	2014	Jeff Johnson	Mankato	(507) 387-8640
8	2015	Holly Wilson	Willmar	(320) 214-5173
<b>Metro-East</b>	2014	Klayton Eckles	Woodbury	(952) 912-2600

## 2012 SUBCOMMITTEES

The Screening Board Chair appoints one city Engineer, who has served on the Screening Board, to serve a three year term on the Needs Study Subcommittee.

The past Chair of the Screening Board is appointed to serve a three year term on the Unencumbered Construction Fund Subcommittee.

NEEDS STUDY SUBCOMMITTEE	UNENCUMBERED CONSTRUCTION FUNDS SUBCOMMITTEE
<p>Katy Gehler, Chair Prior Lake (952) 447-9890 Expires after 2012</p> <p>Russ Matthys Eagan (651) 675-5635 Expires after 2013</p> <p>Steve Bot St. Michael (763) 497-2041 Expires after 2014</p>	<p>Shelly Pederson, Chair Bloomington (952) 563-4870 Expires after 2012</p> <p>Jeff Hulsether Brainerd (218) 828-2309 Expires after 2013</p> <p>Jean Keely Blaine (763) 784-6700 Expires after 2014</p>

**2011 MUNICIPAL SCREENING BOARD  
FALL MEETING MINUTES  
October 25 & 26, 2011**

**Tuesday Afternoon Session, October 25, 2011**

**I. Call to Order and Welcome by Municipal Screening Board Chair Jean Keely**

The 2011 Fall Municipal Screening Board Meeting was called to order at 1:00 PM on Tuesday, October 25, 2011.

- a. Chair Keely introduced the Head Table and Subcommittee members:

Jean Keely, Blaine – Chair, Municipal Screening Board  
Kent Exner, Hutchinson – Vice Chair, Municipal Screening Board  
Julie Skallman, Mn/DOT – State Aid Engineer  
Marshall Johnston, Mn/DOT – Manager, Municipal State Aid Needs Unit  
Terry Maurer, Arden Hills – Chair, Needs Study Subcommittee  
Chuck Ahl, Maplewood – Chair, Unencumbered Construction Funds Subcommittee and Past Chair, Municipal Screening Board  
Jeff Hulsether, Brainerd – Past Chair, Municipal Screening Board  
Shelly Pederson, Bloomington – Past Chair, Municipal Screening Board  
Bob Moberg – Secretary, Municipal Screening Board

**II Secretary Moberg conducted the roll call of the members present:**

- a. Municipal Screening Board Representatives

District 1	David Salo, Hermantown
District 2	Rich Clausen, Crookston (Alternate)
District 3	Steve Bot, St. Michael
District 4	Tim Schoonhoven, Alexandria
Metro West	Tom Mathisen, Crystal
District 6	David Strauss, Stewartville
District 7	Troy Nemmers, Fairmont
District 8	Kent Exner, Hutchinson
Metro East	Mark Graham, Vadnais Heights
Duluth	Cindy Voigt
Minneapolis	Don Elwood
St. Paul	Paul Kurtz
Rochester	Richard Freese

- b. Recognized Screening Board Alternates:

District 3	Brad DeWolf, Buffalo
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District 8                      John Rodeberg, Glencoe

c.      Recognized Department of Transportation personnel:

Rick Kjonaas	Deputy State Aid Engineer
Patti Loken	State Aid Programs Engineer
Walter Leu	District 1 State Aid Engineer
Lou Tasa	District 2 State Aid Engineer
Kelvin Howieson	District 3 State Aid Engineer
Merle Earley	District 4 State Aid Engineer
Steve Kirsch	District 6 State Aid Engineer
Gordy Regenscheid	District 7 State Aid Engineer
Mel Odens	District 8 State Aid Engineer
Greg Coughlin	Metro State Aid Engineer
Mike Kowski	Assistant Metro State Aid Engineer
Julee Puffer	Assistant Manager, MSAS Needs Unit

d.      Recognized others in Attendance:

Lee Gustafson, Minnetonka, Chair NSTF  
Larry Veek, Minneapolis  
Jim Vanderhoof, St. Paul  
Mike Vanbeusekom, St. Paul  
Glenn Olson, Marshall  
Patrick Mlakar, Duluth  
Dave Sonnenberg, Chair, CEAM Legislative Committee

**III      Review of the ‘2011 Municipal State Aid Needs Report’ Booklet**

All page numbers within these minutes refer to the above document. Marshall Johnston initiated the review of the entire booklet as outlined below.

a.      May 2011 Municipal Screening Board Meeting Minutes (Pages 7-17)

Chair Keely asked for any discussion on or changes to the May 2011 Municipal Screening Board meeting minutes.

**Motion by Mathisen, seconded by Graham to approve the minutes as presented. Motion carried unanimously.**

**IV.      Review of booklet by Marshall Johnston**

a.      Introductory information in the booklet (Pages 1-17)

b.      Tentative 2012 Population Apportionment (Pages 19-26)

Johnston stated that there were five cities based on the 2010 census that fell below the population threshold of 5,000. The five cities included LaCrescent and Byron in District 6 and Medina, Dayton and Circle Pines in the Metro Area.

Johnston reviewed the spreadsheet on Page 20 stating that the 2010 census population for each city is shown. He said it will be the new base population for the next ten years as required by State statute.

Johnston reviewed the spreadsheet on Page 23 stating that last year's dollars were used to give an estimate based on actual census data. He said by using last year's dollars, each city generated \$19.01 per person in state aid allocation. Johnston stated that half of the allocation is based on population and the other half on construction needs.

c. Effects of the 2011 Needs Study Update (Pages 27-30)

Johnston referred to the spreadsheet on Page 28 indicating how unadjusted construction needs are calculated. He said several cities increased their needs because they received CSAH turnbacks and others decreased their needs because of construction projects that were a large percentage of their total with the state aid system.

d. Mileage, Needs and Apportionment (Pages 31-34)

Johnston stated that mileage decreased from last year because of the five cities that went below 5,000 in population. He said even though the mileage in some cities increased because of CSAH turnbacks they received, the total mileage of the system still decreased by 11.14 miles.

e. Itemized Tabulation of Needs (Page 36-38)

Johnston stated that the spreadsheet indicates an item by item tabulation of all needs that the cities generated for each of the items used in the needs study and it also shows the State wide totals for needs.

f. Tentative 2012 Construction Needs Apportionment (Pages 39-45)

Johnston stated that an estimate of the other half of the apportionment was calculated by using the 2011 adjusted construction numbers and last year's dollars. He said \$1,000 in construction needs generated \$13.27 in actual dollars, based on last year's dollar amounts and this number will change in January of 2012.

g. Adjustments to the Construction Needs (Pages 46-65)

Johnston explained that the excess balance adjustment on Pages 51-56 is the excess balance redistributed as a low balance incentive. He said it occurs when a city has more than three times their annual construction allotment in their September 1<sup>st</sup> balance and also 1.5 million dollars. Final adjustments will be made at the end of the year.

Johnston explained the unamortized bond account balance on Page 57. He said that the adjustment is either a negative or positive adjustment based on the difference between the remaining principal to be paid on the bond schedule and the amount that has not yet been applied to state aid projects.

Johnston explained the After the Fact Non-existing Bridge Adjustment on Page 58. He stated that this is for any newly built bridges. He stated that because of the fluctuations in the cost of bridge construction, an after the fact adjustment is given for 15 years for the amount actually spent on the bridge from local dollars. He noted that the cities of Chaska, Cottage Grove, Eden Prairie and Edina should have been removed from the spreadsheet because their 15 years is up and their needs will be decreased by the amount of the adjustment. The revised Total Needs Adjustment is actually \$35,618,088.

Johnston referred to the right-of-way adjustment on Pages 59-62 and stated that it is the largest adjustment. He said this is also an “after the fact” adjustment for 15 years because of the wide variation in right of way costs. He said there is \$15,559,059 of new right of way adjustments this year.

Johnston referred to the spreadsheet on Page 62 and explained that last year’s expenditures were added to the new ones from Page 59. The expenditures that are 15 years old were then subtracted leaving the total of new right of way adjustments for 2012 totaling \$106,044,343.

Johnston referred to Page 63 stating that the After the Fact Retaining Wall Adjustment is the newest adjustment. He explained that this adjustment is after the fact for 15 years because retaining walls are built in lieu of buying more right of way. He added that there was only one new project submitted this year from the City of Moorhead for \$93,402.

Johnston referred to Page 64 and stated that the City of Worthington is receiving a positive adjustment to its needs of \$287,244 to reconcile a negative adjustment made inadvertently last year due to a delay that occurred in processing a payment request.

Johnston referred to Page 65 and explained the Trunk Highway Turnback Maintenance Allowance, stating that every city that is eligible for trunk highway turnback funding receives \$7,200 per mile for maintenance.

- h. Recommendation to the Commissioner (Pages 66-68)

Johnston stated that a motion will be made tomorrow approving the construction needs and the original version of the letter on Page 66 will be distributed for signatures.

i. Tentative 2012 Total Apportionment, Comparisons, and Apportionment Rankings (Pages 69-78)

Johnston referred to the spreadsheet on Pages 69-71 and explained that each municipality's tentative construction needs and population apportionment amounts for 2012 are shown.

Johnston stated that the tentative 2012 apportionment rankings are shown on Pages 75-78).

j. Other Topics

i. Certification of MSAS System as Complete (Pages 81-83)

Johnston explained the spreadsheet on Page 82 stating that state statute allows a municipality to spend the population half of the distribution of the allocation on the other 80% of the local roads in the city if the state aid system is built to state aid standards or is determined to have adequate needs.

ii. Advance Guidelines (Pages 84-85)

Johnston referred to Pages 84-85 and explained that at the spring meeting the guidelines for advances were changed to allow an advance up to four times the last annual construction allotment or \$3,000,000, whichever is less.

iii. History of the Administrative and Research Accounts (Page 86)

Johnston referred to Page 86 and stated that the history of the administrative and research accounts are shown. He explained that the administrative account is used for expenses like screening board meetings, variance meetings, printing of state aid materials, etc. Johnston said a motion would be made tomorrow to take up to ½ of 1% of the preceding apportionment and putting it into a research account for the Local Research Board. He said the amount is \$695,405.

iv. Transportation Revolving Loan Fund (Pages 87-89)

Johnston reported that action may be taken tomorrow regarding the Transportation Revolving Loan Fund on Pages 87-89. He referred to Page

89 and stated that a portion of MSA funding may be put in the Transportation Revolving Loan Fund and that those dollars will be leveraged into more dollars to advance low interest loans.

v. County Highway Turnback Policy (Pages 90-91)

Johnston referred to the County Highway Turnback Policy on Page 90-91 and stated that he or the District State Aid Engineers are available to help municipalities manage their MSA account to the best advantage for the city.

vi. Current Resolutions of the Municipal Screening Board (Pages 92-101)

Johnston noted that Municipal Screening Board made only one change in 2011 to their resolutions on Pages 92-101. He said the wording was changed to include Rochester as a city of the 1<sup>st</sup> class.

**V. Other Discussion Items**

a. NSTF (Needs Study Task Force) Update – Lee Gustafson

Gustafson made a powerpoint presentation, shared comments made previously by each of the districts, and asked for feedback and discussion from everyone at the meeting regarding two test cases developed for determining construction needs on the state aid system. In both cases, roadway widths and associated needs would be based on existing ADT for the roadway segment. There would be eight ADT-width categories to replace the two existing categories for width (44 ft and 68 ft). Test Case A would continue the current practice of determining and reinstating construction needs on a 20-year cycle. Test Case B would move to a system of continual needs. Gustafson acknowledged there are a number of pending issues yet to be discussed, including the impact of traffic signals, sidewalks, street lights, storm sewer, and retaining walls on generation of needs but the task force prefers to focus today's discussion on the two test cases that have been developed so far.

Graham said the Metro East and Metro West districts support Test Case B because of the simplicity it would create for the state aid system and because it would eliminate "gaming" in the system. Mathisen stated that the software is unmanageable and needs to be rewritten and it does not make sense to rewrite a more complicated program to retain the old ways. He felt that long term it would be an easier and more straightforward way of doing it. Gustafson said that in an effort to do the right thing for the entire state they looked at the percentages of change up or down for everyone.

Bot stated that District 3 supports Test Case B even though it may create the consequence of eliminating non existing routes and may discount routes built

using local funds. He suggested going with continual needs and giving enough time to allow systems to be changed over to match the continual needs approach.

Ahl asked why Minneapolis, Duluth, St. Paul and Rochester would also see substantial reductions in their needs when using the continual needs approach. Johnston explained that the value of the needs would drop under a continual needs approach. He said Minneapolis and St. Paul have a lot of needs that are dropping almost \$3 per 1,000 which is more than the overall increase created by a continual needs approach. Ahl asked if that means the cities with the most needs stand to lose the most dollars. Johnston replied that would be the case initially. Ahl stated this would be a fundamental shift in approach. Bot said it would also likely minimize the use of state aid dollars on off-system projects.

Voigt stated that when the system was first set up it was on a basis of design life. She said if that concept is abandoned, she sees difficulty explaining to the legislature what is needed to repair the roads. She said if needs are kept as more of a quasi pavement management system, you know you are getting needs on the segments that have needs. She also said how dollars are spent (resurfacing vs. reconstruction, etc.) should not be included with the discussion on how needs are calculated. Gustafson asked Skallman if she would be comfortable with explaining the new system to the legislature. She agreed she could if allowed some time to prepare for it. Salo said it really becomes a discussion of system value instead of system needs. Gustafson said when the other pending items are factored in (traffic signals, street lights, storm sewer, etc.), it is likely the cities of the first class will see a greater positive adjustment in their system needs.

Strauss stated that District 6 supported the ADT and continual needs approach and felt that it was a good representation of what it would take to build a roadway. The other issue discussed at the District 6 meeting was how to best allocate the 50% of state aid dollars attributed to needs.

Freese said the determination of needs should be kept as basic and straightforward as possible. Schoonhoven said the system has been underfunded for years and continual needs appear to be the best way to bring equity into the system. Sonnenberg said calculating needs and spending dollars are really two separate issues. Maurer noted that if the distribution of money is not equitable, it is the screening board's responsibility to make changes. Kjonaas said the State Aid office is looking for a starting point to develop the software necessary to perform the calculation of needs and their intention is to have a software program with enough flexibility to accommodate expansions as needed.

Salo spoke for the task force, stating they had to keep reminding themselves of the screening board's responsibility to come up with an equitable system.

Voigt said that District 1 wants a decision to be made and to move forward and she said soil factors are important in the northern part of the state.

Elwood asked if the task force is looking for specific direction at this time. Gustafson stated the task force wants specific direction so selection of a vendor to develop the necessary software can be made and a special screening board meeting can be held in January 2012. Skallman said she would also like additional direction on the pending issues.

Voigt asked if both Test Case A and Test Case B can continue to move forward for further analysis. Gustafson said it could be done if that is the desire of the screening board but the task force's preference would be to advance one test case for further analysis and to figure out how the pending issues would impact the selected test case.

Mathisen asked if phasing in the changes will be considered. Bot said each city will most likely adjust their system to best fit the new approach.

Freese asked what load ratings would be used for each ADT-width category and whether it makes sense to use a 10-ton load rating on all roadway segments. Gustafson said a typical section would be developed for each ADT-width category and load ratings would be part of that determination. Nemmers said the ADT tables are not intended to be used as design charts.

Gustafson asked for a show of hands of support for proceeding with Test Case A only, Test Case B only, or both test cases. The informal poll had the following results:

Test Case A – 1 vote  
Test Case B – 10 votes  
Test Case A and B – 2 votes

Gustafson said an official vote is expected to be taken at Wednesday's session.

b. Complete Streets – Shelly Pederson

Pederson distributed a handout and noted the committee schedule on the back page. She briefly reviewed the State Aid Rules tables with proposed changes to on-road bicycling facilities for urban and new reconstruction, overlay projects, urban and suburban reconstruction projects, as well as bicycle path standards and she said that all comments received to date have been considered in modifying the tables. She said the draft is being finalized for stakeholder review during the month of November and a cover letter is being prepared for mailing on November 1. She asked that all comments be returned by November 21 for compilation and consideration at a meeting that will be held on December 21. It will then be forwarded through the rule-making process. She stressed the importance of city review and participation in the process as it moves forward.

Freese asked if there will be an opportunity to pursue variances from the proposed rules and if the variance process will be changed as a result of the proposed rule changes. Pederson replied that variances could still be pursued and that there are no changes proposed to the variance process.

c. State Aid Report – Julie Skallman

Skallman requested the board wait until Wednesday’s session to receive her report.

d. Legislative Update – Dave Sonnenberg

Sonnenberg provided a handout and reviewed a list of potential items prepared by LMC for the upcoming legislative session. He asked for some time in Wednesday’s session to see if the board wants to establish any legislative priorities.

Sonnenberg reported that there is a vote scheduled for November 9 in the U.S. Senate for a federal transportation reauthorization. He said it would be a two year reauthorization that would maintain current levels of funding. He said that in the proposed bill project delivery would be streamlined and states would be given more flexibility in project delivery. Sonnenberg reported that there is no plan in place to offset the anticipated \$13 billion shortfall in the highway fund. He added that indications from the republicans are that unless there is a mechanism to deal with the shortfall, they will vote “no” on a two year reauthorization.

Sonnenberg reported that Transportation Secretary LaHood announced a Rebuild American Jobs Act for Transportation. The bill would create an infrastructure bank to specifically increase infrastructure spending with money being made immediately available for roads, bridges and airports.

e. Other Topics

i. Pavement Rating Van – Rick Kjonaas

Kjonaas reported that the testing was not done this summer because of the State shutdown. He said he is still insisting that something be done but it would probably not be this year. He felt there is still an application for the van in rural Minnesota.

ii. Traffic Signal Study and After The Fact Needs Study

Johnston reported that the two studies have not been completed. He suggested making a motion at tomorrow’s meeting to hold off on the studies until after the Needs Study Task Force is done with their report.

iii. Unencumbered Fund Balance Increases

Ahl reported that the unencumbered construction funds subcommittee is recommending adjustments be made in the advancement limits. He reported that the balance of unencumbered funds continues to grow and explained that it would be difficult to ask the legislature for more funding if current balances are not being utilized. He said the unencumbered funds could be an attractive target for the legislature to use in balancing the state budget. Ahl expressed his concern that the Federal government will cut funding levels and suggested raising advancement limits to 5 times the annual construction allocation or \$4 million, whichever is less. Ahl noted that an increase in spending would also create jobs.

Olson asked whether funds can be encumbered for future projects that require large amounts of money. Kjonaas said there were a handful of advancement requests that were denied this year because the city requesting the advancement was already at its limit.

Schoonhoven asked if the current penalty system for balance adjustments could be made even more stringent. Ahl said there was a lot of negative feedback about the penalty system when it was first implemented so making it more stringent is not likely to be well received.

Johnston clarified that if no money is used for construction, the minimum amount required for maintenance is \$1,500 per mile and the maximum amount allowed is 35% of the total allocation.

**VI. Motion to adjourn until 8:30 AM Wednesday morning by Graham and seconded by Voigt. Motion carried unanimously.**

Meeting was adjourned at 4:15 PM.

**2011 MUNICIPAL SCREENING BOARD  
FALL MEETING MINUTES  
October 25 & 26, 2011**

**Wednesday Morning Session, October 26, 2011**

Chair Keely called the session to order at 8:35 AM.

I. Review Tuesday's Subjects and Take Action on Specific Items

- a. Needs and Apportionment Data (Pages 27-68 and Handouts)

**Motion by Schoonhoven, seconded by Clausen to approve signing the letter to the Commissioner. The motion carried unanimously.**

The letter was circulated for signatures.

- b. Research Account (Page 86)

**Motion by Graham, seconded by Bot to approve the recommendation that \$695,405 (not to exceed ½ of 1% of the 2011 Apportionment sum) be set aside from the 2012 Apportionment fund and be credited to the research account. The motion carried unanimously.**

- c. Transportation Revolving Loan Fund (Page 89)

No action taken.

II. Continuation of Other Discussion Items

- a. State Aid Report – Julie Skallman, Rick Kjonaas and Others

Kjonaas reported that State Aid is back to full staff and stated that a lot of the new positions have been filled by persons under age 35. He said cross training is planned for the younger staff.

Loken reported that a one-day class on basic hydraulics is being planned by State Aid and Bridge Office staff. She said the class will also cover DNR and Army Corps of Engineers issues and it will be held early in 2012.

Skallman encouraged everyone to submit any comments or concerns they may have about MnDOT operations to her.

- b. NSTF (Needs Study Task Force) Update – Lee Gustafson

Freese asked why the subcommittee needs a distinction between Test Cases A and B right now. He doesn't feel that enough analysis has been done in order to make a good decision, especially when considering that only 55% of the needs items have been included thus far. Gustafson replied that the task force will do whatever is requested by the screening board.

Mathisen asked if the situation would be different if a new approach for calculating needs had been done 5 or 10 years ago. Johnston replied that each city has its own philosophy on how to manage its state aid system, so the situation will always be different.

Freese said that the need for hiring a new software vendor should be taken off the table. He suggested that MnDOT hire a consultant now based on their experience in writing software programs. He said that the type of work does not have to be specified and he prefers to take more time in analyzing the options and not be pressured into making a decision prematurely. Gustafson replied that he would like to know how everyone feels about the options presented and he stated that the focus should be on what the system needs to look like in future years.

Freese stated that there are unique situations that have evolved over the years that need to be addressed before a decision can be made. Gustafson replied that Minnetonka will receive fewer funds under both cases but he will vote for whatever he believes is best for the system. Gustafson also replied that the task force recognizes that there are distinct issues that need to be taken into account but they haven't had the opportunity to review all of them yet. Freese stated it is difficult to pick one if the equity between Test Case A and Test Case B has not been resolved.

Elwood said that both Test Cases A and B should be carried forward for further evaluation. He believes the task force needs the flexibility to consider both options and it also needs to have a discussion about system needs versus system value.

Mathisen asked whether the task force has expressed a preference. Salo said the task force has not taken a position but wanted to hear the board discussion first. Mathisen asked if Test Case A is still the old system with the addition of more street width categories. Johnston explained that in the current system, the Needs of every segment is based on the proration of the constructed width to the Needs width and in the proposed method every segment will be getting needs based on the same Needs width within its ADT category. He said the other difference between the current system and Test Case A is that Test Case A is based on existing traffic instead of projected traffic volumes.

Schoonhoven stated that he hopes a decision is made rather than keeping options open and not making a decision. He added that he would support any decision

made by the board. He also stated he believes there is a general consensus in the task force that continual needs are the direction to go.

Voigt said she does not want to go forward thinking that every year there is going to be a major correction to try to bring it to an adjustment relative to the previous year. She is concerned about making a decision that eliminates other options for the task force to consider and about the potential difficulty in explaining major changes in the system to our elected officials. She recommended going forward with having the committee look at both options, as well as any other options that may come up. She agreed that the process to obtain a software consultant should begin now.

Mathisen asked for clarification on the next steps to be taken in the process and what is expected at the CEAM meeting in January 2012. He expressed concern about not having anything meaningful to consider at that meeting. He said he understands the apprehension in cutting off analysis of both options too soon but he felt that the decision wouldn't be any easier three months from now. He stated that the issue for him comes down to the belief in the use of continual needs.

Rodeberg stated that the task force did not vote but there was a strong consensus to move forward with Test Case B.

Olson said District 8 had a thorough discussion of the two options and there was no disagreement that continual needs is the way to go.

Salo suggested the task force go back and compare a needs-based system (Option A) with a value-based system (Option B), examine both systems further, document strengths and weaknesses of both, and then bring a definitive recommendation back to the screening board. Freese asked if that could be considered a motion.

**Motion by Salo, seconded by Freese to go forward with both Option A and Option B, strengthen the reasoning behind each option, and then document a decision as a recommendation to go forward.**

Voigt suggested a friendly amendment to include evaluating the other pending issues identified previously. The amendment to the motion was accepted and made.

Nemmers stated that the question is not Option A or B but whether to continue with a system with 20 year reinstatement or change to a continual needs system.

Kjonaas said that state law identifies a 25 year reinstatement period but the system uses a 20 year reinstatement of needs and that he believes there will be enough flexibility in the software program to accommodate either Option A or B.

Strauss stated that the District 6 movement was to go to continual needs to effectively eliminate the 20 year reinstatement and to clean everything up.

Bot asked whether voting against the motion on the floor will take things in another direction. Gustafson replied both options have issues that will have to be addressed. Exner said the counties encountered the same decision point and they are still working through some issues.

After some additional discussion, the final motion was read as follows:

**Motion by Salo, seconded by Freese to go forward with both Option A (needs-based system) and Option B (value-based or continual needs system), strengthen the reasoning behind each option, and then document a decision as a recommendation to go forward and include evaluating the other pending issues identified previously. 5 in favor, 8 opposed.**

Gustafson stated a final decision likely won't be made by the screening board until one year from now. Kjonaas said the impact will be seen with the 2014 distribution of funds.

**Motion by Mathisen, seconded by Strauss to have the NSTF go forward with Option B (value-based or continual needs system) and include evaluating the other pending issues identified previously. 9 in favor, 4 opposed.**

Gustafson thanked everyone for having a difficult discussion and making a tough decision and he assured the screening board that the NSTF will look for ways to make certain the entire state is treated fairly.

Keely thanked the NSTF committee for their time and thanked Lee for chairing the committee.

Freese requested posting the NSTF meeting minutes on the CEAM website. Gustafson and Exner said that would be done.

c. Legislative Update – Dave Sonnenberg

Sonnenberg reported that Senator Klobuchar is going to be sponsoring a bill establishing \$60 billion for transportation and it is to be funded with a 7/10 of 1% surcharge on individual incomes greater than one million dollars.

There was no action taken on legislative issues.

d. Other Topics

1. Pavement Rating Van

There was no further discussion on this topic.

2. Traffic Signal Study and After The Fact Needs Study

Because there was no timeline included in the original motion passed at the 2011 Spring Screening Board meeting, the screening board determined a motion to conduct these studies after the NSTF has concluded its charge is not needed.

3. Unencumbered Construction Fund Balance

Chair Keely referred to Tuesday's discussion and stated that Ahl brought up an issue of increasing balances in unencumbered construction funds. Ahl reminded board members that the cities total construction allocation went up from 2010 to 2011 by \$10 million and that advancement limits changed from 3 times to 4 times the annual allotment amount and from a cap of \$2 million to \$3 million last year. He suggested the screening board continue to encourage advances.

Graham asked if it would be possible for all cities to raise their maintenance allocation to 35% of their total allocation. Johnston stated that the state aid rule is that out of the total allocation, cities must take a minimum of \$1,500 per improved mile, not including non-existing mileage, or up to a maximum of 35% of their total allocation to be directed toward a maintenance account. He added that he will be sending out a reminder letter informing cities they may change their maintenance account allocation. Skallman added that adjusting the maintenance allocation universally to 35% would require changes in state aid rules.

**Motion by Bot, seconded by Schoonhoven, to recommend raising the advancement limit to 5 times the previous year's construction allocation or \$4 million, whichever is less, with a limit that could be adjusted by the State Aid Engineer. The motion carried unanimously.**

Johnston will include in his letter a reminder about trying to bring unencumbered construction fund balances down and to encourage advancement. His letter will also remind people to get their initial reports of state aid contract in so they can take care of some of the unencumbered funds too.

Chair Keely reminded everyone to get their expense reports in to Julee Puffer with a mapping program map included to cover mileage reimbursement.

III. Thank You

- a. Terry Maurer, Chair of the Needs Study Subcommittee

Chair Keely thanked Terry Maurer and noted that this would be his last screening board meeting.

- b. Chuck Ahl, Chair of the Unencumbered Construction Funds Subcommittee

Chair Keely thanked Chuck Ahl.

- c. Shelly Pederson and Jeff Hulsether, Past Chairs of the Municipal Screening Board

Chair Keely thanked Pederson and Hulsether for their time.

- d. Screening Board Members

Chair Keely thanked everyone at the table for their time. She noted that this would be the last meeting for Greg Boppre, Steve Bot, and Kent Exner, although Exner will continue on the board in a different capacity.

- e. Others

Chair Keely also thanked Lee Gustafson from the NSTF and Dave Sonnenberg for attending on behalf of the CEAM legislative committee. She thanked additional city staff and screening board alternates in attendance. Finally, she thanked Marshall Johnston and Julee Puffer for setting up the meeting.

#### **VII. Spring 2012 Screening Board Meeting**

Chair Keely stated that the next regularly scheduled Screening Board meeting will be held on May 22-23, 2012, at Ruttger's Sugar Lake Lodge in Grand Rapids.

Chair Keely reminded everyone of the special screening board meeting at 1:00 p.m. on January 27, 2012, after the CEAM annual business meeting in Brooklyn Center.

#### **VIII. Adjournment.**

Chair Keely entertained a motion for adjournment.

**Motion by Graham, seconded by Bot to adjourn the meeting at 10:00 AM. Motion approved unanimously.**

Respectfully submitted,



Municipal Screening Board Secretary  
Plymouth City Engineer

**2012 MUNICIPAL SCREENING BOARD  
CEAM ANNUAL MEETING  
SPECIAL MEETING MINUTES  
January 27, 2012**

**I. Call to Order and Welcome by Municipal Screening Board Chair Kent Exner**

The 2012 Special Municipal Screening Board Meeting was called to order at 1:30 PM on Friday, January 27, 2012.

- a. Chair Exner introduced the Head Table and Subcommittee members:

Kent Exner, Hutchinson – Chair, Municipal Screening Board  
Bob Moberg, Plymouth – Vice Chair, Municipal Screening Board  
Steve Bot, St. Michael – Secretary/Treasurer, Municipal Screening Board  
Julie Skallman, Mn/DOT – State Aid Engineer  
Marshall Johnston, Mn/DOT – Manager, Municipal State Aid Needs Unit  
Jean Keely, Blaine – Past Chair, Municipal Screening Board  
Jeff Hulsether, Brainerd – Past Chair, Municipal Screening Board

**II Secretary Bot conducted the roll call of the members present:**

- a. Municipal Screening Board Representatives

District 1	David Salo, Hermantown
District 2	Dave Kildahl, Thief River Falls
District 3	Brad DeWolf, Buffalo
District 4	Absent - Tim Schoonhoven, Alexandria
Metro West	Tom Mathisen, Crystal
District 6	David Strauss, Stewartville
District 7	Troy Nemmers, Fairmont
District 8	John Rodeberg, Glencoe
Metro East	Mark Graham, Vadnais Heights
Duluth	Cindy Voigt
Minneapolis	Don Elwood
St. Paul	Paul Kurtz
Rochester	Absent - Richard Freese

- b. Screening Board Members whose term expired in 2011:

District 2	Greg Boppre, East Grand Forks
District 3	Steve Bot, St. Michael
District 8	Kent Exner, Hutchinson

c. Year 2012 Alternate Board Members whose terms begin in 2013:

District 4	Absent - Dan Edwards, Fergus Falls
Metro West	Rod Rue, Eden Prairie
District 6	John Erichson, Austin

d. Department of Transportation personnel in Attendance:

Kelvin Howieson	District 3 State Aid Engineer
Steve Kirsch	District 6 State Aid Engineer
Greg Coughlin	Metro State Aid Engineer
Mike Kowski	Assistant Metro State Aid Engineer
Julee Puffer	Assistant Manager, MSAS Needs Unit
Joe McPherson	MnDOT Central Office (CO)
Mao Yang	MnDOT CO
Mark Channer	MnDOT CO
Ron Dahlquist	MnDOT CO
Tim Nelson	MnDOT CO

e. Others in Attendance:

Lee Gustafson, Minnetonka, Chair NSTF and Past Chair, Municipal Screening Board  
Shelly Pederson, Bloomington – Chair UCFS Sub Committee and Past Chair, Municipal Screening Board  
Larry Veek, Minneapolis  
Len Linton, Ramsey  
James Landini, Shorewood  
Nate Stanley, Minnetonka  
Morgan Dawley, St. Paul Park/No. St. Paul  
Nick Egger, Hastings  
Steve Winter, Oak Grove  
Jeff Johnson, Mankato  
Steve Lillehaug, Brooklyn Center  
Tim Loose, St. Peter/Jordan  
Scott Thureen, Inver Grove Heights  
Ryan Peterson, City of Burnsville

### **III Discuss Progress and Direction of Needs Study Task Force (NSTF)**

Lee Gustafson, Chair of the NSTF briefly reviewed and recapped the discussion from the CEAM Annual Conference earlier in the day regarding:

- a. Fall Municipal Screening Board direction to the Needs Study Task Force (NSTF)
- b. Progress of NSTF since last October's Fall Screening Board Meeting Update
- c. Review Revised Test Case C – NSTF Latest Test Case of Continuous Needs Model

- d. Discussion (Continue NSTF Direction, Pending Issues, and Next Steps): NSTF Chair Gustafson asked if there were any questions or discussion from the Municipal Screening Board (MSB) regarding if the NSTF is still heading in the right direction.

Dave Kildahl asked what effect putting the Test Case C soil factor for every City at 100 had. Marshall Johnston stated that most Cities already have soil factors of 100, which is why it was selected. Lee Gustafson said that the NSTF didn't specifically look at the individual effect of the soil factor.

Tom Mathisen asked what factor has the most effect on the proposed changes. Marshall Johnston said that the three main items that had the most effect were, the soil factor, existing traffic (ADT), and the amount of the system currently deficient compared to the percent of the system changed into continuous needs. Lee Gustafson stated that sidewalk, signals, storm sewer and non-existing segments also had a big effect on the proposed changes.

Brad DeWolf stated he feels the changeover to continuous needs is a good overall change to the system. Some Cities will need some time to change their high traffic volume roads that were funded locally into MSA roads under the proposed new system.

Tom Mathisen asked how will these proposed changes average out and be implemented. How will it be phased in over time? Tom stated this should be discussed on the front end to prevent "sticker shock" for Cities. These issues need to get discussed and decided soon. Lee Gustafson stated that items such as a phase in period and implementation timeframe have not yet been discussed by the NSTF which still intends and needs to discuss those items and issues.

Marshall Johnston stressed that this "Example" Test Case C is just another estimate and the numbers will ultimately change some with any final scenario run.

Lee Gustafson acknowledged that there is a need to tell and give advanced notice and allow some time for people to make changes and adjust to a new system. Tom Mathisen responded that he is fine with it if people are given a couple of years to change their systems.

Don Elwood stated that everyone should be holding and evaluating the information given for now as time is needed to plan for these changes. Don said he is confident that a good discussion regarding timeline will happen with the NSTF in the future.

Dave Kildahl stated that he thought the effect of these potential changes won't be as bad as people think if they take non-existing routes off their systems but we need to keep in mind that all non-existing routes won't be able to be moved due to the need for some of them to remain on the system for connectivity eligibility.

Cindy Voigt thought that Test Case C resulted in good stream lining. Although she is not happy with the preliminary results, the method seems fair. She asked that final budget cycles be considered for the final phase in. She stated that we need to give plenty of public notice and a phase in period in order to allow Cities to prepare for these changes as they directly affect City budgets. Lee Gustafson stated he agreed that Cities need time to prepare and do need a phase in period.

**Mark Graham made a motion that the NSTF continue and keep moving with developing Test Case C. Brad DeWolf seconded the motion.** Tom Mathison asked what the exact motion was for. MSB Chair Exner clarified that the MSB motion would give the NSTF Committee direction and affirmation that they were heading in the right direction. Julie Skallman affirmed the importance of the need for this clear direction from the MSB as soon there is going to be money spent on programming. Tom Mathisen asked Julie Skallman if these potential changes are on any political radar due to MSA fund balance concerns or any other political concerns. Julie Skallman stated she didn't have any concerns that this would be a potential issue for this session. Further she said that both the League of MN Cities and the Association of Minnesota Counties (AMC) are all well aware of these potential changes which is good. Julie thought these potential changes will be ok if we continue to communicate them well with everyone. Chair Exner called for the vote. **Motion carried unanimously.**

#### **IV. Discussion of Unit Price Study - Marshall Johnston**

- a. Marshall recommended that state aid complete the unit price study this year as scheduled – based on MSAS projects awarded in 2011. He stated it has been three years and felt strongly it should be done now when state aid is not dealing with any new programing yet that may ultimately come out of the work being done by the NSTF. **Consensus was reached by the MSB to complete the unit price study as scheduled and recommended.**

- V. Chair Exner thanked everyone for their attendance at this special MSB meeting. He asked that anyone with additional comments contact their district representatives, Lee Gustafson, or himself. He reminded everyone of the next scheduled Screening Board Meeting this Spring on May 22<sup>nd</sup> and May 23<sup>rd</sup> at Rutgers Sugar Lake Lodge in Grand Rapids, MN. With no further business to discuss, a **Motion to adjourn the meeting was made by Cindy Voigt and seconded by Mark Graham. Motion carried unanimously.**

Meeting was adjourned at 2:45 PM.



# UNIT PRICES



# AND GRAPHS

## **UNIT PRICE STUDY**

**The unit price study was done annually until 1997. In 1996, the Municipal Screening Board made a motion to conduct the Unit Price study every two years, with the ability to adjust significant unit price changes on a yearly basis. There were no changes in the unit prices in 1997. In 1999 and 2001, a construction cost index was applied to the 1998 and 2000 contract prices. In 2003, the Screening Board directed the Needs Study Subcommittee to use the percent of increase in the annual National Engineering News Record Construction Cost Index to recommend Unit Costs to the Screening Board. In 2007, the Municipal Screening Board made a motion to conduct the Unit Price study every three years with the option to request a Unit Price study on individual items in “off years”.**

**These prices will be applied against the quantities in the Needs Study computation program to compute the 2012 construction (money) needs apportionment.**

**State Aid bridges are used to determine the unit price. In addition to normal bridge materials and construction costs, prorated mobilization, bridge removal and riprap costs are included if these items are included in the contract. Traffic control, field office, and field lab costs are not included.**

**MN/DOT’s hydraulic office furnished a recommendation of costs for storm sewer construction and adjustment based on 2011 construction costs.**

**MN/DOT railroad office furnished a letter detailing railroad costs from 2011 construction projects.**

**Due to lack of data, a study is not done for traffic signals, maintenance, and engineering. Every segment, except those eligible for THTB funding, receives needs for traffic signals, engineering, and maintenance. All deficient segments receive street lighting needs. The unit prices used in the 2011 needs study are found in the Screening Board resolutions included in this booklet.**

**MUNICIPAL STATE AID SCREENING BOARD  
NEEDS STUDY SUBCOMMITTEE  
APRIL 10, 2012**

The Needs Study Subcommittee (NSS) meeting was held on April 10, 2012 at the Transportation Building Conference Room 521 at 10:00 a.m. NSS members present were: Katy Gehler – Prior Lake (Chair), Russ Matthys – Eagan, Steve Bot – St. Michael. Also present were: Marshall Johnston, Julee Puffer, Deb Hall-Kuglin, and Rick Kjonaas of Mn/DOT State Aid.

The meeting was called together by Chairman Gehler at 10:00 a.m. and turned over to Johnston to review the information contained in the **2012 Needs Study Subcommittee Data (April 2012) Booklet**.

Johnston indicated that in 2012 a full unit price study was completed. He indicated there were 117 Municipal State Aid projects used in the unit price study. Johnston provided sheets detailing the major items of all projects, and then further breaking them down by District. The prepared booklet also provided detailed information on each item.

Chair Gehler began discussion on each individual item as follows:

**A. Excavation**

Johnston pointed out that NSTF (Needs Study Task Force) is recommending removal of the grading factor going forward in their committee recommendations. Johnston indicated that there were 83 projects in 56 cities that had excavation on them. The average cost across the 83 projects was \$6.56 per cubic yard. Discussion followed that gas price increases over the past few years has a significant impact on excavation costs. Johnston reminded the group that these numbers should be considered as 2011 numbers to be used for 2012 which is how the MSA system is set up and not to try to make the numbers into 2012 rates but rather keep consideration for them as 2011 numbers. There was general consensus that the cost of excavation should be increased based on actual cost.

**MOTION BY MATTHYS, SECONDED BY BOT, TO SET THE EXCAVATION UNIT PRICE AT \$6.60 PER CUBIC YARD. MOTION PASSED UNANIMOUSLY.**

**B. Aggregate Base 2211**

Johnston indicated that there were 86 projects in 57 cities that had aggregate base on them. The average cost across those projects was \$10.58 per ton. Discussion followed again regarding fuel prices being related to the increases over the past number of years.

**MOTION BY MATTHYS, SECONDED BY GEHLER, TO SET THE UNIT PRICE FOR AGGREGATE BASE 2211 AT \$10.65 PER TON. MOTION PASSED UNANIMOUSLY.**

**C. Bituminous**

Johnston indicated there were 111 projects that had bituminous on them which is much higher than in past rate studies. The average cost was \$57.71 per ton. Discussion followed that variances in averages over the districts do not seem to be as large as in the past which is good.

**MOTION BY BOT, SECONDED BY MATTHYS, TO SET THE UNIT PRICE OF BITUMINOUS AT \$58.00 PER TON. MOTION PASSED UNANIMOUSLY.**

**D. Sidewalk**

Johnston indicated there were 78 projects in 52 cities that contained sidewalk. The average cost across those 78 projects was \$28.47 per cubic yard. Discussion took place regarding average project cost and the general consensus was that the average price is a good average price to use for the needs computation.

**MOTION BY MATTHYS, SECONDED BY GEHLER, TO SET THE SIDEWALK UNIT PRICE AT \$28.50 PER CUBIC YARD. MOTION PASSED UNANIMOUSLY.**

**E. Curb and Gutter**

Johnston indicated that there were 106 projects that had curb and gutter on them. The average price across those projects was \$11.11 per lineal foot. Discussion followed that in 2009, the last unit price study, the average price was \$10.72 per lineal foot. That year, the Screening Board set the price at \$10.70. Since then, the ENR has been used to increase the price, and in 2011, it was set at \$11.30. General consensus was a modest decrease needs to be put in place to reflect the increased cost.

**MOTION BY GEHLER, SECONDED BY MATTHYS, TO SET THE UNIT PRICE FOR CURB AND GUTTER AT \$11.15 PER LINEAL FOOT. MOTION PASSED UNANIMOUSLY.**

**F. Open Discussion on Items Used by State Aid for Needs Study**

Johnston reviewed some of the lesser discussed items included in MSA projects where State Aid had to make a decision about using the specific item for the needs study. Discussion took place regarding pedestrian ramps and truncated domes. Consensus was reached that due to ADA requirement, both pedestrian ramps and related truncated domes should be included in sidewalk costs for needs purposes. Many items were discussed and select granular borrow was thought to be specifically needed in the future relative to the suggested cross section continual needs by the NSTF. The item hasn't been included in costs used by State Aid for needs in the past.

**MOTION BY BOT, SECONDED BY MATTHYS TO RECOMMEND THE SCREENING BOARD DIRECT STATE AID TO REVIEW THE APPROPRIATENESS OF ALL ITEMS (I.E. EXCAVATION, SIDEWALK, ETC.) INCLUDED IN THE NEEDS STUDY BEFORE THE NEXT FULL UPDATE IN THREE YEARS, ESPECIALLY RELATIVE TO NEW CROSS SECTION CONTINUAL NEEDS RECOMMENDED BY THE NSTF. ALSO, THE SCREENING BOARD IS REQUESTED TO GIVE DIRECTION TO THE NSS AND STATE AID SPECIFIC TO THE TYPE(S) OF PROJECT(S) UPON WHICH NEEDS ARE TO BE BASED OFF (I.E NEW CONSTRUCTION, RECONSTRUCTION, MAINTENACE, OR A SPECIFIC COMBINATION). THE TYPE OF CONSTRUCTION/PROJECT WILL AFFECT WHAT ITEMS ARE UTILIZED FOR NEEDS ITEM COMPUTIONS (I.E. NEW CURB OR SIDEWALK VS. MAINTENANCE CURB OR SIDEWALK PATCHES). MOTION PASSED UNANIMOUSLY.**

## G. Maintenance Needs

The maintenance needs per traffic lane mile, parking lane mile, median strip per mile, storm sewer per mile, traffic signal and the minimum maintenance allowance per mile were discussed. Maintenance needs are separated by under 1000 ADT /over 1000 ADT. Past history has indicated a modest increase on an annual basis. Marshall indicated the Needs Study Task Force (NSTF) is recommending removal of this item in the future as it's less than 1% of the overall needs. Gehler/Matthys discussed keeping the modest increase consistent with the increases over the past few years.

**MOVED BY GEHLER, SECONDED BY MATTHYS, TO INCREASE THE ANNUAL MAINTENANCE NEEDS TO \$2,050/\$3,400 FOR TRAFFIC LANE PER MILE, \$2,050/\$2,050 FOR PARKING LANE PER MILE, \$750/\$1,400 FOR MEDIAN STRIP PER MILE, \$750/\$750 FOR STORM SEWER PER MILE, \$750/\$750 PER TRAFFIC SIGNAL, AND \$6,750/\$6,750 FOR MINIMUM MAINTENANCE ALLOWANCE PER MILE. MOTION PASSED UNANIMOUSLY.**

## H. Right of Way and Engineering

Johnston explained that the right of way cost is an “after the fact” need, currently estimated at \$100,000 per acre. Engineering cost is an automatic cost added to each segment at 22 percent of the needs. Discussion followed that since the right of way cost is an “after the fact” need and engineering is an automatic cost added to each segment, there really was no need seen to increase either of these. It was the consensus of the group to take no action on either of these, leaving them at their same rates. Discussion took place with a request to remind the NSTF (Needs Study Task Force) of the request documented in the minutes of last years NSS to have the NSTF review the actual engineering percentage relative to construction costs and make a related recommendation along with their committee findings.

## I. Storm Sewer

Johnston indicated that on page 46, there is a memo from Juanita Voight, State Aid Hydraulic Specialist, suggesting that the appropriate price would be \$307,297 for new storm sewer construction per mile, and \$97,010 per mile for adjustment of existing storm sewer. It was noted that in the future the NSTF is recommending all segments will be considered deficient which is different than it currently is computed. General discussion was that these recommendations should be followed; however, the number should be rounded.

**MOTION BY MATTHYS, SECONDED BY GEHLER, TO SET THE STORM SEWER PRICES FOR ADJUSTMENTS AT \$97,000 PER MILE AND NEW CONSTRUCTION AT \$307,300 PER MILE. MOTION PASSED UNANIMOUSLY.**

## J. Street Lighting

Johnston indicated that this is a cost that every city on the State Aid system receives. It is currently set at \$100,000 per mile. General discussion followed that it has not been raised in many years and that lighting practices are very inconsistent throughout MSA Cities.

**MOTION BY GEHLER, SECONDED BY MATTHYS, TO LEAVE THE STREET LIGHTING PRICE UNCHANGED AT \$100,000 PER MILE. MOTION PASSED UNANIMOUSLY.**

## K. Signals

Johnston indicated that this is also a unit cost that is applied to each segment based on projected traffic. The cost for signals is a per mile cost. Johnston indicated that the per mile cost is based on one signal per mile. General discussion followed that the cost has not been raised for two years. It was noted that the NSTF is looking at using the actual number of signals for needs in the future. There was consensus that a signal currently costs more than indicated in the needs and that an increase is justified

**MOTION BY MATTHYS, SECONDED BY BOT, TO INCREASE THE PRICE FOR SIGNALS TO \$35,000 - \$140,000 PER MILE. MOTION PASSED UNANIMOUSLY.**

**MOTION BY MATTHYS, SECONDED BY BOT, TO ASK THE SCREENING BOARD TO DIRECT THE NSTF TO REVIEW THE ACTUAL SIGNAL CONSTRUCTION COSTS RELATIVE TO THEIR RECOMMENDED FUTURE SIGNAL NEEDS BASED OFF OF ACTUAL SIGNALS INSTALLED. MOTION PASSED UNANIMOUSLY.**

## L. Railroad Crossings

Johnston indicated that there is a memo from Susan Aylesworth, Manager, Rail Administration Section, suggesting costs for railroad crossings for signs, pavement markings, low speed signals, high speed signals and gates, and concrete crossing material. General discussion followed that there is no reason not to follow these recommendations. The recommendations for the high speed multiple track signals and gates gave a range of \$275,000 - \$400,000. In 2011, it was set at \$300,000. The consensus was that an increase to \$325,000 would be appropriate.

**MOTION BY BOT, SECONDED BY GEHLER, TO SET THE 2012 PRICES FOR RAILROAD CROSSING SIGNS AT \$2,500, PAVEMENT MARKINGS AT \$2,500, SIGNALS FOR LOW SPEED AT \$275,000, SIGNALS AND GATES FOR HIGH SPEED AT \$325,000, AND CONCRETE CROSSING SURFACE AT \$1,800 PER FOOT OF TRACK. MOTION PASSED UNANIMOUSLY**

## M. Bridges

Johnston indicated that bridges on the Municipal State Aid System are one unit cost regardless of length. He also indicated that the cost per bridge is typically set slightly lower than the numbers received from the Bridge Section of Mn/DOT because the MSAS route and needs for street construction go across the bridge, so there is other funding available beyond the bridge itself. He indicated that the Bridge Section of Mn/DOT provided information indicating that for bridges under 149 feet, the cost per square foot was \$115.58 and for bridges over 150 feet, the cost per square foot was \$171.65. Johnston indicated the average for all bridges let in 2011 is \$135.22. General discussion followed that the yearly average contract price seemed to jump significantly when comparing to 2006-2011, which averages are closer to an average of \$111 and care should be taken not to over react too greatly.

**MOTION BY GEHLER, SECONDED BY BOT, TO SET THE UNIT PRICE FOR BRIDGES AT \$125.00 PER SQUARE FOOT. THE MOTION PASSED UNANIMOUSLY.**

**N. Railroad Bridges Over Highways**

Johnston indicated that there are very few of these in the MSAS system. General discussion was that this number has been unchanged over the last four years. There was no apparent reason to increase it.

**MOTION BY GEHLER, SECONDED BY MATTHYS, TO LEAVE THE RAILROAD BRIDGES OVER HIGHWAYS AT \$10,200 FOR THE FIRST TRACK PER LINEAL FOOT, AND AT \$8,500 PER LINEAL FOOT FOR ANY ADDITIONAL TRACKS. MOTION PASSED UNANIMOUSLY.**

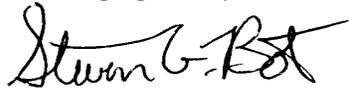
**O. Box Culverts**

Johnston indicated that there are very few of these in the MSAS system. General discussion was that in the past the MSA Cities have utilized the Box Culvert Study done annually by the Counties.

**MOTION BY GEHLER, SECONDED BY MATTHYS, TO USE THE COUNTIES BOX CULVERT STUDY FOR MSA CITY NEEDS STUDY COST PURPOSES. MOTION PASSED UNANIMOUSLY.**

There being no more business for the Needs Study Subcommittee, Chair Gehler adjourned the meeting at 1:35 p.m.

Minutes prepared by:



Steven G. Bot, Secretary  
Needs Study Subcommittee

<b>2012 UNIT PRICE RECOMMENDATIONS</b>				
<b>Needs Item</b>		<b>2011 Need Prices</b>	<b>Subcommittee Recommended Prices for 2012</b>	<b>Screening Board Approved Prices For 2012</b>
Grading (Excavation)	Cu. Yd.	\$5.05	\$6.60	
Class 5 Base #2211	Ton	10.40	10.65	
All Bituminous	Ton	60.00	58.00	
Sidewalk Construction	Sq. Yd.	28.60	28.50	
Curb and Gutter Construction	Lin.Ft.	11.30	11.15	
Storm Sewer Adjustment	Mile	95,600	97,000	
Storm Sewer	Mile	301,300	307,300	
Street Lighting	Mile	100,000	100,000	
Traffic Signals	Per Sig	136,000	140,000	
<b><u>Signal Needs Based On Projected Traffic</u></b>				
Projected Traffic	Percentage	X Unit Price =	Needs Per Mile	
0 - 4,999	.25	\$136,000 =	\$34,000	35,000
5,000 - 9,999	.50	136,000 =	68,000	70,000
10,000 & Over	1.00	136,000 =	136,000	140,000
<b>Right of Way (Needs Only)</b>	Acre	100,000	100,000	
<b>Engineering</b>	Percent	22	22	
<b><u>Railroad Grade Crossing</u></b>				
Signs	Unit	2,500	2,500	
Pavement Marking	Unit	2,500	2,500	
Signals (Single Track-Low Speed)	Unit	275,000	275,000	
Signals & Gate (Multiple Track - High & Low Speed)	Unit	300,000	325,000	
Concrete Xing Material(Per Track)	Lin.Ft.	1,800	1,800	
<b><u>Bridges</u></b>				
0 to 149 Ft.	Sq. Ft.	115.00	125.00	
150 to 499 Ft.	Sq. Ft.	115.00	125.00	
500 Ft. and over	Sq. Ft.	115.00	125.00	
<b><u>Railroad Bridges over Highways</u></b>				
Number of Tracks - 1	Lin.Ft.	10,200	10,200	
Additional Track (each)	Lin.Ft.	8,500	8,500	

## ANNUAL MAINTENANCE NEEDS COST

The prices below are used to compute the maintenance needs on each segment. Each street, based on its existing data, receives a maintenance need. This amount is added to the segment's street needs. The total statewide maintenance needs based on these costs in 2011 was \$35,252,968 or 0.68% of the total Needs. For example, an urban road segment with 2 traffic lanes, 2 parking lanes, over 1,000 traffic, storm sewer and one traffic signal would receive \$12,050 in maintenance needs per mile.

	2011 NEEDS PRICES		2012 SUBCOMMITTEE SUGGESTED PRICES		2012 SCREENING BOARD RECOMMENDED PRICES	
	Under 1000 ADT	Over 1000 ADT	Under <b>1000</b> ADT	Over <b>1000</b> ADT	Under 1000 ADT	Over 1000 ADT
<b>Traffic Lane Per Mile</b>	\$2,000	\$3,300	<b>\$2,050</b>	<b>\$3,400</b>		
<b>Parking Lane Per Mile</b>	2,000	2,000	<b>2,050</b>	<b>2,050</b>		
<b>Median Strip Per Mile</b>	725	1,350	<b>750</b>	<b>1,400</b>		
<b>Storm Sewer Per Mile</b>	725	725	<b>750</b>	<b>750</b>		
<b>Per Traffic Signal</b>	725	725	<b>750</b>	<b>750</b>		
<b>Normal M.S.A.S. Streets Minimum Allowance Per Mile</b>	6,550	6,550	<b>6,750</b>	<b>6,750</b>		

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## A HISTORY OF THE ANNUAL MAINTENANCE NEEDS COSTS

(COMPUTED ON EXISTING MILEAGE ONLY)

24-Apr-12

Year	Traffic Lane Per Mile		Parking Lane Per Mile		Median Strip Per Mile		Storm Sewer Per Mile		Per Traffic Signal		Minimum Maintenance Allowance Per Mile	
	Under 1000 ADT	Over 1000 ADT	Under 1000 ADT	Over 1000 ADT	Under 1000 ADT	Over 1000 ADT	Under 1000 ADT	Over 1000 ADT	Under 1000 ADT	Over 1000 ADT	Under 1000 ADT	Over 1000 ADT
1986	\$300	\$500	\$100	\$100	\$100	\$200	\$100	\$100	\$100	\$100	\$1,000	\$1,000
1987	300	500	100	100	100	200	100	100	100	100	1,000	1,000
1988	600	1,000	200	200	200	400	200	200	400	400	2,000	2,000
1989	1,200	2,000	1,200	1,200	400	800	400	400	400	400	4,000	4,000
1990	1,200	2,000	1,200	1,200	400	800	400	400	400	400	4,000	4,000
1991	1,200	2,000	1,200	1,200	400	800	400	400	400	400	4,000	4,000
1992	1,200	2,000	1,200	1,200	400	800	400	400	400	400	4,000	4,000
1993	1,320	2,200	1,320	1,320	440	880	440	440	440	440	4,400	4,400
1994	1,320	2,200	1,320	1,320	440	880	440	440	440	440	4,400	4,400
1995	1,320	2,200	1,320	1,320	440	880	440	440	440	440	4,400	4,400
1996	1,320	2,200	1,320	1,320	440	880	440	440	440	440	4,400	4,400
1998	1,320	2,200	1,320	1,320	440	880	440	440	440	440	4,400	4,400
1999	1,360	2,260	1,360	1,360	450	900	450	450	450	450	4,500	4,500
2000	1,400	2,300	1,400	1,400	460	910	460	460	460	460	4,600	4,600
2001	1,450	2,400	1,450	1,450	480	950	480	480	480	480	4,800	4,800
2002	1,450	2,400	1,450	1,450	480	950	480	480	480	480	4,800	4,800
2003	1,500	2,500	1,500	1,500	500	980	500	500	500	500	5,000	5,000
2004	1,550	2,575	1,550	1,550	515	1,000	515	515	515	515	5,150	5,150
2005	1,650	2,735	1,650	1,650	550	1,065	550	550	550	550	5,475	5,475
2006	1,725	2,850	1,725	1,725	575	1,125	575	575	575	575	5,720	5,720
2007	1,800	2,970	1,800	1,800	600	1,180	600	600	600	600	5,960	5,960
2008	1,850	3,050	1,850	1,850	620	1,210	620	620	620	620	6,130	6,130
2009	1,900	3,100	1,900	1,900	670	1,260	670	670	670	670	6,180	6,180
2010	1,950	3,200	1,950	1,950	700	1,300	700	700	700	700	6,375	6,375
2011	2,000	3,300	2,000	2,000	725	1,350	725	725	725	725	6,550	6,550
2012												

THESE MAINTENANCE COSTS ARE USED IN COMPUTING NEEDS .

ALL MAINTENANCE COSTS FOR COMMON BOUNDARY DESIGNATIONS AND APPROVED ONE WAY STREETS ARE COMPUTED USING THE LENGTH REPORTED IN THE NEEDS STUDY.

## 2011 MSAS PROJECTS

*This list is based on projects awarded in 2011  
Some award dates have not yet been input in our data base  
This is the most accurate count available as of March 5, 2012*

### **148 On System Projects**

**Construction, Reconstruction, signals, overlays, R/W, etc.**

**120 of these projects had items that were included in the Unit Price study**

### **17 Off System CSAH Projects**

**These are projects on CSAH's that the city participated in with MSAS funding.**

### **5 Off System TH Projects**

**These are projects on TH's that the city participated in with MSAS funding**

### **16 Other, Miscellaneous Projects**

**These projects include Safe Routes to School, Enhancement projects, projects on multiple MSAS routes. They may or may not have had MSAS funds expended on the projects.**

### **TOTAL OF 186 PROJECTS**

*In 2009, the year of the last Unit Price Study, there were a total of 168 projects awarded in 2008. 148 on system, 22 off system and 16 projects that may or may not have had MSAS funds expended on the projects.*



Includes all eligible projects with a submitted pay request as of March 5, 2012

2012 Unit Price Study				Printed: 04/25/12	EXCAVATION			AGGREGATE BASE			ALL BITUMINOUS			SIDEWALK		CURB & GUTTER			SP/SAP		
CITY NO.	CITY NAME	SAP/SP	PROJECT NUMBER	DIST NO.	CO. NO.	Excavation - CY		Unit Price	Base 2211 - Ton		Unit Price	All Bituminous - Ton		Unit Price	Sidewalk Const.-Sq Yd		Unit Price	C & G Const.- LF		Unit Price	SP/SAP NUMBER
						QTY.	AMOUNT		QTY.	AMOUNT		QTY.	AMOUNT		QTY.	AMOUNT		QTY.	AMOUNT		
101	Albert Lea	SAP	101-119-004	6	24							829	\$52,233	\$63.01	21	\$724	\$34.65	450	\$9,960	\$22.13	101-119-004
101	Albert Lea	SAP	101-120-003	6	24	465	5,696	\$12.25	610	10,858	\$17.80	1,451	91,423	63.01				1,896	33,620	17.73	101-120-003
101	Albert Lea	SAP	101-122-008	6	24							2,033	128,094	63.01	391	13,540	34.65	580	10,512	18.12	101-122-008
101	Albert Lea	SAP	101-136-001	6	24							243	15,311	63.01							101-136-001
101	Albert Lea	SP	101-138-001	6	24	16,903	93,754	5.55	17,990	134,740	7.49				1,259	42,806	34.00				101-138-001
102	Alexandria	SAP	102-119-009	4	21							665	42,345	63.68							102-119-009
102	Alexandria	SAP	102-122-007	4	21							1,350	86,170	63.83				360	6,120	17.00	102-122-007
102	Alexandria	SAP	102-125-005	4	21							1,304	83,232	63.83				150	2,550	17.00	102-125-005
104	Austin	SP	104-133-002	6	50	6,283	35,122	5.59	5,110	68,985	13.50	3,605	229,525	63.67	300	10,480	34.93	3,380	34,307	10.15	104-133-002
104	Austin	SAP	104-135-007	6	50	1,530	12,705	8.30	2,040	20,400	10.00				1,251	49,802	39.81	20	540	27.00	104-135-007
105	Bemidji	SP	105-113-010	2	4	3,900	19,500	5.00	5,500	58,225	10.59	3,770	224,830	59.64	3,206	79,338	24.75	5,650	51,133	9.05	105-113-010
105	Bemidji	SP	105-140-001	2	4	700	3,500	5.00	750	7,625	10.17	780	46,560	59.69	719	17,806	24.75	1,880	17,014	9.05	105-140-001
106	Blaine	SAP	106-109-008	MW	2.62	2,290	15,801	6.90	2,150	22,038	10.25	4,950	271,785	54.91	322	8,434	26.22	1,101	14,555	13.22	106-109-008
107	Bloomington	SAP	107-411-014	MW	27	523	9,153	17.50	504	8,417	16.70	3,992	222,027	55.62	1,456	51,973	35.68	3,617	52,064	14.39	107-411-014
107	Bloomington	SAP	107-430-006	MW	27	34	595	17.50	36	636	17.67	504	26,236	52.06	174	5,560	31.89	304	4,408	14.50	107-430-006
107	Bloomington	SAP	107-437-002	MW	27	120	2,100	17.50	127	2,242	17.65	1,760	96,946	55.08	396	13,382	33.75	1,272	18,444	14.50	107-437-002
107	Bloomington	SAP	107-442-004	MW	27	25	438	17.50	30	530	17.67	428	23,512	54.93	163	5,569	34.12	260	4,160	16.00	107-442-004
107	Bloomington	SAP	107-442-005	MW	27	37	648	17.50	41	714	17.40	370	20,543	55.52	190	6,965	36.63	309	4,944	16.00	107-442-005
108	Brainerd	SP	108-126-012	3	18	50,000	459,000	9.18	24,194	343,842	14.21	15,105	770,224	50.99	4,913	142,116	28.93	28,468	404,408	14.21	108-126-012
109	Brooklyn Center	SAP	109-109-033	MW	27	68	748	11.00	223	2,768	12.41	4,566	278,210	60.93	452	17,306	38.26	2,925	28,051	9.59	109-109-033
111	Chisholm	SAP	111-238-003	1	69	6,899	42,210	6.12				1,789	126,556	70.74	1,730	46,704	27.00	3,931	45,796	11.65	111-238-003
112	Cloquet	SAP	112-132-001	1	9	6,845	41,040	6.00	5,137	51,642	10.05	2,282	178,860	78.38	1,111	29,991	27.00	4,156	43,638	10.50	112-132-001
114	Coon Rapids	SAP	114-102-014	MW	2							2,002	127,966	63.91	89	2,610	29.39	1,002	14,205	14.18	114-102-014
114	Coon Rapids	SAP	114-102-015	MW	2							5,011	315,310	62.92	333	8,490	25.47	1,240	17,683	14.26	114-102-015
114	Coon Rapids	SAP	114-113-005	MW	2							4,464	235,266	52.70	102	2,974	29.25	1,410	22,740	16.13	114-113-005
114	Coon Rapids	SAP	114-125-003	MW	2							3,290	207,945	63.21	778	19,810	25.47	2,334	30,541	13.09	114-125-003
114	Coon Rapids	SAP	114-129-011	MW	2							1,000	63,453	63.45	67	1,887	28.26	1,309	18,463	14.10	114-129-011
116	Crystal	SAP	116-337-001	MW	27	476	2,097	4.41							730	17,739	24.30				116-337-001
116	Crystal	SAP	116-338-001	MW	27	3,594	16,521	4.60	4,201	29,113	6.93	1,457	61,500	42.21	1,267	30,780	24.30	4,330	32,879	7.59	116-338-001
117	Detroit Lakes	SP	117-129-002	4	3	7,597	44,670	5.88	4,801	43,078	8.97	2,300	161,000	70.00							117-129-002
118	Duluth	SAP	118-133-006	1	69	5,146	50,431	9.80	2,122	29,198	13.76	1,178	86,524	73.45	1,395	52,590	37.70	3,005	36,060	12.00	118-133-006
120	Edina	SAP	120-140-004	MW	27	9,430	127,560	13.53	10,130	134,223	13.25	4,438	272,887	61.48	4,856	161,450	33.25	8,330	79,452	9.54	120-140-004
123	Fairmont	SAP	123-110-012	7	46	8,158	73,993	9.07				4,074	251,754	61.80	70	2,545	36.36	4,462	47,253	10.59	123-110-012
126	Fergus Falls	SAP	126-122-006	4	56	3,743	33,687	9.00	6,483	52,188	8.05	3,419	178,780	52.29				234	5,382	23.00	126-122-006
126	Fergus Falls	SP	126-125-003	4	56	137,450	561,331	4.08	46,330	354,574	7.65	11,400	589,728	51.73	2,069	62,327	30.13	16,100	192,209	11.94	126-125-003
127	Fridley	SAP	127-311-001	MW	2	978	11,130	11.38				1,480	84,637	57.19				200	2,700	13.50	127-311-001
129	Grand Rapids	SAP	129-137-001	1	31	12,766	76,596	6.00	8,153	72,907	8.94	3,095	177,464	57.34				5,542	55,143	9.95	129-137-001
129	Grand Rapids	SAP	129-143-001	1	31	14,605	126,928	8.69	7,698	120,154	15.61	16,830	1,026,920	61.02	58	2,180	37.80	630	8,820	14.00	129-143-001
131	Hibbing	SAP	131-181-004	1	69	9,342	56,052	6.00	8,978	84,245	9.38	2,950	199,350	67.58	1,422	37,120	26.10	3,380	38,701	11.45	131-181-004
131	Hibbing	SAP	131-188-004	1	69	3,126	18,756	6.00	2,778	26,075	9.39	980	67,260	68.63	1,038	27,086	26.10	1,030	11,794	11.45	131-188-004
133	Hutchinson	SP	133-117-013	8	42	12,966	117,936	9.10	13,109	127,137	9.70	5,003	347,642	69.48	469	15,269	32.58	7,836	76,401	9.75	133-117-013
135	Litchfield	SAP	135-120-001	8	47	7,399	35,351	4.78	6,209	50,589	8.15	1,930	126,698	65.65	2,596	74,771	28.80	3,792	36,842	9.72	135-120-001
135	Litchfield	SAP	135-121-001	8	47	1,210	5,955	4.92	977	7,962	8.15	298	19,563	65.65	198	5,696	28.80	665	6,481	9.75	135-121-001
136	Little Falls	SAP	136-124-008	3	49							3,300	153,813	46.61							136-124-008
136	Little Falls	SAP	136-129-005	3	49	16,475	72,839	4.42	5,670	54,000	9.52	2,540	132,080	52.00				1,071	11,781	11.00	136-129-005
139	Marshall	SP	139-122-006	8	42	9,900	29,700	3.00	9,150	86,468	9.45	3,915	245,400	62.68	106	4,275	40.50	4,400	43,340	9.85	139-122-006
141	Minneapolis	SAP	141-271-005	MW	27	1,183	19,531	16.51	2,019	26,700	13.23	2,187	144,024	65.85							141-271-005
141	Minneapolis	SP	141-442-001	MW	27	7,624	127,108	16.67	1,266	17,279	13.65	970	79,765	82.23	1,030	29,426	28.57	1,890	3,629	1.92	141-442-001
141	Minneapolis	SP	141-446-001	MW	27							1,351	88,648	65.62	669	25,348	37.89	866	13,068	15.09	141-446-001
146	Mounds View	SAP	146-234-005	ME	62										383	12,075	31.50	595	5,322	8.94	146-234-005
146	Mounds View	SAP	146-245-001	ME	62	8,045	73,362	9.12	2,770	22,853	8.25	2,070	103,124	49.82				4,910	39,115	7.97	146-245-001
147	New Brighton	SAP	147-103-013	ME	62							969	62,522	64.54				130	2,340	18.00	147-103-013
147	New Brighton	SAP	147-110-010	ME	62	3,572	43,505	12.18	1,810	16,562	9.15	4,059	261,961	64.							

**25 YEAR CONSTRUCTION NEEDS  
FOR EACH INDIVIDUAL CONSTRUCTION ITEM**

23-Apr-12

ITEM	2010	2011	DIFFERENCE	2011 % OF THE TOTAL
	APPORTIONMENT NEEDS COST FOR THE JANUARY 2011 DISTRIBUTION	APPORTIONMENT NEEDS COST FOR THE JANUARY 2012 DISTRIBUTION		
Grading/Excavation	\$513,784,569	\$535,836,289	\$22,051,720	10.35%
Storm Sewer Adjustment	99,319,770	104,015,668	4,695,898	2.01%
Storm Sewer Construction	334,360,306	339,980,894	5,620,588	6.57%
<b>SUBTOTAL GRADING</b>	<b>\$947,464,645</b>	<b>\$979,832,851</b>	<b>\$32,368,206</b>	<b>18.93%</b>

Aggregate Base	\$570,471,203	\$596,071,892	\$25,600,689	11.52%
Bituminous Base	611,653,952	655,550,880	43,896,928	12.67%
<b>SUBTOTAL BASE</b>	<b>\$1,182,125,155</b>	<b>\$1,251,622,772</b>	<b>\$69,497,617</b>	<b>24.18%</b>

Bituminous Surface	\$533,371,201	\$564,168,900	\$30,797,699	10.90%
Surface Widening	4,788,484	4,863,042	74,558	0.09%
<b>SUBTOTAL SURFACE</b>	<b>\$538,159,685</b>	<b>\$569,031,942</b>	<b>\$30,872,257</b>	<b>10.99%</b>

Curb and Gutter	\$275,341,165	\$285,674,528	\$10,333,363	5.52%
Sidewalk	329,809,020	345,885,845	16,076,825	6.68%
Traffic Signals	220,808,920	220,788,520	(20,400)	4.27%
Street Lighting	239,810,000	241,827,000	2,017,000	4.67%
<b>SUBTOTAL MISCELLANEOUS</b>	<b>\$1,065,769,105</b>	<b>\$1,094,175,893</b>	<b>\$28,406,788</b>	<b>21.14%</b>

<b>TOTAL ROADWAY</b>	<b>\$3,733,518,590</b>	<b>\$3,894,663,458</b>	<b>\$161,144,868</b>	<b>75.25%</b>
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Structures	\$211,292,280	\$218,585,283	\$7,293,003	4.22%
Railroad Crossings	96,362,400	100,390,350	4,027,950	1.94%
Maintenance	34,294,796	35,252,968	958,172	0.68%
Engineering	889,058,304	927,000,627	37,942,323	17.91%
<b>SUBTOTAL OTHERS</b>	<b>\$1,231,007,780</b>	<b>\$1,281,229,228</b>	<b>\$50,221,448</b>	<b>24.75%</b>

<b>TOTAL</b>	<b>\$4,964,526,370</b>	<b>\$5,175,892,686</b>	<b>\$211,366,316</b>	<b>100.00%</b>
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## MSAS UNIT PRICE STUDY EXCAVATION - CUBIC YARD

CITY NAME	NO. OF PROJECTS	TOTAL QUANTITY	TOTAL COST	AVERAGE UNIT PRICE
<b>District 1</b>				
Chisholm	1	6,899	\$42,210	\$6.12
Cloquet	1	6,845	41,040	6.00
Duluth	1	5,146	50,431	9.80
Grand Rapids	2	27,371	203,524	7.44
Hermantown	1	3,360	30,240	9.00
Hibbing	2	12,468	74,808	6.00
<b>District 1 Total</b>	<b>8</b>	<b>62,089</b>	<b>\$442,252</b>	<b>\$7.12</b>

<b>District 2</b>				
Bemidji	2	4,600	\$23,000	\$5.00
<b>District 2 Total</b>	<b>2</b>	<b>4,600</b>	<b>\$23,000</b>	<b>\$5.00</b>

<b>District 3</b>				
Baxter	1	3,014	\$27,669	\$9.18
Brainerd	1	50,000	459,000	9.18
Cambridge	1	900	5,400	6.00
Elk River	1	2,404	12,768	5.31
Isanti	4	4,024	26,533	6.59
Little Falls	1	16,475	72,839	4.42
Monticello	3	9,260	44,765	4.83
St. Cloud	1	2,958	21,576	7.29
<b>District 3 Total</b>	<b>13</b>	<b>89,035</b>	<b>\$670,549</b>	<b>\$7.53</b>

<b>District 4</b>				
Detroit Lakes	1	7,597	\$44,670	\$5.88
Fergus Falls	2	141,193	595,018	4.21
Morris	1	6,930	41,580	6.00
<b>District 4 Total</b>	<b>4</b>	<b>155,720</b>	<b>\$681,269</b>	<b>\$4.37</b>

<b>District 6</b>				
Albert Lea	2	17,368	\$99,450	\$5.73
Austin	2	7,813	47,827	6.12
Owatonna	2	2,830	21,499	7.60
Rochester	2	13,490	132,742	9.84
Winona	1	2,173	15,428	7.10
<b>District 6 Total</b>	<b>9</b>	<b>43,674</b>	<b>\$316,946</b>	<b>\$7.26</b>

<b>District 7</b>				
Fairmont	1	8,158	\$73,993	\$9.07
St. Peter	1	14,732	59,118	4.01
<b>District 7 Total</b>	<b>2</b>	<b>22,890</b>	<b>\$133,111</b>	<b>\$5.82</b>

<b>District 8</b>				
Hutchinson	1	12,966	\$117,936	\$9.10
Litchfield	2	8,609	41,305	4.80
Marshall	1	9,900	29,700	3.00
Willmar	1	2,400	14,400	6.00
<b>District 8 Total</b>	<b>5</b>	<b>33,875</b>	<b>\$203,342</b>	<b>\$6.00</b>

## MSAS UNIT PRICE STUDY EXCAVATION - CUBIC YARD

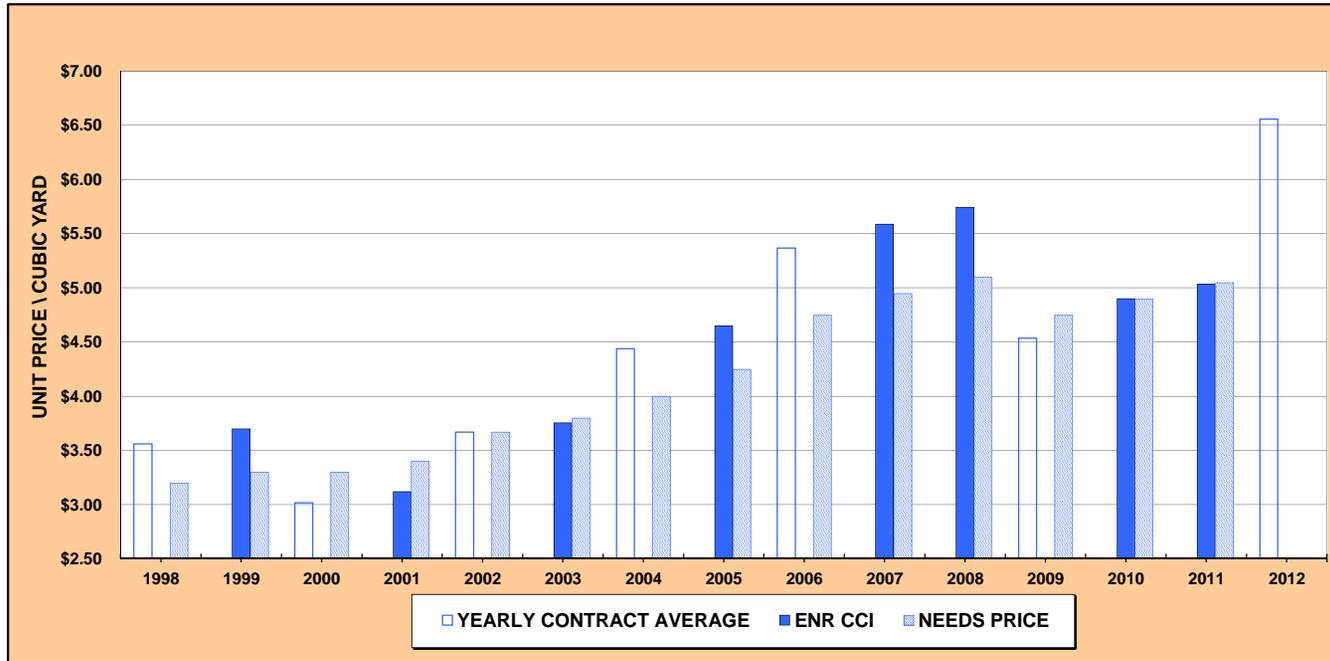
CITY NAME	NO. OF PROJECTS	TOTAL QUANTITY	TOTAL COST	AVERAGE UNIT PRICE
<b>Metro East</b>				
Apple Valley	1	18,500	\$157,250	\$8.50
Burnsville	2	3,198	28,801	9.01
Cottage Grove	2	31,618	181,804	5.75
Eagan	1	18,236	29,054	1.59
Inver Grove Heights	1	10,787	100,727	9.34
Mounds View	1	8,045	73,362	9.12
New Brighton	1	3,572	43,505	12.18
Rosemount	1	40,100	160,400	4.00
St. Paul	3	15,456	196,830	12.73
Stillwater	1	100	725	7.25
Vadnais Heights	1	425	4,344	10.22
<b>Metro East Total</b>	<b>15</b>	<b>150,037</b>	<b>\$976,801</b>	<b>\$6.51</b>

<b>Metro West</b>				
Andover	1	410	\$2,870	\$7.00
Belle Plaine	2	13,270	86,255	6.50
Blaine	1	2,290	15,801	6.90
Bloomington	5	739	12,933	17.50
Brooklyn Center	1	68	748	11.00
Crystal	2	4,070	18,618	4.57
Edina	1	9,430	127,560	13.53
Fridley	1	978	11,130	11.38
Minneapolis	2	8,807	146,639	16.65
New Hope	2	4,180	16,901	4.04
Oak Grove	1	13,510	54,681	4.05
Plymouth	1	20,346	183,944	9.04
Rogers	1	22,395	163,260	7.29
Shakopee	2	12,237	59,945	4.90
St. Louis Park	1	1,680	22,720	13.52
Victoria	1	13,172	150,161	11.40
<b>Metro West Total</b>	<b>25</b>	<b>127,582</b>	<b>\$1,074,165</b>	<b>\$8.42</b>

<b>District Totals</b>				
District 1 Total	8	62,089	\$442,252	\$7.12
District 2 Total	2	4,600	23,000	5.00
District 3 Total	13	89,035	670,549	7.53
District 4 Total	4	155,720	681,269	4.37
District 6 Total	9	43,674	316,946	7.26
District 7 Total	2	22,890	133,111	5.82
District 8 Total	5	33,875	203,342	6.00
Metro East Total	15	150,037	976,801	6.51
Metro West Total	25	127,582	1,074,165	8.42
<b>STATE TOTAL</b>	<b>83</b>	<b>689,502</b>	<b>\$4,521,435</b>	<b>\$6.56</b>

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# GRADING/EXCAVATION



Needs Year	Number of Cities	Quantity (Cu.Yd)	Total Cost	Yearly Average Contract Price	Engineering News Record Construction Cost Index	Price Used in Needs
1998	60	919,379	\$3,273,588	\$3.56		\$3.20
1999					\$3.70	3.30
2000	56	1,157,353	3,490,120	3.02		3.30
2001					3.12	3.40
2002	50	893,338	3,275,650	3.67		3.67
2003					3.75	3.80
2004	56	1,018,912	4,523,089	4.44		4.00
2005					4.65	4.25

Needs Year	Number of Cities	Quantity (Cu. Yd.)	Total Cost	Yearly Average Contract Price	Engineering News Record Construction Cost Index	Price Used in Needs
2006	48	587,442	\$3,152,838	\$5.37		\$4.75
2007					\$5.59	4.95
2008					5.74	5.10
2009	47	1,334,769	6,052,005	4.53		4.75
2010					4.90	4.90
2011					5.03	5.05
2012	56	689,502	4,521,435	6.56		6.60

**SUBCOMMITTEE'S RECOMMENDED PRICE FOR THE 2012 NEEDS STUDY IS \$6.60 PER CUBIC YARD**

This item was 10.35% of the total needs last year  
 This year there are 83 projects in 56 cities

The Urban Grading Quantities in the Design Charts used in the Needs Computation program have been inflated by 1.78 and the Rural Grading Quantities by 1.56. See MSB resolutions in the back of the booklet for explanation of these Grading Factors.

## MSAS UNIT PRICE STUDY AGGREGATE BASE 2211 - TONS

CITY NAME	NO. OF PROJECTS	TOTAL QUANTITY	TOTAL COST	AVERAGE UNIT PRICE
<b>District 1</b>				
Cloquet	1	5,137	\$51,642	\$10.05
Duluth	1	2,122	29,198	13.76
Grand Rapids	2	15,851	193,060	12.18
Hermantown	1	580	8,010	13.80
Hibbing	2	11,756	110,320	9.38
<b>District 1 Total</b>	<b>7</b>	<b>35,447</b>	<b>\$392,230</b>	<b>\$11.07</b>

<b>District 2</b>				
Bemidji	2	6,250	\$65,850	\$10.54
Thief River Falls	2	55	483	8.81
<b>District 2 Total</b>	<b>4</b>	<b>6,305</b>	<b>\$66,333</b>	<b>\$10.52</b>

<b>District 3</b>				
Baxter	1	1,675	\$23,231	\$13.87
Brainerd	1	24,194	343,842	14.21
Cambridge	1	473	4,708	9.96
Elk River	1	892	11,328	12.70
Isanti	4	5,477	69,987	12.78
Little Falls	1	5,670	54,000	9.52
Monticello	3	4,500	59,445	13.21
St. Cloud	1	2,315	32,512	14.04
<b>District 3 Total</b>	<b>13</b>	<b>45,195</b>	<b>\$599,053</b>	<b>\$13.25</b>

<b>District 4</b>				
Detroit Lakes	1	4,801	\$43,078	\$8.97
Fergus Falls	2	52,813	406,762	7.70
Morris	1	4,493	35,655	7.94
<b>District 4 Total</b>	<b>4</b>	<b>62,106</b>	<b>\$485,496</b>	<b>\$7.82</b>

<b>District 6</b>				
Albert Lea	2	18,600	\$145,598	\$7.83
Austin	2	7,150	89,385	12.50
Byron	1	5,765	54,565	9.47
Owatonna	1	1,370	23,016	16.80
Rochester	2	22,786	214,356	9.41
Stewartville	1	2,954	47,686	16.14
Winona	1	3,396	43,129	12.70
<b>District 6 Total</b>	<b>10</b>	<b>62,020</b>	<b>\$617,735</b>	<b>\$9.96</b>

<b>District 7</b>				
St. Peter	1	4,532	\$68,703	\$15.16
<b>District 7 Total</b>	<b>1</b>	<b>4,532</b>	<b>\$68,703</b>	<b>\$15.16</b>

<b>District 8</b>				
Hutchinson	1	13,109	\$127,137	\$9.70
Litchfield	2	7,186	58,551	8.15
Marshall	1	9,150	86,468	9.45
Willmar	2	5,710	57,100	10.00
<b>District 8 Total</b>	<b>6</b>	<b>35,155</b>	<b>\$329,255</b>	<b>\$9.37</b>

## MSAS UNIT PRICE STUDY AGGREGATE BASE 2211 - TONS

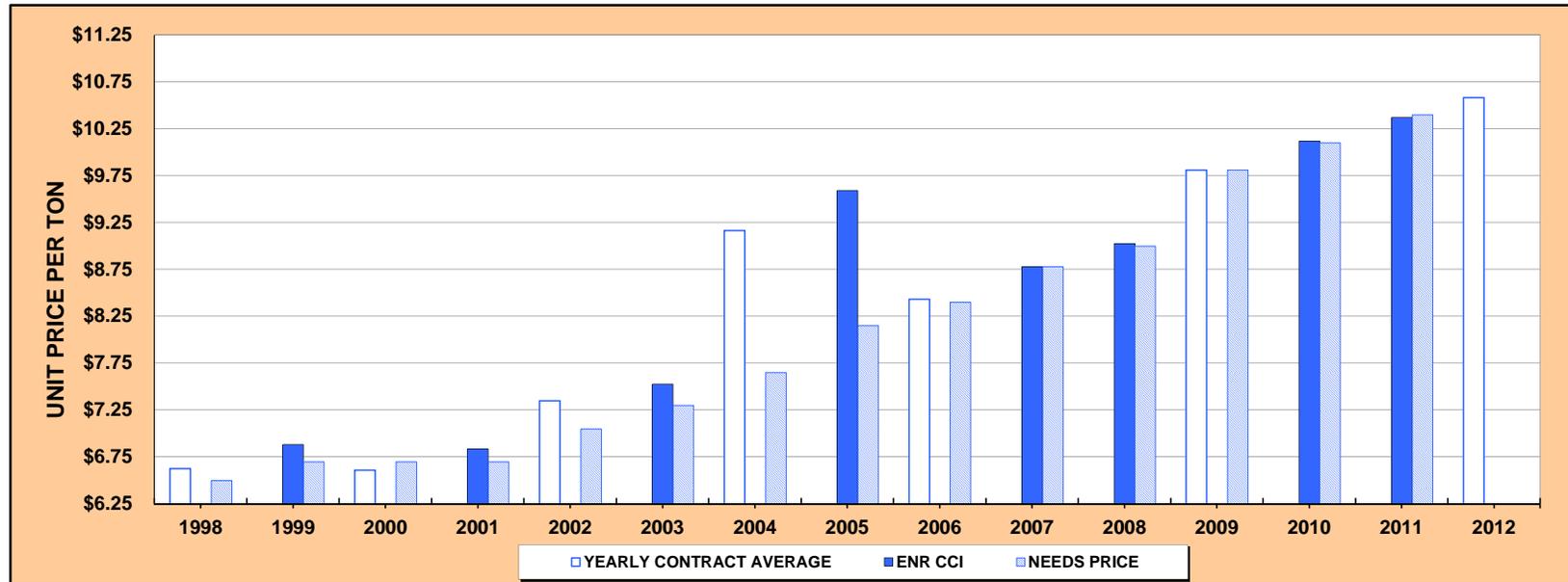
CITY NAME	NO. OF PROJECTS	TOTAL QUANTITY	TOTAL COST	AVERAGE UNIT PRICE
<b>Metro East</b>				
Apple Valley	1	15,500	\$155,000	\$10.00
Burnsville	2	1,254	15,515	12.37
Cottage Grove	2	6,127	81,050	13.23
Eagan	1	12,000	84,000	7.00
Inver Grove Heights	1	4,000	56,900	14.23
Moundsview	1	2,770	22,853	8.25
New Brighton	1	1,810	16,562	9.15
Rosemount	1	9,300	120,900	13.00
Shoreview	2	150	2,250	15.00
St. Paul	3	27,696	351,286	12.68
Stillwater	1	200	1,550	7.75
Vadnais Heights	1	282	4,653	16.50
<b>Metro East Total</b>	<b>17</b>	<b>81,089</b>	<b>\$912,518</b>	<b>\$11.25</b>

<b>Metro West</b>				
Belle Plaine	2	9,960	\$98,286	\$9.87
Blaine	1	2,150	22,038	10.25
Bloomington	5	738	12,538	16.99
Brooklyn Center	1	223	2,768	12.41
Crystal	1	4,201	29,113	6.93
Edina	1	10,130	134,223	13.25
Minneapolis	2	3,285	43,979	13.39
New Hope	2	395	2,809	7.11
Oak Grove	1	11,323	121,722	10.75
Plymouth	1	13,115	108,248	8.25
Ramsey	1	4,315	44,229	10.25
Rogers	1	5,728	65,242	11.39
Shakopee	2	14,520	177,434	12.22
St. Louis Park	2	1,530	20,175	13.19
Victoria	1	3,262	55,291	16.95
<b>Metro West Total</b>	<b>24</b>	<b>84,875</b>	<b>\$938,093</b>	<b>\$11.05</b>

<b>District Totals</b>				
District 1 Total	7	35,447	\$392,230	\$11.07
District 2 Total	4	6,305	66,333	10.52
District 3 Total	13	45,195	599,053	13.25
District 4 Total	4	62,106	485,496	7.82
District 6 Total	10	62,020	617,735	9.96
District 7 Total	1	4,532	68,703	15.16
District 8 Total	6	35,155	329,255	9.37
Metro East Total	17	81,089	912,518	11.25
Metro West Total	24	84,875	938,093	11.05
<b>STATE TOTAL</b>	<b>86</b>	<b>416,725</b>	<b>\$4,409,415</b>	<b>\$10.58</b>

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# AGGREGATE BASE



Needs Year	Number of Cities	Quantity (Ton)	Total Cost	Yearly Average Contract Price	Engineering News Record Construction Cost Index	Price Used in Needs
1998	67	470,633	\$3,118,365	\$6.63		\$6.50
1999					\$6.88	6.70
2000	58	680,735	4,498,220	6.61		6.70
2001					6.84	6.70
2002	52	527,592	3,877,688	7.35		7.05
2003					7.53	7.30
2004	58	573,153	5,252,804	9.16		7.65
2005					9.59	8.15

Needs Year	Number of Cities	Quantity (Ton)	Total Cost	Yearly Average Contract Price	Engineering News Record Construction Cost Index	Price Used in Needs
2006	46	355,866	\$3,000,906	\$8.43		\$8.40
2007					\$8.78	8.78
2008					9.02	9.00
2009	45	436,802	4,284,174	9.81		9.81
2010					10.12	10.10
2011					10.37	10.40
2012	57	416,725	4,409,415	10.58		

**SUBCOMMITTEE'S RECOMMENDED PRICE FOR THE 2012 NEEDS STUDY IS \$10.65 PER TON**

**This item was 11.52% of the total needs last year  
This year there are 86 projects in 57 cities**

## MSAS UNIT PRICE STUDY BITUMINOUS

CITY NAME	NO. OF PROJECTS	TOTAL QUANTITY	TOTAL COST	AVERAGE UNIT PRICE
<b>District 1</b>				
Chisholm	1	1,789	\$126,556	\$70.74
Cloquet	1	2,282	178,860	78.38
Duluth	1	1,178	86,524	73.45
Grand Rapids	2	19,925	1,204,384	60.45
Hermantown	1	1,482	82,413	55.61
Hibbing	2	3,930	266,610	67.84
<b>District 1 Total</b>	<b>8</b>	<b>30,586</b>	<b>\$1,945,347</b>	<b>\$63.60</b>

<b>District 2</b>				
Bemidji	2	4,550	\$271,390	\$59.65
Thief River Falls	3	3,948	240,870	61.01
<b>District 2 Total</b>	<b>5</b>	<b>8,498</b>	<b>\$512,260</b>	<b>\$60.28</b>

<b>District 3</b>				
Baxter	1	1,656	\$84,779	\$51.20
Brainerd	1	15,105	770,224	50.99
Cambridge	1	255	21,210	83.18
Elk River	1	1,803	106,429	59.03
Isanti	4	1,784	99,434	55.75
Little Falls	2	5,840	285,893	48.95
Monticello	3	2,521	130,771	51.86
St. Cloud	2	4,025	227,350	56.49
<b>District 3 Total</b>	<b>15</b>	<b>32,989</b>	<b>\$1,726,090</b>	<b>\$52.32</b>

<b>District 4</b>				
Alexandria	3	3,319	\$211,747	\$63.80
Detroit Lakes	1	2,300	161,000	70.00
Fergus Falls	2	14,819	768,508	51.86
Morris	1	2,237	157,465	70.39
<b>District 4 Total</b>	<b>7</b>	<b>22,675</b>	<b>\$1,298,720</b>	<b>\$57.28</b>

<b>District 6</b>				
Albert Lea	4	4,556	\$287,062	\$63.01
Austin	1	3,605	229,525	63.67
Byron	1	2,675	188,265	70.38
Owatonna	1	5,620	337,620	60.07
Rochester	2	11,468	739,768	64.51
Stewartville	1	1,625	118,578	72.99
Winona	1	1,076	80,789	75.08
<b>District 6 Total</b>	<b>11</b>	<b>30,624</b>	<b>\$1,981,607</b>	<b>\$64.71</b>

<b>District 7</b>				
Fairmont	1	4,074	\$251,754	\$61.80
St. Peter	1	2,364	146,776	62.08
Worthington	1	1,205	85,838	71.23
<b>District 7 Total</b>	<b>3</b>	<b>7,643</b>	<b>\$484,368</b>	<b>\$63.37</b>

<b>District 8</b>				
Hutchinson	1	5,003	\$347,642	\$69.48
Litchfield	2	2,228	146,260	65.65
Marshall	1	3,915	245,400	62.68
Willmar	2	3,100	169,983	54.83
<b>District 8 Total</b>	<b>6</b>	<b>14,246</b>	<b>\$909,284</b>	<b>\$63.83</b>

## MSAS UNIT PRICE STUDY BITUMINOUS

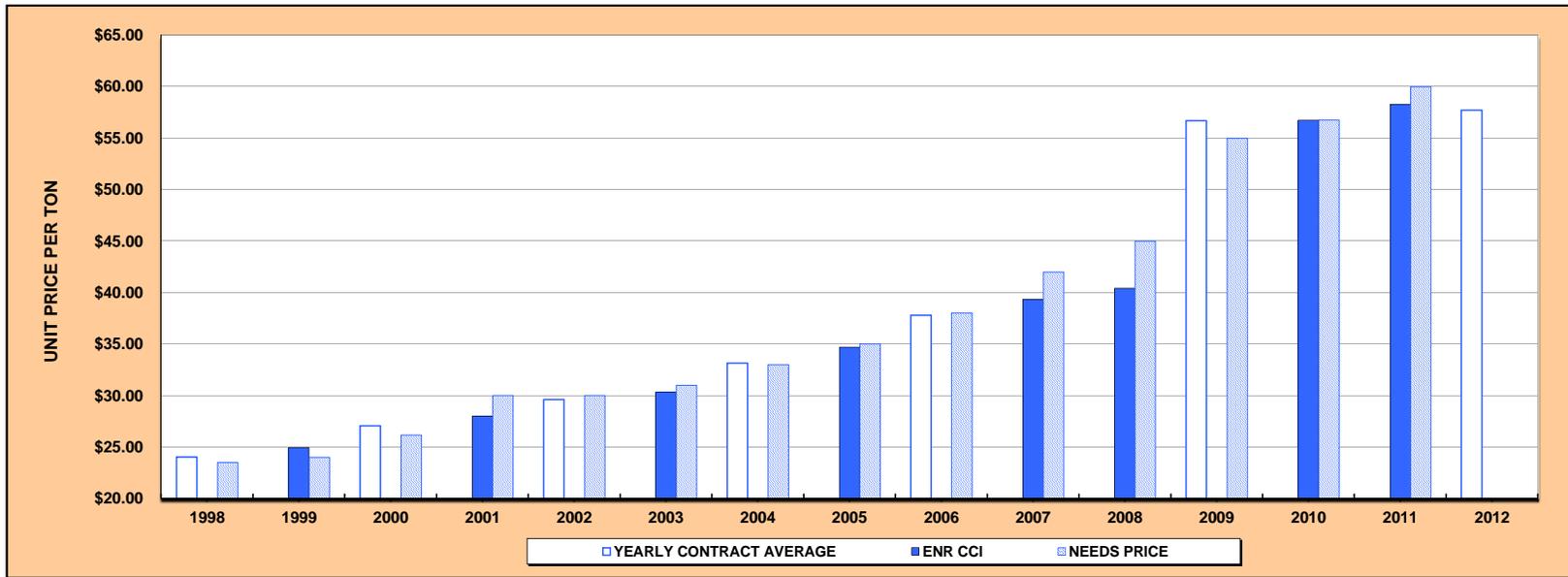
CITY NAME	NO. OF PROJECTS	TOTAL QUANTITY	TOTAL COST	AVERAGE UNIT PRICE
<b>Metro East</b>				
Apple Valley	1	9,840	\$576,260	\$58.56
Burnsville	3	9,855	530,549	53.84
Cottage Grove	2	4,965	274,632	55.31
Eagan	3	17,302	644,099	37.23
Inver Grove Heights	1	3,077	135,130	43.92
Mounds View	1	2,070	103,124	49.82
New Brighton	3	5,638	363,839	64.53
Rosemount	1	6,450	375,500	58.22
Shoreview	3	7,275	428,728	58.93
South St. Paul	2	2,351	110,741	47.10
St. Paul	2	10,469	620,281	59.25
Stillwater	1	2,480	128,795	51.93
Vadnais Heights	1	245	27,110	110.65
<b>Metro East Total</b>	<b>24</b>	<b>82,018</b>	<b>\$4,318,787</b>	<b>\$52.66</b>

<b>Metro West</b>				
Andover	1	2,870	\$175,690	\$61.22
Belle Plaine	2	3,110	171,992	55.30
Blaine	1	4,950	271,785	54.91
Bloomington	5	7,054	389,264	55.18
Brooklyn Center	1	4,566	278,210	60.93
Coon Rapids	5	15,768	949,940	60.25
Crystal	1	1,457	61,500	42.21
Edina	1	4,438	272,887	61.48
Fridley	1	1,480	84,637	57.19
Minneapolis	3	4,508	312,437	69.31
New Hope	2	8,953	445,999	49.82
Oak Grove	1	6,304	356,273	56.52
Plymouth	1	5,593	373,444	66.77
Ramsey	1	2,140	125,955	58.86
Rogers	1	5,333	319,513	59.91
Shakopee	2	6,391	363,608	56.89
St. Louis Park	2	2,349	133,906	57.01
Victoria	1	1,144	71,352	62.37
<b>Metro West Total</b>	<b>32</b>	<b>88,408</b>	<b>\$5,158,392</b>	<b>\$58.35</b>

<b>District Totals</b>				
District 1 Total	8	30,586	\$1,945,347	\$63.60
District 2 Total	5	8,498	512,260	60.28
District 3 Total	15	32,989	1,726,090	52.32
District 4 Total	7	22,675	1,298,720	57.28
District 6 Total	11	30,624	1,981,607	64.71
District 7 Total	3	7,643	484,368	63.37
District 8 Total	6	14,246	909,284	63.83
Metro East Total	24	82,018	4,318,787	52.66
Metro West Total	32	88,408	5,158,392	58.35
<b>STATE TOTAL</b>	<b>111</b>	<b>317,687</b>	<b>\$18,334,854</b>	<b>\$57.71</b>

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# ALL BITUMINOUS BASE & SURFACE



Needs Year	Number of Cities	Quantity (Ton)	Total Cost	Yearly Average Contract Price	Engineering News Record Construction Cost Index	Price Used in Needs
1998	67	505,372	\$12,132,901	\$24.01		\$23.50
1999					\$24.93	24.00
2000	51	434,005	11,739,821	27.05		26.17
2001					27.99	30.00
2002	50	371,198	10,989,206	29.60		30.00
2003					30.31	31.00
2004	60	459,606	15,229,960	33.14		33.00
2005					34.68	35.00

Needs Year	Number of Cities	Quantity (Ton)	Total Cost	Yearly Average Contract Price	Engineering News Record Construction Cost Index	Price Used in Needs
2006	51	305,073	\$11,524,574	\$37.78		\$38.00
2007					\$39.33	42.00
2008					40.42	45.00
2009	44	277,797	15,744,901	56.68		55.00
2010					56.72	56.75
2011					58.27	60.00
2012	65	317,687	18,334,854	57.71		

**SUBCOMMITTEE'S RECOMMENDED PRICE FOR THE 2012 NEEDS STUDY IS \$58.00 PER TON**

This item was 23.57% of the total needs last year  
 This year there are 111 projects in 65 cities

## MSAS UNIT PRICE STUDY SIDEWALK CONSTRUCTION - SQUARE YARD

CITY NAME	No. Of Projects	TOTAL QTY.	TOTAL COST	AVERAGE UNIT PRICE
<b>District 1</b>				
Chisholm	1	1,730	\$46,704	\$27.00
Cloquet	1	1,111	29,991	27.00
Duluth	1	1,395	52,590	37.70
Grand Rapids	1	58	2,180	37.80
Hermantown	1	643	21,064	32.78
Hibbing	2	2,460	64,206	26.10
<b>District 1 Total</b>	<b>7</b>	<b>7,396</b>	<b>\$216,735</b>	<b>\$29.30</b>

<b>District 2</b>				
Bemidji	2	3,925	\$97,144	\$24.75
Thief River Falls	2	241	7,693	\$31.95
<b>District 2 Total</b>	<b>4</b>	<b>4,166</b>	<b>\$104,837</b>	<b>\$25.17</b>

<b>District 3</b>				
Baxter	1	89	\$2,120	\$23.76
Brainerd	1	4,913	142,116	28.93
Cambridge	1	221	6,965	31.50
Isanti	3	172	5,573	32.40
Monticello	1	78	2,275	29.25
St. Cloud	1	1,052	25,572	24.30
<b>District 3 Total</b>	<b>8</b>	<b>6,525</b>	<b>\$184,620</b>	<b>\$28.29</b>

<b>District 4</b>				
Fergus Falls	1	2,069	\$62,327	\$30.13
<b>District 4 Total</b>	<b>1</b>	<b>2,069</b>	<b>\$62,327</b>	<b>\$30.13</b>

<b>District 6</b>				
Albert Lea	3	1,671	\$57,070	\$34.16
Austin	2	1,551	60,282	38.86
Owatonna	1	377	17,034	45.16
Stewartville	1	74	3,317	44.55
Winona	1	267	10,929	40.95
<b>District 6 Total</b>	<b>8</b>	<b>3,940</b>	<b>\$148,632</b>	<b>\$37.72</b>

<b>District 7</b>				
Fairmont	1	70	\$2,545	\$36.36
St. Peter	1	873	25,535	29.25
<b>District 7 Total</b>	<b>2</b>	<b>943</b>	<b>\$28,080</b>	<b>\$29.78</b>

<b>District 8</b>				
Hutchinson	1	469	\$15,269	\$32.58
Litchfield	2	2,794	80,467	28.80
Marshall	1	106	4,275	40.50
Willmar	1	1,161	33,842	29.16
<b>District 8 Total</b>	<b>5</b>	<b>4,529</b>	<b>\$133,853</b>	<b>\$29.56</b>

## MSAS UNIT PRICE STUDY SIDEWALK CONSTRUCTION - SQUARE YARD

CITY NAME	No. Of Projects	TOTAL QTY.	TOTAL COST	AVERAGE UNIT PRICE
<b>Metro East</b>				
Apple Valley	1	352	\$11,571	\$32.85
Burnsville	3	1,242	32,628	26.28
Cottage Grove	2	1,578	38,340	24.30
Inver Grove Heights	1	1,067	25,440	23.85
Moundsview	1	383	12,075	31.50
New Brighton	1	2,059	66,715	32.40
Rosemount	1	533	19,200	36.00
South St. Paul	2	77	3,450	45.00
St. Paul	2	7,996	112,036	14.01
Stillwater	1	760	24,548	32.30
<b>Metro East Total</b>	<b>15</b>	<b>16,047</b>	<b>\$346,003</b>	<b>\$21.56</b>

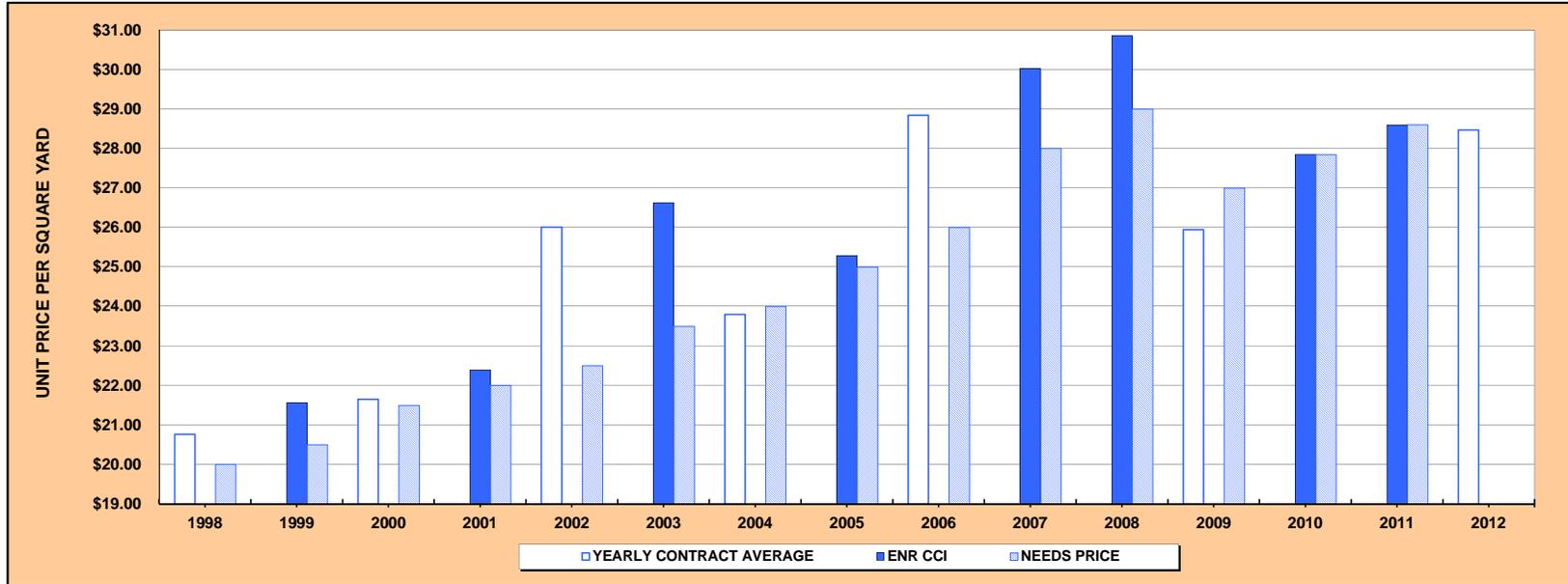
<b>Metro West</b>				
Andover	1	56	\$2,300	\$41.40
Belle Plaine	2	1,103	31,779	28.80
Blaine	1	322	8,434	26.22
Bloomington	5	2,381	83,448	35.05
Brooklyn Center	1	452	17,306	38.26
Coon Rapids	5	1,368	35,771	26.14
Crystal	2	1,997	48,519	24.30
Edina	1	4,856	161,450	33.25
Minneapolis	2	1,699	54,773	32.24
New Hope	1	400	10,620	26.55
Ramsey	1	3,044	122,478	40.23
Rogers	1	264	6,849	25.92
Shakopee	2	1,931	51,448	26.64
St. Louis Park	2	525	18,901	36.01
Victoria	1	32	1,094	34.20
<b>Metro West Total</b>	<b>28</b>	<b>20,430</b>	<b>\$655,170</b>	<b>\$32.07</b>

<b>District Totals</b>				
District 1 Total	7	7,396	\$216,735	\$29.30
District 2 Total	4	4,166	104,837	25.17
District 3 Total	8	6,525	184,620	28.29
District 4 Total	1	2,069	62,327	30.13
District 6 Total	8	3,940	148,632	37.72
District 7 Total	2	943	28,080	29.78
District 8 Total	5	4,529	133,853	29.56
Metro East Total	15	16,047	346,003	21.56
Metro West Total	28	20,430	655,170	32.07

<b>STATE TOTAL</b>	<b>78</b>	<b>66,045</b>	<b>\$1,880,257</b>	<b>\$28.47</b>
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N:\MSAS\EXCEL\UNIT PRICE\2012 UNIT PRICE BREAK OUT FINAL 2012.XLS SIDEWALK CONST.

# SIDEWALK CONSTRUCTION



Needs Year	Number of Cities	Quantity (Sq.Yd)	Total Cost	Yearly Average Contract Price	Engineering News Record Construction Cost Index	Price Used in Needs
1998	54	71,578	\$1,486,101	\$20.76		\$20.00
1999					\$21.56	20.50
2000	45	88,562	1,917,075	21.65	22.40	21.50
2001						22.00
2002	38	61,390	1,596,409	26.00	26.63	22.50
2003						23.50
2004	47	123,460	2,937,553	23.79		24.00
2005					25.29	25.00

Needs Year	Number of Cities	Quantity (Sq. Yd.)	Total Cost	Yearly Average Contract Price	Engineering News Record Construction Cost Index	Price Used in Needs
2006	43	69,500	\$2,004,367	\$28.84		\$26.00
2007					\$30.02	28.00
2008					30.86	29.00
2009	44	95,689	2,482,820	25.95		27.00
2010					27.85	27.85
2011					28.60	28.60
2012	51	66,045	1,880,257	28.47		28.60

SUBCOMMITTEE'S RECOMMENDED PRICE FOR THE 2012 NEEDS STUDY IS \$28.50 PER SQ. YD.

This item was 6.68% of the total needs last year  
 This year there are 78 projects in 51 cities

**MSAS UNIT PRICE STUDY  
CURB AND GUTTER CONSTRUCTION - LIN. FT.**

CITY NAME	No. Of Projects	TOTAL QTY.	TOTAL COST	AVERAGE UNIT PRICE
<b>District 1</b>				
Chisholm	1	3,931	\$45,796	\$11.65
Cloquet	1	4,156	43,638	10.50
Duluth	1	3,005	36,060	12.00
Grand Rapids	2	6,172	63,963	10.36
Hermantown	1	1,902	22,824	12.00
Hibbing	2	4,410	50,495	11.45
<b>District 1 Total</b>	<b>8</b>	<b>23,576</b>	<b>\$262,776</b>	<b>\$11.15</b>

<b>District 2</b>				
Bemidji	2	7,530	\$68,147	\$9.05
Thief River Falls	3	934	17,839	19.10
<b>District 2 Total</b>	<b>5</b>	<b>8,464</b>	<b>\$85,986</b>	<b>\$10.16</b>

<b>District 3</b>				
Baxter	1	1,030	\$14,018	\$13.61
Brainerd	1	28,468	404,408	14.21
Cambridge	1	560	7,840	14.00
Elk River	1	1,272	10,748	8.45
Isanti	4	5,363	42,904	8.00
Little Falls	1	1,071	11,781	11.00
Monticello	3	2,460	26,691	10.85
St. Cloud	1	1,273	14,003	11.00
<b>District 3 Total</b>	<b>13</b>	<b>41,497</b>	<b>\$532,393</b>	<b>\$12.83</b>

<b>District 4</b>				
Alexandria	2	510	\$8,670	\$17.00
Fergus Falls	2	16,334	197,591	12.10
Morris	1	343	6,517	19.00
<b>District 4 Total</b>	<b>5</b>	<b>17,187</b>	<b>\$212,778</b>	<b>\$12.38</b>

<b>District 6</b>				
Albert Lea	3	2,926	\$54,092	\$18.49
Austin	2	3,400	34,847	10.25
Byron	1	745	13,845	18.58
Owatonna	1	1,050	15,908	15.15
Rochester	2	13,667	187,265	13.70
Stewartville	1	3,035	43,401	14.30
Winona	1	1,428	17,307	12.12
<b>District 6 Total</b>	<b>11</b>	<b>26,251</b>	<b>\$366,665</b>	<b>\$13.97</b>

<b>District 7</b>				
Fairmont	1	4,462	\$47,253	\$10.59
St. Peter	1	2,919	32,213	11.04
<b>District 7 Total</b>	<b>2</b>	<b>7,381</b>	<b>\$79,465</b>	<b>\$10.77</b>

<b>District 8</b>				
Hutchinson	1	7,836	\$76,401	\$9.75
Litchfield	2	4,457	43,323	9.72
Marshall	1	4,400	43,340	9.85
Willmar	2	4,650	49,290	10.60
<b>District 8 Total</b>	<b>6</b>	<b>21,343</b>	<b>\$212,354</b>	<b>\$9.95</b>

**MSAS UNIT PRICE STUDY  
CURB AND GUTTER CONSTRUCTION - LIN. FT.**

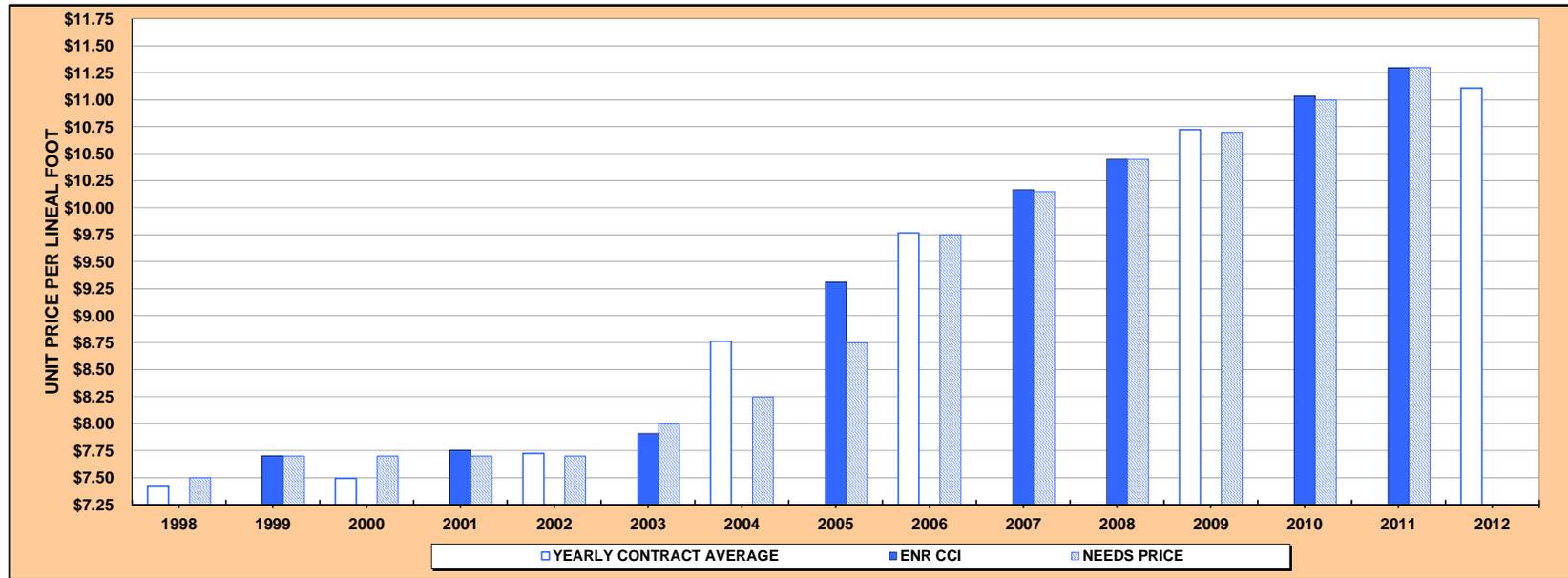
CITY NAME	No. Of Projects	TOTAL QTY.	TOTAL COST	AVERAGE UNIT PRICE
<b>Metro East</b>				
Apple Valley	1	3,130	\$48,114	\$15.37
Burnsville	2	3,950	39,561	10.02
Cottage Grove	2	7,155	61,533	8.60
Eagan	3	7,342	79,600	10.84
Inver Grove Heights	1	4,200	39,900	9.50
Mounds View	2	5,505	44,436	8.07
New Brighton	3	3,540	50,482	14.26
Rosemount	1	6,730	80,760	12.00
Shoreview	3	475	9,500	20.00
South St. Paul	2	156	2,652	17.00
St. Paul	3	12,040	88,098	7.32
Stillwater	1	5,200	45,760	8.80
Vadnais Heights	1	365	5,384	14.75
<b>Metro East Total</b>	<b>25</b>	<b>59,788</b>	<b>\$595,779</b>	<b>\$9.96</b>

<b>Metro West</b>				
Andover	1	3,570	\$31,474	\$8.82
Belle Plaine	2	5,107	55,666	10.90
Blaine	1	1,101	14,555	13.22
Bloomington	5	5,762	84,020	14.58
Brooklyn Center	1	2,925	28,051	9.59
Coon Rapids	5	7,295	103,632	14.21
Crystal	1	4,330	32,879	7.59
Edina	1	8,330	79,452	9.54
Fridley	1	200	2,700	13.50
Minneapolis	2	2,756	16,697	6.06
New Hope	2	1,860	21,847	11.75
Oak Grove	1	875	9,538	10.90
Plymouth	1	369	5,561	15.07
Ramsey	1	5,450	47,524	8.72
Rogers	1	8,947	79,979	8.94
Shakopee	2	11,134	104,548	9.39
St. Louis Park	2	2,021	23,025	11.39
Victoria	1	4,232	40,839	9.65
<b>Metro West Total</b>	<b>31</b>	<b>76,264</b>	<b>\$781,985</b>	<b>\$10.25</b>

<b>District Totals</b>				
District 1 Total	8	23,576	\$262,776	\$11.15
District 2 Total	5	8,464	85,986	10.16
District 3 Total	13	41,497	532,393	12.83
District 4 Total	5	17,187	212,778	12.38
District 6 Total	11	26,251	366,665	13.97
District 7 Total	2	7,381	79,465	10.77
District 8 Total	6	21,343	212,354	9.95
Metro East Total	25	59,788	595,779	9.96
Metro West Total	31	76,264	781,985	10.25
<b>STATE TOTAL</b>	<b>106</b>	<b>281,751</b>	<b>\$3,130,181</b>	<b>\$11.11</b>

N:\MSAS\EXCEL\UNIT PRICE\2012\UNIT PRICE BREAK OUT-FINAL 2012.XLS C & G CONST.

# CURB AND GUTTER CONSTRUCTION



Needs Year	Number of Cities	Quantity (Ln. Ft.)	Total Cost	Yearly Average Contract Price	Engineering News Record Construction Cost Index	Price Used in Needs
1998	64	347,973	\$2,581,523	\$7.42		\$7.50
1999					\$7.70	7.70
2000	55	418,211	3,133,900	7.49		7.70
2001					7.75	7.70
2002	50	363,497	2,807,345	7.72		7.70
2003					7.91	8.00
2004	59	469,131	4,110,211	8.76		8.25
2005					9.31	8.75

Needs Year	Number of Cities	Quantity (Ln. Ft.)	Total Cost	Yearly Average Contract Price	Engineering News Record Construction Cost Index	Price Used in Needs
2006	52	327,171	\$3,195,201	\$9.77		\$9.75
2007					\$10.17	10.15
2008					10.45	10.45
2009	43	262,251	2,812,246	10.72		10.70
2010					11.03	11.00
2011					11.29	11.30
2012	63	281,751	3,130,181	11.11		

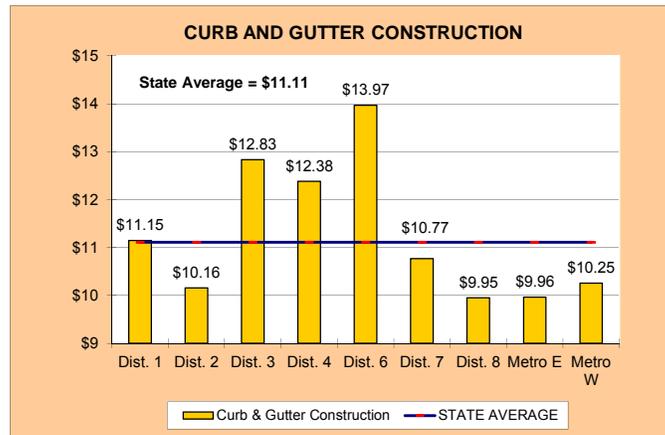
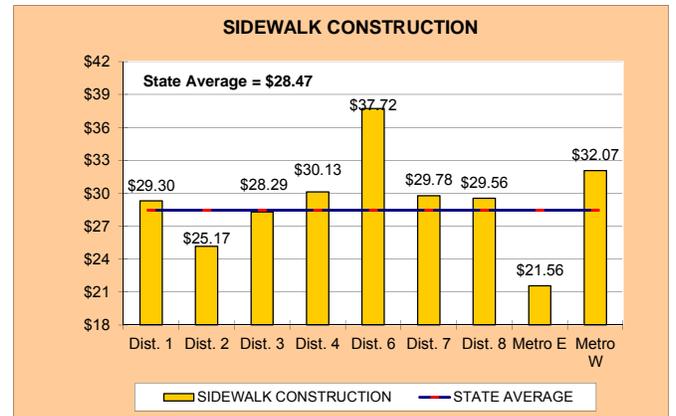
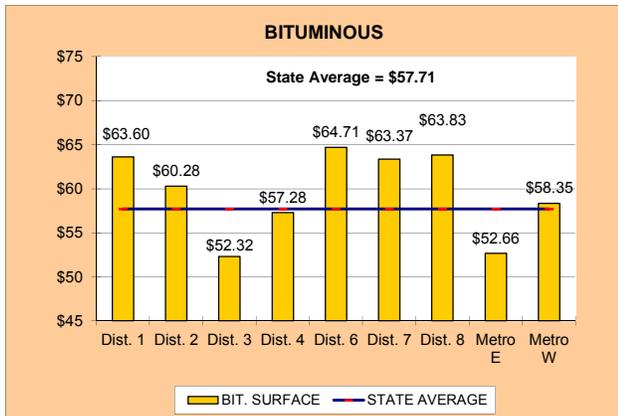
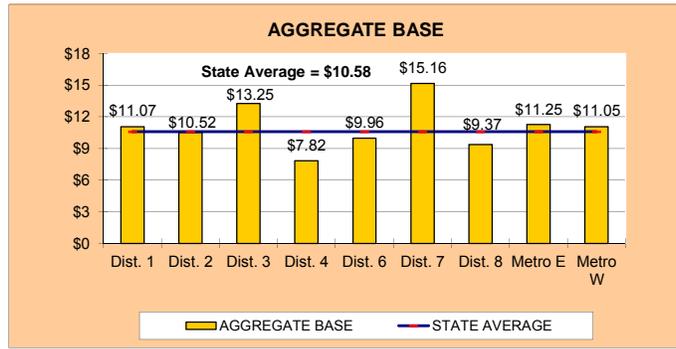
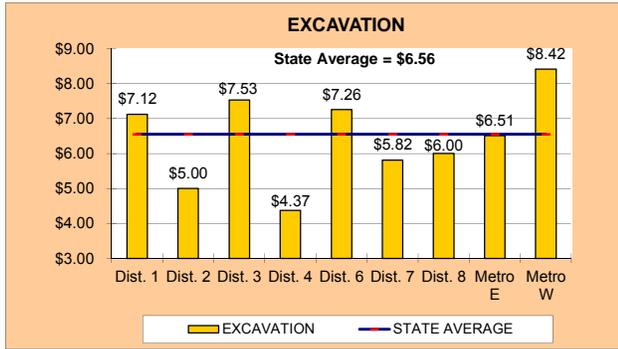
SUBCOMMITTEE'S RECOMMENDED PRICE FOR THE 2012 NEEDS STUDY IS \$11.15 PER LIN. FT.

This item was 5.52% of the total needs last year  
 This year there are 106 projects in 63 cities

# 2011 UNIT PRICES BY DISTRICT

For the 2012 Unit Price Study

	Dist. 1	Dist. 2	Dist. 3	Dist. 4	Dist. 6	Dist. 7	Dist. 8	Metro East	Metro West	State Average
<b>Excavation</b>	\$7.12	\$5.00	\$7.53	\$4.37	\$7.26	\$5.82	\$6.00	\$6.51	\$8.42	<b>\$6.56</b>
<b>Aggregate Base</b>	\$11.07	\$10.52	\$13.25	\$7.82	\$9.96	\$15.16	\$9.37	\$11.25	\$11.05	<b>\$10.58</b>
<b>Bituminous- All</b>	\$63.60	\$60.28	\$52.32	\$57.28	\$64.71	\$63.37	\$63.83	\$52.66	\$58.35	<b>\$57.71</b>
<b>Sidewalk Construction</b>	\$29.30	\$25.17	\$28.29	\$30.13	\$37.72	\$29.78	\$29.56	\$21.56	\$32.07	<b>\$28.47</b>
<b>C &amp; G Construction</b>	\$11.15	\$10.16	\$12.83	\$12.38	\$13.97	\$10.77	\$9.95	\$9.96	\$10.25	<b>\$11.11</b>



## STORM SEWER, LIGHTING AND SIGNAL NEEDS COSTS

NEEDS YEAR	STORM SEWER ADJUSTMENT (Per Mile)	STORM SEWER CONSTRUCTION (Per Mile)	LIGHTING (Per Mile)	SIGNALS (Per Mile)
1995	\$69,100	\$223,000	\$20,000	\$20,000-80,000
1996	71,200	229,700	20,000	20,000-80,000
1998	76,000	245,000	20,000	24,990-99,990
1999	79,000	246,000	35,000	24,990-99,990
2000	80,200	248,500	50,000	24,990-99,990
2001	80,400	248,000	78,000 **	30,000-120,000
2002	81,600	254,200	78,000	30,000-120,000
2003	82,700	257,375	80,000	31,000-124,000
2004	83,775	262,780	80,000	31,000-124,000
2005	85,100	265,780	82,500	32,500-130,000
2006	86,100	268,035	100,000	32,500-130,000
2007	88,100	271,000	100,000	32,500-130,000
2008	89,700	278,200	100,000	32,500-130,000
2009	92,800	289,300	100,000	32,500-130,000
2010	94,200	295,400	100,000	34,000-136,000
2011	95,600	301,300	100,000	34,000-136,000
2012				

\*\* Lighting needs were revised to deficient segment only.

### MNDOT'S HYDRAULIC OFFICE RECOMMENDED PRICES FOR 2012:

	<b>Storm Sewer Adjustment</b>	<b>Storm Sewer Construction</b>
<b>2012</b>	<u>\$97,010</u>	<u>\$307,297</u>

### SUBCOMMITTEE'S RECOMMENDED PRICES FOR 2012:

	<b>Storm Sewer Adjustment</b>	<b>Storm Sewer Construction</b>	<b>Lighting</b>	<b>Signals</b>
<b>2012</b>	<u>\$97,000</u>	<u>\$307,300</u>	<u>\$100,000</u>	<u>\$140,000</u>

## RAILROAD CROSSINGS NEEDS COSTS

NEEDS YEAR	SIGNS (Per Unit)	PAVEMENT MARKING	SIGNALS (Low Speed) (Per Unit)	SIGNALS & GATES (High Speed) (Per Unit)	CONCRETE CROSSING MATERIAL (Per foot/track)
1995	\$800	\$750	\$80,000	\$110,000	\$750
1996	800	750	80,000	110,000	750
1998	1,000	750	80,000	130,000	750
1999	1,000	750	85,000	135,000	850
2000	1,000	750	110,000	150,000	900
2001	1,000	750	120,000	160,000	900
2002	1,000	750	120,000	160,000	1,000
2003	1,000	750	120,000	160,000	1,000
2004	1,000	750	150,000	187,500	1,000
2005	1,000	750	150,000	187,000	1,000
2006	1,000	750	150,000	200,000	1,000
2007	1,000	750	175,000	200,000	1,000
2008	1,500	1,100	175,000	200,000	1,100
2009	2,000	1,500	225,000	250,000	1,300
2010	2,500	2,500	250,000	275,000	1,800
2011	2,500	2,500	275,000	300,000	1,800
2012					

### MNDOT'S RAILROAD OFFICE RECOMMENDED PRICES FOR 2012:

	<b>Signs</b>	<b>Pavement Marking</b>	<b>Signals</b>	<b>Sig. &amp; Gates</b>	<b>Concrete X-ing Surf.</b>
<b>2012</b>	<u>\$2,500</u>	<u>\$2,500</u>	<u>\$275,000</u>	<u>\$275,000-\$400,000</u>	<u>\$1,800</u>

### SUBCOMMITTEE'S RECOMMENDED PRICES FOR 2012:

<b>2012</b>	<u>\$2,500</u>	<u>\$2,500</u>	<u>\$275,000</u>	<u>\$325,000</u>	<u>\$1,800</u>
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## Minnesota Department of Transportation

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# Memo

Bridge Office  
3485 Hadley Avenue North  
Oakdale, MN 55128-3307

Date: April 4, 2012

To: Marshall Johnston  
Manager, Municipal State Aid Street Needs Section

From: Juanita Voigt  
State Aid Hydraulic Specialist

Phone: (651) 366-4469

Subject: State Aid Storm Sewer  
Construction Costs for 2011

We have completed our analysis of storm sewer construction costs incurred for 2011 and the following assumptions can be utilized for planning purposes per roadway mile:

- Approximately \$307,297 for new construction, and
- Approximately \$97,010 for adjustment of existing systems

The preceding amounts are based on the average cost per mile of State Aid storm sewer using unit prices. 184 Storm Sewer Plans were submitted during 2011.

CC: Andrea Hendrickson (file)

# Memo

**Office of Freight and Commercial Vehicle Operations**

Railroad Administration Section  
 Mail Stop 470  
 395 John Ireland Blvd.  
 St. Paul, Minnesota 55155-1899

Office Tel: 651/366-3644  
 Fax: 651/366-3720

March 14, 2012

To: Marshall Johnson  
 Needs Unit – State Aid

From: Susan H. Aylesworth  
 Manager, Rail Administration Section

Subject: Projected Railroad Grade Crossing  
 Improvements – Cost for 2012

We have projected 2012 costs for railroad/highway improvements at grade crossings. For planning purposes, we recommend using the following figures:

Signals & Gates (single track, low speed, average price)*	\$275,000.00
Signals & Gates (multiple track, high/low speed, average price)*	\$275,000 - \$400,000.00
Signs (advance warning signs and crossbucks)	\$2,500 per crossing
Pavement Markings (tape)	\$7,500 per crossing
Pavement Markings (paint)	\$2,500 per crossing
Crossing Surface (concrete, complete reconstruction)	\$1,800 per track ft.

\*Signal costs include sensors to predict the motion of train or predictors which can also gauge the speed of the approaching train and adjust the timing of the activation of signals.

Our recommendation is that roadway projects be designed to carry any improvements through the crossing area – thereby avoiding the crossing acting as a transition zone between two different roadway sections or widths. We also recommend a review of all passive warning devices including advance warning signs and pavement markings – to ensure compliance with the MUTCD and OFCVO procedures.

# MnDOT State Aid Bridge Office 2011 Calendar Year - - Bridge Cost Report

## General Notes

The CY 2011 Bridge Cost Report reflects the unit cost (\$ per square foot of bridge area) of all of the bridges let in CY 2011.

Pre-cast concrete box culverts have not been included in this report as they do not generally get reviewed (or approved) by the State Aid Bridge Office. Please contact the SALT Office for pre-cast concrete box culvert cost information.

The bridge unit costs are derived from the pay items on the 1<sup>st</sup> sheet of each bridge plan and therefore may include Traffic Control, Guardrail, etc.

We exclude one bridge pay item when calculating the cost of each bridge. That pay item is Remove Existing Bridge and it occurs prior to bridge construction and is not eligible for state or federal funding.

If a bridge has expensive aesthetic features, it may result in a higher unit cost for the bridge. Bridges with an unusually high (or low) unit cost will be omitted to ensure we are reporting "average" bridge unit costs.

Please note that the purpose of this report is to provide the approximate costs of building the various types of bridges and to track those cost trends over time.

Please report any missing bridges to the State Aid Bridge Office as soon as possible so we can revise the report. Once the report gets loaded to our website it's considered to be final.

As always we appreciate your comments and feel free to call us if you have any questions or comments.

Dave Conkel  
MnDOT State Aid Bridge Engineer  
Phone: 651-366-4493  
E-Mail: [dave.conkel@state.mn.us](mailto:dave.conkel@state.mn.us)

# MnDOT State Aid Bridge Office 2011 Calendar Year - - Bridge Cost Report

Separated per Bridge Length < 150'

SORTED BY BRIDGE LENGTH, DOES NOT INCLUDE OVERLAYS

New Bridge Number	Project Type	Project Number	Length	Beam Type Code	Letting Date	Area	Cost	Unit Cost
69679	SAP	118-080-037	28.35	C-SLAB	5/12/2011	799	\$712,926	\$892.27
02582	SAP	002-598-006	44.67	PCB	9/26/2011	1757	\$238,600	\$135.80
25606	SAP	156-080-012	46.92	STEEL	9/19/2011	2110	\$2,618,682	\$1,241.08
15513	SAP	015-600-009	57.00	TTS	9/13/2011	1962	\$673,902	\$343.48
R0626	SP	021-090-004	59.00	TRUSS	7/20/2011	708	\$171,281	\$241.92
13523	SAP	013-630-011	60.67	PCB	7/26/2011	3205	\$350,892	\$109.48
27B81	SP	027-622-003	65.67	PCB	8/30/2011	5031	\$3,176,902	\$631.47
07547	SAP	007-599-053	66.00	PCB	5/6/2011	1898	\$350,264	\$184.54
66552	SAP	066-615-009	67.50	C-SLAB	3/31/2011	3004	\$341,717	\$113.75
07593	SAP	007-598-027	70.00	PCB	5/6/2011	2301	\$411,708	\$178.93
38532	SAP	038-606-010	70.42	PCB	11/2/2011	2770	\$428,412	\$154.66
67561	SP	067-616-003	74.50	C-SLAB	6/17/2011	2633	\$299,737	\$113.84
85562	SAP	085-612-026	74.50	C-SLAB	5/17/2011	2632	\$285,823	\$108.60
27B76	SP	189-020-020	77.88	PCB	1/12/2011	3764	\$907,506	\$241.10
27B77	SP	189-020-020	77.88	PCB	1/12/2011	3764	\$942,455	\$250.39
32570	SP	032-598-012	80.92	PCB	6/17/2011	2697	\$287,680	\$106.67
85564	SAP	085-615-019	82.85	PCB	5/17/2011	3535	\$435,431	\$123.18
65563	SAP	065-599-060	83.42	PCB	12/13/2011	2614	\$255,753	\$97.84
07557	SAP	007-598-026	86.56	PCB	4/4/2011	2725	\$302,364	\$110.96
64579	SAP	064-599-085	88.42	PCB	9/8/2011	3124	\$220,839	\$70.69
22611	SAP	022-602-026	88.67	C-SLAB	5/26/2011	3133	\$318,813	\$101.76
65564	SAP	065-598-011	89.00	C-SLAB	12/14/2011	3145	\$287,091	\$91.29
69683	SAP	069-598-033	89.67	PCB	4/18/2011	3168	\$356,662	\$112.58
80537	SAP	080-607-012	90.50	C-SLAB	6/2/2011	3198	\$407,397	\$127.39
86531	SP	086-640-002	90.50	C-SLAB	3/8/2011	3560	\$447,484	\$125.70
64582	SAP	064-610-028	93.90	PCB	9/27/2011	3318	\$254,298	\$76.64
82533	SAP	180-120-002	96.00	PCB	5/19/2011	4504	\$592,921	\$131.64

NOTE: LIST OF BRIDGES LESS THAN 150' LENGTH CONTINUED ON NEXT SHEET.

## MnDOT State Aid Bridge Office 2011 Calendar Year - - Bridge Cost Report

Separated per Bridge Length < 150' (Cont'd)

SORTED BY BRIDGE LENGTH, DOES NOT INCLUDE OVERLAYS

23583	SP	023-599-180	98.31	PCB	6/27/2011	3080	\$382,308	\$124.13
73574	SAP	073-619-009	99.19	C-SLAB	10/6/2011	3328	\$422,441	\$126.94
69686	SAP	069-598-035	100.42	PCB	4/18/2011	3147	\$422,314	\$134.20
69694	SP	069-598-030	102.92	PCB	5/16/2011	3225	\$438,678	\$136.02
62643	SAP	138-151-003	111.22	PCB	7/25/2011	5654	\$1,585,472	\$280.42
69685	SAP	069-598-034	113.01	C-SLAB	8/8/2011	3497	\$513,390	\$146.81
24549	SAP	024-598-016	113.25	PCB	4/12/2011	4002	\$404,916	\$101.18
20559	SP	020-624-017	114.67	PCB	4/22/2011	4511	\$415,130	\$92.03
42566	SP	139-133-001	115.08	PCB	3/15/2011	5850	\$639,738	\$109.36
66555	SAP	066-599-043	119.04	C-SLAB	5/23/2011	3730	\$350,545	\$93.98
09529	SAP	009-599-021	121.67	PCB	6/13/2011	3812	\$523,378	\$137.30
79548	SAP	079-604-047	121.67	PCB	7/28/2011	5272	\$668,158	\$126.74
10543	SAP	010-610-037	125.63	PCB	6/23/2011	5420	\$967,237	\$178.46
22605	SAP	022-598-007	128.44	PCB	5/26/2011	4025	\$571,538	\$142.00
71527	SAP	071-605-032	133.67	PCB	1/11/2011	5792	\$562,725	\$97.16
70552	SP	070-617-023	136.67	PCB	6/1/2011	4829	\$928,550	\$192.29
71526	SAP	071-598-007	140.60	PCB	1/11/2011	5530	\$735,208	\$132.95
28541	SAP	028-609-012	141.06	PCB	6/6/2011	5549	\$904,448	\$162.99
58552	SAP	058-599-039	144.98	PCB	5/3/2011	4543	\$425,117	\$93.58
54551	SP	054-598-036	146.75	PCB	2/24/2011	4598	\$633,142	\$137.70

<b>Total Cost</b>	<b>\$28,571,974</b>
<b>Total Deck Area</b>	<b>166,453</b>
<b>Average Cost per Sq Ft</b>	<b>\$171.65</b>
<b>Total No. of Bridges &lt; 150'</b>	<b>47</b>

# MnDOT State Aid Bridge Office 2011 Calendar Year - - Bridge Cost Report

Separated per Bridge Length > 150'

SORTED BY BRIDGE LENGTH, DOES NOT INCLUDE OVERLAYS

New Bridge Number	Project Type	Project Number	Length	Beam Type Code	Letting Date	Area	Cost	Unit Cost
82529	SP	082-090-002	150.33	TRUSS	7/26/2011	1867	\$322,947	\$172.98
18530	SAP	018-597-006	154.09	C-SLAB	3/3/2011	4520	\$419,930	\$92.90
27030	SP	027-752-025	154.50	REHAB	6/7/2011	13598	\$849,117	\$62.44
69680	SP	069-597-005	159.46	PCB	8/15/2011	8079	\$993,880	\$123.02
85573	SAP	085-623-010	181.67	PCB	5/17/2011	7873	\$1,115,920	\$141.74
01530	SAP	001-603-011	184.56	PCB	4/4/2011	7259	\$771,473	\$106.28
70J48	SP	210-010-007	192.00	C-ARCH	9/7/2011	5376	\$678,887	\$126.28
5368	SP	050-629-010	198.44	REHAB	8/9/2011	8712	\$1,146,853	\$131.64
30517	SAP	218-105-005	199.67	PCB	2/10/2011	7654	\$1,045,720	\$136.62
14550	SAP	014-619-014	200.00	C-SLAB	5/10/2011	7867	\$867,747	\$110.30
58551	SAP	058-641-014	203.13	PCB	6/7/2011	7177	\$802,279	\$111.78
69812	SAP	118-115-006	231.83	REHAB	5/9/2011	9351	\$1,226,628	\$131.18
18505	SP	108-126-012	252.58	REHAB	9/9/2011	17260	\$519,245	\$30.08
93402	SAP	118-130-005	261.43	REHAB	1/21/2011	2528	\$960,553	\$379.97
7248	SAP	057-603-034	309.75	REHAB	5/10/2011	10118	\$211,838	\$20.94
73571	SP	073-596-006	310.39	PCB	1/3/2011	35156	\$3,410,540	\$97.01
64504	SAP	064-607-040	347.00	REHAB	11/28/2011	12492	\$447,654	\$35.84
7202	SAP	064-611-011	371.00	REHAB	11/28/2011	13356	\$580,797	\$43.49
79550	SAP	079-607-021	397.67	PCB	10/18/2011	15642	\$1,475,187	\$94.31
56539	SP	126-125-003	461.04	PCB	7/21/2011	25369	\$5,250,777	\$206.98
70532	SAP	010-611-009	564.50	REHAB	3/4/2011	24443	\$170,715	\$6.98
27B60**	SP	027-753-013	694.00	P-SPEC	2/22/2011	63040	\$12,414,747	\$196.93

\*\* DENOTES PHASE II OF THE LOWRY BRIDGE (PHASE I LET IN CY 2010)

<b>Total Cost</b>	<b>\$35,683,433</b>
<b>Total Deck Area</b>	<b>308,737</b>
<b>Average Cost per Sq Ft</b>	<b>\$115.58</b>
<b>Total No. of Bridges &gt; 150'</b>	<b>22</b>

**MnDOT State Aid Bridge Office  
2011 Calendar Year - - Bridge Cost Report**

Summary of Structure Type Unit Costs  
As Compared to Previous Fiscal Years

**STATE AID BRIDGES  
SUMMARY OF BRIDGE UNIT COST PER BEAM TYPE**

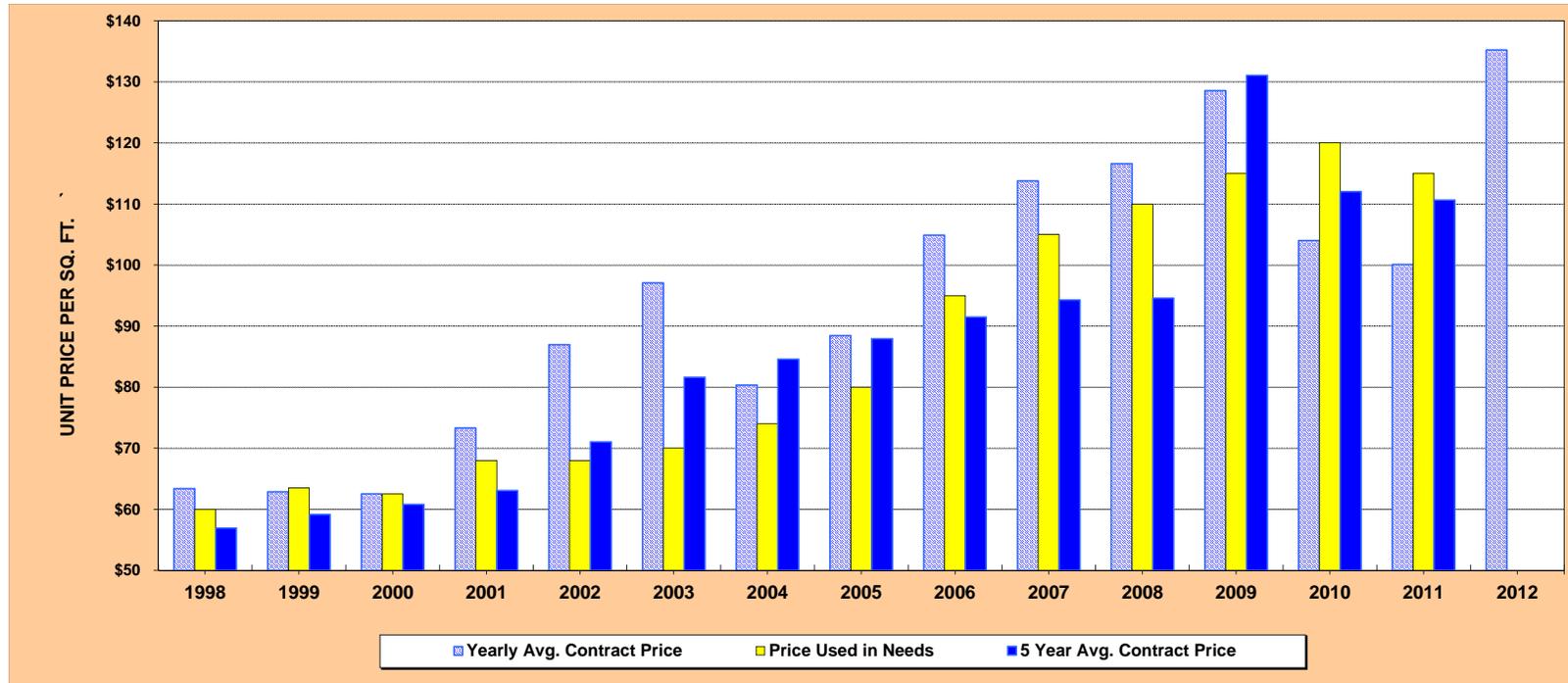
CALENDAR YEAR	2011	2010	2009	2008	2007	2006	2005	2004
TYPE								
C-ARCH	\$126.28	\$434.58		\$396.53		\$669.18		\$260.34
C-SLAB	\$109.17	\$92.06	\$97.82	\$101.18	\$94.51	\$85.75	\$87.35	\$83.51
DBL T								
GLULAM	\$343.48							
PCB	\$118.83	\$97.08	\$102.52	\$115.16	\$102.41	\$98.46	\$85.93	\$84.66
PCBped				\$173.63				\$139.87
PT SLAB								
R-FRAME						\$237.50	\$97.17	
STEEL	\$1,241.08		\$122.76	\$156.14	\$150.23	\$500.87	\$123.66	
TRUSS	\$191.93	\$168.81	\$133.30	\$228.88	\$145.57	\$167.44	\$121.45	\$176.01
TTS		\$117.94			\$92.64	\$127.02	\$123.98	

**MnDOT State Aid Bridge Office  
2011 Calendar Year - - Bridge Cost Report**

Totals for All Bridges Let in CY 2011

<b>Total Cost for all Bridges</b>	<b>\$64,255,407</b>
<b>Total Deck Area for all Bridges</b>	<b>475,190</b>
<b>Average Cost per Sq Ft</b>	<b>\$135.22</b>
<b>Total Number of Bridges</b>	<b>69</b>

## ALL BRIDGES



NEEDS YEAR	NUMBER OF PROJECTS	DECK AREA	TOTAL COST	YEARLY AVERAGE CONTRACT PRICE	PRICE USED IN NEEDS	5-YEAR AVERAGE CONTRACT PRICE
1998	85	856,829	\$54,296,022	\$63.37	\$60.00	\$56.92
1999	88	851,845	53,553,089	62.87	63.50	59.13
2000	78	648,621	40,560,540	62.53	62.50	60.80
2001	83	493,752	36,196,053	73.31	68.00	63.08
2002	105	1,127,085	97,998,501	86.95	68.00	71.04
2003	114	1,708,572	165,859,117	97.07	70.00	81.61
2004	126	977,400	78,528,140	80.34	74.00	84.58
2005	44	252,713	22,351,485	88.45	80.00	87.93

NEEDS YEAR	NUMBER OF PROJECTS	DECK AREA	TOTAL COST	YEARLY AVERAGE CONTRACT PRICE	PRICE USED IN NEEDS	5-YEAR AVERAGE CONTRACT PRICE
2006	53	533,871	\$55,999,602	\$104.89	\$95.00	\$91.47
2007	49	235,505	26,798,183	113.79	105.00	94.26
2008	37	247,120	28,815,052	116.60	110.00	94.58
2009	46	301,827	38,797,162	128.54	115.00	131.05
2010	56	333,867	34,675,259	104.00	120.00	112.02
2011	66	509,552	51,008,086	100.10	115.00	110.63
2012	69	475,190	64,255,407	135.22	-	-

SUBCOMMITTEES RECOMMENDED PRICE FOR THE 2012 NEEDS STUDY IS PER SQ. FT.

# RAILROAD BRIDGES OVER HIGHWAYS

23-Apr-12

Needs Year	Number Of Projects	Number of Tracks	Bridge Length	Bridge Cost per Lin. Ft. (Actual)	Cost per Lin. Ft. of 1st Track (Unit Price Study)	Cost per Lin. Ft. of Additional Tracks (Unit Price Study)
1990	1	2	433.38	\$8,536	\$4,000	\$3,000
1991	0	0			4,000	3,000
1992	1	1	114.19	7,619	4,000	3,000
1993	1	1	181.83	7,307	5,000	4,000
1994	0	0			5,000	4,000
1995	0	0			5,000	4,000
1996	1	1	80.83	12,966	5,000	4,000
1998	1	1	261.02	8,698	8,000	6,500
1999	1	1	150.3	8,139	8,200	6,700
2000	2	1	108.58	12,112		
		1	130.08	10,569	9,000	7,500
2001	1	1	163.00	14,182	9,000	7,500
2002	0	0			9,000	7,500
2003	0	0			9,300	7,750
2004	0	0			9,600	8,000
2005	0	0			10,200	8,500
2006	0	0			10,200	8,500
2007	2	1	56.00	12,760	10,200	8,500
		1	135.00	6,483	10,200	8,500
2008	0	0			10,200	8,500
2009	0	0			10,200	8,500
2010					10,200	8,500
2011					10,200	8,500
2012					10,200	8,500

**SUBCOMMITTEE'S RECOMMENDED PRICE FOR THE 2012 NEEDS STUDY IS \$10,200**  
**PER LINEAL FOOT FOR THE FIRST TRACK**

**SUBCOMMITTEE'S RECOMMENDED PRICE FOR THE 2012 NEEDS STUDY IS \$8,500**  
**PER LIN. FT. FOR ADDITIONAL TRACKS**

## All Structures on the MSAS System

Number of Adequate Structures	Number of Deficient Structures	Structures in Needs for Information	Total Structures	Existing Structure Type
172	136	100	408	1 - Bridge
10	14	0	24	3 - Structural Plate Arch
8	10	8	26	4 - Other
44	19	4	67	5 - Box Culvert Single
21	5	1	27	6 - Box Culvert Double
7	0	0	7	7 - Box Culvert Triple
1	0	0	1	8 - Box Culvert Quad
		22	22	Unknown Structure Type
<b>263</b>	<b>184</b>	<b>135</b>	<b>582</b>	<b>TOTAL</b>

There are 447 Structures on the MSAS system that qualify for Needs

# Box Culvert Unit Prices

June 2012

The recommended prices include two end sections on single box culverts, four end sections on the doubles and six for the triple culverts.

Culvert Size	Current Culvert Cost/Lineal Foot	2007-2011 County Projects	Recommended Culvert Cost/Lineal Foot	Current End Section Cost/pair	2007-2011 County Projects	Recommended End Section Costs
Less than 10'	\$430	\$430	\$0	\$9,662	\$9,676	\$0
10 x 4 Single	\$450	\$457	\$0	\$8,474	\$8,512	\$0
10 x 5 Single	\$493	\$495	\$0	\$11,984	\$11,566	\$0
10 x 6 Single	\$523	\$523	\$0	\$11,802	\$11,798	\$0
10 x 7 Single	\$699	\$711	\$0	\$14,882	\$14,876	\$0
10 x 8 Single	\$555	\$555	\$0	\$15,234	\$15,234	\$0
10 x 9 Single	\$596	\$612	\$0	\$18,790	\$19,518	\$0
10 x 10 Single	\$710	\$706	\$0	\$21,228	\$20,858	\$0
12 x 4 Single	\$555	\$563	\$0	\$11,720	\$11,692	\$0
12 x 5 Single	\$542	\$549	\$0	\$11,488	\$11,486	\$0
12 x 6 Single	\$438	\$435	\$0	\$12,990	\$13,054	\$0
12 x 7 Single	\$420	\$420	\$0	\$15,820	\$15,820	\$0
12 x 8 Single	\$628	\$645	\$0	\$17,636	\$18,894	\$0
12 x 9 Single	\$643	\$654	\$0	\$17,656	\$17,998	\$0
12 x 10 Single	\$718	\$718	\$0	\$23,384	\$23,312	\$0
12 x12 Single	\$805	\$813	\$0	\$23,790	\$23,948	\$0
14 x 5 Single	\$736	\$733	\$0	\$15,700	\$15,764	\$0
14 x 7 Single	\$722	\$724	\$0	\$20,736	\$20,466	\$0
14 x 8 Single	\$810	\$816	\$0	\$21,768	\$22,248	\$0
14 x 10 Single	\$825	\$834	\$0	\$24,694	\$24,872	\$0
16 x 7 Single	\$856	\$835	\$0	\$23,290	\$22,742	\$0
Less than 10' Double	\$860	\$860	\$0	\$19,324	\$19,352	\$0
10 x 4 Double	\$900	\$914	\$0	\$16,948	\$17,024	\$0
10 x 5 Double	\$986	\$990	\$0	\$23,968	\$23,132	\$0
10 x 6 Double	\$1,046	\$1,046	\$0	\$23,604	\$23,596	\$0
10 x 7 Double	\$1,398	\$1,422	\$0	\$29,764	\$29,752	\$0
10 x 8 Double	\$1,110	\$1,110	\$0	\$30,468	\$30,468	\$0
10 x 9 Double	\$1,192	\$1,224	\$0	\$37,580	\$39,036	\$0
10 x 10 Double	\$1,420	\$1,412	\$0	\$42,456	\$41,716	\$0
12 x 4 Double	\$1,110	\$1,126	\$0	\$23,440	\$23,384	\$0
12 x 5 Double	\$1,084	\$1,098	\$0	\$22,976	\$22,972	\$0

# Box Culvert Unit Prices

June 2012

The recommended prices include two end sections on single box culverts, four end sections on the doubles and six for the triple culverts.

Culvert Size	Current Culvert Cost/Lineal Foot	2007-2011 County Projects	Recommended Culvert Cost/Lineal Foot	Current End Section Cost/pair	2007-2011 County Projects	Recommended End Section Costs
12 x 6 Double	\$876	\$870	\$0	\$25,980	\$26,108	\$0
12 x 7 Double	\$840	\$840	\$0	\$31,640	\$31,640	\$0
12 x 8 Double	\$1,256	\$1,290	\$0	\$35,272	\$37,788	\$0
12 x 9 Double	\$1,286	\$1,308	\$0	\$35,312	\$35,996	\$0
12 x 10 Double	\$1,436	\$1,436	\$0	\$46,768	\$46,624	\$0
12 x 12 Double	\$1,610	\$1,626	\$0	\$47,580	\$47,896	\$0
14 x 5 Double	\$1,472	\$1,466	\$0	\$31,400	\$31,528	\$0
14x 7 Double	\$1,444	\$1,448	\$0	\$41,472	\$40,932	\$0
14 x 8 Double	\$1,620	\$1,632	\$0	\$43,536	\$44,496	\$0
14 x 10 Double	\$1,650	\$1,668	\$0	\$49,388	\$49,744	\$0
16 x 7 Double	\$1,712	\$1,670	\$0	\$46,580	\$45,484	\$0
Less than 10' Triple	\$1,290	\$1,290	\$0	\$28,986	\$29,028	\$0
10 x 4 Triple	\$1,350	\$1,371	\$0	\$25,422	\$25,536	\$0
10 x 5 Triple	\$1,479	\$1,485	\$0	\$35,952	\$34,698	\$0
10 x 6 Triple	\$1,569	\$1,569	\$0	\$35,406	\$35,394	\$0
10 x 7 Triple	\$2,097	\$2,133	\$0	\$44,646	\$44,628	\$0
10 x 8 Triple	\$1,665	\$1,665	\$0	\$45,702	\$45,702	\$0
10 x 9 Triple	\$1,788	\$1,836	\$0	\$56,370	\$58,554	\$0
10 x 10 Triple	\$2,130	\$2,118	\$0	\$63,684	\$62,574	\$0
12 x 4 Triple	\$1,665	\$1,689	\$0	\$35,160	\$35,076	\$0
12x 5 Triple	\$1,626	\$1,647	\$0	\$34,464	\$34,458	\$0
12 x 6 Triple	\$1,314	\$1,305	\$0	\$38,970	\$39,162	\$0
12 x 7 Triple	\$1,260	\$1,260	\$0	\$47,460	\$47,460	\$0
12 x 8 Triple	\$1,884	\$1,935	\$0	\$52,908	\$56,682	\$0
12 x 9 Triple	\$1,929	\$1,962	\$0	\$52,968	\$53,994	\$0
12 x 10 Triple	\$2,154	\$2,154	\$0	\$70,152	\$69,936	\$0
12 x 12 Triple	\$2,415	\$2,439	\$0	\$71,370	\$71,844	\$0
14 x 5 Triple	\$2,208	\$2,199	\$0	\$47,100	\$47,292	\$0
14x 7 Triple	\$2,166	\$2,172	\$0	\$62,208	\$61,398	\$0
14 x 8 Triple	\$2,430	\$2,448	\$0	\$65,304	\$66,744	\$0
14 x 10 Triple	\$2,475	\$2,502	\$0	\$74,082	\$74,616	\$0
16 x 7 Triple	\$2,568	\$2,505	\$0	\$69,870	\$68,226	\$0

# OTHER



# TOPICS



## **MUNICIPAL STATE AID CONSTRUCTION ACCOUNT ADVANCE GUIDELINES**

### **State Aid Advances**

M.S. 162.14 provides for municipalities to make advances from future year's allocations for the purpose of expediting construction. This process not only helps reduce the construction fund balance, but also allows municipalities to fund projects that may have been delayed due to funding shortages.

The formula used to determine if advances will be available is based on the current fund balance, expenditures trends, repayments and the \$20,000,000 recommended threshold. The threshold can be administratively adjusted by the State Aid Engineer and reported to the Screening Board at the next Screening Board meeting.

The process used for advancing is dependent on the code levels which are listed below. Code levels for the current year can be obtained from the SAF website in the "Advances" area.

### **State Aid Advance Code Levels**

Guidelines for advances are determined by the following codes.



**Code RED - SEVERE**- Fund Balances too low. NO ADVANCES - NO EXCEPTIONS



**Code ORANGE - HIGH** - Fund Balance below acceptable levels. Priority system in use. Advances approved thru DSAE and State Aid Engineer only. Resolution required. Approved projects are automatically reserved.



**Code BLUE- GUARDED** - Fund balance low; balances reviewed monthly. Advances on first-come, first-serve basis. Resolution required. Reserve option available only prior to bid advertisement.



**Code GREEN - LOW** - Fund Balance above acceptable level. Advances approved on first-come, first-serve basis while funds are available. Resolution required. High priority projects reserved; others optional.

### **General Guidelines for State Aid & Federal Aid Advance Construction**

Advancing occurs once a cities account balance is zero. A City Council Resolution must be received by State Aid Finance before any funds will be advanced. Once the resolution is received by SAF, the approved amount will appear in the "Available to Advance" column on the cities Status Report in the State Aid Accounting System (SAAS).

Advances are not limited to the projects listed on the resolution. Project payments are processed in the order received by SAF until the maximum advance amount is reached. Resolutions are good for year of submission only and can not be submitted for multiple years. Advances are repaid from next year's allocation until fully repaid.

Advance funding is not guaranteed. A "Request to Reserve" funding form can be submitted to ensure funds will be available for your project. Once approved, a signed copy will be returned to the Municipality.

A Sample Resolution and a Request to Reserve Funding form can be obtained from SAF website - <http://www.dot.state.mn.us/safinance>. Mail completed forms to Sandra Martinez in State Aid Finance. Check with your DSAE to see if they want a copy of the forms.

### **Priority System**

A Priority System can be required if the fund balances drop below an acceptable level (Red & Orange Level). This process starts the fall proceeding the advance year. Each city will be required to submit projects to their DSAE for prioritization within the district. The DSAE will submit the prioritized list to SALT for final prioritization.

Requests should include a negative impact statement if project had to be delayed or advance funding was not available. In addition, include the significance of the project.

Priority projects include, but are not limited to projects where agreements have mandated the city's participation, or projects with advanced federal aid. Small over-runs and funding shortfalls may be funded, but require State Aid approval.

### **Advance Limitations**

Statutory - None

Ref. M.S.162.14, Subd 6.

State Aid Rules - None

Ref. State Aid Rules 8820.1500, Subp 10& 10b.

State Aid Guidelines

Advance is limited to five times the municipalities' last construction allotment or \$4,000,000, whichever is less. The limit can be administratively adjusted by the State Aid Engineer.

Limitation may be exceeded due to federal aid advance construction projects programmed by the ATP in the STIP where State Aid funds are used in lieu of federal funds. Repayment will be made at the time federal funds are converted. Should federal funds fail to be programmed, or the project (or a portion of the project) be declared federally ineligible, the local agency is required to pay back the advance under a payment plan mutually agreed to between State Aid and the Municipality.

## RELATIONSHIP OF CONSTRUCTION BALANCE TO CONSTRUCTION ALLOTMENT

The amount spent on construction projects is computed by the difference between the previous year's and current years unencumbered construction balances plus the current years construction apportionment.

JUNE 2012 BOOK/RELATIONSHIP OF CONSTRUCTION BALANCE TO ALLOTMENT.XLS

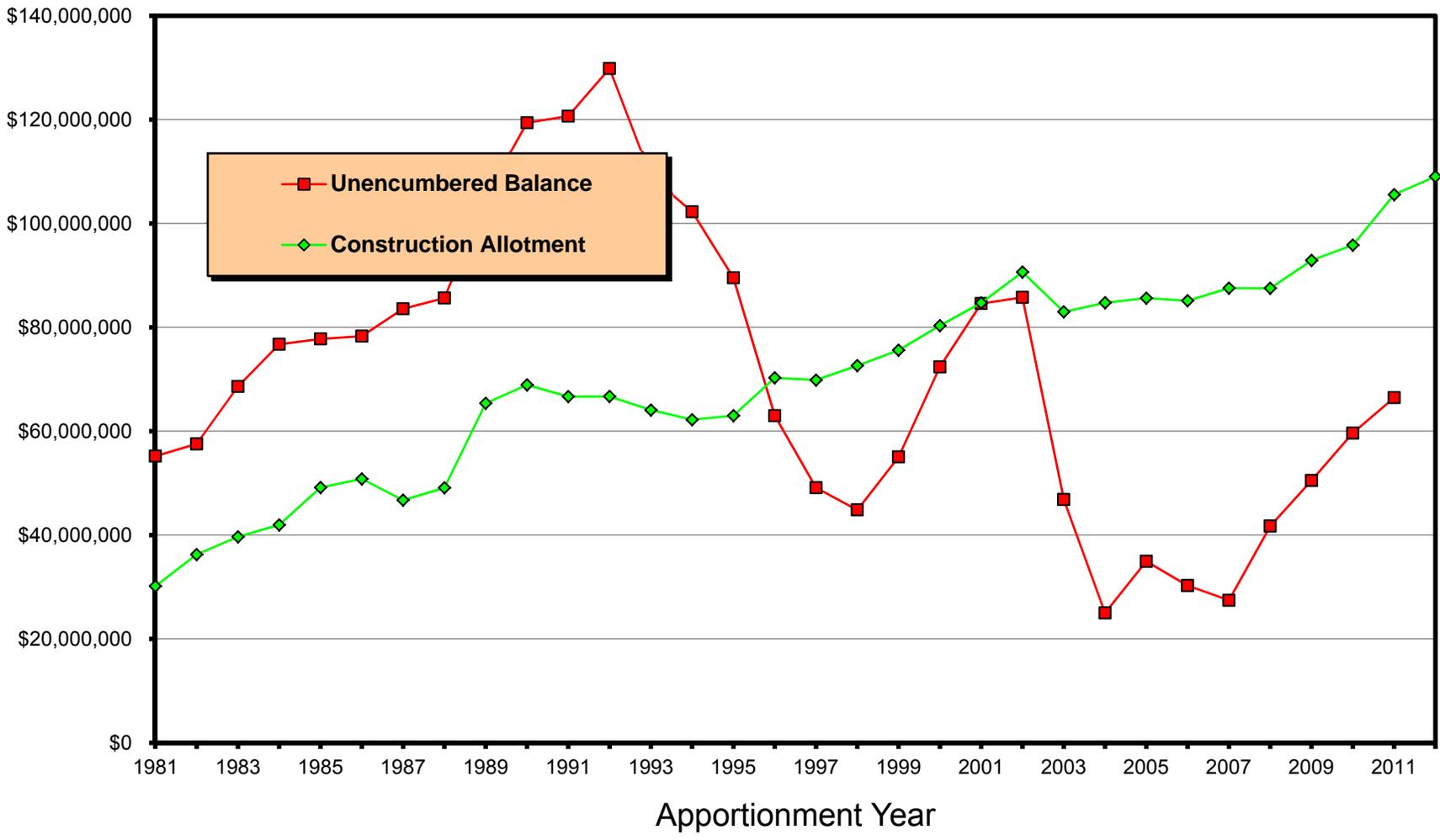
23-Apr-12

App. Year	No. of Cities	Needs Mileage	January Construction Allotment	31-Dec Unencumbered Construction Balance	Amount Spent on Construction Projects	Ratio of Construction Balance to Construction Allotment	Ratio of Amount spent to Amount Received
1973	94	1,580.45	\$15,164,273	\$26,333,918	\$12,855,250	1.7366	0.8477
1974	95	1608.06	18,052,386	29,760,552	14,625,752	1.6486	0.8102
1975	99	1629.30	19,014,171	33,239,840	15,534,883	1.7482	0.8170
1976	101	1718.92	18,971,282	37,478,614	14,732,508	1.9755	0.7766
1977	101	1748.55	23,350,429	43,817,240	17,011,803	1.8765	0.7285
1978	104	1807.94	23,517,393	45,254,560	22,080,073	1.9243	0.9389
1979	106	1853.71	26,196,935	48,960,135	22,491,360	1.8689	0.8585
1980	106	1889.03	29,082,865	51,499,922	26,543,078	1.7708	0.9127
1981	106	1933.64	30,160,696	55,191,785	26,468,833	1.8299	0.8776
1982	105	1976.17	36,255,443	57,550,334	33,896,894	1.5874	0.9349
1983	106	2022.37	39,660,963	68,596,586	28,614,711	1.7296	0.7215
1984	106	2047.23	41,962,145	76,739,685	33,819,046	1.8288	0.8059
1985	107	2110.52	49,151,218	77,761,378	48,129,525	1.5821	0.9792
1986	107	2139.42	50,809,002	78,311,767	50,258,613	1.5413	0.9892
1987	*	2148.07	46,716,190	83,574,312	41,453,645	1.7890	0.8874
1988		2171.89	49,093,724	85,635,991	47,032,045	1.7443	0.9580
1989		2205.05	65,374,509	105,147,959	45,862,541	1.6084	0.7015
1990		2265.64	68,906,409	119,384,013	54,670,355	1.7326	0.7934
1991		2330.30	66,677,426	120,663,647	65,397,792	1.8097	0.9808
1992		2376.79	66,694,378	129,836,670	57,521,355	1.9467	0.8625
1993		2410.53	64,077,980	109,010,201	84,904,449	1.7012	1.3250
1994		2471.04	62,220,930	102,263,355	68,967,776	1.6436	1.1084
1995		2526.39	62,994,481	89,545,533	75,712,303	1.4215	1.2019
1996		2614.71	70,289,831	62,993,508	96,841,856	0.8962	1.3778
1997	**	2740.46	69,856,915	49,110,546	83,739,877	0.7030	1.1987
1998		2815.99	72,626,164	44,845,521	76,891,189	0.6175	1.0587
1999		2859.05	75,595,243	55,028,453	65,412,311	0.7279	0.8653
2000		2910.87	80,334,284	72,385,813	62,976,924	0.9011	0.7839
2001		2972.16	84,711,549	84,583,631	72,513,731	0.9985	0.8560
2002		3020.39	90,646,885	85,771,900	89,458,616	0.9462	0.9869
2003		3080.67	82,974,496	46,835,689	121,910,707	0.5645	1.4693
2004		3116.44	84,740,941	25,009,033	106,567,597	0.2951	1.2576
2005		3190.82	85,619,350	34,947,345	75,681,038	0.4082	0.8839
2006		3291.64	85,116,889	30,263,685	89,800,549	0.3556	1.0550
2007		3382.28	87,542,451	27,429,964	90,376,172	0.3133	1.0324
2008		3453.10	87,513,283	41,732,629	73,210,618	0.4769	0.8366
2009		3504.00	92,877,123	50,501,664	84,108,088	0.5437	0.9056
2010		3533.22	95,853,558	59,633,260	86,721,962	0.6221	0.9047
2011		3583.87	105,569,277	66,466,715	98,735,822	0.6296	0.9353
2012		3572.73	109,036,501				

\* The date for the unencumbered balance deduction was changed from June 30 to September 1. Effective September 1, 1986.

\*\* The date for the unencumbered balance deduction was changed from September 1 to December 31. Effective December 31, 1996.

### Relationship of Balance to Allotment



## 2012 APPORTIONMENT RANKINGS

Rankings are from highest apportionment per Needs mile to lowest. Bridges in some cities increase the costs.

MSAS/Books/2012 June Book/ 2012 Apportionment Rankings

Rank	Municipality	2011 Total Needs Mileage	2012 Population Apportionment Per Need Mile	Rank	Municipality	2011 Total Needs Mileage	2012 Money Needs Apportionment Per Need Mile	Rank	Municipality	2011 Total Needs Mileage	2012 Total Apportionment Per Need Mile
1	MINNEAPOLIS	206.44	\$36,621	1	CROOKSTON	11.65	\$30,742	1	MINNEAPOLIS	206.44	\$62,825
2	HOPKINS	9.99	34,796	2	THIEF RIVER FALLS	15.78	30,324	2	ST PAUL	164.73	61,263
3	ST PAUL	164.73	34,196	3	DULUTH	114.86	28,332	3	HOPKINS	9.99	54,887
4	FALCON HEIGHTS	3.29	31,960	4	EAGAN	48.00	27,440	4	COLUMBIA HEIGHTS	12.50	53,939
5	NEW HOPE	12.85	31,278	5	MOUND	7.94	27,327	5	EAGAN	48.00	53,872
6	COLUMBIA HEIGHTS	12.50	30,821	6	ST PAUL	164.73	27,066	6	NEW HOPE	12.85	52,639
7	COON RAPIDS	41.83	29,042	7	DELANO	6.12	26,861	7	COON RAPIDS	41.83	52,426
8	WEST ST PAUL	13.58	28,434	8	GRAND RAPIDS	25.71	26,570	8	RICHFIELD	24.51	52,306
9	RICHFIELD	24.51	28,402	9	MINNEAPOLIS	206.44	26,204	9	BURNSVILLE	45.04	50,657
10	ST LOUIS PARK	31.58	28,315	10	ST MICHAEL	22.43	25,821	10	NEW BRIGHTON	15.26	49,997
11	OAKDALE	19.30	28,032	11	BLOOMINGTON	74.85	25,651	11	MOUND	7.94	49,855
12	BROOKLYN CENTER	21.35	27,863	12	MAPLE GROVE	56.24	25,501	12	FARMINGTON	16.24	47,539
13	NEW BRIGHTON	15.26	27,784	13	HERMANTOWN	15.50	24,728	13	BLOOMINGTON	74.85	47,535
14	ROBBINSDALE	10.07	27,381	14	FERGUS FALLS	25.76	24,318	14	ST LOUIS PARK	31.58	47,184
15	ST ANTHONY	5.95	27,320	15	BURNSVILLE	45.04	24,199	15	ST ANTHONY	5.95	47,136
16	VADNAIS HEIGHTS	9.17	26,510	16	RICHFIELD	24.51	23,904	16	MAPLE GROVE	56.24	47,133
17	BURNSVILLE	45.04	26,459	17	ST FRANCIS	13.16	23,799	17	ROCHESTER	92.37	46,137
18	EAGAN	48.00	26,433	18	JORDAN	5.89	23,775	18	APPLE VALLEY	37.41	46,076
19	APPLE VALLEY	37.41	25,927	19	MAPLEWOOD	36.16	23,740	19	WASECA	7.61	45,168
20	FARMINGTON	16.24	25,657	20	FARIBAULT	24.27	23,522	20	MAPLEWOOD	36.16	44,516
21	EDEN PRAIRIE	47.08	25,518	21	NEW ULM	17.68	23,425	21	DELANO	6.12	44,504
22	SHOREVIEW	19.64	25,197	22	COON RAPIDS	41.83	23,384	22	PLYMOUTH	58.98	44,464
23	BROOKLYN PARK	59.47	25,181	23	ROCHESTER	92.37	23,300	23	WINONA	21.76	44,132
24	WINONA	21.76	25,077	24	COLUMBIA HEIGHTS	12.50	23,118	24	CROOKSTON	11.65	44,127
25	ARDEN HILLS	7.53	25,067	25	FOREST LAKE	32.25	23,076	25	EDEN PRAIRIE	47.08	43,819
26	STEWARTVILLE	4.71	24,821	26	BUFFALO	17.19	23,045	26	FALCON HEIGHTS	3.29	43,699
27	CRYSTAL	17.79	24,605	27	ST CLOUD	64.77	22,722	27	FRIDLEY	22.87	43,418
28	WASECA	7.61	24,440	28	ALEXANDRIA	25.10	22,716	28	DULUTH	114.86	43,173
29	PLYMOUTH	58.98	23,646	29	ALBERT LEA	24.19	22,563	29	STEWARTVILLE	4.71	42,983
30	EDINA	40.27	23,525	30	ALBERTVILLE	7.15	22,404	30	ST CLOUD	64.77	42,810
31	FRIDLEY	22.87	23,509	31	COTTAGE GROVE	35.35	22,400	31	WEST ST PAUL	13.58	42,604
32	ST JOSEPH	5.52	23,391	32	NORTH MANKATO	15.57	22,278	32	FARIBAULT	24.27	42,536
33	BLAINE	48.71	23,199	33	NEW BRIGHTON	15.26	22,212	33	JORDAN	5.89	42,127
34	NORTHFIELD	17.06	23,174	34	ST PETER	15.78	21,964	34	INVER GROVE HEIGHTS	33.30	41,995
35	KASSON	5.08	23,071	35	INVER GROVE HEIGHTS	33.30	21,890	35	EDINA	40.27	41,951
36	ANOKA	14.73	22,997	36	FARMINGTON	16.24	21,881	36	ALBERTVILLE	7.15	41,872
37	CHASKA	20.47	22,947	37	NORTH ST PAUL	11.38	21,816	37	SHOREVIEW	19.64	41,869
38	ROSEVILLE	29.12	22,842	38	MOORHEAD	45.25	21,768	38	COTTAGE GROVE	35.35	41,735
39	ROCHESTER	92.37	22,837	39	LITCHFIELD	8.77	21,698	39	NORTH ST PAUL	11.38	41,716
40	SOUTH ST PAUL	17.46	22,817	40	FARMONT	20.13	21,587	40	WOODBURY	54.60	41,418
41	CHAMPLIN	20.01	22,801	41	MINNETONKA	50.92	21,367	41	ANOKA	14.73	41,339
42	MOUND	7.94	22,528	42	LITTLE FALLS	18.34	21,366	42	CHASKA	20.47	41,117
43	WOODBURY	54.60	22,425	43	NEW HOPE	12.85	21,361	43	THIEF RIVER FALLS	15.78	41,060
44	WHITE BEAR LAKE	21.03	22,361	44	REDWOOD FALLS	8.50	20,950	44	BUFFALO	17.19	40,809
45	PRIOR LAKE	20.38	22,103	45	RED WING	25.05	20,866	45	NORTHFIELD	17.06	40,678
46	WORTHINGTON	11.44	22,048	46	CHISHOLM	8.39	20,824	46	MINNETONKA	50.92	40,668

Rank	Municipality	2011 Total Needs Mileage	2012 Population Apportionment Per Need Mile	Rank	Municipality	2011 Total Needs Mileage	2012 Money Needs Apportionment Per Need Mile	Rank	Municipality	2011 Total Needs Mileage	2012 Total Apportionment Per Need Mile
47	BLOOMINGTON	74.85	\$21,884	47	PLYMOUTH	58.98	\$20,818	47	KASSON	5.08	\$40,614
48	SPRING LAKE PARK	5.82	21,771	48	OWATONNA	28.35	20,739	48	WORTHINGTON	11.44	40,521
49	MAPLE GROVE	56.24	21,633	49	WASECA	7.61	20,728	49	ST MICHAEL	22.43	40,269
50	CHANHASSEN	21.47	21,125	50	APPLE VALLEY	37.41	20,148	50	BROOKLYN CENTER	21.35	40,161
51	MAPLEWOOD	36.16	20,776	51	ROSEMOUNT	30.96	20,117	51	VADNAIS HEIGHTS	9.17	39,979
52	MONTICELLO	12.14	20,768	52	HOPKINS	9.99	20,091	52	ARDEN HILLS	7.53	39,855
53	HASTINGS	21.24	20,628	53	MARSHALL	18.80	20,014	53	SOUTH ST PAUL	17.46	39,580
54	STILLWATER	17.68	20,370	54	GLENCOE	8.33	20,000	54	STILLWATER	17.68	39,473
55	MANKATO	38.20	20,337	55	FRIDLEY	22.87	19,909	55	NORTH MANKATO	15.57	39,278
56	INVER GROVE HEIGHTS	33.30	20,105	56	AUSTIN	29.91	19,885	56	ROSEVILLE	29.12	38,955
57	ST CLOUD	64.77	20,088	57	BRAINERD	19.16	19,847	57	MANKATO	38.20	38,950
58	NORTH ST PAUL	11.38	19,900	58	ST ANTHONY	5.95	19,816	58	OWATONNA	28.35	38,583
59	WAITE PARK	6.68	19,864	59	LAKEVILLE	60.02	19,702	59	NEW ULM	17.68	38,538
60	SHAKOPEE	37.02	19,791	60	EAST GRAND FORKS	16.81	19,672	60	OAKDALE	19.30	38,534
61	SAVAGE	26.98	19,710	61	LINO LAKES	24.22	19,587	61	MOORHEAD	45.25	38,391
62	WACONIA	10.74	19,682	62	ANDOVER	42.60	19,449	62	LAKEVILLE	60.02	38,124
63	VICTORIA	7.43	19,625	63	MINNETRISTA	12.92	19,438	63	CHAMPLIN	20.01	38,089
64	ALBERTVILLE	7.15	19,468	64	MENDOTA HEIGHTS	15.50	19,144	64	WACONIA	10.74	37,794
65	COTTAGE GROVE	35.35	19,335	65	STILLWATER	17.68	19,103	65	PRIOR LAKE	20.38	37,588
66	MOUNDS VIEW	12.43	19,324	66	WINONA	21.76	19,055	66	CRYSTAL	17.79	37,333
67	MINNETONKA	50.92	19,301	67	VIRGINIA	17.14	19,012	67	ALBERT LEA	24.19	37,280
68	FARIBAULT	24.27	19,013	68	WOODBURY	54.60	18,993	68	BROOKLYN PARK	59.47	36,947
69	NEW PRAGUE	7.73	18,715	69	ST LOUIS PARK	31.58	18,869	69	LITCHFIELD	8.77	36,853
70	ROGERS	11.98	18,469	70	MANKATO	38.20	18,614	70	HERMANTOWN	15.50	36,730
71	LAKEVILLE	60.02	18,422	71	ELK RIVER	36.33	18,551	71	AUSTIN	29.91	36,217
72	JORDAN	5.89	18,352	72	WORTHINGTON	11.44	18,474	72	BLAINE	48.71	36,184
73	SAUK RAPIDS	14.01	18,016	73	EDINA	40.27	18,426	73	LINO LAKES	24.22	36,081
74	OWATONNA	28.35	17,843	74	ANOKA	14.73	18,342	74	MONTICELLO	12.14	36,039
75	BUFFALO	17.19	17,764	75	INTERNATIONAL FALLS	8.06	18,338	75	ST PETER	15.78	35,985
76	DELANO	6.12	17,643	76	CLOQUET	21.67	18,324	76	CHANHASSEN	21.47	35,954
77	SARTELL	17.97	17,470	77	EDEN PRAIRIE	47.08	18,301	77	SAUK RAPIDS	14.01	35,499
78	BIG LAKE	11.51	17,271	78	WILLMAR	26.73	18,182	78	GRAND RAPIDS	25.71	34,924
79	MAHTOMEDI	8.83	17,178	79	CHASKA	20.47	18,171	79	LITTLE CANADA	11.35	34,783
80	ST PAUL PARK	6.08	17,158	80	STEWARTVILLE	4.71	18,162	80	ST FRANCIS	13.16	34,637
81	GOLDEN VALLEY	23.57	17,079	81	WACONIA	10.74	18,112	81	ROGERS	11.98	34,551
82	LITTLE CANADA	11.35	17,015	82	OAK GROVE	24.60	17,976	82	FERGUS FALLS	25.76	34,397
83	NORTH MANKATO	15.57	16,999	83	LITTLE CANADA	11.35	17,768	83	MARSHALL	18.80	34,393
84	SHOREWOOD	8.58	16,829	84	KASSON	5.08	17,543	84	FOREST LAKE	32.25	34,335
85	MOORHEAD	45.25	16,623	85	NORTHFIELD	17.06	17,503	85	ST JOSEPH	5.52	34,309
86	LINO LAKES	24.22	16,494	86	SAUK RAPIDS	14.01	17,483	86	MOUNDS VIEW	12.43	34,306
87	AUSTIN	29.91	16,333	87	BELLE PLAINE	8.46	17,244	87	WHITE BEAR LAKE	21.03	34,142
88	ZIMMERMAN	6.39	16,167	88	EAST BETHEL	28.78	17,027	88	INTERNATIONAL FALLS	8.06	34,088
89	INTERNATIONAL FALLS	8.06	15,750	89	SOUTH ST PAUL	17.46	16,763	89	ROSEMOUNT	30.96	34,078
90	BELLE PLAINE	8.46	15,559	90	NORTH BRANCH	24.63	16,679	90	BRAINERD	19.16	33,864
91	ORONO	9.45	15,552	91	SHOREVIEW	19.64	16,672	91	RED WING	25.05	33,850
92	LITCHFIELD	8.77	15,155	92	HIBBING	53.17	16,519	92	BIG LAKE	11.51	33,751
93	NEW ULM	17.68	15,113	93	BIG LAKE	11.51	16,480	93	ANDOVER	42.60	33,643
94	ISANTI	6.89	15,060	94	ISANTI	6.89	16,389	94	WAITE PARK	6.68	33,542
95	BEMIDJI	17.65	15,037	95	CORCORAN	15.53	16,380	95	SHAKOPEE	37.02	33,487
96	HUTCHINSON	18.70	14,984	96	BEMIDJI	17.65	16,335	96	SPRING LAKE PARK	5.82	33,445
97	DULUTH	114.86	14,841	97	HUTCHINSON	18.70	16,145	97	GLENCOE	8.33	33,358

Rank	Municipality	2011 Total Needs Mileage	2012 Population Apportionment Per Need Mile
98	ALBERT LEA	24.19	\$14,717
99	WILLMAR	26.73	14,497
100	ST MICHAEL	22.43	14,448
101	MARSHALL	18.80	14,379
102	ANDOVER	42.60	14,193
103	MENDOTA HEIGHTS	15.50	14,114
104	ST PETER	15.78	14,020
105	BRAINERD	19.16	14,016
106	ROSEMOUNT	30.96	13,962
107	CROOKSTON	11.65	13,385
108	GLENCOE	8.33	13,358
109	CHISHOLM	8.39	11,776
110	MORRIS	9.03	11,568
111	LAKE ELMO	14.07	11,333
112	FOREST LAKE	32.25	11,259
113	CLOQUET	21.67	11,056
114	ST FRANCIS	13.16	10,838
115	THIEF RIVER FALLS	15.78	10,736
116	FAIRMONT	20.13	10,470
117	RED WING	25.05	12,984
118	HUGO	20.61	12,783
119	ELK RIVER	36.33	12,496
120	RAMSEY	37.89	12,344
121	REDWOOD FALLS	8.50	12,219
122	MONTEVIDEO	8.83	12,047
123	HERMANTOWN	15.50	12,002
124	LAKE CITY	8.39	11,925
125	OTSEGO	22.52	11,908
126	EAST GRAND FORKS	16.81	10,111
127	FERGUS FALLS	25.76	10,080
128	VIRGINIA	17.14	10,044
129	CAMBRIDGE	16.37	9,791
130	MINNETRISTA	12.92	9,764
131	WYOMING	15.92	9,671
132	HAM LAKE	32.34	9,346
133	LITTLE FALLS	18.34	8,994
134	BAXTER	17.05	8,820
135	ALEXANDRIA	25.10	8,718
136	GRAND RAPIDS	25.71	8,354
137	NORTH BRANCH	24.63	8,123
138	EAST BETHEL	28.78	7,983
139	DETROIT LAKES	22.35	7,578
140	CORCORAN	15.53	6,844
141	OAK GROVE	24.60	6,451
142	HIBBING	53.17	6,081
<b>TOTAL</b>			<b>\$18,495</b>

Rank	Municipality	2011 Total Needs Mileage	2012 Money Needs Apportionment Per Need Mile
98	ROSEVILLE	29.12	\$16,113
99	ROGERS	11.98	16,082
100	RAMSEY	37.89	15,916
101	OTSEGO	22.52	15,564
102	PRIOR LAKE	20.38	15,485
103	SARTELL	17.97	15,299
104	CHAMPLIN	20.01	15,287
105	MONTICELLO	12.14	15,271
106	SHOREWOOD	8.58	15,224
107	NEW PRAGUE	7.73	13,181
108	BAXTER	17.05	15,028
109	MOUNDS VIEW	12.43	14,982
110	CHANHASSEN	21.47	14,830
111	ARDEN HILLS	7.53	14,788
112	MORRIS	9.03	14,659
113	WEST ST PAUL	13.58	14,170
114	HUGO	20.61	13,892
115	ST PAUL PARK	6.08	15,213
116	GOLDEN VALLEY	23.57	15,145
117	WAITE PARK	6.68	13,678
118	MONTEVIDEO	8.83	13,603
119	LAKE ELMO	14.07	13,565
120	VADNAIS HEIGHTS	9.17	13,469
121	LAKE CITY	8.39	13,454
122	MAHTOMEDI	8.83	13,377
123	WYOMING	15.92	13,300
124	ORONO	9.45	13,803
125	SHAKOPEE	37.02	13,697
126	CAMBRIDGE	16.37	13,110
127	BLAINE	48.71	12,985
128	DETROIT LAKES	22.35	12,792
129	CRYSTAL	17.79	12,728
130	HAM LAKE	32.34	12,564
131	BROOKLYN CENTER	21.35	12,298
132	SAVAGE	26.98	11,907
133	WHITE BEAR LAKE	21.03	11,782
134	BROOKLYN PARK	59.47	11,766
135	VICTORIA	7.43	11,747
136	FALCON HEIGHTS	3.29	11,740
137	SPRING LAKE PARK	5.82	11,674
138	ST JOSEPH	5.52	10,919
139	OAKDALE	19.30	10,502
140	HASTINGS	21.24	9,727
141	ZIMMERMAN	6.39	9,544
142	ROBBINSDALE	10.07	5,180
<b>TOTAL</b>			<b>\$18,605</b>

Rank	Municipality	2011 Total Needs Mileage	2012 Total Apportionment Per Need Mile
98	MENDOTA HEIGHTS	15.50	\$33,259
99	REDWOOD FALLS	8.50	33,170
100	BELLE PLAINE	8.46	32,803
101	SARTELL	17.97	32,769
102	WILLMAR	26.73	32,679
103	CHISHOLM	8.39	32,600
104	ROBBINSDALE	10.07	32,560
105	ST PAUL PARK	6.08	32,371
106	GOLDEN VALLEY	23.57	32,224
107	RAMSEY	37.89	28,260
108	NEW PRAGUE	7.73	31,896
109	SAVAGE	26.98	31,617
110	ISANTI	6.89	31,449
111	ALEXANDRIA	25.10	31,435
112	BEMIDJI	17.65	31,372
113	VICTORIA	7.43	31,372
114	HUTCHINSON	18.70	31,129
115	FAIRMONT	20.13	32,057
116	SHOREWOOD	8.58	32,053
117	LITTLE FALLS	18.34	30,360
118	HASTINGS	21.24	30,355
119	EAST GRAND FORKS	16.81	29,783
120	CLOQUET	21.67	29,380
121	ORONO	9.45	29,354
122	MINNETRISTA	12.92	29,202
123	VIRGINIA	17.14	29,057
124	ELK RIVER	36.33	31,047
125	MAHTOMEDI	8.83	30,555
126	OTSEGO	22.52	27,472
127	HUGO	20.61	26,674
128	MORRIS	9.03	26,227
129	ZIMMERMAN	6.39	25,711
130	MONTEVIDEO	8.83	25,650
131	LAKE CITY	8.39	25,379
132	EAST BETHEL	28.78	25,010
133	LAKE ELMO	14.07	24,898
134	NORTH BRANCH	24.63	24,803
135	OAK GROVE	24.60	24,428
136	BAXTER	17.05	23,848
137	CORCORAN	15.53	23,224
138	WYOMING	15.92	22,971
139	CAMBRIDGE	16.37	22,901
140	HIBBING	53.17	22,600
141	HAM LAKE	32.34	21,910
142	DETROIT LAKES	22.35	20,370
<b>TOTAL</b>			<b>\$37,100</b>

## FY12 Local Road Research Board Program

	TITLE	EXPIRATION DATE	PROJECT TOTAL	LRRB \$	Other Source	LRRB Paid to Date	FY2011	FY2012	FY2013	FY2014	FY2015
645	FY2009-2011 Implementation of Research Findings	6/30/2012	937,193	658,128	279,065	555,089	37,821	65,217			
645	FY2012-2014 Implementation of Research Findings	7/31/2014	660,000	660,000		46,486		191,400	238,610		
645	FY2012-2014 Implementation of Research Findings Remaining (estimated; not encumbered)								91,751	91,752	
645	Dust Control and Wyoming Gravel Road Projects		75,000	75,000				12,500	37,500	25,000	
668	FY2012 Technology Transfer Center, U of M - LTAP Program Base	11/30/2012	185,000	185,000		55,188		129,812			
	FY2012 Circuit Training & Assist Program (CTAP T2 Center)		84,000	84,000	141,000			5,125	78,875		
	FY2012 Mn/DOT Maintenance CTAP Trainer		74,500	74,500		74,500					
	FY2012 Minnesota Maintenance Research Expos		26,000	26,000				26,000			
	FY2012 Transportation Student Development		5,500	5,500				5,500			
668	FY2013 Technology Transfer Center, U of M - LTAP Program Base		185,000	185,000				185,000	185,000		
	FY2013 Circuit Training & Assist Program (CTAP T2 Center)		84,000	84,000	141,000			84,000	84,000		
	FY2013 Mn/DOT Maintenance CTAP Trainer		74,500	74,500				74,500	74,500		
	FY2013 Minnesota Maintenance Research Expos		26,000	26,000				26,000	26,000		
	FY2013 Transportation Student Development		5,500	5,500				5,500	5,500		
668	FY2014 Technology Transfer Center, U of M - LTAP Program Base		185,000	185,000				185,000	185,000		
	FY2014 Circuit Training & Assist Program (CTAP T2 Center)		84,000	84,000	141,000			84,000	84,000		
	FY2014 Mn/DOT Maintenance CTAP Trainer		74,500	74,500				74,500	74,500		
	FY2014 Minnesota Maintenance Research Expos		26,000	26,000				26,000	26,000		
	FY2014 Transportation Student Development		5,500	5,500				5,500	5,500		
675	FY2012 Research Services	6/30/2012	160,000	16,000		160,000					
675	FY2013 Research Services							160,000			
675	FY2014 Research Services								160,000		
676	FY2012 MnROAD Research: Facility Support (FY11/Half Payment FY12)	6/30/2012	500,000	500,000				250,000	250,000		
676	FY2012 MnROAD Research: Tech Transfer & Support	6/30/2012	70,000	70,000				35,000	35,000		
676	FY2013 MnROAD Research: Facility Support (FY11/Half Payment FY12)		500,000	500,000				250,000	250,000		
676	FY2013 MnROAD Research: Tech Transfer & Support		70,000	70,000				35,000	35,000		
676	FY2014 MnROAD Research: Facility Support (FY11/Half Payment FY12)		500,000	500,000					250,000	250,000	
676	FY2014 MnROAD Research: Tech Transfer & Support		70,000	70,000					35,000	35,000	
745	FY2012 Library Services	6/30/2012	70,000	70,000		70,000					
745	FY2013 Library Services							70,000			
745	FY2014 Library Services								70,000		
840	Performance of PG 52-34 Oil	12/31/2011	56,200	56,200		45,600		10,600			
854*	The Effects of Implements of Husbandry - Pooled Fund Project	5/31/2012	275,239	105,000	170,239	105,000					
863*	Optimal Timing of Preventive Maintenance for Addressing Environmental Aging in HMA Pavements-Pooled Fund Project	11/30/2013	286,185	57,237	228,948	10,009		25,114	15,610	6,504	
864*	Recycled Asphalt Pavements-Pooled Fund Project	12/31/2012	288,631	89,043	199,588	25,200		48,843	8,178	6,822	
865*	Low Temp Cracking in Asphalt Phase II - Pooled Fund Project	5/31/2012	475,000	50,000	425,000	40,042		9,958			
867*	Composite Pavements - Pooled Fund Project	7/31/2012	438,980	50,000	388,980	46,071		3,929			

	TITLE	EXPIRATION DATE	PROJECT TOTAL	LRRB \$	Other Source	LRRB Paid to Date	FY2011	FY2012	FY2013	FY2014	FY2015
868*	HMA Surface Characteristics-Pooled Fund Project	7/3/2013	376,632	88,396	288,236	19,282		34,641	34,473		
869*	FY2011 TERRA Board	11/30/2011	35,000	17,500	17,500	17,500					
869*	FY2012-13 TERRA Board	11/30/2013	60,000	25,000	35,000	3,750		5,625	12,500	3,125	
878	Porous Asphalt Pavement Performance in Cold Regions	4/30/2012	237,816	58,635	179,181	28,135		30,500			
879	Pervious Concrete Pavement in Mn/ROAD Low Volume Road - Pooled Fund Prjct	9/30/2011	228,010	48,000	180,010	39,000		9,000			
	FY2012 Program LRRB Contingency Account		50,000	50,000							
	FY2013 Program LRRB Contingency Account		50,000	50,000				50,000			
	FY2014 Program LRRB Contingency Account		50,000	50,000					50,000		
885	Research Test Section Tracking Phase II	12/21/2014	55,000	55,000		5,000		30,000	10,000	10,000	
886*	Cost-Effective Pavement Preservation Solutions for the Real World	9/30/2013	124,984	62,492	62,492	13,352		28,695	16,197	4,248	
887*	Structural Evaluation of Asphalt Pavements with Full-depth Reclaimed Base	11/30/2012	79,808	39,570	40,238	4,980	6,502	27,526	563		
889	Performance of Recycled Asphalt & High RAP Asphalt Mix	2/28/2013	60,000	60,000		30,000		26,000	4,000		
890	Speed Impacts of Occasional Hazard Residential Street Warning Signs	2/28/2012	79,647	79,647		79,647					
894	Assessing and Improving Pollution Prevention by Swales	9/30/2013	314,000	312,000	2,000	44,000	36,000	137,333	94,167	500	
895	BMP for Large Traffic Site	5/31/2012	37,038	37,038		22,772	6,290	7,976			
896*	Quantifying Moisture Effects in DCP and LWD Tests Using Unsaturated Mechanics	11/30/2012	109,900	54,950	54,950	14,287	19,736	19,553	1,374		
897	Developing Salt-Tolerant Sod Mixtures for Use as Roadside Turf in Minnesota	8/31/2014	176,516	176,516		61,779		30,154	44,864	39,716	
898*	Estimating the Crash Reduction and Vehicle Dynamic Effects of Flashing LED Stop Signs	11/30/2012	74,667	37,334	37,333	18,667	1,280	12,853	4,534		
899	Performance Monitoring of Olmsted CR 117 and 104 and Aggregate Base Materials	2/28/2015	36,000	36,000				20,000	5,500	5,500	5,000
900	Hennepin/Minneapolis LED Light Study	9/30/2012	50,000	50,000		46,000		2,750	1,250		
902	Simplified Materials Control Schedule for Low Volume Roads	7/31/2012	25,000	25,000		15,000		10,000			
903	Sign Reduction & Removal Research	9/30/2012	26,515	6,515	20,000	6,515					
904	Stripping of Hot Mixed Asphalt Pavements under Chip Seals (Equipment costs were taken out of LRRB funds also = \$316.02 + \$2,427.29)	9/30/2012	42,743	42,743		24,743		16,500	1,500		
906	Gravel Road Maintenance Independent Online Distance Learning (ODL)	5/31/2012	45,000	45,000		45,000					
907	Impact of Garbage Haulers on Pavement Performance	8/31/2012	54,000	54,000		2,000		45,500	6,500		
909*	Planning and Implementation of Complete Streets at Multiple Scales	6/30/2013	101,271	54,843	46,429			29,993	24,850		
910*	Partially Grouted Riprap Lab Flume Study	1/31/2014	124,831	62,416	62,416	7,817		3,439	46,826	4,335	
911*	Best Practices Synthesis and Guidance in At-Grade Trail Crossing Treatments	10/31/2012	96,866	48,433	48,433	9,687		29,060	9,687		
912*	Improved Approach to Enforcement of Road Weight Restrictions	11/30/2013	90,000	50,000	40,000	10,000		7,500	17,500	5,000	
913	LRRB Workshop: Shaping Research on Systems Planning for Local Roads	11/30/2011	22,093	22,093		22,093					
914*	Research using waste shingles for stabilization or dust control for gravel roads and shoulders	12/1/2013	77,000	38,500	38,500	-		2,500	30,000	6,000	
915	Implications of modifying State Aid Standards; Urban, New or Reconstruction (Mn Rules 8820.9936) to accommodate various roadway users.	11/30/2012	117,700	117,700		1,553		109,281	6,866		

	TITLE	EXPIRATION DATE	PROJECT TOTAL	LRRB \$	Other Source	LRRB Paid to Date	FY2011	FY2012	FY2013	FY2014	FY2015
916	LRRB Technical Transfer Materials Development	3/31/2012	71,804	71,804		27,609		44,196			
916	LRRB Technical Transfer Materials Development									75,000	
917	Two-Lane Roundabout Field Research Regarding Signing and Striping	10/31/2013	110,000	110,000		15,000		32,500	52,000	5,500	
918	Implementation of TONN 2010	12/31/2012	35,000	17,500	17,500			15,300	2,200		
919	Use of StreetPave for Design of Concrete Streets	3/31/2012	18,315	18,315		10,606		7,709			
921*	Frost Video		80,000	30,000	50,000			15,000	15,000		
922	Systems Preservation Guide – A Planning Process for Local Government Management of Transportation Networks	11/30/2014	698,876	698,876		3,826		80,886	254,137	254,137	105,890
923	Guidelines for Local Concrete Infrastructure and Updating the State Aid Concrete Pavement Rehabilitation Best Practices Manual (2006)	5/31/2012	37,000	37,000				37,000			
924	YouTube Video		50,000	50,000				10,000	40,000		
925	Advanced LED Warning Signs for Rural Intersections Powered By Renewable Energy (ALERT)	6/30/2014	86,596	86,596				27,817	41,029	17,750	
926	Innovative Bridge Construction for Minnesota Local Roads - Synthesis Report	7/31/2012	24,996	24,996		3,444		21,553			
927	LRRB Outreach Web Site RFP	12/31/2014	99,991	99,991				13,888	33,330	33,330	19,443
928	ITS Institute (Addressing Rural Roadway Departure Fatalities)		100,000	100,000					100,000		
929	Investigation and Assessment of Colored Concrete Pavement		65,000	65,000					10,000	55,000	
930	Development and Integration of Advanced Timber Bridge Inspection Techniques for NBIS		199,786	199,786					89,903	109,883	
931*	Lighting levels for Isolated Intersections Leading to Safety Improvements		94,170	42,185	51,985				36,082	6,103	
932	Determination of Effective Impervious Area in Urban Watersheds		150,000	150,000					32,000	90,000	28,000
933	Building Local Agency Capacity for Public Engagement in Local Road Systems Planning Decision-Making		140,062	140,062					78,794	61,268	
934	Field Evaluation of Friction Measurement and Applicator Control Systems for Winter Road Maintenance on Low Volume Roads		40,000	40,000					38,000	2,000	
935*	Design Consideration for Embankment Protection during Road Overtopping Events		158,794	79,397	79,397				49,197	25,557	4,644
936	2012 LRRB Focus Groups		17,000	17,000				4,257	12,743		
937	Development of Guidelines for Flashing Yellow Arrows for Protected/Permissive Use		85,000	42,500	42,500				18,000	24,500	
998	FY2012 OPERA - Administration		20,000	20,000				16,678	73,322		
998	FY2012 OPERA - Projects		70,000	70,000							
998	FY2013 OPERA - Administration		20,000	20,000					20,000		
998	FY2013 OPERA - Projects		25,000	25,000					25,000		
998	FY2014 OPERA - Administration		20,000	20,000					20,000		
998	FY2014 OPERA - Projects		70,000	70,000					70,000		

	TITLE	EXPIRATION DATE	PROJECT TOTAL	LRRB \$	Other Source	LRRB Paid to Date	FY2011	FY2012	FY2013	FY2014	FY2015
999	FY2012 Program Administration (includes web & publishing)		148,400	148,400		45,977		102,423			
999	FY2013 Program Administration (includes web & publishing)		156,500	156,500					156,500		
	<b>TOTALS</b>		<b>12,557,756</b>	<b>9,327,837</b>	<b>3,508,919</b>	<b>1,932,205</b>	<b>107,629</b>	<b>1,893,085</b>	<b>3,742,409</b>	<b>2,568,530</b>	<b>447,977</b>

Uncommitted Balance Carryforward							607,617	1,160,973	944,172	383,104	558,074
Apportionment							2,671,499	2,902,378	3,181,342	2,900,000	2,900,000
Amount Available							3,279,116	4,063,351	4,125,514	3,283,104	3,458,074
(SWIFT+MAPS) Less Expended							2,010,514	956,113			
Payments Pending Per ARTS								269,981			
Less Total Commitments							107,629	1,893,085	3,742,409	2,568,530	447,977

Amount Available							<b>1,160,973</b>	<b>944,172</b>	<b>383,104</b>	<b>714,574</b>	<b>3,010,097</b>
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INV668: U of MN LTAP											375,000
INV998: Operational Research Program (OPERA)											90,000
INV676: MnROAD											500,000
INV676: MnROAD Technology Transfer and Support											70,000
INV745: Library Services											70,000
INV675: Research Services											160,000
INV999: Project Administration										156,500	156,500
INV916: Contract for TSs and TRSs											75,000
INV869: TERRA Board											12,500
INV645: RIC											220,000
Contingency Funds											50,000
Total On-going Program Commitments										156,500	1,779,000

Total Available after On-going Program Commitments							<b>1,160,973</b>	<b>944,172</b>	<b>383,104</b>	<b>558,074</b>	<b>1,231,097</b>
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Notes:

FY12 is from July 1, 2012 to June 30, 2012.

Pending Projects

Canceled Projects

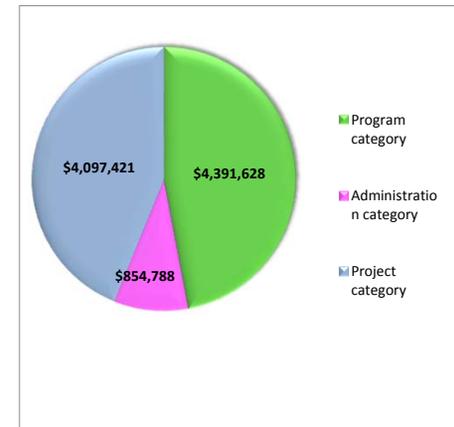
Projects co-funded from other sources are marked with an \*

Projects in green shading are completed.

Projects in green font are not completed, but all of the LRRB funding is spent.

Program category	Total LRRB =	4,391,628
Administration category	Total LRRB =	854,788
Project category	Total LRRB =	4,097,421
Research Category	Total LRRB=	5,852,014
Implementation Category	Total LRRB=	3,403,323

FY12 INV999 was increased \$30,000 due to the potential increase in attendance at the Low Volume Conference (every 4 years).



## **COUNTY HIGHWAY TURNBACK POLICY**

### ***Definitions:***

County Highway – Either a County State Aid Highway or a County Road

County Highway Turnback- A CSAH or a County Road which has been released by the county and designated as an MSAS roadway. A designation request must be approved and a Commissioner’s Order written. A County Highway Turnback may be either County Road (CR) Turnback or a County State Aid (CSAH) Turnback. (See Minnesota Statute 162.09 Subdivision 1). A County Highway Turnback designation has to stay with the County Highway turned back and is not transferable to any other roadways.

Basic Mileage- Total improved mileage of local streets, county roads and county road turnbacks. Frontage roads which are not designated trunk highway, trunk highway turnback or on the County State Aid Highway System shall be considered in the computation of the basic street mileage. A city is allowed to designate 20% of this mileage as MSAS. (See Screening Board Resolutions in the back of the most current booklet).

### ***MILEAGE CONSIDERATIONS***

#### ***County State Aid Highway Turnbacks***

A CSAH Turnback **is not** included in a city’s basic mileage, which means it **is not** included in the computation for a city’s 20% allowable mileage. However, a city may draw Construction Needs and generate allocation on 100% of the length of the CSAH Turnback

#### ***County Road Turnbacks***

A County Road Turnback **is** included in a city’s basic mileage, so it **is** included in the computation for a city’s 20% allowable mileage. A city may also draw Construction Needs and generate allocation on 100% of the length of the County Road Turnback.

#### ***Jurisdictional Exchanges***

##### ***County Road for MSAS***

Only the **extra** mileage a city receives in an exchange between a County Road and an MSAS route **will be** considered as a County Road Turnback.

If the mileage of a jurisdictional exchange is **even**, the County Road **will not be** considered as a County Road Turnback.

If a city receives **less** mileage in a jurisdictional exchange, the County Road **will not be** considered as a County Road Turnback.

## *CSAH for MSAS*

Only the **extra** mileage a city receives in an exchange between a CSAH and an MSAS route **will be** considered as a CSAH Turnback.

If the mileage of a jurisdictional exchange is **even**, the CSAH **will not be** considered as a CSAH Turnback.

If a city receives **less** mileage in a jurisdictional exchange, the CSAH **will not be** considered as a CSAH Turnback

### NOTE:

When a city receives **less** mileage in a CSAH exchange it will have less mileage to designate within its 20% mileage limitation and may have to revoke mileage the following year when it computes its allowable mileage.

*Explanation:* After this exchange is completed, a city will have more CSAH mileage and less MSAS mileage than before the exchange. The new CSAH mileage was included in the city's basic mileage when it was MSAS (before the exchange) but is not included when it is CSAH (after the exchange). So, after the jurisdictional exchange the city will have less basic mileage and 20% of that mileage will be a smaller number.

If a city has more mileage designated than the new, lower 20% allowable mileage, the city will be over designated and be required to revoke some mileage. **If a revocation is necessary, it will not have to be done until the following year after a city computes its new allowable mileage.**

## *MSAS designation on a County Road*

County Roads can be designated as MSAS. If a County Road which is designated as MSAS is turned back to the city, it will not be considered as County Road Turnback.

## *MISCELLANEOUS*

A CSAH which was previously designated as Trunk Highway turnback on the CSAH system and is turned back to the city will lose all status as a TH turnback and only be considered as CSAH Turnback.

A city that had previously been over 5,000 population, lost its eligibility for an MSAS system and regained it shall revoke all streets designated as CSAH at the time of eligibility loss and consider them for MSAS designation. These roads will not be eligible for consideration as CSAH turnback designation.

In a city that becomes eligible for MSAS designation for the first time all CSAH routes which serve only a municipal function and have both termini within or at the municipal boundary, should be revoked as CSAH and considered for MSAS designation. These roads will not be eligible for consideration as CSAH turnbacks.

For MSAS purposes, a County or CSAH that has been released to a city cannot be local road for more than two years and still be considered a turnback.

## 2012 Schedule STATUS OF MUNICIPAL TRAFFIC COUNTING

The current Municipal State Aid Traffic Counting resolution reads:

That future traffic data for State Aid Needs Studies be developed as follows:

1. The municipalities in the metropolitan area cooperate with the State by agreeing to participate in counting traffic every two or four years at the discretion of the city.
2. The cities in the outstate area may have their traffic counted and maps prepared by State forces every four years, or may elect to continue the present procedure of taking their own counts and have state forces prepare the maps.
3. Any city may count traffic with their own forces every two years at their discretion and expense, unless the municipality has made arrangements with the Mn/DOT district to do the count.

In 1998, cities were given the option of counting on a 2 or 4 year cycle. In 2008, cities were given the option to revise their 2 or 4 year cycle as well as the count year. In 2009, cities were given the option to move to a 4 year cycle with the option to count a subset of locations in the “off cycle” or 2<sup>nd</sup> year of a 4 year cycle.

### Metro District

**Two year** traffic counting schedule – counted in 2012 and updated in the needs in 2013

Dayton

**Two year** traffic counting schedule – counted in 2011 and updated in the needs in 2012

Blaine	East Bethel	Shoreview
Brooklyn Park	Lake Elmo	Victoria
Chanhassen	Prior Lake	
Cottage Grove	Ramsey	

**Four year** traffic counting schedule - counted in 2012 and updated in the needs in 2013

Anoka	Eden Prairie	South Saint Paul
Bloomington *^	Hopkins	Spring Lake Park
Columbia Heights	Minneapolis *^	St. Paul *
Coon Rapids	Mound	
Crystal	Shakopee	

\* Counts over more than one year

^ Counts a subset of locations on the “off cycle,” no map product is produced in that year

## Metro District

**Four year** traffic counting schedule - counted in 2013 and updated in the needs in 2014

Arden Hills	New Brighton	Roseville
Edina	New Hope	Shorewood
Falcon Heights	North St. Paul	Stillwater
Fridley	Oak Grove	St. Louis Park
Golden Valley	Plymouth ^	St. Paul Park
Mahtomedi	Richfield	West St. Paul
Maplewood	Robbinsdale	White Bear Lake

^ Counts a subset of locations on the “off cycle,” no map product is produced in that year

**Four year** traffic counting schedule - counted in 2014 and updated in the needs in 2015

Andover	Forest Lake	Minnetonka *
Apple Valley	Hugo	Minnetrista
Belle Plaine	Inver Grove Heights	Oakdale
Burnsville	Jordan	Rosemount
Champlin	Lino Lakes	St. Francis ^
Chaska	Little Canada	Vadnais Heights
Corcoron	Maple Grove	Waconia ^
Eagan	Mendota Heights	

\* Counts over more than one year

^ Counts a subset of locations on the “off cycle,” no map product is produced in that year

**Four year** traffic counting schedule - counted in 2011 and updated in the needs in 2012

Brooklyn Center	Lakeville	St. Anthony
Circle Pines	Medina	Savage
Farmington	Mounds View	Woodbury ^
Ham Lake	Orono	
Hastings	Rogers ^	

^ Counts a subset of locations on the “off cycle,” no map product is produced in that year

**Outstate**

**Two year** traffic counting schedule - counted in 2012 and updated in the needs in 2013

Rochester

**Four year** traffic counting schedule - to be counted in 2012 and updated in the needs in 2013

Albertville	Faribault	Northfield
Austin	International Falls	Otsego
Buffalo	Isanti	Saint Michael
Cambridge	La Crescent	Waseca
Delano	Montevideo	
Detroit Lakes	Monticello	

**Four year** traffic counting schedule - counted in 2013 and updated in the needs in 2014

Albert Lea	Little Falls	Sartell
Crookston	Mankato	St. Cloud
East Grand Forks	Moorhead	Saint Joseph
Glencoe	Morris	Waite Park
Grand Rapids	New Prague	Wyoming
Hutchinson	North Branch	

**Four year** traffic counting schedule - counted in 2014 and updated in the needs in 2015

Alexandria	Elk River	New Ulm
Bemidji	Fairmont	Stewartville
Big Lake	Kasson	Willmar
Byron	Lake City	Zimmerman
Cloquet	Marshall	

**Four year** traffic counting schedule - counted in 2011 and updated in the needs in 2012

Baxter	Litchfield	Thief River Falls
Brainerd	North Mankato	Virginia
Chisholm	Owatonna	Worthington
Duluth*	Red Wing	Winona
Fergus Falls	Redwood Falls	
Hermantown	Saint Peter	
Hibbing	Sauk Rapids	

\*Duluth counts 1/4 of the city each year

**CURRENT RESOLUTIONS  
OF THE  
MUNICIPAL SCREENING BOARD**

June 2012

**Bolded wording (except headings) are revisions since the last publication of the Resolutions**

**BE IT RESOLVED:**

**ADMINISTRATION**

**Appointments to Screening Board** - Oct. 1961 (Revised June 1981, May 2011)

That annually the Commissioner of Mn/DOT will be requested to appoint three (3) new members, upon recommendation of the City Engineers Association of Minnesota, to serve three (3) year terms as voting members of the Municipal Screening Board. These appointees are selected from the MnDOT State Aid Districts as they exist in 2010, together with one representative from each of the four (4) cities of the first class.

**Screening Board Chair, Vice Chair and Secretary**- June 1987 (Revised June, 2002)

That the Chair Vice Chair, and Secretary, nominated annually at the annual meeting of the City Engineers association of Minnesota and subsequently appointed by the Commissioner of the Minnesota Department of Transportation shall not have a vote in matters before the Screening Board unless they are also the duly appointed Screening Board Representative of a construction District or of a City of the first class.

**Appointment to the Needs Study Subcommittee** - June 1987 (Revised June 1993)

That the Screening Board Chair shall annually appoint one city engineer, who has served on the Screening Board, to serve a three year term on the Needs Study Subcommittee. The appointment shall be made at the annual winter meeting of the City's Engineers Association. The appointed subcommittee person shall serve as chair of the subcommittee in the third year of the appointment.

**Appointment to Unencumbered Construction Funds Subcommittee** - Revised June 1979

That the Screening Board past Chair be appointed to serve a three-year term on the Unencumbered Construction Fund Subcommittee. This will continue to maintain an experienced group to follow a program of accomplishments.

**Appearance Screening Board** - Oct. 1962 (Revised Oct. 1982)

That any individual or delegation having items of concern regarding the study of State Aid Needs or State Aid Apportionment amounts, and wishing to have consideration given to these items, shall, in a written report, communicate with the State Aid Engineer. The State Aid Engineer with concurrence of the Chair of the Screening Board shall determine which requests are to be referred

to the Screening Board for their consideration. This resolution does not abrogate the right of the Screening Board to call any person or persons before the Board for discussion purposes.

**Screening Board Meeting Dates and Locations** - June 1996

That the Screening Board Chair, with the assistance of the State Aid Engineer, determine the dates and locations for that year's Screening Board meetings.

**Research Account** - Oct. 1961

That an annual resolution be considered for setting aside up to ½ of 1% of the previous years Apportionment fund for the Research Account to continue municipal street research activity.

**Soil Type** - Oct. 1961 (Revised June, 2005)

That the soil type classification as approved by the 1961 Municipal Screening Board, for all municipalities under Municipal State Aid be adopted for the 1962 Needs Study and 1963 apportionment on all streets in the respective municipalities. Said classifications are to be continued in use until subsequently amended or revised by using the following steps:

- a) The DSAE shall have the authority to review and approve requests for Soils Factor revisions on independent segments (if less than 10% of the MSAS system). Appropriate written documentation is required with the request and the DSAE should consult with the Mn/DOT Materials Office prior to approval.
- b) If greater than 10% of the municipality's MSAS system mileage is proposed for Soil Factor revisions, the following shall occur:
  - Step 1. The DSAE (in consultation with the Mn/DOT Materials Office) and Needs Study Subcommittee will review the request with appropriate written documentation and make a recommendation to the Screening Board.
  - Step 2. The Screening Board shall review and make the final determination of the request for Soils Factor revisions.

That when a new municipality becomes eligible to participate in the MSAS allocation, the soil type to be used for Needs purposes shall be based upon the Mn/DOT Soils Classification Map for Needs purposes. Any requests for changes must follow the above process.

**Improper Needs Report** - Oct. 1961

That the State Aid Engineer and the District State Aid Engineer are requested to recommend an adjustment of the Needs reporting whenever there is a reason to believe that said reports have deviated from accepted standards and to submit their recommendations to the Screening Board, with a copy to the municipality involved, or its engineer.

**New Cities Needs** - Oct. 1983 (Revised June, 2005)

That any new city having determined its eligible mileage, but has not submitted its Needs to the DSAE by December 1, will have its money Needs determined at the cost per mile of the lowest other city.

## **Unit Price Study- Oct. 2006**

That the Unit Price Study go to a 3 year (or triennial) cycle with the Unit Prices for the two 'off years' to be set using the Engineering News Record construction cost index. The Screening Board may request a Unit Price Study on individual items in the 'off years' if it is deemed necessary.

## **Construction Cut Off Date** - Oct. 1962 (Revised 1967)

That for the purpose of measuring the Needs of the Municipal State Aid Street System, the annual cut off date for recording construction accomplishments shall be based upon the project award date and shall be December 31st of the preceding year.

## **Construction Accomplishments** - Oct. 1988 (Revised June 1993, October 2001, October 2003)

That when a Municipal State Aid Street is constructed to State Aid Standards, said street shall be considered adequate for a period of 20 years from the project award date or encumbrance of force account funds.

That in the event sidewalk or curb and gutter is constructed for the total length of the segment, those items shall be removed from the Needs for a period of 20 years.

All segments considered deficient for Needs purposes and receiving complete Needs shall receive street lighting Needs at the current unit cost per mile.

That if the construction of a Municipal State Aid Street is accomplished, only the Construction Needs necessary to bring the segment up to State Aid Standards will be permitted in subsequent Needs after 10 years from the date of the letting or encumbrance of force account funds. For the purposes of the Needs Study, these shall be called Widening Needs. Widening Needs shall continue until reinstatement for complete Construction Needs shall be initiated by the Municipality.

That Needs for resurfacing, and traffic signals shall be allowed on all Municipal State Aid Streets at all times.

That any bridge construction project shall cause the Needs of the affected bridge to be removed for a period of 35 years from the project letting date or date of force account agreement. At the end of the 35 year period, Needs for complete reconstruction of the bridge will be reinstated in the Needs Study at the initiative of the Municipal Engineer.

That the adjustments above will apply regardless of the source of funding for the road or bridge project. Needs may be granted as an exception to this resolution upon request by the Municipal Engineer and justified to the satisfaction of the State Aid Engineer (e.g., a deficiency due to changing standards, projected traffic, or other verifiable causes).

That in the event that an M.S.A.S. route earning "After the Fact" Needs is removed from the M.S.A.S. system, then, the "After the Fact" Needs shall be removed from the Needs Study, except if transferred to another state system. No adjustment will be required on Needs earned prior to the revocation.

**Population Apportionment** - October 1994, 1996

That beginning with calendar year 1996, the MSAS population apportionment shall be determined using the latest available federal census or population estimates of the State Demographer and/or the Metropolitan Council. However, no population shall be decreased below that of the latest available federal census, and no city dropped from the MSAS eligible list based on population estimates.

**DESIGN**

**Design Limitation on Non-Existing Streets** - Oct. 1965

That non-existing streets shall not have their Needs computed on the basis of urban design unless justified to the satisfaction of the State Aid Engineer.

**Less Than Minimum Width** - Oct. 1961 (Revised 1986)

That if a Municipal State Aid Street is constructed with State Aid funds to a width less than the design width in the quantity tables for Needs purposes, the total Needs shall be taken off such constructed street other than Additional Surfacing Needs.

Additional surfacing and other future Needs shall be limited to the constructed width as reported in the Needs Study, unless exception is justified to the satisfaction of the State Aid Engineer.

**Greater Than Minimum Width** (Revised June 1993)

That if a Municipal State Aid Street is constructed to a width wider than required, Resurfacing Needs will be allowed on the constructed width.

**Miscellaneous Limitations** - Oct. 1961

That miscellaneous items such as fence removal, bituminous surface removal, manhole adjustment, and relocation of street lights are not permitted in the Municipal State Aid Street Needs Study. The item of retaining walls, however, shall be included in the Needs Study.

**MILEAGE** - Feb. 1959 (Revised Oct. 1994, 1998)

That the maximum mileage for Municipal State Aid Street designation shall be 20 percent of the municipality's basic mileage - which is comprised of the total improved mileage of local streets, county roads and county road turnbacks.

Nov. 1965 – (Revised 1969, October 1993, October 1994, June 1996, October 1998)

However, the maximum mileage for State Aid designation may be exceeded to designate trunk highway turnbacks after July 1, 1965 and county highway turnbacks after May 11, 1994 subject to State Aid Operations Rules.

Nov. 1965 (Revised 1972, Oct. 1993, 1995, 1998)

That the maximum mileage for Municipal State Aid Street designation shall be based on the Annual Certification of Mileage current as of December 31st of the preceding year. Submittal of a supplementary certification during the year shall not be permitted. Frontage roads not

designated Trunk Highway, Trunk Highway Turnback or County State Aid Highways shall be considered in the computation of the basic street mileage. The total mileage of local streets, county roads and county road turnbacks on corporate limits shall be included in the municipality's basic street mileage. Any State Aid Street that is on the boundary of two adjoining urban municipalities shall be considered as one-half mileage for each municipality.

That all mileage on the MSAS system shall accrue Needs in accordance with current rules and resolutions.

Oct. 1961 (Revised May 1980, Oct. 1982, Oct. 1983, June 1993, June 2003)

That all requests for revisions to the Municipal State Aid System must be received by the District State Aid Engineer by March first to be included in that years Needs Study. If a system revision has been requested, a City Council resolution approving the system revisions and the Needs Study reporting data must be received by May first, to be included in the current year's Needs Study. If no system revisions are requested, the District State Aid Engineer must receive the Normal Needs Updates by March 31<sup>st</sup> to be included in that years' Needs Study.

**One Way Street Mileage** - June 1983 (Revised Oct. 1984, Oct. 1993, June 1994, Oct. 1997)

That any one-way streets added to the Municipal State Aid Street system must be reviewed by the Needs Study Sub-Committee, and approved by the Screening Board before any one-way street can be treated as one-half mileage in the Needs Study.

That all approved one-way streets be treated as one-half of the mileage and allow one-half complete Needs. When Trunk Highway or County Highway Turnback is used as part of a one-way pair, mileage for certification shall only be included as Trunk Highway or County Turnback mileage and not as approved one-way mileage.

## **NEEDS COSTS**

That the Needs Study Subcommittee shall annually review the Unit Prices used in the Needs Study. The Subcommittee shall make its recommendation the Municipal Screening Board at its annual spring meeting.

**Grading Factors (or Multipliers)** October 2007

That Needs for tree removal, pavement removal, curb and gutter removal and sidewalk removal shall be removed from urban segments in the Needs study and replaced with an Urban Grading Multiplier approved by the Municipal Screening Board. This Multiplier will be multiplied by the Grading/Excavation Needs of each deficient proposed urban segment in the Needs study.

That Needs for tree removal, pavement removal, special drainage, gravel surface and gravel shoulders shall be removed from the rural segments in the Needs study and be replaced with a Rural Grading Multiplier approved by the Municipal Screening Board. This Multiplier will be multiplied by the Grading/Excavation Needs of each deficient proposed rural segment in the Needs study.

That these Grading Factors shall take effect for the January 2009 allocation.

## NEEDS ADJUSTMENTS

### **Bond Adjustment** - Oct. 1961 (Revised 1976, 1979, 1995, 2003, Oct. 2005)

That a separate annual adjustment shall be made in total money Needs of a municipality that has sold and issued bonds pursuant to Minnesota Statutes, Section 162.18, for use on State Aid projects.

That this adjustment shall be based upon the remaining amount of principal to be paid minus any amount not applied toward Municipal State Aid, County State Aid or Trunk Highway projects.

### **Unencumbered Construction Fund Balance Adjustment** - Oct. 1961 (Revised October 1991, 1996, October, 1999, 2003)

That for the determination of Apportionment Needs, a city with a positive unencumbered construction fund balance as of December 31<sup>st</sup> of the current year shall have that amount deducted from its 25-year total Needs. A municipality with a negative unencumbered construction fund balance as of December 31<sup>st</sup> of the current year shall have that amount added to its 25 year total Needs.

That funding Requests received before December 1<sup>st</sup> by the District State Aid Engineer for payment shall be considered as being encumbered and the construction balances shall be so adjusted.

### **Excess Unencumbered Construction Fund Balance Adjustment** – Oct. 2002, Jan. 2010

That the December 31 construction fund balance will be compared to the annual construction allotment from January of the same year.

If the December 31 construction fund balance exceeds 3 times the January construction allotment and \$1,500,000, the first year adjustment to the Needs will be 1 times the December 31 construction fund balance. In each consecutive year the December 31 construction fund balance exceeds 3 times the January construction allotment and \$1,500,000, the adjustment to the Needs will be increased to 2, 3, 4, etc. times the December 31 construction fund balance until such time the Construction Needs are adjusted to zero.

If the December 31 construction fund balance drops below 3 times the January construction allotment and subsequently increases to over 3 times, the multipliers shall start over with one. This adjustment will be in addition to the unencumbered construction fund balance adjustment and takes effect for the 2004 apportionment.

### **Low Balance Incentive** – Oct. 2003

That the amount of the Excess Unencumbered Construction Fund Balance Adjustment shall be redistributed to the Construction Needs of all municipalities whose December 31<sup>st</sup> construction fund balance is less than 1 times their January construction allotment of the same year. This redistribution will be based on a city's prorated share of its Unadjusted Construction Needs to the total Unadjusted Construction Needs of all participating cities times the total Excess Balance Adjustment.

**Right of Way** - Oct. 1965 (Revised June 1986, 2000)

That Right of Way Needs shall be included in the Total Needs based on the unit price per acre until such time that the right of way is acquired and the actual cost established. At that time a Construction Needs adjustment shall be made by annually adding the local cost (which is the total cost less county or trunk highway participation) for a 15-year period. Only right of way acquisition costs that are eligible for State-Aid reimbursement shall be included in the right-of-way Construction Needs adjustment. This Directive to exclude all Federal or State grants. The State Aid Engineer shall compile right-of-way projects that are funded with State Aid funds. When "After the Fact" Needs are requested for right-of-way projects that have been funded with local funds, but qualify for State Aid reimbursement, documentation (copies of warrants and description of acquisition) must be submitted to the State Aid Engineer.

**'After the Fact' Non Existing Bridge Adjustment - Revised October 1997**

That the Construction Needs for all 'non existing' bridges and grade separations be removed from the Needs Study until such time that a construction project is awarded. At that time a Construction Needs adjustment shall be made by annually adding the local cost (which is the total cost less county or trunk highway participation) for a period of 15 years. The total cost shall include project development and construction engineering costs based upon the current Project Development percentage used in the Needs Study.

**Excess Maintenance Account – June 2006**

That any city which requests an annual Maintenance Allocation of more than 35% of their Total Allocation, is granted a variance by the Variance Committee, and subsequently receives the increased Maintenance Allocation shall receive a negative Needs adjustment equal to the amount of money over and above the 35% amount transferred from the city's Construction Account to its Maintenance Account. The Needs adjustment will be calculated for an accumulative period of twenty years, and applied as a single one-year (one time) deduction each year the city receives the maintenance allocation.

**'After the Fact' Retaining Wall Adjustment Oct. 2006**

That retaining wall Needs shall not be included in the Needs study until such time that the retaining wall has been constructed and the actual cost established. At that time a Needs adjustment shall be made by annually adding the local cost (which is the total cost less county or trunk highway participation) for a 15 year period. Documentation of the construction of the retaining wall, including eligible costs, must be submitted to your District State Aid Engineer by July 1 to be included in that years Needs study. After the Fact needs on retaining walls shall begin effective for all projects awarded after January 1, 2006.

**Trunk Highway Turnback - Oct. 1967 (Revised June 1989)**

That any trunk highway turnback which reverts directly to the municipality and becomes part of the State Aid Street system shall not have its Construction Needs considered in the Construction Needs apportionment determination as long as the former trunk highway is fully eligible for 100 percent construction payment from the Municipal Turnback Account. During this time of eligibility, financial aid for the additional maintenance obligation, of the municipality imposed by the turnback shall be computed on the basis of the current year's apportionment data and shall be accomplished in the following manner.

That the initial turnback adjustment when for less than 12 full months shall provide partial maintenance cost reimbursement by adding said initial adjustment to the Construction Needs which will produce approximately 1/12 of \$7,200 per mile in apportionment funds for each month or part of a month that the municipality had maintenance responsibility during the initial year.

That to provide an advance payment for the coming year's additional maintenance obligation, a Needs adjustment per mile shall be added to the annual Construction Needs. This Needs adjustment per mile shall produce sufficient apportionment funds so that at least \$7,200 in apportionment shall be earned for each mile of trunk highway turnback on Municipal State Aid Street System.

That Trunk Highway Turnback adjustments shall terminate at the end of the calendar year during which a construction contract has been awarded that fulfills the Municipal Turnback Account Payment provisions; and the Resurfacing Needs for the awarded project shall be included in the Needs Study for the next apportionment.

**TRAFFIC** - June 1971

**Traffic Limitation on Non-Existing Streets** - Oct. 1965

That non-existing street shall not have their Needs computed on a traffic count of more than 4,999 vehicles per day unless justified to the satisfaction of the Commissioner.

That for the 1965 and all future Municipal State Aid Street Needs Studies, the Needs Study procedure shall utilize traffic data developed according to the Traffic Estimating section of the State Aid Manual (section 700). This manual shall be prepared and kept current under the direction of the Screening Board regarding methods of counting traffic and computing average daily traffic. The manner and scope of reporting is detailed in the above mentioned manual.

**Traffic Counting** - Sept. 1973 (Revised June 1987, 1997, 1999)

That future traffic data for State Aid Needs Studies be developed as follows:

1. The municipalities in the metropolitan area cooperate with the State by agreeing to participate in counting traffic every two or four years at the discretion of the city.
2. The cities in the outstate area may have their traffic counted and maps prepared by State forces every four years, or may elect to continue the present procedure of taking their own counts and have state forces prepare the maps.
3. Any city may count traffic with their own forces every two years at their discretion and expense, unless the municipality has made arrangements with the Mn/DOT district to do the count.

<b>2011 UNIT PRICE RECOMMENDATIONS</b>				
<b>Needs Item</b>		<b>2010 Need Prices</b>	<b>2011 Subcommittee Recommended Prices</b>	<b>2011 Screening Board Approved Prices</b>
Grading (Excavation)	Cu. Yd.	\$4.90	\$5.05 *	\$5.05 *
Class 5 Base #2211	Ton	10.10	10.40 *	10.40 *
All Bituminous	Ton	56.75	60.00 *	60.00 *
Sidewalk Construction	Sq. Yd.	27.85	28.60 *	28.60 *
Curb and Gutter Construction	Lin.Ft.	11.00	11.30 *	11.30 *
Storm Sewer Adjustment	Mile	94,200	95,600	95,600
Storm Sewer	Mile	295,400	301,300	301,300
Street Lighting	Mile	100,000	100,000 *	100,000 *
Traffic Signals	Per Sig	136,000	136,000 *	136,000 *
<b>Signal Needs Based On Projected Traffic</b>				
Projected Traffic	Percentage	X Unit Price =	Needs Per Mile	
0 - 4,999	.25	\$136,000 =	\$34,000	34,000 *
5,000 - 9,999	.50	136,000 =	68,000	68,000 *
10,000 & Over	1.00	136,000 =	136,000	136,000 *
<b>Right of Way (Needs Only)</b>	Acre	98,850	100,000 *	100,000 *
<b>Engineering</b>	Percent	22	22	22
<b>Railroad Grade Crossing</b>				
Signs	Unit	2,500	2,500	2,500
Pavement Marking	Unit	2,500	2,500	2,500
Signals (Single Track-Low Speed)	Unit	250,000	275,000	275,000
Signals & Gate (Multiple Track - High & Low Speed)	Unit	275,000	300,000	300,000
Concrete Xing Material(Per Track)	Lin.Ft.	1,800	1,800	1,800
<b>Bridges</b>				
0 to 149 Ft.	Sq. Ft.	120.00	115.00	115.00
150 to 499 Ft.	Sq. Ft.	120.00	115.00	115.00
500 Ft. and over	Sq. Ft.	120.00	115.00	115.00
<b>Railroad Bridges over Highways</b>				
Number of Tracks - 1	Lin.Ft.	10,200	10,200 *	10,200 *
Additional Track (each)	Lin.Ft.	8,500	8,500 *	8,500 *

\*2.68% Construction Cost Index can be applied based on the Engineering News Record CCI

## ANNUAL MAINTENANCE NEEDS COST

	2010 NEEDS PRICES		2011 SUBCOMMITTEE SUGGESTED PRICES		2011 SCREENING BOARD RECOMMENDED PRICES	
	Under 1000 ADT	Over 1000 ADT	Under 1000 ADT	Over 1000 ADT	Under 1000 ADT	Over 1000 ADT
2.68% CCI			\$2,002	\$3,286	\$2,002	\$3,286
<b>Traffic Lane Per Mile</b>	\$1,950	\$3,200	<b>\$2,000</b>	<b>\$3,300</b>	<b>\$2,000</b>	<b>\$3,300</b>
2.68% CCI			2,002	2,002	2,002	2,002
<b>Parking Lane Per Mile</b>	1,950	1,950	<b>2,000</b>	<b>2,000</b>	<b>2,000</b>	<b>2,000</b>
2.68% CCI			719	1,335	719	1,335
<b>Median Strip Per Mile</b>	700	1,300	<b>725</b>	<b>1,350</b>	<b>725</b>	<b>1,350</b>
2.68% CCI			719	719	719	719
<b>Storm Sewer Per Mile</b>	700	700	<b>725</b>	<b>725</b>	<b>725</b>	<b>725</b>
2.68% CCI			719	719	719	719
<b>Per Traffic Signal</b>	700	700	<b>725</b>	<b>725</b>	<b>725</b>	<b>725</b>
Normal M.S.A.S. Streets			6,546	6,546	6,546	6,546
<b>Minimum Allowance Per Mile</b>	6,375	6,375	<b>6,550</b>	<b>6,550</b>	<b>6,550</b>	<b>6,550</b>

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