

2015 Municipal Screening Board Data



June 2015

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.

2015 MUNICIPAL SCREENING BOARD DATA

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State of Minnesota

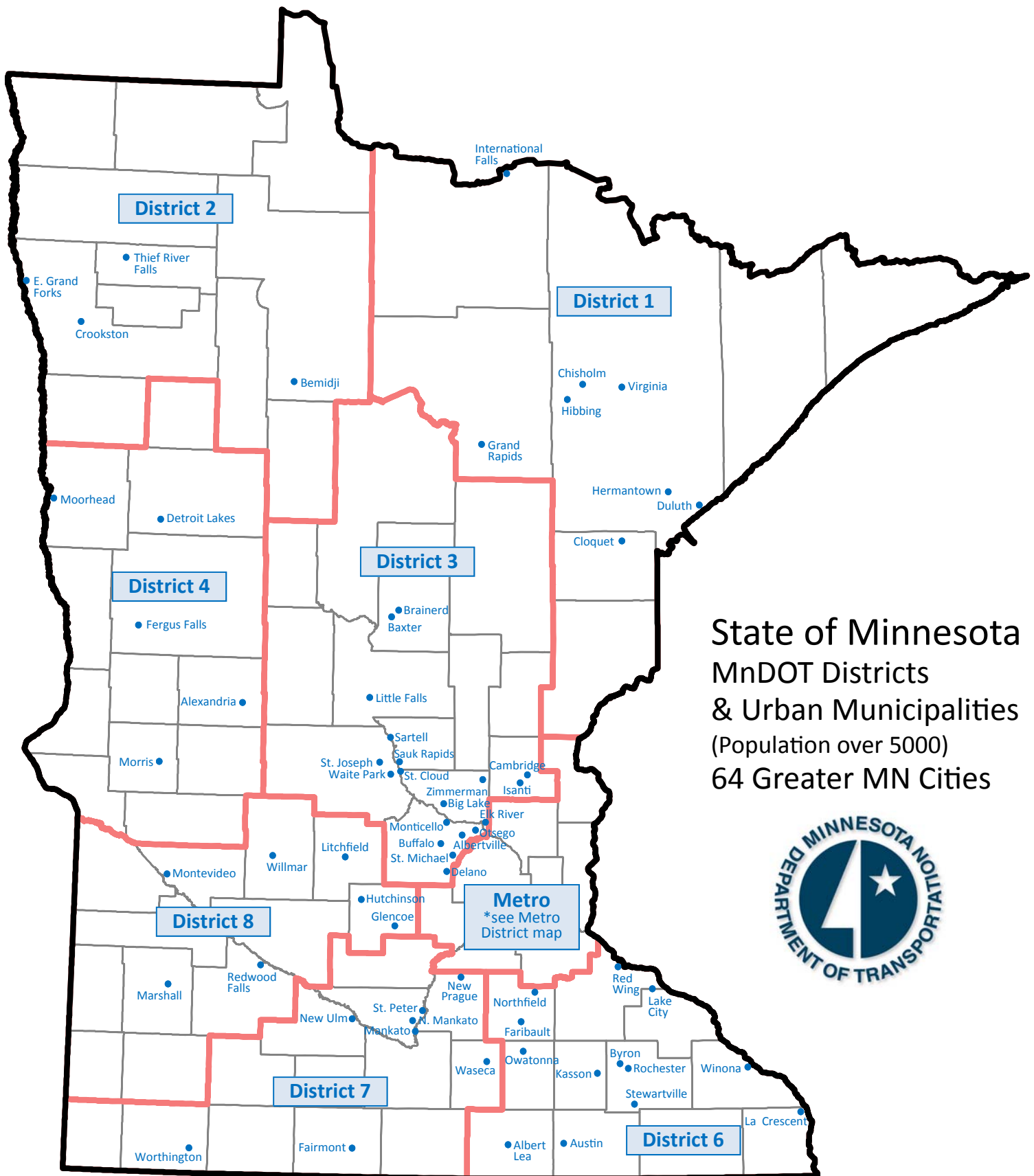
Metro District & Urban Municipalities

(Population over 5000)

35 Metro East Cities

49 Metro West Cities





State of Minnesota
MnDOT Districts
& Urban Municipalities
(Population over 5000)
64 Greater MN Cities



Updated 1/8/14

2015 MUNICIPAL SCREENING BOARD

N:/MSAS/BOOKS/2015 JUNE BOOK/SCREENING BOARD MEMBERS 2015.XLXS

22-Apr-15

OFFICERS			
Chair	Klayton Eckles	Woodbury	(651) 714-3593
Vice Chair	Jeff Johnson	Mankato	(507) 387-8640
Secretary	Marc Culver	Roseville	(651) 792-7042

MEMBERS				
District	Years Served	Representative	City	Phone
1	2014-2016	Jesse Story	Hibbing	(218) 262-3486
2	2015-2017	Craig Gray	Bemidji	(218) 333-1851
3	2015-2017	Justin Femrite	Elk River	(763) 635-1051
4	2013-2015	Jon Pratt	Detroit Lakes	(218) 847-5607
Metro-West	2013-2015	Rod Rue	Eden Prairie	(952) 949-8314
6	2013-2015	Steven Lang	Austin	(507) 437-9949
7	2014-2016	Jeff Johnson	Mankato	(507) 387-8640
8	2015-2017	Sean Christensen	Willmar	(320) 214-5169
Metro-East	2014-2016	Klayton Eckles	Woodbury	(952) 912-2600
<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

ALTERNATES				
District	Year Beginning		City	Phone
1	2017	Julie Kennedy	Grand Rapids	(218) 326-7625
2	2018	Rich Clauson	Crookston	(218) 281-6522
3	2018	Adam Nafstad	Albertville	(763) 497-3384
4	2016	Jeff Kuhn	Morris	(320) 762-8149
Metro-West	2016	Steve Lillehaug	Brooklyn Center	(763) 569-3300
6	2016	Jay Owens	Red Wing	(651) 385-3625
7	2017	Mark DuChene	Waseca	(507) 835-9716
8	2018	Andy Kehren	Redwood Falls	(507) 794-5541
Metro-East	2017	Michael Thompson	Maplewood	(651) 249-2403

2015 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>Tim Schoonhoven, Chair Alexandria (320) 762-8149 Expires after 2015</p> <p>Mark Graham Vadnais Heights (651) 204-6050 Expires after 2016</p> <p>Rich Clauson Crookston (218) 281-6522 Expires after 2017</p>	<p>Jean Keely, Chair Blaine (763) 784-6700 Expires after 2015</p> <p>Kent Exner Hutchinson (320) 234-4212 Expires after 2016</p> <p>Steve Bot St. Michael (763) 497-2041 Expires after 2017</p>

**Municipal Screening Board
Meeting Minutes
October 21-22, 2014
Breezy Point Resort, Breezy Point, MN**

Tuesday Session, October 21, 2014

I. Call to Order and Welcome by Chair Bot at 1:05 p.m.

a. Introductions of Head Table and Subcommittee Chairs by Chair Bot

Steve Bot, City of St. Michael-Chair, Municipal Screening Board
Bill Lanoux, MnDOT-Municipal State Aid Needs Manager
Julie Skallman, MnDOT-State Aid Engineer
Klayton Eckles, City of Woodbury-Vice Chair of the Municipal Screening Board
Jeff Hulsether, City of Brainerd-Unencumbered Construction Funds
Subcommittee (UCFS) Chair
Jean Keely, City of Blaine-Past Chair of the Municipal Screening Board
Kent Exner, City of Hutchinson-Past Chair of the Municipal Screening Board

II. Secretary Jeffrey Johnson conducted the roll call of the members present

a. Municipal Screening Board Representatives:

PRESENT:

District 1	Jesse Story, City of Hibbing
District 2	Rich Clauson, City of Crookston
District 3 (Alternate)	Justin Femrite, City of Elk River
District 4	Jon Pratt, City of Detroit Lakes
Metro West	Rod Rue, City of Eden Prairie
District 6	Steven Lang, City of Austin
District 7	Jeffrey Johnson, City of Mankato
District 8	John Rodeberg, City of Glencoe
Metro East	Klayton Eckles, City of Woodbury
City of Duluth	Cindy Voigt
City of Minneapolis	Don Elwood
City of Rochester	Richard Freese
City of St. Paul	Paul Kurtz

ABSENT:

None

b. Recognized Screening Board Alternates:

District 2	Craig Gray, City of Bemidji
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c. Recognized Minnesota Department of Transportation Personnel:

Ted Schoenecker	Deputy State Aid Engineer
Patti Loken	State Aid Programs Engineer
Walter Leu	District 1 State Aid Engineer
Tim Donaghue	Assistant District 2 State Aid Engineer
Kelvin Howieson	District 3 State Aid Engineer
Merle Earley	District 4 State Aid Engineer
Fausto Cabral	District 6 State Aid Engineer
Gordy Regenscheid	District 7 State Aid Engineer
Todd Broadwell	District 8 State Aid Engineer
Stu Peterson	Assistant District 8 State Aid Engineer
Dan Erickson	Metro State Aid Engineer
Julie Dresel	Assistant Metro State Aid Engineer
Julee Puffer	Assistant Manager, MSAS Needs Unit

d. Recognized others in attendance:

Dave Sonneberg	CEAM Legislative Committee Chair
Lee Gustafson	Needs Study Task Force (NSTF) Chair
Larry Veek	City of Minneapolis
Mike VanBeusekom	City of St. Paul
Shane Waterman	City of Marshall

III. Bill Lanoux reviewed the 2014 Municipal State Aid Street Needs Report.

- a. **Mr. Lanoux** directed everyone's attention to page 1 and pointed out that Chisago City is now a MSAS eligible city beginning in 2015 with an estimated population of 5,000 bringing the total number for cities to 148 for 2015.

Mr. Lanoux directed everyone's attention to page 3 noting that the MSB terms of Rich Clauson from District 2, Brad DeWolf from District 3, and John Rodeberg from District 8 were ending. He also noted that the NSS terms of Steve Bot and the UCFS terms of Jeff Hulsether were also ending.

Mr. Lanoux directed everyone's attention to pages 5-6 which is the history of the MSB going back to 1990.

- b. **Mr. Lanoux** directed everyone's attention to pages 7-40, the Spring MSB minutes. On page 21 of the minutes, there was a motion to approve the unit price recommendations from the NSS and the prices are located on page 128 of the fall book. On page 25 of the minutes, there was a resolution passed regarding certified complete cities allowing year-to-year carryover of the population apportionment for these cities and the wording is on page 124 of the fall book. He also pointed out that the MSB tabled the revised MSB resolutions in the back of the spring book and they have been revised for clarity and are in the fall book. He

also mentioned a resolution was adopted regarding traffic signal legs. On page 36 of the minutes, a resolution was adopted with regard to the phase-in of the new system and the wording on page 130 of the fall book. Mr. Lanoux then solicited comments on the minutes.

Mr. Johnson mentioned that there was a note inadvertently left on page 21 that should be removed from the final minutes.

Chair Bot called for a motion to approve the May 2014 Screening Board minutes.

Motion by Mr. Rodeberg, seconded by Mr. Femrite to approve the minutes as presented with the note on page 21 removed. The motion carried unanimously.

- c. **Mr. Lanoux** brought everyone's attention to page 41, the minutes of the August NSTF meeting. He stated that within the minutes, the NSTF feels satisfied with their results and will recommend that their work is complete. Mr. Lanoux then solicited comments on the minutes. There were none.
- d. **Mr. Lanoux** brought everyone's attention to page 46 and mentioned that there were five cities that fell below the 5,000-population threshold in the 2010 census. The cities are Byron, Circle Pines, Dayton, La Crescent, and Medina; these cities had until the 2014 population estimate, that will be released in 2015 and used for the 2016 distribution, to have a population over 5,000 to remain MSAS cities. Two cities, La Crescent and Dayton do not have a population estimate over 5,000 and 2015 will be the last distribution for those two cities unless a population estimate conducted in August shows a population over 5,000. He mentioned again that Chisago City has come onto the system.

Mr. Lanoux brought everyone's attention to page 47, the tentative 2015 MSAS population estimates for cities based on the greater of the 2010 Federal population census or current State Demographer estimates with the population estimates on pages 48-50.

Mr. Lanoux brought everyone's attention to pages 51-54, the tentative 2015 MSAS population allocations for cities. He mentioned that these estimates were made using last year's apportionment with differences between 2014 and 2015 apportionments on the far right portion of the table.

- e. **Mr. Lanoux** brought everyone's attention to page 55 titled "Mileage, needs, and apportionment" and also presented the historical information on pages 56-57 of the book mentioning that, in this estimate, every \$1000 in adjusted needs generates \$12.04 of actual dollars.

- f. **Mr. Lanoux** brought everyone's attention to the two inserts contained within the fall book, with the first insert showing the item-by-item breakdown of the needs. He mentioned that in 2014 the highest needs per mile was Minneapolis and the lowest was Dayton. This differed from 2013, where Crookston was the highest and St. Joseph was the lowest. He credited the closing of the dollar gap between the highest and lowest cities to the new needs program.

Mr. Lanoux brought everyone's attention to page 60, the comparison of needs between 2012 and 2014 reminding everyone that the needs were frozen in 2014 while the new program was being developed. He pointed out the major differences in gravel base and bituminous surfacing needs between the two years. He also mentioned the eight design groups instead of the two that were used previously and that all segments are generating needs, not just deficient segments as in the past.

- g. **Mr. Lanoux** brought everyone's attention to page 61, the 2014 mileage report and the second insert and reviewed the information noting that the report distinguishes between the total system length and the total needs length .

Mr. Lanoux brought everyone's attention to page 63, the the mileage comparison chart between 2013 and 2014 and reviewed the information. noting that the growth in the overall system by 48.41-miles since 2013.

- h. **Mr. Lanoux** brought everyone's attention to page 64, the tentative 2015 construction needs and construction needs allocations pointing out that the last column to the right on pages 65-68 are the tentative adjusted restricted construction needs and referred the column as the bottom line of what cities needs are. Pages 69-71, the tentative 2015 construction needs allocations stating that these estimated Needs allocations are based on the revenue received last year. He also reviewed how the construction needs apportionment is calculated on page 71.

- i. **Mr. Lanoux** then read the details of the phase in on page 72. The wording differs slightly from the new resolution adopted by the MSB in April of 2014. The phase in (restriction) is a seven year phase in process to mitigate the effects of the new Needs calculations. In any one year, a city's Needs cannot decrease more than 5 % points or increase more than 10 % points from the statewide percent of change of all cities.

- j. **Mr. Lanoux** brought everyone's attention to page 80, and explained the excess balance adjustment redistributed as low balance incentive adjustment to the Needs.. The information is contained in pages 79-84 of the fall book.

Mr. Lanoux brought everyone's attention to page 85, where after-the-fact adjustments begin and explained the after-the fact adjustments on pages 85-89.

Mr. Lanoux brought everyone's attention to page 90 and stated that there were no trunk highway turn-backs eligible for maintenance this year.

- k. **Mr. Lanoux** brought everyone's attention to page 91-94, which will be considered tomorrow.
- l. **Mr. Lanoux** brought everyone's attention to pages 94-96, which displays the total tentative allocations by dollar amount and distribution percentage of the total apportionment by city, again reminding the MSB that the figures are using last year's dollars.
- m. **Mr. Lanoux** brought everyone's attention to page 97-99, which compares the 2014 total actual to the 2015 tentative total allocations and differences shown in both dollar amount and distribution percentage of the total apportionment by city, noting that the highest percent of increase was Waite Park and the highest percent of decrease was West St. Paul by +7.1 and -9.0 percent respectively with 65 cities increasing and 82 cities decreasing their total estimated allocation.
- n. **Mr. Lanoux** brought everyone's attention to page 100-103, which ranks the cities by 2015 tentative money needs allocation per need mile and also displays their respective total needs mileage and reviewed the data.

Chair Bot reminded the MSB that there would be discussion on these and other topics, but would not be taking any action until tomorrow morning.

- o. **Mr. Lanoux** brought everyone's attention to page 104, the beginning of other topics.
 - i. **Mr. Lanoux** explained that the 90P subaccount was set up by MnDOT based on a resolution adopted by the MSB in May 2014 and account summary is contained on page 106. This resolution better defines the method of calculating the amount of a city's construction allotment that is allowed to be spend on its local roadway system after a city has been Certified Complete.
 - ii. **Mr. Lanoux** reviewed the municipal state aid construction account advance guidelines contained on pages 107-109.
 - iii. **Mr. Lanoux** reviewed the history of the administrative and research accounts on page 110 and pointed out an error in the figure displayed in the research account allotment for 2015, it should be 773,025, not 773,075 as displayed in the book. He also reminded the MSB that there would be a motion on the research account tomorrow.

- iv. **Mr. Lanoux** noted that the cities have been allowed to allocate a portion of their MSAS funds to the MSAS revolving loan fund. He noted this option was repealed by 2014 Session Law Chapter 227, Article 1, Section 23. See page 111. .
- v. **Mr. Lanoux** reviewed the county highway turnback policy contained on pages 112-113.
- vi. **Mr. Lanoux** began reviewing the current resolutions of the MSB on pages 114-122 by saying that many members found the formatting of the current resolutions in the spring book confusing so the current resolutions with no changes are presented on pages 114-122 and the proposed changes to those resolutions begin on page 123.
- vii. **Mr. Lanoux** reviewed the proposed changes to the current resolutions stating the proposed changes were made from comments and edits from MSB members since the spring meeting. He also mentioned in the proposed resolutions on page 125 there was language inserted in bold to provide clarity to the certified complete cities resolution adopted by the MSB in May 2014 This bolded paragraph needs to be approved by the MSB tomorrow.

Chair Bot asked if there was any clarification needed on the added paragraph in bold on page 125.

Mr. Lanoux continued clarifying that the heading on the third column of the table on page 126 was changed from design groups to needs generation data. He also pointed out the language adopted by the MSB in May regarding traffic signals is on page 128. Additionally he pointed out he is recommending minor wording changes for clarity on the phase in resolution on page 130 that was adopted by resolution of the MSB in May 2014.

Chair Bot stated that if members wanted to use the wording of percentage points versus percentage, it could be incorporated by modification of the resolutions if the MSB chooses.

Mr. Rodeberg commented that there was a struggle to provide appropriate understandable wording and that Mr. Lanoux has provided the needed clarity.

Chair Bot asked if there was any further discussion on the topic of percentage versus percentage points. There was none. He stated that if the board likes the wording provided by Mr. Lanoux, action could be taken on this and the other items in the resolutions tomorrow.

Mr. Lanoux continued and completed reviewing the proposed revisions on page 123. He also asked that members review the proposed changes to the resolutions and provide any wording that may make understanding the resolutions simpler.

Ms. Voigt provided comment on the language contained on page 124 regarding new cities needs, and the first paragraph the wording "the lowest cost per mile of any other participating city" should be modified to read "have its needs determined based on the zero ADT assigned to the eligible mileage until the DSAE approves the traffic counts." She also pointed out that in the second paragraph under new cities needs on page 124 that State Aid Operational Rule 8820.18 subp. 4 may be wrong and that subpart 2 is the appropriate subpart. She also suggested that the language in the fourth paragraph under Certified Complete Cities on page 124 should be changed as follows; the words proportional; amount should be replaced with proportion and remove shall from the sentence.

Mr. Lanoux requested **Ms. Voigt** to clarify her change to the first paragraph on page 124 with regard to new cities.

Ms. Voigt explained her position and reiterated that she would like it to say "have its money needs determined based on the zero ADT assigned to the eligible mileage until the DSAE approves the traffic counts."

Chair Bot called on **Mr. Gustafson**

Mr. Gustafson stated that **Ms. Voigt's** comments capture the intent of the NSTF.

Chair Bot called on **Ms. Voigt**.

Ms. Voigt stated that the wording "Quantities Based on a One Mile Section" were too small, could not be read in the table on page 126, and said the column heading "PROPOSED NEEDS WIDTH" should be changed to NEEDS WIDTH. On page 127 she said she was confused by the language contained within the fifth paragraph and the heading "NSS recommended Storm Sewer Costs for 2014" when the heading of the second column is "2011 Total cost per mile."

Mr. Lanoux stated that the changes would be made based on her comments.

Ms. Voigt also suggested that the wording "That the quantity used for" in the fourth paragraph be changed to "The value of the structure needs" in the fourth paragraph on page 128. She also stated that she had trouble inputting her box culvert needs based on the program because it was so

new based and the direction given in May and now we've had a new example figure that clarified that and she thought if we took the box culvert width and use it instead of the centerline length in the fourth paragraph on page 128 it would match the new figure on page 126 and that's not the centerline length.

Chair Bot asked **Ms. Voigt** to clarify what she meant by using value and to clarify.

Ms. Voigt stated that the second red paragraph on page 128 the word quantity should be changed to value as she felt value was better terminology than quantity. She also stated that "Engineering Unit Price" should be changed to "Engineering Percentage" in the seventh paragraph with the remaining portion of the sentence stating the result is then added to the other unit costs. She also stated that she could leave her notes with the MSAS unit and that **Mr. Lanoux** has a copy of her notes. She went on to comment that on page 129, the composition of a municipality's basic mileage is duplicated in the February 1959 and November 1965 resolutions and that one should be stricken. She also stated that on page 130 under needs adjustments, the word "ove" should be changed to over in the first sentence.

Chair Bot then thanked **Ms. Voigt** for her comments and clarifications and then asked for further comment prior to moving on.

Mr. Rue asked for clarification on the value versus quantity proposed by **Ms. Voigt** on page 128 as the quantity or value is the area of the structure and suggested that that it be changed to the quantity or value of the area because that is what is being calculated; the total area of all of your box culverts and bridges.

Mr. Lanoux commented that he did not know if he liked the word quantity either based on how he knew these box culverts are calculated where the width of the box culvert is a very important field. He also stated he understood why **Ms. Voigt** suggested value.

Mr. Rue stated that what you are really trying to determine is the square foot area that is going to be used in the calculation for the unit price per square foot.

Mr. Johnson suggested that wording could be modified to say the "area in square feet".

Ms. Voigt stated that she liked **Mr. Johnson's** suggestion of utilizing the "area in square feet".

Chair Bot asked for further comments or clarifications on **Ms. Voigt's** suggestions. There was no further discussion and **Chair Bot** moved onto other discussion items.

III. Other Discussion Items

a. Needs Study Task Force update - Mr. Gustafson

i. Review Combined Subcommittee meeting minutes on pages 41-45

Mr. Gustafson reviewed the Combined Subcommittee meeting minutes.

Chair Bot asked **Mr. Gustafson** if there was anything substantive that he wanted to point out.

Mr. Gustafson stated that there were nothing substantial to point out, but he liked Ms. Voigt's comments and suggestions. He also stated he thought it would be helpful to have one copy to work from.

Mr. Eckles pointed out that with the production of the memory book, we are trying to document all of these changes such as the Average SS Cost outlined in the table on page 127 and on structures where we also divide the value by two to not magnify the impact of those needs too much. He felt that the memory book would be a good place to document these two items if future discussions came up regarding the decisions made. He also suggested adding "to avoid overweighing storm sewer needs the average storm sewer costs be one-half of the actual" to the sentence on page 127 that ends with "...downward for the other ADT groups." He also suggested that similar language be added to structure needs.

Chair Bot asked for comment on **Mr. Eckles** suggestion stating that the NSS struggled with percentage versus pure numbers and he needed to refer back to meeting minutes and compare it with the memory book to understand and that it should be stated in both the memory book and MSB resolutions.

There were inaudible comments from **Mr. Gustafson**

Chair Bot asked **Ms. Skallman** and **Mr. Lanoux** if all of the resolutions would need action or if just the calculations needed actions to move forward tomorrow morning.

Mr. Lanoux stated he first wanted to address **Ms. Voigt's** earlier comment that page 124 under new cities needs where she suggested the first paragraph the wording "the lowest cost per mile of any other participating city" should be modified to read "have its money needs determined based on the zero ADT assigned to the eligible mileage until

the DSAE approves the traffic counts." He said that this modification would end up changing calculations with Chisago City coming aboard and it should be looked at, as it is not just a minor change.

There were inaudible comments from **Mr. Gustafson**

Mr. Johnson pointed out that other part of the first sentence states "but has not submitted its Needs to the DSAE by December 1..." that causes and additional condition to come into effect.

Ms. Skallman stated that if it was the intent of the NSS for the zero ADT category to be used rather than the lowest cost of any other participating category then it should be used. She mentioned that it was a significant difference to what has been done in the past and that if it was the intent of the NSS, it should be adopted to do the right thing for Chisago City.

Mr. Rue stated the confusing part is the wording any other participating city and did this mean the lowest cost per mile. If so either suggestion works.

Chair Bot asked **Mr. Rue** if he meant that the lowest cost per mile meant the same as using the zero ADT group.

Mr. Rue stated yes.

Mr. Gustafson asked if **Ms. Voigt** would be willing to wait until the spring meeting to adopt this suggestion.

Ms. Voigt stated that her comments were based on her understanding of how the NSTF was taking those needs based on the ADT and that a new user would not understand what the lowest cost mile meant and she was trying to tie it to the ADT group table. She went on to further state that she would be willing to wait until spring if we could get one nice master document.

Ms. Skallman stated that by waiting a new city would get the lowest overall needs cost per mile of any other city (by adding up all of their segments) giving an example that if the lowest cost per mile were \$11.00 per needs mile and some cities with expensive costs get \$20.00 per needs mile and this is different than if you use the zero ADT group for all of their segments. If you want to wait and Chisago City is grandfathered under the old method, but was wondering if it was worth waiting. She sided with **Ms. Voigt** and stated we should move on if we can.

Mr. Gustafson stated that it was the intent of the NSTF to utilize the zero ADT for new cities that did not submit by December 1st for the past couple of years.

Ms Skallman stated that is different (the intent of the NSTF) than you will get if you leave it worded as it is today and reviewed how new cities would be calculated if the wording is left as is.

Mr. Gustafson suggested that the MSB adopt **Ms. Voigt's** suggestion for new cities.

Chair Bot asked **Ms. Skallman** for clarification directing her to page 103 pointing out that Medina had the lowest needs cost per mile asking if the city of Medina's value would be used under the current resolution if Chisago City did not get their counts into the DSAE by the December 1st deadline.

Ms. Skallman stated yes and that value (city of Medina) is higher than if you use the zero ADT group.

Mr. Femrite asked **Chair Bot** for clarification when he stated the lowest average cost per mile when the resolution stated lowest cost per mile and does that mean the lowest average or the zero ADT group, as the word average is not worded in the current resolution.

Ms. Skallman stated that average is not contained within the resolution, she was explaining how Mr. Johnston applied the calculation in the past and if that is not the intent of the NSTF, it should be changed.

Mr. Rodeberg asked for clarification since St. Joseph has the lowest cost per need mile.

Ms. Skallman agreed that St. Joseph had the lowest allocation per need mile, not Medina.

Mr. Elwood stated he looked forwarded to a spirited discussion regarding this subject in the evening.

Chair Bot asked if there was anything else suggested that could not wait until the spring that would affect distributions if the MSB wanted to have semantics of the resolutions of the MSB corrected.

Mr. Lanoux stated that the MSB could wait until spring asking if anyone else from State Aid has any comments.

Mr. Johnson stated that he did not see any reason to wait as we are mostly talking about changing semantics within the resolutions.

Mr. Pratt stated he agreed with **Mr. Gustafson** in wanting to get a clean copy, but fears that we will be at the same spot next year. He agreed with **Mr. Johnson** with regard to semantics and issues brought up by **Ms. Voigt** feeling that the MSB should address these items and just take care of it.

Chair Bot reviewed and asked for further discussion with regard to the MSB resolutions. There was none.

ii. Discuss handouts and review letters/recommendation from the NSTF.

Chair Bot invited **Mr. Gustafson** to discuss handouts and review letters/recommendations from the NSTF.

Mr. Gustafson reviewed the minutes of the combined NSS and NSTF as well as the handouts recommending the MSB declare the work of the NSTF complete and disband the NSTF.

Chair Bot opened the floor for discussion or questions for the NSTF thanking the NSTF for their work.

Ms. Voigt thanked **Mr. Gustafson** and all of the other members of the NSTF. She stated that she found minor typographical errors within the memory book and would forward suggested corrections to him. She went on to say she thought the memory book was well done and included her corrections and suggestions.

Mr. Gustafson stated he appreciated discussions with **Ms. Voigt** and thanked her for her work in reviewing the work of the NSTF.

Chair Bot asked for further discussion or questions for the NSTF.

Mr. Freese stated he was concerned about **Mr. Gustafson's** comments today as well as discussions within his prescreening meeting regarding the possibility of the timeframe of the phase in being changed. He went on to state that he personally was not a fan of it, but would vote in support of it, but does not want to see it discussed every year and that the phase in, the conditions of the phase in, and the details of the phase in are not very well documented and should be documented within the book in the form of a resolution.

Mr. Gustafson stated the discussions of the NSTF are contained within the minutes of the task force and the minutes of the task force are on the CEAM website.

Chair Bot stated yes and that the conditions of the phase in were adopted in resolution format in May 2014.

Mr. Gustafson stated that **Mr. Freese's** question is related to the rational used to determine the phase in period rather than the conditions.

Mr. Freese stated that documenting the rational used would help substantiate for future reference why the phase in period was seven years and would not appear to a new person on the MSB to be an arbitrary time period.

Mr. Gustafson stated that the reason for the memory book and all of the NSTF minutes were to answer questions brought up by **Mr. Freese** that would come up in the future. He stated that he did not feel that placing the rational of the phase in of the NSTF in the form of a resolution would help to answer every question. He went on to say the memory book was intended to capture all of the discussions of the NSTF.

Chair Bot reiterated that the phase in period was adopted by resolution in May and would need to be changed by motion tomorrow if desired. He then asked for further discussion.

Mr. Freese asked that the MSB consider removing the wording that the phase in be reviewed annually in the third sentence under Phase In (Restriction) on page 130 of the book.

Chair Bot clarified that **Mr. Freese's** suggestion was to delete the sentence that the phase in be reviewed annually by the Municipal Screening Board to determine if the Phase in period should be revised. He also reiterated that the matter was discussed and adopted last May.

Mr. Freese stated that it would be his suggestion and it would respect all of the work that has went into making this recommendation.

Chair Bot asked for further discussion.

Mr. Johnson stated that he was an alternate member when the phase in was first discussed and it was his understanding at that time the maximum timeframe the phase in period would run was seven years and the idea was that some of the cities that have gains and losses would be washed out by the seven year period and if it happened to be earlier, that the MSB would end the phase in period. The discussion at the time was that the

phase in period would peter out at year five, but the MSB decided on the seven-year phase in period, but it could end at anytime earlier once we see the fluctuations go away with the new system.

Chair Bot asked for further discussion.

Ms. Voigt stated that she had the same recollection as **Mr. Johnson** and went on to say that we would not have a phase in without a phase out.

Chair Bot asked for further discussion. There was none.

b. Legislative Update - Mr. Sonnenberg

Mr. Sonnenberg gave the legislative update with comments from **Chair Bot** regarding funding for local streets, Army Corps of Engineering permits and the joint CEAM MCEA meeting tomorrow morning; **Mr. Freese** regarding the MnDOT cost participation policy and sidewalk improvement districts; and **Mr. Pratt** regarding sales tax exemption for cities.

c. State Aid Report - Julie Skallman and others.

Ms. Skallman began her report recommending members attend the joint CEAM MCEA meeting tomorrow morning. Since this was her last report, she summarized her service as the State Aid Engineer, chronicled highlights of her period of service, and thanked the MSB members and City Engineers of the 148 member cities for their support. She also reviewed the status of the future new State Aid Engineer stating that a final decision on a candidate will be made after final interviews scheduled for the end of October and asked the MSB to give the same level of support to the new State Aid Engineer as she has received.

Chair Bot thanked **Ms. Skallman** for her service.

d. Decision Chronicle discussion

Chair Bot gave a brief review of the status of the decision chronicle and asked **Mr. Gustafson** and members of the MSB if there were any comments on the Decision Chronicle. There were none.

e. Other topics

Chair Bot asked if there were any other topics for discussion for the day.

Ms. Voigt stated she would like State Aid or one of the standing committees to project the distributions for future years for budgeting purposes.

Chair Bot then asked if there were any other topics. There were none.

IV. Motion to continue

Chair Bot called for a motion to continue.

Motion at 3:02 p.m. to continue at 8:30 a.m. Wednesday by Mr. Johnson, seconded by Mr. Femrite to continue. The motion carried unanimously.

**Municipal Screening Board
Meeting Minutes
October 21-22, 2014
Breezy Point Resort, Breezy Point, MN**

Wednesday Session, October 22, 2014

I. Call to Order and Welcome by Chair Bot at 8:34 a.m.

II. Members present

a. Municipal Screening Board Representatives:

PRESENT:

District 1	Jesse Story, City of Hibbing
District 2	Rich Clauson, City of Crookston
District 3 (Alternate)	Justin Femrite, City of Elk River
District 4	Jon Pratt, City of Detroit Lakes
Metro West	Rod Rue, City of Eden Prairie
District 6	Steven Lang, City of Austin
District 7	Jeffrey Johnson, City of Mankato
District 8	John Rodeberg, City of Glencoe
Metro East	Klayton Eckles, City of Woodbury
City of Duluth	Cindy Voigt
City of Minneapolis	Don Elwood
City of Rochester	Richard Freese
City of St. Paul	Paul Kurtz

ABSENT:

None

III. Review Tuesday's subjects and take action on specific items

a. Needs apportionment data on pages 58-93.

Chair Bot introduced the first item for action by the MSB; action on the needs and apportionment data on pages 58-93 of the book and opened the floor for discussion.

Motion by Mr. Rodeberg, seconded by Mr. Pratt to approve needs apportionment data on pages 58-93 of the book. The motion carried unanimously.

b. 2015 research account on page 110.

Chair Bot introduced the second item for action by the MSB; action on the 2015 research account on page 110 of the book and opened the floor for discussion.

Motion by Mr. Clauson, seconded by Mr. Rue to approve the 2015 research account on page 110 of the book. The motion carried unanimously.

- c. Revised MSB Resolutions on pages 123-133.

Chair Bot introduced the third item for action by the MSB; action on the revised MSB Resolutions on page 123-133 of the book and opened the floor for discussion.

Mr. Johnson handed out copies of proposed revised MSB resolutions to members of the MSB to consider suggestions by **Mr. Gustafson** with further modifications by **Ms. Voigt** and himself. He stated that the proposed resolutions handed out to MSB members were essentially the same as the ones contained within the book with minor changes in semantics, grammar, and punctuation suggested by **Mr. Gustafson** that were also previously emailed out approximately one week ago. On the second page, he stated he worked with **Ms. Voigt** and proposed the word "money" be stricken from the first paragraph under the section for New Cities Needs and the words "determined upon the lowest cost per mile of any other participating city" also be stricken and replaced with "based upon zero ADT assigned to the eligible mileage until the DSAE approves the traffic counts." Under Certified Complete Cities on the second page he proposed the words "proportional amount" be stricken and replaced with "proportion" and the word "based" be stricken from the third paragraph. On the fourth page, he proposed the word "proposed" be stricken from the second column of the table and that the text "Quantities Based on a One Mile Section" be made larger. He went on to say that the text and values in the second column of the table on the fifth page be updated to reflect 2013 costs. On the sixth page he proposed the word "quantity" be stricken from the fourth paragraph, be replaced with "area in square feet", the words "centerline length" be stricken and replaced with the words "box culvert width." In the paragraph above the table titled 2014 Unit Price recommendations, he proposed the words "Engineering Unit Price" and "and adding to the total of all" be stricken and replaced with "percentage, the result is added to." On page eight, he proposed the words "The total mileage of local streets, county roads and county road turnbacks on corporate limits will be included in the municipality's basic street mileage" be stricken from the November 1965 resolution since the same wording exists in the February 1959 resolution.

Chair Bot summarized **Mr. Johnson's** proposed changes were changes to the document provided by **Mr. Gustafson** of the NSTF. He went on to state that what was not included was wording of suggestions by **Mr. Eckles** regarding clarifying the weighting of storm sewer and bridges. He also mentioned comment by **Mr. Lanoux** yesterday about using percentage points on page eight under

Needs Adjustments along with **Mr. Freese's** comments regarding the phase in from yesterday. He opened the floor up for discussions on the proposed revisions provided by **Mr. Gustafson** with modifications provided by **Mr. Johnson** and **Ms. Voigt**.

Mr. Rodeberg asked if the paragraph regarding box culverts was to also be used for bridges and the proposed language clarifies box culverts, but not bridges.

Mr. Lanoux stated that the paragraph would be for bridges and box culverts referring to yesterday's discussion stating that the diagrams on the website is the centerline length and box culvert width are the same thing really and the confusion is when length and width are compared. He went on to say that, they, **Ms. Voigt** and **Mr. Johnson**, were looking for clarity on box culverts.

Mr. Rodeberg stated that now there is less clarity regarding bridges.

Mr. Lanoux stated he would like to see both items in there.

Mr. Rodeberg stated both need to be covered.

Mr. Lanoux agreed.

Mr. Johnson stated that maybe two sentences could be under structures, one for bridges and one for box culverts.

Chair Bot stated that he saw comments made by Mr. Rodeberg to have two sentences, one for bridges and one for box culverts included as a friendly amendment to the proposed revised resolutions. He called for further discussion on the suggested changes by **Mr. Gustafson**, **Ms. Voigt**, and **Mr. Johnson**.

Mr. Freese asked why any needs are being provided to new cities that do not provide proper documentation by December 1 under new cities needs.

Mr. Lanoux stated that he believed that is what is approved by either current resolution or statute, but was not sure and also went on to say that is the way it has been done for some time. He told **Mr. Freese** that if he wanted to discuss changing it, that now is the time.

Chair Bot stated that **Ms. Skallman** was reviewing the rules to verify. He went on to say that, his feeling was that once they hit the 5,000 population threshold confirmed by the demographer they are entitled to money, but this should be verified. He called for further discussion, there was none.

Chair Bot stated he was looking for a motion adopting the proposed modified resolutions from **Mr. Gustafson** with modification by **Ms. Voigt** and **Mr. Johnson** as presented and would like separate consideration for proposals

made by **Mr. Eckles**, **Mr. Freese**, and **Mr. Lanoux** or anyone else who has proposals.

Motion by Mr. Johnson, seconded by Mr. Pratt to approve proposed modified resolutions provided by Mr. Gustafson with modifications by Ms. Voigt and Mr. Johnson. The motion carried unanimously.

Chair Bot asked **Mr. Lanoux** to discuss his proposal regarding utilizing percentage points versus percentage on page 130 of the book.

Mr. Lanoux explained his understanding of percentage points versus percentage by giving an example that twenty percent is not ten percent more than ten percent, but rather 100 percent more, going on to say that twenty percent is actually ten percentage points more than ten percent. He went on to say he was trying to provide clarity to two different kinds of math and that is the purpose of his suggestion to change the wording from “percentage change” to “change in percentage points” on page 130 of the book.

Chair Bot called for further discussion and questions on the matter discussed by **Mr. Lanoux**.

Mr. Rodeberg stated he liked the proposal presented by **Mr. Lanoux**.

Chair Bot called for further discussion, there was none.

Motion by Mr. Rodeberg, seconded by Mr. Femrite to approve exchanging the word percentage with percentage points on page 130 of the book. The motion carried unanimously.

Chair Bot called on **Mr. Eckles** to discuss and propose language regarding the overweighting of structures and storm sewers in the book.

Mr. Eckles referring to **Mr. Gustafson** from the NSTF, stated there was always another funding source for bridges and the purpose of reducing the structure needs by half was to ensure that the majority of funding would not go to funding bridges. He went on to say storm sewer was reduced in a similar way as to not have all funding go to structures and storm sewers rather than roadway needs. He asked **Mr. Gustafson** if he wanted to add anything to his statement.

Mr. Gustafson stated the rationale of the decisions surrounding reducing structure needs are in the memory book and the decision to reduce the needs amount by half was due to all of the additional funding sources available for funding structures as well as the fact that structures last two to three times longer than roads. He went on to say storm sewer needs were likewise reduced.

Mr. Rodeberg agreed with the statement provided by **Mr. Gustafson** stating that the complete storm sewer was averaged with the partial storm sewer from the previous way of determining needs. He went on to say the consultant provided the top, the bottom number, and the NSTF filled in the categories between. Remaining remarks by **Mr. Gustafson** were inaudible.

Mr. Eckles ask if there was reason to place the decision rationale in the needs book so users would understand why structure and storm sewer needs are based on less than the full amount even though the rationale is contained in the memory book. He suggested adding the following to the storm sewer needs section, "to avoid overweighing storm sewer needs, the average storm sewer cost will be reduced by half."

Mr. Gustafson asked **Mr. Eckles** was referring to inserting the sentence into the resolutions.

Mr. Eckles stated yes.

Mr. Gustafson stated the NSTF had suggested putting the information into the needs book, not the resolutions as bullet points. He stated that he would be more than happy to work with **Mr. Lanoux** in placing the information in the needs book, but felt that it did not belong in the resolutions.

Mr. Eckles stated he was fine with that if State Aid personnel could get the rationale into the book.

Mr. Lanoux stated that State Aid could work with **Mr. Gustafson** in placing the rationale on reduction storm sewer and structure needs in the book.

Chair Bot clarified that the direction was to have State Aid take language from the NSTF contained within the memory book and place it in the needs book explaining the rational on reducing the storm sewer and structure needs for users to understand.

Mr. Elwood stated that the NSTF made a recommendation to the MSB that was approved and the concern on storm sewer and bridges is that there will be confusion moving forward when we come to this issue every time and in an effort to not make us go back to the memory book we are going to direct State Aid to pull language from the memory book and insert it into the needs book, but not as a resolution.

Mr. Gustafson stated yes.

Mr. Rue said he had a question about the chart in the resolution, referring to the 2011 cost and where there was discussion regarding the 2013 cost. His question surrounded the relevance of that cost when the last column is really what is

relevant and wanted to understand what that column (the 2011 column) represents or why it is important to have it in there.

Mr. Lanoux stated that the last column is all that really needs to be in the resolution and the column (the 2011 column) was there to show how the historically came up with the calculation, but the last column is all that really needs to be in the resolution.

Mr. Eckles asked if the chart with the actual numbers needed to be contained within the resolutions at all.

Chair Bot stated that the chart does highlight the reduction of storm sewer needs by half.

Mr. Gustafson explained the rationale behind it being placed within the resolutions.

Chair Bot stated that based on the motion adopted previously, the chart for storm sewer would remain within the resolutions and could be considered for removal in a future meeting, but it does show how they got to the calculations, which might be important. He called for further discussion. There was none.

Motion by Mr. Eckles, second by Mr. Elwood to direct State Aid to come up with descriptive language in the book to describe how storm sewer and bridge needs are determined using the rationale determined by the NSTF. Chair Bot asked for further discussion.

Ms. Voigt stated that she believed the language was already there, it is written exactly how it is calculated and stated that she would not support this motion because it (the language) is already laid out.

Chair Bot asked **Ms. Voigt** to clarify her statement asking her if it was already there for the storm sewer because of the divide by two.

Ms. Voigt read the following from the book, "That the Unit Cost per mile for Storm Sewer Construction be calculated for the highest ADT group and be prorated downward for the other ADT groups. That the Unit Cost for the highest ADT group, based on the average costs of all Storm Sewer Construction on the MSAS system in the previous year, will be provided to State Aid by the MnDOT Hydraulics Office and the proration will be approved by the Municipal Screening Board." She went on to say that, it is important to have the chart to show how all of this is called out and this is all pretty clear she just wanted the 2011 cleaned up so that it matched with the prior year. She felt that further study was not needed.

Mr. Eckles clarified that it was not a resolution he was proposing, it was just a motion to give direction to State Aid to make sure the book, as it goes through the calculations, spelled out the reductions for both storm sewer and structures so that it is clear to the readers each year why the needs are reduced the way they are.

Chair Bot clarified that they would be placed under the unit price recommendations in the book, not in the resolutions. He asked for further discussion. There was none and he called for a vote on the motion.

All members other than Mr. Freese, who cast a dissenting vote, approved the motion.

Chair Bot called on **Mr. Freese**

Mr. Freese stated that the language on page 127 did not explain anything. He referred to it describing the average cost of storm sewer construction and to him it was an after the fact type calculation. He went on to say that it is what was submitted for construction and has nothing to do with whether it is an averaging of complete and an averaging of partial, it is just all and in any one year it could be all complete or it could be all partial again depending understanding what your definition of complete and partial is. He stated he was just asking **Mr. Rodeberg** what complete and partial meant in this context and he does not believe it clear at all what it is. With the formulas shown, that is one thing and the table, but the words themselves it is just the average of all storm sewer construction, whether it is pipes, catch basins, inlets, or what it might be; so if we are going to clarify it, I think we need to clarify more than the methodology.

Mr. Gustafson stated that what is there is the actual construction costs as provided by the hydraulics office.

Mr. Freese stated that the hydraulics specialist does not provide the actual cost, we do.

An unidentified person asked don't they (the hydraulics office) provide the actual cost? He went on to state he was pretty sure they did.

Chair Bot stated that they are giving it (the storm sewer costs) based on actual costs.

Mr. Freese stated which we give them.

Chair Bot stated yes each city ultimately gives it (the storm sewer costs) with each project and they ultimately give it back to us as a recommendation under two sections, partial and complete and the proration shall be approved by the

MSB, the split between the partial and the complete. He then asked **Mr. Freese** if he had a suggestion of how he wanted to see it differently.

Mr. Freese asked if we are averaging the complete costs and averaging the partial costs and then adding them together and dividing by two.

Chair Bot stated his understanding was we receive the average from the hydraulic specialist of all the actual construction costs on the MSAS system for complete and another number for partial and then those are averaged by the screening board which is what I would see as the proration.

Mr. Freese asked so there is three averaging's that are occurring.

Chair Bot stated essentially.

Mr. Freese stated that he did not think that this (the information contained on page 127 of the book) says that.

Chair Bot called on **Mr. Gustafson**

Mr. Gustafson Mr. Gustafson's comments were mostly inaudible.

Chair Bot stated that he did not know, unless **Mr. Freese** had a suggestion, how to clarify that, but that State Aid could be directed to review the language and see if it has enough detail to describe what we are doing.

Mr. Freese asked if the motion just did that.

Chair Bot stated yes, basically, but not in resolution form.

Mr. Freese stated that he felt the resolution by **Mr. Eckles** did not go far enough.

Chair Bot stated that they (MnDOT State Aid) would be coming back with what they put in the book at the next MSB meeting, so that could be discussed then.

Mr. Eckles stated that the beauty of where we are at right now is that MnDOT has been given the task of how to describe this in a way that we can all understand it and then we get to be the judge.

Chair Bot stated that that is happening at State Aid and that resolution did pass and asked if there were any other motions or discussions to bring up on the MSB resolutions.

Mr. Lanoux addressed **Mr. Freese's** earlier question regarding why do we give a city anything if they have not gotten their information to the DSAE by December 1. He went on to say cities over 5,000 in population get an apportionment and

that possibly the question of the deadline is a question for you (the MSB), but is has been like that for a while. He stated he could read the statute, but summarized it again, if the population is over 5,000, they get an apportionment, which includes needs and population. He stated the reference is Minnesota State Statue 162.13.

Chair Bot asked for further discussion on the resolutions of the MSB. There was none.

d. Action on the NSTF recommendation

Chair Bot introduced the action item on the NSTF recommendation to either disband the NSTF thus completing their work or if there is a specific task to give them if there is indeed more work to do. He opened the floor for discussion.

Motion by Mr. Johnson, seconded by Mr. Pratt to disband the NSTF. The motion carried unanimously.

Chair Bot summarized the activities and people associated with the NSTF and thanked them all for their efforts.

e. Call for any other action items

Chair Bot called for any other action items.

Ms. Voigt made a motion to have State Aid estimate for budget purposes the 2016 and 2017 allocations based on the 2015 restricted needs assuming a zero increase in revenue or inflation (to make things simple) and use the same adjustments as the 2015 allocations. She stated that she wanted a flat projection so that if we get additional revenue, it will be better for everyone else so that we can budget for projects over the next two years, especially for the cities that are seeing declining allocations from the previous year.

Chair Bot asked **Ms. Voigt** to clarify if she would like to see that in the book or as a worksheet.

Ms. Voigt stated a handout for the May MSB meeting and results could be sent out via email.

Mr. Lanoux asked if **Ms. Voigt** wanted the data in a format with no increases in unit cost for these assumptions

Ms. Voigt responded yes.

Mr. Johnson stated if that was a motion direct State Aid perform that task, he would support it.

Motion by Ms. Voigt, second by Mr. Johnson to have State Aid estimate for budget purposes the 2016 and 2017 allocations based on the 2015 restricted needs assuming a zero increase in revenue or inflation and use the same adjustments as the 2015 allocations.

Chair Bot asked for discussion or clarification on the motion

Mr. Freese asked if Ms. Voigt wanted it calculated until it all runs out so the impacts for any city are set forth.

Ms. Voigt stated all cities for 2016 and 2017.

Mr. Freese asked once they set it up, why they (State Aid) couldn't just run it to the end. He went on to say it is not that difficult, because the assumption is the same.

Ms. Voigt stated her reasoning is for budget purposes of the next two years and once you get past that based on inflation she felt it would not be very helpful beyond that point (two years) and the projections would be unreliable.

Chair Bot asked **Ms. Voigt** if this is something she would envision continuing to happen every year.

Ms. Voigt stated her motion was to look at the two years, but it would be a good idea to keep an eye on it and that could be the decision of a future MSB decision based on the outcome of her motion.

Chair Bot asked for further discussion on the motion on the floor. There was none and he called for a vote.

The motion carried unanimously.

Chair Bot asked for any further action items. There was none.

II. If necessary

a. Continuation of Legislative Update

Chair Bot asked **Mr. Sonnenberg** if he had anything further to report.

Mr. Sonnenberg replied no.

b. Continuation of State Aid Report

Chair Bot asked **Ms. Skallman**, **Mr. Schoenecker**, and **Mr. Lanoux** if they had anything further to report.

Ms. Skallman, **Mr. Schoenecker**, and **Mr. Lanoux** replied no.

c. Continuation of Decision Chronicle discussion

Chair Bot asked if there was any further discussion on the Decision Chronicle. There was none.

d. Continuation of any other unfinished items from yesterday

Chair Bot asked if there were any other unfinished items from yesterday. There was none.

III. Call for any other discussion topics

Chair Bot Called for any other discussion topics. There was none.

IV. Thank

Chair Bot thanked **Mr. Gustafson**, Chair of the disbanded NSTF; **Mr. Hulsether**, Chair of the UCFS; **Ms. Keely** and **Mr. Exner**, past Chairs of the MSB; all of the **MSB members**; and **Ms. Skallman** State Aid Engineer.

Chair Bot recognized and presented **Ms. Skallman** with a plaque for her service.

V. Next Screening Board Meeting

Chair Bot stated the next MSB meeting would be at Ruttger's Bay Lodge in Deerwood, Minnesota on May 19 and 20, 2015.

VI. Expense Reports

Chair Bot reminded members to fill out their expense reports.

VII. Adjournment

Chair Bot called for a motion to adjourn.

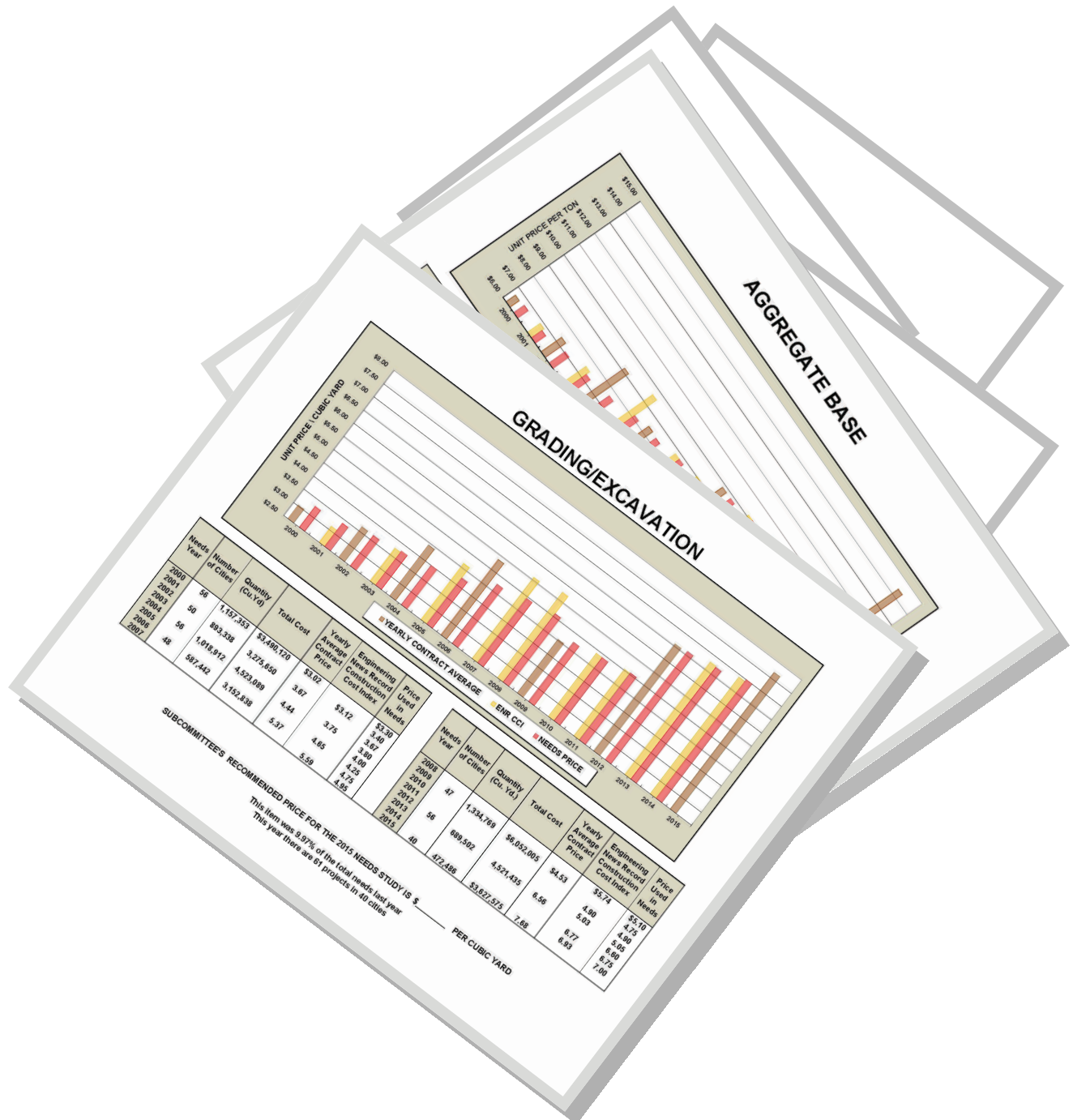
Motion by Ms. Voigt seconded by Mr. Rodeberg to adjourn. The motion carried unanimously and the meeting was adjourned at 9:38 a.m.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'JE Johnson', written over the printed name.

**Jeffrey E. Johnson, PE
Municipal Screening Board Secretary
Mankato City Engineer**

UNIT PRICES



AND GRAPHS

2015 Unit Price Study				Printed: 03/27/15		EXCAVATION			AGGREGATE BASE			ALL BITUMINOUS			SIDEWALK			CURB & GUTTER				
CITY NO.	CITY NAME	SAP/SP	PROJECT NUMBER	DIST NO.	CO. NO.	Excavation - CY		Unit Price	Base 2211 - Ton		Unit Price	All Bit. - 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			
	DISTRICT 1																					
118	Duluth	SAP	118-110-008	1	69	0	0		0	0		5,849	\$398,517	\$68.13	283	\$3,087	\$10.91	123	\$4,428	\$36.00	118-110-008	
118	Duluth	SAP	118-117-003	1	69	No abstract- quantities and prices included within project number 118-110-008																
118	Duluth	SAP	118-126-020	1	69	0	0		33	\$1,518	\$46.00	42	5,544	132.00	903	5,960	6.60	150	5,175	34.50	118-126-020	
118	Duluth	SP	118-133-007	1	69	0	0		167	5,678	34.00	55	6,875	125.00	1,193	5,488	4.60	120	3,960	33.00	118-133-007	
118	Duluth	SP	118-148-008	1	69	10,485	\$152,033	\$14.50	3,973	61,719	15.54	1,286	102,880	80.00	23,275	100,190	4.30	3,993	53,629	13.43	118-148-008	
118	Duluth	SP	118-179-004	1	69	830	14,940	18.00	469	7,936	16.93	194	17,482	90.11	773	3,710	4.80	490	7,840	16.00	118-179-004	
131	Hibbing	SAP	131-186-004	1	69	0	0		0	0		1,110	81,402	73.34	0	0		0	0		131-186-004	
131	Hibbing	SAP	131-213-003	1	69	0	0		0	0		3,520	233,240	66.26	0	0		0	0		131-213-003	
131	Hibbing	SAP	131-216-004	1	69	0	0		0	0		1,115	73,900	66.28	0	0		0	0		131-216-004	
131	Hibbing	SAP	131-217-001	1	69	0	0		0	0		1,415	93,756	66.26	0	0		0	0		131-217-001	
	DISTRICT 1 TOTALS					11,315	\$166,973	\$14.76	4,642	\$76,851	\$16.56	14,586	\$1,013,596	\$69.49	26,427	\$118,435	\$4.48	4,876	\$75,032	\$15.39		
	DISTRICT 2																					
105	Bemidji	SAP	105-129-004	2	4	1,767	\$8,835	\$5.00	2,500	\$35,000	\$14.00	1,114	\$87,425	\$78.48	2,104	\$8,311	\$3.95	1,036	\$13,986	\$13.50	105-129-004	
119	East Grand Forks	SP	119-117-002	2	60	520	11,138	21.42	189	4,641	24.56	0	0		13,572	65,960	4.86	188	4,392	23.36	119-117-002	
	DISTRICT 2 TOTALS					2,287	\$19,973	\$8.73	2,689	\$39,641	\$14.74	1,114	\$87,425	\$78.48	15,676	\$74,271	\$4.74	1,224	\$18,378	\$15.01		
	DISTRICT 3																					
230	Baxter	SAP	230-108-001	3	18	17,242	\$103,452	\$6.00	12,421	\$145,774	\$11.74	7,167	\$441,770	\$61.64	0	0		8,498	\$92,203	\$10.85	230-108-001	
213	Buffalo	SP	213-126-001	3	86	33,181	393,972	11.87	5,226	104,520	20.00	2,745	189,289	68.96	5,937	\$34,494	\$5.81	8,436	100,862	11.96	213-126-001	
191	Sauk Rapids	SAP	191-112-004	3	5	0	0		0	0		676	37,518	55.50	0	0		0	0		191-112-004	
162	St. Cloud	SAP	162-145-011	3	52	213	2,226	10.45	321	4,548	14.15	190	13,540	71.26	800	4,128	5.16	310	3,333	10.75	162-145-011	
162	St. Cloud	SP	162-151-001	3	52	11,888	124,230	10.45	8,316	117,700	14.15	4,180	297,900	71.27	18,760	67,648	3.61	7,680	83,568	10.88	162-151-001	
162	St. Cloud	SAP	162-162-001	3	52	46,088	177,439	3.85	7,753	89,219	11.51	4,268	274,963	64.42	17,171	49,796	2.90	5,300	47,700	9.00	162-162-001	
162	St. Cloud	SAP	162-171-001	3	52	2,890	30,201	10.45	1,470	39,323	26.75	1,170	83,060	70.99	1,020	3,744	3.67	2,990	32,143	10.75	162-171-001	
221	Waite Park	SAP	221-109-001	3	73	987	6,901	6.99	1,215	15,914	13.10	841	54,616	64.94	5,189	13,751	2.65	907	8,344	9.20	221-109-001	
221	Waite Park	SAP	221-110-001	3	73	7,022	48,864	6.96	4,368	57,917	13.26	2,951	191,875	65.02	34,131	90,447	2.65	5,507	50,664	9.20	221-110-001	
	DISTRICT 3 TOTALS					119,511	\$887,284	\$7.42	41,090	\$574,914	\$13.99	24,188	\$1,584,530	\$65.51	83,008	\$264,008	\$3.18	39,628	\$418,817	\$10.57		
	DISTRICT 4																					
126	Fergus Falls	SAP	126-137-001	4	56	282	\$2,397	\$8.50	1,531	\$33,300	\$21.75	3,554	\$226,736	\$63.80	954	\$7,155	\$7.50	159	\$4,770	\$30.00	126-137-001	
144	Moorhead	SP	144-136-011	4	14	537	13,694	25.50	1,027	35,945	35.00	2,801	236,688	84.50	2,891	28,265	9.78	1,723	46,929	27.24	144-136-011	
	DISTRICT 4 TOTALS					819	\$16,091	\$19.65	2,558	\$69,245	\$27.07	6,355	\$463,424	\$72.92	3,845	\$35,420	\$9.21	1,882	\$51,699	\$27.47		
	DISTRICT 6																					
101	Albert Lea	SAP	101-130-002	6	24	0	0		0	0		1,857	\$128,133	\$69.00	0	0		264	\$7,920	\$30.00	101-130-002	
101	Albert Lea	SAP	101-131-002	6	24	0	0		0	0		1,283	88,527	69.00	0	0		210	6,300	30.00	101-131-002	
101	Albert Lea	SAP	101-137-001	6	24	852	\$10,224	\$12.00	1,916	\$28,740	\$15.00	1,873	129,941	69.38	0	0		258	7,740	30.00	101-137-001	
104	Austin	SP	104-101-005	6	50	5,800	46,400	8.00	2,450	36,750	15.00	25	4,500	181.82	9,310	\$46,402	\$4.98	0	0		104-101-005	
104	Austin	SP	104-123-007	6	50	1,560	12,180	7.81	1,275	19,125	15.00	18	3,200	181.82	1,160	5,805	5.00	0	0		104-123-007	
104	Austin	SAP	104-158-001	6	50	0	0		0	0		350	25,200	72.00	0	0		0	0		104-158-001	
104	Austin	SAP	104-162-001	6	50	400	5,060	12.65	250	6,250	25.00	707	50,920	72.06	5,950	22,610	3.80	150	3,900	26.00	104-162-001	
125	Faribault	SP	125-135-005	6	66	2,531	22,278	8.80	2,019	38,448	19.05	312	35,870	114.97	4,337	26,022	6.00	2,370	57,489	24.26	125-135-005	
125	Faribault	SP	125-135-006	6	66	5,549	47,752	8.61	3,720	70,848	19.05	349	40,230	115.27	4,640	23,200	5.00	3,500	58,975	16.85	125-135-006	
149	Northfield	SAP	149-125-001	6	66	139	973	7.00	0	0		585	42,912	73.35	0	0		0	0		149-125-001	
149	Northfield	SAP	149-126-001	6	66	421	4,130	9.81	0	0		915	67,118	73.35	570	7,125	12.50	0	0		149-126-001	
149	Northfield	SAP	149-127-001	6	66	547	5,418	9.91	0	0		1,152	84,500	73.35	870	10,875	12.50	0	0		149-127-001	
153	Owatonna	SAP	153-109-013	6	74	151	3,775	25.00	378	7,560	20.00	32	5,374	167.94	4,949	17,527	3.54	405	9,923	24.50	153-109-013	
156	Red Wing	SP	156-127-003	6	25	0	0		9,718	148,685	15.30	4,301	321,122	74.66	19,666	85,818	4.36	6,027	84,131	13.96	156-127-003	
159	Rochester	SP	159-132-006	6	55	9,451	103,961	11.00	3,572	75,600	21.16	340	30,838	90.70	5,630	47,123	8.37	3,580	76,218	21.29	159-132-006	
159	Rochester	SAP	159-136-003	6	55	8,815	137,955	15.65	8,180	111,787	13.67	4,618	342,762	74.22	0	0		4,299	66,372	15.44	159-136-003	
	DISTRICT 6 TOTALS					36,216	\$400,106	\$11.05	33,477	\$543,793	\$16.24	18,716	\$1,401,147	\$74.86	57,082	\$292,507	\$5.12	21,063	\$378,968	\$17.99		
	DISTRICT 7																					
123	Fairmont	SAP	123-110-014	7	46	8,420	\$76,280	\$9.06	3,350	\$61,975	\$18.50	440	\$69,675	\$158.35	513	\$3,420	\$6.67	3,670	\$55,784	\$15.20	123-110-014	
148	New Ulm	SP	148-122-003	7	8	95,630	898,724	9.40	23,407	211,872	9.05	5,140	416,837	81.10	20,652	91,901	4.45	6,228	100,831	16.19	148-122-003	
172	Waseca	SAP	172-102-008	7	81	0	0		0	0		176	13,283	75.47	1,050	6,031	5.74	120	4,193	34.94	172-102-008	
172	Waseca	SAP	172-102-009	7	81	0	0		0	0		573	43,239	75.46	2,605	13,704	5.26	625	19,112	30.58	172-102-009	
172	Waseca	SAP	172-112-003	7	81	0	0		0	0		830	62,244	74.99	290	1,802	6.21	474	15,054	31.76	172-112-003	
172	Waseca	SAP	172-114-002	7	81	0	0		0	0		292	21,875	74.91	685	4,447	6.49	546	17,341	31.76	172-114-002	
172	Waseca	SAP	172-116-001	7	81	0	0		0	0		805	60,295	74.90	800	4,240	5.30	718	22,804	31.76	172-116-001	
	DISTRICT 7 TOTALS					104,050	\$975,004	\$9.37	26,757	\$273,847	\$10.23	8,256	\$687,448	\$83.27	26,595	\$125,545	\$4.72	12,381	\$235,119	\$18.99		
	DISTRICT 8																					
133	Hutchinson	SAP	133-103-002	8	43	19,085	\$135,885	\$7.12	8,545	\$119,264	\$13.96	2,664	\$173,053	\$64.96	200	\$950	\$4.75	5,380	\$56,329	\$10.47	133-103-002	
207	Redwood Falls	SAP	207-112-001	8	64	4,118	41,180	10.00	2,340	37,440	16.00	685	61,650	90.00	3,570	19,278	5.40	850	17,850	21.00	207-112-001	
207	Redwood Falls	SAP	207-112-002	8	64	3,612	25,464	7.05	3,450	53,475	15.50	1,010	90,480	89.58	4,918	27,049	5.50	1,478	22,170	15.00	207-112-002	
	DISTRICT 8 TOTALS					26,815	\$202,529	\$7.55	14,335	\$210,179	\$14.66	4,359	\$325,183	\$74.60	8,688	\$47,277	\$5.44	7,708	\$96,349	\$12.50		

2015 Unit Price Study				Printed: 03/27/15		EXCAVATION			AGGREGATE BASE			ALL BITUMINOUS			SIDEWALK			CURB & GUTTER				
CITY NO.	CITY NAME	SAP/SP	PROJECT NUMBER	DIST NO.	CO. NO.	Excavation - CY		Unit Price	Base 2211 - Ton		Unit Price	All Bit. - Ton		Unit Price	Sidewalk Const.-Sq Yd		Unit Price	C & G Const. - LF		Unit Price	SPISAP NUMBER	
						QTY.	AMOUNT		QTY.	AMOUNT		QTY.	AMOUNT		QTY.	AMOUNT		QTY.	AMOUNT			
METRO EAST																						
187	Arden Hills	SAP	187-106-003	ME	62	10,225	\$111,457	\$10.90	11,900	\$127,700	\$10.73	5,390	\$311,708	\$57.83	1,925	\$11,358	\$5.90	6,135	\$55,215	\$9.00	187-106-003	
179	Burnsville	SAP	179-123-005	ME	19	0	0		0	0		1,250	70,360	56.29	50	380	7.60	1,000	12,800	12.80	179-123-005	
195	Eagan	SAP	195-108-007	ME	19	20	300	15.00	180	2,700	15.00	60	5,250	87.50	160	1,520	9.50	180	4,500	25.00	195-108-007	
214	Forest Lake	SAP	214-111-001	ME	82	0	0		0	0		2,900	168,750	58.19	0	0		0	0		214-111-001	
214	Forest Lake	SAP	214-116-001	ME	82	0	0		0	0		420	24,430	58.17	0	0		0	0		214-116-001	
214	Forest Lake	SAP	214-117-001	ME	82	0	0		0	0		1,270	73,899	58.19	0	0		0	0		214-117-001	
214	Forest Lake	SAP	214-118-001	ME	82	0	0		0	0		1,100	63,974	58.16	0	0		0	0		214-118-001	
214	Forest Lake	SAP	214-120-001	ME	82	0	0		0	0		450	26,179	58.18	0	0		0	0		214-120-001	
214	Forest Lake	SAP	214-121-001	ME	82	0	0		0	0		1,000	58,176	58.18	0	0		0	0		214-121-001	
214	Forest Lake	SAP	214-122-001	ME	82	0	0		0	0		3,040	176,886	58.19	0	0		0	0		214-122-001	
214	Forest Lake	SAP	214-124-001	ME	82	0	0		0	0		1,100	63,974	58.16	0	0		0	0		214-124-001	
214	Forest Lake	SAP	214-131-001	ME	82	0	0		0	0		1,860	108,235	58.19	0	0		0	0		214-131-001	
214	Forest Lake	SAP	214-142-001	ME	82	0	0		0	0		1,270	73,899	58.19	0	0		0	0		214-142-001	
224	Hugo	SAP	224-106-001	ME	82	770	5,103	6.63	1,100	14,190	12.90	1,200	73,117	60.93	0	0		0	0		224-106-001	
224	Hugo	SAP	224-112-001	ME	82	200	1,162	5.81	200	2,580	12.90	6,400	388,165	60.65	0	0		0	0		224-112-001	
219	Mahtomedi	SAP	219-100-005	ME	82	700	10,494	14.99	550	9,086	16.52	2,900	207,700	71.62	350	2,023	5.78	6,000	105,840	17.64	219-100-005	
219	Mahtomedi	SAP	219-114-001	ME	82	520	5,200	10.00	300	3,600	12.00	990	69,290	70.03	900	4,590	5.10	500	8,710	17.42	219-114-001	
147	New Brighton	SAP	147-104-004	ME	62	0	0		0	0		518	32,503	62.75	0	0		0	0		147-104-004	
147	New Brighton	SAP	147-104-005	ME	62	0	0		0	0		502	31,497	62.74	0	0		0	0		147-104-005	
147	New Brighton	SAP	147-115-001	ME	62	0	0		0	0		195	13,551	69.49	100	582	5.82	125	2,644	21.15	147-115-001	
225	North Branch	SAP	225-104-003	ME	13	220	2,200	10.00	60	870	14.50	500	33,450	66.90	0	0		0	0		225-104-003	
225	North Branch	SAP	225-112-002	ME	13	320	3,200	10.00	600	8,700	14.50	4,200	281,100	66.93	0	0		0	0		225-112-002	
185	Oakdale	SAP	185-237-005	ME	82	507	4,284	8.45	307	1,946	6.34	2,410	147,739	61.30	1,000	5,980	5.98	1,200	19,632	16.36	185-237-005	
185	Oakdale	SAP	185-237-006	ME	82	0	0		0	0		2,136	117,092	54.82	300	1,794	5.98	300	4,908	16.36	185-237-006	
160	Roseville	SAP	160-228-012	ME	62	44	1,500	34.09	36	365	10.15	420	25,791	61.41	300	1,620	5.40	410	6,868	16.75	160-228-012	
160	Roseville	SAP	160-238-002	ME	62	420	4,200	10.00	10	102	10.15	1,160	70,122	60.45	0	0		35	600	17.15	160-238-002	
160	Roseville	SAP	160-245-002	ME	62	1,165	12,330	10.58	24	244	10.15	2,760	167,129	60.55	100	540	5.40	700	11,725	16.75	160-245-002	
168	South St. Paul	SAP	168-163-003	ME	19	193	3,860	20.00	128	4,060	31.72	15	2,960	200.00	3,995	19,975	5.00	194	6,790	35.00	168-163-003	
164	St. Paul	SP	164-214-016	ME	62	6,791	160,200	23.59	13,791	211,175	15.31	6,238	566,618	90.84	31,024	138,719	4.47	6,386	89,449	14.01	164-214-016	
169	Stillwater	SAP	169-112-012	ME	82	271	5,447	20.10	518	7,770	15.00	2,064	134,822	65.32	4,347	16,765	3.86	703	10,918	15.53	169-112-012	
169	Stillwater	SAP	169-119-006	ME	82	0	0		4	60	15.00	1,888	122,864	65.08	3,078	11,871	3.86	290	4,504	15.53	169-119-006	
169	Stillwater	SAP	169-124-001	ME	82	0	0		0	0		920	59,870	65.08	900	3,471	3.86	245	4,501	18.37	169-124-001	
209	Vadnais Heights	SAP	209-108-006	ME	62	4,500	36,990	8.22	2,881	40,276	13.98	1,208	101,507	84.03	8,247	31,381	3.81	2,933	33,915	11.56	209-108-006	
103	METRO EAST TOTALS						26,866	\$367,927	\$13.69	32,589	\$435,424	\$13.36	59,733	\$3,872,608	\$64.83	56,776	\$252,568	\$4.45	27,336	\$383,517	\$14.03	
METRO WEST																						
103	Anoka	SAP	103-122-013	MW	2	0	0		1,012	\$10	\$0.01	9,860	\$580,221	\$58.85	800	\$2,936	\$3.67	700	\$12,859	\$18.37	103-122-013	
106	Blaine	SAP	106-107-005	MW	2	0	0		0	0		6,070	381,706	62.88	0	0		0	0		106-107-005	
106	Blaine	SAP	106-126-003	MW	2	2,550	\$30,600	\$12.00	3,540	47,613	13.45	2,780	145,485	52.33	960	3,955	4.12	5,513	58,162	10.55	106-126-003	
107	Bloomington	SP	107-425-008	MW	27	3,291	57,593	17.50	3,034	34,739	11.45	2,208	154,588	70.01	14,141	90,339	6.39	3,318	46,128	13.90	107-425-008	
110	Brooklyn Park	SAP	110-121-002	MW	27	594	9,801	16.50	1,217	20,930	17.20	4,290	317,387	73.98	3,006	15,030	5.00	8,234	110,971	13.48	110-121-002	
110	Brooklyn Park	SAP	110-124-005	MW	27	0	0		0	0		691	51,152	73.98	940	4,700	5.00	1,287	18,892	14.68	110-124-005	
110	Brooklyn Park	SAP	110-129-005	MW	27	0	0		0	0		0	0		843	8,846	10.50	75	3,150	42.00	110-129-005	
110	Brooklyn Park	SAP	110-133-003	MW	27	78	7,738	99.20	253	6,445	25.45	1,626	110,192	67.77	3,397	22,250	6.55	3,618	99,114	27.39	110-133-003	
193	Champlin	SAP	193-102-006	MW	27	1,719	16,883	9.82	522	5,520	10.58	567	35,300	62.26	1,735	14,045	8.10	1,246	17,814	14.30	193-102-006	
113	Columbia Heights	SAP	113-109-006	MW	2	16	328	20.50	12	180	15.00	780	54,200	69.49	200	1,164	5.82	325	6,874	21.15	113-109-006	
113	Columbia Heights	SAP	113-110-009	MW	2	0	0		0	0		577	40,094	69.49	240	1,397	5.82	150	3,173	21.15	113-110-009	
113	Columbia Heights	SAP	113-115-002																			

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 2015 construction (money) needs apportionment.

This year, the Municipal State Aid Needs Unit conducted a Unit Price Study, based on the project costs of on system MSAS projects for Grading (Excavation), Aggregate Base, Bituminous, Sidewalk Construction and Curb & Gutter Construction. These project costs are used to calculate a statewide average cost for these items.

In 2014, the Needs Study Subcommittee passed a motion that an in-depth analysis be done on unit prices for Traffic Signals and Street Lighting, as part of the 2015 Unit Price Study.

The other construction items used in the calculation of the Needs are structures (both bridges and box culverts), Storm Sewer, and Engineering.

State Aid bridges are used to determine the unit price for structures.

MN/DOT’s hydraulic office furnished a recommendation of costs for complete and partial storm sewers based on 2014 construction costs.

M.S.A.S Needs Study Subcommittee Meeting Minutes

A meeting of the MSAS Needs Study Subcommittee was held on April 6th, 2015 at the Alexandria office of Widseth Smith Nolting & Associates. Those in attendance were Needs Study Subcommittee Chair Tim Schoonhoven, Subcommittee members Mark Graham and Rich Clauson, MSAS Needs Manager Bill Lanoux, State Aid Programs Engineer Patti Loken and retired MSAS Needs Manager Marshall Johnston.

Bill Lanoux started the meeting off by reminding the group of the purpose of the Needs Study Subcommittee as directed by the Municipal Screening Board (MSB)... *The Needs Study Subcommittee will annually review the Unit Prices for the Needs components used in the Needs Study. The Subcommittee will make its recommendation to the MSB at its annual spring meeting, and that the Unit Price Study go to a 3-year cycle with the Unit Prices for the two 'off years' to be set using the Engineering News Record construction cost index on all items where a Unit Price is not estimated and provided by other MnDOT offices. The MSB may request a Unit Price study on individual items in the 'off years' if it is deemed necessary.*

Bill Lanoux then led the group through discussions for each of the Needs Unit Price items. The following were the results for each item.

Grading / Excavation: Price used in Needs (2014) - \$7.00 Cu. Yd.
Avg. Contract Price in 2014 - \$7.68 Cu. Yd.
Committee's Recommendation for 2015 Needs - \$7.50 Cu. Yd.

Aggregate Base: Price used in Needs (2014) - \$11.25 ton
Avg. Contract Price in 2014 - \$14.41 ton
Committee's Recommendation for 2015 Needs - \$14.00 ton

Bituminous: Price used in Needs (2014) - \$61.25 ton
Avg. Contract Price in 2014 - \$65.48 ton
Committee's Recommendation for 2015 Needs - \$65.50 ton

Sidewalk: Price used in Needs (2014) - \$3.50 Sq. Ft.
Avg. Contract Price in 2014 - \$4.36 Sq. Ft.
Committee's Recommendation for 2015 Needs - \$4.25 Sq. Ft.
Note: The committee felt a significant increase was warranted due to the fact that sidewalk construction has become much more labor intensive with ADA requirements (i.e. slope requirements, sawed joints in place of tooled joints, etc.)

- Curb and Gutter:** Price used in Needs (2014) - \$11.75 Lin. Ft.
Avg. Contract Price in 2014 - \$13.88 Lin. Ft.
Committee's Recommendation for 2015 Needs - \$13.75 Lin. Ft.
Note: Again, the committee felt a significant increase was warranted due to a lot of the same reasons given above for sidewalks.
- Bridges / Structures:** Price used in Needs (2014) - \$72.00 Sq. Ft.
Avg. Contract Price in 2014 - \$193.20 Sq. Ft.
Committee's Recommendation for 2015 Needs - \$96.50 Sq. Ft.
Note: The MSB resolution states that ½ of the statewide average bridge cost be used as the structure cost in the needs. Therefore, one-half of \$193.60 was rounded down to \$96.50.
- Storm Sewer:** The MnDOT Hydraulics Unit performed an analysis of the storm sewer construction costs incurred for 2014. There was a total of \$326,105 for new construction and \$101,441 for adjustment of existing systems. These amounts are based on the average cost per mile of State Aid storm sewer using unit prices. This averaged out to \$213,773 per mile.
Committee's Recommendation for 2015 Needs - \$214,000 per mile
Note: This recommendation of \$214,000 per mile is for a 70-foot section. The cost per mile will be prorated down through the other ADT groups.
- Street Lighting:** Bill conducted a cost analysis for street lighting using information from 2014 projects. The items taken into account for the analysis were lighting fixtures, wiring costs & light bases (foundations). The result of the analysis showed the state wide average cost worked out to \$5,196 per light.
- Two light spacing options from the ASSHTO lighting guide were discussed. The first would provide spacing to require 26 light fixtures per mile and the second would provide spacing to require 19 light fixtures per mile. The first option was a recommendation for industrial areas and the second option was for residential areas.
- Committee's Recommendation for 2015 Needs: The committee recommends that Bill continue to use his cost analysis for future updates but he is to include all items under MnDOT Specification 2545 for his cost analysis. The committee also recommends using the state wide average cost multiplied by 19 light fixtures per mile for Needs purposes. Therefore, $\$5,196 \times 19 = \$98,724$ per mile... the committee rounded up to \$100,000 per mile for the 2015 Needs.*

Traffic Signals:

Bill also conducted a cost analysis for traffic signal projects in 2014. The projects were broken out into three categories. They were new signal systems, temporary signal systems & revised signal systems. The state wide average cost were \$173,081, \$105,700 & \$37,815 respectively.

Committee's Recommendation for 2015 Needs: The committee recommends that Bill continue to use his cost analysis for future updates but that he only use the state wide average cost for new signal systems plus the state wide average cost for Emergency Vehicle Preemption (EVP) systems.

Therefore, the committee's recommendation is \$185,000 for the 2015 Needs.

Other Items of Discussion:

The committee also discussed what was included in each of the Unit Price items listed above. Bill provided the committee with a list of items that are currently included and NOT included with each Unit Price item. *The committee reviewed the list of items not being used and agreed no changes should be made at this time.*

The one item that generated the most discussion was truncated domes. Currently, the cost of truncated domes are not factored into the Unit Price cost for concrete sidewalk. *The committee felt the relatively small cost of the truncated domes compared to the concrete sidewalk would only result in a fraction of an increase to the Unit Price cost and not worth changing at this time.*

The meeting was adjourned at 1:30 p.m.

Minutes submitted by: Richard Clauson



2014 MSAS PROJECTS

*This list is based on projects awarded in 2014
Some award dates have not yet been input in our data base
This is the most accurate count available as of April 21, 2015*

185 On System Projects (middle 3 numbers are Greater than or equal to 100 and less than 500)
Construction, Reconstruction, signals, overlays, R/W, etc.
108 of these projects had items that were included in the Unit Price study

37 Off System CSAH Projects (xxx-020-xxx)
These are projects on CSAH's that the city participated in with MSAS funding.

12 Off System TH Projects (xxx-010-xxx)
These are projects on TH's that the city participated in with MSAS funding

2 Off System Local Projects in cities Certified Complete (xxx-050-000)
These are projects on local streets in Certified Complete cities that used MSAS funding

19 Other, Miscellaneous Projects (All other city projects that are not included in the above 4 categories)
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 255 PROJECTS

In 2012, the year of the last Unit Price Study, there were a total of 186 projects awarded in 2011. 148 on system, 22 off system and 16 miscellaneous city projects that may or may not have had MSAS funds expended on the projects.

PERCENTAGE COMPARISONS

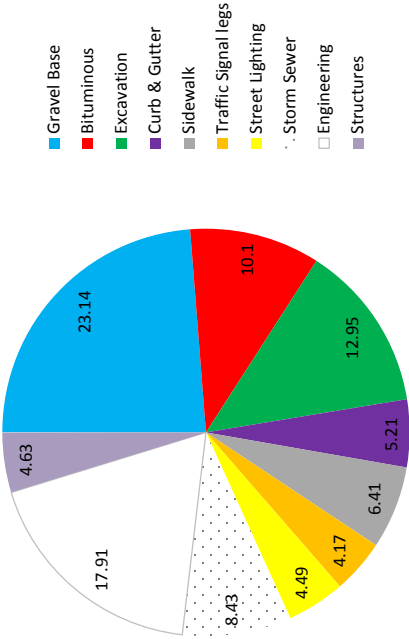
A Needs study was not conducted in 2013 because the Needs were frozen.

	Percentage of the Total Needs for Gravel Base		Percentage of the Total Needs for Bituminous		Percentage of the Total Needs for Excavation		Percentage of the Total Needs for Storm Sewer		Percentage of the Total Needs for Sidewalk		Percentage of the Total Needs for Traffic Signal legs		Percentage of the Total Needs for Street Lighting		Percentage of the Total Needs for Curb & Gutter		Percentage of the Total Needs for Engineering		Percentage of the Total Needs for Structures		Total Percent	
	Gravel Base	Bituminous	Gravel Base	Bituminous	Excavation	Storm Sewer	Sidewalk	Traffic Signal legs	Street Lighting	Curb & Gutter	Engineering	Structures	Gravel Base	Bituminous	Excavation	Storm Sewer	Sidewalk	Traffic Signal legs	Street Lighting	Curb & Gutter		Engineering
October 2014 New Method	11.78	17.88	9.97	10.24	4.79	5.90	7.83	18.03	3.72	100.00												
October 2012 Percentages	23.14	10.10	12.95	8.43	4.17	4.49	5.21	17.91	4.63	97.44												
October 2011 Percentages	24.18	10.99	10.35	8.58	4.27	4.67	5.52	17.91	4.22	97.37												
October 2010 Percentages	21.75	9.88	16.58	7.97	4.06	4.40	5.06	17.91	3.90	97.58												
October 2009 Percentages	23.88	10.96	10.36	8.67	4.52	5.04	5.41	17.91	4.33	97.59												
October 2008 Percentages	22.00	9.67	11.79	8.94	4.89	5.35	5.57	17.90	4.36	97.81												
5 Year Avg. using Old Method	22.99	10.32	12.41	8.52	4.38	4.79	5.35	17.91	4.29	97.56												
DIFFERENCE	(11.21)	7.56	(2.44)	1.34	3.64	0.41	1.11	2.48	(0.57)	2.44												

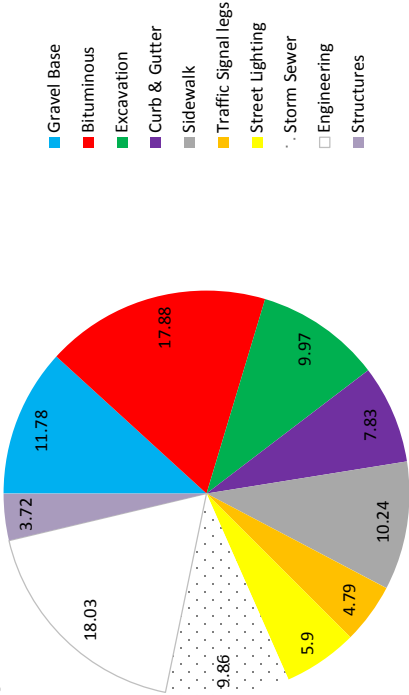
2008 thru 2012 percentages do not include railroad crossings or maintenance which is why they do not equal 100%.

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2012



2014



Annual Percentage Change of Unit Costs, 2009 - 2015

	sidewalk				aggregate base					
	\$	% Change	\$	% Change			\$	% Change	\$	% Change
from 2009 to 2010	\$3.00	3.0	\$3.09	3.0	from 2009 to 2010		9.81	10.10	10.10	3.0
from 2010 to 2011	\$3.09	2.9	\$3.18	2.9	from 2010 to 2011		10.10	10.40	10.40	3.0
from 2011 to 2012	\$3.18	-0.3	\$3.17	-0.3	from 2011 to 2012		10.40	10.65	10.65	2.4
from 2012 to 2013	\$3.17	2.5	\$3.25	2.5	from 2012 to 2013		10.65	10.90	10.90	2.3
from 2013 to 2014	\$3.25	7.7	\$3.50	7.7	from 2013 to 2014		10.90	11.25	11.25	3.2
from 2014 to 2015	\$3.50	24.6	\$4.36	24.6	from 2014 to 2015		11.25	14.41	14.41	28.1
curb & gutter										
from 2009 to 2010	\$10.70	2.8	\$11.00	2.8	all bituminous		55.00	56.75	56.75	3.2
from 2010 to 2011	\$11.00	2.7	\$11.30	2.7	from 2010 to 2011		56.75	60.00	60.00	5.7
from 2011 to 2012	\$11.30	-1.3	\$11.15	-1.3	from 2011 to 2012		60.00	58.00	58.00	-3.3
from 2012 to 2013	\$11.15	2.7	\$11.45	2.7	from 2012 to 2013		58.00	59.50	59.50	2.6
from 2013 to 2014	\$11.45	2.6	\$11.75	2.6	from 2013 to 2014		59.50	61.25	61.25	2.9
from 2014 to 2015	\$11.75	18.1	\$13.88	18.1	from 2014 to 2015		61.25	65.48	65.48	6.9
grading/excavtion										
from 2009 to 2010	\$4.75	3.2	\$4.90	3.2	bridges		115.00	120.00	120.00	4.3
from 2010 to 2011	\$4.90	3.1	\$5.05	3.1	from 2009 to 2010		120.00	115.00	115.00	-4.2
from 2011 to 2012	\$5.05	30.7	\$6.60	30.7	from 2010 to 2011		115.00	125.00	125.00	8.7
from 2012 to 2013	\$6.60	2.3	\$6.75	2.3	from 2011 to 2012		125.00	120.00	120.00	-4.0
from 2013 to 2014	\$6.75	3.7	\$7.00	3.7	from 2012 to 2013		120.00	72.00	72.00	-40.0
from 2014 to 2015	\$7.00	9.7	\$7.68	9.7	from 2013 to 2014		72.00	96.60	96.60	34.2
					from 2014 to 2015		96.60			

* All costs shown are actual costs used in Needs, except for the 2015 figures (red) - which show tentative prices based on our unit cost study.

* The 2015 cost for bridges (shown here) were calculated by dividing this year's yearly contract price by 2.

2015 UNIT PRICE RECOMMENDATIONS

for the January 2016 distribution

Needs Item	Municipal Screening Board Approved Prices for the 2015 Distribution	Needs Study Subcommittee Recommended Prices for 2016 Distribution	Municipal Screening Board Approved Prices for the 2016 Distribution
Grading (Excavation)	Cu. Yd. \$7.00	\$7.50	
Aggregate Base	Ton 11.25	14.00	
All Bituminous	Ton 61.25	65.50	
Sidewalk Construction	Sq. Ft. 3.50	4.25	
Curb and Gutter Construction	Lin.Ft. 11.75	13.75	
Street Lighting	Mile 100,000	100,000	
Traffic Signals	Per Sig 205,000	185,000	
Engineering	Percent 22	22	
All Structures (includes both bridges and box culverts)	Sq. Ft. 72.00	96.50	
Storm Sewer (based on ADT)	Per Mile		
0 ADT & Non Existing	148,100	150,900	
1-499	150,900	153,800	
500-1,999	159,400	162,400	
2,000-4,999	167,800	171,000	
5,000-8,999	179,100	182,500	
9,000-13,999	187,500	191,100	
14,000-24,999	198,700	202,500	
25,000 and over	210,000	214,000	

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MSAS UNIT PRICE STUDY EXCAVATION - CUBIC YARD

CITY NAME	NO. OF PROJECTS	TOTAL QUANTITY	TOTAL COST	AVERAGE UNIT PRICE
District 1				
Duluth	2	11,315	\$166,973	\$14.76
District 1 Total	2	11,315	\$166,973	\$14.76

District 2				
Bemidji	1	1,767	\$8,835	\$5.00
East Grand Forks	1	520	11,138	21.42
District 2 Total	1	2,287	\$19,973	\$8.73

District 3				
Baxter	1	17,242	\$103,452	\$6.00
Buffalo	1	33,181	393,972	11.87
St. Cloud	4	61,079	334,095	5.47
Waite Park	2	8,009	55,765	6.96
District 3 Total	8	119,511	\$887,284	\$7.42

District 4				
Fergus Falls	1	282	\$2,397	\$8.50
Moorhead	1	537	13,694	25.50
District 4 Total	2	819	\$16,091	\$19.65

District 6				
Albert Lea	1	852	\$10,224	\$12.00
Austin	3	7,760	63,640	8.20
Faribault	2	8,080	70,030	8.67
Northfield	3	1,107	10,521	9.50
Owatonna	1	151	3,775	25.00
Rochester	2	18,266	241,916	13.24
District 6 Total	12	36,216	\$400,106	\$11.05

District 7				
Fairmont	1	8,420	\$76,280	\$9.06
New Ulm	1	95,630	898,724	9.40
District 7 Total	2	104,050	\$975,004	\$9.37

District 8				
Hutchinson	1	19,085	\$135,885	\$7.12
Redwood Falls	2	7,730	66,644	8.62
District 8 Total	3	26,815	\$202,529	\$7.55

MSAS UNIT PRICE STUDY EXCAVATION - CUBIC YARD

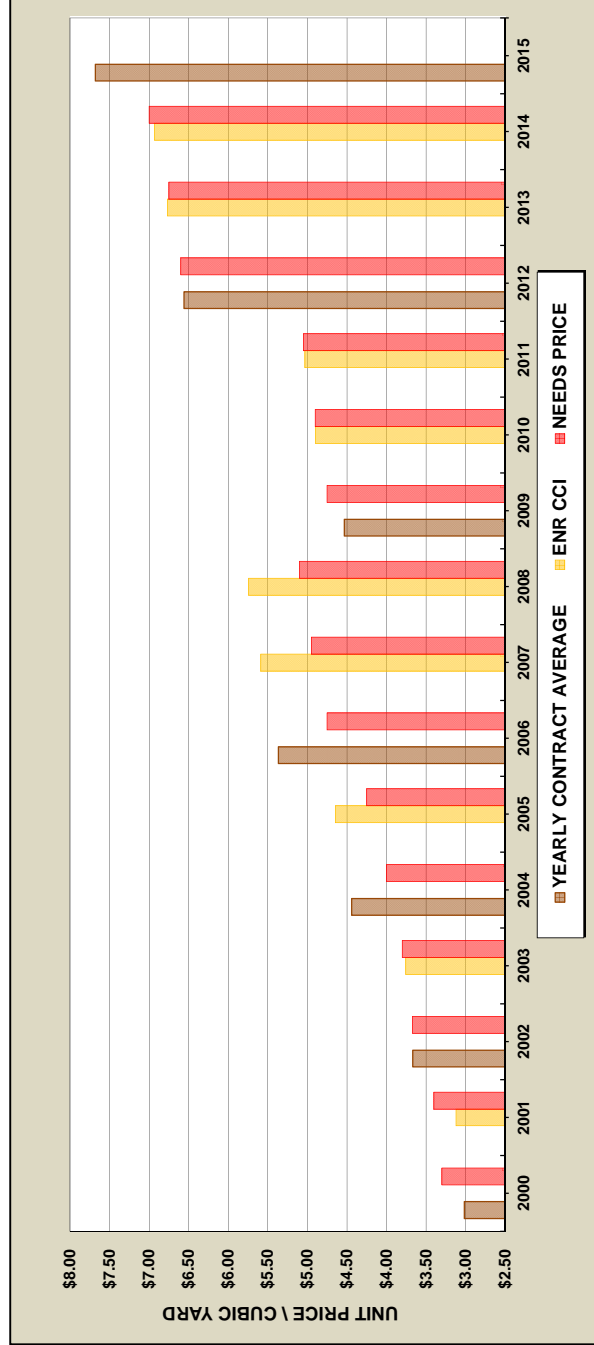
CITY NAME	NO. OF PROJECTS	TOTAL QUANTITY	TOTAL COST	AVERAGE UNIT PRICE
Metro East				
Arden Hills	1	10,225	\$111,457	\$10.90
Eagan	1	20	300	15.00
Hugo	2	970	6,265	6.46
Mahtomedi	2	1,220	15,694	12.86
North Branch	2	540	5,400	10.00
Oakdale	1	507	4,284	8.45
Roseville	3	1,629	18,030	11.07
South St.Paul	1	193	3,860	20.00
St. Paul	1	6,791	160,200	23.59
Stillwater	1	271	5,447	20.10
Vadnais Heights	1	4,500	36,990	8.22
Metro East Total	16	26,866	\$367,927	\$13.69

Metro West				
Blaine	1	2,550	\$30,600	\$12.00
Bloomington	1	3,291	57,593	17.50
Brooklyn Park	2	672	17,539	26.10
Champlin	1	1,719	16,883	9.82
Columbia Heights	1	16	328	20.50
Fridley	5	1,000	6,000	6.00
Maple Grove	1	18,595	81,825	4.40
Oak Grove	1	3,400	27,200	8.00
Plymouth	1	113,074	339,222	3.00
Shakopee	1	290	14,500	50.00
Metro West Total	15	144,607	\$591,689	\$4.09

District Totals				
District 1 Total	2	11,315	\$166,973	\$14.76
District 2 Total	1	2,287	19,973	8.73
District 3 Total	8	119,511	887,284	7.42
District 4 Total	2	819	16,091	19.65
District 6 Total	12	36,216	400,106	11.05
District 7 Total	2	104,050	975,004	9.37
District 8 Total	3	26,815	202,529	7.55
Metro East Total	16	26,866	367,927	13.69
Metro West Total	15	144,607	591,689	4.09
STATE TOTAL	61	472,486	\$3,627,575	\$7.68

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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
2000	56	1,157,353	\$3,490,120	\$3.02	\$3.12	\$3.30
2001	50	893,338	3,275,650	3.67	3.75	3.40
2002	56	1,018,912	4,523,089	4.44	4.65	3.67
2003	48	587,442	3,152,838	5.37	5.59	3.80
2004						4.00
2005						4.25
2006						4.75
2007						4.95
2008	47	1,334,769	\$6,052,005	\$4.53	\$5.74	\$5.10
2009	56	689,502	4,521,435	6.56	6.77	4.75
2010						4.90
2011						5.03
2012						5.05
2013						6.60
2014						6.75
2015	40	472,486	3,627,575	7.68	6.93	7.00

SUBCOMMITTEE'S RECOMMENDED PRICE FOR THE 2015 NEEDS STUDY IS \$7.50 PER CUBIC YARD

This item was 9.97% of the total needs last year
This year there are 61 projects in 40 cities

MSAS UNIT PRICE STUDY AGGREGATE BASE 2211 - TONS

CITY NAME	NO. OF PROJECTS	TOTAL QUANTITY	TOTAL COST	AVERAGE UNIT PRICE
District 1				
Duluth	4	4,642	\$76,851	\$16.56
District 1 Total	4	4,642	\$76,851	\$16.56

District 2				
Bemidji	1	2,500	\$35,000	\$14.00
East Grand Forks	1	189	4,641	24.56
District 2 Total	2	2,689	\$39,641	\$14.74

District 3				
Baxter	1	12,421	\$145,774	\$11.74
Buffalo	1	5,226	104,520	20.00
St. Cloud	4	17,860	250,789	14.04
Waite Park	2	5,583	73,832	13.22
District 3 Total	7	41,090	574,914	\$13.99

District 4				
Fergus Falls	1	1,531	\$33,300	\$21.75
Moorhead	1	1,027	35,945	35.00
District 4 Total	2	2,558	\$69,245	\$27.07

District 6				
Albert Lea	1	1,916	\$28,740	\$15.00
Austin	3	3,975	62,125	15.63
Faribault	2	5,738	109,296	19.05
Owatonna	1	378	7,560	20.00
Red Wing	1	9,718	148,685	15.30
Rochester	2	11,752	187,387	15.95
District 6 Total	10	33,477	\$543,793	\$16.24

District 7				
Fairmont	1	3,350	\$61,975	\$18.50
New Ulm	1	23,407	211,872	\$9.05
District 7 Total	2	26,757	\$273,847	\$10.23

District 8				
Hutchinson	1	8,545	\$119,264	\$13.96
Redwood Falls	2	5,790	90,915	15.70
District 8 Total	3	14,335	\$210,179	\$14.66

MSAS UNIT PRICE STUDY AGGREGATE BASE 2211 - TONS

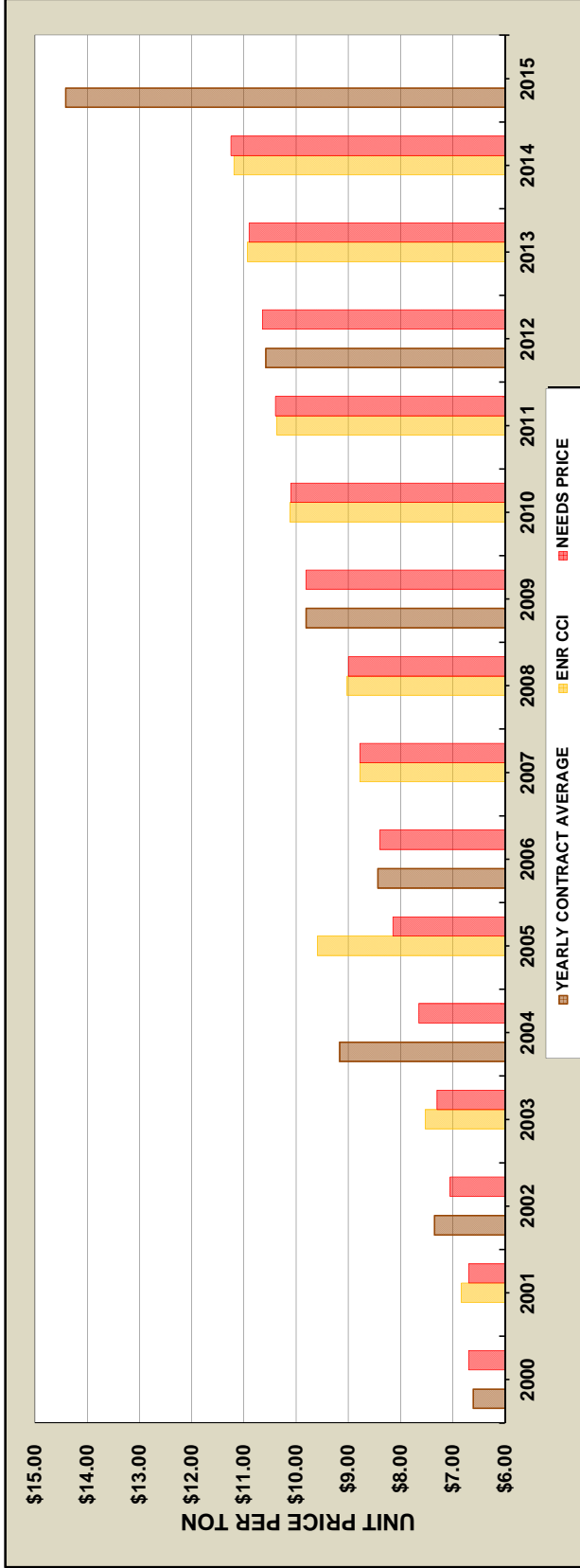
CITY NAME	NO. OF PROJECTS	TOTAL QUANTITY	TOTAL COST	AVERAGE UNIT PRICE
Metro East				
Arden Hills	1	11,900	\$127,700	\$10.73
Eagan	1	180	2,700	15.00
Hugo	2	1,300	16,770	12.90
Mahtomedi	2	850	12,686	14.92
North Branch	2	660	9,570	14.50
Oakdale	1	307	1,946	6.34
Roseville	3	70	711	10.15
South St. Paul	1	128	4,060	31.72
St. Paul	1	13,791	211,175	15.31
Stillwater	2	522	7,830	15.00
Vadnais Heights	1	2,881	40,276	13.98
Metro East Total	17	32,589	\$435,424	\$13.36

Metro West				
Anoka	1	1,012	\$10	\$0.01
Blaine	1	3,540	47,613	13.45
Bloomington	1	3,034	34,739	11.45
Brooklyn Park	2	1,470	27,375	18.62
Champlin	1	522	5,520	10.58
Columbia Heights	1	12	180	15.00
Maple Grove	1	10,869	148,973	13.71
Oak Grove	1	4,490	72,693	16.19
Plymouth	1	16,548	314,311	18.99
Shakopee	2	234	5,114	21.86
Metro West Total	12	41,731	\$656,529	\$15.73

District Totals				
District 1 Total	4	4,642	\$76,851	\$16.56
District 2 Total	2	2,689	39,641	14.74
District 3 Total	7	41,090	574,914	13.99
District 4 Total	2	2,558	69,245	27.07
District 6 Total	10	33,477	543,793	16.24
District 7 Total	2	26,757	273,847	10.23
District 8 Total	3	14,335	210,179	14.66
Metro East Total	17	32,589	435,424	13.36
Metro West Total	12	41,731	656,529	15.73
STATE TOTAL	59	199,868	\$2,880,423	\$14.41

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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
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
2006	46	355,866	3,000,906	8.43		8.40
2007					8.78	8.78

Needs Year	Number of Cities	Quantity (Ton)	Total Cost	Yearly Average Contract Price	Engineering News Record Construction Cost Index	Price Used in Needs
2008						\$9.00
2009	45	436,802	\$4,284,174	\$9.81	\$9.02	9.81
2010					10.12	10.10
2011					10.37	10.40
2012	57	416,725	4,409,415	10.58		10.65
2013					10.93	10.90
2014					11.19	11.25
2015	40	199,868	2,880,423	14.41		

SUBCOMMITTEE'S RECOMMENDED PRICE FOR THE 2015 NEEDS STUDY IS \$14.00 PER TON

This item was 11.78% of the total needs last year
This year there are 59 projects in 40 cities

MSAS UNIT PRICE STUDY BITUMINOUS

CITY NAME	NO. OF PROJECTS	TOTAL QUANTITY	TOTAL COST	AVERAGE UNIT PRICE
District 1				
Duluth	5	7,426	\$531,298	\$71.55
Hibbing	4	7,160	482,298	67.36
District 1 Total	9	14,586	\$1,013,596	\$69.49
District 2				
Bemidji	1	1,114	\$87,425	\$78.48
District 2 Total	1	1,114	\$87,425	\$78.48
District 3				
Baxter	1	7,167	\$441,770	\$61.64
Buffalo	1	2,745	189,289	68.96
Sauk Rapids	1	676	37,518	55.50
St. Cloud	4	9,808	669,463	68.26
Waite Park	2	3,792	246,491	65.00
District 3 Total	9	24,188	\$1,584,530	\$65.51
District 4				
Fergus Falls	1	3,554	\$226,736	\$63.80
Moorhead	1	2,801	236,688	84.50
District 4 Total	2	6,355	\$463,424	\$72.92
District 6				
Albert Lea	3	5,013	\$346,601	\$69.14
Austin	4	1,099	83,820	76.27
Faribault	2	661	76,100	115.13
Northfield	3	2,652	194,530	73.35
Owatonna	1	32	5,374	167.94
Red Wing	1	4,301	321,122	74.66
Rochester	2	4,958	373,600	75.35
District 6 Total	16	18,716	\$1,401,147	\$74.86
District 7				
Fairmont	1	440	\$69,675	\$158.35
New Ulm	1	5,140	416,837	81.10
Waseca	5	2,676	200,937	75.09
District 7 Total	7	8,256	\$687,448	\$83.27
District 8				
Hutchinson	1	2,664	\$173,053	\$64.96
Redwood Falls	2	1,695	152,130	89.75
District 8 Total	3	4,359	\$325,183	\$74.60

MSAS UNIT PRICE STUDY BITUMINOUS

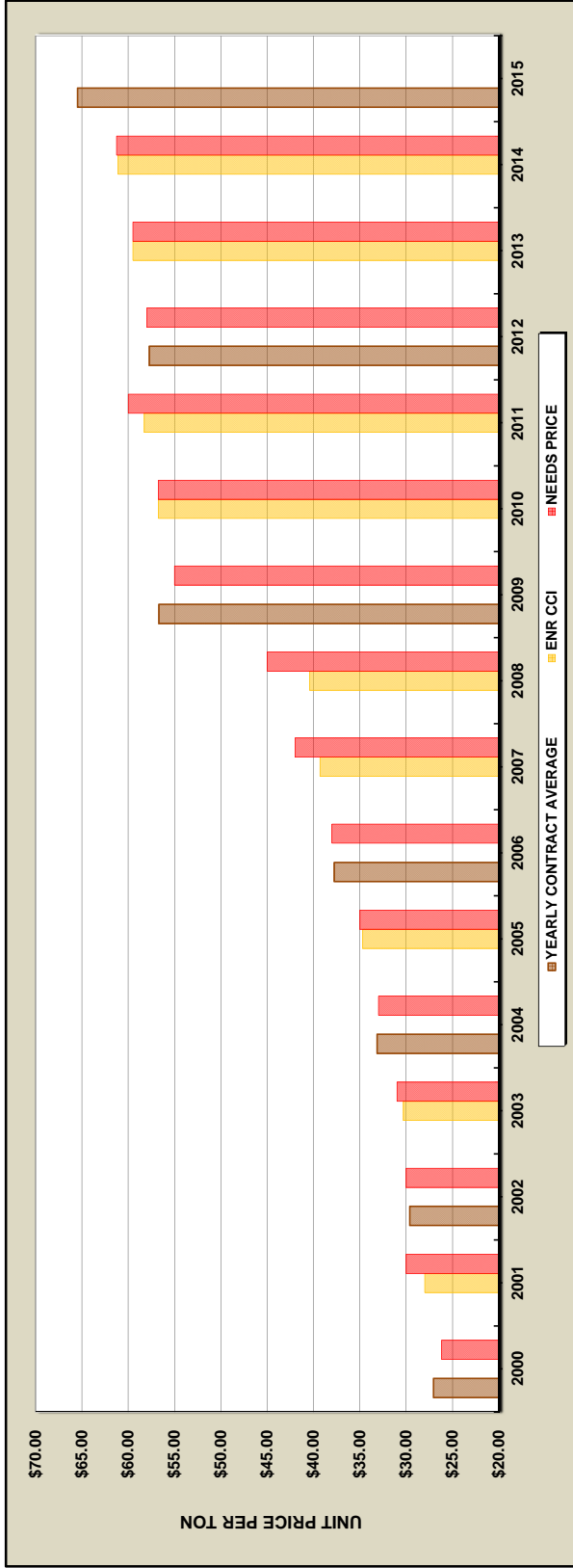
CITY NAME	NO. OF PROJECTS	TOTAL QUANTITY	TOTAL COST	AVERAGE UNIT PRICE
Metro East				
Arden Hills	1	5,390	\$311,708	\$57.83
Burnsville	1	1,250	70,360	56.29
Eagan	1	60	5,250	87.50
Forest Lake	10	14,410	838,402	58.18
Hugo	2	7,600	461,282	60.70
Mahtomedi	2	3,890	276,990	71.21
New Brighton	3	1,215	77,551	63.83
North Branch	2	4,700	314,550	66.93
Oakdale	2	4,546	264,831	58.26
Roseville	3	4,340	263,042	60.61
South St. Paul	1	15	2,960	200.00
St. Paul	1	6,238	566,618	90.84
Stillwater	3	4,872	317,556	65.18
Vadnais Heights	1	1,208	101,507	84.03
Metro East Total	33	59,733	\$3,872,608	\$64.83

Metro West				
Anoka	1	9,860	\$580,221	\$58.85
Blaine	2	8,850	527,191	59.57
Bloomington	1	2,208	154,588	70.01
Brooklyn Park	3	6,608	478,730	72.45
Champlin	1	567	35,300	62.26
Columbia Heights	3	1,552	107,844	69.49
Fridley	5	6,678	388,823	58.22
Maple Grove	1	3,879	222,410	57.34
Minneapolis	1	1,199	91,248	76.10
Oak Grove	1	1,940	129,076	66.53
Plymouth	1	26,153	1,537,415	58.79
Shakopee	2	19,876	1,154,920	58.11
Metro West Total	22	89,370	\$5,407,766	\$60.51

District Totals				
District 1 Total	9	14,586	\$1,013,596	\$69.49
District 2 Total	1	1,114	87,425	78.48
District 3 Total	9	24,188	1,584,530	65.51
District 4 Total	2	6,355	463,424	72.92
District 6 Total	16	18,716	1,401,147	74.86
District 7 Total	7	8,256	687,448	83.27
District 8 Total	3	4,359	325,183	74.60
Metro East Total	33	59,733	3,872,608	64.83
Metro West Total	22	89,370	5,407,766	60.51
STATE TOTAL	102	226,676	\$14,843,126	\$65.48

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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
2000	51	434,005	\$11,739,821	\$27.05	\$27.99	\$26.17
2001	50	371,198	10,989,206	29.60	30.31	30.00
2002	60	459,606	15,229,960	33.14	34.68	30.00
2003	51	305,073	11,524,574	37.78	39.33	31.00
2004						33.00
2005						35.00
2006						38.00
2007						42.00

Needs Year	Number of Cities	Quantity (Ton)	Total Cost	Yearly Average Contract Price	Engineering News Record Construction Cost Index	Price Used in Needs
2008	44	277,797	\$15,744,901	\$56.68	\$40.42	\$45.00
2009	65	317,687	18,334,854	57.71	56.72	55.00
2010	48	226,676	14,843,126	65.48	58.27	56.75
2011					59.51	60.00
2012					61.11	58.00
2013						59.50
2014						61.25
2015						

SUBCOMMITTEE'S RECOMMENDED PRICE FOR THE 2015 NEEDS STUDY IS \$65.50 PER TON

This item was 17.88% of the total needs last year
This year there are 102 projects in 48 cities

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MSAS UNIT PRICE STUDY

SIDEWALK CONSTRUCTION - SQUARE FOOT

CITY NAME	No. Of Projects	TOTAL QTY.	TOTAL COST	AVERAGE UNIT PRICE
District 1				
Duluth	5	26,427	\$118,435	\$4.48
District 1 Total	5	26,427	\$118,435	\$4.48

District 2				
Bemidji	1	2,104	\$8,311	\$3.95
East Grand Forks	1	13,572	65,960	\$4.86
District 2 Total	2	15,676	\$74,271	\$4.74

District 3				
Buffalo	1	5,937	\$34,494	\$5.81
St. Cloud	4	37,751	125,316	3.32
Waite Park	2	39,320	104,198	2.65
District 3 Total	7	83,008	\$264,008	\$3.18

District 4				
Fergus Falls	1	954	\$7,155	\$7.50
Moorhead	1	2,891	28,265	\$9.78
District 4 Total	2	3,845	\$35,420	\$9.21

District 6				
Austin	3	16,420	\$74,817	\$4.56
Faribault	2	8,977	49,222	5.48
Northfield	2	1,440	18,000	12.50
Owatonna	1	4,949	17,527	3.54
Red Wing	1	19,666	85,818	4.36
Rochester	1	5,630	47,123	8.37
District 6 Total	10	57,082	\$292,507	\$5.12

District 7				
Fairmont	1	513	\$3,420	\$6.67
New Ulm	1	20,652	91,901	4.45
Waseca	5	5,430	30,224	5.57
District 7 Total	7	26,595	\$125,545	\$4.72

District 8				
Hutchinson	1	200	\$950	\$4.75
Redwood Falls	2	8,488	46,327	5.46
District 8 Total	3	8,688	\$47,277	\$5.44

MSAS UNIT PRICE STUDY SIDEWALK CONSTRUCTION - SQUARE FOOT

CITY NAME	No. Of Projects	TOTAL QTY.	TOTAL COST	AVERAGE UNIT PRICE
Metro East				
Arden Hills	1	\$1,925	\$11,358	\$5.90
Burnsville	1	50	380	7.60
Eagan	1	160	1,520	9.50
Mahtomedi	2	1,250	6,613	5.29
New Brighton	1	100	582	5.82
Oakdale	2	1,300	7,774	5.98
Roseville	2	400	2,160	5.40
South St. Paul	1	3,995	19,975	5.00
St. Paul	1	31,024	138,719	4.47
Stillwater	3	8,325	32,107	3.86
Vadnais Heights	1	8,247	31,381	3.81
Metro East Total	16	56,776	\$252,568	\$4.45

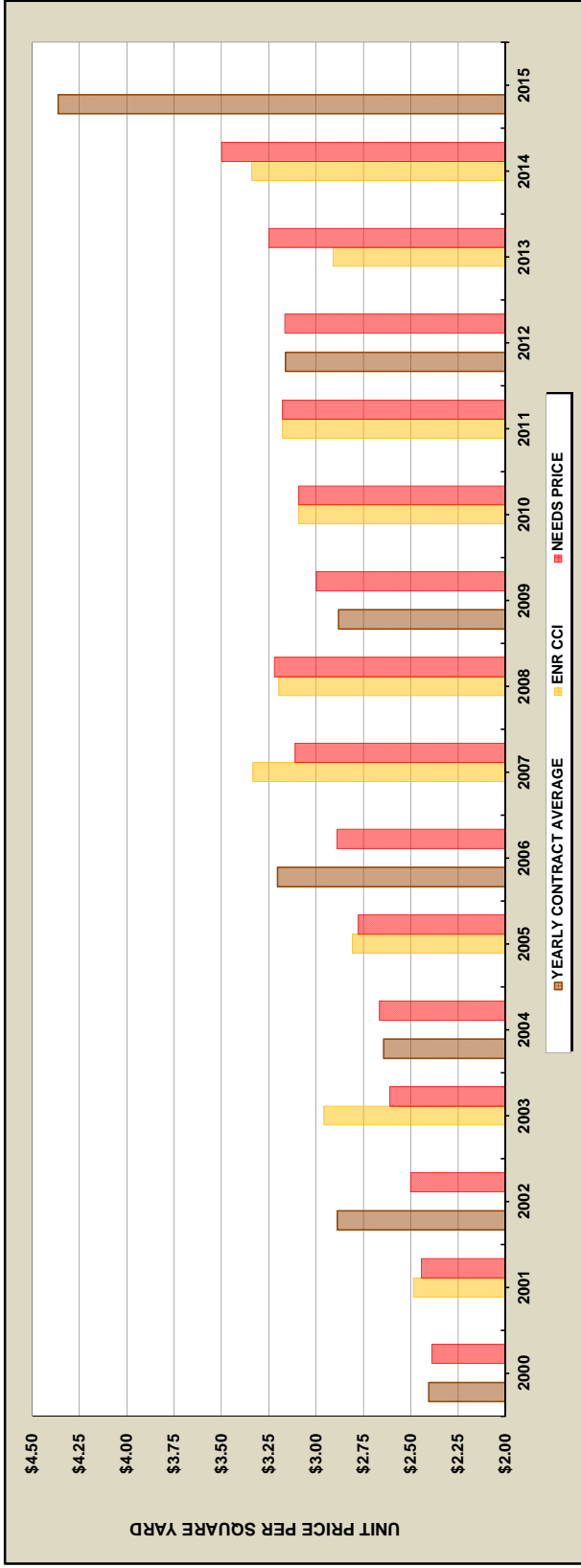
Metro West				
Anoka	1	800	\$2,936	\$3.67
Blaine	1	960	3,955	4.12
Bloomington	1	14,141	90,339	6.39
Brooklyn Park	4	8,186	50,827	6.21
Champlin	1	1,735	14,045	8.10
Columbia Heights	2	440	2,561	5.82
Maple Grove	1	1,344	7,018	5.22
Plymouth	1	43,384	142,740	3.29
Shakopee	2	7,622	32,066	4.21
Metro West Total	14	78,612	\$346,486	\$4.41

District Totals				
District 1 Total	5	26,427	\$118,435	\$4.48
District 2 Total	2	15,676	74,271	4.74
District 3 Total	7	83,008	264,008	3.18
District 4 Total	2	3,845	35,420	9.21
District 6 Total	10	57,082	292,507	5.12
District 7 Total	7	26,595	125,545	4.72
District 8 Total	3	8,688	47,277	5.44
Metro East Total	16	56,776	252,568	4.45
Metro West Total	14	78,612	346,486	4.41

STATE TOTAL	66	356,709	\$1,556,517	\$4.36
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N:\MSAS\UNIT COST STUDY\2015\UNIT PRICE BREAK OUT 2015.xls Sidewalk

SIDEWALK CONSTRUCTION



Needs Year	Number of Cities	Quantity (Sq. Ft.)	Total Cost	Yearly Average Contract Price	Engineering News Record Construction Cost Index	Price Used in Needs
2008						\$3.22
2009	44	95,689	\$2,482,820	\$2.88	\$3.20	3.00
2010					3.09	3.09
2011					3.18	3.18
2012	51	66,045	1,880,257	3.16		3.17
2013					2.91	3.25
2014	39	356,709	1,556,517	4.36	3.34	3.50
2015						

Needs Year	Number of Cities	Quantity (Sq.Ft.)	Total Cost	Yearly Average Contract Price	Engineering News Record Construction Cost Index	Price Used in Needs
2000	45	88,562	\$1,917,075	\$2.41		\$2.39
2001					\$2.49	2.44
2002	38	61,390	1,596,409	2.89		2.50
2003					2.96	2.61
2004	47	123,460	2,937,553	2.64		2.67
2005					2.81	2.78
2006	43	69,500	2,004,367	3.20		2.89
2007					3.34	3.11

SUBCOMMITTEE'S RECOMMENDED PRICE FOR THE 2015 NEEDS STUDY IS \$4.25 PER SQ. FT.

PRICE PER SQUARE YARD WAS USED UNTIL 2012 AND CHANGED TO PER SQUARE FOOT IN 2013

This item was 10.24% of the total needs last year

This year there are 66 projects in 39 cities

MSAS UNIT PRICE STUDY

CURB AND GUTTER CONSTRUCTION - LIN. FT.

CITY NAME	No. Of Projects	TOTAL QTY.	TOTAL COST	AVERAGE UNIT PRICE
District 1				
Duluth	5	4,876	\$75,032	\$15.39
District 1 Total	5	4,876	\$75,032	\$15.39

District 2				
Bemidji	1	1,036	\$13,986	\$13.50
East Grand Forks	1	188	4,392	23.36
District 2 Total	2	1,224	\$18,378	\$15.01

District 3				
Baxter	1	8,498	\$92,203	\$10.85
Buffalo	1	8,436	100,862	11.96
St. Cloud	4	16,280	166,743	10.24
Waite Park	2	6,414	59,009	9.20
District 3 Total	8	39,628	\$418,817	\$10.57

District 4				
Fergus Falls	1	159	\$4,770	\$30.00
Moorhead	1	1,723	46,929	27.24
District 4 Total	2	1,882	\$51,699	\$27.47

District 6				
Albert Lea	3	732	\$21,960	\$30.00
Austin	1	150	3,900	26.00
Faribault	2	5,870	116,464	19.84
Owatonna	1	405	9,923	24.50
Red Wing	1	6,027	84,131	13.96
Rochester	2	7,879	142,590	18.10
District 6 Total	10	21,063	\$378,968	\$17.99

District 7				
Fairmont	1	3,670	\$55,784	\$15.20
New Ulm	1	6,228	100,831	16.19
Waseca	5	2,483	78,504	31.62
District 7 Total	7	12,381	\$235,119	\$18.99

District 8				
Hutchinson	1	5,380	\$56,329	\$10.47
Redwood Falls	2	2,328	40,020	17.19
District 8 Total	3	7,708	\$96,349	\$12.50

MSAS UNIT PRICE STUDY

CURB AND GUTTER CONSTRUCTION - LIN. FT.

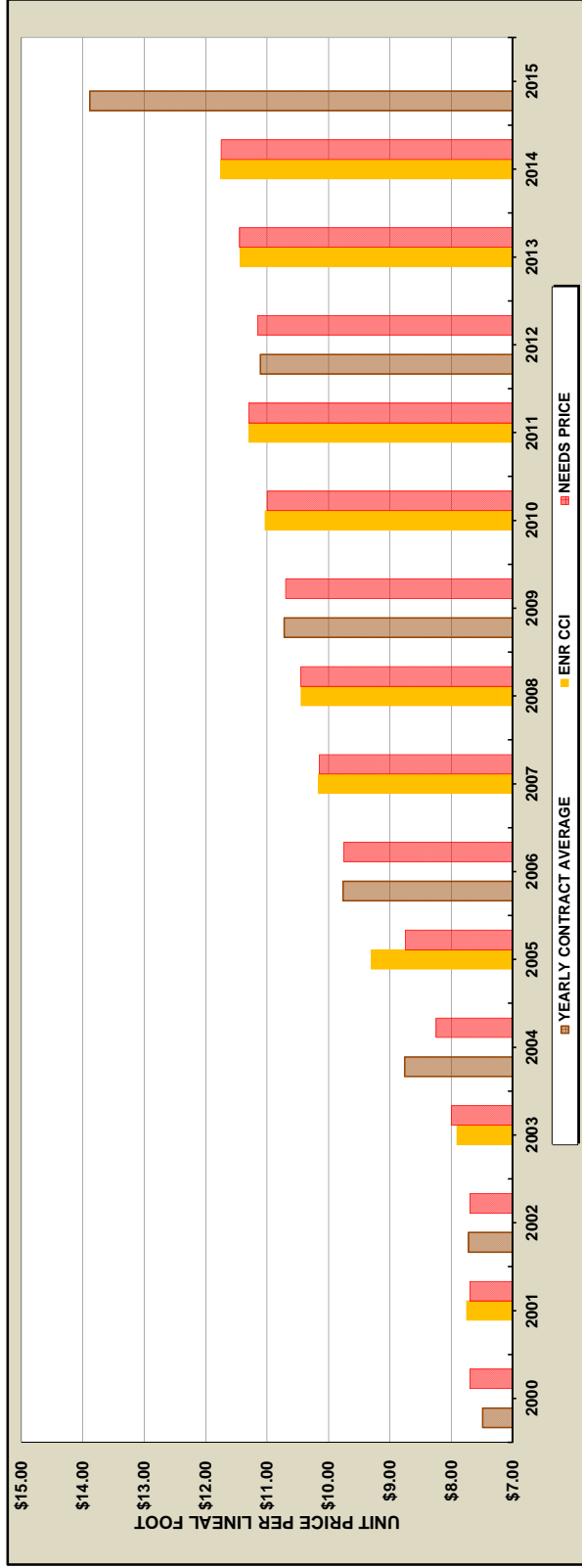
CITY NAME	No. Of Projects	TOTAL QTY.	TOTAL COST	AVERAGE UNIT PRICE
Metro East				
Arden Hills	1	6,135	\$55,215	\$9.00
Burnsville	1	1,000	12,800	12.80
Eagan	3	180	4,500	25.00
Mahtomedi	2	6,500	114,550	17.62
New Brighton	1	125	2,644	21.15
Oakdale	2	1,500	24,540	16.36
Roseville	3	1,145	19,193	16.76
South St. Paul	1	194	6,790	35.00
St. Paul	1	6,386	89,449	14.01
Stillwater	3	1,238	19,922	16.09
Vadnais Heights	1	2,933	33,915	11.56
Metro East Total	19	27,336	\$383,517	\$14.03

Metro West				
Anoka	1	700	\$12,859	\$18.37
Blaine	1	5,513	58,162	10.55
Bloomington	1	3,318	46,128	13.90
Brooklyn Park	4	13,214	232,126	17.57
Champlin	1	1,246	17,814	14.30
Columbia Heights	3	600	12,690	21.15
Fridley	5	2,415	37,433	15.50
Maple Grove	1	2,627	25,219	9.60
Minneapolis	1	100	1,775	17.75
Oak Grove	1	1,590	20,432	12.85
Plymouth	1	18,014	174,882	9.71
Ramsey	1	1,132	14,846	13.12
Shakopee	2	2,324	32,745	14.09
Metro West Total	23	52,793	\$687,111	\$13.02

District Totals				
District 1 Total	5	4,876	\$75,032	\$15.39
District 2 Total	2	1,224	18,378	15.01
District 3 Total	8	39,628	418,817	10.57
District 4 Total	2	1,882	51,699	27.47
District 6 Total	10	21,063	378,968	17.99
District 7 Total	7	12,381	235,119	18.99
District 8 Total	3	7,708	96,349	12.50
Metro East Total	19	27,336	383,517	14.03
Metro West Total	23	52,793	687,111	13.02
STATE TOTAL	79	168,891	\$2,344,989	\$13.88

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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
2008						\$10.45
2009	43	262,251	\$2,812,246	\$10.72	\$10.45	10.70
2010					11.03	11.00
2011					11.29	11.30
2012	63	281,751	3,130,181	11.11		11.15
2013						11.45
2014					11.44	11.75
2015	44	168,891	2,344,989	13.88	11.76	

Needs Year	Number of Cities	Quantity (Ln. Ft.)	Total Cost	Yearly Average Contract Price	Engineering News Record Construction Cost Index	Price Used in Needs
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
2006	52	327,171	3,195,201	9.77		9.75
2007					10.17	10.15

SUBCOMMITTEE'S RECOMMENDED PRICE FOR THE 2015 NEEDS STUDY IS \$13.75 PER LIN. FT.

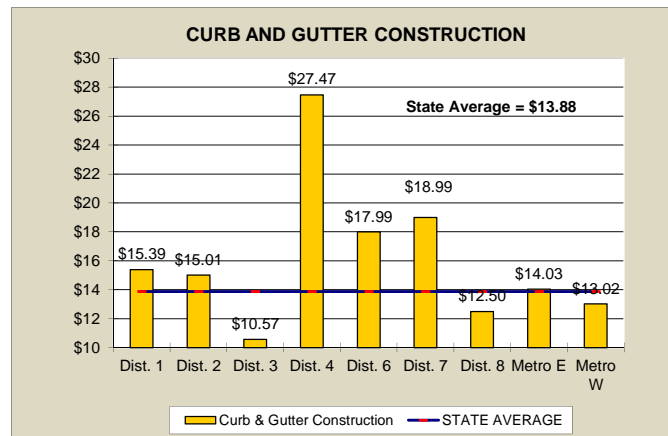
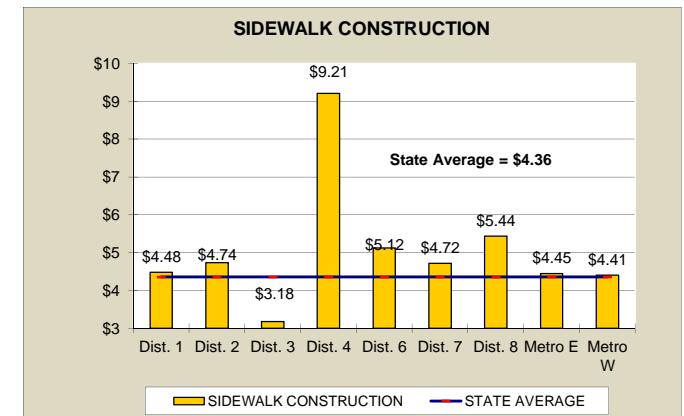
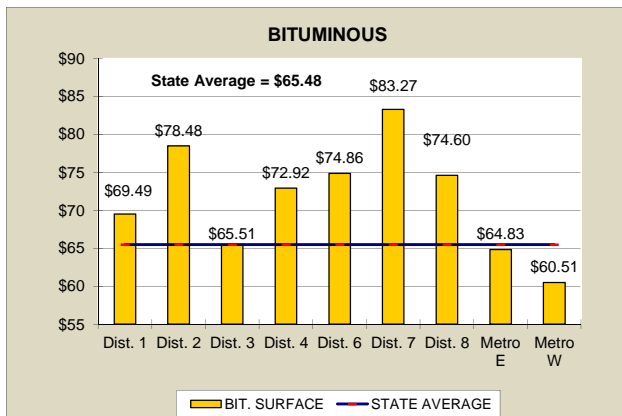
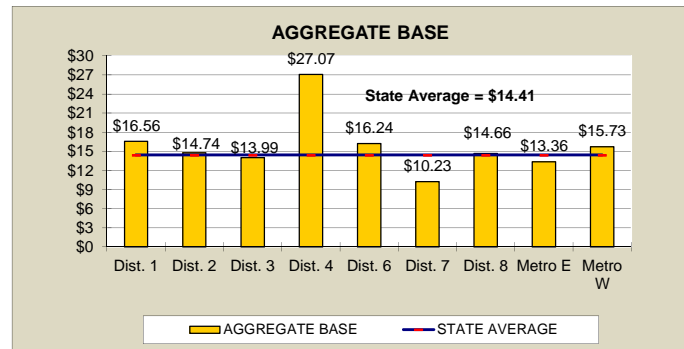
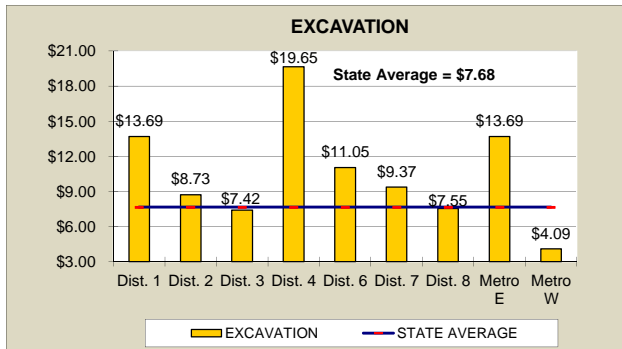
This item was 7.83% of the total needs last year
This year there are 79 projects in 44 cities

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2014 UNIT PRICES BY DISTRICT

For the 2015 Unit Price Study

	Dist. 1	Dist. 2	Dist. 3	Dist. 4	Dist. 6	Dist. 7	Dist. 8	Metro East	Metro West	State Average
Excavation	\$13.69	\$8.73	\$7.42	\$19.65	\$11.05	\$9.37	\$7.55	\$13.69	\$4.09	\$7.68
Aggregate Base	\$16.56	\$14.74	\$13.99	\$27.07	\$16.24	\$10.23	\$14.66	\$13.36	\$15.73	\$14.41
Bituminous- All	\$69.49	\$78.48	\$65.51	\$72.92	\$74.86	\$83.27	\$74.60	\$64.83	\$60.51	\$65.48
Sidewalk Construction	\$4.48	\$4.74	\$3.18	\$9.21	\$5.12	\$4.72	\$5.44	\$4.45	\$4.41	\$4.36
C & G Construction	\$15.39	\$15.01	\$10.57	\$27.47	\$17.99	\$18.99	\$12.50	\$14.03	\$13.02	\$13.88



MnDOT State Aid Bridge Office 2014 Calendar Year - - Bridge Cost Report

General Notes

The CY 2014 Bridge Cost Report reflects the unit cost (\$ per square foot of bridge area) of all of the bridges let in CY 2014.

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 1st 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

MnDOT State Aid Bridge Office

2014 Calendar Year - - Bridge Cost Report

Separated per Bridge Length < 150'

SORTED BY BRIDGE LENGTH

New Bridge Number	Project Type	Project Number	Length	Beam Type Code	Letting Date	Area	Cost	Unit Cost
19J62	SP	019-090-015	20.00	C-ARCH	7/1/2014	1920	\$861,722	\$448.81
L6113	*SP*	118-133-007	26.00	REHAB	8/6/2014	1317	\$517,894	\$393.24
27B70	SAP	027-597-007	29.67	C-SLAB	11/18/2014	836	\$1,019,838	\$1,219.90
27B87	SAP	027-701-026	41.73	C-SLAB	5/13/2014	1809	\$414,111	\$228.92
31566	SAP	031-668-007	49.42	PCB	8/19/2014	1763	\$309,779	\$175.71
69A21	SAP	069-598-054	52.74	PCB	11/19/2014	1864	\$453,197	\$243.13
32574	SAP	032-599-099	61.00	C-SLAB	5/2/2014	1911	\$248,928	\$130.26
40526	SAP	040-599-022	63.92	PCB	5/16/2014	2003	\$263,432	\$131.52
27B91	SAP	027-701-017	65.67	PCB	7/15/2014	4531	\$2,212,853	\$488.38
28553	SP	028-599-077	67.02	C-SLAB	11/17/2014	1966	\$212,044	\$107.86
31564	SAP	031-614-015	68.94	PCB	5/20/2014	2436	\$346,286	\$142.15
04528	SAP	004-598-019	70.92	PCB	7/22/2014	2234	\$319,077	\$142.83
64585	SAP	064-598-019	72.92	PCB	8/21/2014	2577	\$249,410	\$96.78
23588	SAP	023-599-171	73.91	PCB	7/28/2014	2008	\$346,027	\$172.32
R0614	SP	072-090-002	74.00	TRUSS	5/1/2014	888	\$156,853	\$176.64
78531	SP	078-606-025	75.00	C-SLAB	7/1/2014	2950	\$353,087	\$119.69
67568	SAP	067-608-014	77.92	PCB	10/17/2014	2753	\$358,189	\$130.11
24558	SAP	024-625-024	79.67	C-SLAB	3/11/2014	2815	\$320,875	\$113.99
72543	SP	072-613-014	82.42	PCB	6/5/2014	3242	\$359,037	\$110.75
07594	SAP	007-614-009	83.00	PCB	7/2/2014	3085	\$761,235	\$246.75
07597	SAP	007-599-056	83.50	PCB	4/4/2014	2505	\$300,217	\$119.85
22615	SAP	022-606-018	85.25	C-SLAB	4/28/2014	3012	\$407,873	\$135.42
74555	SAP	074-599-030	86.25	PCB	4/3/2014	2703	\$349,211	\$129.19
02585	SP	002-651-007	86.67	PCB	7/29/2014	9736	\$1,267,341	\$130.17
10545	SAP	010-640-010	89.67	C-SLAB	12/11/2014	3886	\$660,493	\$169.97
R0613	SP	072-090-002	98.00	TRUSS	5/1/2014	1176	\$179,563	\$152.69
25613	SAP	025-599-102	98.35	PCB	6/3/2014	3476	\$404,416	\$116.35
25616	SAP	025-599-105	99.92	C-SLAB	3/25/2014	2968	\$312,413	\$105.26
50594	SAP	050-601-031	105.67	C-SLAB	10/9/2014	3734	\$399,407	\$106.96
31567	SAP	031-612-011	106.67	C-SLAB	7/21/2014	4195	\$461,835	\$110.09
27B90	SAP	098-594-002	109.31	PCB	2/12/2014	5539	\$1,050,276	\$189.61
R0605	SP	047-090-003	112.00	TRUSS	6/17/2014	1120	\$251,709	\$224.74
94246	SP	141-090-038	115.00	REHAB	7/22/2014	1802	\$970,380	\$538.50
4481	SP	159-090-018	129.61	REHAB	10/15/2014	1945	\$755,279	\$388.32
28555	SAP	028-603-022	136.35	PCB	7/14/2014	4818	\$577,343	\$119.83
13522	SAP	013-611-003	144.17	PCB	3/17/2014	5094	\$655,374	\$128.66
69A19	SAP	069-622-021	149.67	PCB	10/15/2014	5288	\$1,136,984	\$215.01

SAP AND *SP* DENOTES DULUTH AREA FLOOD BRIDGES

Total Cost	\$20,223,988
Total Deck Area	107,905
Average Cost per Sq Ft	\$187.42
Total No. of Bridges < 150'	37

MnDOT State Aid Bridge Office 2014 Calendar Year - - Bridge Cost Report

Separated per Bridge Length > 150'

SORTED BY BRIDGE LENGTH

New Bridge Number	Project Type	Project Number	Length	Beam Type Code	Letting Date	Area	Cost	Unit Cost
1461	SAP	007-598-024	153	REHAB	41943	2372	\$1,554,587	\$655.39
91143	*SAP*	118-126-020	156.28	REHAB	41691	1485	\$539,732	\$363.46
10550	SAP	010-610-047	167.46	PCB	41956	10921	\$2,265,483	\$207.44
69A18	SAP	069-689-010	185.94	PCB	41718	9244	\$2,493,417	\$269.73
35538	SAP	035-604-025	198.2	PCB	41865	7003	\$1,047,236	\$149.54
19568	SP	019-090-013	220	TRUSS	41955	2604	\$862,311	\$331.15
74556	SAP	074-612-039	227.14	PCB	41767	11887	\$1,498,147	\$126.03
R0657	SP	098-060-002	280	REHAB	41817	2240	\$1,911,211	\$853.22
R0641	SP	092-090-047	295.67	TRUSS	41662	3545	\$1,480,222	\$417.55
19567	SP	019-090-011	350	TRUSS	41955	4164	\$1,246,951	\$299.46
27B92	SP	091-090-072	787.9	TRUSS	41843	11180	\$1,834,574	\$164.09
92277A-K	*SAP*	118-080-050	1375	REHAB	41793	22000	\$1,015,428	\$46.16
SAP AND *SP* DENOTES DULUTH AREA FLOOD BRIDGES								

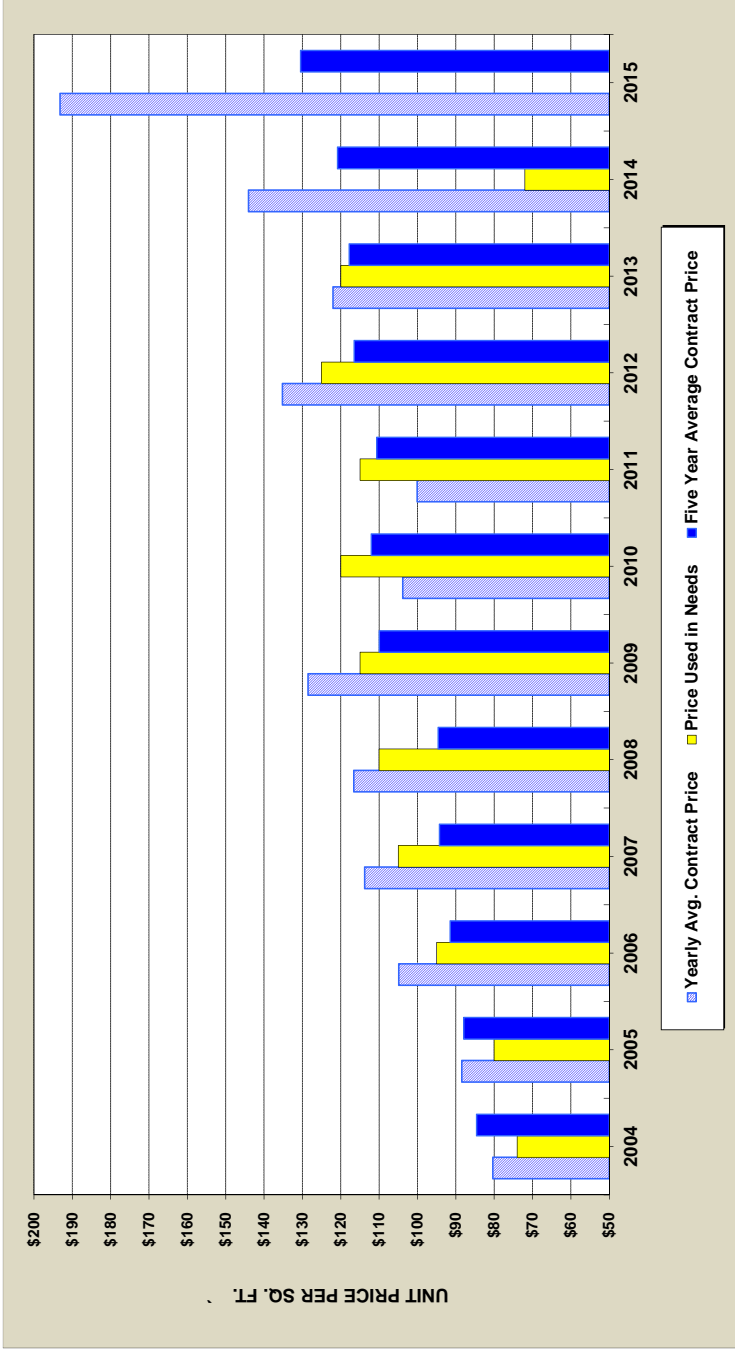
Total Cost	\$17,749,299
Total Deck Area	88,645
Average Cost per Sq Ft	\$200.23
Total No. of Bridges > 150'	12

STRUCTURE COST RECOMMENDATIONS

Totals for All Bridges Let in CY 2014

Total Cost for all Bridges	\$37,973,287
Total Deck Area for all Bridges	196,550
Average Cost per Sq Ft	\$193.20
Total Number of Bridges	49

ALL BRIDGES



NEEDS YEAR	NUMBER OF PROJECTS	DECK AREA	TOTAL COST	YEARLY AVERAGE CONTRACT PRICE	PRICE USED IN NEEDS	5-YEAR AVERAGE CONTRACT PRICE
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
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	109.97
2010	56	333,867	\$34,675,259	\$103.86	\$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	125.00	116.49
2013	73	505,031	61,637,866	122.05	120.00	117.80
2014	91	379,364	54,646,656	144.05	72.00	120.85
2015	49	196,550	37,973,287	193.20		130.48

SUBCOMMITTEES RECOMMENDED STRUCTURE PRICE FOR THE 2015 NEEDS STUDY IS \$96.50 PER SQ. FT.

THE MSB RESOLUTIONS STATE THAT 1/2 OF THE STATEWIDE AVERAGE BRIDGE COST BE USED AS THE STRUCTURE COST IN THE NEEDS

NMMSA\UNT COST STUDY\2015\ALL BRIDGES GRAPH 2015.XLSX

STRUCTURE COST RECOMMENDATIONS

INCLUDES BOTH BRIDGES AND BOX CULVERTS THAT HAVE A BRIDGE NUMBER

Municipal Screening Board Resolutions state:

The area in square feet used for Structure Needs (Bridges and Box Culverts) will be determined by multiplying the centerline length of the bridge, or the culvert width of the box culvert, times the Needs Width from the appropriate MSAS Urban ADT Group. This quantity will then be multiplied by the Municipal Screening Board Unit Price to determine the Structure Needs. The Unit Price for Structures will be determined by using one-half of the approved unit cost provided by the MnDOT State Aid Bridge Office.

Totals for All Bridges Let in CY 2014
PROVIDED BY THE STATE AID BRIDGE OFFICE

<i>Total Cost for all Bridges</i>	\$37,973,287
<i>Total Deck Area for all Bridges</i>	196,550
<i>Average Cost per Sq Ft</i>	\$193.20
<i>Total Number of Bridges</i>	49

Average statewide Structure Cost for Needs purposes is \$193.20/2=\$96.60 per Sq. Ft.
SUBCOMMITTEE'S RECOMMENDED PRICE FOR THE 2015 NEEDS STUDY IS \$96.50 PER SQ. FT.



Minnesota Department of Transportation

Memo

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


Date: March 25, 2015

To: William Lanoux
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 2014



We have completed our analysis of storm sewer construction costs incurred for 2014 and the following assumptions can be utilized for planning purposes per roadway mile:

- Approximately \$326,105 for new construction, and
- Approximately \$101,441 for adjustment of existing systems

The preceding amounts are based on the average cost per mile of State Aid storm sewer using unit prices. 180 Storm Sewer Plans were submitted during 2014.

CC: Andrea Hendrickson (file)

STORM SEWER COST RECOMMENDATIONS

Municipal Screening Board Resolutions state:

The Unit Cost per mile of Storm Sewer for the highest MSAS Urban ADT Group for Needs Purposes will be based on the average costs of all Storm Sewer Construction on the MSAS system in the previous year. To determine the Unit Cost for the highest ADT Group, average costs for Complete Storm Sewer projects and Partial Storm Sewer projects will be provided to State Aid by the MnDOT Hydraulics Office and then added together and divided by two to calculate a statewide average Unit Cost for all Storm Sewer Construction.

The Unit Cost per mile for Storm Sewer Construction will be calculated for the highest MSAS Urban ADT Group and be prorated downward for the other ADT Groups. This proration has been determined based upon an engineering study requested by the Municipal Screening Board in 2011 and will be the basis for the Needs calculations.

Complete Storm Sewer Cost from Hydraulics Specialist		\$326,105		
Partial Storm Sewer Cost from Hydraulics Specialist		\$101,441		
Average SS Cost = (\$326,105 + \$101,441)/2=				\$213,773
NSS Recommended Unit Cost				\$214,000
MSB Approved Unit Cost for 2015				
NSS recommended Storm Sewer Costs for 2015				
<i>based on 2014 costs for the January 2016 distribution</i>				
Needs Width of MSAS Urban ADT Groups for Needs Purposes	Existing ADT per Traffic Group	Cost difference from 70' section	MSB approved percent cost difference from 70' section	Cost based on % of Cost of highest Typical Section
26	0 ADT & Non Existing	\$ (63,100)	-29.5%	\$ 150,900
28	1-499	\$ (60,200)	-28.1%	\$ 153,800
34	500-1,999	\$ (51,600)	-24.1%	\$ 162,400
40	2,000-4,999	\$ (43,000)	-20.1%	\$ 171,000
48	5,000-8,999	\$ (31,500)	-14.7%	\$ 182,500
54	9,000-13,999	\$ (22,900)	-10.7%	\$ 191,100
62	14,000-24,999	\$ (11,500)	-5.4%	\$ 202,500
70	25,000 and over	\$ -	0.0%	\$ 214,000

N:\msas\Unit Cost Study\2015\Storm Sewer Recommendations.xlsx

ITEMS INCLUDED IN THE UNIT COST STUDY

*Report for the Needs Study Subcommittee
Presented by MSAS Needs Unit
April 6, 2015*

The June 22, 2012 minutes of the Municipal Screening Board (MSB) state that the Needs Study Subcommittee (NSS) made the following recommendation to the Municipal Screening Board (MSB):

Johnston highlighted a motion by the Needs Study Subcommittee on page 29, Section F, which came at the request of State Aid and wouldn't kick in for three years as ENR CCI will be used to adjust prices for the next two years. The highlighted motion is to suggest the Screening Board that they **"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, MAINTENANCE, OR A SPECIFIC COMBINATION). THE TYPE OF CONSTRUCTION/PROJECT WILL AFFECT WHAT ITEMS ARE UTILIZED FOR NEEDS ITEM COMPUTATIONS (I.E. NEW CURB OR SIDEWALK VS. MAINTENANCE CURB OR SIDEWALK PATCHES)".**

Discussion took place on the relevance of certain items and what project types should be used. Kildahl thought by averaging costs that it really wouldn't matter in the larger picture. Johnston clarified how he does the unit price study and gave specific items that he doesn't use (i.e. muck excavation, truncated domes, etc). Mathisen thought it might be best to wait to discuss this until the needs study task force completes this work. Bot stated the subcommittee thought it was timely based on the work the task force is doing right now.

On June 23, 2012 the MSB passed the following motion:

Motion by Mathisen, seconded by Kildahl to before the next Unit Cost Study, have SALT prepare a list of what incidental items could be included within the different spec items used in the Unit Cost Study. The NSS will review and make a recommendation to the MSB. The motion carried unanimously.

Discussion Items:

Current practice:

Only use MSAS costs on the MSAS system. We do not use MSAS funds spent off system (CSAH's or TH's, or local streets).

We do not use Safe Route To Schools projects.

Do not use costs if specified as trail or driveway quantities i.e., bit, gravel base, etc.

Excavation- Spec #2105 Cubic Yards:

Currently include:

- Common Excavation
- Subgrade Excavation

Specifically do not currently include:

- Muck Excavation
- Rock Excavation

Should we include:

- Muck Excavation
- Rock Excavation
- Select Granular Borrow (from off site)
- Excavation and Truck Reclaimed Material
- Common Excavation for Rain Gardens and Drainage Swales
- Common Embankment (from job site)
- Select Granular Embankment (from job site)
- Unclassified Excavation
- Common Excavation- Salvage Aggregate Base
- Common Excavation Export
- Common Excavation for sidewalk
- Others

Aggregate Base- Spec #2211 Tons

Currently Include:

- Class 2, 3, 4, 5, 6 or 7
- Calcium Chloride

Specifically do not currently include:

- Base if used in driveways

Should we include:

- Aggregate Base, Class 7 Full Depth Recycled Production
- Aggregate Base (Trail)
- Aggregate Subbase
- Subgrade Preparation

All Bituminous- Multiple Spec #'s Ton

Currently include:

- Bit Material for Tack Coat (Spec#2357 Cost only, not quantity)
- Bit Material for Mix
- Contractor Testing (Spec # 2340)

Specifically do not currently include:

- Recycled Mix
- Seal coats, fog coats, microsurfacing
- Bit mixture for driveway

Should we include:

Bit Base (Trail)

Bit Material for Patching

Concrete Sidewalk Construction Spec #2521 Square Feet

Currently include:

All thicknesses

Concrete Pavement Removal (Spec #2104) for Driveways is included with sidewalk removal if there is sidewalk removal on the job.

Specifically do not currently include:

Bituminous Walks

Contracts that are only ped ramps

Contracts where ped ramps is the only sidewalk item

Should we include:

Truncated dome (required by the Justice Dept.)

Ped ramp (required by the Justice Dept.)

Concrete Sidewalk High Early

Concrete Sidewalk Special

Bituminous sidewalk

Bituminous trail

Curb & Construction Spec # 2531 Lineal Feet

Currently include:

All B type curb and gutter (B612, B618, etc.)

All curb & gutter

Specifically do not currently include:

Integrant curbing

Surmountable curb

V type curb

Bituminous Curb

Reinforcing for C&G.

Street Lighting



UNIT COST FOR STREET LIGHTING
Report for the Needs Study Subcommittee
Spring 2000 meeting
4/13/00

◆
HISTORY

The following paragraph is from the minutes of the April 12, 1999 meeting of the Needs Study Subcommittee:

The Screening Committee directed the Needs Study Subcommittee to review the lighting costs. After much discussion the Subcommittee is recommending a price increase from \$20,000 a mile to \$35,000 per mile. An estimate of 14 poles with a cost of \$2500 per pole was used to determine the proposed cost.

The following is from the minutes of the June 3, 1999 Screening Board meeting:

Ed Warn moved to send the street lighting unit price analysis back to the Needs Subcommittee to look further at AASHTO standards, other standards if applicable, to recommend a per-mile street lighting cost and to consider the potential use of after-the-fact needs for street lighting. Ramankutty Kannankutty seconded the motion. Discussion regarding the motion included the following:

- ◆ Keep the street lighting cost unit price calculations as simple as possible.
- ◆ Determine what a realistic amount would be for cost of street lighting.
- ◆ Establish a standard roadway street lighting as the basis for the unit prices.
- ◆ Establish a minimal lighting standard and make it a requirement for actual construction requirements.

Upon vote, the motion carried. Mark Winson and David Salo voted against the motion.

Options & Questions

The Mn/DOT State Lighting Engineer made the following recommendations, which are based upon the AASHTO street lighting book entitled 'An Informational Guide for Roadway Lighting':

Local Commercial would have about 26 lights per mile. This is an average of 0.6 to 0.8 footcandles and is based on 200 foot staggered spacing. It does include intersections, but signalized intersections would reduce the number of light poles.

Local Residential would have intersection and midblock lighting. Assuming 10 blocks per mile, that would be 19 light figures. AASHTO recommends an average

or 0.3 footcandles, but this might or might not be achieved depending on the length of the blocks.

Mn/DOT estimates that a 40-foot pole with a standard cobra head costs \$4000 to install. This includes foundation, cables, conduit, etc.

So, for estimating and planning purposes, the Mn/DOT State Lighting Engineer recommends using \$104,000 per mile for Local Commercial and \$76,000 per mile for Local Residential lighting costs

Otter Tail Power, Northern States Power, and the FHWA were also contacted about costs per mile for street lighting. The only response was from NSP, who reviewed the numbers from the State Lighting Engineer, and agreed that they were realistic figures.

Currently, all segments receive street lighting needs. Rural and urban, adequate and deficient.

Should all deficient and adequate segments receive lighting needs?

Should both urban and rural segments receive lighting needs?

Should lighting needs be based on projected traffic like traffic signal needs are?

Example:

Projected Traffic	Percentage X	Unit Price =	Needs per Mile
0 – 4,999	0.25	\$35,000	\$8,750
5,000 – 9,999	0.50	\$35,000	\$17,500
10,000 & over	1.00	\$35,000	\$35,000

Should there be an after the fact positive needs adjustment for street lighting based on the state aid portion of the actual construction cost? The city would have to submit documentation of any street lighting adjustment requested.

STREET LIGHTING PROJECTS AWARDED IN 2014 WITH PAYMENT REQUEST SUBMITTED BY FEBRUARY 5, 2015

Spec Number 2545

SP or SAP Number	Project Description	Quantity	Unit	Unit Cost	Total Cost
117-101-012	RELOCATE PORTABLE PRECAST CONCRETE BARRIER DESIGN 8337	18.0	Each	\$2,400.00	\$43,200
Detroit Lakes	LIGHT FOUNDATION DESIGN STEEL E	18.0	Each	700.00	12,600
	2" RIGID STEEL CONDUIT	64.0	LF	23.00	1,472
	2" NON-METALLIC CONDUIT	248.0	LF	11.50	2,852
	3" NON-METALLIC CONDUIT	180.0	LF	14.00	2,520
	5" NON METALLIC CONDUIT	248.0	LF	15.00	3,720
	DIRECT BURIED LIGHTING CABLE 4 COND NO	2,949.0	LF	10.00	29,490
	SERVICE CABINET -TYPE L1	1.0	Each	3,500.00	3,500
	EQUIPMENT PAD B	1.0	Each	580.00	580
	HANDHOLE	8.0	Each	800.00	6,400
NOTE: Project 117-101-012 is part of Trunk Highway project 0304-32 in Detroit Lakes and the there are no cost splits					
133-103-002	Install Electrical Lighting System	1.0	Lump Sum	\$14,950.00	\$14,950
Hutchinson					
148-122-003	Electric Light System	1.0	EACH	\$41,709.06	\$41,709
New Ulm					
156-127-003	Electric Light System	1.0	EACH	\$90,950.00	\$90,950
Red Wing					
	Lighting Unit Type A	1.0	EACH	3,575.00	3,575
	Lighting Unit Type Special	3.0	EACH	2,665.00	7,995
	Lighting Unit Type Special 1	8.0	EACH	3,455.00	27,640
	Lighting Unit Type Special 2	4.0	EACH	3,455.00	13,820
	Light Foundation Design E	16.0	EACH	670.00	10,720
	2" Rigid Steel Conduit	61.0	LIN FT	9.25	564
	1.5" Non-Metallic Conduit	2,857.0	LIN FT	3.15	9,000
	2" Non Metallic Conduit	135.0	LIN FT	3.30	446
	6" Non Metallic Conduit	150.0	LIN FT	11.25	1,688
	Underground Wire 1 Cond No 2	193.0	LIN FT	1.50	290
	Underground Wire 1 Cond No 6	10,316.0	LIN FT	1.00	10,316
	Service Cabinet	1.0	EACH	4,275.00	4,275
	Service Equipment	1.0	EACH	1.00	1
	Handhole	16.0	EACH	650.00	10,400
162-162-001	Lighting Unit Type Special	14.0	EACH	\$1,720.00	\$24,080
St. Cloud					
	Light Foundation Design E Modified	14.0	EACH	800.00	11,200
	2" Non Metallic Conduit	4,715.0	LIN FT	3.10	14,617
	3" Non Metallic Conduit	245.0	LIN FT	5.40	1,323
	Underground Wire 1 Cond No 2	140.0	LIN FT	1.27	178
	Underground Wire 1 Cond No 6	15,748.0	LIN FT	0.92	14,488
	Service Equipment	1.0	EACH	250.00	250
	Service Cabinet Type L1	1.0	EACH	2,940.00	2,940
	Equiptment Pad	1.0	EACH	970.00	970
	Handhole	8.0	EACH	650.00	5,200
	Electrical Service	1.0	LUMP SUM	1.00	1

164-168-010	Force Account			
St. Paul	Street Lighting			\$345,100
164-214-016	LIGHTING UNIT TYPE L10	33.0 EACH	\$1,650.00	\$54,450
St. Paul	LUMINAIRE TYPE R100	33.0 EACH	970.00	32,010
	LIGHT BASE FOUNDATION TYPE STANDARD	33.0 EACH	565.00	18,645
	2" RIGID STEEL CONDUIT	30.0 LIN. FT.	11.00	330
	1-1/2" NMC	4,940.0 LIN. FT.	2.25	11,115
	1-1/2" NMC TRENCH & RESTORE/PUSH	800.0 LIN. FT.	5.10	4,080
	1C #6 AWG	14,820.0 LIN. FT.	1.35	20,007
	1C #8 AWG INSULATED	5,740.0 LIN. FT.	0.56	3,214
	METERED SERVICE CABINET (LIGHTING)	2.0 EACH	1,940.00	3,880
	HANDHOLE TYPE L	5.0 EACH	380.00	1,900
181-106-004	LIGHTING UNIT TYPE SPECIAL 1	4.0 EACH	\$6,400.00	\$25,600
Eden Prairie	LIGHT BASE DESIGN E	1.0 EACH	730.00	730
	2" RIGID STEEL CONDUIT	15.0 EACH	15.00	225
	3" NON-METALLIC CONDUIT	217.0	7.70	1,671
	UNDERGROUND WIRE 1 COND NO 2	120.0	3.30	396
	UNDERGROUND WIRE 1 COND NO 4	2,294.0	1.30	2,982
	DIRECT BURIED LIGHTING CABLE, 4COND NO 4	692.0	7.60	5,259
	SERVICE CABINET SECONDARY TYPE L1	1.0 EACH	4,000.00	4,000
	SERVICE EQUIPMENT	2.0 EACH	1.10	2
	EQUIPMENT PAD B	2.0 EACH	1,100.00	2,200
	INSTALL LIGHTING UNIT	1.0 EACH	250.00	250
	INSTALL SERVICE CABINET	1.0 EACH	510.00	510
185-237-005	NON PARTICIPATING			
Oakdale	Install Lighting Unit, Type A	65.0 each	\$461.24	\$29,981
	Install Lighting Unit, Type B	10.0 each	513.15	5,132
	Underground Wire, One Conductor, No. 6 AWG.	54,000.0 lf	0.89	48,060
	Handhole	15.0 each	458.59	6,879
	Feedpoint	5.0 each	4,838.66	24,193
	Connect to Existing Light Circuitry	7.0 each	258.53	1,810
	1.5" PVC Conduit, Sch. 40	18,000.0 lf	7.04	126,720
191-103-007	Lighting Unit Type Special	8.0 EACH	\$4,155.00	\$33,240
Sauk Rapids	Light Base Design E Modified	6.0 EACH	717.00	4,302
	2" Non-Metallic Conduit	1,850.0 LIN FT	4.78	8,843
	Underground Wire 1 Cond No 1/0	180.0 LIN FT	2.94	529
	Underground Wire 1 Cond No 6	4,000.0 LIN FT	0.85	3,400
	Underground Wire 1 Cond No 8	2,000.0 LIN FT	0.81	1,620
	Underground Wire 1 Cond 12	1,250.0 LIN FT	0.74	925
	Service Cabinet	1.0 EACH	3,968.00	3,968
	Install Service Equipment	1.0 EACH	512.00	512
209-108-006	Lighting Unit Type Special	1.0 EACH	\$5,936.00	\$5,936
Vadnais Heights	Lighting Unit Type Special 1	5.0 EACH	4,770.00	23,850
	Light Foundation Design E Modified	6.0 EACH	689.00	4,134
	2" Non Metallic Conduit	1,100.0 LF	4.77	5,247
	Underground Wire 1 Cond No 8	3,000.0 LF	1.06	3,180
	Underground Wire 1 Cond 12	850.0 LF	0.95	808

213-126-001 Buffalo	Lighting Unit Type Special	27.0 EACH	\$5,100.00	\$137,700
	Light Foundation Design E Modified	27.0 EACH	550.00	14,850
	2" Non Metallic Conduit	5,100.0 LIN FT	3.50	17,850
	2" Non Metallic Conduit (Directional Bore)	200.0 LIN FT	15.00	3,000
	Power Cable 1 Conductor No 6	20,400.0 LIN FT	1.40	28,560
	Lighting Service Pedestal	2.0 EACH	1,800.00	3,600
	Install Lighting Service Cabinet	1.0 EACH	5,300.00	5,300
219-100-005 Mahtomedi	NON PARTICIPATING			
	LIGHTING UNIT TYPE SPECIAL	17.0 EACH	\$6,455.03	\$109,736
221-109-001 Waite Park	LIGHTING UNIT TYPE SPECIAL 1	6.0 EACH	\$5,700.00	\$34,200
	LIGHT BASE DESIGN E MODIFIED	6.0 EACH	720.00	4,320
	2" NON-METALLIC CONDUIT	1,175.0 LIN FT	4.10	4,818
	UNDERGROUND WIRE 1 COND NO 3/0	180.0 LIN FT	3.30	594
	UNDERGROUND WIRE 1 COND NO 4	3,150.0 LIN FT	1.60	5,040
	UNDERGROUND WIRE 1 COND NO 6	2,250.0 LIN FT	1.00	2,250
	UNDERGROUND WIRE 1 COND NO 8	1,125.0 LIN FT	0.70	788
	UNDERGROUND WIRE 1 COND NO 12	1,200.0 LIN FT	0.50	600
	SERVICE CABINET	5,300.0 EACH	1.00	5,300
	SERVICE EQUIPMENT	550.0 EACH	1.00	550
	EQUIPMENT PAD	725.0 EACH	1.00	725
	HANDHOLE	2.0 EACH	805.00	1,610
221-110-001 Waite Park	LIGHTING UNIT TYPE SPECIAL	14.0 EACH	\$2,640.00	\$36,960
	LIGHT BASE DESIGN E MODIFIED	14.0 EACH	720.00	10,080
	2" NON-METALLIC CONDUIT	3,000.0 LIN FT	4.10	12,300
	2" NON-METALLIC CONDUIT (DIRECTIONAL BORE)	125.0 LIN FT	11.20	1,400
	UNDERGROUND WIRE 1 COND NO 1/0	180.0 LIN FT	2.25	405
	UNDERGROUND WIRE 1 COND NO 6	6,150.0 LIN FT	1.00	6,150
	UNDERGROUND WIRE 1 COND NO 8	3,075.0 LIN FT	0.70	2,153
	UNDERGROUND WIRE 1 COND NO 12	1,700.0 LIN FT	0.50	850
	SERVICE CABINET	5,300.0 EACH	1.00	5,300
	SERVICE EQUIPMENT	550.0 EACH	1.00	550
	EQUIPMENT PAD	725.0 EACH	1.00	725
	HANDHOLE	1.0	805.00	805
	INSTALL LUMINAIRE	14.0	80.00	1,120

N:\MSAS\UNIT COST STUDY\2015\STREET LIGHTING PROJ 2014.XLXS (Costs)

2015 STREET LIGHTING STUDY

LIGHTING UNIT TYPE SPECIALS 2014 (2545.511)						
CITY	PROJECT	DISTRICT	TYPE	QUANTITY	UNIT COST	TOTAL COST
Buffalo	213-126-001	D3	Lighting Unit Type Special	27	\$5,100	\$137,700
Sauk Rapids	191-103-007	D3	Lighting Unit Type Special	8	\$4,155	\$33,240
St. Cloud	162-162-001	D3	Lighting Unit Type Special	14	\$1,720	\$24,080
Waite Park	221-109-001	D3	LIGHTING UNIT TYPE SPECIAL 1	6	\$5,700	\$34,200
Waite Park	221-110-001	D3	LIGHTING UNIT TYPE SPECIAL	14	\$2,640	\$36,960
Red Wing	156-127-003	D6	Lighting Unit Type A	1	\$3,575	\$3,575
Red Wing	156-127-003	D6	Lighting Unit Type Special	3	\$2,665	\$7,995
Red Wing	156-127-003	D6	Lighting Unit Type Special 1	8	\$3,455	\$27,640
Red Wing	156-127-003	D6	Lighting Unit Type Special 2	4	\$3,455	\$13,820
Eden Prairie	181-106-004	metro	LIGHTING UNIT TYPE SPECIAL 1	4	\$6,400	\$25,600
Mahtomedi	219-100-005	metro	LIGHTING UNIT TYPE SPECIAL	17	\$6,455	\$109,736
Oakdale	185-237-005	metro	Install Lighting Unit, Type A	65	\$461	\$29,981
Oakdale	185-237-005	metro	Install Lighting Unit, Type B	10	\$513	\$5,132
St. Paul	164-214-016	metro	LIGHTING UNIT TYPE L10	33	\$1,650	\$54,450
Vadnais Heights	209-108-006	metro	Lighting Unit Type Special	1	\$5,936	\$5,936
Vadnais Heights	209-108-006	metro	Lighting Unit Type Special 1	5	\$4,770	\$23,850

AVERAGE COST FOR LIGHTING UNITS ONLY (2545.511)		
METRO TOTALS	135	\$254,684
	\$1,887 average cost per light	
	\$49,050 average cost per light X 26 (26 is number of lights per mile using AASHTO recommended spacing for Local Commercial)	
	\$35,844 average cost per light X 19 (19 is the number of lights per mile using AASHTO recommended spacing for Local Residential)	
OUTSTATE TOTALS	85	\$319,210
	\$3,755 average cost per light	
	\$97,641 average cost per light X 26 (26 is number of lights per mile using AASHTO recommended spacing for Local Commercial)	
	\$71,353 average cost per light X 19 (19 is the number of lights per mile using AASHTO recommended spacing for Local Residential)	
STATE TOTAL	220	\$573,894
	\$2,609 average cost per light	
	\$67,824 average cost per light X 26 (26 is number of lights per mile using AASHTO recommended spacing for Local Commercial)	
	\$49,564 average cost per light X 19 (19 is the number of lights per mile using AASHTO recommended spacing for Local Residential)	

			Number of Lighting Units per Project	TOTAL COST	Wire Cost per Lighting Unit
WIRING COSTS					
Detroit Lakes	117-101-012	All wiring, conduit, AWG, etc.	18	\$40,054	\$2,225
Red Wing	156-127-003		16	\$22,302	\$1,394
St. Cloud	162-162-001		14	\$30,605	\$2,186
St. Paul	164-214-016		33	\$38,746	\$1,174
Eden Prairie	181-106-004		4	\$10,533	\$2,633
Oakdale	185-237-005		75	\$174,780	\$2,330
Sauk Rapids	191-103-007		8	\$15,317	\$1,915
Vadnais Heights	209-108-006		6	\$9,235	\$1,539
Buffalo	213-126-001		27	\$49,410	\$1,830
Waite Park	221-109-001		6	\$14,089	\$2,348
Waite Park	221-110-001		14	\$23,258	\$1,661

AVERAGE COST FOR WIRING ONLY			
Of the 15 Traffic Signal projects included from 2014, 11 of them had wiring costs split out separately.			
METRO TOTAL	233,294	118	\$1,977 Avg. cost of wire per lighting unit
OUTSTATE TOTAL	195,035	103	\$1,894 Avg. cost of wire per lighting unit
STATEWIDE TOTAL	428,330	221	\$1,938 Avg. cost of wire per lighting unit

LIGHT BASE (FOUNDATION)			Number of Light Bases (Foundations) per project	Total Cost	Cost of Light Bases (Foundations) per base
Detroit Lakes	117-101-012	LIGHT FOUNDATION DESIGN STEEL E	18	\$12,600	\$700
Red Wing	156-127-003	Light Foundation Design E	16	\$10,720	\$670
St. Cloud	162-162-001	Light Foundation Design E Modified	14	\$11,200	\$800
St. Paul	164-214-016	LIGHT BASE FOUNDATION TYPE STANDARD	33	\$18,645	\$565
Eden Prairie	181-106-004	LIGHT BASE DESIGN E	1	\$730	\$730
Sauk Rapids	191-103-007	Light Base Design E Modified	6	\$4,302	\$717
Vadnais Heights	209-108-006	Light Foundation Design E Modified	6	\$4,134	\$689
Buffalo	213-126-001	Light Foundation Design E Modified	27	\$14,850	\$550
Waite Park	221-109-001	LIGHT BASE DESIGN E MODIFIED	6	\$4,320	\$720
Waite Park	221-110-001	LIGHT BASE DESIGN E MODIFIED	14	\$10,080	\$720

AVERAGE COST FOR LIGHT FOUNDATIONS ONLY					
METRO TOTAL	\$23,509	40	\$588 Avg. cost per base		
OUTSTATE TOTAL	\$68,072	101	\$674 Avg. cost per base		
STATEWIDE TOTAL	\$91,581	141	\$650 Avg. cost per base		

AVERAGE COST PER LIGHTING UNIT

two options for light spacing

	PER LIGHTING UNIT	WIRING COST PER LIGHTING UNIT	FOUNDATION COST PER LIGHTING UNIT	TOTALS of AVERAGES	EXAMPLE Costs per Mile (Totals X 26)	EXAMPLE Costs per Mile (Totals X 19)
METRO AVERAGE	\$1,887	\$1,977	\$588	\$4,451	\$115,735	\$84,575
OUTSTATE AVERAGE	\$3,755	\$1,894	\$674	\$6,323	\$164,396	\$120,136
STATEWIDE TOTAL AVERAGE	\$2,609	\$1,938	\$650	\$5,196	\$135,103	\$98,729

Needs Study Subcommittee's recommended price for 2015: \$100,000 per mile

Traffic Signals



ON SYSTEM MSAS TRAFFIC SIGNAL PROJECTS AWARDED IN 2014 WITH PAYMENT REQUEST SUBMITTED BY FEB. 5, 2015

All items come from Abstract of Bids listed under Spec. No.2565

		Participating Cost Each	Participating Quantity	Total Participating Cost	Non Participating Cost Each	Non Participating Quantity	Total Non Participating Cost	Unit
107-128-013 Bloomington	ADJUST HANDHOLE REVISE SIGNAL SYSTEM F	\$230 33,200	4.0 0.5	\$920.00 16,600	230	2.0	460 EACH SYSTEM EACH	
107-131-038 Bloomington	TRAFFIC CONTROL SIGNAL SYSTEM A ADJUST HANDHOLE RIGID PVC LOOP DETECTOR 6'X6' REVISE SIGNAL SYSTEM B REVISE SIGNAL SYSTEM C REVISE SIGNAL SYSTEM D	219,000 230 935 82,000 46,500 11,000	1.0 8.0 1.0 1.0 1.0 1.0	219,000 1,840 935 82,000 46,500 11,000			SIG SYS EACH EACH SYSTEM SYSTEM SYSTEM	
107-132-029 Bloomington	RIGID PVC LOOP DETECTOR 6'X6'	935	3.0	2,805			EACH	
107-132-030 Bloomington	ADJUST HANDHOLE RIGID PVC LOOP DETECTOR 6'X6' INSTALL FLASHING BEACON SYSTEM	230 935 2,260	1.0 6.0 1.0	230 5,610 2,260			EACH EACH SYSTEM	
107-132-031 Bloomington	TRAFFIC CONTROL SIGNAL SYSTEM A ADJUST HANDHOLE	161,000 1,635	1.0 3.0	161,000 4,905			SIG SYS EACH	
107-407-021 Bloomington	ADJUST HANDHOLE INSTALL FLASHING BEACON SYSTEM REVISE SIGNAL SYSTEM E	230 12,600 7,200	1.0 1.0 1.0	230 12,600 7,200			EACH SYSTEM SYSTEM	
107-425-010 Bloomington	ADJUST HANDHOLE RIGID PVC LOOP DETECTOR 6'X6'	230 935	4.0 12.0	920 11,220			EACH EACH	
110-129-005 Brooklyn Park	Traffic Control Signal System Emergency Vehicle Preemption System Traffic Control Interconnection APS Pedestrian Push Button & Sign	109,290 8,500	0.5 0.5	54,645 4,250	8,500 29,300 1,200	1.0 0.5 1.0 8.0	54,645 Sig. Sys. 4,250 LS 0 LS 0 EACH	
114-116-010 Coon Rapids	Traffic Signal Installation Traffic Signal Revision Traffic Signal Cabinet & Controller						No Abstract on file No Abstract on file	
114-121-011 Columbia Heights	TRAFFIC CONTROL SIGNAL SYSTEM A EMERGENCY VEHICLE PREEMPTION SYSTEM SIGNAL SERVICE CABINET REVISE SIGNAL SYSTEM B REVISE SIGNAL SYSTEM C	206,327 24,500 12,000	1.0 1.0 1.0	206,327 24,500 12,000			206,327 SIG SYS 24,500 LUMP SUM 12,000 EACH SIG SYS SIG SYS	

2015 TRAFFIC SIGNAL STUDY

TRAFFIC CONTROL SIGNAL SYSTEMS AWARDED IN 2014 (Spec # 2565.511)

CITY	PROJECT	DISTRICT	TYPE	QUANTITY	COST Per EACH	
Bloomington	107-131-038	metro	traffic signal install	1	\$219,000	
Bloomington	107-132-031	metro	traffic signal install	1	\$161,000	
Brooklyn Park	110-129-005	metro	traffic signal install	0.5	\$109,290	
Columbia Heights	114-121-011	metro	traffic signal install	1	\$206,327	
Plymouth	155-153-003	metro	traffic signal install	1	\$150,000	
Rochester	159-132-006	D6	traffic signal install	1	\$107,000	
Rochester	159-132-006	D6	traffic signal install	1	\$120,000	
Rochester	159-132-006	D6	traffic signal install	1	\$122,000	
Rochester	159-132-006	D6	traffic signal install	1	\$155,000	
Rochester	159-136-003	D6	traffic signal install	1	\$132,350	
St. Paul	164-168-010	metro	signal	1	\$250,800	
St. Paul	164-267-005	metro	signal	1	\$200,000	
Eden Prairie	181-106-004	metro	traffic signal install	1	\$220,000	
Eden Prairie	181-106-004	metro	traffic signal install	1	\$150,000	
Eden Prairie	181-106-004	metro	traffic signal install	1	\$150,000	
Eden Prairie	181-106-004	metro	traffic signal install	1	\$230,000	
Metro total				10.5	\$2,046,417	Avg Cost \$194,897
Outstate total (Rochester)				5.0	\$636,350	\$127,270
State total				15.5	\$2,682,767	\$173,082

TEMPORARY SIGNAL SYSTEMS AWARDED IN 2014 (Spec # 2565.616)

CITY	PROJECT	DISTRICT	TYPE	QUANTITY	COST Per EACH	
Rochester	159-136-003	D6	Temporary Signal System	1	\$188,500	
Eden Prairie	181-106-004	metro	Temporary Signal System	1	\$87,000	
Eden Prairie	181-106-004	metro	Temporary Signal System	1	\$71,000	
Eden Prairie	181-106-004	metro	Temporary Signal System	1	\$72,000	
Eden Prairie	181-106-004	metro	Temporary Signal System	1	\$110,000	
Metro total				4	\$340,000	Avg Cost \$85,000
Outstate total (Rochester)				1	\$188,500	\$188,500
State total (Temp Signals)				5	\$528,500	\$105,700

REVISE SIGNAL SYSTEMS AWARDED IN 2014 (Spec # 2565.616)

CITY	PROJECT	DISTRICT	TYPE	QUANTITY	COST Per EACH	
Bloomington	107-128-013	metro	Revised Signal System	0.5	\$33,200	
Bloomington	107-131-038	metro	Revised Signal System	1	\$82,000	
Bloomington	107-131-038	metro	Revised Signal System	1	\$46,500	
Bloomington	107-131-038	metro	Revised Signal System	1	\$11,000	
Bloomington	107-407-021	metro	Revised Signal System	1	\$7,200	
Columbia Heights	114-121-011	metro	Revised Signal System	1	\$18,221	
Columbia Heights	114-121-011	metro	Revised Signal System	1	\$11,850	
Fairmont	123-110-014	D7	Revised Signal System	1	\$65,000	
Faribault	125-135-005	D6	Revised Signal System	1	\$41,000	
Eagan	195-108-007	metro	Revised Signal System	1	\$13,500	
Eagan	195-108-007	metro	Revised Signal System	1	\$28,000	
Andover	198-110-003	metro	Revised Signal System	0.5	\$29,225	
Vadnais Heights	209-108-006	metro	Revised Signal System	1	\$67,095	
Metro total				10	\$347,791	Avg Cost \$34,779
Outstate total				2	\$106,000	\$53,000
State total				12	\$453,791	\$37,816

EMERGENCY VEHICLE PREEMPTION SYSTEMS AWARDED IN 2014

CITY	PROJECT	DISTRICT	TYPE	QUANTITY	COST Per EACH	
Brooklyn Park	110-129-005	metro	Emergency Vehicle Preemption System	0.5	8500	
Columbia Heights	114-121-011	metro	Emergency Vehicle Preemption System	1	24500	
Plymouth	155-153-003	metro	Emergency Vehicle Preemption System	1	6730	
Eden Prairie	181-106-004	metro	Emergency Vehicle Preemption System	1	6600	
Eden Prairie	181-106-004	metro	Emergency Vehicle Preemption System	1	6000	
Eden Prairie	181-106-004	metro	Emergency Vehicle Preemption System	1	6000	
Eden Prairie	181-106-004	metro	Emergency Vehicle Preemption System	1	6000	
State total				6.5	64330	Avg Cost \$9,897

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AVERAGE COSTS FOR TRAFFIC SIGNALS

	TRAFFIC CONTROL SIGNAL SYSTEMS	EMERGENCY VEHICLE PREEMPTION SYSTEMS	TEMPORARY SIGNAL SYSTEMS	REVISED SIGNAL SYSTEMS	STATE TOTAL AVERAGE
METRO AVERAGE	\$194,897		\$85,000	\$34,779	\$104,892
OUTSTATE AVERAGE	\$127,270		\$188,500	\$53,000	\$122,923
STATE TOTAL AVERAGE	\$173,082	\$9,897	\$105,700	\$37,816	\$182,979

Temporary and Revised Signal Systems are not included in the State Average.

Unit Price recommendation is \$185,000 (rounded up from \$182,979)

HISTORY OF 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)
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	97,000	307,300	100,000	34,000-136,000
2013	\$313,500 and \$205,954		100,000	\$225,000/signal
2014	\$148,100 and \$210,000		100,000	\$205,000/signal
2015				

** Lighting needs were revised to deficient segment only.

NEEDS STUDY SUBCOMMITTEE'S RECOMMENDED PRICES FOR 2015:

Storm Sewer/Mile	Lighting/Mile	Traffic Signals/per Signal
<u>\$150,900 to \$214,000</u>	<u>\$100,000</u>	<u>\$185,000</u>

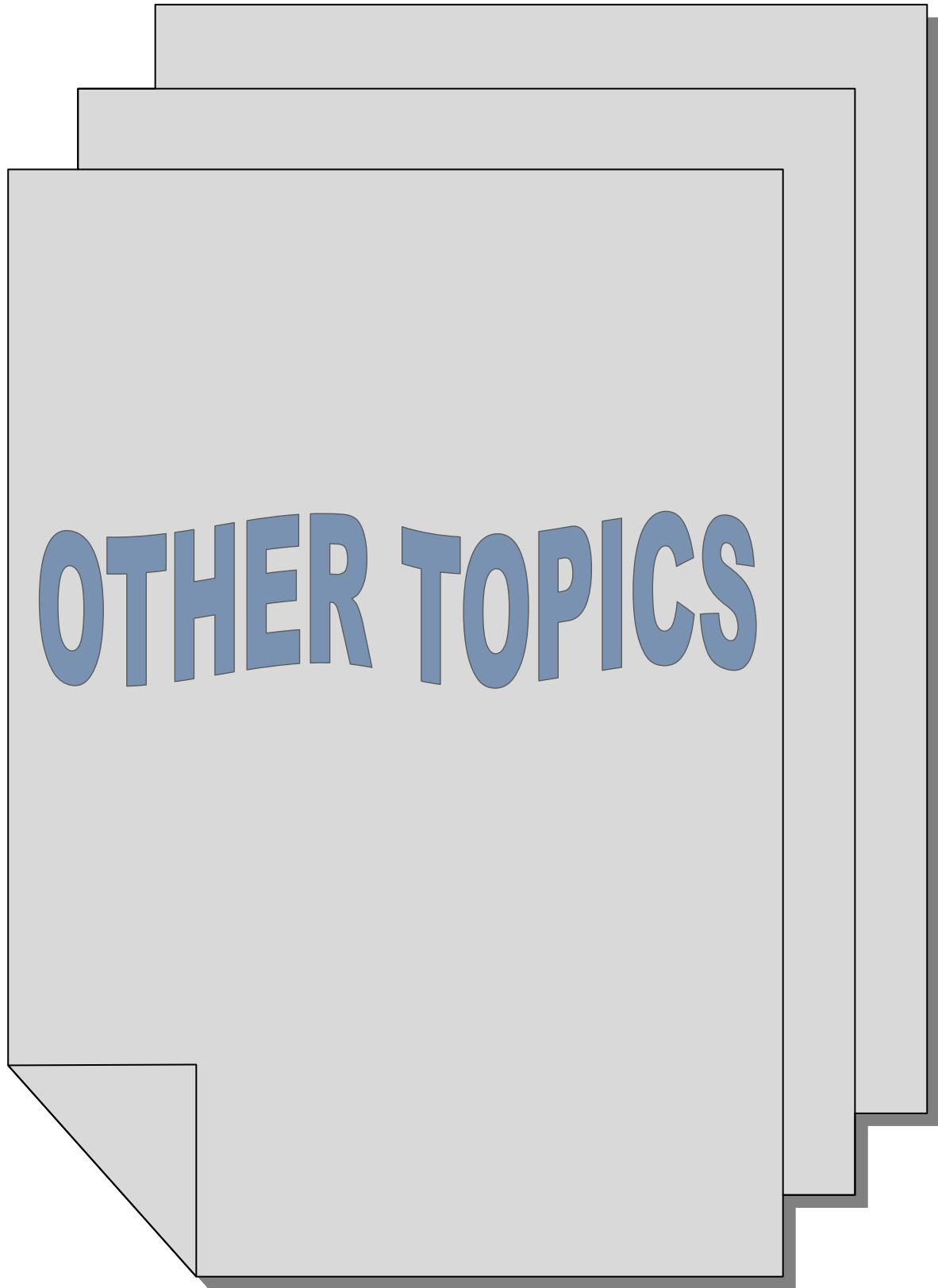
RAILROAD CROSSINGS NEEDS COSTS

Are 'After The Fact' Needs in the new program

MSB Resolutions state, in part:

Any Railroad Crossing improvements will not be included in the Needs Calculations until the project has been completed and the actual cost established. At that time a Construction Needs adjustment will be made by annually adding the local cost (which is the total cost less county or trunk highway participation) to the annual Construction Needs for a 15 year period. Only State Aid eligible items are allowed to be included in this adjustment, and all Railroad Crossing Needs adjustments must be input by the city and approved by the District State Aid Engineer.

ru/mssas/books/June book/Previous SS, Lighting, Signal and RR Costs.xls



Municipal (MSAS) 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 2nd year of a 4 year cycle (they will only receive new count materials if these choose to count)

See Metro and Outstate counting schedules below

(Note that Chicago County MSAS are grouped with the Outstate schedule)

***Metro Municipal Traffic Counting Schedule** (publication year, city name, two or four year cycle)*

2011	2012	2013	2014	2015	2016	2017
Blaine (2) Brooklyn Center (4) Brooklyn Park (2) Chanhassen (2) Circle Pine (4) Cottage Grove (2) East Bethel (2) Farmington (4) Ham Lake (4) Hastings (4) Lake Elmo (2) Lakeville (4) Mounds View (4) Orono (4) Prior Lake (2) Ramsey (2) Rogers (4^) Savage (4) Shoreview (2) St. Anthony (4) Victoria (2) Woodbury (4^)	Anoka (4) Bloomington (4) Columbia Heights (4) Coon Rapids (4) Crystal (4) Dayton (2) Eden Prairie (4) Hopkins (4) Minneapolis (4*^) Mound (4) Shakopee (4) South St. Paul (4) Spring Lake Park (4) St. Paul (4*)	Arden Hills (4) Blaine (2) Brooklyn Park (2) Chanhassen (2) Cottage Grove (2) East Bethel (2) Edina (4*) Falcon Heights (4) Fridley (4) Golden Valley (4) Lake Elmo (2) Mahtomedi (4) Maplewood (4) Medina (4) New Brighton (4) New Hope (4) North St. Paul (4) Oak Grove (4) Plymouth (4^) Prior Lake (2) Ramsey (2) Richfield (4) Robbinsdale (4) Roseville (4) Shoreview (2) Shorewood (4) St. Louis Park (4) St. Paul Park (4) Stillwater (4) Victoria (2) West St. Paul (4) White Bear Lake (4)	Andover (4) Apple Valley (4) Belle Plaine (4) Bloomington (4*^) Burnsville (4) Champlin (4) Chaska (4) Corcoran (4) Dayton (2) Eagan (4) Forest Lake (4) Hugo (4) Inver Grove Heights (4) Jordan (4) Lino Lakes (4) Little Canada (4) Maple Grove (4*) Mendota Heights (4) Minnetonka (4*) Minnetrista (4) Oakdale (4) Rosemount (4) St. Francis (4^) Vadnais Heights (4) Waconia (4)	Blaine (2) Brooklyn Center (4) Brooklyn Park (2) Chanhassen (2) Circle Pine (4) Cottage Grove (2) East Bethel (2) Farmington (4) Ham Lake (4) Hastings (4) Lake Elmo (2) Lakeville (4) Mounds View (4) Orono (4) Prior Lake (2) Ramsey (2) Rogers (4^) Savage (4) Shoreview (2) St. Anthony (4) Victoria (2) Woodbury (4^)	Anoka (4) Bloomington (4) Columbia Heights (4) Coon Rapids (4) Crystal (4) Dayton (2) Eden Prairie (4) Hopkins (4) Minneapolis (4*^) Mound (4) Shakopee (4) South St. Paul (4) Spring Lake Park (4) St. Paul (4*)	Arden Hills (4) Blaine (2) Brooklyn Park (2) Chanhassen (2) Cottage Grove (2) East Bethel (2) Edina (4*) Falcon Heights (4) Fridley (4) Golden Valley (4) Lake Elmo (2) Mahtomedi (4) Maplewood (4) Medina (4) New Brighton (4) New Hope (4) North St. Paul (4) Oak Grove (4) Plymouth (4^) Prior Lake (2) Ramsey (2) Richfield (4) Robbinsdale (4) Roseville (4) Shoreview (2) Shorewood (4) St. Louis Park (4) St. Paul Park (4) Stillwater (4) Victoria (2) West St. Paul (4) White Bear Lake (4)

**Typically takes counts over several years rather than just the publication year*

^May choose to have a select set updated every 2 years

Waconia did not submit in 2012

Outstate Municipal Traffic Counting Schedule (publication year, city name, four year cycle)

2011	2012	2013	2014	2015	2016	2017
Baxter Brainerd Chisholm Duluth* Fergus Falls Hermantown Hibbing Litchfield North Mankato Owatonna Red Wing Redwood Falls Saint Peter Sauk Rapids Thief River Falls Virginia Worthington Winona	Albertville Austin Buffalo Cambridge Delano Detroit Lakes Fairbault International Falls Isanti La Crescent*** Montevideo Monticello Northfield Otsego Saint Michael Waseca	Albert Lea Crookston East Grand Forks Glencoe Grand Rapids Hutchinson Kasson Little Falls Mankato Moorhead Morris New Prague North Branch Saint Joseph Sartell St. Cloud Waite Park Wyoming	Alexandria Bemidji Big Lake Byron Cloquet Elk River Fairmont Lake City Marshall New Ulm Rochester** Stewartville Willmar Zimmerman	Baxter Brainerd Chisholm Duluth* Fergus Falls Hermantown Hibbing Litchfield North Mankato Owatonna Red Wing Redwood Falls Saint Peter Sauk Rapids Thief River Falls Virginia Worthington Winona	Albertville Austin Buffalo Cambridge Delano Detroit Lakes Fairbault International Falls Isanti La Crescent Montevideo Monticello Northfield Otsego Saint Michael Waseca	Albert Lea Crookston Chisago City East Grand Forks Glencoe Grand Rapids Hutchinson Kasson Little Falls Mankato Moorhead Morris New Prague North Branch Saint Joseph Sartell St. Cloud Waite Park Wyoming

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

** Up until 2012 Rochester was counted every two years (rotating between the city and MnDOT)

*** No longer a city over 5000

Portions of St. Cloud are always being counting due to it crossing into 3 different counties

Local Road Research Board

Program Overview

Established in 1959 through state legislation, the Local Road Research Board has brought important developments to transportation engineers throughout Minnesota. Those developments range from new ways to determine pavement strength to innovative methods for engaging the public. Today, LRRB remains true to its mission of supporting and sharing the latest transportation research applications with the state's city and county engineers. These engineers, who best understand the problems and challenges in providing safe, efficient roadways, are responsible for city streets and county highways. The LRRB makes it easy for them to participate in setting the research agenda.



Transportation practitioners from across Minnesota submit research ideas to the LRRB through MnDOT Research Services. The LRRB Board then selects and approves research proposals. MnDOT Research Services provides administrative support and technical assistance. Researchers from MnDOT, universities, and consulting firms conduct the research and the LRRB monitors the progress.

Board Members

The Board consists of 10 members, including:

- Four County Engineers
- Two City Engineers
- Three MnDOT representatives
 - State Aid Engineer
 - A representative from a MnDOT specialty office and the
 - Director of Research Services
- One University of Minnesota Center for Transportation Studies representative

Committees

Research Implementation Committee

The LRRB works through its Research Implementation Committee to make research information available and to transfer research results into practical applications. The RIC uses a variety of methods to reach engineers and others with new developments, including presentations, videos, written reports, pamphlets, seminars, workshops, field demonstrations, web-based technology and on-site visits. RIC members include:

- Four County Engineers
- Two City Engineers
- MnDOT Deputy State Aid Engineer
- A MnDOT District State Aid Engineer
- A representative from MnDOT's Research Services
- A representative from a MnDOT's specialty office



- A representative from University of Minnesota, Center for Transportation Studies.

MnDOT Research Services provides support services, and at least one voting RIC member serves on the LRRB to ensure a strong link between the RIC and the LRRB.

Outreach Subcommittee

The Outreach Subcommittee was established by the LRRB to increase the awareness of LRRB functions and products within the transportation community. It meets as needed to review current LRRB marketing practices and public relations strategies.

Funding

LRRB is funded from the County State-Aid Highway and the Municipal State-Aid Street accounts. Each year, the County and City Screening Boards recommend to the Commissioner a sum of money that the Commissioner shall set aside from the CSAH and the MSAS funds. The table below shows the amount of funds allocated to the LRRB and number of research projects funded over the past five years.

	2010	2011	2012	2013	2014
Amount Allocated	\$2,525,135	\$2,671,499	\$2,902,378	\$3,070,770	\$3,162,232
Number of Research Projects Funded	17	22	21	24	25

For More Information

The LRRB publishes an annual **LRRB At-a-Glance Report**. This is a summary of completed reports and active projects and describes its goals and resources.

Website: www.lrrb.org

LRRB Board Chair: Bruce Hasbargen
bruce.hasbargen@co.beltrami.mn.us
 Beltrami County Engineer
 218-333-8180

Linda Taylor: MnDOT Research Services and Library Director
linda.taylor@state.mn.us
 651-366-3765

Revised: 10/14



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.

**CURRENT RESOLUTIONS
OF THE
MUNICIPAL SCREENING BOARD**

June 2015

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)

The Commissioner of Mn/DOT will annually 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)

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 will 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)

The Screening Board Chair will 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 will be made at the annual winter meeting of the City's Engineers Association. The appointed subcommittee person will serve as chair of the subcommittee in the third year of the appointment.

Appointment to Unencumbered Construction Funds Subcommittee – (Revised June 1979, May 2014)

The Screening Board past Chair will be appointed to serve a minimum three-year term on the Unencumbered Construction Fund Subcommittee. This appointment will continue to maintain an experienced group to follow a program of accomplishments. The most senior member will serve as chair of the subcommittee.

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

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, will

send such request in writing to the State Aid Engineer. The State Aid Engineer with concurrence of the Chair of the Screening Board will 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

The Screening Board Chair, with the assistance of the State Aid Engineer, will determine the dates and locations for Screening Board meetings.

Research Account - Oct. 1961

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.

Population Apportionment - October 1994, 1996

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

Improper Needs Report - Oct. 1961

The State Aid Engineer and the District State Aid Engineer (DSAE) 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, May 2014)

Any new city having determined its eligible mileage, but has not submitted its Needs to the DSAE by December 1, will have its Needs based upon zero ADT assigned to the eligible mileage until the DSAE approves the traffic counts.

Certified Complete Cities – May 2014 (Revised October 2014)

State Aid Operational Rule 8820.18 subp.2 allows cities to spend the population based portion of their Construction Allotment on non MSAS city streets if its MSAS system has been Certified Complete.

At the city's request, the District State Aid Engineer will review the MSAS system in that city and if the system has been completely built, may certify it complete for a period of two years. The same proportion of a city's total allocation based on population will be used to compute the population portion of its Construction Allotment.

If a payment request for a project on the MSAS system is greater than the amount available in the Needs based account, the remainder will come from the population based account, thereby reducing the amount available for non MSAS city streets.

A city may carry over any remaining amount in its population based account from year to year. However if a payment request for a project on a non MSAS city street is greater than the amount available in the population based account, the population based account will be reduced to zero and the city will be responsible for the remaining amount.

Construction Needs Components – May 2014

For Construction Needs purposes, all roadways on the MSAS system will be considered as being built to Urban standards.

All segments on the MSAS system will generate continuous Construction Needs on the following items:

- Excavation/Grading
- Gravel Base
- Bituminous
- Curb and Gutter Construction
- Sidewalk Construction
- Storm Sewer Construction
- Street Lighting
- Traffic Signals
- Engineering
- Structures

Unit Price Study- Oct. 2006 (Revised May, 2014)

The Needs Study Subcommittee will annually review the Unit Prices for the Needs components used in the Needs Study. The Subcommittee will make its recommendation to the Municipal Screening board at its annual spring meeting.

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 on all items where a Unit Price is not estimated and provided by other MnDOT offices. The Screening Board may request a Unit Price Study on individual items in the 'off years' if it is deemed necessary.

Unit Costs – May 2014, January 2015

The quantities which the Unit Costs for Excavation/Grading, Gravel Base, and Bituminous are based upon will be determined by using the roadway cross sections and structural sections in each of the ADT groups as determined by the Municipal Screening Board and shown in the following table 'MSAS Urban ADT Groups for Needs Purposes'.

MSAS URBAN ADT GROUPS FOR NEEDS PURPOSES

Quantities Based on a One Mile Section

EXISTING ADT	NEEDS WIDTH	NEEDS GENERATION DATA	GRADING DEPTH (inches)	GRADING QUANTITY (cubic yards)	CLASS 5 GRAVEL BASE DEPTH (inches)	CLASS 5 GRAVEL BASE QUANTITY (Tons)	TOTAL BITUMINOUS QUANTITY (TONS)
0 EXISTING ADT & NON EXISTING	26 FOOT ROADBED WIDTH	2- 11' TRAFFIC LANES 0 PARKING LANES 2- 2' CURB REACTION	22 INCHES	11,655	6 INCHES	4,346	2,917 4 INCHES
1-499 EXISTING ADT	28' FOOT ROADBED WIDTH	2- 12' TRAFFIC LANES 0 PARKING LANES 2- 2' CURB REACTION	22 INCHES	12,496	6 INCHES	4,691	3,182 4 INCHES
500-1999 EXISTING ADT	34 FOOT ROADBED WIDTH	2- 12' TRAFFIC LANES 1- 8' PARKING LANE 1- 2' CURB REACTION	26 INCHES	17,698	10 INCHES	10,176	3,978 4 INCHES
2000-4999 EXISTING ADT	40 FOOT ROADBED WIDTH	2-12' TRAFFIC LANES 2- 8' PARKING LANE	32 INCHES	25,188	16 INCHES	19,628	4,773 4 INCHES
5000-8999 EXISTING ADT	48 FOOT ROADBED WIDTH	4-11' TRAFFIC LANES 2- 2' CURB REACTION	35 INCHES	32,795	19 INCHES	27,907	5,834 4 INCHES
9000-13,999 EXISTING ADT	54 FOOT ROADBED WIDTH	4-11' TRAFFIC LANES 1- 8' PARKING LANE 1- 2' CURB REACTION	36 INCHES	37,918	19 INCHES	31,460	8,287 5 INCHES
14,000-24,999 EXISTING ADT	62 FOOT ROADBED WIDTH	4-11' TRAFFIC LANES 1- 14' CENTER TURN 2- 2' CURB REACTION	38 INCHES	45,838	20 INCHES	38,049	11,535 6 INCHES
GT 25,000 EXISTING ADT	70 FOOT ROADBED WIDTH	6-11' TRAFFIC LANES 0 PARKING LANES 2- 2' CURB REACTION	39 INCHES	53,172	21 INCHES	44,776	13,126 6 INCHES

The quantity used for Curb and Gutter Construction will be determined by multiplying the segment length times two if it is an undivided roadway and by four if it is divided. This quantity will then be multiplied by the Municipal Screening Board approved Unit Price to determine the Curb and Gutter Construction Needs.

The quantity used for Sidewalk Construction will be determined by multiplying the segment length times 26,400 (a five foot wide sidewalk on one side of a mile of roadway) in the lower two ADT groups (less than 500 ADT) and by 52,800 (two five foot wide sidewalks on a mile of roadway) in the upper ADT groups. This quantity will then be multiplied by the Municipal Screening Board approved Unit Price to determine the Sidewalk Construction Needs.

The Unit Cost per mile of Storm Sewer for the highest MSAS Urban ADT Group for Needs Purposes will be based on the average costs of all Storm Sewer Construction on the MSAS system in the previous year. To determine the Unit Cost for the highest ADT Group, average costs for Complete Storm Sewer projects and Partial Storm Sewer projects will be provided to State Aid by the MnDOT Hydraulics Office and then added together and divided by two to calculate a statewide average Unit Cost for all Storm Sewer Construction. The Unit Cost per mile for Storm Sewer Construction will be calculated for the highest MSAS Urban ADT Group and be prorated downward for the other ADT Groups. This proration has been determined based upon an engineering study requested by the Municipal Screening Board in 2011 and will be the basis for the Needs calculations.

Complete Storm Sewer Cost from Hydraulics Specialist	\$319,711
Partial Storm Sewer Cost from Hydraulics Specialist	\$99,942
Average SS Cost = $(\$319,711 + \$99,942)/2 =$	\$209,827
MSB Approved Unit Cost for 2014	\$210,000

NSS recommended Storm Sewer Costs for 2014

for the January 2015 distribution

Needs Width of MSAS Urban ADT Groups for Needs Purposes	Cost difference from 70' section	MSB approved percent cost difference from 70' section	Cost based on % of Cost of highest Typical Section
26	\$ (61,900)	-29.5%	\$ 148,100
28	\$ (59,100)	-28.1%	\$ 150,900
34	\$ (50,600)	-24.1%	\$ 159,400
40	\$ (42,200)	-20.1%	\$ 167,800
48	\$ (30,900)	-14.7%	\$ 179,100
54	\$ (22,500)	-10.7%	\$ 187,500
62	\$ (11,300)	-5.4%	\$ 198,700
70	\$ -	0.0%	\$ 210,000

The Unit Cost for Street Lighting will be determined by multiplying the Unit Price per mile by the segment length.

The Unit Cost for Traffic Signals will be determined by the recommendation by the SALT Program Support Engineer and approved by the MSB.

The Unit Cost for traffic signals will be based on a cost per signal leg, and for Needs purposes a signal leg will be defined as ¼ of the signal cost.

Only signal legs on designated MSAS routes will be included in the Needs study.

Stand alone pedestrian crossing signals will not be included in the Needs study.

The area in square feet used for Structure Needs (Bridges and Box Culverts) will be determined by multiplying the centerline length of the bridge, or the culvert width of the box culvert, times the Needs Width from the appropriate MSAS Urban ADT Group. This quantity will then be multiplied by the Municipal Screening Board Unit Price to determine the Structure Needs.

The Unit Price for Structures will be determined by using one-half of the approved unit cost provided by the MnDOT State Aid Bridge Office.

The Unit Cost for Engineering will be determined by adding together all other Unit Costs and multiplying them by the MSB approved percentage. The result is added to the other Unit Costs.

2014 UNIT PRICE RECOMMENDATIONS <i>for the January 2015 distribution</i>							
Needs Item		Used for Distribution in the Old Application 2012 Needs Prices used for 2013 Distribution	Subcommittee Recommended Prices in 2013 for 2014 Distribution that we did not use	Unit Costs used for the 2014 Estimate from the new application used for test purposes	2.7% ENR Construction Cost Index for 2013	Subcommittee Recommended Prices in 2014 for the 2015 Distribution	Screening Board Approved Prices for 2015 Distribution
Grading (Excavation)	Cu. Yd.	\$6.60	\$6.75	\$6.75	\$6.93	\$7.00	\$7.00
Aggregate Base	Ton	10.65	10.90	10.90	11.19	11.25	11.25
All Bituminous	Ton	58.00	59.50	59.50	61.11	61.25	61.25
Sidewalk Construction	Sq. Ft.	2.83	3.25	3.25	3.34	3.50	3.50
Curb and Gutter Construction	Lin.Ft.	11.15	11.45	11.45	11.76	11.75	11.75
Street Lighting	Mile	100,000	100,000	100,000	NA	100,000.00	100,000.00
Traffic Signals	Per Sig	140,000	225,000	225,000	NA	205,000.00	205,000.00
Engineering	Percent	22	22	22	NA	22	22
All Structures (includes both bridges and box culverts)							
0 to 149 Ft.	Sq. Ft.	125.00	120.00	60.00	NA	72.00	72.00
150 to 499 Ft.	Sq. Ft.	125.00	120.00	60.00	NA	72.00	72.00
500 Ft. and over	Sq. Ft.	125.00	120.00	60.00	NA	72.00	72.00

Mileage - Feb. 1959 (Revised Oct. 1994. 1998)

The maximum mileage for Municipal State Aid Street designation will 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, May 2014)

That the maximum mileage for State Aid designation may be exceeded to designate trunk highway turnbacks released to the Municipality after July 1, 1965.

The maximum mileage for State Aid designation may also be exceeded to designate both County Road and County State Aid Highways released to the Municipality after May 11th, 1994.

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

The maximum mileage for Municipal State Aid Street designation will 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 will not be permitted. Frontage roads not designated Trunk Highway, Trunk Highway Turnback or County State Aid Highways will 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 will be included in the municipality's basic street mileage. Any State Aid Street that is on the boundary of two adjoining urban municipalities will be considered as one-half mileage for each municipality.

All mileage on the MSAS system will accrue Needs in accordance with current rules and resolutions.

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

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 31st to be included in that years' Needs Study.

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

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.

All Municipal Screening Board 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 Adjustments

Phase In (Restriction) May 2014

The method of computing Needs is to be phased in over a period of seven years. This seven year period will begin with the January 2015 allocation and go through the January 2021 allocation.

The phase in will be reviewed annually by the Municipal Screening Board to determine if the Phase In period should be revised.

During the seven year period the phase in is being applied, a city's Restricted Needs will be computed using the following steps:

- 1) Compare the current years Unadjusted Needs to the previous years Restricted Needs. In the first year of the phase in, the current years Unadjusted Needs will be compared to the previous years Unadjusted Needs.
- 2) Compute the Statewide Average Percent of Change between the two totals.
- 3) Determine each individual city's Percent of Change between last years Restricted Needs and this years Unadjusted Needs.
- 4) If an individual city's Percent of Change is greater than 5 Percentage Points less than the Statewide Average Percent of Change, increase this year's Unadjusted Needs to 5 Percentage Points less than the Statewide Average Percent of Change.
- 5) If an individual city's Percent of Change is greater than 10 Percentage Points more than the Statewide Average Percent of Change, decrease this year's Unadjusted Needs to 10 Percentage Points more than the Statewide Average Percent of Change.
- 6) If an individual city's Percent of Change is between 5 Percentage Points less and 10 Percentage Points more than the Statewide Average Percent of Change, no restriction is made and the current year's Unadjusted Needs will be used as its Restricted Needs.

All Needs adjustments will be applied to the city's Restricted Needs.

In the event that an MSAS route earning "After the Fact" Needs is removed from the MSAS system, the "After the Fact" Needs will then 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.

Excess Unencumbered Construction Fund Balance Adjustment – Oct. 2002, (Revised Jan. 2010, May 2014)

State Aid Payment Requests received before December 1st by the District State Aid Engineer for payment will be considered as being encumbered and the construction balances will be so adjusted.

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 negative 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 negative 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 will start over with one.

Low Balance Incentive – Oct. 2003 (Revised May, 2014)

The amount of the Excess Unencumbered Construction Fund Balance Adjustment will be redistributed as a positive adjustment to the Construction Needs of all municipalities whose December 31st 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.

After the Fact Right of Way Adjustment - Oct. 1965 (Revised June 1986, 2000, May 2014)

Right of Way Needs will not be included in the Needs calculations until the right of way is acquired and the actual cost established. At that time a Construction Needs adjustment will 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 funding will be included in the right-of-way Construction Needs adjustment. This Directive is to exclude all Federal or State grants.

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 District State Aid Engineer. The City Engineer will input the data into the Needs Update program and the data will be approved by the DSAE.

After the Fact Railroad Bridge over MSAS Route Adjustment – May 2014

RR Bridge over MSAS Route Rehabilitation

Any structure that has been rehabilitated (Minnesota Administrative Rules, CHAPTER 8820, 8820.0200 DEFINITIONS, Subp. 8. Bridge rehabilitation) will not be included in the Needs calculations until the rehabilitation project has been completed and the actual cost established. At that time a Construction Needs adjustment will 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 State Aid eligible items are allowed to be included in this adjustment and all structure rehabilitation Needs adjustments must be input by the city and approved by the DSAE.

RR Bridge over MSAS Route Construction/Reconstruction

Any structure that has been constructed/reconstructed (Minnesota Administrative Rules, CHAPTER 8820, 8820.0200 DEFINITIONS, Subp. 31. Reconstruction) will not be included in the Needs calculations until the project has been completed and the actual cost established. At that time a Construction Needs adjustment will be made by annually adding the local cost (which is the total cost less county or trunk highway participation) for a 35-year period. Only State Aid eligible items are allowed to be included in this adjustment and all structure construction/reconstruction Needs adjustments must be input by the city and approved by the District State Aid Engineer.

After the Fact Railroad Crossing Adjustment

Any Railroad Crossing improvements will not be included in the Needs Calculations until the project has been completed and the actual cost established. At that time a Construction Needs adjustment will be made by annually adding the local cost (which is the total cost less county or trunk highway participation) to the annual Construction Needs for a 15 year period. Only State Aid eligible items are allowed to be included in this adjustment, and all Railroad Crossing Needs adjustments must be input by the city and approved by the District State Aid Engineer.

Excess Maintenance Account – June 2006

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 will 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 (Revised May 2014)

Retaining wall Needs will 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 will 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 will begin effective for all projects awarded after January 1, 2006. All Retaining Wall adjustments must be input by the city and approved by the District State Aid Engineer.

Trunk Highway Turnback - Oct. 1967 (Revised June 1989, May 2014)

Any trunk highway turnback which reverts directly to the municipality and becomes part of the Municipal State Aid Street system will 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, to the municipality imposed by the turnback will be computed on the basis of the current year's apportionment data and will be accomplished in the following manner.

The initial turnback maintenance adjustment when for less than 12 full months will 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.

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

Trunk Highway Turnback adjustments will terminate at the end of the calendar year during which a construction contract has been awarded that fulfills the Municipal Turnback Account Payment provisions.

TRAFFIC - June 1971 (Revised May 2014)

Beginning in 1965 and for all future Municipal State Aid Street Needs Studies, the Needs Study procedure will utilize traffic data developed according the Traffic Forecasting and Analysis web site at <http://www.dot.state.mn.us/traffic/data/coll-methods.html#TCS>

Traffic Counting - Sept. 1973 (Revised June 1987, 1997, 1999, Oct. 2014)

Traffic data for State Aid Needs Studies will 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.
- 4) On new MSAS routes, the ADT will be determined by the City with the concurrence of the District State Aid Engineer until such time the roadway is counted in the standard MnDOT count rotation.