2016
Municipal Screening Board Data

Spring 2016

MSAS CALENDAR

January

- Highway User Tax Distribution Fund
- Send Finance allotments
- Start preparing Jan. book

February

- **NEEDS RESET**
  1) Back up current Needs
  2) Reset
  3) Notify cities to begin updating
- CEAM Conf.
- January 15th deadline for Annual Certification of Mileage
- January book (on line)

March

- Request Storm Sewer letter/ Bridge Data
- March 1st Deadline for System Revision Requests
- Notify DSAE's to schedule prescreening meetings
- Start preparing Spring book

April

- Prepare NSS book
- March 31st Deadline for Needs Updates without any System Revision Requests
- NSS meeting

May

- Mail out Spring Books
- May 1st HARD deadline for system revisions, CC resolutions & Needs Updates.
- SPRING PRESCREENING BOARD MEETINGS

June

- Spring Screening Board Mtg

July

August

- Start preparing Fall book
- Notify DSAE's to schedule prescreening meetings
- Request Pop. Estimates

September

October

- FALL PRESCREENING BOARD MEETINGS
- Mail out Fall books

November

- Notify cities to update certs.
- Notify cities for Maintenance requests
- Fall Screening Board Mtg

December

- December 15th Maintenance Requests Due

Review Certification Forms

Unit Price Study

Traffic Updates

Review Needs

City tasks

State Aid tasks

Ongoing Processes

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.

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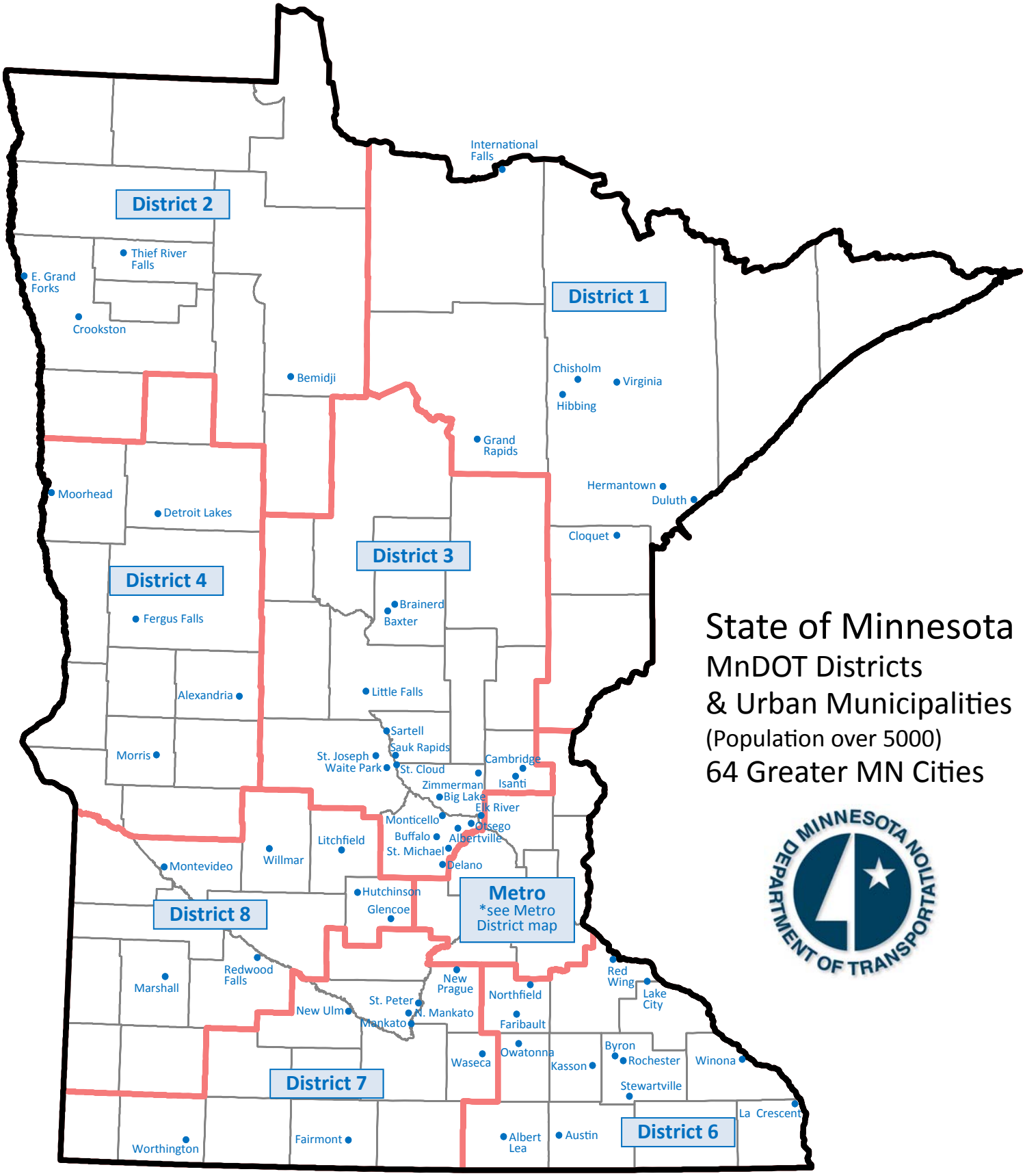
State of Minnesota
Metro District
& Urban Municipalities
(Population over 5000)

35 Metro East Cities

49 Metro West Cities

Updated 12/9/14



State of Minnesota
MnDOT Districts & Urban Municipalities
(Population over 5000)

64 Greater MN Cities

Updated 1/8/14

2016 MUNICIPAL SCREENING BOARD

03-May-16

Officers			
Chair	Jeff Johnson	Mankato	(507) 387-8640
Vice Chair	Marc Culver	Roseville	(651) 792-7041
Secretary	Glenn Olson	Marshall	(507) 537-6774

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	2016-2018	Jeff Kuhn	Morris	(320) 762-8149
Metro-West	2016-2018	Steve Lillehaug	Brooklyn Center	(763) 569-3300
6	2016-2018	Jay Owens	Red Wing	(651) 385-3625
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	(651) 714-3720
Cities	Permanent	Cindy Voigt	Duluth	(218) 730-5200
of the	Permanent	Don Elwood	Minneapolis	(612) 673-3622
First	Permanent	Richard Freese	Rochester	(507) 328-2426
Class	Permanent	Paul Kurtz	Saint Paul	(651) 266-6203

Alternates				
District	**Year Beginning**		**City**	**Phone**
1	2017	VACANT		
2	2018	Rich Clauson	Crookston	(218) 281-6522
3	2018	Adam Nafstad	Albertville	(763) 497-3384
4	2019	Brian Yavarow	Fergus Falls	(218) 332-5413
Metro-West	2019	Chad Milner	Edina	(952) 826-0318
6	2019	Kyle Skov	Owatonna	(507) 444-4350
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

N:\MSAS\Books\2016 June Book\Screening Board Members 2016.xlsx

2016 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
Mark Graham, Chair Vadnais Heights (651) 204-6050 Expires after 2016	Kent Exner, Chair Hutchinson (320) 234-4212 Expires after 2016
Rich Clauson Crookston (218) 281-6522 Expires after 2017	Steve Bot St. Michael (763) 497-2041 Expires after 2017
Jon Pratt Detroit Lakes (218) 847-5607 Expires after 2018	Klayton Eckles Woodbury (651) 714-3593 Expires after 2018

Municipal Screening Board
Meeting Minutes
October 27-28, 2015
Grandview Lodge, Nisswa, MN

Tuesday Session, October 27, 2015

I. Call to Order and Welcome by Vice Chair Jeff Johnson at 1:03 p.m.

a. Introductions of Head Table and Subcommittee Chairs by Vice Chair Johnson
   Jeff Johnson, Mankato – Vice Chair Municipal Screening Board
   Klayton Eckles (not present), Woodbury, Chair MSB
   Mitch Rasmussen, MnDOT – State Aid Engineer
   Bill Lanoux, MnDOT – Manager, Municipal State Aid NEEDS Unit
   Jean Keely, Blaine – Chair of the Unencumbered Construction Funds Subcommittee (UCFS), and Past Chair, MSB
   Steve Bot, St. Michael – Past Chair, MSB
   Kent Exner, Hutchinson – Past Chair, MSB

b. Secretary Marc Culver conducted the roll call of the members present

PRESENT:

District 1	Jesse Story, City of Hibbing
District 2	Craig Gray, Bemidji
District 3	Steve Bot, St. Michael (alternate to Justin Femrite, Elk River)
District 4	Jon Pratt, Detroit Lakes
Metro West	Rod Rue, Eden Prairie
District 6	Steven Lang, Austin
District 7	Jeff Johnson, City of Mankato
District 8	Sean Christensen, Willmar
Metro East	Michael Thompson, Maplewood (alternate)
Duluth	Cindy Voigt
Minneapolis	Don Elwood
Rochester	Richard Freese (absent)
St. Paul	Paul Kurtz

c. Recognized Screening Board Alternates:
PRESENT:

District 4	Jeff Kuhn, Morris
District 6	Jay Owens, Red Wing
Metro West	Steve Lillehaug, Brooklyn Center

d. Recognized Minnesota Department of Transportation Personnel:

Ted Schoenecker	Deputy State Aid Engineer
Merry Daher	Senior Administrative Engineer
John McDonald	District 1 State Aid Engineer
Lou Tasa	District 2 State Aid Engineer
Kelvin Howieson	District 3 State Aid Engineer
Merle Earley	District 4 State Aid Engineer
Fausto Cabral	District 6 State Aid Engineer
Gordy Regenscheid	District 7 State Aid Engineer
Todd Broadwell	District 8 State Aid Engineer
Dan Erickson	Metro District Engineer
Julie Dresel	Assistant Metro State Aid Engineer
Julee Puffer	Assistant Manager, MSAS Needs Unit

e. Recognized others in attendance:

Dave Sonnenberg, Chair, CEAM Legislative Committee
Larry Veek, Minneapolis
Mike Van Beusekom, St. Paul
Glenn Olson, Marshall
Tim Schoonhoven, Alexandria

II. **Bill Lanoux reviewed the 2015 Municipal Screening Board Data booklet**

a. Recognition of new alternate members as elected by each district including Chad Millner, Edina (Metro West), Kyle Skov, Owatonna (District 6), Brian Yavarow, Fergus Falls (District 4).

Review of minutes and specifically all action items from Spring 2015 Screening Board Minutes. Minutes can be found on pages 16-22 of the 2015 Municipal State Aid Street Needs Report, October 2015.

Motion by Mr. Pratt, seconded by Mr. Rue, to approve the minutes as presented. The motion carried unanimously.

b. Minutes of UCFS (pages 23-27)

Presented were the minutes from the UCFS meeting on July 29, 2015.

As directed by the Municipal Screening Board by motion, the Subcommittee reviewed the discussion from the Spring Screening Board meeting and discussed the issue of the Unit Cost for Traffic Signals.

Mr. Lanoux reviewed the final action and recommendation from the UCFS which is printed on page 27 of the 2015 Municipal State Aid Street Needs Report and states:

The Unit Cost for Traffic Signals will be determined by the recommendation by the SALT Program Support Engineer and approved by the MSB, the UCFS recommends that the screening board direct the NSS to utilize the average cost of a four leg signal as provided every three years by the SALT program engineer as the primary basis for their unit price study recommendation for signal needs. In 'off years', the unit price be set using the Engineering News Record construction cost index. For the 2015 needs Unit Price Study this average cost is $185,000.

Further discussion on this item will occur with input from the Chair of the UCFS, Ms. Keely, after Mr. Lanoux is complete with his review of the 2015 Municipal State Aid Streets Needs Report.

c. Population Data and Population Allocation – Pages 28-36

Mr. Lanoux quickly reviewed the population data and indicated an overall statewide increase in population of about 1%.

d. Mileage, Needs and Apportionment – Pages 37-38

Mr. Lanoux provided a quick historical review of the mileage, needs and apportionments from 1958 to 2016. For 2016 estimates, the table shows the same total apportionment as 2015. Actual 2016 numbers will be updated in the January book.

e. Itemized Tabulation of Needs – Page 39

The item by item listing of Needs is available as an insert at the end of the book. Highest cost per mile is $2.659 million (St. Paul) and the lowest cost per mile is $1.137 million (Dayton). The average cost per mile is $1.719 million.

Mr. Lanoux noted that in 2011 the lowest cost per mile was approximately $700,000 indicating that the lowest cities have really caught up to the other cities.

f. Comparison of Needs between 2014 and 2015 – Page 40

All Needs items show an increase in total needs except for traffic signals due to the unit cost being lowered from $205,000 to $185,000.

g. 2015 Mileage Report and Comparison – Pages 41-42

Total system length on this chart is actually incorrect (too high) because some roads are being shared (State Aid routes located on Municipal borders). This may be corrected in future books so you may notice a reduction in the Total System Length mileage in future years.

h. Construction Needs, Adjustments & Allocations – Pages 43-67

Mr. Lanoux reviewed the Construction Needs data including the following elements that constitute the final Construction Needs for each City:

i. Phase in (or Restriction) – Pages 44-49

Setup to Phase In the changes to the Construction Needs as a result of the new Needs Calculation method. The Phase In computation is described in detail on page 44 and allows for corrections where an individual City's change is significantly higher or lower than the Statewide average percent of change which is 10.21%. So no individual City's change can be less than 5.21% or greater than 20.21%.

ii. Excess Balance/Low Balance adjustment – Pages 51-55

A negative needs adjustment for excessively high account balance and a positive needs adjustment for low or negative account balances.

iii. After the Fact Right of Way adjustment – Pages 56-58
iv. After the Fact Retaining Wall adjustment – Page 59
v. After the Fact Railroad Crossing and Railroad Bridge over MSAS Route Adjustment – Page 60
vi. Adjusted Restricted Construction Needs – Pages 61-64
vii. Estimated Construction Needs Allocations – Pages 65-67

Based on total adjusted Construction Needs and calculated as a percentage of overall total needs.

i. Recommendations to the Commissioner – Pages 68-70
j. Tentative 2016 Total Allocations – Page 71-73
k. Comparison of the 2015 to the 2016 Tentative Total Allocations – Pages 74-76
l. Tentative 2015 Allocation Rankings – Page 77-80
m. Other Topics
    i. History of Administrative and Research Accounts – Page 83

        2% of total funds available are set aside for the administration of the State Aid program. For 2015 that amount was $3,413,892.

        One half of one percent of the overall MSAS Apportionment typically set aside for research. Will require a motion tomorrow.

    ii. Advance Guidelines – Pages 84-86

        Currently Code Green.

    iii. County Highway Turnback Policy – Pages 87-88
    iv. Resolutions of the Municipal Screening Board – Pages 89-99

        Mr. Lanoux reviewed the resolution regarding the Unit Price Study as printed on page 91. Second paragraph under "Unit Price Study:"

        The Unit Price Study go to a 3 year (or triennial) cycle with the Unit Price 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.

        Question from Mr. Rue on the ENR Construction Cost Index, was that national or regional? Vice Chair Johnson responded that it was the National 20 City average as published in August.

III. Other Discussion Items
a. Unencumbered Construction Fund Subcommittee update – Jean Keely

Detailed review of July meeting minutes of the UCFS related to the Unit Price for traffic signals. Ms. Keely reviewed all of the previous decisions and studies since 2013 when the Needs Study Task Force decided on a "per signal" cost for traffic signals versus a "per mile" cost. In 2014 the Unit Price is set at $205,000 per signal based on a 2014 study by the SALT Program Engineer. At same time, the Needs

Study Subcommittee passed a motion stating Traffic Signals are to be studied as part of the 2015 full Unit Cost Study.

Ms. Keely continued to review actions of the MSB including revisions to the resolutions related to traffic signals as detailed on Page 24. In April of 2015 the Needs Study Subcommittee (NSS) is presented with data from "On System MSAS Traffic Signal Projects awarded in 2014" (as printed on pages 76-80 of the June Book) and recommends using the statewide average cost of a signal system PLUS the statewide average cost for EVP system which results in a recommended unit cost of $185,000.

A split vote of the May 2015 Screening Board (8 yeah, 5 nay) approves the Unit Cost for traffic signals of $185,000. The MSB also directs the UCFS to come with a policy recommendation to the Screening Board for how the average cost of a signal should be computed.

The MnDOT State Aid office contact the MnDOT Traffic Signals Engineer Sue Zarling and requests information which will show "the average cost of a MnDOT Traffic Signal." The response from Ms. Zarling was $250,000 but included many factors and possible variables.

The UCFS reviewed the new data and the previous independent studies, pointed out that the studies did not include engineering costs.

Based on the all of the information presented and the direction of the current Screening Board Resolution, the UCFS concluded that no policy change is needed and that the Unit Price should remain at $185,000 and adjusted in the off years as all other Unit Prices are adjusted.

Ms. Voigt asked Ms. Keely touch on the previous two studies and how they calculated the $185,000 average cost. How many intersections were in the study?

Vice Chair Johnson responded that this was reviewed last fall. Mr. Lanoux responded that the first study included about 8 or 9 MSAS signals, and the second study included all of the traffic signals from the 2014 abstract. The results from the first are available in Powerpoint format by request.

Vice Chair Johnson thanked Ms. Keely for her report.

Vice Chair Johnson reviewed the report and highlighted two important items are the recommendation from the UCFS to use the $185,000 unit price as also follow

the existing resolution to use the ENR adjustment in the off years and restudy the unit cost every three years.

No further discussion or action items on this topic.

b. Legislative Update – Dave Sonnenberg

Report on upcoming legislative session highlighting the League of Minnesota Cities priorities and legislative policies and initiatives. The session will not start until March and adjourn set for mid-May by constitution.

As CEAM is an affiliate of the League, we are obligated not to dispute any of the initiatives or policies they put forward. However individual Cities can oppose any of the items.

1. Transition Aid for Property Acquired by Tax-Exempt Entities: Any tax exempt organization that purchases existing taxable property would be required to continue to pay property taxes but they would be phased out over a five year period. Mr. Sonnenberg opined that this may have implications for cities that acquire property for public facilities.
2. Funding for Non-Municipal State Aid City Streets: Requesting dedicated and sustainable funding source for non-MSA city streets in large and small cities statewide.
3. Maintenance of retaining walls adjacent to Public right-of-way: Request for amendment of special assessment statute so that retaining walls needed to facilitate public improvements are treated the same as other local improvements.
4. Responsibility for locating private underground facilities: The Minnesota Office of Pipeline Safety (MNOPS) is proposing amendments to state pipeline and safety rules related to the definition of excavation and changes to mandatory damage reporting.
5. Utility Relocation Under Design-Build Road Construction: Request to mandate that the cost of relocating municipal utilities should be shared equitably between MnDOT and affected municipal utilities.
6. Organized Solid Waste Collection: The League is opposed to recent proposed legislation that would allow special takings claims or contractual damages to be claimed by the solid waste industry if local governments make decisions that limit the number of companies that can collect garbage in a community in a manner that prevents a company currently operating in the community from continuing to do.

7. Environmental protection: discussion about limiting requirements for environmental protection on several levels for efforts that have diminishing return on investment. Also request to streamline MPCA permitting process.
8. Municipal Public Water Supplies: Request for Legislature to direct the development of sound water policy based on scientific information. There should also be state funding participation for Cities that face significant infrastructure costs to meet new rules or regulations (i.e. moving from groundwater source to surface water source).
9. Impaired Waters: Still have surface waters that don't meet federal regulations. Likely to be more regulations regarding waste water and storm water. Would like the legislature to look at state funding to address these issues. Looking for constitutionally dedicated funds. Also ask for state funding to cover the estimated $1.65 billion five year water infrastructure funding need.
10. Official State Mapping Responsibility: Request for the legislation identifying the official provider of survey-level mapping for the state, including maps for municipal boundary adjustments. The legislature must provide the necessary appropriations for providing this service.
11. Statutory Approval Timelines: The legislature should repeal or amend Minn. Stat. 15.99 to increase the initial time limit to 90 days or have the language in Minn. Stat. 15.99 apply as the default requirement only in cases where permitting bodies have not established an independent approval timeline.
12. Pubic Infrastructure Utilities: Still seeking some sort of transportation and/or sidewalk utility to raise dedicated funds for these purposes at the City level. This added local authority remains an issue, but the League will not make this a priority this session.
13. Right-of-way management: Want Legislature to clarify in no uncertain terms that the right-of-way is held in trust for a particular City and we are obligated to manage that in the best interest of the public, namely public utilities such as water, sewer, storm sewer, etc.
14. Adequate Funding for Transportation: Seeking comprehensive bill to provide additional funding at all levels. Sonnenberg commentary: There seems to be significant support for funding increases for roads and bridges but not transit. Is it time to narrow our focus to roads and bridges?
15. Truck Weight Restrictions on Interstate Highways and Freeways: LMC supports increasing the allowable weight limit for trucks traveling on the interstate highway and freeway systems so that trucks with six axles may weigh up to 90,000 pounds and trucks with seven axles may weigh up to 95,000 pounds without a permit. LMC also supports allowing MnDOT to

designate routes for heavy loads. LMC opposes limits on local authority to impose and enforce weight restrictions on local roads and bridges.

16. Turnbacks on County and State Roads: Turnbacks should not occur without direct funding or transfer of a funding source. Not sure what specifically this is, but possible translation is if MnDOT uses 1% of its total funds to maintain a roadway and it gets transferred to St Paul, that 1% should perpetually go to St Paul with the roadway.
17. MnDOT ROW Maintenance: MnDOT be required to maintain its right-of-way within municipal limits to the standards established that municipality. Alternatively MnDOT should reimburse local agencies for labor, supplies and equipment to maintain MnDOT ROW and parcels to meet city standards. The Legislature must provide MnDOT with adequate funds to maintain state ROW.
18. Complete Streets: LMC supports reforms in state design guidelines for local streets that would give cities greater flexibility to safely accommodate all modes of travel, including walking and biking. The state should also provide incentives such as grants to local units of government working to advance complete street projects. Crosswalks and Safe Routes to School projects should be eligible for incentives. LMC opposes state imposed unfunded mandates that would increase the costs of building streets in contexts where facilities for cyclists and pedestrians are unnecessary or inappropriate.
19. Impact Fees: The legislature should authorize local units of government to impose impact fees so new development pays its fair share of the off-site, as well as the on-site, costs of public infrastructure and other public facilities needed to adequately serve new development.

Questions on Legislative Report:

Ms. Voigt: Regarding truck restrictions doesn't the interstate have 80,000 pounds? At what level does the FHWA get involved?
Sonnenberg: Varies state by state. He believes the interstate is built to 90,000 pounds standard.
Mr. Schoenecker: FHWA limit to 80,000 pounds on interstate, Trunk Highway could go to 90,000 pounds. Some states grandfathered at a higher weight.

Mr. Schoenecker: Regarding Complete Street guidelines, are we talking about State Aid standards? If so, this belongs in State Aid System and seems to be counter to the CEAM platform. Can "we" steer this a bit?

Mr. Bot: How can we work with the League on these draft policies? Officially aware we have issues with some of these.

Sonnenberg: All of this is out of their draft policies.

Ms. Voigt: There is some draft language to changes to State Rules on Mapping that she can share. She will be talking to Mr. Schoenecker about this.

c. State Aid Report – Mr. Rasmussen

No report at this point.

d. Other Topics

Ms. Voigt: Study on aggregate sources. She has a couple of old documents on this topic. Will hand off to Mr. Culver for distribution to other committee on this topic.

IV. Ms. Voigt motioned to recess until 8:30 AM Wednesday morning, seconded by Mr. Thompson. Approved unanimously.

Municipal Screening Board
Meeting Minutes
October 27-28, 2015
Grandview Lodge
Nisswa, MN

Wednesday Session, October 28, 2015

I. Call to order at 8:35 am by Vice Chair Johnson.

a. Review of yesterday's activity. Call for questions on needs and apportionment data as presented on pages 37-70. If no questions, entertain a motion for approval of the Letter to Commissioner.

Mr. Femrite moved to approve the letter to the Commissioner of Transportation as presented on page 68, seconded by Mr. Pratt. No discussion. Approved unanimously.

b. Research Account, Page 83:
Review of the maximum allowable amount that can be set aside by the MSB for research projects, which is one half of one percent of the preceding year's apportionment sum.

Mr. Thompson motioned that the following resolution be approved "Be it resolved that an amount of $853,501 (not to exceed ½ of 1% of the 2015 MSAS Apportionment sum of $170,700,289) shall be set aside from the 2016 Apportionment fund and be credited to the research account." Seconded by Mr. Pratt. No discussion. Approved unanimously.

c. Action on UCFS recommendation
Review by Vice Chair Johnson of the UCFS report and recommendation as presented to the MSB yesterday.

Mr. Gray thanked the UCFS for their work and moved to accept the report by the UCFS, seconded by Mr. Thompson.

Discussion:

Mr. Kurtz: After discussion off line there appears to still be a fundamental concern about the report itself, as mentioned yesterday by Ms. Voigt, about the data used for the recent studies as how the MSAS arrived at their $185,000 unit price for

traffic signals and how the State Aid Programs Engineer arrived at their $185,000 unit price. In 2014 we took the State Aid Programs Engineer recommendation of $205,000 and this May we accepted the State Aid Programs Engineer recommendation of $185,000. How did the price of a traffic signal go down? Secondly, more importantly, if we are going to take the recommendation of the State Aid Programs Engineer in the future we need to better understand how the price is being calculated. Also, it should be noted that when we accepted the $185,000 price in May it was not unanimous (8-5 vote).

Ms. Voigt: What is a basic signal system? Unit prices from basic signal only or do we include pushbuttons, video detection, etc. What is the criteria? Need a base criteria.

Second concern, looking at the study, we are on the right track to have someone figure it out and use the ENR index for inflation, but in the study it was noted that the outstate prices are higher. We have to be careful that we take care of outstate.

No further discussion.

Approved 12 yeah votes and one nay vote (Kurtz).

Mr. Bot: There is a comprehensive report available in the 2014 MSAS Book which details how they came to the recommended unit price.

II. If necessary (no additional discussion on items from agenda)

III. Call for Any Other Discussion Items

Vice Chair Johnson asked the group if there were any other items to discuss today.

Mr. Pratt mentioned roundabouts and how they get measured in needs, and really how they currently do not get accounted for in current needs system. Roundabouts are installed in lieu of traffic signals which do generate needs. How should we address the cost roundabouts in the needs system?

Mr. Thompson: Agrees with Mr. Pratt and possible something to kick over to the Needs Study Subcommittee for consideration and recommendation for future action.

Mr. Gray: Not much experience, but apparently roundabouts are being installed in locations where warrants do not justify a traffic signal.

Mr. Thompson moved to direct the Needs Study Subcommittee to look into roundabout as a possible Needs item and to bring this back to the Municipal Screening Board for future consideration. Seconded by Mr. Rue.

Clarification from Mr. Lanoux which subcommittee this should go to, the UCFS or NSS.

Mr. Bot clarified if this is specifically a cost item, then should be considered by NSS, if a policy question then it should be considered by the UCFS.

Motion amended by Mr. Thompson to the following:

Mr. Thompson moved to direct the Unencumbered Construction Funds Subcommittee to consider roundabouts as a possible needs item and then forward the item to the Needs Study Subcommittee for their consideration and then bring this item back to the Municipal Screening Board for future consideration. Seconded by Mr. Rue (who accepted the friendly amendment).

Mr. Ellwood expressed his concern over how vague the motion is.

Mr. Thompson responded that the motion is intentionally vague so that the committees have flexibility on what they consider.

Ms. Voigt is sympathetic to the task force and feels there should be more direction, are there some specific goals we can include? Only consider ones that are justified? Apply difference in cost of road vs. addition of roundabout? Etc.

Mr. Rue: As we have studied traffic signals there is a wide variety of between three legs, four legs, multiple lanes, etc. Same with roundabouts. Should be averaged together. Include as another solution to intersection control.

Mr. Rasmussen: This can't be figured out fairly simply here. State Aid has heard some good comments from District 6. Has heard that if traffic signal warrants are met you would get signal needs if even if you installed a roundabout. One possible outcome. Other options. Should be discussed at the subcommittee level.

Mr. Femrite: Supports further discussion with Mr. Freese's and Mr. Rue's comments.

Motion approved 11 yeah votes 2 nay votes (Gray and Ellwood).

IV. Thanks

Vice Chair Johnson thanked Ms. Keely, Mr. Bot and Mr. Exner for their time as past chairs of the UCFS.

Also thanks to all of the Screening Board members and all others that were able to attend.

V. 2016 Spring Screening Board Meeting will be Tuesday and Wednesday, May 24 and 25 at Craguns Resort in Brainerd, MN.

VI. Expense Reports

a. On line or paper copies available
b. A printout from an online mapping tool is required for mileage

VII. Ms. Voigt moved to adjourn, seconded by Mr. Femrite. Approved unanimously. Meeting adjourned at 9:03 AM.

Respectfully submitted,

Marcus J. Culver, P.E.
Municipal Screening Board Secretary
Roseville Public Works Director

NOTES AND COMMENTS

UNIT PRICES

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	$3,499,120	$3.02	$3.12	$3.30
2001	50	893,338	3,275,650	3.67	3.75	3.40
2002	56	1,016,912	4,523,089	4.44	4.65	3.67
2003	48	587,442	3,152,839	5.37	5.59	3.80
2004						4.00
2005						4.25
2006						4.75
2007						4.95

Needs Year	Number of Cities	Quantity (Cu. Yd.)	Total Cost	Yearly Average Contract Price	Engineering News Record Construction Cost Index	Price Used in Needs
2008	47	1,334,769	$6,052,005	$4.53	$5.74	$5.10
2009						4.75
2010	56	689,502	4,521,435	6.56	4.90	4.90
2011					5.03	5.05
2012						6.50
2013					6.77	6.75
2014					6.93	7.00
2015	40	472,486	$3,627,575	7.68		

AND GRAPHS

UNIT PRICE STUDY

An annual unit price study was conducted 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 are applied against the quantities in the Needs Study computation program to compute the 2017 construction (money) needs apportionment.

The average State Aid bridge costs from 2015 are used to determine the unit price for structures.

MN/DOT’s hydraulic office furnished a recommendation of costs for storm sewer construction and adjustment based on 2015 construction costs.

Screening Board Resolutions state that the Unit Cost for Street Lighting remain at $100,000.

The Engineering Construction Cost Index of **+2.0%** was used this year.

Construction Cost Index

ANNUAL INFLATION RATE

+2.0%

DEC. 2015

1913=100	INDEX VALUE	MONTH	YEAR
CONSTRUCTION COST	10092.38	+0.6%	+2.0%
COMMON LABOR	21752.79	+0.7%	+2.7%
WAGE $/HR.	41.32	+0.7%	+2.7%

The Construction Cost Index’s annual escalation rate increased to 2.0% in November, up from 1.8% the previous month, as the materials component increased 0.1%.

M.S.A.S NEEDS STUDY SUBCOMMITTEE MEETING MINUTES

The Needs Study Subcommittee (NSS) meeting was held on April 7, 2016 via conference call at 1:00 p.m. NSS members on the phone were Mark Graham – Vadnais Heights (NSS Chair), NSS members Rich Clauson – Crookston, and Jon Pratt – Detroit Lakes. Also present were: Bill Lanoux, MSAS Needs Manager, Julee Puffer and Deb Hall-Kuglin of MnDOT State Aid.

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). A 2016 Needs Study Subcommittee Data booklet was emailed to all prior to the meeting for review. Lanoux gave an overview of the unit costs to be considered. A full and complete unit price study is done every 3 years, with the next one occurring in 2018. The 2016 needs study therefore uses the Construction Cost Index (CCI) published by the Engineering News Record. The CCI used for 2016 is 2.0 %.

Bill Lanoux began discussion on each of the following items.

Grading/Excavation: Price used in 2015 Needs - $7.50 Cu. Yd.
Committee's Recommendation for 2016 Needs - $7.65 Cu. Yd.

Aggregate Base: Price used in 2015 Needs - $14.00 Ton
Committee's Recommendation for 2016 Needs - $14.30 Ton

All Bituminous: Price used in 2015 Needs - $65.50 Ton
Committee's Recommendation for 2016 Needs - $66.80 Ton

Sidewalk: Price used in 2015 Needs - $4.25 Sq. Ft.
Committee's Recommendation for 2016 Needs - $4.35 Sq. Ft.

Curb and Gutter: Price used in 2015 Needs - $13.75 Lin. Ft.
Committee's Recommendation for 2016 Needs - $14.00 Lin. Ft.

All Bridge Structures: Price used in 2015 Needs - $96.50 Sq. Ft.
Committee's Recommendation for 2016 Needs - $120.00 Sq. Ft.

Storm Sewer: The MnDOT Hydraulics Unit performed an analysis of the storm sewer Costs incurred for 2015. There was a total of $332,627 for new construction and $102,963 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 $217,795 per mile.
Committee's Recommendation for 2016 Needs - $217,800 Per Mile
NOTE: This recommendation of $217,800 per mile is for a 70 foot section. The cost per mile will be prorated down through the other ADT groups.

Street Lighting: Price used in 2015 Needs - $100,000 per mile
Committee's Recommendation for 2016 Needs - $100,000 Per Mile
NOTE: Committee acknowledged the Screening Board resolution that states "This Unit Cost will remain at $100,000 per mile".

Traffic Signals: Price used in 2015 Needs - $185,000 Per Signal
Committee's Recommendation for 2016 Needs - $188,700 Per Signal

Engineering: Price used in 2015 Needs – 22%
Committee's Recommendation for 2016 Needs – 22%

Other Items of Discussion:

Bill Lanoux brought to the NSS's attention the recommendation the UCFS made on Roundabouts. No further discussion was made.

The meeting was adjourned at 2:00 p.m.

Minutes submitted by State Aid: signed off by Mark Graham – Chair of the NSS

N:msas/Books/2016 June Book/NSS Minutes Final.docs

NOTES AND COMMENTS

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

Roadway Segment Information	Status : Original
City	VADNAIS HEIGHTS
Control Section	110
Segment Number	010
Street Name	TWIN LAKE BLVD.
Termini	VADNAIS BLVD. SOUTH TO CITY LIMITS
Length	0.36
Existing Roadway Type	Improved
Existing Lane Description	Undivided
Existing Number of Signal Legs	0
AADT	520
Traffic Group Code	3
Year of AADT Count	2014
Common Boundary Designation	No
Shared City Number	
Turnback Mileage	Yes
Turnback Type	County Road TB
Eligible for Trunk Highway Funds	
Outside City Limit	No
Outside City Limit Length	0.00
Year of Latest SA Fund	0
TIS Code	0538650010
True Start Miles	0.00
True End Miles	0.36
Comments	
Route Id	0500023971060110-I

Segment Cost Information

Computation Factor	Computation Formula	Values Used For Calculation	Computation Result
Gravel Cost	Segment Length * Gravel Cost * Gravel Quantity	0.36 * $14.00 * 10,176	$51,287
Bituminous Cost	Segment Length * Bituminous Cost * Bituminous Quantity	0.36 * $65.50 * 3,978	$93,801
Excavation Cost	Segment Length * Excavation Cost * Excavation Quantity	0.36 * $7.50 * 17,698	$47,785
StormSewer Cost	Segment Length * StormSewer Cost	0.36 * $162,400.00	$58,464
Sidewalk Cost	Segment Length * Sidewalk Unit Cost * 10 * 5,280	0.36 * $4.25 * 10 * 5,280	$80,784
Signal Leg Cost	Number Of Traffic Signal Legs * (Traffic Signal Unit Cost/4)	0 * ($185,000.00/4)	$0
Street Light Cost	Segment Length * Street Light Unit Cost	0.36 * $100,000.00	$36,000
Curb And Gutter Cost	Segment Length * Curb And Gutter Unit Cost * 5,280 * 2	0.36 * $13.75 * 5,280 * 2	$52,272
Structure Cost	SUM(Structure Cost)	$0	$0
Engineering Cost	Total Unadjusted Needs * (22/100)	$420,393 * (22/100)	$92,486
Total Segment Cost	Gravel Cost + Bituminous Cost + Excavation Cost + StormSewer Cost + Sidewalk Cost + Signal Leg Cost + Street Light Cost + Curb And Gutter Cost + Structure Cost + Engineering Cost	$51,287 + $93,801 + $47,785 + $58,464 + $80,784 + $0 + $36,000 + $52,272 + $0 + $92,486	$512,879

2016 UNIT PRICE RECOMMENDATIONS

for the January 2017 distribution

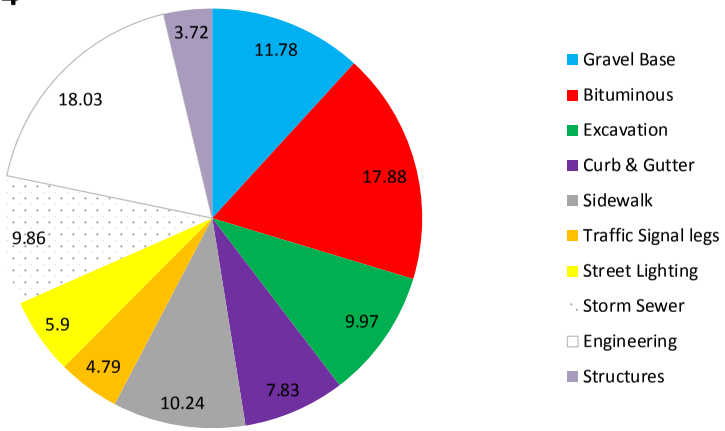
Needs Item		Municipal Screening Board Approved Prices for the 2016 Distribution	2.0% ENR Construction Cost Index for 2015	Needs Study Subcommittee Recommended Prices for 2017 Distribution	Municipal Screening Board Approved Prices for the 2017 Distribution
Grading (Excavation)	Cu. Yd.	$7.50	$7.65	**$7.65**	
Aggregate Base	Ton	14.00	14.28	**14.30**	
All Bituminous	Ton	65.50	66.81	**66.80**	
Sidewalk Construction	Sq. Ft.	4.25	4.34	**4.35**	
Curb and Gutter Construction	Lin.Ft.	13.75	14.03	**14.00**	
Traffic Signals *	Per Sig	185,000	188,700	**188,700**	
Street Lighting	Mile	100,000	NA	**100,000**	
Engineering	Percent	22	NA	**22**	
All Structures (includes both bridges and box culverts)	Sq. Ft.	96.50	NA	**120.00**	
Storm Sewer (based on ADT)	Per Mile				
0 ADT & Non Existing		150,900	NA	**153,600**	
1-499		153,800	NA	**156,500**	
500-1,999		162,400	NA	**165,300**	
2,000-4,999		171,000	NA	**174,000**	
5,000-8,999		182,500	NA	**185,700**	
9,000-13,999		191,100	NA	**194,500**	
14,000-24,999		202,500	NA	**206,100**	
25,000 and over		214,000	NA	**217,800**	

* See 2015 UCFS recommendation for Traffic Signals

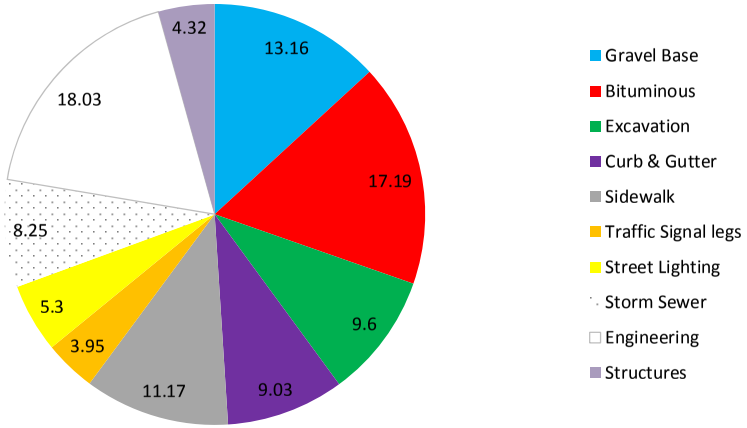
PERCENTAGE COMPARISONS

	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
October 2015 New Method	**13.16**	**17.19**	**9.60**	**9.03**	**11.17**	**3.95**	**5.30**	**8.25**	**18.03**	**4.32**	**100.00**
October 2014 New Method	11.78	17.88	9.97	9.86	10.24	4.79	5.90	7.83	18.03	3.72	100.00
DIFFERENCE	1.38	-0.69	-0.37	-0.83	0.93	-0.84	-0.60	0.42	0.00	0.60	
Pct Change from 2014 to 2015	**11.7%**	**-3.9%**	**-3.7%**	**-8.4%**	**9.1%**	**-17.5%**	**-10.2%**	**5.4%**	**0.0%**	**16.1%**	

2014



2015



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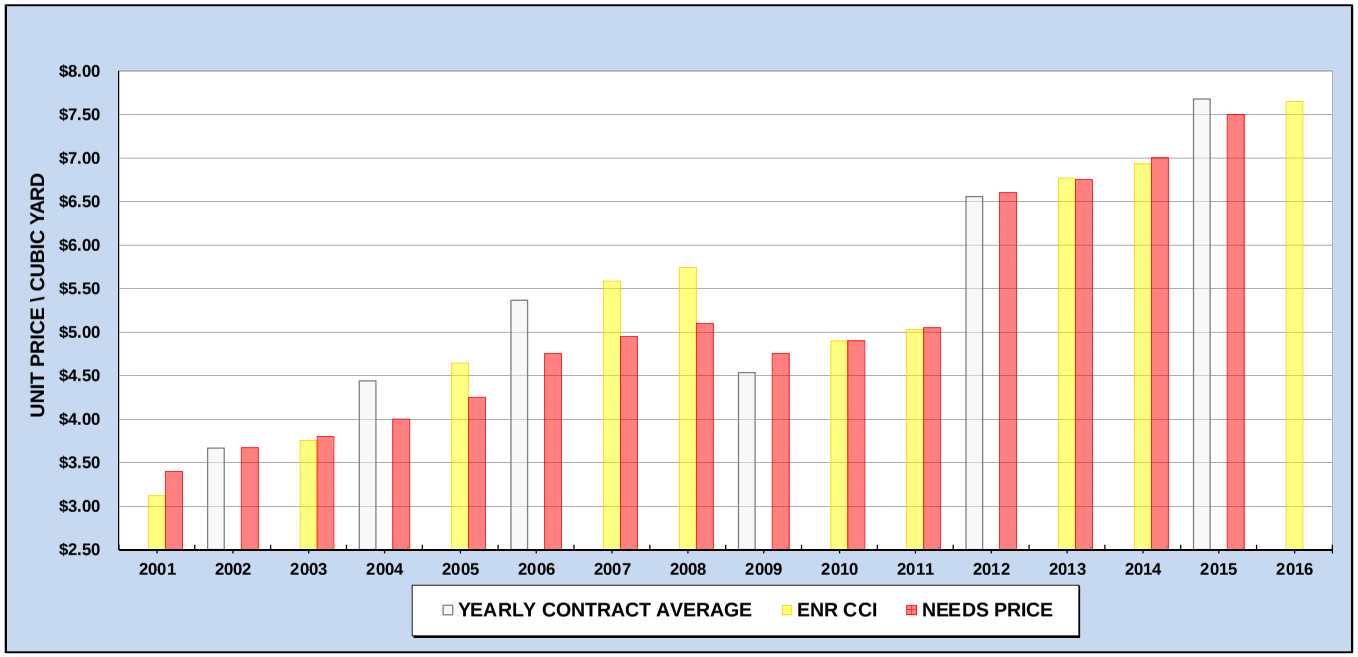
GRADING/EXCAVATION



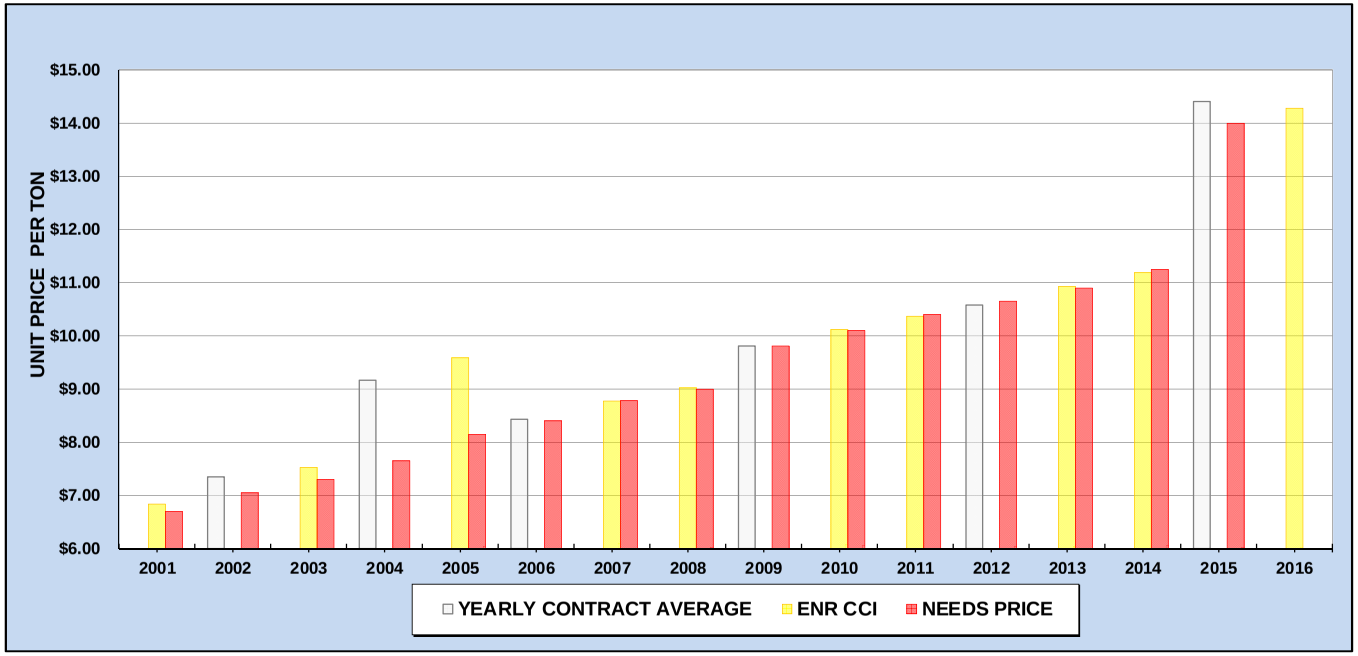
Needs Year	Number of Cities	Quantity (Cu.Yd)	Total Cost	Yearly Average Contract Price	Engineering News Record Construction Cost Index	Price Used in Needs
2001					$3.12	$3.40
2002	50	893,338	$3,275,650	3.67		3.67
2003					3.75	3.80
2004	56	1,018,912	4,523,089	4.44		4.00
2005					4.65	4.25
2006	48	587,442	3,152,838	5.37		4.75
2007					5.59	4.95
2008					5.74	5.10

Needs Year	Number of Cities	Quantity (Cu. Yd.)	Total Cost	Yearly Average Contract Price	Engineering News Record Construction Cost Index	Price Used in Needs
2009	47	1,334,769	$6,052,005	$4.53		$4.75
2010					4.90	4.90
2011					5.03	5.05
2012	56	689,502	4,521,435	6.56		6.60
2013					6.77	6.75
2014					6.93	7.00
2015	40	472,486	3,627,575	7.68		7.50
2016					7.65	

SUBCOMMITTEE'S RECOMMENDED PRICE FOR THE 2016 NEEDS STUDY IS $ 7.65 PER CUBIC YARD

Applying the ENR CCI of 2.0% to last year's 'Price used in Needs' of $7.50 results in an increase of $0.15
Since 2010, this Unit Cost has increased by an average of $0.52 (note $1.55 increase in 2012)
Inflation factor results in a 2016 cost of **$7.65**

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
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
2008					9.02	9.00

Needs Year	Number of Cities	Quantity (Ton)	Total Cost	Yearly Average Contract Price	Engineering News Record Construction Cost Index	Price Used in Needs
2009	45	436,802	$4,284,174	$9.81		$9.81
2010					10.12	10.10
2011					10.37	10.40
2012	57	416,725	4,409,415	10.58		10.65
2013					10.93	10.90
2014					11.19	11.25
2015	40	199,868	2,880,423	14.41		14.00
2016					14.28	

SUBCOMMITTEE'S RECOMMENDED PRICE FOR THE 2016 NEEDS STUDY IS <u>$14.30</u> PER TON

Applying the ENR CCI of 2.0% to last year's 'Price used in Needs' of $14.00 results in an increase of $0.28
Since 2010, this Unit Cost has increased by an average of $0.78 (note $2.75 increase in 2015)
Inflation factor results in a 2016 cost of **$14.28**

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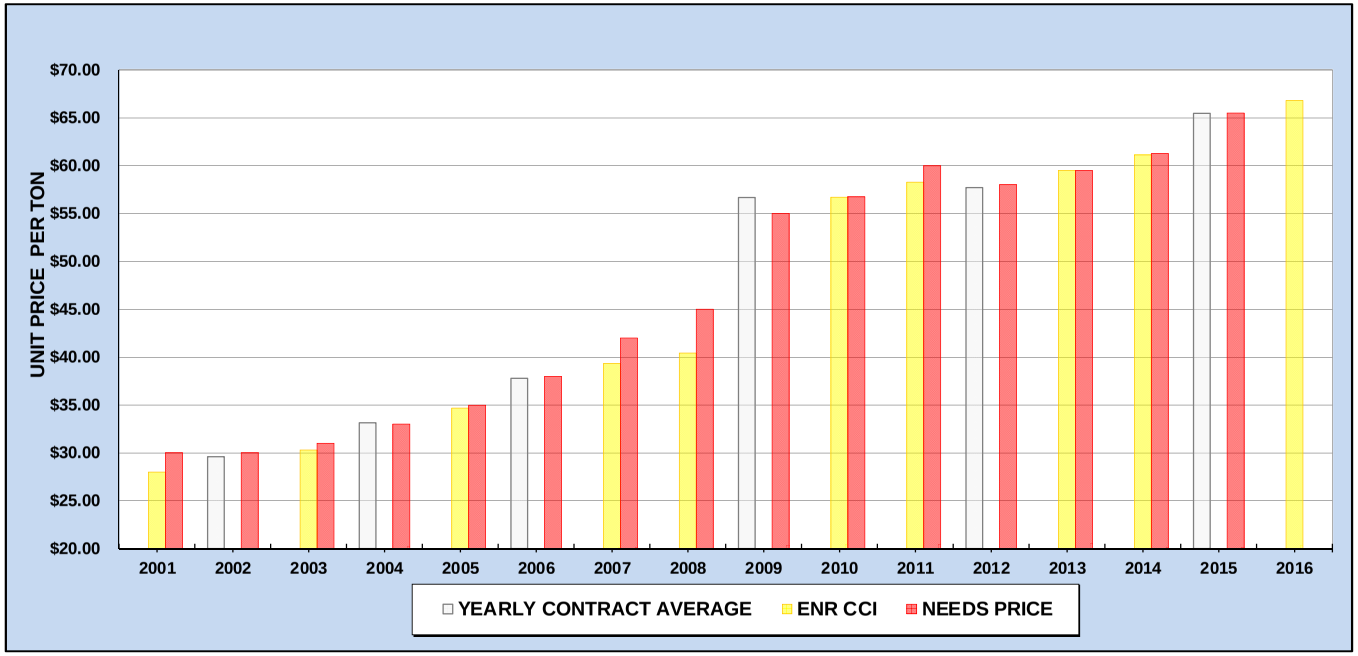
ALL BITUMINOUS BASE & SURFACE



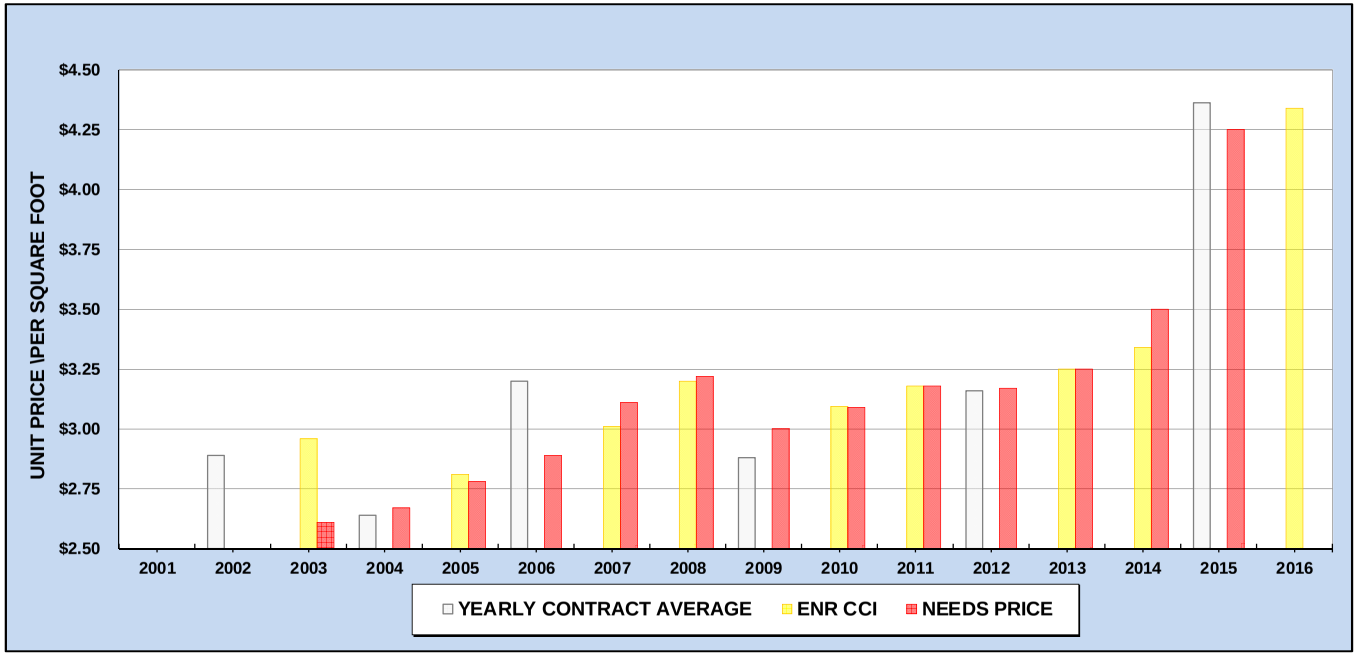
Needs Year	Number of Cities	Quantity (Ton)	Total Cost	Yearly Average Contract Price	Engineering News Record Construction Cost Index	Price Used in Needs
2001					$27.99	$30.00
2002	50	371,198	$10,989,206	29.60		30.00
2003					30.31	31.00
2004	60	459,606	15,229,960	33.14		33.00
2005					34.68	35.00
2006	51	305,073	11,524,574	37.78		38.00
2007					39.33	42.00
2008					40.42	45.00

Needs Year	Number of Cities	Quantity (Ton)	Total Cost	Yearly Average Contract Price	Engineering News Record Construction Cost Index	Price Used in Needs
2009	44	277,797	$15,744,901	$56.68		$55.00
2010					56.72	56.75
2011					58.27	60.00
2012	65	317,687	18,334,854	57.71		58.00
2013					59.51	59.50
2014					61.11	61.25
2015	48	226,676	14,843,126	65.48		65.50
2016					66.81	

SUBCOMMITTEE'S RECOMMENDED PRICE FOR THE 2016 NEEDS STUDY IS $66.80 PER TON

Applying the ENR CCI of 2.0% to last year's 'Price used in Needs' of $65.50 results in an increase of $1.31
Since 2010, this Unit Cost has increased by an average of $1.75
Inflation factor results in a 2016 cost of **$66.81**

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
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					3.01	3.11
2008					3.20	3.22

Needs Year	Number of Cities	Quantity (Sq.Ft.)	Total Cost	Yearly Average Contract Price	Engineering News Record Construction Cost Index	Price Used in Needs
2009	44	95,689	$2,482,820	$2.88		$3.00
2010					3.09	3.09
2011					3.18	3.18
2012	51	66,045	1,880,257	3.16		3.17
2013					3.25	3.25
2014					3.34	3.50
2015	39	356,709	1,556,517	4.36		4.25
2016					4.34	

SUBCOMMITTEE'S RECOMMENDED PRICE FOR THE 2016 NEEDS STUDY IS <u>$4.35</u> PER SQ. FT.

Applying the ENR CCI of 2.0% to last year's 'Price used in Needs' of $4.25 results in an increase of $0.09
Since 2010, this Unit Cost has increased by an average of $0.23 (note $0.75 increase in 2012)
Inflation factor results in a 2016 cost of **$4.34**

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

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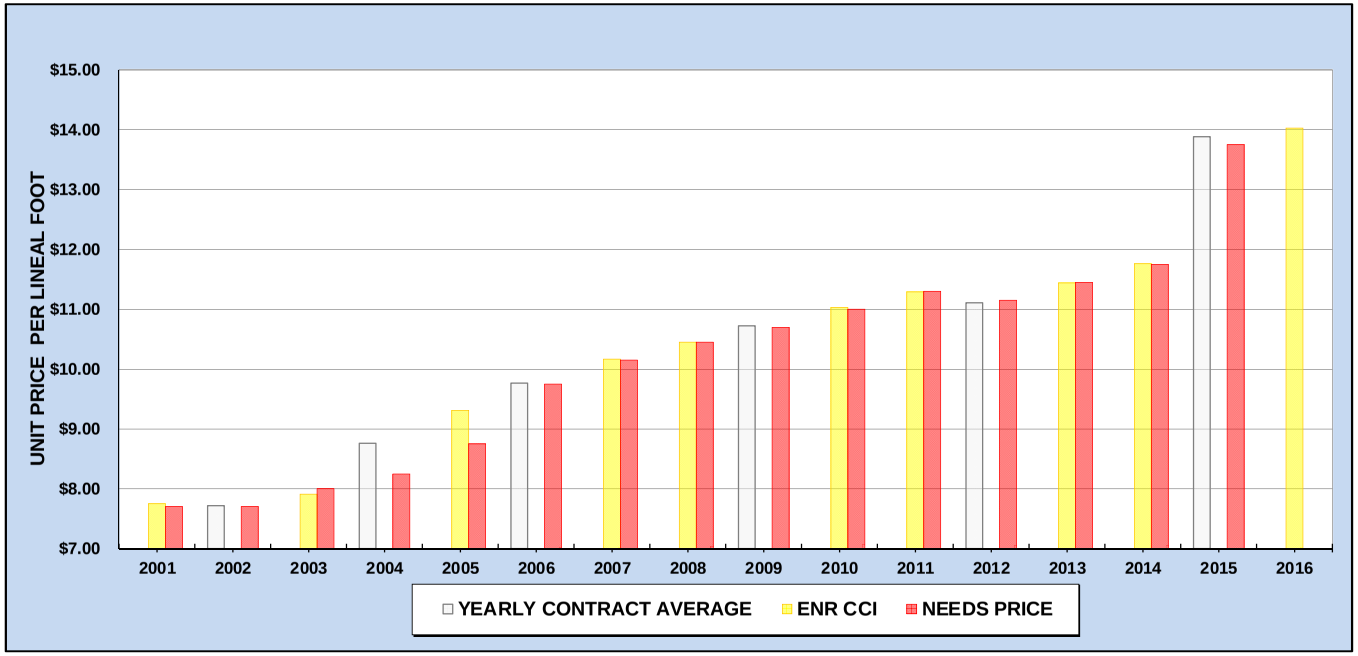
CURB AND GUTTER CONSTRUCTION



Needs Year	Number of Cities	Quantity (Ln. Ft.)	Total Cost	Yearly Average Contract Price	Engineering News Record Construction Cost Index	Price Used in Needs
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
2008					10.45	10.45

Needs Year	Number of Cities	Quantity (Ln. Ft.)	Total Cost	Yearly Average Contract Price	Engineering News Record Construction Cost Index	Price Used in Needs
2009	43	262,251	$2,812,246	$10.72		$10.70
2010					11.03	11.00
2011					11.29	11.30
2012	63	281,751	3,130,181	11.11		11.15
2013					11.44	11.45
2014					11.76	11.75
2015	44	168,891	2,344,989	13.88		13.75
2016					14.03	

SUBCOMMITTEE'S RECOMMENDED PRICE FOR THE 2016 NEEDS STUDY IS <u>$14.00</u> PER LIN. FT.

Applying the ENR CCI of 2.0% to last year's 'Price used in Needs' of $13.75 results in an increase of $0.28
Since 2010, this Unit Cost has increased by an average of $0.55 (note $2.00 increase in 2015)
Inflation factor results in a 2016 cost of **$14.03**

MnDOT State Aid Bridge Office
2015 Calendar Year - - Bridge Cost Report

General Notes

The CY 2015 Bridge Cost Report reflects the unit cost ($ per square foot of bridge area) of all of the bridges let in CY 2015.

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. We have produced a separate report 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
2015 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
85575	SAP	085-599-070	32.51	C-SLAB	3/16/2015	758	$222,610	$293.68
62651	SP	164-158-020	37.84	PCB	1/23/2015	1524	$1,026,532	$673.58
69A32	*LOCAL*	*LOCAL*	42.17	PCB	9/10/2015	1321	$409,496	$309.99
69A34	*LOCAL*	*LOCAL*	46.67	INV-T	11/19/2015	1649	$478,149	$289.96
22613	SAP	022-599-108	51.50	C-SLAB	3/12/2015	1614	$250,297	$155.08
31569	SAP	031-619-009	55.50	PCB	5/5/2015	1961	$363,337	$185.28
69A28	SAP	069-716-010	59.85	PCB	5/7/2015	2115	$553,086	$261.51
62650	SP	164-158-020	66.36	PCB	1/23/2015	3177	$1,886,127	$593.68
85576	SAP	085-599-073	71.67	C-SLAB	3/16/2015	1661	$411,031	$247.46
69A26	*LOCAL*	*LOCAL*	74.21	PCB	7/9/2015	2325	$459,637	$197.69
69A29	SAP	069-604-076	74.80	PCB	6/4/2015	3530	$630,102	$178.50
23566	SP	028-625-009	77.08	PCB	8/3/2015	3032	$384,874	$126.94
67567	SP	067-611-007	78.46	C-SLAB	3/30/2015	2707	$349,599	$129.15
64587	SAP	064-598-021	79.92	PCB	10/7/2015	2824	$252,839	$89.53
10548	SAP	010-630-030	82.08	PCB	12/17/2015	3539	$420,470	$118.81
R0700	SP	118-090-021	82.17	TRUSS	7/1/2015	960	$239,111	$249.07
R0701	SP	118-090-021	82.17	TRUSS	7/1/2015	960	$207,102	$215.73
42568	SAP	042-598-043	82.67	C-SLAB	4/20/2015	2591	$273,317	$105.49
69A25	*LOCAL*	*LOCAL*	88.21	PCB	7/9/2015	2764	$509,143	$184.21
22620	SAP	022-619-019	91.00	C-SLAB	3/12/2015	3579	$452,242	$126.36
66557	SAP	066-612-008	93.50	C-SLAB	6/19/2015	3678	$442,081	$120.20
73578	SAP	073-617-037	93.92	PCB	10/22/2015	3694	$479,353	$129.77

LOCAL DENOTES ST. LOUIS COUNTY BRIDGES FUNDED WITH TAX LEVY DOLLARS.

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

MnDOT State Aid Bridge Office
2015 Calendar Year - - Bridge Cost Report

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

SORTED BY BRIDGE LENGTH

New Bridge Number	Project Type	Project Number	Length	Beam Type Code	Letting Date	Area	Cost	Unit Cost
28556	SAP	028-598-009	102.42	PCB	6/1/2015	3619	$342,353	$94.60
23591	SAP	023-599-196	103.13	C-SLAB	10/26/2015	3231	$287,391	$88.95
78526	SAP	078-598-030	107.00	C-SLAB	7/21/2015	3763	$367,485	$97.66
49555	SAP	049-643-015	117.90	PCB	5/7/2015	4637	$615,309	$132.70
R0680	SP	062-090-002	121.00	TRUSS	9/3/2015	1452	$354,765	$244.33
51536	SAP	051-599-096	124.77	C-SLAB	6/16/2015	3910	$381,905	$97.67
R0679	SP	062-090-002	126.00	TRUSS	9/3/2015	1512	$407,662	$269.62
69591	*LOCAL*	*LOCAL*	126.52	PCB	9/10/2015	3941	$1,166,446	$295.98
71529	SP	071-624-001	134.08	PCB	7/7/2015	7554	$1,257,984	$166.53
48535	SAP	048-598-013	139.75	C-SLAB	4/20/2015	4938	$736,581	$149.17
72551	SAP	072-599-062	143.50	PCB	8/10/2015	4496	$700,501	$155.81
31568	SAP	031-622-004	146.69	PCB	7/28/2015	5159	$1,121,576	$217.40

LOCAL DENOTES ST. LOUIS COUNTY BRIDGES FUNDED WITH TAX LEVY DOLLARS.

Total Cost	**$18,440,493**
Total Deck Area	**100,175**
Average Cost per Sq Ft	**$184.08**
Total No. of Bridges < 150'	**34**

MnDOT State Aid Bridge Office
2015 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
84536	SAP	084-601-007	154.67	PCB	3/10/2015	5439	$774,283	$142.36
R0663	SP	010-090-005	158.00	TRUSS	8/4/2015	1949	$519,776	$266.69
69A20	SAP	069-710-025	159.11	PCB	12/3/2015	7515	$1,362,125	$181.25
58554	SAP	058-607-023	275.92	PCB	6/22/2015	11957	$1,529,991	$127.96
19570	SP	019-090-016	318.33	TRUSS	11/10/2015	3820	$1,402,445	$367.13
62649	SP	164-158-021	392.48	C-SLAB	1/23/2015	17114	$4,890,210	$285.74
27B97	SP	141-454-001	560.56	STEEL	3/4/2015	30460	$13,933,234	$457.43

BRIDGE NO. 27B97 IS A LARGE VEHICULAR TRUSS BRIDGE (REPLACING A HISTORICAL TRUSS) IN THE CITY OF MINNEAPOLIS.

BRIDGE NO. 3145 IS A HISTORICAL REHABILITATION OF 5 TRUSS SPANS ON A TRAIL SYSTEM IN THE CITY OF BLOOMINGTON.

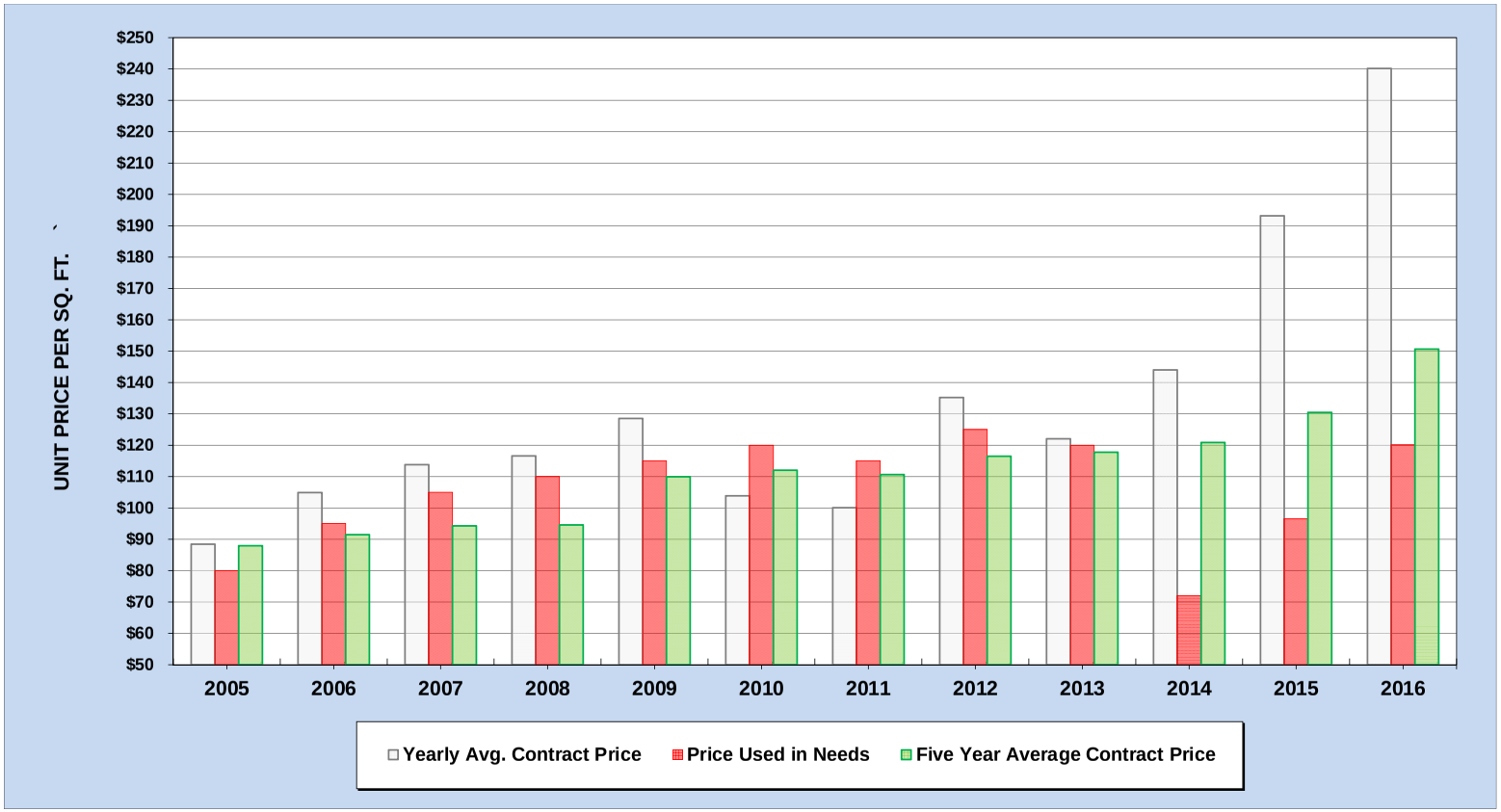
Total Cost	**$24,412,065**
Total Deck Area	**78,254**
Average Cost per Sq Ft	**$311.96**
Total No. of Bridges > 150'	**7**

MnDOT State Aid Bridge Office
2015 Calendar Year - - Bridge Cost Report

Totals for All Bridges Let in CY 2015

Total Cost for all Bridges	**$42,852,558**
Total Deck Area for all Bridges	**178,429**
Average Cost per Sq Ft	**$240.17**
Total Number of Bridges	**41**

ALL BRIDGES



NEEDS YEAR	NUMBER OF PROJECTS	DECK AREA	TOTAL COST	YEARLY AVERAGE CONTRACT PRICE	PRICE USED IN NEEDS	5-YEAR AVERAGE CONTRACT PRICE
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

NEEDS YEAR	NUMBER OF PROJECTS	DECK AREA	TOTAL COST	YEARLY AVERAGE CONTRACT PRICE	PRICE USED IN NEEDS	5-YEAR AVERAGE CONTRACT PRICE
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	96.50	130.48
2016	41	178,429	42,852,558	240.17	*120.08*	150.68

SUBCOMMITTEES RECOMMENDED STRUCTURE PRICE FOR THE 2016 NEEDS STUDY IS $120.00 PER SQ. FT.

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

Minnesota Department of Transportation

Memo

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

Date: March 30, 2016

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 2015

We have completed our analysis of storm sewer construction costs incurred for 2015 and the following assumptions can be utilized for planning purposes per roadway mile:

- Approximately $332,627 for new construction, and
- Approximately $102,963 for adjustment of existing systems

The preceding amounts are based on the average cost per mile of State Aid storm sewer using unit prices. 161 Storm Sewer Plans were submitted during 2015.

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	$332,627	
Partial Storm Sewer Cost from Hydraulics Specialist	$102,963	
Average SS Cost = ($332,627 + $102,963)/2=		$217,795
NSS Recommended Unit Cost		$217,800
MSB Approved Unit Cost for 2016		

NSS recommended Storm Sewer Costs for 2016

based on 2015 costs for the January 2017 distribution

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	($64,200)	-29.5%	$153,600
28	1-499	($61,300)	-28.1%	$156,500
34	500-1,999	($52,500)	-24.1%	$165,300
40	2,000-4,999	($43,800)	-20.1%	$174,000
48	5,000-8,999	($32,100)	-14.7%	$185,700
54	9,000-13,999	($23,300)	-10.7%	$194,500
62	14,000-24,999	($11,700)	-5.4%	$206,100
70	25,000 and over	$0	0.0%	**$217,800**

MSB approved Storm Sewer Costs for 2015

based on 2014 costs for the January 2016 distribution

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	0.0%	$214,000

2015-2016 Percentage Change for highest section = 1.8%

N:MSAS\Books\2016 June Book\Storm Sewer Recommendations.xlsx

LIGHTING AND TRAFFIC SIGNALS

CURRENT SCREENING BOARD RESOLUTION ON STREET LIGHTING

The Unit Cost for Street Lighting will be determined by multiplying the Unit Price per mile by the segment length. This Unit Cost will remain at $100,000 per mile. The Municipal Screening Board may request a study on this item on any year if it is deemed necessary

(the unit cost for Street lighting has been $100,000 / per mile since 2007)

TRAFFIC SIGNALS

Recommendation from the UCFS in 2015

As such the following action and recommendation was unanimously approved by the UCFS:

"Consistent with current MSB resolution which states, "The Unit Cost for Traffic Signals will be determined by the recommendation by the SALT Program Support Engineer and approved by the MSB", the UCFS recommends that the screening board direct the NSS to utilize the average cost of a four leg signal as provided every three years by the SALT program engineer as the primary basis for their unit price study recommendation for signal needs. In 'off years', the unit price be set using the Engineering News Record construction cost index. For the 2015 needs Unit Price Study this average cost is $185,000.

The UCFS Meeting was adjourned by Chair Keely at 2:20 pm.

Respectfully Submitted,

Steven G. Bot, P.E.
Unencumbered Construction Funds Subcommittee Secretary
St. Michael City Engineer

HISTORY: 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
New Needs Method				
2013	$145,260 to $205,954*		100,000	$225,000/signal
2014	148,100 to 210,000		100,000	205,000/signal
2015	150,900 to 214,000		100,000	185,000/signal
2016	**153,600 to 217,800**		**100,000**	**188,700/signal**

* recommended by the NSTF

NEEDS STUDY SUBCOMMITTEE'S RECOMMENDED PRICES FOR 2016:

Storm Sewer/Mile	Lighting/Mile	Traffic Signals/per Signal
$153,600-$217,800	**$100,000**	**$188,700**

RR Crossing Needs are 'After The Fact' Needs in the new program

n:/msas/books/2016 June book\Previous SS, Lighting, Signal and RR Costs.xls

NOTES AND COMMENTS

OTHER TOPICS

January 27th, 2016: UCFS MEETING on Roundabouts

The committee had their first meeting on Jan. 27th. UCFS Members present were Kent Exner - Hutchinson (Chair), Steve Bot – St. Michael (Vice Chair), Klayton Eckles – Woodbury (Secretary). Also present were Jeff Johnson (Screening Board Chair), Lee Gustafson (former Chair of the NSTF), Bill Lanoux and Patti Loken from State Aid were also in attendance..

The UCFS noted that the reason for the motion by the MSB (to consider roundabouts as a Needs item) is that many engineers feel that roundabouts are much like Traffic Signals, (in that they serve to control intersection traffic). Since Traffic Signals are included in the Needs Study, why not include roundabouts as well?

The goal of the first meeting was to review the motion and to get a better understanding of the decision by the Needs Study Task Force to exclude Roundabouts as a Needs item. The UCFS reviewed various items considered by the NSTF.

- Although Traffic Signals and Roundabouts are similar, Maintenance costs for the two are not comparable.

- Cities are currently getting **After the Fact** adjustments for Right-of-Way costs associated with roundabout projects. ROW purchases are a significant cost for roundabout construction.

- An idea suggested by some engineers is that we keep things simple and give roundabouts the same needs as traffic signals. If we gave Signal Needs to roundabouts (calculated ¼ of $185,000 in Needs to each roundabout leg on a MSAS route), we would be using unit costs from one item to generate Needs for another item - and the costs involved in constructing/installing the two are different.

- Cities may often opt to construct roundabouts where intersections warrant signal systems. One thought heard at some pre-screening meetings was to “only include roundabouts that meet signal warrants”. Then to make things simple – just give those roundabouts signal Needs. (Also heard: “don’t take away signal Needs from a city that chooses a roundabout over a signal.”) However, the UCFS acknowledged that it’s not uncommon for traffic signals to exist at intersections that don’t meet signal warrants.

- For measuring purposes in the Needs, MSAS routes are currently measured to the centerline of the roundabout, therefore giving Needs on that portion of road length.

- Roundabouts are mostly roadway construction (and right of way costs). But signals also have major roadway costs for all the turn lanes and approaches, which is all handled the same as roundabout construction in the needs process.

- A roundabout would include “mileage” in both directions (like a signalized intersection), which does draw Needs. So the only real distinction of a signal is the need for the actual equipment—which is what draws the additional needs.

March 2nd, 2016: Second UCFS MEETING on Roundabouts

The committee had their second meeting on March 2nd 2016. UCFS Members present were Kent Exner - Hutchinson (Chair), Steve Bot – St. Michael (Vice Chair), Klayton Eckles – Woodbury (Secretary). Also present were Jeff Johnson (Screening Board Chair), Bill Lanoux (State-Aid).

Items discussed at the meeting:

- In an effort to understand why the motion from the Screening Board to review roundabouts was made – (and so early on into working on the new Needs method) – the committee reviewed NSTF minutes going back to 2012. A section from in the NSTF minutes on 4/12/2012 briefly discussed why the Task Force decided not to include roundabouts in the Needs Study. Since the discussion (as touched on by the minutes at least) was brief and so early-on in the NSTF’s work, perhaps not all engineers were aware of the discussion. The UCFS now has the opportunity to elaborate on the Task Force’s discussion.

- The UCFS reviewed the motion from the October 2015 Screening Board Minutes then reviewed all of the discussion items from the first UCFS meeting.

- It was reiterated that although a roundabout is expensive to build, cities are already getting Needs on many of the items used for roundabout construction. Also – maintenance for signals is ongoing and not comparable to roundabouts.

- Currently, the Needs doesn’t distinguish between more simple intersections (one with no turn lanes) and more elaborate intersections with multiple turn lanes - which are more expensive to construct. (For Needs purposes, excavation for a project with 4-turn lanes is treated the same as a 2-lane road, as is a roundabout). It would be consistent that an intersection with a roundabout would draw the same Needs as a more conventional intersection.

- A road leading to a roundabout would likely be in a higher traffic group, and therefore would be drawing Needs from a higher traffic group.

- The point was made that all intersections have increased construction costs regardless of the presence of signals. Items such as turn lanes, medians, unique geometrics and additional signage and right of way are present in almost every significant intersection.

- The Needs process should not get so granular as to try and assess every possible cost involved with constructing various styles of intersection—it is an imperfect system intended to assist in creating a distribution of gas tax monies, not intended to reflect every conceivable cost to construct an individual roadway section.

As formally requested by the MSA Screening Board at their 2015 fall meeting, the UCFS has reviewed the possibility of including roundabouts as a Needs item. Per meeting discussions on January 27 and March 2, 2016, the UCFS believes that Needs Study Task Force's (NSTF) approach to not include roundabouts as a Needs item should remain as it currently exists. This decision was based on the following considerations and points:

- *Respect of the NSTF's determination not to include roundabouts in the new MSA Needs administration/calculation system.*
- *MSA street segments are currently measured to the center of a roundabout intersection, therefore each leg receives Needs on an approximate relative share of the roundabout circumference.*
- *Roundabout improvements primarily consist of roadway construction costs, where traffic signal improvements also have significant roadway construction costs along with the actual signal system equipment installations.*
- *The major distinction between roundabout and signalized intersections appears to be the addition of the actual traffic signal equipment installation and associated maintenance costs.*
- *Can't simply apply traffic signal Needs amounts to roundabouts, due to this approach utilizing unit costs from one item to generate Needs for another when the costs involved in constructing, maintaining and potentially replacing the two are significantly different.*
- *Cities are currently receiving after-the-fact adjustments of right-of-way acquisition costs (potentially a significant roundabout construction cost).*
- *Cities often decide to construct a roundabout where traffic signal warrants aren't satisfied.*
- *Maintenance costs for traffic signals in comparison to roundabouts seem to be higher.*

The UCFS has unanimously approved the position that roundabouts do not have the ongoing maintenance and equipment replacement for which signals draw Needs. Therefore roundabouts should draw Needs as a typical non-signalized intersection.

Respectfully submitted,

Klayton Eckles

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 recieve new count materials if these choose to count)

See Metro and Outstate counting schedules below
(Note that Chisago County MSAS are grouped with the Outstate schedule)

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

2012	2013	2014	2015	2016	2017	2018
Anoka (4)	Arden Hills (4)	Andover (4)	Blaine (2)	Anoka (4)	Arden Hills (4)	Andover (4)
Columbia Heights (4)	Blaine (2)	Apple Valley (4)	Brooklyn Center (4)	**Bloomington (4*)**	Blaine (2)	Apple Valley (4)
Coon Rapids (4)	Brooklyn Park (2)	Belle Plaine (4)	Brooklyn Park (2)	Columbia Heights (4)	Brooklyn Park (2)	Belle Plaine (4)
Crystal (4)	Chanhassen (2)	**Bloomington (4*)**	Chanhassen (2)	Coon Rapids (4)	Chanhassen (2)	**Bloomington (4*)**
Dayton (2)	Cottage Grove (2)	Burnsville (4)	Circle Pine (4)	Crystal (4)	Cottage Grove (2)	Burnsville (4)
Eden Prairie (4)	East Bethel (2)	Champlin (4)	Cottage Grove (2)	Dayton (2)	East Bethel (2)	Champlin (4)
Hopkins (4)	**Edina (4*)**	Chaska (4)	East Bethel (2)	Eden Prairie (4)	**Edina (4*)**	Chaska (4)
Minneapolis (4*)	Falcon Heights (4)	Corcoran (4)	Farmington (4)	Hopkins (4)	Falcon Heights (4)	Corcoran (4)
Mound (4)	Fridley (4)	Dayton (2)	Ham Lake (4)	**Minneapolis (4*)**	Fridley (4)	Dayton (2)
Shakopee (4)	Golden Valley (4)	Eagan (4)	Hastings (4)	Mound (4)	Golden Valley (4)	Eagan (4)
South St. Paul (4)	Lake Elmo (2)	Forest Lake (4)	Lake Elmo (2)	**Shakopee (4*)**	Lake Elmo (2)	Forest Lake (4)
Spring Lake Park (4)	Mahtomedi (4)	Hugo (4)	**Lakeville (4*)**	South St. Paul (4)	Mahtomedi (4)	Hugo (4)
St. Paul (4*)	Maplewood (4)	Inver Grove Heights (4)	Mounds View (4)	Spring Lake Park (4)	Maplewood (4)	Inver Grove Heights (4)
	Medina (4)	Jordan (4)	Orono (4)	**St. Paul (4*)**	Medina (4)	Jordan (4)
	New Brighton (4)	Lino Lakes (4)	Prior Lake (2)		New Brighton (4)	Lino Lakes (4)
	New Hope (4)	Little Canada (4)	Ramsey (2)		New Hope (4)	Little Canada (4)
	North St. Paul (4)	**Maple Grove (4*)**	**Rogers (4^)**		North St. Paul (4)	**Maple Grove (4*)**
	Oak Grove (4)	Mendota Heights (4)	Savage (4)		Oak Grove (4)	Mendota Heights (4)
	Plymouth (4^)	**Minnetonka (4*)**	Shoreview (2)		**Plymouth (4^)**	**Minnetonka (4*)**
	Prior Lake (2)	Minnetrista (4)	St. Anthony (4)		Prior Lake (2)	Minnetrista (4)
	Ramsey (2)	Oakdale (4)	Victoria (2)		Ramsey (2)	Oakdale (4)
	Richfield (4)	Rosemount (4)	**Woodbury (4^)**		Richfield (4)	Rosemount (4)
	Robbinsdale (4)	**St. Francis (4^)**			Robbinsdale (4)	**St. Francis (4^)**
	Roseville (4)	Vadnais Heights (4)			Roseville (4)	Vadnais Heights (4)
	Shoreview (2)	Waconia (4)			Shoreview (2)	Waconia (4)
	Shorewood (4)				Shorewood (4)	
	St. Louis Park (4)				St. Louis Park (4)	
	St. Paul Park (4)				St. Paul Park (4)	
	Stillwater (4)				Stillwater (4)	
	Victoria (2)				Victoria (2)	
	West St. Paul (4)				West St. Paul (4)	
	White Bear Lake (4)				White Bear Lake (4)	

Takes counts over several years rather than just the publication year (Bloomington, Duluth, Edina, Lakeville, Maple Grove, Minneapolis, Minnetonka, St. Paul, Shakopee)

^May choose to have a select set updated every 2 years (Rogers, Woodbury, Plymouth, St. Francis)

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

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

****** 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 and 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
    - 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 to be 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.

	2011	2012	2013	2014	2015
Amount Allocated	$2.7 M	$2.9 M	$3.1 M	$3.2 M	$3.3 M
Number of Projects	22	21	24	25	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: Lyndon Robjent
lrobjent@co.carver.mn.us
Carver County Engineer
(952) 466-5200

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Revised: 2/2016

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.

MUNICIPAL STATE AID CONSTUCTION ACCOUNT
ADVANCE GUIDELINES

ADVANCE STATUS IS CURRENTLY CODE GREEN

State Aid Advances

M.S. 162.14, Subd 6 provides for municipalities to make advances from future year's allocations for the purpose of expediting construction. This process not only helps reduce the construction cash balance, but also allows municipalities to fund projects that may have been delayed due to funding shortages.

The formula used to determine if advances will be available is based on the current construction cash balance, expenditures trends, repayments and the $20,000,000 recommended threshold in MSAS construction. The threshold can be administratively adjusted by the Chief Financial Officer and reported to the Screening Board at the next Screening Board meeting.

The process used for advancing is dependent on the code levels which are listed below. Code levels for the current year can be obtained from the SAF website - http://www.dot.state.mn.us/safinance/advances/advances.html.

State Aid Advance Code Levels

Guidelines for advances are determined by the following codes.

SEVERE

Code RED - SEVERE – Construction cash balance too low. NO MORE ADVANCES - NO EXCEPTIONS

GUARDED

Code YELLOW - GUARDED – Construction cash balance low; balances reviewed monthly. Advancing money may not meet the anticipated needs. Priority system will be used. Resolution required. Reserve option is available only prior to bid advertisement.

LOW

Code GREEN - LOW – Construction cash balance at acceptable level to approve anticipated advances. Advances approved on first-come, first-serve basis while funds are available. Resolution required. High priority projects are reserved; others optional.

General Guidelines for State Aid & Federal Aid Advance Construction

If a City requests an advance on future allotments they need to submit an Advance Resolution authorizing the advance by the board. This will "earmark" the funding for that City, but it will

NOT hold the funds. Advanced funds will be paid out on a first come first serve basis as the construction accounts are spent down to zero. The correct resolution must be used for each advance type and there is a sample resolution for each on the State Aid Finance webpage. **Requests are good only for the year requested (cannot be summited for multiple years) and void at 12/31 of that year.**

Advances are not limited to the projects listed on the resolution. Project payments are processed in the order received by SAF until the maximum advance amount is reached. Advances are repaid from next year's allocation until fully repaid.

Advance funding is not guaranteed. If the City finds they need a guarantee that the funds will be held specifically for them they can submit a "Request to Reserve Funds" to ensure funds will be available for their project. Once approved, a signed copy will be returned to the County. **Requests are good only for the year requested (cannot be summited for multiple years) and void at 12/31 of that year.**

Sample Advance Resolutions and a - Request to Reserve Funds can be obtained from SAF website - http://www.dot.state.mn.us/safinance/formsandresolutions.html.
E-mail completed forms to Sandra Martinez in State Aid Finance and your DSAE for review.

Priority System

A Priority System will be required if the construction cash balances drop below an acceptable level which is Code Yellow. This process starts in early October proceeding the advance year. Each city will be required to submit projects to their DSAE for prioritization within the district. The DSAE will submit the prioritized list to SALT for final prioritization.

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

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

Advance Limitations

Statutory - None
Ref. M.S.162.14, Subd 6.
State Aid Rules - None
Ref. State Aid Rules 8820.1500, Subp 10& 10b.
State Aid Guidelines
Advance is limited to five times the municipalities' last construction allotment or $4,000,000, whichever is less. Advance amount will be reduced by any similar outstanding obligations and/or bond principle payments due. The limit can be administratively adjusted by the Chief Financial Officer.

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

CURRENT RESOLUTIONS
OF THE
MUNICIPAL SCREENING BOARD

May 2016

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, (Revised January 2015, May 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.

The Unit Cost for **Street Lighting** will be determined by multiplying the Unit Price per mile by the segment length. This Unit Cost will remain at $100,000 per mile. The Municipal Screening Board may request a study on this item on any year if it is deemed necessary.

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 <u>centerline length</u> of the bridge, or the <u>culvert width</u> 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.

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

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

4) and this years Unadjusted Needs.
5) 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.
6) 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.
7) 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.