

MUNICIPAL SCREENING BOARD DATA



Spring 2020

UNIT COSTS AND THE MUNICIPAL SCREENING BOARD

FROM M.S. 162.13

Subd. 2. **Money needs defined.** For the purpose of this section money needs of each city having a population of 5,000 or more are defined as the estimated cost of constructing and maintaining over a period of 25 years the municipal state-aid street system in such city. Right-of-way costs and drainage shall be included in money needs. Lighting costs and other costs incidental to construction and maintenance, or a specified portion of such costs, as set forth in the commissioner's rules, may be included in determining money needs. To avoid variances in costs due to differences in construction and maintenance policy, construction and maintenance costs shall be estimated on the basis of the engineering standards developed cooperatively by the commissioner and the engineers, or a committee thereof, of the cities.

FROM MSB RESOLUTIONS

Appointment to the Needs Study Subcommittee

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.

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

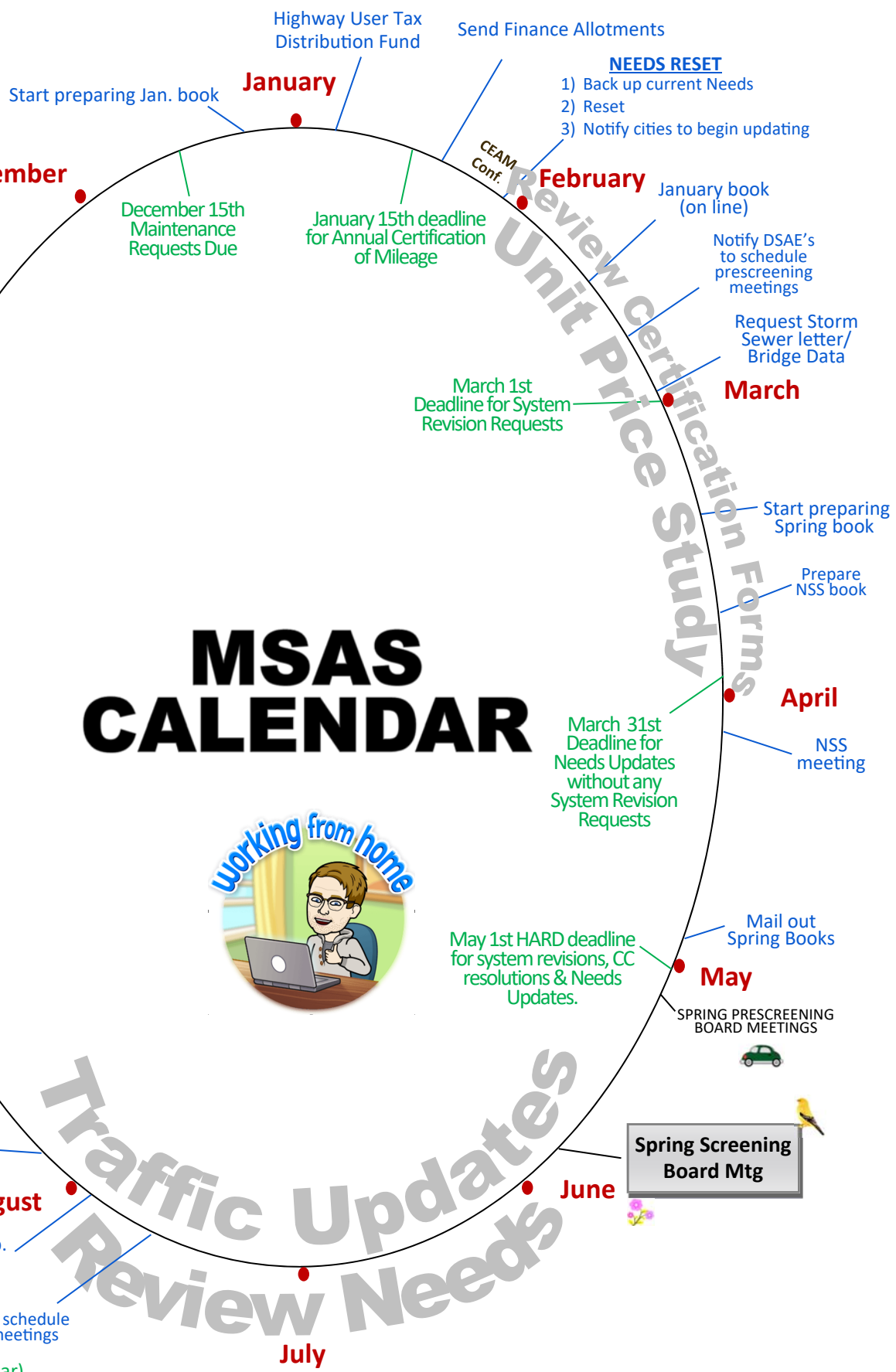
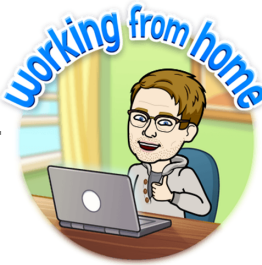
The Needs Study Subcommittee will annually review the Unit Prices for the Needs components used in the Needs Study. The Subcommittee will make its recommendation to the Municipal Screening board at its annual spring meeting.

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 CALENDAR



Fall Screening Board Mtg

FALL PRESCREENING BOARD MEETINGS



Spring Screening Board Mtg

SPRING PRESCREENING BOARD MEETINGS



- City tasks (inside calendar)
- State Aid tasks (outside calendar)
- Ongoing Processes

December

Notify cities to update certs.

November

Notify cities for Maintenance requests

Fall Screening Board Mtg

FALL PRESCREENING BOARD MEETINGS



October

Mail out Fall books

September

Start preparing Fall book

August

Request Pop. Estimates

Notify DSAE's to schedule prescreening meetings

July

Highway User Tax Distribution Fund

January

Start preparing Jan. book

December 15th Maintenance Requests Due

January 15th deadline for Annual Certification of Mileage

Send Finance Allotments

February

January book (on line)

Notify DSAE's to schedule prescreening meetings

Request Storm Sewer letter/ Bridge Data

March

March 1st Deadline for System Revision Requests

Start preparing Spring book

Prepare NSS book

April

NSS meeting

March 31st Deadline for Needs Updates without any System Revision Requests

May

May 1st HARD deadline for system revisions, CC resolutions & Needs Updates.

Mail out Spring Books

SPRING PRESCREENING BOARD MEETINGS



June



NEEDS RESET

- 1) Back up current Needs
- 2) Reset
- 3) Notify cities to begin updating

CEAM Conf.

Traffic Updates
Review Needs

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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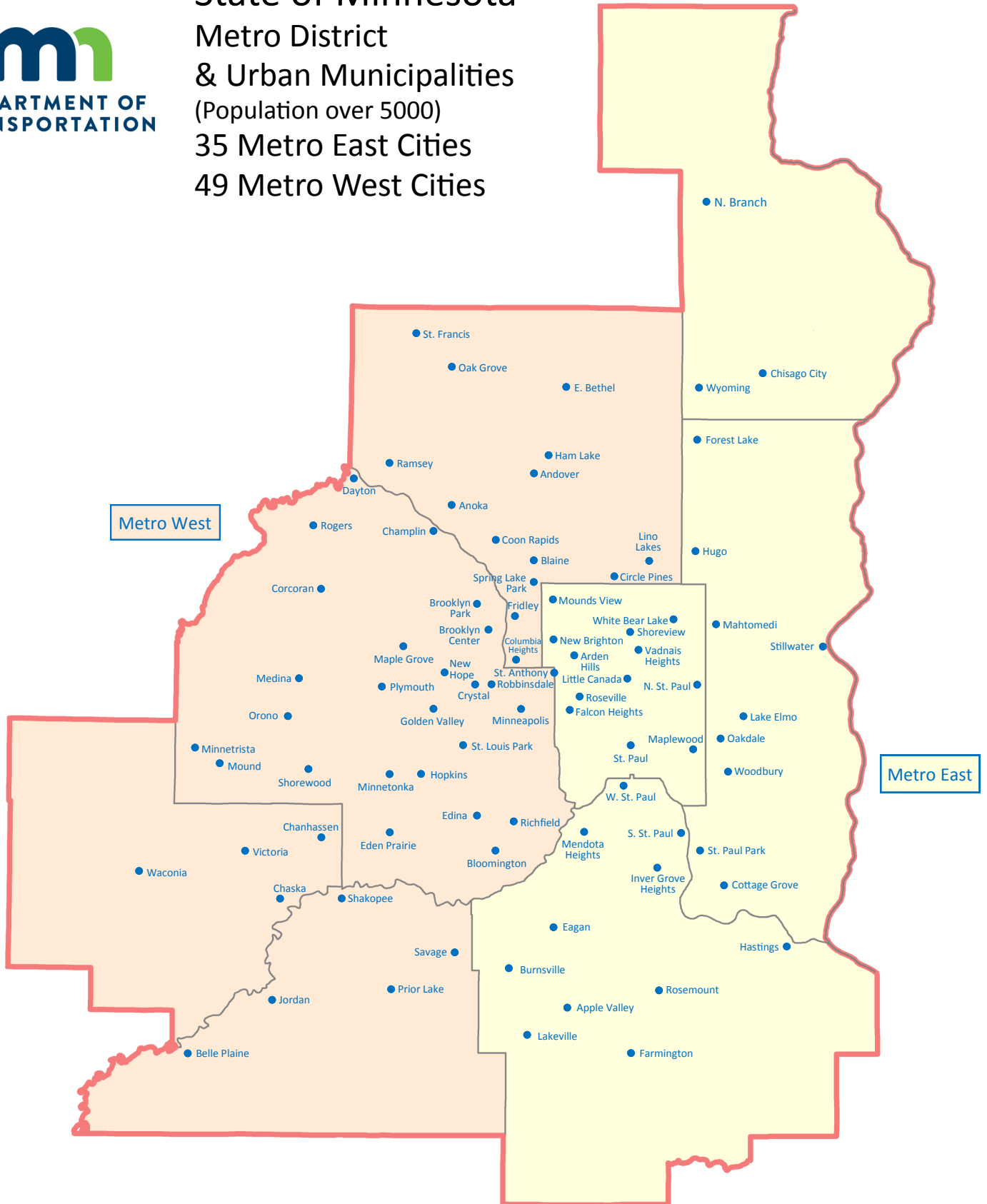
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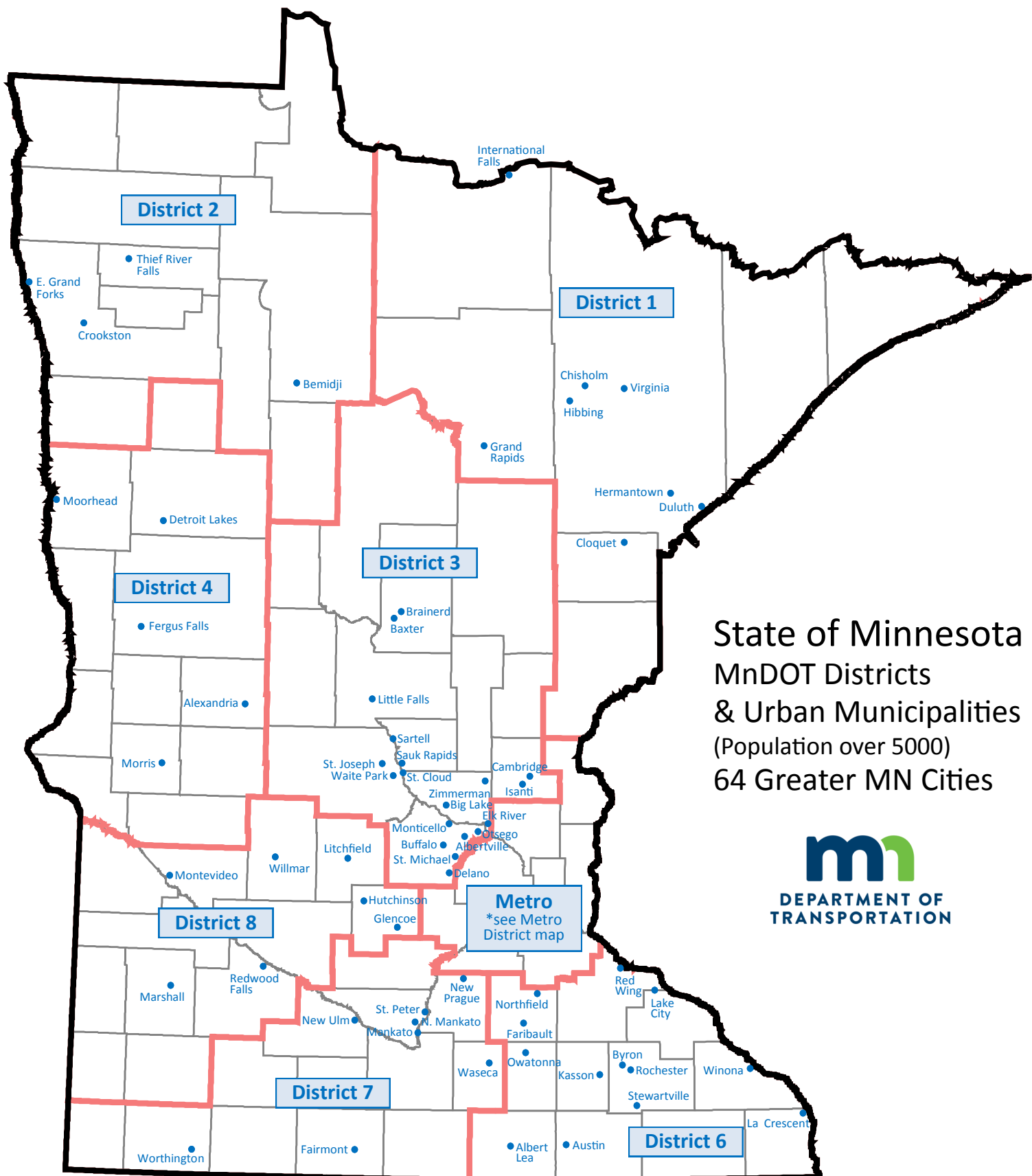
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State of Minnesota Metro District & Urban Municipalities (Population over 5000) 35 Metro East Cities 49 Metro West Cities





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



Updated 1/8/14

2020 MUNICIPAL SCREENING BOARD

06-Feb-20

Officers			
Chair	Justin Femrite	Elk River	(763) 635-1051
Vice Chair	Michael Thompson	Plymouth	(763) 509-5501
Secretary	Paul Sandy	Brainerd	(218) 454-3411

Members				
District	Years Served	Representative	City	Phone
1	2020-2022	Caleb Peterson	Cloquet	(218) 879-6758
2	2018-2020	Rich Clauson	Crookston	(218) 281-6522
3	2018-2020	Adam Nafstad	Albertville	(763) 497-3384
4	2019-2021	Brian Yavarow	Fergus Falls	(218) 332-5413
Metro-West	2019-2021	Chad Millner	Edina	(952) 826-0318
6	2019-2021	Kyle Skov	Owatonna	(507) 444-4350
7	2020-2022	Jeff Domras	St. Peter	(507) 625-4171
8	2018-2020	Owen Todd	Redwood Falls	(507) 794-5541
Metro-East	2020-2022	Brian Erickson	Rosemount	(651) 322-2025
<u>Cities</u>	Permanent	Cindy Voigt	Duluth	(218) 730-5200
<u>of the</u>	Permanent	Jenifer Hager	Minneapolis	(612) 673-3625
<u>First</u>	Permanent	Dillon Dombrowski	Rochester	(507) 328-2421
<u>Class</u>	Permanent	Paul Kurtz	Saint Paul	(651) 266-6203

Alternates				
District	Year Beginning		City	Phone
1	2023	Curt Meyer	International Falls	(218) 308-2603
2	2021	Steve Emery	East Grand Forks	(218) 773-5626
3	2021	Layne Otteson	Big Lake	(763) 251-2984
4	2022	Bob Zimmerman	Moorhead	(218) 299-5393
Metro-West	2022	Will Manchester	Minnnetonka	(952) 939-8232
6	2022	Brandon Theobald	Kasson	(507) 288-3923
7	2023	Michael McCarty*	Mankato	(507) 387-8643
8	2021	Chuck DeWolf	Litchfield	(320) 231-3956
Metro-East	2023	Zachary Johnson	Lakeville	(952) 985-4501

* Jeff Johnson or Michael McCarty

2020 SUBCOMMITTEES

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

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

Needs Study Subcommittee	Unencumbered Construction Funds Subcommittee
<p style="text-align: center;">Sean Christensen Willmar (320) 235-4202 Expires after 2020</p> <p style="text-align: center;">Steve Lillehaug Shakopee (952) 233-9361 Expires after 2021</p> <p style="text-align: center;">Matt Wegwerth Grand Rapids (218) 326-7625 Expires after 2022</p>	<p style="text-align: center;">Marc Culver Roseville (651) 792-7041 Expires after 2020</p> <p style="text-align: center;">Glenn Olson Marshall (507) 537-6774 Expires after 2021</p> <p style="text-align: center;">John Gorder Eagan (651) 675-5645 Expires after 2022</p>

AGENDA
MUNICIPAL SCREENING BOARD MEETING
Oct 22 & 23, 2019
Nisswa, MN

- I. Call to Order at 1:10 PM and welcome by Chair of the Municipal Screening Board (MSB), John Gorder.
 - a. John Gorder introduced himself and made introductions as follows:
 - i. *Kristine Elwood*, MnDOT –State Aid Engineer
 - ii. *Bill Lanoux*, MnDOT - Manager, Municipal State Aid Needs Unit
 - iii. *Justin Femrite* , – Vice Chair MSB (absent)
 - iv. Past Chair of the MSB: *Glenn Olson*
 - v. *Michael Thompson*, Secretary of the MSB
 - b. Secretary Thompson conducted the roll call of the screening board members:
 - i. District 1 Matt Wegwerth, Grand Rapids
 - ii. District 2 Rich Clauson, Crookston
 - iii. District 3 Adam Nafstad, Albertville
 - iv. District 4 Brian Yavarow, Fergus Falls
 - v. Metro West Will Manchester, Minnetonka
 - vi. District 6 Brandon Theobald, Kasson
 - vii. District 7 Chris Cavett, New Prague
 - viii. District 8 Owen Todd, Redwood Falls
 - ix. Metro East Brian Erickson, Rosemount
 - x. Duluth Cindy Voigt
 - xi. Minneapolis Jenifer Hager
 - xii. Rochester Dillon Dombrovski
 - xiii. St. Paul Paul Kurtz
 - c. Chair recognized Screening Board alternates in attendance:
 - i. District 7 Jeff Domras, St. Peter
 - d. Chair recognized Department of Transportation personnel:
 - i. Patti Loken Deputy State Aid Engineer
 - ii. Elisa Bottos Project Delivery Engineer
 - iii. John McDonald District 1 State Aid Engineer
 - iv. Lou Tasa District 2 State Aid Engineer
 - v. Kelvin Howieson (absent) District 3 State Aid Engineer (Brett Stark attended in place of Kelvin for District 3)
 - vi. Nathan Gannon District 4 State Aid Engineer
 - vii. Fausto Cabral District 6 State Aid Engineer
 - viii. Lisa Bigham District 7 State Aid Engineer
 - ix. Todd Broadwell District 8 State Aid Engineer
 - x. Dan Erickson Metro State Aid Engineer
 - xi. Julie Dresel Assistant Metro State Aid Engineer
 - xii. Mark Vizecky Operations Engineer
 - e. Recognize others in Attendance:

- i. Dave Sonnenberg, Chair, CEAM Legislative Committee
- ii. Sean Christensen, Chair, Needs Study Subcommittee
- iii. Larry Veek, Minneapolis
- iv. Mike Van Beusekom, St. Paul

- II. Bill Lanoux reviewed the '2019 Municipal State Aid Street Needs Report'
 - a. Bill Lanoux went over introductory information, Pages 1-7.
 - i. May Screening Board minutes were covered on Pages 8-12

Cindy Voigt moved to approve the minutes of the May 2019 Municipal Screening Board, seconded by Adam Nafstad. Approved ayes all.

- b. Population Data & 2020 Population Allocations, Pages 13-21
 - i. Bill Lanoux explained that 2020 census figures will be available in the spring of 2021 and used for the 2022 allocation.
- c. Mileage, Needs & Apportionment History, Pages 22-24
 - i. Bill Lanoux explained the distribution amounts for this cycle.
- d. Itemized Needs Data & Mileage Data: Pages 25-37
 - i. Bill Lanoux discussed various changes that cities made to their overall MSA System mileages. (such as Faribault, which added turnback mileage in 2019). Certain Needs restrictions were applied to cities that saw such mileage changes.
- e. Construction Needs, Restrictions & ATF Adjustments, Pages 39-63 (Bill Lanoux explained that there are still cities with upper and lower Needs restrictions, but over the past six years the majority of cities are now within the bandwidth and no longer being restricted. Lanoux also went over the following items from the MSA Street Needs Report:
 - i. Excess Balance Adjustment
 - ii. Low Balance incentive
 - iii. Right of Way
 - iv. Retaining Walls
 - v. RR Crossings
 - vi. RR Bridges over MSAS
- f. 2019 Adjusted Restricted Construction Needs, Pages 64-67
 - i. There was a review of the 2019 Needs recommendations and the official letter to the Commissioner (Pages 68-70) for action for Wednesday.
- g. 2020 Construction Needs Allocations & Comparisons were reviewed on Pages 71-76
- h. 2020 Total Allocations & Comparisons were reviewed on Pages 77-82
- i. Allocation Rankings were reviewed on Pages 83-86

- j. Other Topics and MSB Resolutions on Pages 87-106 were reviewed by Lanoux including:
 - i. Certification of a City as Complete
 - ii. Administrative Account
 - iii. Research Account Page 90
 - iv. Resolution on Trunk Hwy Turnbacks / State Aid Recommendation (Page 105), and discussion Other items
 - i. Bill Lanoux read the summary on this item based on direction from the Screening Board from May 2019, and Lanoux said State Aid suggested that no changes be made to the resolution. Paul Kurtz conveyed that the board should do something instead of leaving it as is. Paul gave an example that if a city took a Trunk Highway it would likely not get 100% funding for the project and that construction needs should be generated when the city designates the mileage like any other roadway. Nafstad then said perhaps the language should be deleted to get to that point and treat it like any other roadway turnback. Paul Kurtz reiterated that needs should be generated when on the system. Bill Lanoux and Chair Gorder said there could be discussion this evening and a recommendation brought back tomorrow for consideration.
 - ii. Will Manchester asked about after the fact ROW needs on the County system. Manchester said he received a request from one of the west metro cities and asked if this was the appropriate time to ask since this was his first meeting and is filling in as an alternate. The question was a request to let this group know this city in the west metro was having concerns with after the fact needs for ROW related to county projects, and if the county is collecting needs on city expenditures, why can't the city. He said he did not wish to create a big discussion, but offer to the group as a comment to understand the background related to this concern. Bill Lanoux explained that this item has been recently discussed - and the ultimate result of a vote was to not include after the fact needs on the County roadway system. However, it was a split vote in the past. Paul Kurtz asked if the County gets needs on all their ROW expenditures. Julie Dresel said yes, for the expenditures the County has, and it is over 5 years. Kurtz said this should be brought back to the Needs Study Subcommittee for review. Glenn Olson and Paul Kurtz briefly discussed the City process for ROW on a County roadway. John Gorder said there could be more discussion on this tonight and brought back tomorrow for consideration or recommendation on next steps.

Lanoux said he also will read through the previous committee recommendation on this item tomorrow, and he will review the last action by the Board on this issue to provide background since past work has gone into this discussion.

- III. Legislative Update
 - i. Dave Sonneberg talked about League of MN Cities (LMC) hiring an attorney to work on speed limit guidance. Kyle Hartman is the contact at LMC. Also Minneapolis and St. Paul are leading on this effort and would be good contacts for questions.
 - ii. Dave Sonneberg is looking for a new Chair and Vice Chair for the CEAM legislative committee. Gorder said he would like screening board members to sit on the committee and consider signing up. The CEAM President and first Past President will always be on the legislative committee as a default to provide continuity.
- IV. Presentations were originally planned during the official meeting regarding advances in pavement and research and Local Road Research Board information for local agencies, however this item was moved to after the official meeting was adjourned.
- V. John Gorder called for a motion at 2:40 PM to adjourn until 8:30 AM Wednesday morning:

Matt Wegwerth moved to adjourn and Rich Clauson seconded. Approved ayes all.

WEDNESDAY MORNING SESSION

- I. John Gorder called meeting to order at 8:35 AM.

John Gorder went over the Needs recommendations on pages 69 & 70 and called for *a motion to approve the letter to the Commissioner.*

Cindy Voigt moved the motion for the Needs recommendations on Pages 69 and 70 and Matt Wegwerth seconded. Approved ayes all.

 - a. Research Account Page 90
In the past, a certain amount of money has been set aside by the Municipal Screening Board for research projects. The maximum amount to be set aside from the Municipal State Street Funds is ½ of 1 percent of the preceding year's apportionment sum.

Chair Gorder called for a motion to approve the following resolution:

Be it resolved that an amount of \$962,329 (not to exceed ½ of 1% of the 2019 MSAS Apportionment sum of \$192,465,830) shall be set aside from the 2020 Apportionment fund and be credited to the research account.

The above resolution was moved by Adam Nafstad and seconded by Chris Cavett. Approved ayes all.

- II. After the Fact ROW Needs on County System Discussion
- a. As a follow up to the Tuesday discussion Bill Lanoux reviewed the minutes from December 1, 2017 UCFS meeting regarding their recommendation to not to include ROW after the fact needs for ROW purchases on the County system. Manchester thanked Lanoux for the follow up. He further noted this item would be better served in a discussion at the next prescreening board meeting, reiterating this was one comment received and there is history on a discussion that has been ongoing for a long time working through these details. Also, Manchester said there were clearly others on the other side and the group has made a decision. Paul Kurtz said needs still exist for ROW on County Roads and thinks it should go back to a subcommittee for a fresh review.

Paul Kurtz made a motion to send to this item to the Needs Study subcommittee for further review and the legality perspective of it and come back to next screening board meeting. Manchester seconded the motion with the comment he would be okay with the group looking at this as an issue further if something wasn't reviewed last time such as a legal issue, but didn't want to spend time on something that has already been discussed with the same group of reviewers if it was already decided upon last time.

Further discussion before vote was as follows: Matt Wegwerth spoke saying there was no reason to send it back because past minutes are clear. Cindy Voigt says she is going to vote yes because she doesn't agree with a majority of the past recommendation. Chris Cavett said there is a need but this is unique to developed urban areas and may not benefit rural areas.

Roll call vote:

- | | |
|-------------------------|--|
| i. <u>District 1</u> | <u>Matt Wegwerth, Grand Rapids (Nay)</u> |
| ii. <u>District 2</u> | <u>Rich Clauson, Crookston (Nay)</u> |
| iii. <u>District 3</u> | <u>Adam Nafstad, Albertville (Nay)</u> |
| iv. <u>District 4</u> | <u>Brian Yavarow, Fergus Falls (Nay)</u> |
| v. <u>Metro West</u> | <u>Will Manchester, Minnetonka (Aye)</u> |
| vi. <u>District 6</u> | <u>Brandon Theobald, Kasson (Nay)</u> |
| vii. <u>District 7</u> | <u>Chris Cavett, New Prague (Nay)</u> |
| viii. <u>District 8</u> | <u>Owen Todd, Redwood Falls (Nay)</u> |
| ix. <u>Metro East</u> | <u>Brian Erickson, Rosemount (Nay)</u> |
| x. <u>Duluth</u> | <u>Cindy Voigt (Aye)</u> |

- xi. Minneapolis Jenifer Hager (Aye)
- xii. Rochester Dillon Dombrowski (Aye)
- xiii. St. Paul Paul Kurtz (Aye)

Motion fails with 5 ayes and 8 nays.

Item will not be sent to a subcommittee for review at this time.

- III. Trunk Highway Turnback Resolution Discussion
 - a. Paul Kurtz said we should get rid of the current resolution and treat TH turnbacks like any other turnback in order to collect both construction and maintenance needs. He said eliminating the current resolution is a possibility or to clarify with a resolution and that it could go back to a committee for review and recommendation. Bill Lanoux said system revisions should be submitted annually by March 1 (per page 102 of the October 2019 report) in order to be included in that year's Needs cycle.

Paul Kurtz read aloud and moved a resolution (provided below) to go to UCFS for review of said language for refinement (which could include elimination) and come back in the spring at the meeting for a recommendation to be considered by the Board; item second by Owen Todd. Approved ayes all.

Motion language is as follows provided by Paul Kurtz:

Any trunk highway turnback which reverts directly to the municipality and becomes part of the MSAS system will be eligible to draw full construction and maintenance needs at which time the two following conditions are satisfied: 1) Upon execution and signing of a system revision order by the Commissioner of Transportation, and 2) When the system revision is entered into the Municipal State Aid Needs system.

- IV. Other Discussion Topics
 - a. Kristine Elwood gave a brief state aid report and touched on special permitting for sugar beet haulers for hauling 20% overweight which is being considered by the Governor.
 - b. John Gorder updated the group on Statute 216D and that Michael Thompson, Paul Hornby, and Shelly Hanson were working with the Association of General Contractors (AGC) on utility coordination and education. Education will occur at upcoming CEAM and APWA conferences.
 - c. John Gorder talked about speed limit legislation. Mark Vizecky with MnDOT (Operations Engineer) provided an update that they are working with a consultant and working towards a unified vision; both enforcement and engineering. The work will include going through existing legislation (literature review) and also include two stakeholder groups; technical (engineers from City and County for example) and a

- citizens group (advocates, law enforcement, etc). The goal is to develop education and one page handouts for example. The City representatives are Tim Plath and Kent Exner. Vic Lund from the County side represents our industry well according to Cindy Voigt.
- d. MPCA permit fees has a 30% shortfall. John Gorder is working on getting information from MPCA and will provide additional updates as they become available.
- V. Chair Gorder recognized the group and thanked them for the service on this Board. Gorder specifically thanked the two outgoing board members (*Matt Wegwerth and Chris Cavett*).
- VI. Chair Gorder said the next Spring Screening Board meeting (location TBD) will be May 19 – 20.
- a. MnDOT will be conducting a request for bid for the next location according to Kristine Elwood and Nancy Stone.
- VII. Entertain a motion for adjournment
- a. **Dillon Dombrovski moved to adjourn the fall 2019 MSB meeting and Brian Erickson seconded. Approved ayes all.**

Minutes respectfully submitted by MSB Secretary, Michael Thompson.

Unencumbered Construction Funds Subcommittee

Meeting Minutes: January 30th, 2020

Attendees

Marc Culver, UCFS / Roseville
Glenn Olson, UCFS / Marshall
John Gorder, UCFS / Eagan
Bill Lanoux, State Aid
Mark Vizecky, State Aid.

Meeting Discussion

The UCFS met on Thursday January 30th, 2020 to discuss a motion from the Municipal Screening Board for the UCFS to review the current language of the following Screening Board resolution on Trunk Highway Turnbacks: (for the committee to review the resolution for possible refinement or elimination)

(Current resolution) 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.

The UCFS also reviewed the Screening Board motion for possible revision to this resolution:

(Possible revision / from MSB minutes) Any trunk highway turnback which reverts directly to the municipality and becomes part of the MSAS system will be eligible to draw full construction and maintenance needs at which time the two following conditions are satisfied: 1) Upon execution and signing of a system revision order by the Commissioner of Transportation, and 2) When the system revision is entered into the Municipal State Aid Needs system.

The UCFS reviewed State Aid's recommendation for the current resolution (from the October 2019 MSB meeting) in which "no change" was recommended to this resolution. Lanoux stated that State Aid felt this resolution was no longer relevant and could be deleted, but ultimately erred on the side of caution to keep it. Lanoux added that Needs Study Task Force meeting minutes leading up to the new Needs method didn't contain much discussion on this resolution.

When the Municipal Screening Board eventually revised all resolutions in 2014 (to reflect the new Needs system) the Trunk Hwy Turnback resolution was left unchanged but probably should have been removed.

The UCFS agreed that the current resolution is obsolete and not applicable in the new method of Needs. Since 2014, all MSAS segments draw *continuous Needs* based on traffic (ADT) and not whether they are “deficient” or “adequate”.

The committee felt that eliminating this resolution entirely would accomplish what the Screening Board wants in their motion - and would also remove any ambiguity concerning Turnbacks. In revoking this resolution, all Turnbacks would be treated as any other MSA System road.

The motion from the Screening Board (for possible revision) states two conditions for Trunk Highway Turnbacks to draw full construction and maintenance Needs: *1) Upon execution and signing of a system revision order by the Commissioner of Transportation, and 2) When the system revision is entered into the Municipal State Aid Needs system.*

The motion doesn't specifically state that Turnbacks should draw maintenance cost reimbursement from the time it is entered in the Needs and when the January apportionment is distributed, but is it implied? Note there isn't a formula in screening board resolutions for this scenario.

The UCFS reviewed other screening board resolutions concerning deadlines for new system roads to be included in the Needs Study. Current resolutions state that requests for system revisions must be received by the DSAE by March 1st to be included in that years Need Study.

The UCFS concluded that these deadlines have been working and the committee doesn't find it necessary to rewrite them or create an exception for Turnbacks.

Vizecky noted that there is a deadline for TH Turnbacks and that MnDOT would not process a turnback after October 31st. (unless there was a special request from the receiving agency)

The current Turnback resolution (last revised in 1989) notes a maintenance adjustment which provides maintenance cost reimbursement for Turnbacks during their time of funding eligibility. The UCFS felt that the computation for maintenance (1/12 of \$7200 per mile) had not been reviewed in many years, but didn't need to be addressed because it wouldn't be applied in the current system anyway. Additionally, the current resolution is proposed to be eliminated.

The UCFS felt that under the current Needs system, a city could negotiate during the time of the Trunk Highway Turnback for any lost maintenance costs.

The UCFS recommends revoking the current resolution on Trunk Highway Turnbacks. In doing so, all Turnbacks will be treated as any other MSAS roadway. The UCFS does not recommend any other changes to Municipal Screening Board resolutions.

Motion carried unanimously.

Respectfully Submitted,

John Gorder
UCFS Secretary

TRAFFIC COUNTING & ADT GROUPS



<http://www.dot.state.mn.us/traffic/data/tma.html>

TRAFFIC COUNTING SCHEDULES



Metro Trunk and County Traffic Counting Schedule

As of 2020 all counts on Metro Trunks (I, US, MN) and County Road (CSAH, CR) are on a two-year carry over cycle. This cycle begins in even years and ends in odd years. Ramps are collected on a six-year cycle. Additional HPMS counts are scheduled as needed.

2-Anoka, 10-Carver, 13-Chisago (Trunks), 19-Dakota, 27-Hennepin, 62-Ramsey, 70-Scott, 82-Washington

Metro MSAS Traffic Counting Schedule

As of 2020 the various four-year cycles for metro MSAS traffic counts were realigned to begin in 2020 and conclude in 2023. This new counting schedule offers more flexibility to the Cities. Agencies may continue to collect all their count data in a single season or they made divide the counts across the four-year window. Additional HPMS counts are scheduled as needed. Cities in the following counties are responsible for MSAS counts per agreements with the State Aid Office: Anoka, Carver, Dakota, Hennepin, Ramsey, Scott, Washington. County and MSAS counts in Chisago County are collected by MnDOT.

Past cycle information; use for reference only

Name	Past Cycle Length	Past Completion Year
Andover	Four	2018
Anoka	Four	2016
Apple Valley	Four	2018
Arden Hills	Four	2017
Belle Plaine	Four	2018
Blaine	Two	2019
Bloomington	Four	Carry-over 2018
Brooklyn Center	Four	2019
Brooklyn Park	Two	2019
Burnsville	Four	2018
Champlin	Four	2018
Chanhassen	Two	2019
Chaska	Four	2018
Circle Pine	Four	2019
Columbia Heights	Four	2016
Coon Rapids	Four	2016
Corcoran	Four	2018
Cottage Grove	Two	2019
Crystal	Four	2016
Dayton	Two	2018
Eagan	Four	2018
East Bethel	Two	2019
Eden Prairie	Four	2016
Edina	Four	Carry-over 2017
Falcon Heights	Four	2017
Farmington	Four	2019
Forest Lake	Four	2018

Name	Past Cycle Length	Past Completion Year
Fridley	Four	2017
Golden Valley	Four	2017
Ham Lake	Four	2019
Hastings	Four	2019
Hopkins	Four	2016
Hugo	Four	2018
Inver Grove Heights	Four	2018
Jordan	Four	2018
Lake Elmo	Two	2019
Lakeville	Four	Carry-over 2019
Lino Lakes	Four	2018
Little Canada	Four	2018
Mahtomedi	Four	2017
Maple Grove	Four	Carry-over 2018
Maplewood	Four	2017
Medina	Four	2017
Mendota Heights	Four	2018
Minneapolis	Four	Carry-over 2016
Minnetonka	Four	Carry-over 2018
Minnetrista	Four	2018
Mound	Four	2016
Mounds View	Four	2019
New Brighton	Four	2017
New Hope	Four	2017
North St. Paul	Four	2017
Oak Grove	Four	2017
Oakdale	Four	2018

Name	Past Cycle Length	Past Completion Year
Orono	Four	2019
Plymouth	Four+	2017
Prior Lake	Two	2019
Ramsey	Two	2019
Richfield	Four	2017
Robbinsdale	Four	2017
Rogers	Four+	2019
Rosemount	Four	2018
Roseville	Four	2017
Savage	Four	2019
Shakopee	Four	Carry-over 2016
Shoreview	Two	2019
Shorewood	Four	2017
South St. Paul	Four	2016
Spring Lake Park	Four	2016
Saint Anthony	Four	2019
Saint Francis	Four+	2018
Saint Louis Park	Four	2017
Saint Paul	Four	Carry-over 2016
Saint Paul Park	Four	2017
Stillwater	Four	2017
Vadnais Heights	Four	2018
Victoria	Two	2019
Waconia	Four	2018
West St. Paul	Four	2017
White Bear Lake	Four	2017
Woodbury	Four+	2019

MnDOT Traffic Volume Program 2/3/2020

Outstate Traffic Counting Schedule

As of 2020 all counts on Greater MN Trunks (I, US, MN) are on a two-year carry over cycle. This cycle begins in even years and ends in odd years. Ramps are collected on a six-year cycle. County and MSAS counts are collected on a four-year cycle, as shown below, with additional HPMS counts scheduled as needed.

Cycle 1: 2018, 2022, 2026, 2030

4-Beltrami	26-Grant	42-Lyon	55-Olmsted	72-Sibley
8-Brown	33-Kanabec	45-Marshall	63-Red Lake	77-Todd
9-Carlton	34-Kandiyohi	46-Martin	67-Rock	79-Wabasha
16-Cook	38-Lake	48-Mille Lacs	71-Sherburne	84-Wilkin
21-Douglas				

Cycle 2: 2019, 2023, 2027, 2031

5-Benton	22-Faribault	52-Nicollet	61-Pope	74-Steele
11-Cass	25-Goodhue	53-Nobles	64-Redwood	85-Winona
15-Clearwater	39-Lake of the Woods	56-Otter Tail	65-Renville	
18-Crow Wing	47-Meeker	57-Pennington	69-St. Louis	

Cycle 3: 2020, 2024, 2028, 2032

1-Aitkin	28-Houston	37-Lac Qui Parle	58-Pine	80-Wadena
3-Becker	29-Hubbard	41-Lincoln	59-Pipestone	81-Waseca
6-Big Stone	30-Isanti	44-Mahnomen	66-Rice	83-Watonwan
12-Chippewa	32-Jackson	50-Mower	68-Roseau	86-Wright
17-Cottonwood	36-Koochiching	54-Norman	78-Traverse	

Cycle 4: 2021, 2025, 2029, 2033

7-Blue Earth	24-Freeborn	40-LeSueur	51-Murray	75-Stevens
14-Clay	31-Itasca	43-McLeod	60-Polk	76-Swift
20-Dodge	35-Kittson	49-Morrison	73-Stearns	87-Yellow Medicine
23-Fillmore				

Outstate MSAS Traffic Counting Schedule

2019	2020	2021	2022	2023
Baxter	Albertville	Albert Lea	Alexandria	Baxter
Brainerd	Austin	Crookston	Bemidji	Brainerd
Chisholm	Buffalo	Chisago City	Big Lake	Chisholm
Duluth (year 4)	Cambridge	Duluth (year 2)	Byron	Duluth (year 4)
Fergus Falls	Delano	East Grand Forks	Cloquet	Fergus Falls
Hermantown	Detroit Lakes	Glencoe	Duluth (year 3)	Hermantown
Hibbing	Duluth (year 1)	Grand Rapids	Elk River	Hibbing
Litchfield	Faribault	Hutchinson	Fairmont	Litchfield
North Mankato	International Falls	Kasson	Lake City	North Mankato
Owatonna	Isanti	Little Falls	Marshall	Owatonna
Red Wing	La Crescent	Mankato	New Ulm	Red Wing
Redwood Falls	Montevideo	Moorhead	Rochester	Redwood Falls
Saint Cloud*	Monticello	Morris	Saint Cloud*	Saint Cloud*
Saint Peter	Northfield	New Prague	Stewartville	Saint Peter
Sauk Rapids	Otsego	North Branch	Willmar	Sauk Rapids
Thief River Falls	Saint Cloud*	Saint Cloud*	Zimmerman	Thief River Falls
Virginia	Saint Michael	Saint Joseph		Virginia
Worthington	Waseca	Sartell		Worthington
Winona		Waite Park		Winona
		Wyoming		

*Portions of Saint Cloud are always being counted due to it crossing into 3 different counties

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

SANEEDS - MSAS - Segment Report

Roadway Segment Information

Status : Original

City Name :

SHAKOPEE

Segment Nbr : 166-111-005

Original

Current

SARAZIN STREET	Street Name	SARAZIN STREET
CSAH 16 (EAGLE CREEK BLVD) TO 4TH AVE	Termini	CSAH 16 (EAGLE CREEK BLVD) TO 4TH AVE
0.43	Length	0.43
Improved	Existing Roadway Type	Improved
Undivided	Existing Lane Description	Undivided
0	Existing Number of Signal Legs	0
1650	Present AADT	1650
3 (500 - 1999)	Traffic Group Code	3 (500 - 1999)
2016	Year of AADT Count	2016
N	Common Boundary Designation	N
N	Turnback Mileage	N
N	Outside City Limit	N
1995	Year of Latest SA Fund	1995
	Comments	
	Segment Override	

Culvert Information

Status: Original

Original

Current

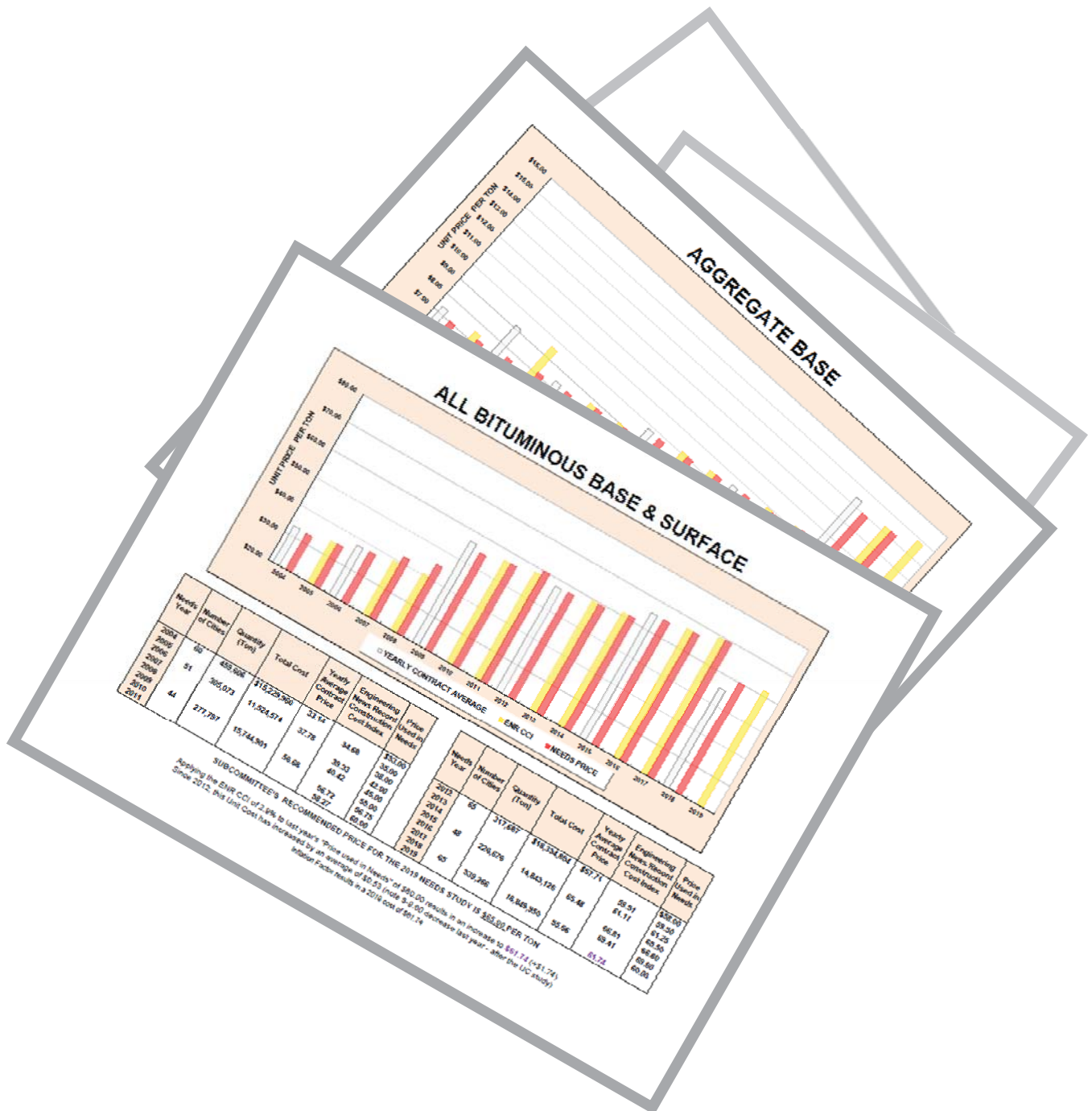
2	Structure Number	2
0.15	Milepoint	0.15
	Feature Crossed	
2	Barrels	2
5	Culvert Height	5
12	Culvert Width	12
0	Year Built	0
	Comments	
3 (500 - 1999)	Culvert Group Code	3 (500 - 1999)

Segment Cost Information

Segment Length Quantity from ADT chart Unit Cost

Cost Factor	Unit Cost	Computation Formula or Rule	Equation	Result
Gravel	MSAS Gravel Cost Group 3	Length * Quantity * UnitCost	0.43 * 10176 * 14.18	\$62,047
Bituminous	MSAS Bituminous Cost Group 3	Length * Quantity * UnitCost	0.43 * 3978 * 65	\$111,185
Excavation	MSAS Excavation Cost Group 3	Length * Quantity * UnitCost	0.43 * 17698 * 9.36	\$71,231
Storm Sewer	MSAS Storm Sewer Cost Group 3	Length * UnitCost	0.43 * 174800	\$75,164
Sidewalk	MSAS Sidewalk Cost Group 3	Length * UnitCost * FeetPerMile * SidewalkWidth	0.43 * 5.66 * 5280 * 10	\$128,505
Street Lighting	MSAS Street Lighting Cost Group 3	Length * UnitCost	0.43 * 100000	\$43,000
Curb and Gutter	MSAS Curb And Gutter Cost Group 3	Length * UnitCost * FeetPerMile * NumberOfCurbs	0.43 * 16.36 * 5280 * 2	\$74,287
Signal Leg	MSAS Traffic Signals Cost Group 3	NumOfSignals * UnitCost / 4	0 * 207700 / 4	\$0
Culvert	MSAS Culvert TGC Group 3	CulvertWidth * NeedsWidth * UnitCost * NumOfBarrels	12 * 34 * 95.2 * 2	\$77,683
Engineering Cost		Percent of costs	643102 * 0.220	\$141,482
Total				\$784,584

UNIT PRICES



AND GRAPHS

UNIT PRICE STUDY – History & Introduction

HISTORY

An annual unit price study was conducted until 1997. At the end of 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.

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.

In 2021, we will be conducting the next full unit cost study based on 2020 project costs.

THIS YEAR

At the end of 2019, the Engineering Construction Cost Index was 1.8%. Applying this inflation factor to last year's MSB approved Unit Prices for *Excavation, Aggregate Base, Bituminous, Sidewalk Construction, Curb & Gutter Construction, and Traffic Signals* will provide the basis of this year's unit cost recommendations.

State Aid bridge costs from the last 5 years (2015 to 2019), will be used to determine the unit price for structures. This five year average (divided by two) provides the basis for the structure cost recommendation.

MN/DOT's hydraulic office furnished a recommendation of costs for storm sewer construction & adjustments based on 2019 construction costs. Starting next year, the hydraulics office will move to the same triennial cycle that we follow for the Unit Cost Study: They will provide a full study of storm sewer costs every three years, and apply an inflation factor in off years.

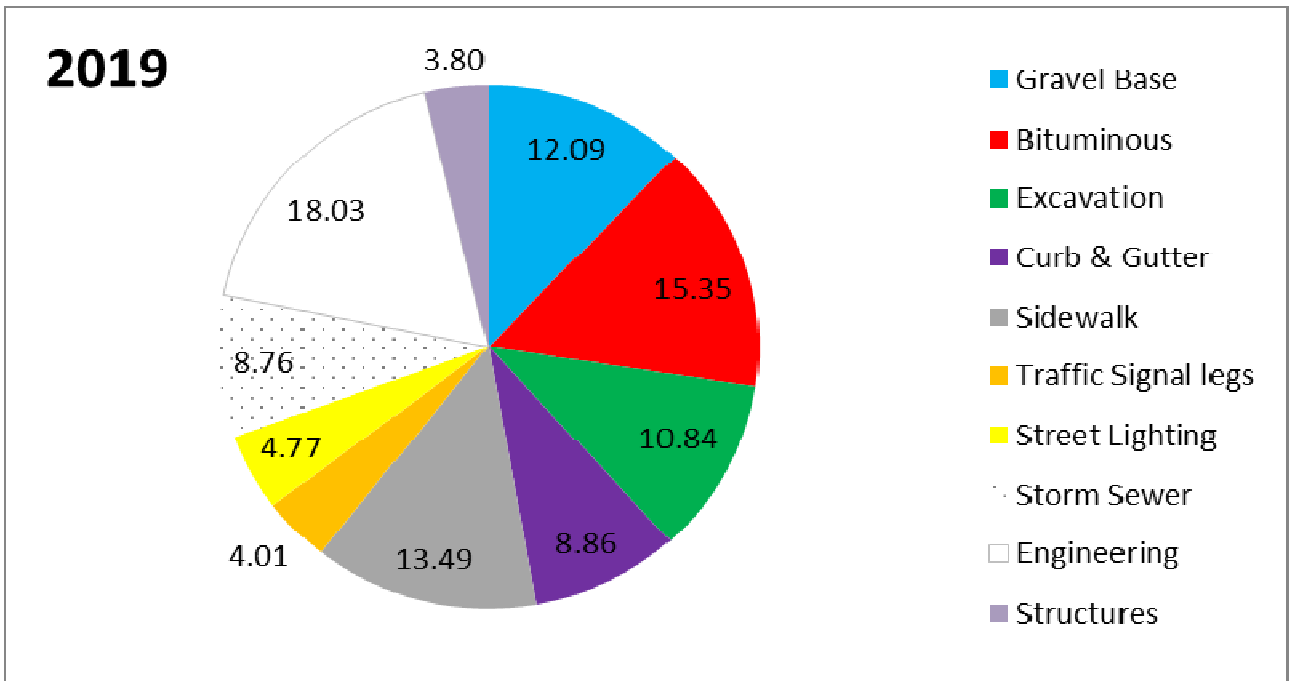
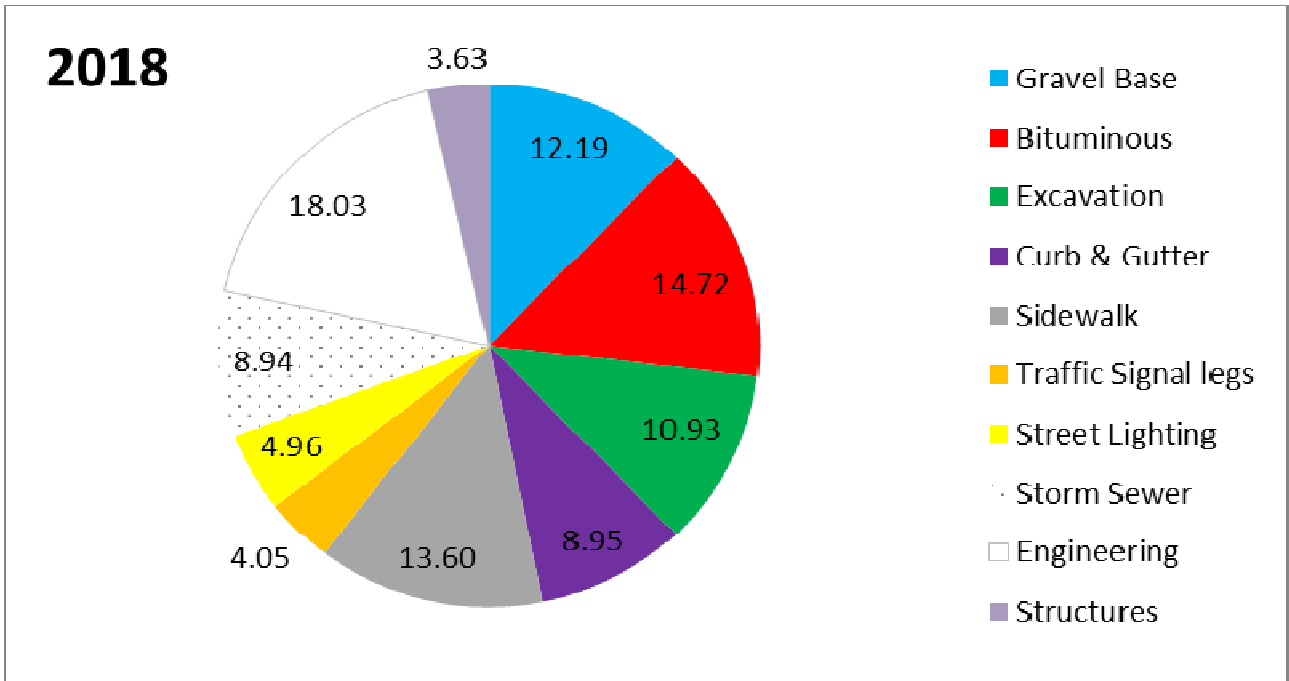


1913=100	INDEX VALUE	MONTH	YEAR
CONSTRUCTION COST	11381.48	0.0%	+1.8%
COMMON LABOR	23917.29	0.0%	+1.8%
WAGE \$/HR.	45.96	0.0%	+1.8%

The Construction Cost Index's annual escalation is 1.8%, while the monthly component showed no change.

PERCENTAGE OF NEEDS FOR UNIT COST ITEMS

for 2018 and 2019



2020 UNIT PRICE RECOMMENDATIONS

for the January 2021 distribution

Needs Item		Municipal Screening Board Approved Prices for the 2020 Distribution	1.8% ENR Construction Cost Index for Dec. 2019	Needs Study Subcommittee Recommended Prices for 2021 Distribution	Municipal Screening Board Approved Prices for the 2021 Distribution
Grading (Excavation)	Cu. Yd.	\$9.36	\$9.53	\$9.53	
Aggregate Base	Ton	14.18	14.44	14.44	
All Bituminous	Ton	65.00	66.17	66.17	
Sidewalk Construction	Sq. Ft.	5.66	5.76	5.76	
Curb and Gutter Construction	Lin.Ft.	16.36	16.65	16.65	
Traffic Signals	Per Sig	207,700	211,439	211,440	
Street Lighting	Mile	100,000	NA	100,000	
Engineering	Percent	22	NA	22	
All Structures (includes both bridges and box culverts)	Sq. Ft.	95.20	NA	95.67	
Storm Sewer (based on ADT)	Per Mile				
0 ADT & Non Existing		162,400	NA	165,500	
1-499		165,500	NA	168,700	
500-1,999		174,800	NA	178,100	
2,000-4,999		184,000	NA	187,500	
5,000-8,999		196,400	NA	200,100	
9,000-13,999		205,600	NA	209,500	
14,000-24,999		218,000	NA	222,100	
25,000 and over		230,300	NA	234,700	

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NEEDS STUDY SUBCOMMITTEE MEETING MINUTES

The Needs Study Subcommittee meeting was held at 1:00 pm on April 7, 2020 via conference call. NSS members present were Sean Christensen (Willmar/Chair), Steve Lillehaug (Shakopee), and Matt Wegwerth (Grand Rapids). Also in attendance were Bill Lanoux (MSAS Needs Manager) and Marc Briese (State Aid Programs Engineer).

A 2020 Needs Study Subcommittee report was sent to all attendees prior to the meeting. Before making their Unit Cost recommendations, the group reviewed the committee's role as stated in MN Statute 162.13 and also as directed by the Municipal Screening Board. Other housekeeping items discussed were future attendance at Municipal Screening Board meetings and a quick review of the minutes of the NSS meeting in 2019. Bill briefly touched on next year's full unit cost study and the significance of ADT counts as they relate to the Needs. Wegwerth asked about traffic counting for 2020 and the effect that an extended 'shelter in place' order could have on cities being counted. Lanoux wasn't sure of an official MnDOT response and would reach out to the Traffic Analysis / Forecasting group.

A full unit price study is done every 3 years, with the next one occurring next year (2021). The 2020 Needs Study will use the Construction Cost Index (CCI) published by the Engineering News Record as the basis of Unit Cost recommendations. The CCI used for 2020 is 1.8%.

Bill Lanoux began discussion on Unit Costs and the NSS made recommendations for the following items.

Grading/Excavation: Price used in 2019 Needs - \$9.36 Cu. Yd.
Committee's Recommendation for 2020 Needs - \$9.53 Cu. Yd.

Aggregate Base: Price used in 2019 Needs - \$14.18 Ton
Committee's Recommendation for 2020 Needs - \$14.44 Ton

All Bituminous: Price used in 2019 Needs - \$65.00 Ton
Committee's Recommendation for 2020 Needs - \$66.17 Ton
Committee felt that the inflation factor's result of \$66.17 was somewhat low based on prices they have been seeing, but ultimately used the 1.8% increase (applied to last year's cost of \$65) as the basis of their recommendation.

Sidewalk: Price used in 2019 Needs - \$5.66 Sq. Ft.
Committee's Recommendation for 2020 Needs - \$5.76 per Sq. Ft.

As with bituminous, the committee ultimately used the 1.8% increase as the basis of their sidewalk recommendation. However, it was noted that in the last two Full Unit Cost studies that sidewalk costs saw significant increases (21% in 2015, and 16% in 2018). With the ENR increase typically being much lower than this, the committee questioned if using this index in 'off years' always yielded the most accurate result for certain items. One idea for consideration was to use a three year average of the ENR's rates and the increase from actual Unit Cost Studies. This approach would help to even out the yearly increases, but may require some direction from The Screening Board to change their resolutions. The committee continues to give most regard to MSB resolution language for the basis of their recommendations, but would like to revisit this topic again next year when we see results of a new UC Study.

Curb and Gutter: Price used in 2019 Needs - \$16.36 Lin. Ft.
Committee's Recommendation for 2020 Needs - \$16.65 Lin. Ft.

Structures: Price used in 2019 Needs - \$95.20 Sq. Ft.
Committee's Recommendation for 2020 Needs - \$95.67 Sq. Ft

This recommendation is based on a five year average of bridge costs using data provided by the MnDOT State Aid Bridge Office. The committee reviewed the most recent year of data and included it to the 5-year average. There is a small increase in the Cost from last year.

Storm Sewer: The MnDOT Hydraulics Unit didn't send an annual letter for 2019 Storm Sewer costs. So using last year's letter for 2018 costs, that analysis had resulted in costs of \$352,988 for new construction and \$107,666 for adjustments. To get a cost for this year, we applied a 2% increase for complete systems (\$360,048), and a 1.5% increase to partial systems (\$109,281). This averages out to \$234,665 per mile, which is the basis for the highest section of Storm Sewer in the Needs
Committee's Recommendation for 2020 Needs - \$234,700 Per Mile
The recommendation of \$234,700 per mile is for a 70 foot section. The cost per mile will be prorated down through the other seven ADT groups.

Note: State Aid will work with the Hydraulics Office in the next year to conduct a full study on Storm Sewer costs. The Hydraulics Office would like to get on the same Unit Cost Study schedule and provide a full study every 3 years.

Street Lighting: Price used in 2019 Needs - \$100,000 per mile
Committee's Recommendation for 2020 Needs - \$100,000 Per Mile
(Recommendation is consistent with Screening Board resolutions)

Engineering: Price used in 2019 Needs – 22%
Committee's Recommendation for 2020 Needs – 22%

Traffic Signals: Price used in 2019 Needs - \$207,700 Per Signal
Committee's Recommendation for 2020 Needs - \$211,440 Per Signal

The meeting was adjourned.

Minutes submitted by Matt Wegwerth

Annual Percentage Change of Unit Costs, 2009 - 2020

sidewalk	\$	\$	% Change	aggregate base	\$	\$	% Change
from 2009 to 2010	\$3.00	\$3.09	3.0	from 2009 to 2010	\$9.81	\$10.10	3.0
from 2010 to 2011	\$3.09	\$3.18	2.9	from 2010 to 2011	\$10.10	\$10.40	3.0
<u>from 2011 to 2012</u>	\$3.18	\$3.17	-0.3	<u>from 2011 to 2012</u>	\$10.40	\$10.65	2.4
from 2012 to 2013	\$3.17	\$3.25	2.5	from 2012 to 2013	\$10.65	\$10.90	2.3
from 2013 to 2014	\$3.25	\$3.50	7.7	from 2013 to 2014	\$10.90	\$11.25	3.2
<u>from 2014 to 2015</u>	\$3.50	\$4.25	21.4	<u>from 2014 to 2015</u>	\$11.25	\$14.00	24.4
from 2015 to 2016	\$4.25	\$4.35	2.4	from 2015 to 2016	\$14.00	\$14.30	2.1
from 2016 to 2017	\$4.35	\$4.75	9.2	from 2016 to 2017	\$14.30	\$14.90	4.2
<u>from 2017 to 2018</u>	\$4.75	\$5.50	15.8	<u>from 2017 to 2018</u>	\$14.90	\$13.78	-7.5
from 2018 to 2019	\$5.50	\$5.66	2.9	from 2018 to 2019	\$13.78	\$14.18	2.9
from 2019 to 2020	\$5.66	\$5.76	1.8	from 2019 to 2020	\$14.18	\$14.44	1.8
curb & gutter				all bituminous			
from 2009 to 2010	\$10.70	\$11.00	2.8	from 2009 to 2010	\$55.00	\$56.75	3.2
from 2010 to 2011	\$11.00	\$11.30	2.7	from 2010 to 2011	\$56.75	\$60.00	5.7
<u>from 2011 to 2012</u>	\$11.30	\$11.15	-1.3	<u>from 2011 to 2012</u>	\$60.00	\$58.00	-3.3
from 2012 to 2013	\$11.15	\$11.45	2.7	from 2012 to 2013	\$58.00	\$59.50	2.6
from 2013 to 2014	\$11.45	\$11.75	2.6	from 2013 to 2014	\$59.50	\$61.25	2.9
<u>from 2014 to 2015</u>	\$11.75	\$13.75	17.0	<u>from 2014 to 2015</u>	\$61.25	\$65.50	6.9
from 2015 to 2016	\$13.75	\$14.00	1.8	from 2015 to 2016	\$65.50	\$66.80	2.0
from 2016 to 2017	\$14.00	\$14.55	3.9	from 2016 to 2017	\$66.80	\$69.60	4.2
<u>from 2017 to 2018</u>	\$14.55	\$15.90	9.3	<u>from 2017 to 2018</u>	\$69.60	\$60.00	-13.8
from 2018 to 2019	\$15.90	\$16.36	2.9	from 2018 to 2019	\$60.00	\$65.00	8.3
from 2019 to 2020	\$16.36	\$16.65	1.8	from 2019 to 2020	\$65.00	\$66.17	1.8
grading/excavtion				structures			
from 2009 to 2010	\$4.75	\$4.90	3.2	from 2009 to 2010	\$115.00	\$120.00	4.3
from 2010 to 2011	\$4.90	\$5.05	3.1	from 2010 to 2011	\$120.00	\$115.00	-4.2
<u>from 2011 to 2012</u>	\$5.05	\$6.60	30.7	from 2011 to 2012	\$115.00	\$125.00	8.7
from 2012 to 2013	\$6.60	\$6.75	2.3	from 2012 to 2013	\$125.00	\$120.00	-4.0
from 2013 to 2014	\$6.75	\$7.00	3.7	from 2013 to 2014	\$120.00	\$72.00	-40.0
<u>from 2014 to 2015</u>	\$7.00	\$7.50	7.1	from 2014 to 2015	\$72.00	\$96.50	34.0
from 2015 to 2016	\$7.50	\$7.65	2.0	from 2015 to 2016	\$96.50	\$120.00	24.4
from 2016 to 2017	\$7.65	\$7.95	3.9	from 2016 to 2017	\$120.00	\$90.00	-25.0
<u>from 2017 to 2018</u>	\$7.95	\$9.10	14.5	<u>from 2017 to 2018</u>	\$90.00	\$87.55	-2.7
from 2018 to 2019	\$9.10	\$9.36	2.9	from 2018 to 2019	\$87.55	\$95.20	8.7
from 2019 to 2020	\$9.36	\$9.53	1.8	from 2019 to 2020	\$95.20	\$95.67	0.5

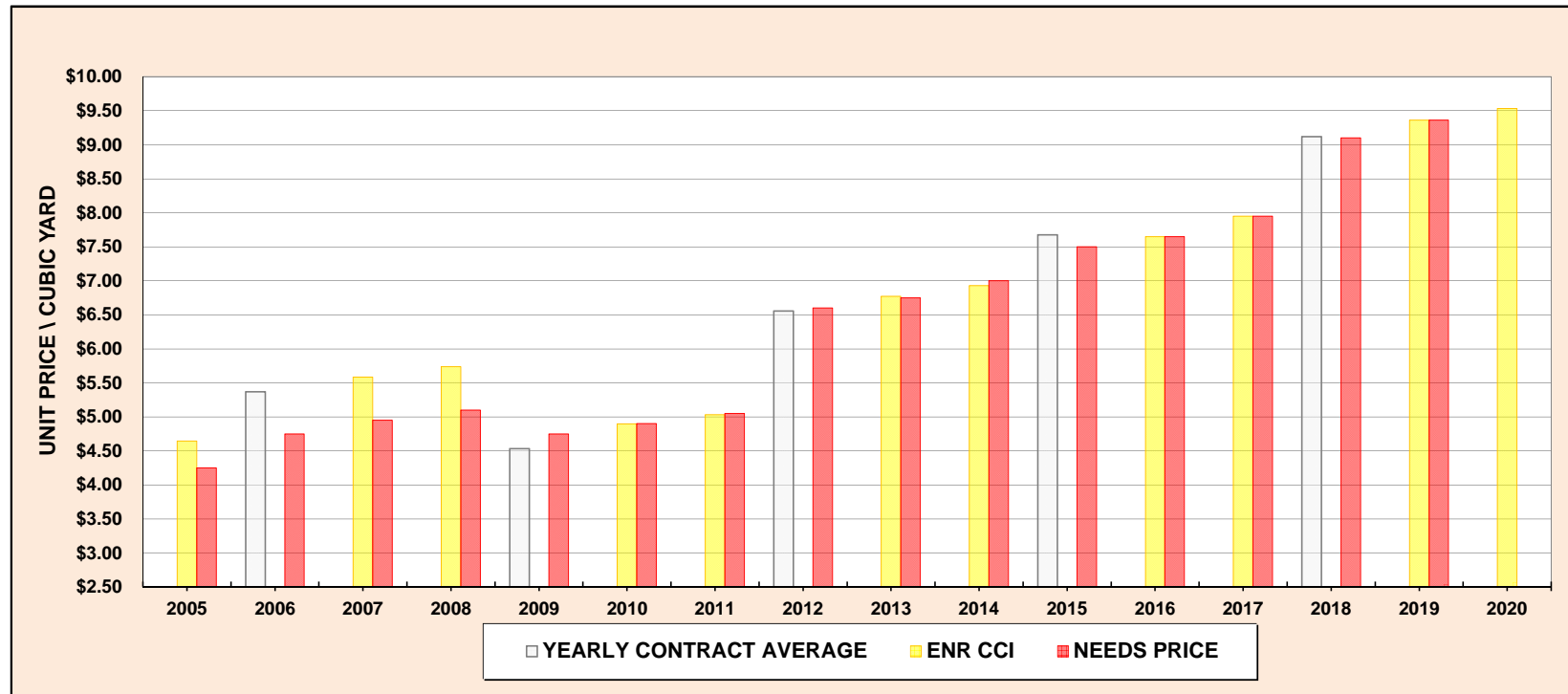
*All costs shown are actual costs used in Needs. 2020 figures (in blue) show tentative prices.

*Since 2014 cost for structures have been calculated by dividing the contract price by 2.

*Since 2018 cost for structures have been based on a five year average contract price that's divided by 2.

*Underlined are years of a Full Unit Cost Study

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	Needs Year	Number of Cities	Quantity (Cu. Yd.)	Total Cost	Yearly Average Contract Price	Engineering News Record Construction Cost Index	Price Used in Needs
2005					4.65	4.25	2013					6.77	\$6.75
2006	48	587,442	\$3,152,838	5.37	5.59	4.75	2014					6.93	7.00
2007					5.74	4.95	2015	40	472,486	\$3,627,575	7.68	7.65	7.50
2008						5.10	2016					7.95	7.65
2009	47	1,334,769	6,052,005	4.53	4.90	4.75	2017					9.36	7.95
2010					5.03	4.90	2018	56	434,347	3,959,719	9.12	9.36	9.10
2011						5.05	2019					9.53	9.36
2012	56	689,502	4,521,435	6.56		6.60	2020						

SUBCOMMITTEE'S RECOMMENDED PRICE FOR THE 2020 NEEDS STUDY IS \$9.53 PER CUBIC YARD

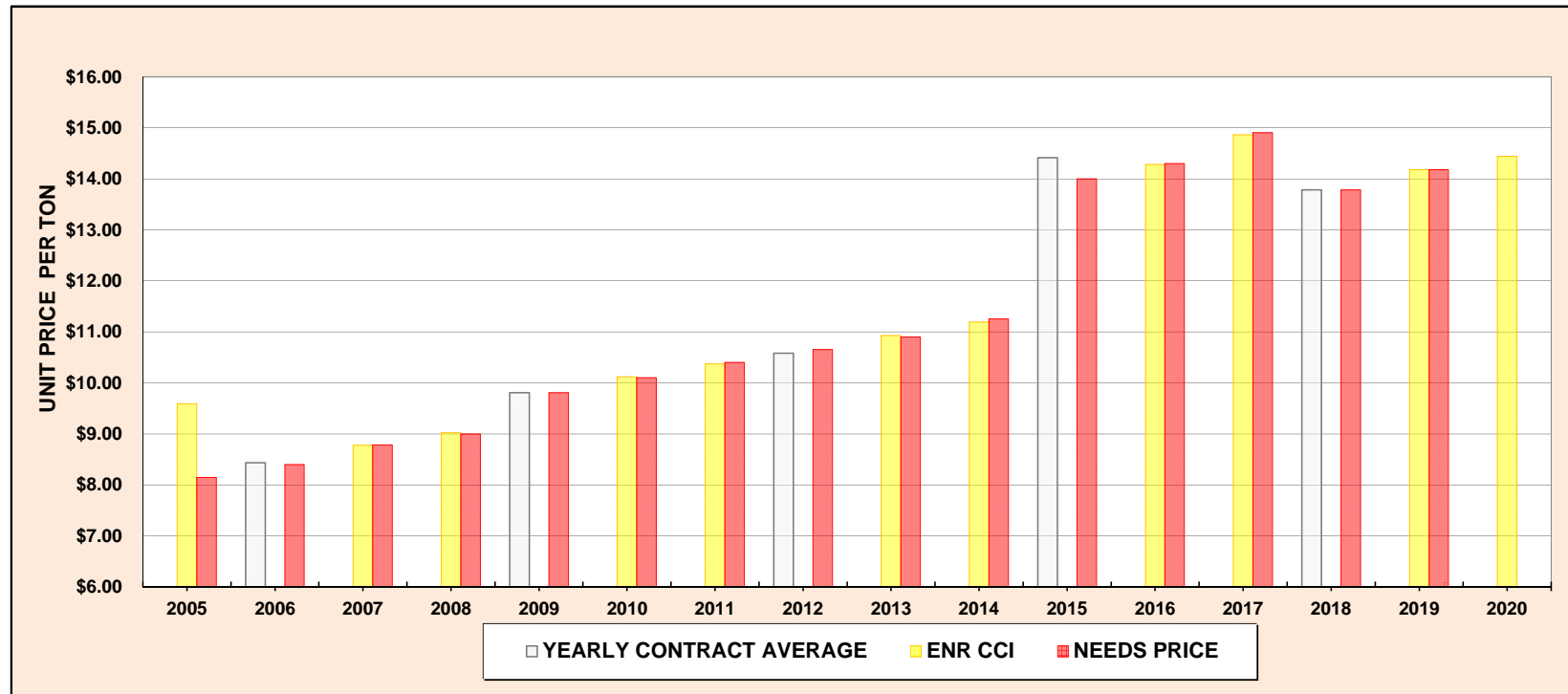
Applying the ENR CCI of 1.8% to last year's "Price used in Needs" of \$9.36 results in an increase to **\$9.53** (+\$0.17)

Since 2013, this Unit Cost has increased by an average of \$0.40 (note \$1.15 increase in 2018 - the last UC Study)

Inflation Factor results in a 2020 cost of \$9.53

Mini Study Cost: \$13.35

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	Needs Year	Number of Cities	Quantity (Ton)	Total Cost	Yearly Average Contract Price	Engineering News Record Construction Cost Index	Price Used in Needs
2005					9.59	8.15	2013					10.93	\$10.90
2006	46	355,866	\$3,000,906	8.43	8.78	8.40	2014					11.19	11.25
2007					9.02	9.00	2015	40	199,868	\$2,880,423	14.41	14.28	14.30
2008					10.12	10.10	2016					14.86	14.90
2009	45	436,802	4,284,174	9.81	10.37	10.40	2017					14.18	14.18
2010					10.58	10.65	2018	52	317,006	4,368,054	13.78	14.44	
2011							2019						
2012	57	416,725	4,409,415	10.58			2020						

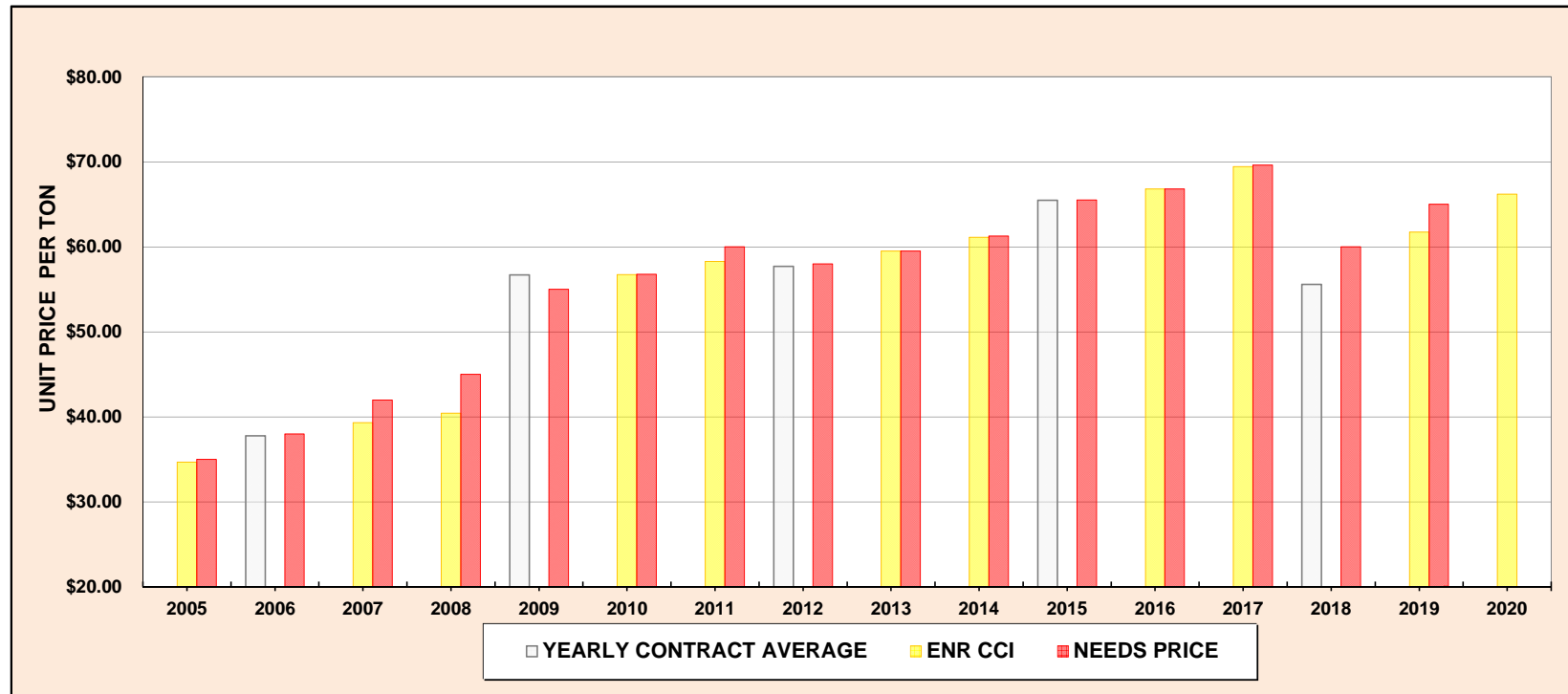
SUBCOMMITTEE'S RECOMMENDED PRICE FOR THE 2020 NEEDS STUDY IS \$14.44 PER TON

Applying the ENR CCI of 1.8% to last year's "Price used in Needs" of \$14.18 results in an increase to **\$14.44** (+\$0.26)

Since 2013, this Unit Cost has increased by an average of \$0.51 (note -\$1.12 decrease in 2018 - the last UC study)

Inflation Factor results in a 2020 cost of \$14.44

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	Needs Year	Number of Cities	Quantity (Ton)	Total Cost	Yearly Average Contract Price	Engineering News Record Construction Cost Index	Price Used in Needs
2005					\$34.68	\$35.00	2013					59.51	\$59.50
2006	51	305,073	\$11,524,574	37.78		38.00	2014					61.11	61.25
2007					39.33	42.00	2015	48	226,676	\$14,843,126	\$65.48		65.50
2008					40.42	45.00	2016					66.81	66.80
2009	44	277,797	15,744,901	56.68		55.00	2017					69.41	69.60
2010					56.72	56.75	2018	65	339,266	18,849,950	\$55.56		60.00
2011					58.27	60.00	2019					61.74	65.00
2012	65	317,687	18,334,854	57.71		58.00	2020					66.17	

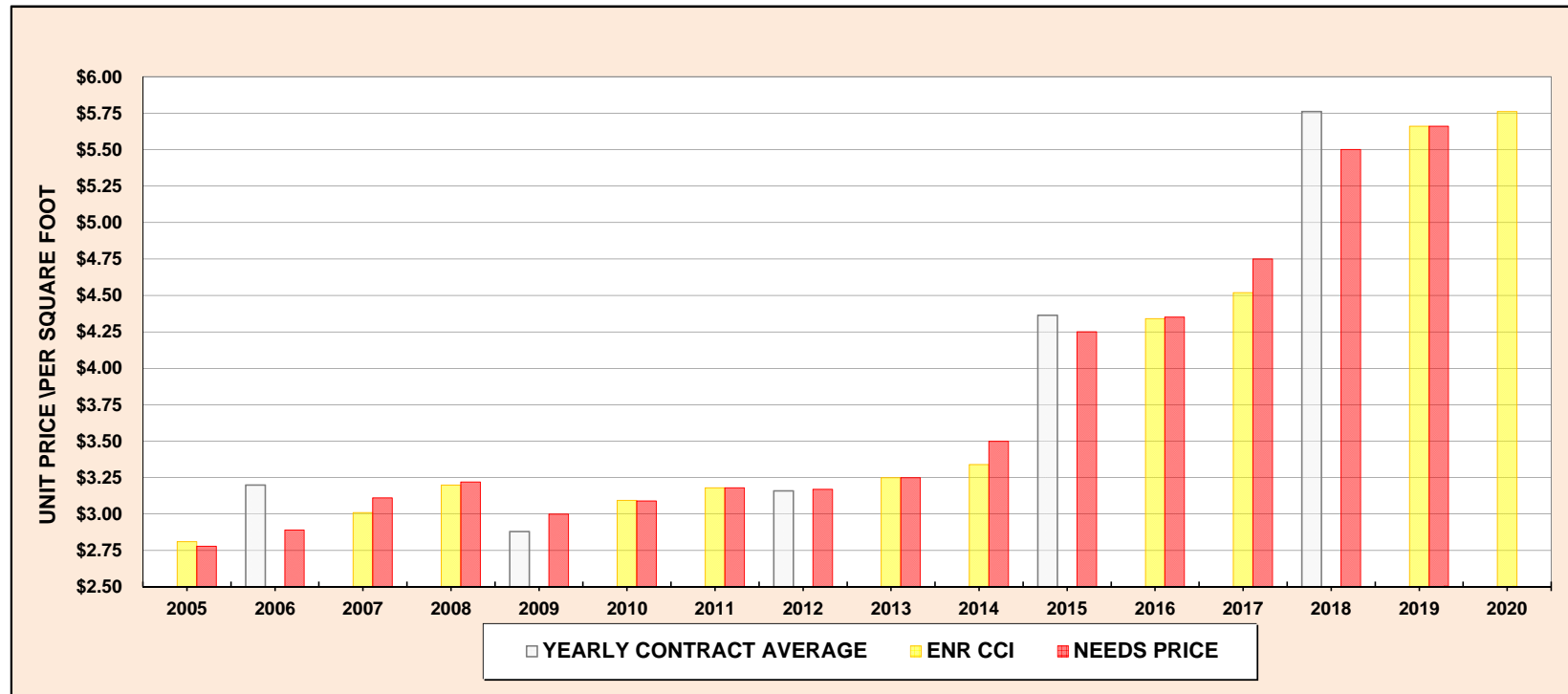
SUBCOMMITTEE'S RECOMMENDED PRICE FOR THE 2020 NEEDS STUDY IS \$66.17 PER TON

Applying the ENR CCI of 1.8% to last year's "Price used in Needs" of \$65.00 results in an increase to **\$66.17** (+\$1.17)

Since 2013, this Unit Cost has increased by an average of \$0.95 (note \$-9.60 decrease in 2018 - the last UC study)

Inflation Factor results in a 2020 cost of \$66.17

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
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
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

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

Needs Year	Number of Cities	Quantity (Sq.Ft.)	Total Cost	Yearly Average Contract Price	Engineering News Record Construction Cost Index	Price Used in Needs
2013					3.25	\$3.25
2014					3.34	3.50
2015	39	356,709	\$1,556,517	4.36		4.25
2016					4.34	4.35
2017					4.52	4.75
2018	52	608,114	3,502,293	5.76		5.50
2019					5.66	5.66
2020					5.76	

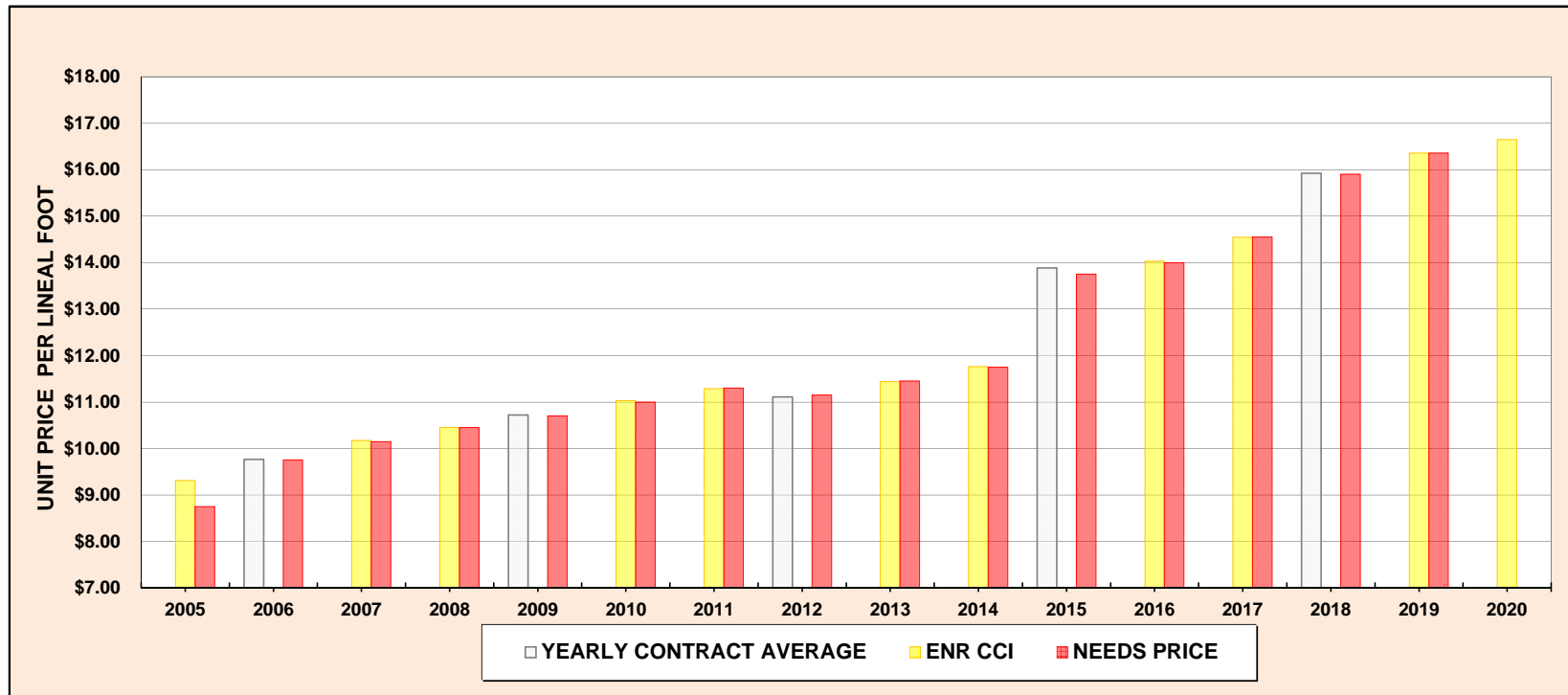
SUBCOMMITTEE'S RECOMMENDED PRICE FOR THE 2020 NEEDS STUDY IS \$5.76 PER SQ. FT.

Applying the ENR CCI of 1.8% to last year's "Price used in Needs" of \$5.66 results in an increase to **\$5.76** (+\$0.10)

Since 2013, this Unit Cost has increased by an average of \$0.36 (note \$0.75 increase in 2018 - the last UC study)

Inflation Factor results in a 2020 cost of \$5.76

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
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
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
2014						11.76
2015	44	168,891	\$2,344,989	13.88		13.75
2016						14.03
2017						14.55
2018	61	267,833	4,263,081	15.92		15.90
2019						16.36
2020						16.65

SUBCOMMITTEE'S RECOMMENDED PRICE FOR THE 2020 NEEDS STUDY IS \$16.65 PER LIN. FT.

Applying the ENR CCI of 1.8% to last year's "Price used in Needs" of \$16.36 results in an increase to **\$16.65** (+\$0.29)

Since 2013, this Unit Cost has increased by an average of \$0.74 (note \$1.35 increase in 2018 - the last UC Study)

Inflation Factor results in a 2020 cost of \$16.65

MnDOT State Aid Bridge Office 2019 Calendar Year - - Bridge Cost Report

General Notes

The CY 2019 Bridge Cost Report reflects the unit cost (\$ per square foot of bridge area) of all of the bridges let in CY 2019.

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 2019 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
85580	SAP	085-598-010	41.77	C-SLAB	2/7/2019	1309	\$408,953	\$312.42
69A56	SAP	069-644-027	63.92	PCB	2/21/2019	2530	\$663,029	\$262.07
69A66	SAP	069-599-046	66.17	PCB	3/28/2019	2073	\$454,430	\$219.21
31571	SP	031-598-026	72.17	PCB	2/12/2019	2261	\$279,135	\$123.46
64589	SAP	064-608-025	75.00	C-SLAB	5/29/2019	2588	\$321,853	\$124.36
27J72	SP	027-596-011	76.17	PCB	4/16/2019	3733	\$2,630,431	\$704.64
69A67	SAP	069-599-045	77.92	PCB	3/28/2019	2442	\$480,619	\$196.81
58557	SAP	058-632-018	80.06	PCB	5/13/2019	3123	\$421,822	\$135.07
09534	SAP	009-611-004	84.50	PCB	6/24/2019	2958	\$668,786	\$226.09
65568	SAP	065-598-019	85.00	C-SLAB	4/3/2019	3004	\$338,181	\$112.58
69A71	SAP	069-605-050	88.92	PCB	12/5/2019	3527	\$653,028	\$185.15
64595	SP	064-605-030	94.17	PCB	7/11/2019	3673	\$449,397	\$122.35
20562	SAP	020-603-013	95.92	PCB	3/27/2019	3741	\$571,545	\$152.78
09533	SAP	009-601-051	96.77	C-SLAB	11/25/2019	4161	\$733,228	\$176.21
83553	SAP	083-599-077	98.00	TTS	9/3/2019	3332	\$507,736	\$152.38
12556	SAP	012-602-024	100.50	C-SLAB	4/2/2019	4707	\$537,838	\$114.26
56544	SAP	056-615-018	104.67	C-SLAB	12/4/2019	5260	\$844,815	\$160.61
23596	SAP	023-601-030	108.67	C-SLAB	7/22/2019	3803	\$523,502	\$137.65
69A59	SP	069-598-065	110.94	PCB	5/30/2019	3883	\$718,037	\$184.92
55595	SAP	055-632-003	121.77	C-SLAB	12/17/2019	4262	\$441,934	\$103.69
12555	SAP	012-599-096	128.28	C-SLAB	4/2/2019	3978	\$488,681	\$122.85
78533	SAP	078-598-037	130.00	C-SLAB	5/10/2019	4593	\$566,077	\$123.25
53536	SAP	053-619-025	143.46	C-SLAB	9/26/2019	5021	\$596,915	\$118.88

Total Cost	\$14,299,971
Total Deck Area	79,962
Average Cost per Sq Ft	\$178.83
Total No. of Bridges < 150'	23

MnDOT State Aid Bridge Office 2019 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
77538	SAP	077-626-008	158.42	PCB	6/11/2019	6099	\$435,478	\$71.40
67574	SAP	067-598-022	188.79	PCB	8/19/2019	5821	\$926,620	\$159.19
58558	SAP	058-652-011	192.25	PCB	6/10/2019	7562	\$1,294,310	\$171.16
62652	SP	164-203-014	220.79	PCB	8/29/2019	16909	\$5,110,630	\$302.24
64586	SAP	064-701-019	353.21	PCB	7/31/2019	15306	\$3,438,352	\$224.64
R0733	SP	164-090-014	741.58	TRUSS	6/12/2019	10382	\$2,849,533	\$274.47

BRIDGE NO. 2796 IS A HISTORICAL REHABILITATION OF THE 10TH AVE BRIDGE
(CONCRETE SPANDREL ARCH) IN THE CITY OF MINNEAPOLIS.

Total Cost	\$14,054,924
Total Deck Area	62,079
Average Cost per Sq Ft	\$226.40
Total No. of Bridges > 150'	6

MnDOT State Aid Bridge Office 2019 Calendar Year - - Bridge Cost Report

Totals for All Bridges Let in CY 2019

Total Cost for all Bridges	\$28,354,895
Total Deck Area for all Bridges	142,041
Average Cost per Sq Ft	\$199.62
Total Number of Bridges	29

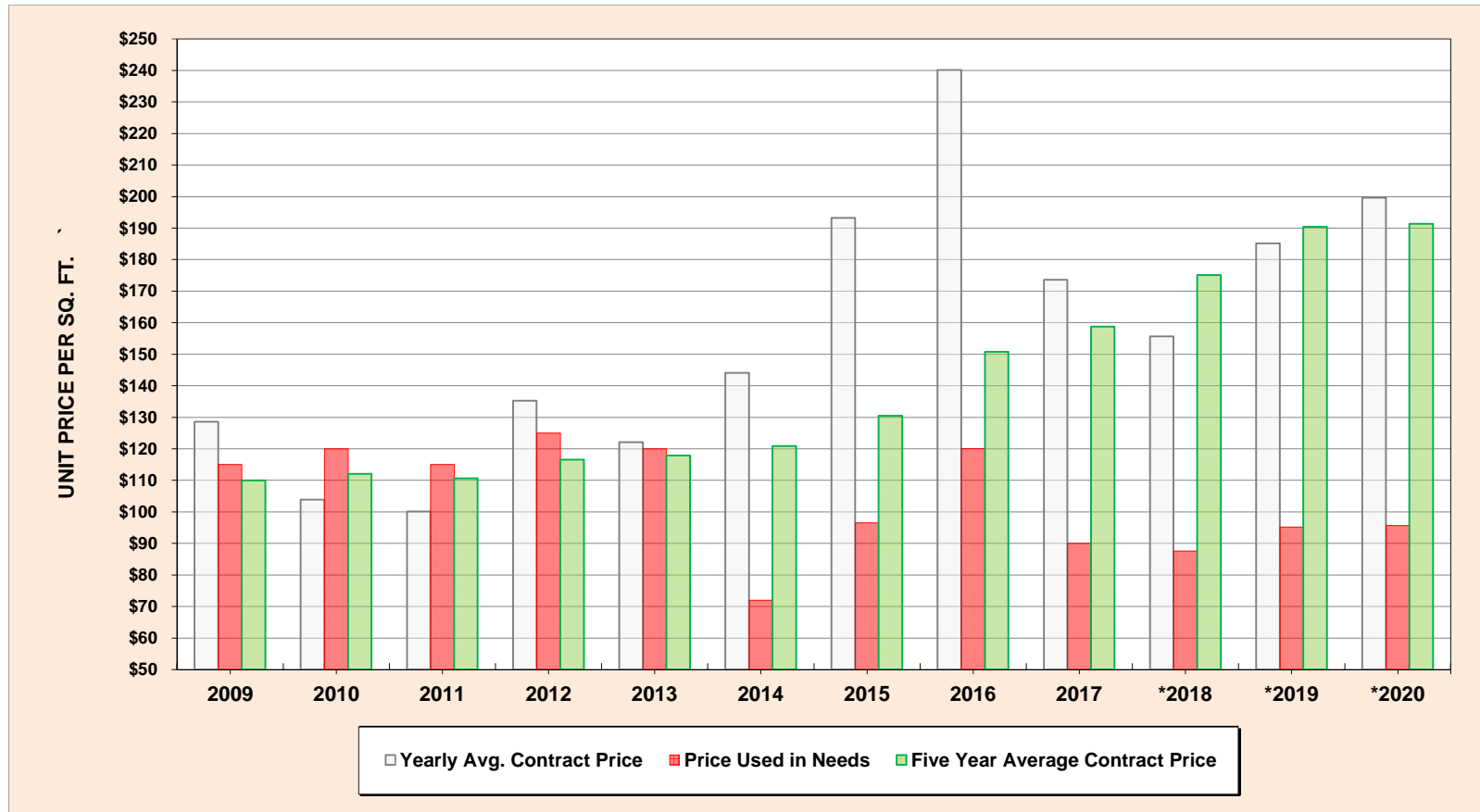
1/2 = \$99.81

ALL BRIDGES (ready to separate for report)

New Bridge No.	Project Type	Project Number	Length	Beam Type	Letting Date	Area	Cost	Unit Cost	
R0739	SP	164-090-014	161.50	BRDWK	6/12/2019	1938	\$295,994	\$152.73	
R0738	SP	164-090-014	353.50	BRDWK	6/12/2019	4242	\$603,582	\$142.29	
R0804	SP	107-020-069	2061.00	BRDWK	4/30/2019	27260	\$2,524,971	\$92.63	
12555	SAP	012-599-096	128.28	C-SLAB	4/2/2019	3978	\$488,681	\$122.85	1
12556	SAP	012-602-024	100.50	C-SLAB	4/2/2019	4707	\$537,838	\$114.26	1
23596	SAP	023-601-030	108.67	C-SLAB	7/22/2019	3803	\$523,502	\$137.65	1
53536	SAP	053-619-025	143.46	C-SLAB	9/26/2019	5021	\$596,915	\$118.88	1
64589	SAP	064-608-025	75.00	C-SLAB	5/29/2019	2588	\$321,853	\$124.36	1
65568	SAP	065-598-019	85.00	C-SLAB	4/3/2019	3004	\$338,181	\$112.58	1
78533	SAP	078-598-037	130.00	C-SLAB	5/10/2019	4593	\$566,077	\$123.25	1
85580	SAP	085-598-010	41.77	C-SLAB	2/7/2019	1309	\$408,953	\$312.42	1
09533	SAP	009-601-051	96.77	C-SLAB	11/25/2019	4161	\$733,228	\$176.21	1
55595	SAP	055-632-003	121.77	C-SLAB	12/17/2019	4262	\$441,934	\$103.69	1
56544	SAP	056-615-018	104.67	C-SLAB	12/4/2019	5260	\$844,815	\$160.61	1
20562	SAP	020-603-013	95.92	PCB	3/27/2019	3741	\$571,545	\$152.78	1
31571	SP	031-598-026	72.17	PCB	2/12/2019	2261	\$279,135	\$123.46	1
58557	SAP	058-632-018	80.06	PCB	5/13/2019	3123	\$421,822	\$135.07	1
58558	SAP	058-652-011	192.25	PCB	6/10/2019	7562	\$1,294,310	\$171.16	1
64595	SP	064-605-030	94.17	PCB	7/11/2019	3673	\$449,397	\$122.35	1
67574	SAP	067-598-022	188.79	PCB	8/19/2019	5821	\$926,620	\$159.19	1
77538	SAP	077-626-008	158.42	PCB	6/11/2019	6099	\$435,478	\$71.40	1
09534	SAP	009-611-004	84.50	PCB	6/24/2019	2958	\$668,786	\$226.09	1
27J72	SP	027-596-011	76.17	PCB	4/16/2019	3733	\$2,630,431	\$704.64	1
69A56	SAP	069-644-027	63.92	PCB	2/21/2019	2530	\$663,029	\$262.07	1
69A59	SP	069-598-065	110.94	PCB	5/30/2019	3883	\$718,037	\$184.92	1
69A66	SAP	069-599-046	66.17	PCB	3/28/2019	2073	\$454,430	\$219.21	1
69A67	SAP	069-599-045	77.92	PCB	3/28/2019	2442	\$480,619	\$196.81	1
64586	SAP	064-701-019	353.21	PCB	7/31/2019	15306	\$3,438,352	\$224.64	0
69A71	SAP	069-605-050	88.92	PCB	12/5/2019	3527	\$653,028	\$185.15	1
62652	SP	164-203-014	220.79	PCB	8/29/2019	16909	\$5,110,630	\$302.24	1
02539	SP	002-678-022	66.77	REHAB	3/1/2019	4777	\$670,053	\$140.27	
69504	SAP	069-612-016	161.00	REHAB	4/25/2019	10626	\$932,927	\$87.80	
L5669	SP	007-599-062	186.42	REHAB	8/28/2019	2952	\$545,660	\$184.84	
89188	SAP	159-104-016	254.77	REHAB	3/21/2019	15106	\$1,493,140	\$98.84	
2796	SP	141-328-024	2162.86	REHAB	5/23/2019	148075	\$43,353,811	\$292.78	
R0733	SP	164-090-014	741.58	TRUSS	6/12/2019	10382	\$2,849,533	\$274.47	
83553	SAP	083-599-077	98.00	TTS	9/3/2019	3332	\$507,736	\$152.38	

with REHABS / BRDWKS	TOTALS	\$357,017	\$78,775,034
	Avg Price		\$220.65
without REHABS / BRDWKS	TOTALS	\$142,041	\$28,354,895
	Avg Price		\$199.62 / 2 = \$99.81

BRIDGES / STRUCTURES



NEEDS YEAR	NUMBER OF PROJECTS	DECK AREA	TOTAL COST	YEARLY AVERAGE CONTRACT PRICE	PRICE USED IN NEEDS	5-YEAR AVERAGE CONTRACT PRICE
2009	46	301,827	\$38,797,162	\$128.54	\$115.00	\$109.97
2010	56	333,867	34,675,259	103.86	120.00	112.02
2011	66	509,552	51,008,086	100.10	115.00	110.63
2012	69	475,190	64,255,407	135.22	125.00	116.49
2013	73	505,031	61,637,866	122.05	120.00	117.80
2014	91	379,364	54,646,656	144.05	72.00	120.85

NEEDS YEAR	NUMBER OF PROJECTS	DECK AREA	TOTAL COST	YEARLY AVERAGE CONTRACT PRICE	PRICE USED IN NEEDS	5-YEAR AVERAGE CONTRACT PRICE
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
2017	47	184,138	31,962,025	173.58	90.00	158.69
*2018	42	159,281	24,786,595	155.62	87.55	175.10
*2019	41	150,251	27,812,170	185.10	95.20	190.40
*2020	29	142,041	28,354,895	199.62	95.67	191.33

* recommended cost based off five years of data

SUBCOMMITTEES RECOMMENDED STRUCTURE PRICE FOR THE 2019 NEEDS STUDY IS \$95.67 PER SQ. FT.

MSB RESOLUTIONS STATE THAT 1/2 OF THE STATEWIDE AVERAGE BRIDGE COST BE USED AS THE STRUCTURE COST IN THE NEEDS
 \$95.67 would result in an 0.5% increase from last year's Unit Cost price of \$95.20

STORM SEWER DATA SINCE 2004

data year	study year	new SS constructions	% change from previous year	study year	partial SS constructions	% change from previous year
2003	2004	\$262,780		2004	\$83,775	
2004	2005	\$265,776	1.14	2005	\$85,099	1.58
2005	2006	\$268,035	0.85	2006	\$86,121	1.20
2006	2007	\$271,117	1.15	2007	\$88,102	2.30
2007	2008	\$277,895	2.50	2008	\$89,687	1.80
2008	2009	\$289,290	4.10	2009	\$92,772	3.44
2009	2010	\$295,365	2.10	2010	\$94,164	1.50
2010	2011	\$301,272	2.00	2011	\$95,576	1.50
2011	2012	\$307,297	2.00	2012	\$97,010	1.50
2012	2013	\$313,443	2.00	2013	\$98,465	1.50
2013	2014	\$319,711	2.00	2014	\$99,942	1.50
2014	2015	\$326,105	2.00	2015	\$101,441	1.50
2015	2016	\$332,627	2.00	2016	\$102,963	1.50
2016	2017	\$339,280	2.00	2017	\$104,507	1.50
2017	2018	\$346,066	2.00	2018	\$106,075	1.50
2018	2019	\$352,988	2.00	2019	\$107,666	1.50
2019	2020	\$360,048	2.00	2020	\$109,281	1.50

Memo

Date: March 25, 2019

To: William Lanoux
Manager, Municipal State Aid Street Needs Section

From: Juanita Voigt
State Aid Hydraulic Specialist
651-366-4469



RE: State Aid Storm Sewer
Construction Costs for 2018

We have completed our analysis of storm sewer construction costs incurred for 2018 and the following assumptions can be utilized for planning purposes per roadway mile:

- Approximately \$352,988 for new construction, and apply 2.0% increase
- Approximately \$107,666 for adjustment of existing systems apply 1.5% increase

The preceding amounts are based on the average cost per mile of State Aid storm sewer using unit prices. 162 Storm Sewer Plans were submitted during 2018.

EC: Andrea Hendrickson (MnDOT file)

No letter for 2019 SS costs. A letter reflecting increases noted above would read as follows:

- Approximately \$360,048 for new construction, and
- Approximately \$109,281 for adjustment of existing systems

STORM SEWER COST RECOMMENDATIONS FOR 2020

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	\$360,048
Partial Storm Sewer Cost from Hydraulics Specialist	\$109,281
Average SS Cost = $(\$360,048 + \$109,281) / 2 =$	\$234,665
NSS Recommended Unit Cost	\$234,700
MSB Approved Unit Cost for 2020	\$xxx,xxx

NSS recommended Storm Sewer Costs for 2020

based on 2019 costs - for the 2020 Needs Study

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	(\$69,200)	-29.5%	\$165,500
28	1-499	(\$66,000)	-28.1%	\$168,700
34	500-1,999	(\$56,600)	-24.1%	\$178,100
40	2,000-4,999	(\$47,200)	-20.1%	\$187,500
48	5,000-8,999	(\$34,600)	-14.7%	\$200,100
54	9,000-13,999	(\$25,200)	-10.7%	\$209,500
62	14,000-24,999	(\$12,600)	-5.4%	\$222,100
70	25,000 and over	\$0	0.0%	\$234,700

from last year's SS letter
 Complete: \$352,988
 Partial: \$107,666
AVG: \$230,327

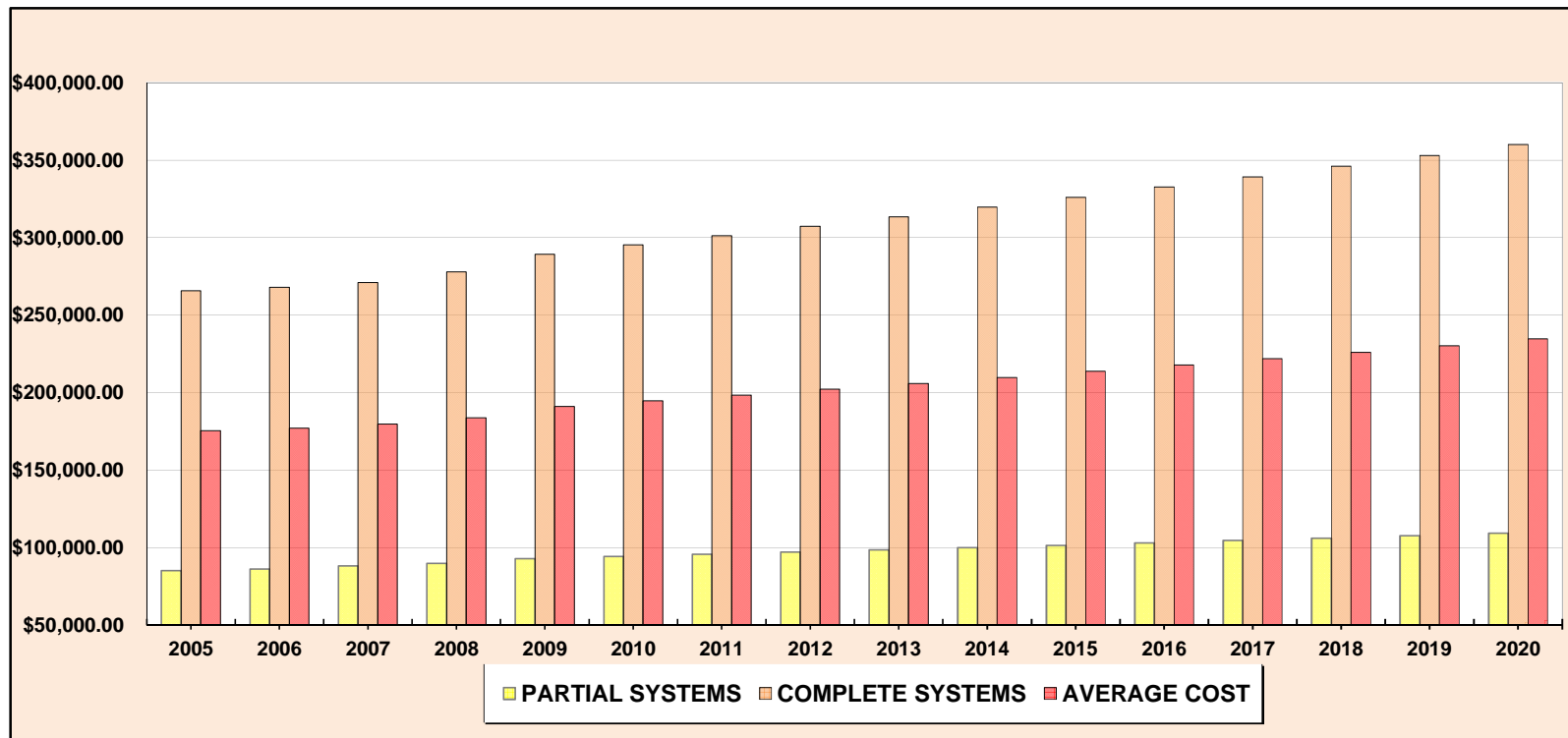
MSB approved Storm Sewer Costs for 2019 (last year)

based on 2018 costs - for the 2019 Needs Study

Needs Width of MSAS Urban ADT Groups	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	(\$66,600)	-29.5%	\$162,400
28	1-499	(\$63,600)	-28.1%	\$165,500
34	500-1,999	(\$54,500)	-24.1%	\$174,800
40	2,000-4,999	(\$45,400)	-20.1%	\$184,000
48	5,000-8,999	(\$33,300)	-14.7%	\$196,400
54	9,000-13,999	(\$24,200)	-10.7%	\$205,600
62	14,000-24,999	(\$12,100)	-5.4%	\$218,000
70	25,000 and over	\$0	0.0%	\$230,300

2019-2020 Percentage Change for highest section = 1.9% (same as 2017, 2018, 2019)

STORM SEWER COSTS since 2005



Needs Year	Partial Storm Sewer Constructions	Complete Storm Sewer Constructions	Average Cost (basis for Needs)
2005	\$85,099	\$265,776	\$175,438
2006	\$86,121	\$268,035	\$177,078
2007	\$88,102	\$271,117	\$179,610
2008	\$89,687	\$277,895	\$183,791
2009	\$92,772	\$289,290	\$191,031
2010	\$94,164	\$295,365	\$194,765
2011	\$95,576	\$301,272	\$198,424
2012	\$97,010	\$307,297	\$202,154

Needs Year	Partial Storm Sewer Constructions	Complete Storm Sewer Constructions	Average Cost (basis for Needs)
2013	\$98,465	\$313,443	\$205,954
2014	\$99,942	\$319,711	\$209,827
2015	\$101,441	\$326,105	\$213,773
2016	\$102,963	\$332,627	\$217,795
2017	\$104,507	\$339,280	\$221,894
2018	\$106,075	\$346,066	\$226,071
2019	\$107,666	\$352,988	\$230,327
2020	\$109,281	\$360,048	\$234,665

SUBCOMMITTEE'S RECOMMENDED PRICE FOR THE 2020 NEEDS STUDY IS \$234,700 (for highest section)

SIGNALS

CURRENT SCREENING BOARD RESOLUTION ON TRAFFIC SIGNALS

*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.

TRAFFIC SIGNALS AND THE UNIT COST STUDY

Traffic Signals are part of the Unit Cost Study. Signal Studies are conducted by The SALT Program Support Engineer once every 3 years. In 'off years' an inflation factor is applied. Here is the summary of this year's study:

SUBCOMMITTEE'S RECOMMENDED SIGNAL PRICE FOR THE 2020 NEEDS IS **\$211,440.**

LIGHTING

The unit cost for Street lighting has been \$100,000 / per mile since 2007.

CURRENT SCREENING BOARD RESOLUTION ON STREET LIGHTING

(revised May, 2015)

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.

SUBCOMMITTEE'S RECOMMENDED PRICE FOR 2020 NEEDS IS **\$100,000 PER MILE**

HISTORY: STORM SEWER, LIGHTING AND SIGNAL NEEDS COSTS

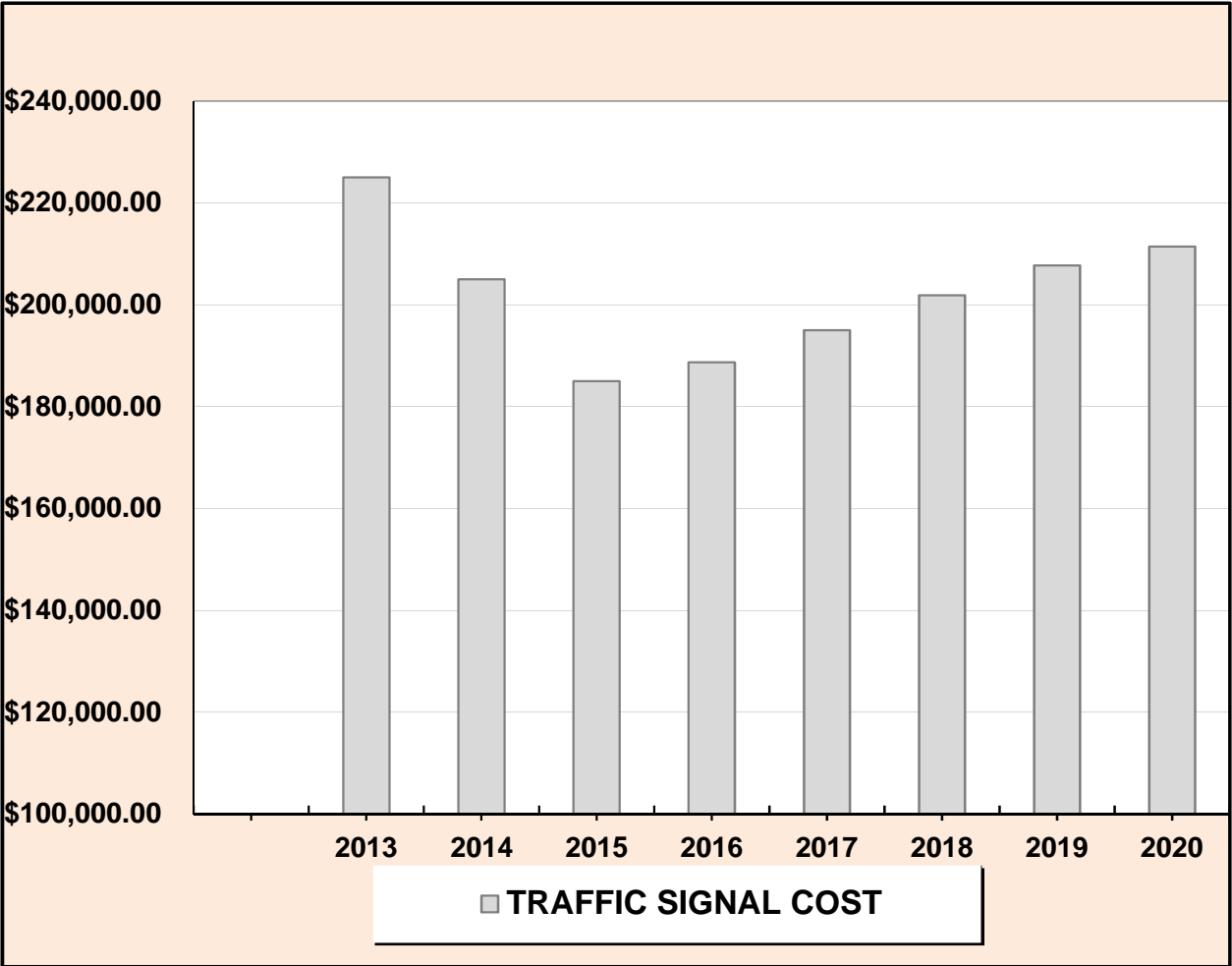
NEEDS YEAR	STORM SEWER ADJUSTMENT	STORM SEWER** CONSTRUCTION	LIGHTING	SIGNALS**
1998	\$76,000	\$245,000	\$20,000	\$24,990-\$99,990
1999	79,000	246,000	35,000	24,990-99,990
2000	80,200	248,500	50,000	24,990-99,990
2001	80,400	248,000	78,000	30,000-120,000
2002	81,600	254,200	78,000	30,000-120,000
2003	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
2017	156,500 to 221,900		100,000	195,000/signal
2018	159,500 to 226,100		100,000	201,850/signal
2019	162,400 to 230,300		100,000	207,700/signal
<i>2020</i>	<i>165,500 to 234,700</i>		<i>100,000</i>	<i>211,440/signal</i>

** Signals and Storm Sewer were 'per mile' in old Needs method

NEEDS STUDY SUBCOMMITTEE'S RECOMMENDED PRICES FOR 2020:

Storm Sewer (high section)	\$234,700
Lighting / Mile	\$100,000
Traffic Signals (per Signal)	\$211,440
Engineering	22%

TRAFFIC SIGNALS



Needs Year	Signal Cost
2013	\$225,000
2014	\$205,000
2015	\$185,000
2016	\$188,700
2017	\$195,000
2018	\$201,850
2019	\$207,704
2020	\$211,440

SUBCOMMITTEE'S RECOMMENDED PRICE FOR THE 2020 NEEDS STUDY IS \$211,440

in 2015, Signals became unit cost item that's studied every three years, with an inflation factor applied in 'off years'.

Subcommittee Meetings



Recent recommendations

REMINDER OF THE 2015 UCFS RECOMMENDATION ON SIGNALS

In August of 2015, the UCFS made a recommendation which provided clarity on how Unit Costs for Signals would be determined:

“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,

A handwritten signature in black ink, appearing to read "Steven G. Bot". The signature is fluid and cursive, with the first name "Steven" and last name "Bot" clearly legible.

Steven G. Bot, P.E.

Unencumbered Construction Funds Subcommittee Secretary

St. Michael City Engineer

REMINDER OF THE 2016 UCFS RECOMMENDATION ON ROUNDABOUTS

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

April 16, 2018.

RECOMMENDATION ON STRUCTURE UNIT COST FOR THE NEEDS

The Needs Study Subcommittee reviewed the following motion, which was approved by the Municipal Screening Board on May 24th 2017:

Motion: that the NSS meet to further study ways to reduce the large fluctuations in the Structures Unit Prices from year to year.

The committee looked at the annual fluctuations in this cost, noting that some years have low numbers of low priced projects, while in other years we might see more funding / bridge bonding and therefore higher numbers of larger projects, bringing the overall cost up.

Using just one year of data for a given year – this unit cost will continue to fluctuate.

NSS RECOMMENDATION: the Unit Cost for Structures shall be based off a “5-year average” of bridge costs provided by the MnDOT State Aid Bridge Office. Keeping consistent with current Screening Board Resolutions, *one-half* of this 5-year average will be the basis of the recommendation for the Unit Price for Structures.

The Needs Study Subcommittee has determined that this method increases the sample size of projects being used in the average cost, thus reducing the annual fluctuation in the Structure Cost used in the Needs.

For 2018 Needs Study, the Needs Study Subcommittee’s recommended structure price is \$87.55 per SQ FT

Five Year Average				
<i>Data Year / Needs Year</i>	<i>Area</i>	<i>Cost</i>	<i>yearly contract price</i>	<i>one-half</i>
<i>2013/2014</i>	<i>379,364</i>	<i>\$54,646,656</i>	<i>\$144.05</i>	<i>\$72.02</i>
<i>2014/2015</i>	<i>196,550</i>	<i>\$37,973,287</i>	<i>\$193.20</i>	<i>\$96.60</i>
<i>2015/2016</i>	<i>178,429</i>	<i>\$42,852,558</i>	<i>\$240.17</i>	<i>\$120.08</i>
<i>2016/2017</i>	<i>184,138</i>	<i>\$31,962,025</i>	<i>\$173.58</i>	<i>\$86.79</i>
<i>2017/2018</i>	<i>159,281</i>	<i>\$24,786,595</i>	<i>\$155.62</i>	<i>\$77.81</i>
<i>5 year Ave</i>	<i>1,097,762</i>	<i>\$192,221,121</i>	<i>\$175.10</i>	<i>\$87.55</i>

Submitted,

Sean Christensen

NSS Secretary

RIGHT OF WAY

Unencumbered Construction Funds Subcommittee

Meeting Minutes: December 1st, 2017

Attendees

Klayton Eckles, Woodbury
Jeff Johnson, Mankato
Marc Culver, Roseville

Meeting Agenda Discussion

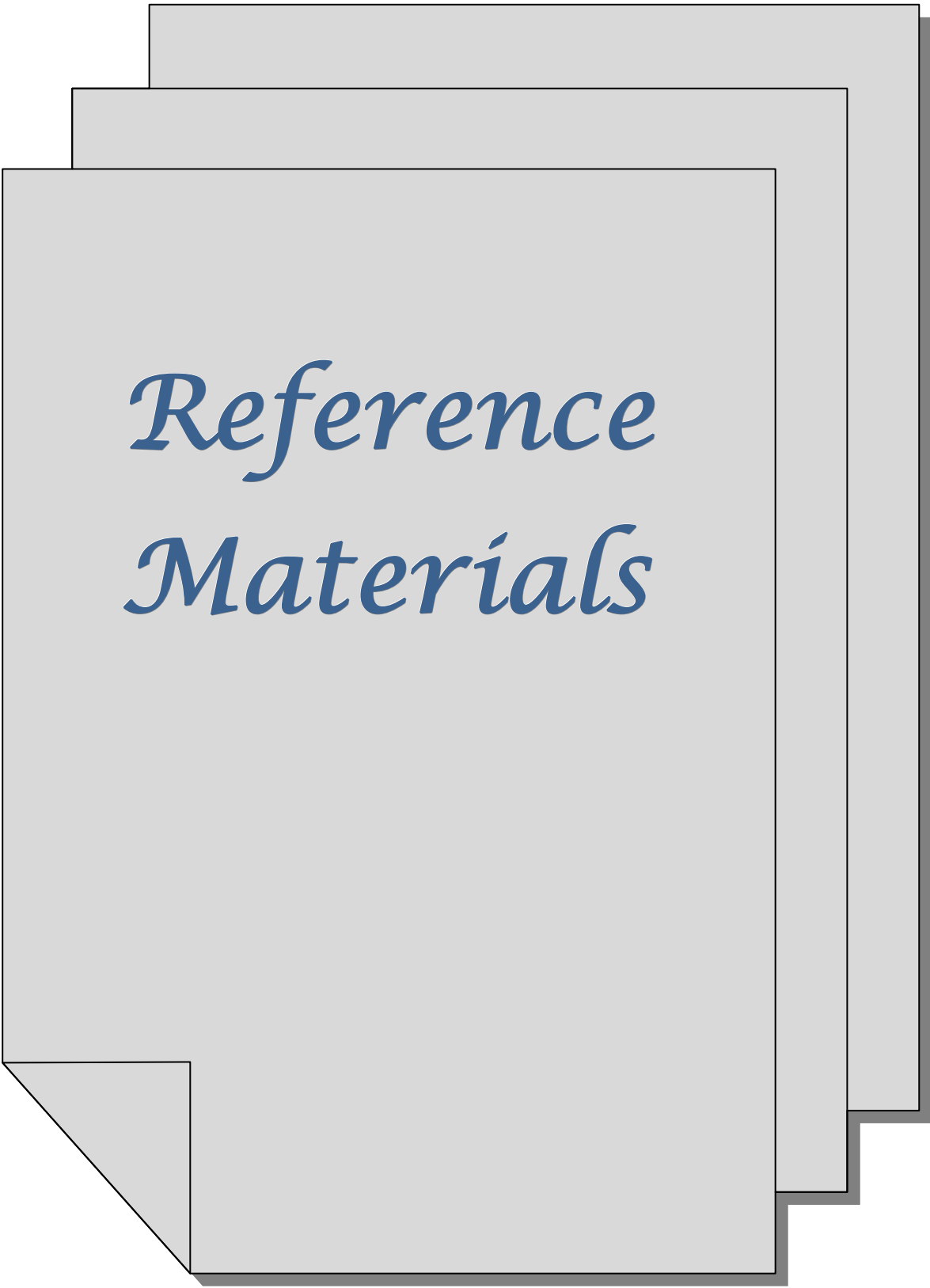
The UCFS met on Friday December 1st to discuss a question brought up by the screening board concerning the use of MSA funds to do “after the fact” right of way purchases on CSAH projects. Here are the talking points/minutes of that discussion:

- 1) We have a set pot of money...our rules are a distribution method—more for ROW means less for other items
- 2) We did spend 3 years and 4 more adapting new rules to simplify...the idea is that this is about spreading money to build roads to meet larger transportation goals...the actual cost of individual roadway elements had grown to be too cumbersome, so we drastically reduced the elements, and focused more on actual traffic volume served and roadway construction items
- 3) ROW purchasing has a full of gamut of perspectives and issues...planning process, planning process, county/city agreements or policies, are there other funding sources (state or fed), easements vs ROW, public/private agreements, development deals with private parties.
- 4) Could ATF expenditures encourage counties to crank the screws on their cost participation policies? (they can pay, so we will charge)...the thought was that although some counties do have some policies that require cities participate at a high level in ROW acquisition, it is highly variable. And the policies themselves are debatable, and MSA monies are not well spent “enabling” the stricter county policies. Given the sporadic nature of the various policies, allowing ATF would provide more benefit to some than to others...which is counter to some of the base philosophies of the simplification effort.
- 5) Based on the general philosophy that this is meant to be a simple method of equitably distributing SA monies between eligible cities, the idea of ATF ROW needs does not fit. ATF would be more complicated, not always equitable, and doesn't improve the Municipal transportation system. Therefore *the UCFS recommends that off system expenditures on CSAH for ATF right of way be deemed an ineligible expense. IE, no change from the current practice.*

Motion carried unanimously.

Respectfully Submitted,

Klayton Eckles
UCFS Chair



*Reference
Materials*

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.

	2015	2016	2017	2018	2019
Amount Allocated	\$3.3 M	\$3.5 M	\$2.5 M	\$3.5 M	\$3.6 M
Number of New Projects	25	17	19	20	24
Total Number of Active Projects	n/a	74	72	85	77

For More Information

The LRRB publishes an annual LRRB At-a-Glance Report¹. 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

Research Services: MnDOT Research Services and Library Director
 (651) 366-3765

Revised: 02/2020

¹ <https://lrrb.org/annual-reports/>

COUNTY HIGHWAY TURNBACK POLICY

Definitions:

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

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

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

MILEAGE CONSIDERATIONS

County State Aid Highway Turnbacks

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

County Road Turnbacks

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

Jurisdictional Exchanges

County Road for MSAS

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

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

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

CSAH for MSAS

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

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

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

NOTE:

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

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

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

MSAS designation on a County Road

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

MISCELLANEOUS

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

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

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

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

**CURRENT RESOLUTIONS
OF THE
MUNICIPAL SCREENING BOARD**

October 2019

**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 $\frac{1}{4}$ of the signal cost. Only signal legs on designated MSAS routes will be included in the Needs study. Stand-alone pedestrian crossing signals will not be included in the Needs study.

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

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

2019 UNIT PRICE RECOMMENDATIONS

for the January 2020 distribution

Needs Item		Municipal Screening Board Approved Prices for the 2019 Distribution	Needs Study Subcommittee Recommended Prices for 2020 Distribution	Municipal Screening Board Approved Prices for the 2020 Distribution
Grading (Excavation)	Cu. Yd.	\$9.10	\$9.36	\$9.36
Aggregate Base	Ton	13.78	14.18	14.18
All Bituminous	Ton	60.00	65.00	65.00
Sidewalk Construction	Sq. Ft.	5.50	5.66	5.66
Curb and Gutter Construction	Lin.Ft.	15.90	16.36	16.36
Traffic Signals *	Per Sig	201,850	207,700	207,700
Street Lighting	Mile	100,000	100,000	100,000
Engineering	Percent	22	22	22
All Structures (includes both bridges and box culverts)				
	Sq. Ft.	87.55	95.20	95.20
Storm Sewer (based on ADT)	Per Mile			
0 ADT & Non Existing		159,500	162,400	162,400
1-499		162,500	165,500	165,500
500-1,999		171,600	174,800	174,800
2,000-4,999		180,700	184,000	184,000
5,000-8,999		192,800	196,400	196,400
9,000-13,999		201,900	205,600	205,600
14,000-24,999		214,000	218,000	218,000
25,000 and over		226,100	230,300	230,300

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, May 2019)

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 the construction fund balance is over \$1,500,000, then 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 the balance is over \$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.

Municipal State Aid Construction Account Advance Guidelines

Advance status is currently code yellow.

State Aid Advances

[Minnesota Statutes 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 Advances webpage](#).

State Aid Advance Code Levels

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 Request to Reserve Funds can be obtained from [SAF Forms & Resolutions webpage](#). E-mail completed forms to Mohamed Farah at mohamed.m.farah@state.mn.us 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 why the project is needed.

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

Advance Limitations

Statutory – None, reference [Minnesota Statutes 162.14, Subd 6](#).

State Aid Rules – None, reference [State Aid Rules 8820.1500, Subp. 10 & 10b](#) (PDF).

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.