

# MUNICIPAL SCREENING BOARD DATA



Spring 2022

# 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)

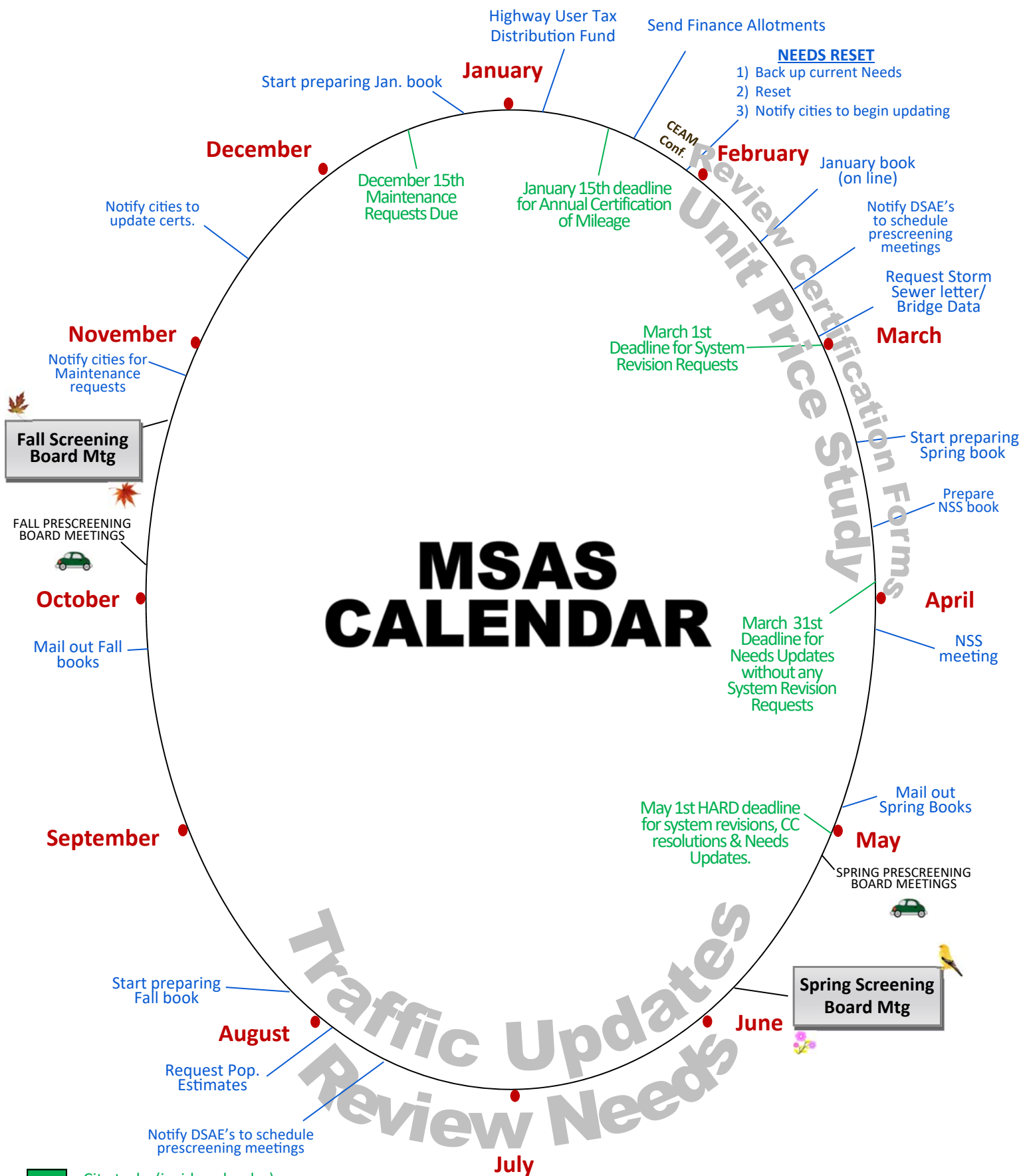
The Needs Study Subcommittee will annually review the Unit Prices for the Needs components used in the Needs Study. The Subcommittee will make its recommendation to the Municipal Screening board at its annual spring meeting.

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



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

Ongoing Processes

# The State Aid Program Mission Study

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## 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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### UNIT PRICES AND GRAPHS

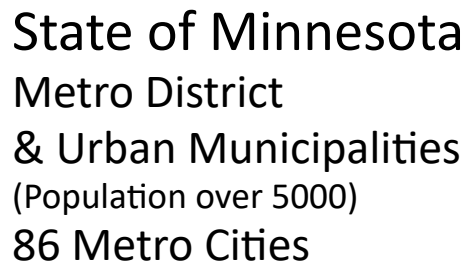
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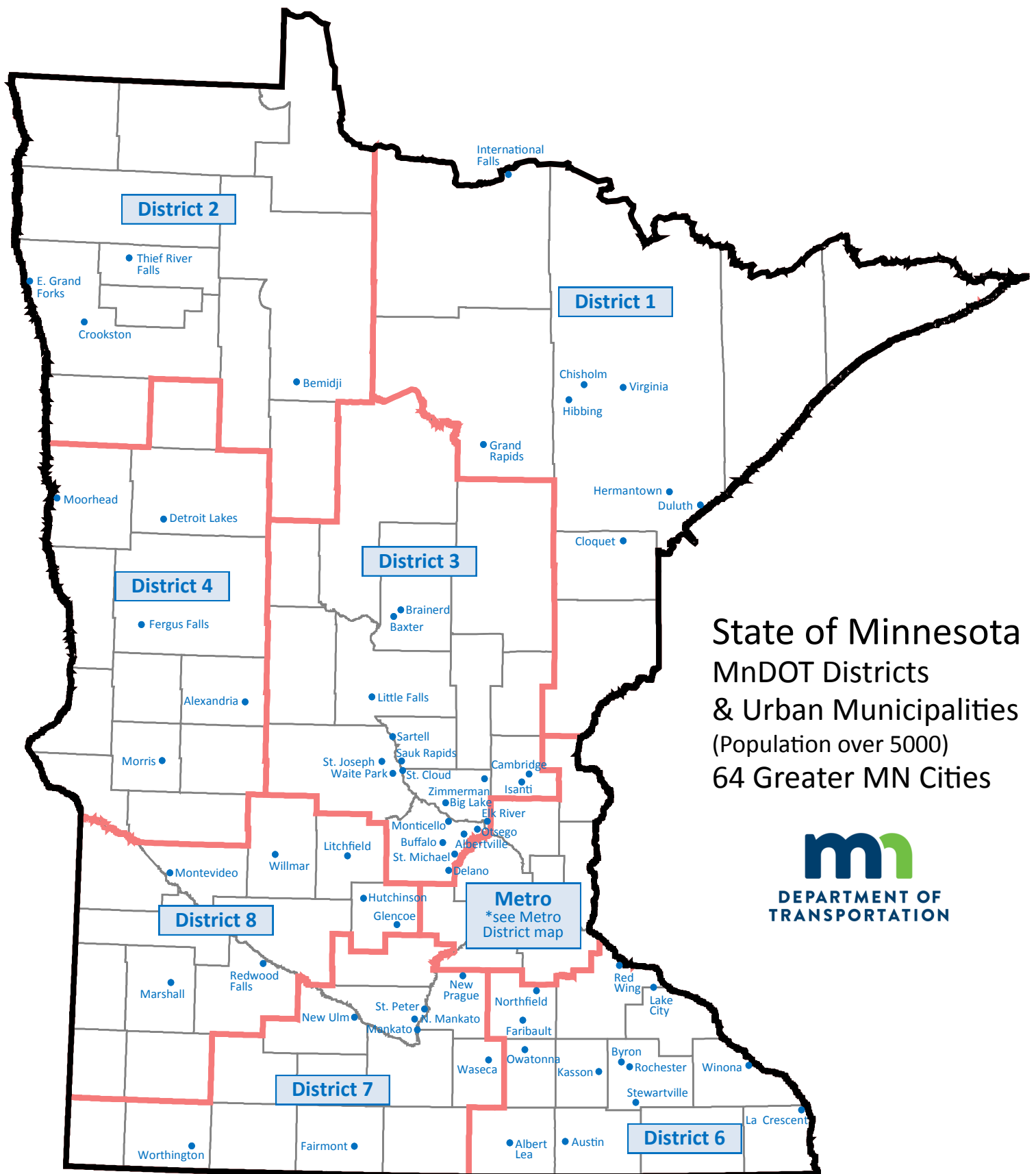
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Updated 1/8/14

# 2022 MUNICIPAL SCREENING BOARD

19-Apr-22

Officers			
Chair	vacant	vacant	(xxx) xxx-xxxx
Vice Chair	Jen Desrude	Burnsville	(952) 895-4544
Secretary	Mark DuChene	Faribault	(507) 333-0361

Members				
District	Years Served	Representative	City	Phone
1	2020-2022	Caleb Peterson	Cloquet	(218) 879-6758
2	2021-2023	Steve Emery	East Grand Forks	(218) 773-5626
3	2021-2023	Layne Otteson	Big Lake	(763) 251-2984
4	2022-2024	Tom Trowbridge	Moorhead	(218) 299-5393
Metro-West	2022-2024	Will Manchester	Minnetonka	(952) 939-8232
6	2022-2024	Brandon Theobald	Kasson	(507) 288-3923
7	2020-2022	Jeff Domras	St. Peter	(507) 625-4171
8	2021-2023	Chuck DeWolf	Litchfield	(320) 231-3956
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	Jason Fisher	International Falls	(218) 600-6827
2	2024	Craig Gray	Bemidji	(218) 333-1851
3	2024	Nick Preisler	Saint Michael	(763) 516-7936
4	2025	Tim Schoonhoven	Alexandria	(320) 762-8149
Metro-West	2025	Chris LaBounty	Plymouth	(763) 509-5541
6	2025	Brian DeFrang	Winona	(507) 457-8269
7	2023	Jeff Johnson	Mankato	(507) 387-8640
8	2024	Mike Amborn	Montevideo	(320) 269-7695
Metro-East	2023	Zachary Johnson	Lakeville	(952) 985-4501



## 2022 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>Matt Wegwerth Grand Rapids (218) 326-7625 Expires after 2022</p> <p>Jay Owens Red Wing (651) 385-3600 Expires after 2023</p> <p>Adam Nafstad Albertville (763) 497-3384 Expires after 2024</p>	<p>John Gorder Eagan (651) 675-5645 Expires after 2022</p> <p>Justin Femrite Elk River (763) 635-1051 Expires after 2023</p> <p>Michael Thompson Plymouth (763) 509-5501 Expires after 2024</p>

**MINUTES**  
**MUNICIPAL SCREENING BOARD (MSB) MEETING**  
**October 26 and 27, 2021**  
**Ruttger's Sugar Lake, Grand Rapids, MN and TEAMS**

**I. Call to Order and welcome by Chair Michael Thompson**

a. Michael Thompson, MSB Chair, called the meeting to order at 1:02 PM on Tuesday, October 26, 2021.

b. Introductions

MSB Chair	Michael Thompson (Plymouth)
State Aid Engineer	Kristine Elwood (MNDOT)
Municipal State Aid Needs Unit Manager	Bill Lanoux (MNDOT)
MSB Vice Chair	Paul Sandy (Brainerd)
MSB Past Chairs	John Gorder (Eagan)
	Justin Femrite (Elk River)
MSB Past Chair,	Marc Culver (Roseville/remote)
Legislative Committee Chair,	
UCFS Committee Chair	
MSB Secretary	Jen Desrude (Burnsville)

c. Jen Desrude, MSB Secretary took Roll Call:

District 1	Caleb Peterson (Cloquet)	Present
District 2	Steve Emery (East Grand Forks/remote)	Remote
District 3	Layne Otteson (Big Lake)	Remote 10/26/21
		Present 10/27/21
District 4	Brian Yavarow (Fergus Falls)	Present
Metro West	Chad Millner (Edina)	Present
District 6	Kyle Skov (Owatonna/remote)	Remote
District 7	Jeff Domras (St. Peter/remote)	Remote
District 8	Chuck DeWolf (Litchfield/remote)	Remote
Metro East	Brian Erickson (Rosemount)	Present
Duluth	Cindy Voigt	Present
Minneapolis	Jenifer Hager	Present
Rochester	Dillon Dombrowski (remote)	Remote
St. Paul	Paul Kurtz	Present

d. Additional introductions

District 4 Alternate	Tom Trowbridge (Moorhead)
Metro West Alternate	Will Manchester (Minnetonka)
State Aid Programs Manager	Mark Briesse (MNDOT)
District 1 State Aid Engineer	Krysten Saatela Foster
District 2 State Aid Engineer	Brian Ketring
District 3 State Aid Engineer	Kelvin Howieson

District 4 State Aid Engineer	Nathan Gannon
District 6 State Aid Engineer	Fausto Cabral
District 7 State Aid Engineer	Lisa Bigham
District 8 State Aid Engineer	Todd Broadwell
Metro State Aid Engineer	Dan Erickson (remote)
Assistant Metro State Aid Engineer	Julie Dresel
2022 Needs Study Subcommittee Chair	Matt Wegwerth (Grand Rapids)

II. **Review of the 2021 Municipal State Aid Streets Needs Report**

- a. Bill Lanoux reviewed May Screening Board minutes (page 8-12) noting actions taken at May MSB meeting:
  - i. Approved unit prices form unit price subcommittee
  - ii. Approved using 2019 traffic counts (instead of 2020 traffic counts) to drive the needs

**Motion to approve the minutes by Voigt, second by Millner.**

**Motion carried 12-0.**

- b. Lanoux reviewed population data and needs data in the report, specifically noting:
  - i. Action needed to make a recommendation to the Commissioner (pages 70-72)
  - ii. Action needed to fund research account (page 92)
  - iii. Two new cities – Carver and Credit River. These additional cities will not affect needs recommendations. Their populations make up one-fifth of one percent.
  - iv. UCFS recommendation to end the 7-year phase in period at the end of 2021, as was intended with the current resolution.
  - v. UCFS recommendation to modify resolution regarding excess unencumbered balance adjustment. The original resolution was adopted in the year 2000 and was to address high construction fund balances.
  - vi. Population data for this year is based on actual census data and not projections. Projections are used in years when there is no census.
  - vii. Population apportionment was reviewed. Lanoux will complete an analysis to see the impact of additional cities.
  - viii. Allocations in the book are conservative. Actual allocation is based on actual funds and is expected to increase.

III. **UCFS Recommendations**

- a. Marc Culver, UCFS Chair, indicated the committee concurred to recommend ending the phase-in process at the end of 2021. If continued, four cities would have their balance adjusted for 2022 allotment. The high-end adjustment was removed last year. This recommendation is in alignment with the original resolution.
- b. Culver reviewed the Excess Unencumbered Balance Adjustment recommendation from the UCFS. The committee recommends that an adjusted average construction allotment is calculated annually based on the average construction allotment for all cities excluding the cities of the first class. A negative adjustment to the Needs will be administered should the city's construction fund balance exceed three times the average construction allotment. The committee also recommended an exception procedure to allow cities flexibility.

**IV. Legislative Update**

- a. Marc Culver, Legislative Committee Chair, indicated that the legislative session will start in late January 2022 and that this is the second session of the two-year biennium, which is a bonding year.
- b. Culver is hearing about the potential for a bill related to county speed limits, similar to the legislation passed in 2019 for cities.
- c. Rep. Elkins from Bloomington has a draft Street Improvement District bill that Culver, the Legislative Committee, and League of MN Cities are following. Culver may be requesting resolutions of support or opposition depending on how the bill gets worded.
- d. Culver is continuing to partner with the County Engineers and the League of MN Cities.
- e. The Legislative Committee will convene in November to prepare for the upcoming session.

**V. State Aid Update**

- a. Kristine Elwood, State Aid Engineer, noted a joint meeting of the City and County Engineers following the Wednesday MSB meeting. This meeting is important to keep the cities and counties working together towards common issues.
- b. MNDOT and the City Engineers Executive Committee meet twice a year with focus on improving relationships with MNDOT; locally lead trunk highway projects; etc. If there are other areas to work on with MNDOT, talk with Elwood.
- c. Elwood is working with MNDOT HR to get the Deputy State Aid Engineer position posted. Consider encouraging candidates to apply or give potential candidate names to Elwood. Interview panel will include one county engineer and one city engineer.
- d. Voigt asked about federal funding bill and Elwood indicated that those conversations are just starting at State Aid. Recommended cities start making a list of their potential projects, should a federal transportation bill pass.
- e. Thompson asked for an update on Coronavirus Response and Relief Supplemental Appropriations Act (CRRSAA) funding. Elwood indicated 90% of Greater MN funds have been distributed and Met Council is handling distribution for Metro area. Thompson noted three options being considered: 1) follow the Greater MN distribution method, which would mimic distribution of MSA allotment; 2) fund existing projects that did not get awarded in the regional solicitation; or 3) fund new projects through a solicitation. Thompson indicated that in early discussions it appears Met Council may be moving toward Option 1. Recommended that cities talk with their TAB members.

**VI. Other Topics**

- a. Thompson asked about voting with a hybrid meeting and Elwood indicated a roll call vote would be needed for motions made on Wednesday, October 27, 2021

**VII. Adjourn until 8:30 AM Wednesday, October 27, 2021**

**Motion to adjourn by Erickson, second by Yavarow.  
Motion carried 12-0.**

Meeting adjourned at 1:46 PM.

**WEDNESDAY, OCTOBER 27, 2021**  
**MSB MEETING**

**I. Call to Order**

- a. Thompson called the meeting to order at 8:32 AM on Wednesday, October 27, 2021.

**II. Review of Tuesday, October 26, 2021 Topics**

- a. UCFS Recommendations:
- i. Phase-in recommendation (page 45): Thompson indicated that, if there was no discussion or opposition to the current resolution, there is no action needed as the recommendation is in alignment with the current resolution. No discussion; no action needed.
  - ii. Excess Unencumbered Balance Adjustment recommendation (page 55): Lanoux reviewed the recommendation and noted that, if approved, the adjusted average construction allotment that would be used is \$2,419,961 and that this number will not go down.
    - Paul Kurtz, St. Paul, thanked the UCFS for their great work on both the phase-in and excess balance recommendations. Kurtz asked about the need for an exemption process, particularly requesting more details on the approval process and parameters for which an exemption should be considered.
    - Culver noted the committee wanted to provide flexibility so recommended the process be managed by the District State Aid Engineers (DSAE) rather than prescribed in the resolution.
    - Elwood suggested the MSB provide some guidelines for the DSAEs.
    - Cindy Voigt, Duluth, indicated her preference for the MSB to review and approve rather than the DSAE.
    - Kurtz asked if a resolution is necessary. If exemptions were not addressed in the MSB resolution, would these requests automatically go to the DSAE for a recommendation and then to MSB for approval. Asked how many cities are affected and Lanoux stated with the balance floor raised, only one city is currently affected.
    - John Gorder, Eagan, asked if decisions/approvals were made by MSB, would the timing work. Thompson responded that if exemption requests are at Fall MSB meetings, there is time for State Aid to process.
    - Dillon Dombrovski, Rochester, supports Voigt's idea of having the MSB make the final decision on exemptions provided the cities provide enough detail.
    - Culver noted the exemption language is modeled after the County's. Elwood indicated the Counties are in a different situation and have not had the same situation as the Cities with advances.
    - Justin Femrite, Elk River, suggested if MSB is to make these decisions that the DSAE presents them to the board, rather than having the City come and present. Elwood indicated that it might be difficult for DSAE's to know all the details to present. Fausto Cabral, D6 DSAE, noted that the cities should provide adequate documentation and defend for themselves. Matt Wegwerth, Grand Rapids / 2022 Needs

Subcommittee Chair, suggested cities could call in to the MSB meeting or attend at their own expense.

- Thompson noted that the exemption language could be stricken for now and reconsidered in the future. Culver asked if the exemption language is removed from the MSB resolution, what would be the process. Kurtz stated if there was no exemption language, there would be no process and no exemptions would be allowed.
- Layne Otteson, Big Lake, suggested keeping the language as recommended and monitor to see if there are problems. This only currently affects one city. Would not like to see more red tape.
- Voigt suggested increasing the balance floor today and that the exemption language be sent back to the UCFS for further review. Report back in the spring and act next fall.

**Motion by Millner to approve excess balance recommendation, omitting exemption language, and sending exemption paragraph back to UCFS to report on at Spring 2022 MSB meeting; second by Otteson.**

**Jenifer Hager, Minneapolis, suggested a friendly amendment to direct the UCFS to work through a process giving MSB approval authority.**

**Millner and Otteson approved of friendly amendment.**

**Roll Call Vote:**

District 1	Caleb Peterson (Cloquet)	Yes
District 2	Steve Emery (East Grand Forks/remote)	Yes
District 3	Layne Otteson (Big Lake)	Yes
District 4	Brian Yavarow (Fergus Falls)	Yes
Metro West	Chad Millner (Edina)	Yes
District 6	Kyle Skov (Owatonna/remote)	Yes
District 7	Jeff Domras (St. Peter/remote)	Yes
District 8	Chuck DeWolf (Litchfield/remote)	Yes
Metro East	Brian Erickson (Rosemount)	Yes
Duluth	Cindy Voigt	Yes
Minneapolis	Jenifer Hager	Yes
Rochester	Dillon Dombrowski (remote)	Yes
St. Paul	Paul Kurtz	Yes

**Motion carried 13-0.**

b. Needs Recommendations (pages 70-72)

**Motion by Hager to approve the Needs Recommendation Letter to the Commissioner be approved; second by Erickson.**

**No further discussion.**

**Roll Call Vote:**

District 1	Caleb Peterson (Cloquet)	Yes
District 2	Steve Emery (East Grand Forks/remote)	Yes
District 3	Layne Otteson (Big Lake)	Yes
District 4	Brian Yavarow (Fergus Falls)	Yes
Metro West	Chad Millner (Edina)	Yes
District 6	Kyle Skov (Owatonna/remote)	Yes
District 7	Jeff Domras (St. Peter/remote)	Yes
District 8	Chuck DeWolf (Litchfield/remote)	Yes
Metro East	Brian Erickson (Rosemount)	Yes
Duluth	Cindy Voigt	Yes
Minneapolis	Jenifer Hager	Yes
Rochester	Dillon Dombrowski (remote)	Yes
St. Paul	Paul Kurtz	Yes

**Motion carried 13-0.**

- c. Research Account (page 92)

**Motion by Millner to approve the following resolution:**

**Be it resolved that an amount of \$965,058 (not to exceed ½ of 1% of the 2021 MSAS Apportionment sum of \$193,011,589) shall be set aside from the 2022 Apportionment fund and be credited to the research account.; second by Voigt.**  
**No further discussion.**

**Roll Call Vote:**

District 1	Caleb Peterson (Cloquet)	Yes
District 2	Steve Emery (East Grand Forks/remote)	Yes
District 3	Layne Otteson (Big Lake)	Yes
District 4	Brian Yavarow (Fergus Falls)	Yes
Metro West	Chad Millner (Edina)	Yes
District 6	Kyle Skov (Owatonna/remote)	Yes
District 7	Jeff Domras (St. Peter/remote)	Yes
District 8	Chuck DeWolf (Litchfield/remote)	Yes
Metro East	Brian Erickson (Rosemount)	Yes
Duluth	Cindy Voigt	Yes
Minneapolis	Jenifer Hager	Yes
Rochester	Dillon Dombrowski (remote)	Yes
St. Paul	Paul Kurtz	Yes

**Motion carried 13-0.**

**III. Other Topics**

- a. Voigt asked how traffic counts would be handled going forward. Lanoux responded 2019 counts will be used and additional discussion will be had in the spring.

- b. Kurtz requested the Needs Study Subcommittee analyze two items: 1) Street Lighting and 2) Structures to see if how those items are currently handled make sense going forward.

**Motion by Kurtz to send two needs items: street lighting and structures to the Needs Study Subcommittee determine if there is a better way to account for these items; second by Voigt.**

**Further Discussion:**

- Voigt indicated structures needs are currently arbitrary and appreciates this item being reviewed by the Needs Study Subcommittee
- Kurtz recommended the subcommittee start with the notes and history from the Needs Task Force.
- Caleb Peterson, Cloquet, indicated that soils should be considered, which went away with the new system; *did not offer an amendment to the motion, so soils was not included.*

**Roll Call Vote:**

District 1	Caleb Peterson (Cloquet)	Yes
District 2	Steve Emery (East Grand Forks/remote)	Yes
District 3	Layne Otteson (Big Lake)	Yes
District 4	Brian Yavarow (Fergus Falls)	Yes
Metro West	Chad Millner (Edina)	Yes
District 6	Kyle Skov (Owatonna/remote)	Yes
District 7	Jeff Domras (St. Peter/remote)	Yes
District 8	Chuck DeWolf (Litchfield/remote)	Yes
Metro East	Brian Erickson (Rosemount)	Yes
Duluth	Cindy Voigt	Yes
Minneapolis	Jenifer Hager	Yes
Rochester	Dillon Dombrowski (remote)	Yes
St. Paul	Paul Kurtz	Yes

**Motion carried 13-0.**

**Additional Discussion on motion:**

- Lanoux asked for clarification and Thompson noted that street lighting and structures should be reviewed without predetermined direction. Kurtz recommended using the Needs Study Task Force notes, as there was much discussion on these topics.

**Other Topics continued:**

- c. Femrite noted that the Variance Committee is always in need of volunteers and that all on the screening board are qualified. Julie Dresel, Assistant Metro State Aid Engineer, noted there is also a need for elected officials to sit on the Variance Committee. Cabral concurred, noting the need for a quorum.
- d. Discussion regarding concerns with the shrinking pot of funding for MSA cities, particularly with additional cities being added. Elwood noted that the threshold for



becoming an MSA city is a population of 5,000 and that is written into the Minnesota Constitution. Thompson added that the funding splits of 9% for cities and 29% for counties is also written into the Minnesota Constitution. Further discussion is needed for finding funding/revenue sources to increase the fund balance for allocation. Elwood noted that there is a lack of funds for all agencies and we need to band together to convince the legislature to provide more funding for transportation.

**IV. Closing Remarks from Chair**

- a. Thompson thanked all screening board members, and the vice chair and secretary.
- b. Thompson thanked three outgoing members for their service – Chad Millner, Kyle Skov, and Brian Yavarow.
- c. Thompson congratulated Kelvin Howieson for his retirement after 24 years as DSAE in District 3 and thanked him for his service.
- d. Thompson thanked Lanoux and State Aid staff for all of their work in planning and coordinating the meeting.
- e. Next Screening Board meeting will be held May 24-25, 2022.

**V. Adjourn**

**Motion to adjourn by Millner, second by Voigt.**  
**Motion carried 13-0.**

Meeting adjourned at 9:40 AM.

Respectfully submitted,

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Jennifer Desrude, PE  
Municipal Screening Board Secretary  
Burnsville City Engineer

# TRAFFIC COUNTING & ADT GROUPS



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

## Traffic Counting Schedule Metro Trunk and County

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

Anoka, Carver, Chisago (Trunks), Dakota, Hennepin, Ramsey, Scott, Washington

## Traffic Counting Schedule Metro MSAS

As of 2020 the four-year cycles for metro MSAS were realigned to begin in 2020 and conclude in 2023. 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 currently 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
Minnetrissa	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

## Traffic Counting Schedule Outstate

As of 2020 all counts are on a carry over cycle. Routes fall into the following cycles, unless counted more often for federal data reporting.

Route System	Count Cycle Name	Cycle Length	Cycle Begin Year	Cycle End Year
Interstate, US Highway, MN Highway	Vehicle Class	2	2020	2021
Interstate, US Highway, MN Highway	Total Volume 2 Year	2	2020	2021
CSAH and MSAS	Total Volume Local 4 Year	4	2020	2023
Non At-Grade Connectors	Total Volume Ramp 6 Year	6	2020	2025
County Roads (non-State Aid)	Total Volume 12 Year	12	2020	2031

Each count cycle begins again the year after the cycle ends. An accepted count for a site taken at any time during the cycle will fulfill the data reporting requirement for that site. Accepted Vehicle Class counts will fulfill the Total Volume data reporting requirement. Cycle assignment can be viewed in the Vehicle Class Location and Traffic Count Location layers within the Traffic Mapping Application.

*Past cycle information; use for reference only*

MSAS Cities	Past Completion Year
Albert Lea	2017
Albertville	2016
Alexandria	2018
Austin	2016
Baxter	2019
Bemidji	2018
Big Lake	2018
Brainerd	2019
Buffalo	2016
Byron	2018
Cambridge	2016
Chisago City	2017
Chisholm	2019
Cloquet	2018
Crookston	2017
Delano	2016
Detroit Lakes	2016
Duluth	Carry-over 2019
East Grand Forks	2017
Elk River	2018
Fairmont	2018
Faribault	2016
Fergus Falls	2019
Glencoe	2017
Grand Rapids	2017

Counties	Past Completion Year	Counties	Past Completion Year
Aitkin	2016	Martin	2018
Becker	2016	Mcleod	2017
Beltrami	2018	Meeker	2019
Benton	2019	Mille Lacs	2018
Big Stone	2016	Morrison	2017
Blue Earth	2017	Mower	2016
Brown	2018	Murray	2017
Carlton	2018	Nicollet	2019
Cass	2019	Nobles	2019
Chippewa	2016	Norman	2016
Chisago	2017	Olmsted	2018
Clay	2017	Otter Tail	2019
Clearwater	2019	Pennington	2019
Cook	2018	Pine	2016
Cottonwood	2016	Pipestone	2016
Crow Wing	2019	Polk	2017
Dodge	2017	Pope	2019
Douglas	2018	Red Lake	2018
Faribault	2019	Redwood	2019
Fillmore	2017	Renville	2019
Freeborn	2017	Rice	2016
Goodhue	2019	Rock	2018
Grant	2018	Roseau	2016
Houston	2016	Saint Louis	2019
Hubbard	2016	Sherburne	2018

<b>MSAS Cities</b>	<b>Past Completion Year</b>
Hermantown	2019
Hibbing	2019
Hutchinson	2017
International Falls	2016
Isanti	2016
Kasson	2017
La Crescent	2016
Lake City	2018
Litchfield	2019
Little Falls	2017
Mankato	2017
Marshall	2018
Montevideo	2016
Monticello	2016
Moorhead	2017
Morris	2017
New Prague	2017
New Ulm	2018
North Branch	2017
North Mankato	2019
Northfield	2016
Otsego	2016
Owatonna	2019
Red Wing	2019
Redwood Falls	2019
Rochester	2018
Saint Cloud	2016-2019 per County
Saint Joseph	2017
Saint Michael	2016
Saint Peter	2019
Sartell	2017
Sauk Rapids	2019
Stewartville	2018
Thief River Falls	2019
Virginia	2019
Waite Park	2017
Waseca	2016
Willmar	2018
Winona	2019
Worthington	2019
Wyoming	2017
Zimmerman	2018

<b>Counties</b>	<b>Past Completion Year</b>	<b>Counties</b>	<b>Past Completion Year</b>
Isanti	2016	Sibley	2018
Itasca	2017	Stearns	2017
Jackson	2016	Steele	2019
Kanabec	2018	Stevens	2017
Kandiyohi	2018	Swift	2017
Kittson	2017	Todd	2018
Koochiching	2016	Traverse	2016
Lac Qui Parle	2016	Wabasha	2018
Lake	2018	Wadena	2016
Lake Of The Woods	2019	Waseca	2016
Le Sueur	2017	Watsonwan	2016
Lincoln	2016	Wilkin	2018
Lyon	2018	Winona	2019
Mahnomen	2016	Wright	2016
Marshall	2018	Yellow Medicine	2017

**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 : RED WING Segment Nbr : 156-125-030

Original	Current
TYLER ROAD NORTH	TYLER ROAD NORTH
CANNON RIVER AVENUE TO .27 MILES EASTERLY	CANNON RIVER AVENUE TO .27 MILES EASTERLY
0.27	0.27
Improved	Improved
Undivided	Undivided
0	0
4300	4300
4 ( 2000 - 4999 )	4 ( 2000 - 4999 )
2019	2019
N	N
N	N
N	N
2009	2009
BITUMINOUS SURFACE MILLED & OVERLAYED IN 2009 WITH STATE AID FUNDS, MSAP 156-125-14, BID LETTING ON 7-6-09.	BITUMINOUS SURFACE MILLED & OVERLAYED IN 2009 WITH STATE AID FUNDS, MSAP 156-125-14, BID LETTING ON 7-6-09.
Segment Override	

## Bridge Information

Status: Original

Original	Current
025519	025519
0.24	0.24
SPRING CREEK	SPRING CREEK
93	93
1978	1978
BRIDGE	BRIDGE
4 ( 2000 - 4999 )	4 ( 2000 - 4999 )

## Segment Cost Information

Segment Quantity Unit  
Length ADT Chanrt Cost

Cost Factor	Unit Cost	Computation Formula or Rule	Equation	Result
Gravel	MSAS Gravel Cost Group 4	Length * Quantity * UnitCost	0.27 * 19628 * 18	\$95,392
Bituminous	MSAS Bituminous Cost Group 4	Length * Quantity * UnitCost	0.27 * 4773 * 72	\$92,787
Excavation	MSAS Excavation Cost Group 4	Length * Quantity * UnitCost	0.27 * 25188 * 10.64	\$72,360
Storm Sewer	MSAS Storm Sewer Cost Group 4	Length * UnitCost	0.27 * 210300	\$56,781
Sidewalk	MSAS Sidewalk Cost Group 4	Length * UnitCost * FeetPerMile * SidewalkWidth	0.27 * 7.24 * 5280 * 10	\$103,213
Street Lighting	MSAS Street Lighting Cost Group 4	Length * UnitCost	0.27 * 100000	\$27,000
Curb and Gutter	MSAS Curb And Gutter Cost Group 4	Length * UnitCost * FeetPerMile * NumberOfCurbs	0.27 * 20 * 5280 * 2	\$57,024
Signal Leg	MSAS Traffic Signals Cost Group 4	NumOfSignals * UnitCost / 4	0 * 231875 / 4	\$0
Bridge	MSAS Bridge TGC Group 4	BridgeLength * NeedsWidth * UnitCost	93 * 40 * 90.7	\$337,404
Engineering Cost		Percent of costs	841961 * 0.220	\$185,231
Total				\$1,027,192



# 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.

For 2021 we had a full unit cost study, based on 2020 project costs.

## THIS YEAR

At the end of 2021, the Engineering Construction Cost Index was 7.4%. 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 these unit cost recommendations.

State Aid bridge costs from the last 5 years (2017 to 2021), 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.

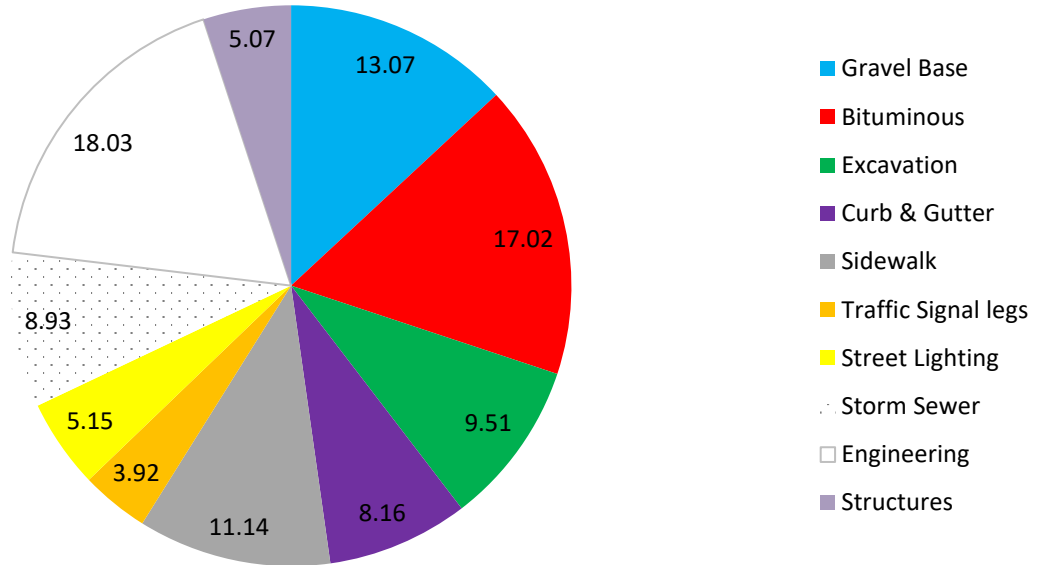
Last year, MN/DOT's hydraulic office recommended costs for storm sewer construction & adjustments based on 2020 construction costs. This year, the hydraulics office moves to the same triennial cycle that we follow for the Unit Cost Study. (They will provide a full storm sewer study every three years and apply the CCI inflation factor in off years)

CONSTRUCTION ECONOMICS											
ENR's 20-city average cost indexes, wages and material prices. Historical data for ENR's 20 cities can be found at <a href="https://www.enr.com/economics">ENR.com/economics</a>											
Construction Cost Index			+7.4%			Building Cost Index			+13.1%		
ANNUAL INFLATION RATE			DEC. 2021			ANNUAL INFLATION RATE			DEC. 2021		
1913=100	INDEX VALUE	MONTH	YEAR			1913=100	INDEX VALUE	MONTH	YEAR		
CONSTRUCTION COST	12481.82	+0.1%	+7.4%			BUILDING COST	7289.50	+0.5%	+13.1%		
COMMON LABOR	24355.78	0.0%	+1.3%			SKILLED LABOR	11055.72	+0.5%	+2.9%		
WAGE \$/HR.	46.80	0.0%	+1.3%			WAGE \$/HR.	60.99	+0.5%	+2.9%		
Materials Cost Index			+0.5%			MONTHLY INFLATION RATE			DEC. 2021		
1913=100	INDEX VALUE	MONTH	YEAR			1913=100	INDEX VALUE	MONTH	YEAR		
MATERIALS COST	4964.65	+0.5%	+31.0%			CEMENT \$/TON	152.17	+1.4%	+2.9%		
STEEL \$/CWT	76.55	+4.3%	+37.0%			LUMBER \$/MBF	952.09	-5.8%	+26.1%		
The Construction Cost Index's annual escalation rose 7.4%, while the monthly component rose 0.1%.											
The Building Cost Index was up 13.1% on an annual basis, while the monthly component increased 0.5%.											
The MCI rose 0.5% since last month, while the annual escalation rate increased 31%.											

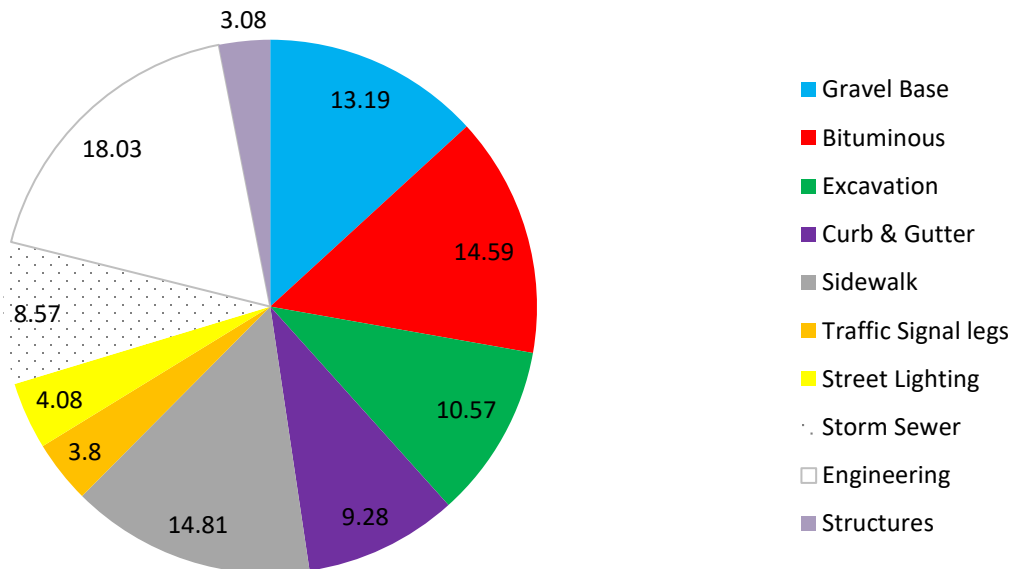
# PERCENTAGE OF NEEDS FOR UNIT COST ITEMS

for 2016 and 2021

**2016**



**2021**



## 2022 UNIT PRICE RECOMMENDATIONS

*for the January 2023 distribution*

		2021 MSB Approved Prices for the 2022 Distribution	7.4% ENR Construction Cost Index for Dec. 2021	2022 NSS Recommended Prices for 2023 Distribution	2022 MSB Approved Prices for the 2023 Distribution
<b>Needs Item</b>					
Grading (Excavation)	Cu. Yd.	\$10.64	\$11.43	<b>\$11.43</b>	
Aggregate Base	Ton	18.00	19.33	<b>19.33</b>	
All Bituminous	Ton	72.00	77.33	<b>77.33</b>	
Sidewalk Construction	Sq. Ft.	7.24	7.78	<b>7.78</b>	
Curb and Gutter Construction	Lin.Ft.	20.00	21.48	<b>21.48</b>	
Traffic Signals	Per Sig	231,875	249,034	<b>249,034</b>	
Street Lighting	Mile	100,000	NA	<b>100,000</b>	
Engineering	Percent	22	NA	<b>22</b>	
All Structures (includes both bridges and box culverts)	Sq. Ft.	90.70	NA	<b>98.58</b>	
<b>Storm Sewer (based on ADT)</b>	Per Mile				
0 ADT & Non Existing		185,600		<b>199,400</b>	
1-499		189,200		<b>203,200</b>	
500-1,999		199,700		<b>214,500</b>	
2,000-4,999		210,300		<b>225,900</b>	
5,000-8,999		224,400		<b>241,000</b>	
9,000-13,999		235,000		<b>252,400</b>	
14,000-24,999		249,100		<b>267,600</b>	
25,000 and over		263,200	282,659	<b>282,700</b>	

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## NEEDS STUDY SUBCOMMITTEE MEETING MINUTES

The Needs Study Subcommittee meeting was held at 1:00 pm on April 12, 2022. NSS members present were Matt Wegwerth (Grand Rapids/Chair), Jay Owens (Red Wing), and Adam Nafstad (Albertville). Also in attendance from State Aid were Bill Lanoux, Kim Delarosa, and Naomi Eckerd.

A 2022 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 in resolutions of the Municipal Screening Board. Other housekeeping items discussed were the significance of ADT groups in the Needs, and a quick review of the minutes of the NSS meeting in 2021.

At their 2021 Fall Screening Board meeting, the MSB sent two items to the NSS for review. They would like this committee to review Street Lighting and Structures to see if there is a better way to account for these items in the Needs. We will make the Unit Cost recommendations first.

For 2022, most recommendations will be based off an inflation factor. The Construction Cost Index (CCI) published by the Engineering News Record provides the basis of Unit Cost recommendations. The CCI used for 2021 is 7.4%. The NSS made recommendations for the following items.

**Grading/Excavation:** Price used in 2021 Needs - \$10.64 Cu. Yd.  
*Committee's Recommendation for 2022 Needs - \$11.43 Cu. Yd.*

**Aggregate Base:** Price used in 2021 Needs - \$18.00 Ton  
*Committee's Recommendation for 2022 Needs - \$19.33 Ton*

**All Bituminous:** Price used in 2021 Needs - \$72.00 Ton  
*Committee's Recommendation for 2022 Needs - \$77.33 Ton*

*Committee members discussed some bit prices they had been seeing in their area, with some projects costing over 90 dollars per ton, but overall members were comfortable with the cost of \$77.33. Lanoux noted that at last year's meeting, the Committee asked State Aid to bring some actual project cost data for bituminous to this year's meeting and the findings supported the recommendation.*

**Sidewalk:** Price used in 2021 Needs - \$7.24 Sq. Ft.  
*Committee's Recommendation for 2022 Needs - \$7.78 per Sq. Ft.*

*The Sidewalk graph illustrates big increases in this cost the last few years. Increasing concrete costs and ADA requirements were noted as reasons why. Sidewalk was another item from last year's meeting where the Committee wanted State Aid to bring actual project cost data to this year's meeting to support the recommendation. Lanoux asked the committee if Sidewalk 'removals' should be included when State Aid conducts future unit cost studies. The committee asked Bill how it was being done in past studies, and Lanoux indicated it wasn't used in the last study, but added that State Aid wanted guidance because their Unit Cost Study instructions weren't clear. The committee wanted clarification that this was their call to make and Bill confirmed it was. The NSS recommended not including removals going forward. The data State Aid brought to the meeting supported the cost of \$7.78*

**Curb and Gutter:** Price used in 2021 Needs - \$20.00 Lin. Ft.

*Committee's Recommendation for 2022 Needs - \$21.48 Lin. Ft.*

*Unit Cost Study from last year had showed significant increase. Data this year supports the result of applying the inflation factor of 7.4%. Committee felt price of \$21.48 was good.*

**Structures:** Price used in 2021 Needs - \$90.70 Sq. Ft.

*Committee's Recommendation for 2022 Needs - \$98.58 Sq. Ft*

*Recommendation is based on a one-half of the five-year average of bridge costs using data provided by the MnDOT State Aid Bridge Office Price last year (\$90.70) was slight decline from previous year. For 2022, it's back up 8.7% to \$98.58. Lanoux commented that one reason for last year's slight decline was that 2016 data (which was high) came off the five-year average. Next year, 2018 data (a low year) will come off. Individual years for structures have been increasing since 2018, and for 2021 data alone the unit cost would have been \$113. The 5-year average should steadily increase going forward and have more consistency. The committee is good with \$98.58 Sq. Ft.*

*Structures were one of two unit costs the MSB asked this committee to review and recommended possible changes. The Committee reviewed the NSTF decision chronicle and 4 years of Task Force meeting minutes to see how they got to the current resolution which reads THAT 1\2 OF THE STATEWIDE AVERAGE BRIDGE COST BE USED AS THE STRUCTURE COST IN THE NEEDS). Some of the points made by the NSTF when they discussed structures:*

- *With multiple sources of funding available a city seldom pays 100% of the structure cost.*
- *Roadway Needs (i.e. curb and gutter, storm sewer, sidewalk, excavation, etc.) are also generated for the length of the structure, so there was talk of "double-dipping".*
- *Having Structures make up approximately 5% of the total Needs was a NSTF target. Using one-half the unit cost on all the structures keeps the percentage of the structure Needs at about what it was in the old program.*
- *using bridge Needs at 100% would essentially dilute the value of the total Needs so much that cities with no structures would be at a big disadvantage*

**Recommendation:** *NSS felt that the NSTF put a lot of thought / effort into structure unit cost calculation are not recommending any changes to this cost as it is stated in screening board resolutions.*

**Storm Sewer:** The MnDOT Hydraulics Unit performed an analysis of storm sewer

Costs for 2021. (137 Storm Sewer Plans were reviewed)

Costs are \$437,639 for new construction, and \$127,679 for adjustments to existing systems. This is an average of \$282,659 per mile. Committee makes recommendation for the highest of eight sections.

*Committee's Recommendation for 2022 Needs - \$282,700 per mile*

The recommendation of \$282,700 per mile is for a 70-foot section. The cost per mile will be prorated down through the other seven ADT groups.

**Street Lighting:** Price used in 2021 Needs - \$100,000 per mile

*Committee's Recommendation for 2022 Needs - \$100,000 Per Mile*

*(Recommendation is consistent with Screening Board resolutions)*

*Lighting is the second item that the Municipal Screening Board requested this committee review and recommended possible changes. MSB resolutions currently state that Street Lighting will be determined by multiplying \$100,000 per mile, for all segments. The NSS group asked for detail on what the Screening Board was looking for in their motion: Is the issue with the unit cost itself, or with the way it's currently calculated? Wegwerth and Lanoux, who were both at the Fall Screening Board, believe the issue is with the calculation, and why do higher volume, busy roads draw the same lighting per mile as a lower volume road, or even a non-existing road. Why do we have a flat cost for lighting?*

*Lanoux shared information he received from the State Aid Lighting Engineer. General assumptions are that "residential roads" have 19 light fixtures per mile and "commercial roads" have 26 light fixtures per mile. For estimating & planning purposes (and today's cost of lighting) local commercial lighting would be approximately \$195,000/mile and the local residential would be \$142,500/mile. (note: there is a 36.8 % increase from residential to commercial in these two costs. If applying the same increase of 36.8% to the current cost of \$100,000, you could use a trial scenario of \$100,000 for residential lighting, and \$136,800 for commercial.)*

*Prior to the NSS meeting, the committee asked Bill for a few of different Lighting Scenarios to see how they would affect the distribution: Scenarios were, 1) get rid of lighting altogether. 2) make 5000 ADT the cutoff point for residential vs commercial lighting. And 3) do the same as #2 – but give "non-existing" segments zero dollars in lighting needs. Bill presented test distributions for these scenarios and used costs of \$100,000 for residential, \$136,800 for commercial:*

- 1) Removing Lighting all together isn't a complete wash that has no effect on distribution. This is because removing Lighting also changes engineering (22% of everything) and Lighting is presently a bigger % of the Needs for cities with more low volume roads. Removing Lighting takes more Needs away from these cities than it does more urban type cities. The city that lost the most loses \$18,400 in distribution. The city that gains the most gains \$100,000.*
- 2) Give AADT groups 1-4 lighting at \$100,000 per mile. Then give AADT groups 5-8 lighting at \$136,800 per mile. This scenario had a similar affect as #1, but the swings weren't as drastic. The city that loses the most loses \$4000. The city that gains the most gains \$15,000.*
- 3) Similar result to method #2, but because this scenario gives zero lighting needs to "non-existing" segments, cities with the most non-existing routes lost the most money. (Greatest loss for a city was \$13,000)*

*The NSS discussed and gave consideration to all scenarios. After more conversation, committee members became concerned with the role of the NSS in this matter and in recommending a potential policy change. Yes – The NSS is the committee to recommend Unit Cost changes and could recommend an increase to the current lighting cost of \$100,000 per mile. But moving on a recommendation in which certain cities would draw more lighting Needs than others gets into the area of policy change – which might require more research and perhaps involvement of the UCFS? Question became - is the NSS the committee to recommend policy changes.*

***The NSS recommends that they be consistent with current screening board resolution and keep the current lighting needs cost of \$100,000 per mile. They would like more discussion on this this item with the Spring Screening Board.***

**Engineering:** Price used in 2021 Needs – 22%  
*Committee's Recommendation for 2022 Needs – 22%*

**Traffic Signals:** Price used in 2021 Needs - \$231,875 Per Signal  
*Committee's Recommendation for 2022 Needs - \$249,034 Per Signal*

*The SALT program Engineer provides highlights signal study every 3 years. The recommendation is based off the inflation factor.*

**The meeting was adjourned.**

**Minutes submitted by Adam Nafstad**



## Annual Percentage Change of Unit Costs, 2009 - 2022

<b>sidewalk</b>	<b>\$</b>	<b>\$</b>	<b>% Change</b>		<b>aggregate base</b>	<b>\$</b>	<b>\$</b>	<b>% Change</b>
from 2009 to 2010	\$3.00	\$3.09	<b>3.0</b>		from 2009 to 2010	\$9.81	\$10.10	<b>3.0</b>
from 2010 to 2011	\$3.09	\$3.18	<b>2.9</b>		from 2010 to 2011	\$10.10	\$10.40	<b>3.0</b>
<u>from 2011 to 2012</u>	\$3.18	\$3.17	<b>-0.3</b>		<u>from 2011 to 2012</u>	\$10.40	\$10.65	<b>2.4</b>
from 2012 to 2013	\$3.17	\$3.25	<b>2.5</b>		from 2012 to 2013	\$10.65	\$10.90	<b>2.3</b>
from 2013 to 2014	\$3.25	\$3.50	<b>7.7</b>		from 2013 to 2014	\$10.90	\$11.25	<b>3.2</b>
<u>from 2014 to 2015</u>	\$3.50	\$4.25	<b>21.4</b>		<u>from 2014 to 2015</u>	\$11.25	\$14.00	<b>24.4</b>
from 2015 to 2016	\$4.25	\$4.35	<b>2.4</b>		from 2015 to 2016	\$14.00	\$14.30	<b>2.1</b>
from 2016 to 2017	\$4.35	\$4.75	<b>9.2</b>		from 2016 to 2017	\$14.30	\$14.90	<b>4.2</b>
<u>from 2017 to 2018</u>	\$4.75	\$5.50	<b>15.8</b>		<u>from 2017 to 2018</u>	\$14.90	\$13.78	<b>-7.5</b>
from 2018 to 2019	\$5.50	\$5.66	<b>2.9</b>		from 2018 to 2019	\$13.78	\$14.18	<b>2.9</b>
from 2019 to 2020	\$5.66	\$5.76	<b>1.8</b>		from 2019 to 2020	\$14.18	\$14.44	<b>1.8</b>
<u>from 2020 to 2021</u>	\$5.76	\$7.24	<b>25.7</b>		<u>from 2020 to 2021</u>	\$14.44	\$18.00	<b>24.7</b>
from 2021 to 2022	\$7.24	<b>\$7.78</b>	<b>7.4</b>		from 2021 to 2022	\$18.00	<b>\$19.33</b>	<b>7.4</b>
<b>curb &amp; gutter</b>					<b>all bituminous</b>			
from 2009 to 2010	\$10.70	\$11.00	<b>2.8</b>		from 2009 to 2010	\$55.00	\$56.75	<b>3.2</b>
from 2010 to 2011	\$11.00	\$11.30	<b>2.7</b>		from 2010 to 2011	\$56.75	\$60.00	<b>5.7</b>
<u>from 2011 to 2012</u>	\$11.30	\$11.15	<b>-1.3</b>		<u>from 2011 to 2012</u>	\$60.00	\$58.00	<b>-3.3</b>
from 2012 to 2013	\$11.15	\$11.45	<b>2.7</b>		from 2012 to 2013	\$58.00	\$59.50	<b>2.6</b>
from 2013 to 2014	\$11.45	\$11.75	<b>2.6</b>		from 2013 to 2014	\$59.50	\$61.25	<b>2.9</b>
<u>from 2014 to 2015</u>	\$11.75	\$13.75	<b>17.0</b>		<u>from 2014 to 2015</u>	\$61.25	\$65.50	<b>6.9</b>
from 2015 to 2016	\$13.75	\$14.00	<b>1.8</b>		from 2015 to 2016	\$65.50	\$66.80	<b>2.0</b>
from 2016 to 2017	\$14.00	\$14.55	<b>3.9</b>		from 2016 to 2017	\$66.80	\$69.60	<b>4.2</b>
<u>from 2017 to 2018</u>	\$14.55	\$15.90	<b>9.3</b>		<u>from 2017 to 2018</u>	\$69.60	\$60.00	<b>-13.8</b>
from 2018 to 2019	\$15.90	\$16.36	<b>2.9</b>		from 2018 to 2019	\$60.00	\$65.00	<b>8.3</b>
from 2019 to 2020	\$16.36	\$16.65	<b>1.8</b>		from 2019 to 2020	\$65.00	\$66.17	<b>1.8</b>
<u>from 2020 to 2021</u>	\$16.65	\$20.00	<b>20.1</b>		<u>from 2020 to 2021</u>	\$66.17	\$72.00	<b>8.8</b>
from 2021 to 2022	\$20.00	<b>\$21.48</b>	<b>7.4</b>		from 2021 to 2022	\$72.00	<b>\$77.33</b>	<b>7.4</b>
<b>grading/excavtion</b>					<b>structures</b>			
from 2009 to 2010	\$4.75	\$4.90	<b>3.2</b>		from 2009 to 2010	\$115.00	\$120.00	<b>4.3</b>
from 2010 to 2011	\$4.90	\$5.05	<b>3.1</b>		from 2010 to 2011	\$120.00	\$115.00	<b>-4.2</b>
<u>from 2011 to 2012</u>	\$5.05	\$6.60	<b>30.7</b>		from 2011 to 2012	\$115.00	\$125.00	<b>8.7</b>
from 2012 to 2013	\$6.60	\$6.75	<b>2.3</b>		<u>from 2012 to 2013</u>	\$125.00	\$120.00	<b>-4.0</b>
from 2013 to 2014	\$6.75	\$7.00	<b>3.7</b>		from 2013 to 2014	\$120.00	\$72.00	<b>-40.0</b>
<u>from 2014 to 2015</u>	\$7.00	\$7.50	<b>7.1</b>		from 2014 to 2015	\$72.00	\$96.50	<b>34.0</b>
from 2015 to 2016	\$7.50	\$7.65	<b>2.0</b>		from 2015 to 2016	\$96.50	\$120.00	<b>24.4</b>
from 2016 to 2017	\$7.65	\$7.95	<b>3.9</b>		from 2016 to 2017	\$120.00	\$90.00	<b>-25.0</b>
<u>from 2017 to 2018</u>	\$7.95	\$9.10	<b>14.5</b>		from 2017 to 2018	\$90.00	\$87.55	<b>-2.7</b>
from 2018 to 2019	\$9.10	\$9.36	<b>2.9</b>		from 2018 to 2019	\$87.55	\$95.20	<b>8.7</b>
from 2019 to 2020	\$9.36	\$9.53	<b>1.8</b>		from 2019 to 2020	\$95.20	\$95.67	<b>0.5</b>
<u>from 2020 to 2021</u>	\$9.53	\$10.64	<b>11.6</b>		from 2020 to 2021	\$95.67	\$90.70	<b>-5.2</b>
from 2021 to 2022	\$10.64	<b>\$11.43</b>	<b>7.4</b>		from 2021 to 2022	\$90.70	<b>\$98.58</b>	<b>8.7</b>

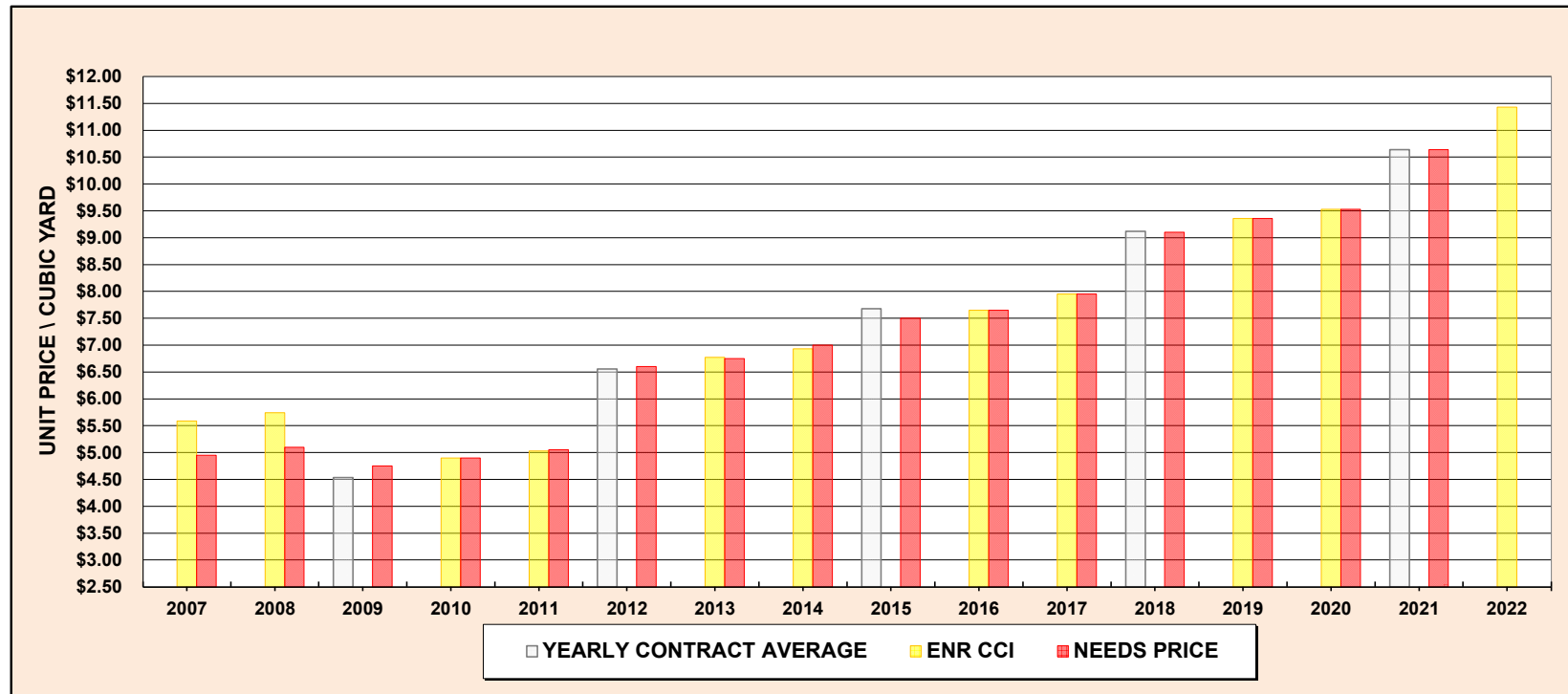
\*Underlined years are years of a Full Unit Cost Study. (blue shows tentative prices for 2022).

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 is divided by 2.



# 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
2007					\$5.59	\$4.95	2015	40	472,486	\$3,627,575	\$7.68		\$7.50
2008					5.74	5.10	2016					7.65	7.65
2009	47	1,334,769	6,052,005	4.53		4.75	2017					7.95	7.95
2010					4.90	4.90	2018	56	434,347	3,959,719	9.12		9.10
2011					5.03	5.05	2019					9.36	9.36
2012	56	689,502	4,521,435	6.56		6.60	2020					9.53	9.53
2013					6.77	6.75	2021	61	902,417	9,603,418	10.64		10.64
2014					6.93	7.00	2022					11.43	

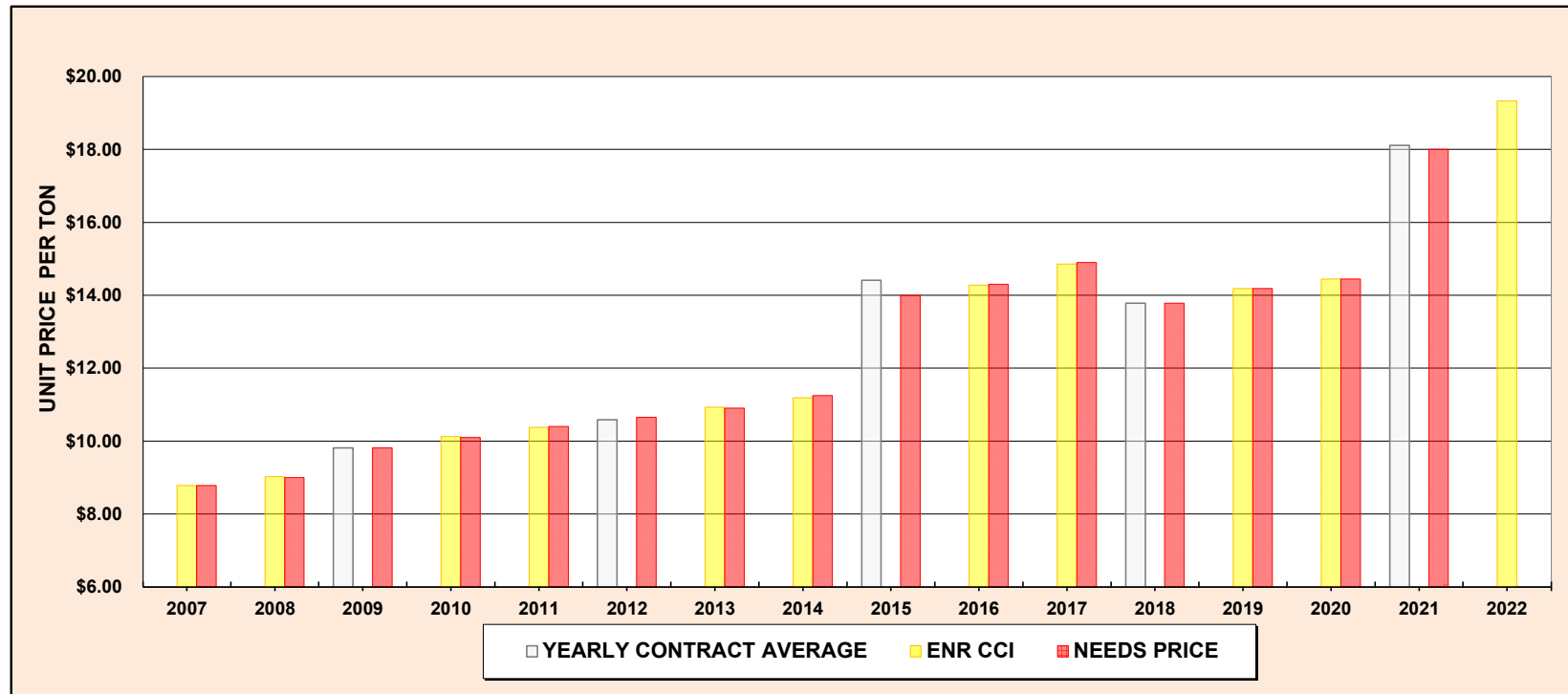
**SUBCOMMITTEE'S RECOMMENDED PRICE FOR THE 2022 NEEDS STUDY IS \$11.43 PER CUBIC YARD**

Applying the ENR CCI of 7.4% to last year's "Price used in Needs" of \$10.64 results in an increase to **\$11.43** (+\$0.79)

Since 2015, this Unit Cost has increased by an average of \$0.56 (note \$1.11 increase in last year's UC study)

(Inflation Factor results in a 2022 cost of \$11.43)

# AGGREGATE BASE

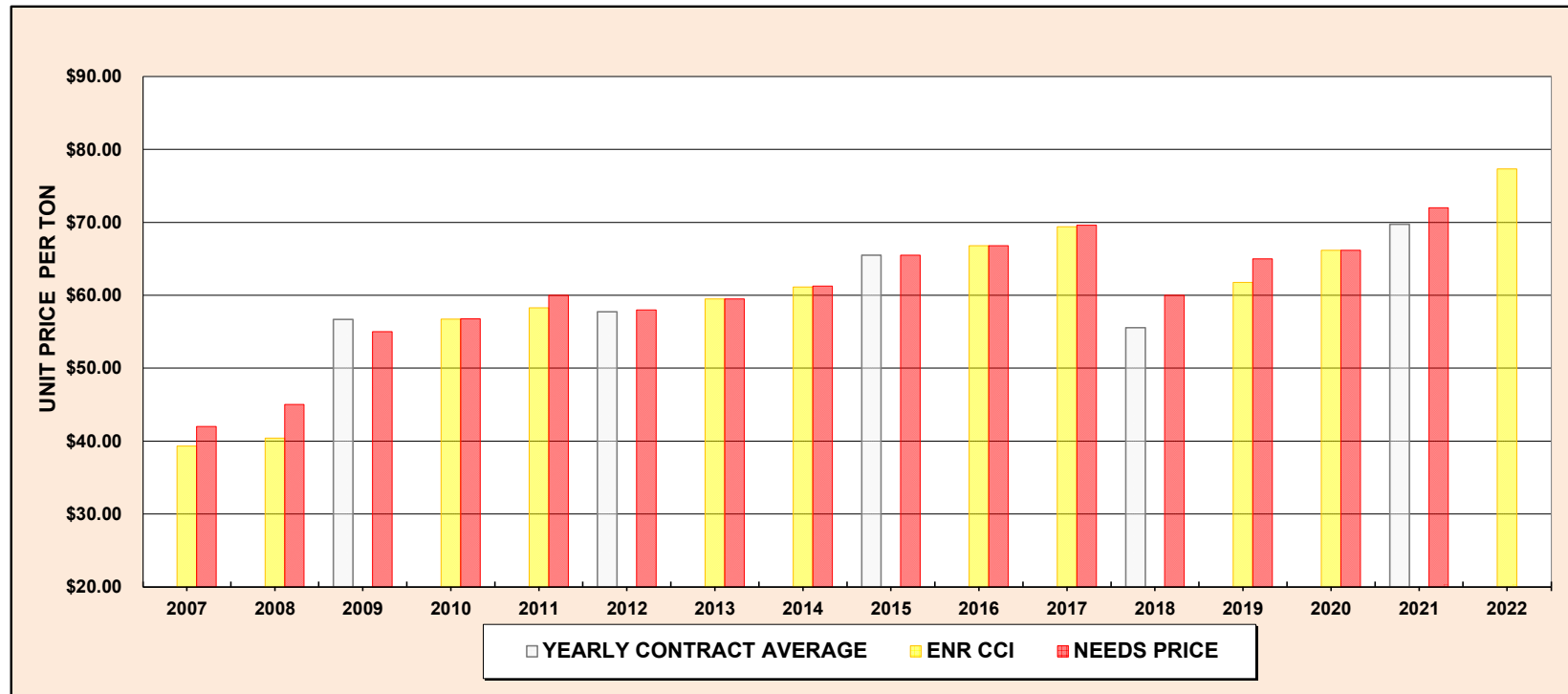


Needs Year	Number of Cities	Quantity (Ton)	Total Cost	Yearly Average Contract Price	Engineering News Record Construction Cost Index	Price Used in Needs		Needs Year	Number of Cities	Quantity (Ton)	Total Cost	Yearly Average Contract Price	Engineering News Record Construction Cost Index	Price Used in Needs
2007	45	436,802	4,284,174	9.81	\$8.78	\$8.78		2015	40	199,868	\$2,880,423	\$14.41		\$14.00
2008					9.02	9.00		2016				14.28	14.30	
2009						9.81		2017	52	317,006	4,368,054	13.78	14.86	14.90
2010					10.12	10.10		2018						13.78
2011	57	416,725	4,409,415	10.58	10.37	10.40		14.18					14.18	
2012						10.65		2019					59	429,553
2013					10.93	10.90		2020		18.00				
2014					11.19	11.25		2021						
								2022						

**SUBCOMMITTEE'S RECOMMENDED PRICE FOR THE 2022 NEEDS STUDY IS \$19.33 PER TON**

Applying the ENR CCI of 7.4% to last year's "Price used in Needs" of \$18.00 results in an increase to **\$19.33** (+\$1.33)  
 Since 2015, this Unit Cost has increased by an average of \$0.76 (note \$3.56 increase in last year's UC study)  
 (Inflation Factor results in a 2022 cost of \$19.33)

# ALL BITUMINOUS BASE & SURFACE

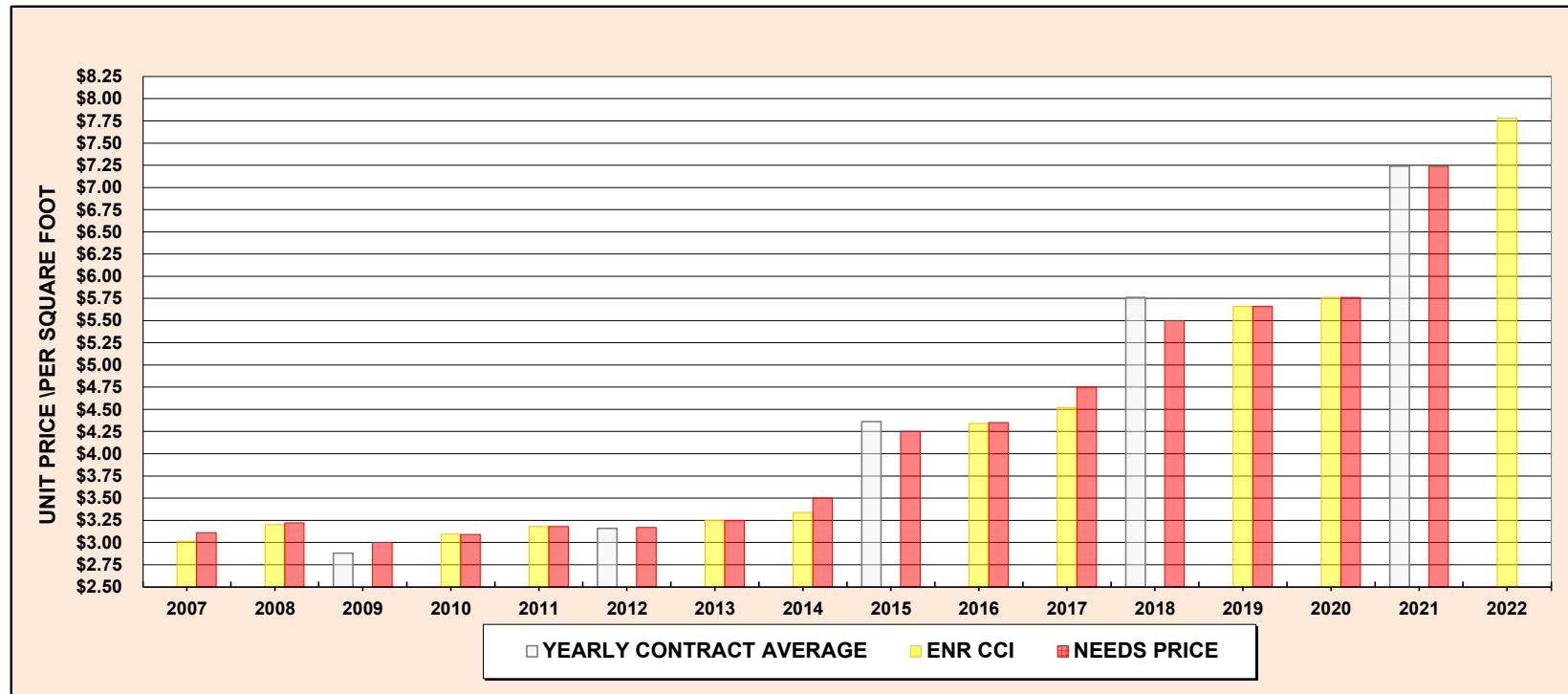


Needs Year	Number of Cities	Quantity (Ton)	Total Cost	Yearly Average Contract Price	Engineering News Record Construction Cost Index	Price Used in Needs	Needs Year	Number of Cities	Quantity (Ton)	Total Cost	Yearly Average Contract Price	Engineering News Record Construction Cost Index	Price Used in Needs
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	66.17
2013					59.51	59.50	2021	69	403,619	28,146,312	69.73		72.00
2014					61.11	61.25	2022					77.33	

**SUBCOMMITTEE'S RECOMMENDED PRICE FOR THE 2022 NEEDS STUDY IS \$77.33 PER TON**

Applying the ENR CCI of 7.4% to last year's "Price used in Needs" of \$72.00 results in an increase to **\$77.33** (+\$5.33)  
 Since 2015, this Unit Cost has increased by an average of \$1.69 (note -\$9.60 decrease in 2018 UC study)  
 (Inflation Factor results in a 2022 cost of \$77.33)

# SIDEWALK CONSTRUCTION

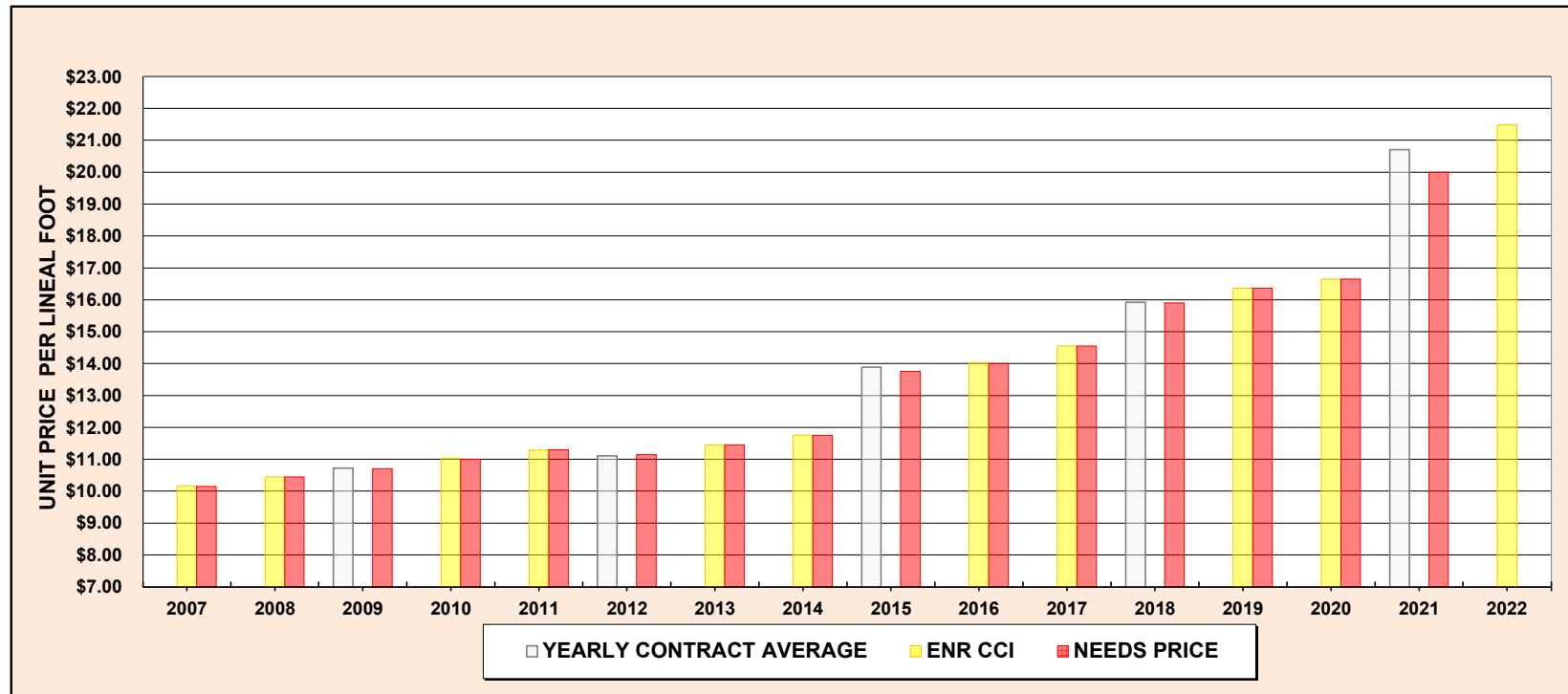


Needs Year	Number of Cities	Quantity (Sq.Ft.)	Total Cost	Yearly Average Contract Price	Engineering News Record Construction Cost Index	Price Used in Needs	Needs Year	Number of Cities	Quantity (Sq.Ft.)	Total Cost	Yearly Average Contract Price	Engineering News Record Construction Cost Index	Price Used in Needs
2007					\$3.01	\$3.11	2015	39	356,709	\$1,556,517	\$4.36		\$4.25
2008					3.20	3.22	2016					4.34	4.35
2009	44	95,689	2,482,820	2.88		3.00	2017					4.52	4.75
2010					3.09	3.09	2018	52	608,114	3,502,293	5.76		5.50
2011					3.18	3.18	2019					5.66	5.66
2012	51	66,045	1,880,257	3.16		3.17	2020					5.76	5.76
2013					3.25	3.25	2021	60	1,175,309	8,509,411	7.24		7.24
2014					3.34	3.50	2022					7.78	

**SUBCOMMITTEE'S RECOMMENDED PRICE FOR THE 2022 NEEDS STUDY IS \$7.78 PER SQ. FT.**

Applying the ENR CCI of 7.4% to last year's "Price used in Needs" of \$7.24 results in an increase to **\$7.78** (+\$0.54)  
 Since 2015, this Unit Cost has increased by an average of \$0.50 (note \$1.48 increase in last year's 2021 UC study)  
 (Inflation Factor results in a 2022 cost of \$7.78)

# 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		Needs Year	Number of Cities	Quantity (Ln. Ft.)	Total Cost	Yearly Average Contract Price	Engineering News Record Construction Cost Index	Price Used in Needs
2007	43	262,251	2,812,246	10.72	\$10.17	\$10.15		2015	44	168,891	\$2,344,989	\$13.88		\$13.75
2008					10.45	10.45		2016	61	267,833	4,263,081	15.92	14.03	14.00
2009						10.70		2017					14.55	14.55
2010					11.03	11.00		2018						15.90
2011	63	281,751	3,130,181	11.11	11.29	11.30		2019				20.71	16.36	16.36
2012						11.15		2020	16.65	16.65				
2013					11.44	11.45		2021		20.00				
2014					11.76	11.75		2022	21.48					

**SUBCOMMITTEE'S RECOMMENDED PRICE FOR THE 2022 NEEDS STUDY IS \$21.48 PER LIN. FT.**

Applying the ENR CCI of 7.4% to last year's "Price used in Needs" of \$20.00 results in an increase to **\$21.48** (+\$1.48)

Since 2015, this Unit Cost has increased by an average of \$1.10 (note \$3.35 increase in the 2021 UC study)

(Inflation Factor results in a 2022 cost of \$21.48)

# MnDOT State Aid Bridge Office

## 2021 Calendar Year - - Bridge Cost Report

### General Notes

The CY 2021 Bridge Cost Report reflects the unit cost (\$ per square foot of bridge area) for all of the bridges let in CY 2021.

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 1<sup>st</sup> sheet of each bridge plan and therefore may include Traffic Control, Guardrail, etc.

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

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

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

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

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

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

# MnDOT State Aid Bridge Office

## 2021 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
66561	SAP	066-598-022	52.77	C-SLAB	2/11/2021	2058	\$406,919	\$197.73
69A73	SAP	069-621-036	53.50	PCB	1/17/2021	2525	\$768,640	\$304.41
66559	SP	125-080-005	64.92	C-SLAB	2/3/2021	2638	\$1,733,431	\$657.10
29535	SAP	029-616-007	66.17	PCB	3/29/2021	2316	\$502,420	\$216.93
36532	SP	036-598-028	69.67	C-SLAB	7/9/2021	2183	\$488,050	\$223.57
64591	SAP	064-598-025	70.17	PCB	4/13/2021	2421	\$322,405	\$133.17
69A79	SAP	*LOCAL*	70.65	PCB	4/8/2021	2190	\$429,306	\$196.03
69A77	SAP	069-659-003	71.92	PCB	1/14/2021	2254	\$460,597	\$204.35
69A81	SP	069-651-003	74.17	PCB	12/9/2021	2324	\$653,764	\$281.31
09537	SAP	009-600-005	74.47	C-SLAB	6/28/2021	2308	\$574,093	\$248.74
25621	SAP	025-599-092	77.92	PCB	2/4/2021	2260	\$371,590	\$164.42
69A80	SAP	*LOCAL*	78.92	PCB	4/8/2021	2447	\$583,507	\$238.46
65570	SAP	065-598-023	81.17	PCB	2/3/2021	2868	\$393,611	\$137.24
01533	SAP	001-612-023	82.77	C-SLAB	1/25/2021	3187	\$612,265	\$192.11
68545	SAP	068-613-024	83.50	PCB	10/11/2021	2923	\$604,527	\$206.82
66560	SAP	066-598-021	83.67	C-SLAB	2/11/2021	3263	\$516,296	\$158.23
59547	SAP	059-602-029	86.92	PCB	9/28/2021	3216	\$640,258	\$199.09
60568	SAP	060-601-062	87.42	PCB	3/12/2021	3759	\$880,878	\$234.34
69A86	SP	069-598-071	88.92	PCB	12/9/2021	3112	\$1,102,190	\$354.17
07596	SAP	007-607-010	89.00	PCB	8/4/2021	3471	\$447,004	\$128.78
69A76	SAP	069-598-068	89.00	PCB	4/8/2021	2789	\$685,597	\$245.82
01534	SAP	001-598-014	89.67	C-SLAB	1/25/2021	3094	\$511,798	\$165.42
32580	SAP	032-599-108	90.00	TTS	2/26/2021	2700	\$562,299	\$208.26
20563	SAP	020-607-025	95.67	C-SLAB	3/31/2021	3348	\$606,172	\$181.05
22623	SP	022-598-010	97.00	C-SLAB	3/11/2021	3007	\$455,832	\$151.59
56545	SAP	056-608-028	97.19	C-SLAB	3/24/2021	3013	\$537,147	\$178.28

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

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

# MnDOT State Aid Bridge Office

## 2021 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
14559	SAP	014-598-072	97.27	C-SLAB	2/9/2021	3013	\$535,015	\$177.57
22622	SP	022-621-027	98.00	PCB	3/11/2021	3430	\$568,818	\$165.84
51539	SAP	051-598-012	98.00	PCB	10/19/2021	3430	\$518,852	\$151.27
27C61	SP	027-615-025	98.17	PCB	1/11/2021	4205	\$1,058,512	\$251.73
25618	SP	025-598-021	98.81	PCB	6/16/2021	3459	\$642,729	\$185.81
28558	SAP	028-599-094	98.92	PCB	9/23/2021	3066	\$486,643	\$158.72
38534	SP	038-609-013	104.75	PCB	6/3/2021	3666	\$820,766	\$223.89
34531	SP	034-602-037	105.67	C-SLAB	4/20/2021	4121	\$726,199	\$176.22
69A72	SP	069-665-008	108.25	PCB	2/4/2021	3861	\$873,272	\$226.18
69A63	SAP	069-598-066	108.69	C-SLAB	3/25/2021	3406	\$766,642	\$225.09
32579	SAP	032-599-104	112.00	TTS	2/26/2021	3360	\$642,527	\$191.23
69A83	SP	069-665-009	119.25	PCB	12/9/2021	3697	\$941,622	\$254.70
69A85	SP	069-598-073	124.02	PCB	12/9/2021	4341	\$2,180,820	\$502.38
35540	SAP	035-606-024	126.50	C-SLAB	4/5/2021	4934	\$1,059,874	\$214.81
59548	SAP	059-620-004	139.67	C-SLAB	9/28/2021	6088	\$1,088,869	\$178.85
85577	SAP	085-605-021	141.67	PCB	1/7/2021	5006	\$713,748	\$142.58
31576	SAP	031-598-021	146.54	PCB	5/11/2021	5130	\$1,085,216	\$211.54

<b>Total Cost</b>	<b>\$30,560,719</b>
<b>Total Deck Area</b>	<b>139,887</b>
<b>Average Cost per Sq Ft</b>	<b>\$218.47</b>
<b>Total No. of Bridges &lt; 150'</b>	<b>43</b>



# MnDOT State Aid Bridge Office 2021 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
01535	SAP	001-618-005	151.00	C-SLAB	11/1/2021	5285	\$765,021	\$144.75
28560	SAP	028-599-099	158.61	C-SLAB	3/15/2021	4917	\$676,546	\$137.59
85583	SAP	085-626-023	175.56	PCB	1/7/2021	6847	\$1,151,858	\$168.23
69A82	SP	069-733-029	182.38	PCB	12/9/2021	6444	\$1,627,212	\$252.52
27C62	SP	027-681-038	223.48	PCB	1/19/2021	8130	\$2,418,237	\$297.45
02584	SP	002-611-036	223.97	PCB	4/13/2021	20269	\$5,267,610	\$259.89
55598	SP	159-133-007	234.44	PCB	8/3/2021	16254	\$3,903,050	\$240.13
69A74	SP	069-614-023	236.42	PCB	12/9/2021	10619	\$2,429,838	\$228.82
69A84	SP	069-598-072	244.31	PCB	12/9/2021	8551	\$2,476,353	\$289.60
45579	SP	045-622-004	258.00	PCB	8/17/2021	9030	\$1,559,814	\$172.74
27C64	SP	027-681-038	293.96	PCB	1/19/2021	10290	\$3,892,296	\$378.26
27C63	SP	027-681-038	369.92	PCB	1/19/2021	17950	\$3,261,792	\$181.72

<b>Total Cost</b>	<b>\$29,429,625</b>
<b>Total Deck Area</b>	<b>124,586</b>
<b>Average Cost per Sq Ft</b>	<b>\$236.22</b>
<b>Total No. of Bridges &gt; 150'</b>	<b>12</b>

# MnDOT State Aid Bridge Office 2021 Calendar Year - - Bridge Cost Report

Totals for All Bridges Let in CY 2021

<b>Total Cost for all Bridges</b>	<b>\$59,990,343</b>	
<b>Total Deck Area for all Bridges</b>	<b>264,473</b>	
<b>Average Cost per Sq Ft</b>	<b>\$226.83</b>	1/2 = \$113.41
<b>Total Number of Bridges</b>	<b>55</b>	

## ALL BRIDGES (ready to separate for report)

New Bridge No.	Project Type	Project Number	Length	Beam Type	Letting Date	Area	Cost	Unit Cost	Jointless? 1=Yes
66561	SAP	066-598-022	52.77	C-SLAB	2/11/2021	2058	\$406,919	\$197.73	1
66559	SP	125-080-005	64.92	C-SLAB	2/3/2021	2638	\$1,733,431	\$657.10	1
36532	SP	036-598-028	69.67	C-SLAB	7/9/2021	2183	\$488,050	\$223.57	1
09537	SAP	009-600-005	74.47	C-SLAB	6/28/2021	2308	\$574,093	\$248.74	1
01533	SAP	001-612-023	82.77	C-SLAB	1/25/2021	3187	\$612,265	\$192.11	1
66560	SAP	066-598-021	83.67	C-SLAB	2/11/2021	3263	\$516,296	\$158.23	1
01534	SAP	001-598-014	89.67	C-SLAB	1/25/2021	3094	\$511,798	\$165.42	1
20563	SAP	020-607-025	95.67	C-SLAB	3/31/2021	3348	\$606,172	\$181.05	1
22623	SP	022-598-010	97.00	C-SLAB	3/11/2021	3007	\$455,832	\$151.59	1
56545	SAP	056-608-028	97.19	C-SLAB	3/24/2021	3013	\$537,147	\$178.28	1
14559	SAP	014-598-072	97.27	C-SLAB	2/9/2021	3013	\$535,015	\$177.57	1
34531	SP	034-602-037	105.67	C-SLAB	4/20/2021	4121	\$726,199	\$176.22	1
69A63	SAP	069-598-066	108.69	C-SLAB	3/25/2021	3406	\$766,642	\$225.09	1
35540	SAP	035-606-024	126.50	C-SLAB	4/5/2021	4934	\$1,059,874	\$214.81	1
59548	SAP	059-620-004	139.67	C-SLAB	9/28/2021	6088	\$1,088,869	\$178.85	1
01535	SAP	001-618-005	151.00	C-SLAB	11/1/2021	5285	\$765,021	\$144.75	1
28560	SAP	028-599-099	158.61	C-SLAB	3/15/2021	4917	\$676,546	\$137.59	1
69A73	SAP	069-621-036	53.50	PCB	1/17/2021	2525	\$768,640	\$304.41	1
29535	SAP	029-616-007	66.17	PCB	3/29/2021	2316	\$502,420	\$216.93	1
64591	SAP	064-598-025	70.17	PCB	4/13/2021	2421	\$322,405	\$133.17	1
69A79	SAP	*LOCAL*	70.65	PCB	4/8/2021	2190	\$429,306	\$196.03	1
69A77	SAP	069-659-003	71.92	PCB	1/14/2021	2254	\$460,597	\$204.35	1
69A81	SP	069-651-003	74.17	PCB	12/9/2021	2324	\$653,764	\$281.31	1
25621	SAP	025-599-092	77.92	PCB	2/4/2021	2260	\$371,590	\$164.42	1
69A80	SAP	*LOCAL*	78.92	PCB	4/8/2021	2447	\$583,507	\$238.46	1
65570	SAP	065-598-023	81.17	PCB	2/3/2021	2868	\$393,611	\$137.24	1
68545	SAP	068-613-024	83.50	PCB	10/11/2021	2923	\$604,527	\$206.82	1
59547	SAP	059-602-029	86.92	PCB	9/28/2021	3216	\$640,258	\$199.09	1
60568	SAP	060-601-062	87.42	PCB	3/12/2021	3759	\$880,878	\$234.34	1
69A86	SP	069-598-071	88.92	PCB	12/9/2021	3112	\$1,102,190	\$354.17	1
07596	SAP	007-607-010	89.00	PCB	8/4/2021	3471	\$447,004	\$128.78	1
69A76	SAP	069-598-068	89.00	PCB	4/8/2021	2789	\$685,597	\$245.82	1
22622	SP	022-621-027	98.00	PCB	3/11/2021	3430	\$568,818	\$165.84	1
51539	SAP	051-598-012	98.00	PCB	10/19/2021	3430	\$518,852	\$151.27	1
27C61	SP	027-615-025	98.17	PCB	1/11/2021	4205	\$1,058,512	\$251.73	1
25618	SP	025-598-021	98.81	PCB	6/16/2021	3459	\$642,729	\$185.81	1
28558	SAP	028-599-094	98.92	PCB	9/23/2021	3066	\$486,643	\$158.72	1
38534	SP	038-609-013	104.75	PCB	6/3/2021	3666	\$820,766	\$223.89	1
69A72	SP	069-665-008	108.25	PCB	2/4/2021	3861	\$873,272	\$226.18	1
69A83	SP	069-665-009	119.25	PCB	12/9/2021	3697	\$941,622	\$254.70	1
69A85	SP	069-598-073	124.02	PCB	12/9/2021	4341	\$2,180,820	\$502.38	0
85577	SAP	085-605-021	141.67	PCB	1/7/2021	5006	\$713,748	\$142.58	1
31576	SAP	031-598-021	146.54	PCB	5/11/2021	5130	\$1,085,216	\$211.54	1
85583	SAP	085-626-023	175.56	PCB	1/7/2021	6847	\$1,151,858	\$168.23	1
69A82	SP	069-733-029	182.38	PCB	12/9/2021	6444	\$1,627,212	\$252.52	1
27C62	SP	027-681-038	223.48	PCB	1/19/2021	8130	\$2,418,237	\$297.45	0
02584	SP	002-611-036	223.97	PCB	4/13/2021	20269	\$5,267,610	\$259.89	1
55598	SP	159-133-007	234.44	PCB	8/3/2021	16254	\$3,903,050	\$240.13	1
69A74	SP	069-614-023	236.42	PCB	12/9/2021	10619	\$2,429,838	\$228.82	1
69A84	SP	069-598-072	244.31	PCB	12/9/2021	8551	\$2,476,353	\$289.60	1
45579	SP	045-622-004	258.00	PCB	8/17/2021	9030	\$1,559,814	\$172.74	1
27C64	SP	027-681-038	293.96	PCB	1/19/2021	10290	\$3,892,296	\$378.26	0
27C63	SP	027-681-038	369.92	PCB	1/19/2021	17950	\$3,261,792	\$181.72	0
02546	SAP	002-716-020	107.18	REHAB	1/12/2021	9158	\$1,084,807	\$118.45	
27563	SAP	107-407-024	135.30	REHAB	2/23/2021	8975	\$120,041	\$13.38	
02547	SP	103-122-014	158.33	REHAB	8/26/2021	9860	\$287,225	\$29.13	
27698	SAP	107-407-024	199.00	REHAB	2/23/2021	1592	\$35,344	\$22.20	
27552	SAP	107-407-024	209.00	REHAB	2/23/2021	11512	\$35,344	\$3.07	
6705	SP	115-144-008	313.67	REHAB	6/15/2021	13906	\$592,436	\$42.60	
27647	SAP	107-407-024	371.04	REHAB	2/23/2021	19292	\$1,078,435	\$55.90	
32580	SAP	032-599-108	90.00	TTS	2/26/2021	2700	\$562,299	\$208.26	
32579	SAP	032-599-104	112.00	TTS	2/26/2021	3360	\$642,527	\$191.23	

with REHABS / BRDWKS

TOTALS 338,768 \$63,223,975

49

Avg Price

\$186.63

without REHABS / BRDWKS

TOTALS 264473 \$59,990,343

Avg Price

\$226.83 (one half: \$113.41)

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 24<sup>th</sup> 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*

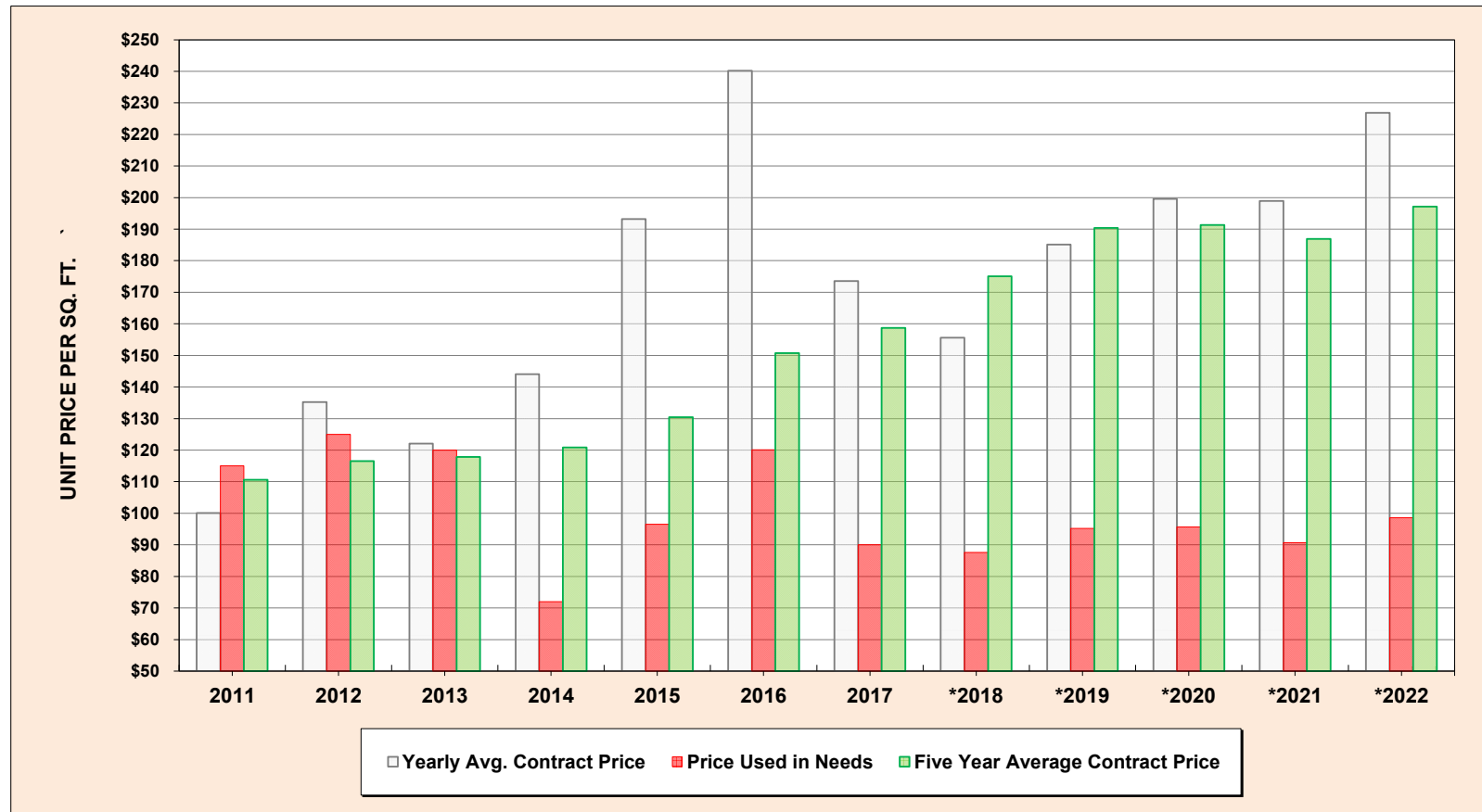
<b>Five Year Average</b>				
<i>Data Year / Needs Year</i>	<i>Area</i>	<i>Cost</i>	<i>yearly contract price</i>	<i>one-half</i>
<i>2013/2014</i>	<i>379,364</i>	<i>\$54,646,656</i>	<i>\$144.05</i>	<i>\$72.02</i>
<i>2014/2015</i>	<i>196,550</i>	<i>\$37,973,287</i>	<i>\$193.20</i>	<i>\$96.60</i>
<i>2015/2016</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>
<b><i>5 year Ave</i></b>	<b><i>1,097,762</i></b>	<b><i>\$192,221,121</i></b>	<b><i>\$175.10</i></b>	<b><i>\$87.55</i></b>

Submitted,

Sean Christensen

NSS Secretary

# BRIDGES / STRUCTURES



NEEDS YEAR	NUMBER OF PROJECTS	DECK AREA	TOTAL COST	YEARLY AVERAGE CONTRACT PRICE	PRICE USED IN NEEDS	5-YEAR AVERAGE CONTRACT PRICE
2011	66	509,552	\$51,008,086	\$100.10	\$115.00	\$110.63
2012	69	475,190	64,255,407	135.22	125.00	116.49
2013	73	505,031	61,637,866	122.05	120.00	117.80
2014	91	379,364	54,646,656	144.05	72.00	120.85
2015	49	196,550	37,973,287	193.20	96.50	130.48
2016	41	178,429	42,852,558	240.17	120.08	150.68

NEEDS YEAR	NUMBER OF PROJECTS	DECK AREA	TOTAL COST	YEARLY AVERAGE CONTRACT PRICE	PRICE USED IN NEEDS	5-YEAR AVERAGE CONTRACT PRICE
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
*2021	31	136,971	27,241,746	198.89	90.70	186.91
*2022	55	264,473	59,990,343	226.83	98.58	197.17

\* recommended cost has been based off five years of data since 2018

**SUBCOMMITTEES RECOMMENDED STRUCTURE PRICE FOR THE 2022 NEEDS STUDY IS \$98.58 PER SQ. FT.**

MSB RESOLUTIONS STATE THAT 1/2 OF THE STATEWIDE AVERAGE BRIDGE COST BE USED AS THE STRUCTURE COST IN THE NEEDS  
\$98.58 would result in an 8.7% increase from last year's Unit Cost price of \$90.70 (and a 3.0 % increase from two years ago)

NMS&S2022 NBS BOOKCALL BRIDGES GRAPH 2022.XLSX

# Memo

Date: April 6, 2022

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 2021

We have completed our analysis of storm sewer construction costs incurred for 2021 and the following assumptions can be utilized for planning purposes per roadway mile:

- Approximately \$437,639 for new construction, and
  - Approximately \$127,679 for adjustment of existing systems
- average = \$282,659

The preceding amounts are based on the average cost per mile of State Aid storm sewer using unit prices. A total of 137 Storm Sewer Plans were reviewed during 2021.

EC: Andrea Hendrickson (MnDOT file)

# STORM SEWER COST RECOMMENDATIONS FOR 2022

## 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	\$437,639			
Partial Storm Sewer Cost from Hydraulics Specialist	\$127,679			
Average SS Cost = $(\$437,639 + \$127,679) / 2 =$				
<b>NSS Recommended Unit Cost</b>	<b>\$282,700</b>			
MSB Approved Unit Cost for 2022	\$xxx,xxx			
<b>NSS recommended Storm Sewer Costs for 2022</b>				
<i>based on 2021 costs - for the 2022 Needs Study</i>				
Needs Width of MSAS Urban ADT Groups for Needs Purposes	Existing ADT per Traffic Group	Cost difference from 70' section	MSB approved percent cost difference from 70' section	Cost based on % of Cost of highest Typical Section
26	0 ADT & Non Existing	(\$83,300)	-29.5%	\$199,400
28	1-499	(\$79,500)	-28.1%	\$203,200
34	500-1,999	(\$68,200)	-24.1%	\$214,500
40	2,000-4,999	(\$56,800)	-20.1%	\$225,900
48	5,000-8,999	(\$41,700)	-14.7%	\$241,000
54	9,000-13,999	(\$30,300)	-10.7%	\$252,400
62	14,000-24,999	(\$15,100)	-5.4%	\$267,600
70	25,000 and over	\$0	0.0%	<b>\$282,700</b>

from last year's SS letter

Complete: \$407,485

Partial: \$118,882

**AVG: \$263,184**

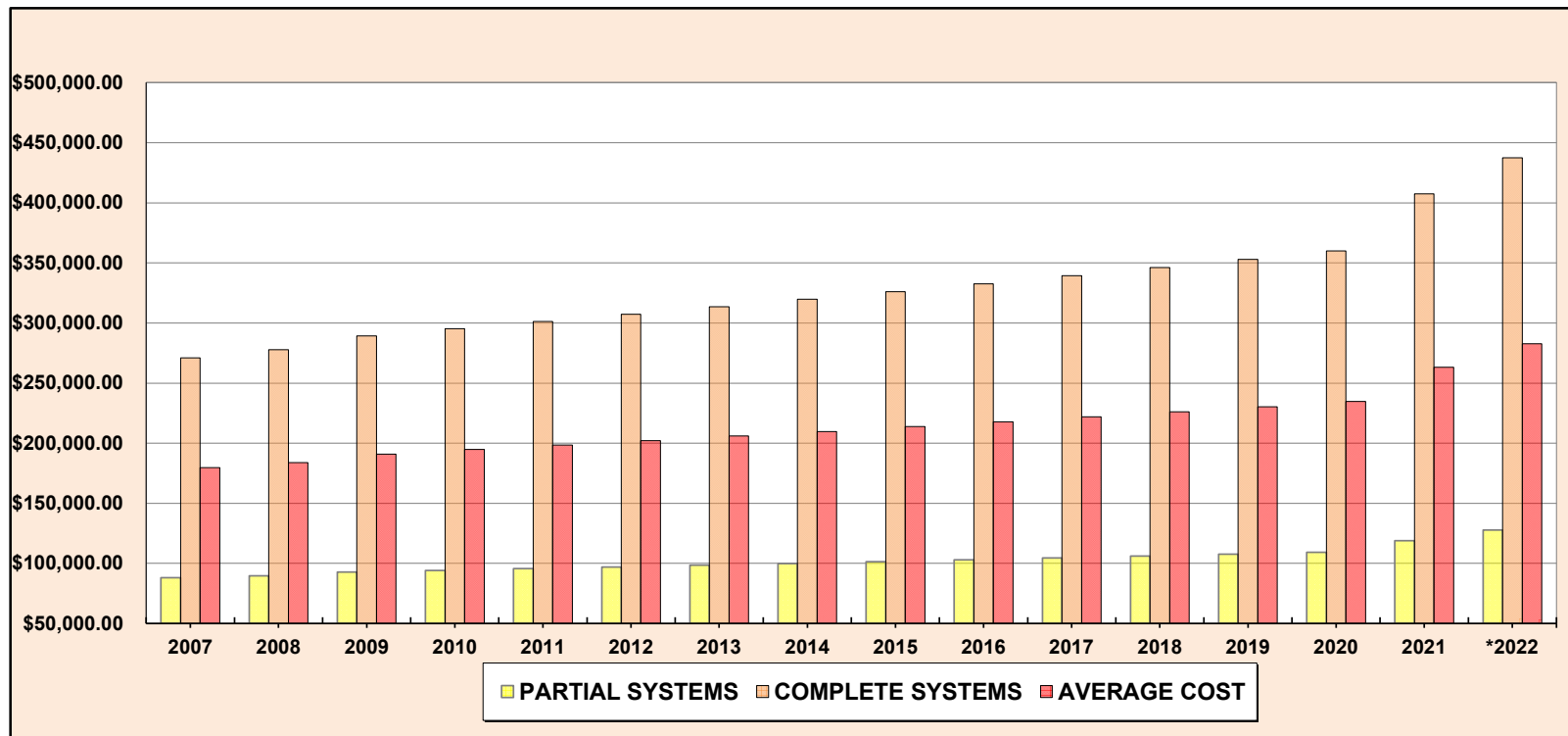
## MSB approved Storm Sewer Costs for 2021 (last year)

*based on 2020 costs - for the 2021 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%	\$185,600
28	1-499	(\$63,600)	-28.1%	\$189,200
34	500-1,999	(\$54,500)	-24.1%	\$199,700
40	2,000-4,999	(\$45,400)	-20.1%	\$210,300
48	5,000-8,999	(\$33,300)	-14.7%	\$224,400
54	9,000-13,999	(\$24,200)	-10.7%	\$235,000
62	14,000-24,999	(\$12,100)	-5.4%	\$249,100
70	25,000 and over	\$0	0.0%	\$263,200

2021-2022 Percentage Change for highest section = 7.4% (was 1.9% in 2017, 2018, 2019, 2020, then 12.2% in 2021)

# STORM SEWER COSTS, 2007 - 2022



Needs Year	Partial Storm Sewer Constructions	Complete Storm Sewer Constructions	Average Cost (basis for Needs)
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
2013	\$98,465	\$313,443	\$205,954
2014	\$99,942	\$319,711	\$209,827

Needs Year	Partial Storm Sewer Constructions	Complete Storm Sewer Constructions	Average Cost (basis for Needs)
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
2021	\$118,882	\$407,485	\$263,184
*2022	\$127,679	\$437,639	\$282,659

\* costs based on an inflation factor of 7.4%

SUBCOMMITTEE'S RECOMMENDED PRICE FOR THE 2022 NEEDS STUDY IS **\$282,700** (for highest of 8 sections)

## **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  $\frac{1}{4}$  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.*

### **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 2022 NEEDS IS **\$249,034**.

---

## **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 2022 NEEDS IS **\$100,000 PER MILE**



## HISTORY: STORM SEWER, LIGHTING AND SIGNAL NEEDS COSTS

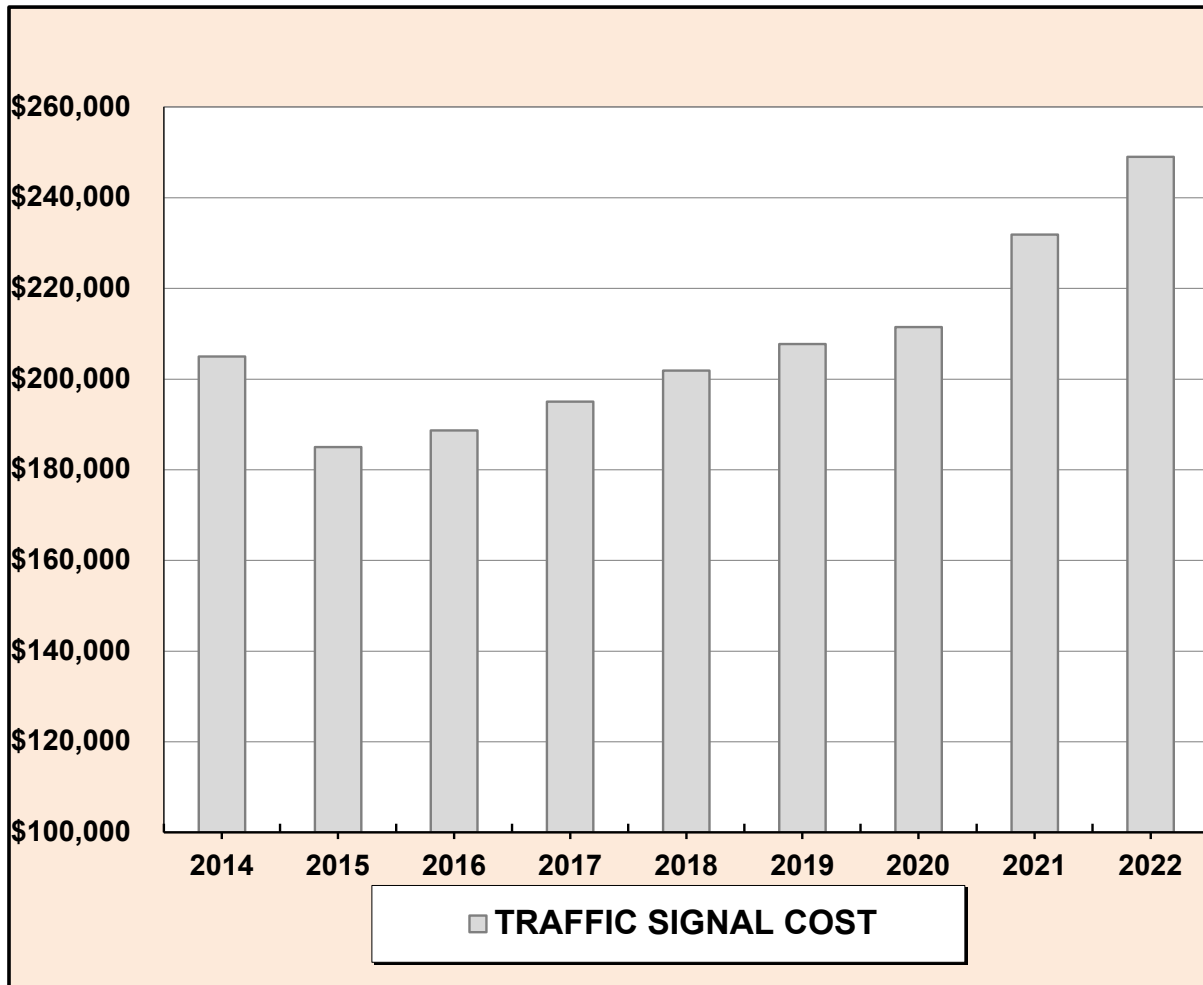
NEEDS YEAR	STORM SEWER ADJUSTMENT	STORM SEWER** CONSTRUCTION	LIGHTING	SIGNALS**
1998	\$76,000	\$245,000	\$20,000	\$24,990-\$99,990
1999	79,000	246,000	35,000	24,990-99,990
2000	80,200	248,500	50,000	24,990-99,990
2001	80,400	248,000	78,000	30,000-120,000
2002	81,600	254,200	78,000	30,000-120,000
2003	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
<b>New Needs Method</b>				
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
2020	165,500 to 234,700		100,000	211,440/signal
2021	185,600 to 263,200		100,000	231,875/signal
2022	199,400 to 282,700		100,000	249,034/signal

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

### NEEDS STUDY SUBCOMMITTEE'S RECOMMENDED PRICES FOR 2022:

Storm Sewer (high section)	<u>\$282,700</u>
Lighting / Mile	<u>\$100,000</u>
Traffic Signals (per Signal)	<u>\$249,034</u>

# TRAFFIC SIGNALS

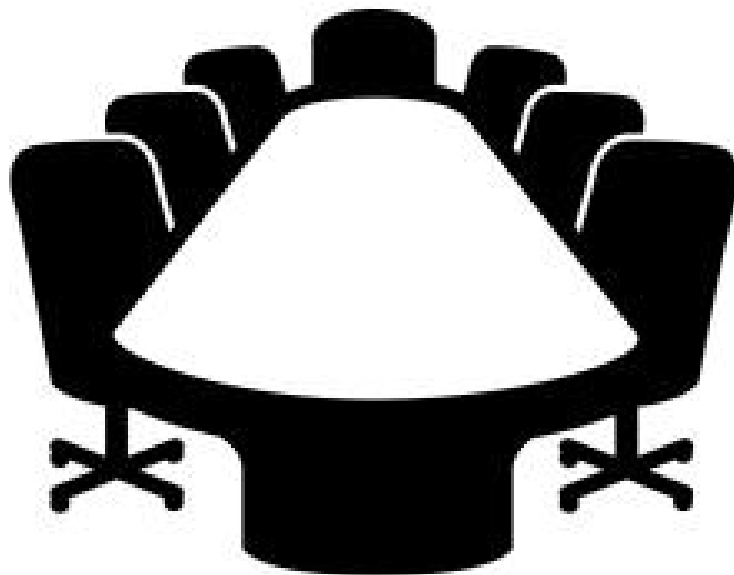


Needs Year	Signal Cost	% chg
2014	\$205,000	
2015	\$185,000	(9.8)
2016	\$188,700	2.0
2017	\$195,000	3.3
2018	\$201,850	3.5
2019	\$207,704	2.9
2020	\$211,440	1.8
2021	\$231,875	9.7
2022	\$249,034	7.4

SUBCOMMITTEE'S RECOMMENDED PRICE FOR THE 2022 NEEDS STUDY IS \$ 249,034

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 stylized with a large, looped "S" and a distinct "B".

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*

## AFTER THE FACT 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 1<sup>st</sup> 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...platting 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

## Unencumbered Construction Funds Subcommittee

Meeting Minutes: April 26th, 2022

### Attendees

John Gorder, UCFS / Eagan, Justin Femrite, UCFS / Elk River, Michael Thompson, UCFS / Plymouth  
Kim DeLaRosa, State Aid, Bill Lanoux, State Aid

### **Item for Discussion:**

The UCFS met to discuss a motion from the Municipal Screening Board to revise language on last fall's UCFS recommendation regarding the **Excess Unencumbered Construction Fund Balance Adjustment**. The MSB approved most of the recommendation, except for the last paragraph regarding exemptions. The exemption language we need to revise is as follows:

*A City may request an exemption from said construction fund balance in excess of said limits by submitting a City Resolution requesting an exemption based on a programmed or planned improvement. The request and resolution must be provided to and approved by the State Aid Office by December 15.*

At their 2021 Fall Meeting, the MSB advised that their preference is that any exemptions for an excess balance penalty should be approved by the MSB. Thompson asked if there was a need for an exemption paragraph at all? One suggested option was to just omit any exemption language until there's a need for it. The UCFS ultimately decided to revise the paragraph and keep any possible exemptions in the hands of the Screening Board. **The UCFS recommends the following revised language:**

***If a city wishes to justify their balance in excess of said limits, and request an exemption to the excess balance adjustment, their request must be reviewed and approved by the Municipal Screening Board at their Annual Fall Meeting.***

**Motion carried unanimously.**

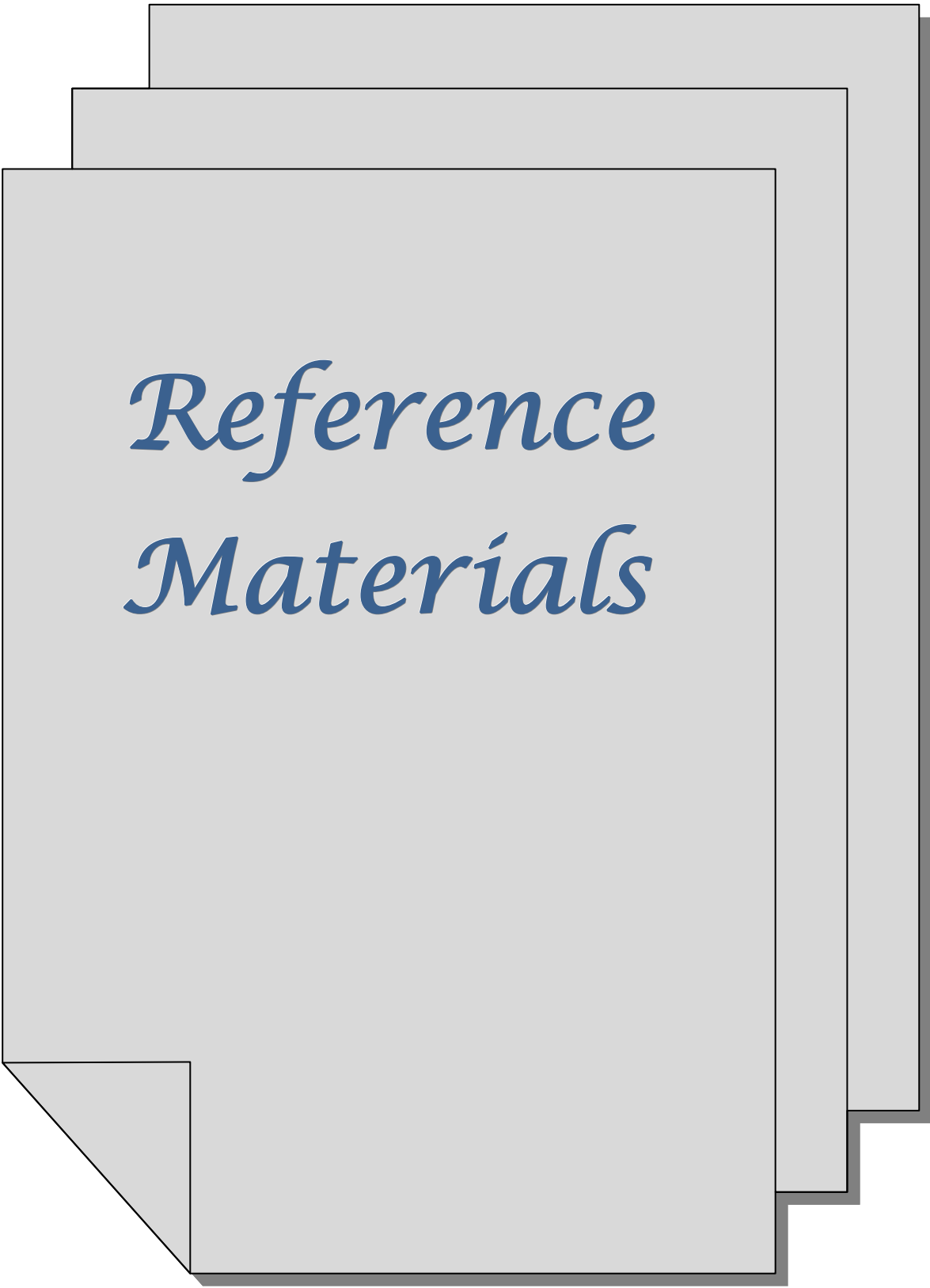
### **Additional Item (not an UCFS action item):**

Lanoux presented the recent Needs Study Subcommittee recommendation on street lighting. The NSS reviewed several scenarios that would change lighting calculations and their effect on the annual distribution. Ultimately the NSS recommended no changes to the current method of "\$100,000 per mile" (see NSS meeting minutes from 4/12/22 for details). Lanoux said that if the Municipal Screening Board has questions/concerns with the NSS recommendation, and reopens this item for further discussion, that the UCFS may be asked to get involved with a future recommendation to change Screening Board Resolutions.

### **Meeting Adjourned**

Respectfully Submitted,

Michael Thompson / UCFS Secretary



# *Reference Materials*



## 2022 CONSTRUCTION AND MAINTENANCE ALLOTMENTS

21-Apr-22

MUNICIPALITY	TOTAL APPORTIONMENT	REQUESTED AMOUNT FOR MAINTENANCE	GENERAL MAINTENANCE ALLOTMENT	AMOUNT OF BOND INTEREST APPLIED TO		CONSTRUCTION ALLOTMENT
				GENERAL MAINTENANCE ALLOTMENT	TOTAL MAINTENANCE ALLOTMENT	
Albert Lea	\$1,166,271	25%	\$291,568		\$291,568	\$874,703
Albertville	404,725	\$1500/improved mile	11,535		11,535	393,190
Alexandria	1,287,117	25%	321,779		321,779	965,338
Andover	1,826,044	25%	456,511		456,511	1,369,533
Anoka	942,170	25%	235,543		235,543	706,627
Apple Valley	2,654,451	25%	663,613		663,613	1,990,838
Arden Hills	438,054	25%	109,514		109,514	328,540
Austin	1,587,701	Lump Sum	95,000		95,000	1,492,701
Baxter	722,936	25%	180,734		180,734	542,202
Belle Plaine	440,632	25%	110,158	\$18,600	128,758	311,874
Bemidji	935,144	25%	233,786		233,786	701,358
Big Lake	558,459	25%	139,615	18,390	158,005	400,454
Blaine	3,394,179	25%	848,545		848,545	2,545,634
Bloomington	4,966,898	35%	1,738,414		1,738,414	3,228,484
Brainerd	968,680	25%	242,170		242,170	726,510
Brooklyn Center	1,564,038	25%	391,010		391,010	1,173,028
Brooklyn Park	4,103,063	25%	1,025,766		1,025,766	3,077,297
Buffalo	970,494	25%	242,624		242,624	727,870
Burnsville	3,167,543	25%	791,886		791,886	2,375,657
Byron	360,394	\$1500/improved mile	12,120		12,120	348,274
Cambridge	732,867	Lump Sum	50,000		50,000	682,867
Carver (new city)	253,838	\$1500/improved mile	7,755		7,755	246,083
Champlin	1,201,897	25%	300,474		300,474	901,423
Chanhassen	1,344,883	25%	336,221		336,221	1,008,662
Chaska	1,358,820	25%	339,705		339,705	1,019,115
Chisago City	331,209	25%	82,802		82,802	248,407
Chisholm	326,470	25%	81,618		81,618	244,852
Circle Pines	217,326	\$1500/improved mile	4,860	4,200	9,060	208,266
Cloquet	876,235	35%	306,682		306,682	569,553
Columbia Heights ^	904,114	25%	226,029		226,029	678,085
Coon Rapids	3,165,702	Lump Sum	134,125	76,550	210,675	2,955,027
Corcoran	500,618	35%	175,216		175,216	325,402
Cottage Grove	2,062,565	\$1500/improved mile	49,470		49,470	2,013,095
Credit River (new city)	366,288	25%	91,572		91,572	274,716
Crookston ^	528,365	25%	132,091		132,091	396,274
Crystal	1,045,578	25%	261,395		261,395	784,183

MUNICIPALITY	TOTAL APPORTIONMENT	REQUESTED AMOUNT FOR MAINTENANCE	AMOUNT OF BOND INTEREST APPLIED TO		TOTAL MAINTENANCE ALLOTMENT	CONSTRUCTION ALLOTMENT
			GENERAL MAINTENANCE ALLOTMENT	GENERAL MAINTENANCE ALLOTMENT		
Dayton	\$417,874	25%	\$104,469		\$104,469	\$313,405
Delano	324,128	25%	81,032		81,032	243,096
Detroit Lakes	926,418	25%	231,605		231,605	694,813
Duluth	5,927,544	Lump Sum	1,533,400	\$47,850	1,581,250	4,346,294
Eagan	3,403,693	\$1500/improved mile	73,995	38,194	112,189	3,291,504
East Bethel	884,308	25%	221,077		221,077	663,231
East Grand Forks	752,652	25%	188,163	89,066	277,229	475,423
Eden Prairie	3,277,127	Lump Sum	500,000		500,000	2,777,127
Edina	2,784,524	25%	696,131		696,131	2,088,393
Elk River	1,770,007	25%	442,502		442,502	1,327,505
Fairmont	819,691	25%	204,923		204,923	614,768
Falcon Heights ^	220,962	25%	55,241		55,241	165,721
Faribault	1,488,097	25%	372,024	25,780	397,804	1,090,293
Farmington	1,059,423	35%	370,798		370,798	688,625
Fergus Falls	1,138,109	25%	284,527		284,527	853,582
Forest Lake	1,353,159	25%	338,290		338,290	1,014,869
Fridley ^	1,385,233	35%	484,832		484,832	900,401
Glencoe	356,723	Lump Sum	25,000	24,975	49,975	306,748
Golden Valley	1,318,083	25%	329,521	37,538	367,059	951,024
Grand Rapids	984,863	25%	246,216	39,265	285,481	699,382
Ham Lake	1,131,522	25%	282,881		282,881	848,641
Hastings	1,221,390	25%	305,348		305,348	916,042
Hermantown	756,998	Lump Sum	65,000		65,000	691,998
Hibbing	1,621,809	25%	405,452	32,800	438,252	1,183,557
Hopkins	827,297	25%	206,824		206,824	620,473
Hugo	922,790	25%	230,698		230,698	692,092
Hutchinson	961,302	\$1500/improved mile	29,280		29,280	932,022
International Falls	330,445	\$1500/improved mile	12,585		12,585	317,860
Inver Grove Heights	1,881,271	25%	470,318		470,318	1,410,953
Isanti	330,255	25%	82,564		82,564	247,691
Jordan	337,348	25%	84,337		84,337	253,011
Kasson	338,506	25%	84,627		84,627	253,879
LaCrescent	262,352	25%	65,588		65,588	196,764
Lake City	317,906	25%	79,477		79,477	238,429
Lake Elmo	792,616	25%	198,154		198,154	594,462
Lakeville	3,863,917	Lump Sum	120,000	136,394	256,394	3,607,523
Lino Lakes	1,104,294	25%	276,074		276,074	828,220
Litchfield	372,304	25%	93,076		93,076	279,228
Little Canada	566,293	25%	141,573		141,573	424,720
Little Falls	727,661	\$1500/improved mile	29,820		29,820	697,841
Mahtomedi	433,553	25%	108,388		108,388	325,165
Mankato	2,546,701	25%	636,675		636,675	1,910,026
Maple Grove	3,626,898	25%	906,725		906,725	2,720,173

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				GENERAL MAINTENANCE ALLOTMENT	TOTAL MAINTENANCE ALLOTMENT	
Maplewood	\$2,138,820	Lump Sum	\$275,000	\$32,750	\$307,750	\$1,831,070
Marshall	\$889,863	\$1500/improved mile	\$27,675	100,067	\$127,742	\$762,121
Medina	447,789	25%	111,947		111,947	335,842
Mendota Heights	698,643	25%	174,661		174,661	523,982
Minneapolis	19,484,256	35%	6,819,490		6,819,490	12,664,766
Minnetonka	2,853,701	25%	713,425		713,425	2,140,276
Minnetrista	484,734	25%	121,184		121,184	363,550
Montevideo	348,891	\$1500/improved mile	13,710		13,710	335,181
Monticello	795,579	25%	198,895		198,895	596,684
Moorhead	2,987,413	25%	746,853		746,853	2,240,560
Morris	341,892	25%	85,473		85,473	256,419
Mound	435,230	25%	108,808		108,808	326,422
Mounds View	612,226	25%	153,057		153,057	459,169
New Brighton	985,532	25%	246,383		246,383	739,149
New Hope	961,492	25%	240,373		240,373	721,119
New Prague	439,030	25%	109,758		109,758	329,272
New Ulm	847,330	\$1500/improved mile	27,015		27,015	820,315
North Branch	898,197	25%	224,549	3,290	227,839	670,358
North Mankato	845,374	25%	211,344	17,300	228,644	616,730
North St. Paul	605,831	25%	151,458		151,458	454,373
Northfield	1,000,773	25%	250,193		250,193	750,580
Oak Grove	800,725	25%	200,181		200,181	600,544
Oakdale	1,336,679	25%	334,170		334,170	1,002,509
Orono	467,990	25%	116,998	0	116,998	350,992
Otsego	1,165,910	25%	291,478		291,478	874,432
Owatonna	1,677,057	Lump Sum	125,500		125,500	1,551,557
Plymouth	4,267,742	25%	1,066,936		1,066,936	3,200,806
Prior Lake	1,325,318	35%	463,861		463,861	861,457
Ramsey	1,572,009	25%	393,002		393,002	1,179,007
Red Wing	1,143,196	35%	400,119		400,119	743,077
Redwood Falls	375,976	25%	93,994		93,994	281,982
Richfield *	1,840,958	25%	460,240		460,240	1,380,718
Robbinsdale	664,073	25%	166,018		166,018	498,055
Rochester	7,333,836	Lump Sum	1,200,000		1,200,000	6,133,836
Rogers	933,513	25%	233,378		233,378	700,135
Rosemount	1,435,874	25%	358,969		358,969	1,076,905
Roseville	1,754,244	25%	438,561		438,561	1,315,683
Sartell	1,083,628	\$1500/improved mile	28,380		28,380	1,055,248
Sauk Rapids	828,696	\$1500/improved mile	21,555		21,555	807,141
Savage	1,599,320	\$1500/improved mile	38,130		38,130	1,561,190

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				GENERAL MAINTENANCE ALLOTMENT	TOTAL MAINTENANCE ALLOTMENT	
Shakopee	\$2,298,766	25%	\$574,692		\$574,692	\$1,724,074
Shoreview	1,214,690	25%	303,673		303,673	911,017
Shorewood	438,575	25%	109,644		109,644	328,931
South St. Paul ^	1,074,302	25%	268,576		268,576	805,726
Spring Lake Park	342,797	25%	85,699		85,699	257,098
St. Anthony	431,306	25%	107,827		107,827	323,479
St. Cloud	4,043,014	25%	1,010,754		1,010,754	3,032,260
St. Francis	481,424	25%	120,356		120,356	361,068
St. Joseph	387,991	25%	96,998		96,998	290,993
St. Louis Park	2,443,407	35%	855,192	136,250	991,442	1,451,965
St. Michael	1,070,678	25%	267,670		267,670	803,008
St. Paul	14,747,455	Lump Sum	3,700,000		3,700,000	11,047,455
St. Paul Park	307,524	25%	76,881		76,881	230,643
St. Peter	707,872	\$1500/improved mile	21,660	64,350	86,010	621,862
Stewartville	278,639	25%	69,660		69,660	208,979
Stillwater	1,009,486	25%	252,372		252,372	757,114
Thief River Falls	716,944	25%	179,236		179,236	537,708
Vadnais Heights	574,987	25%	143,747		143,747	431,240
Victoria	474,061	25%	118,515		118,515	355,546
Virginia	658,652	25%	164,663	76,407	241,070	417,582
Waconia	737,083	25%	184,271		184,271	552,812
Waite Park	461,893	\$1500/improved mile	11,655		11,655	450,238
Waseca	437,138	25%	109,285		109,285	327,853
West St. Paul	919,036	25%	229,759		229,759	689,277
White Bear Lake	1,195,130	25%	298,783		298,783	896,347
Willmar	1,407,246	25%	351,812		351,812	1,055,434
Winona	1,374,907	25%	343,727		343,727	1,031,180
Woodbury	3,889,631	25%	972,408		972,408	2,917,223
Worthington	674,009	Lump Sum	100,000		100,000	574,009
Wyoming	587,803	25%	146,951		146,951	440,852
Zimmerman	300,250	\$1500/improved mile	9,135		9,135	291,115
<b>TOTAL</b>	<b>\$219,939,850</b>		<b>\$51,149,438</b>	<b>\$1,020,016</b>	<b>\$52,169,454</b>	<b>\$167,770,396</b>
<b>GENERAL MAINTENANCE ALLOTMENT OPTIONS:</b>						
18 Cities requested \$1,500 per Improved Mile				total excluding 1st class cities		\$133,578,045
110 Cities requested 25% of Total Apportionment				excess balnce threshold is avg X 3 (146 cities left)		\$2,744,754
9 Cities requested 35% of Total Apportionment						
13 Cities requested a Lump Sum amount > \$1,500/ Improved Mile and < 35% of Total Allotment						
<b>TOTAL MAINTENANCE ALLOTMENT: General Maintenance Allotment Option (selected by the city) plus bond interest due, if any</b>						
* changed Maintenance Request for 2022						
^ Certified Complete City. Portion of Construction Allotment will go to 90P account						

**CURRENT RESOLUTIONS  
OF THE  
MUNICIPAL SCREENING BOARD**

January 2022

**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.

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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.

## 2021 UNIT PRICE RECOMMENDATIONS

*for the January 2022 distribution*

Needs Item		Municipal Screening Board Approved Prices for the 2021 Distribution	Needs Study Subcommittee Recommended Prices for 2022 Distribution	Municipal Screening Board Approved Prices for the 2022 Distribution
Grading (Excavation)	Cu. Yd.	\$9.53	\$10.64	<b>\$10.64</b>
Aggregate Base	Ton	14.44	18.00	<b>18.00</b>
All Bituminous	Ton	66.17	72.00	<b>72.00</b>
Sidewalk Construction	Sq. Ft.	5.76	7.24	<b>7.24</b>
Curb and Gutter Construction	Lin.Ft.	16.65	20.00	<b>20.00</b>
Traffic Signals	Per Sig	211,440	231,875	<b>231,875</b>
Street Lighting	Mile	100,000	100,000	<b>100,000</b>
Engineering	Percent	22	22	<b>22</b>
All Structures (includes both bridges and box culverts)				
	Sq. Ft.	95.67	90.70	<b>90.70</b>
<b>Storm Sewer (based on ADT)</b>		Per Mile		
0 ADT & Non Existing		165,500	185,600	<b>185,600</b>
1-499		168,700	189,200	<b>189,200</b>
500-1,999		178,100	199,700	<b>199,700</b>
2,000-4,999		187,500	210,300	<b>210,300</b>
5,000-8,999		200,100	224,400	<b>224,400</b>
9,000-13,999		209,500	235,000	<b>235,000</b>
14,000-24,999		222,100	249,100	<b>249,100</b>
25,000 and over		234,700	263,200	<b>263,200</b>

### **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 11<sup>th</sup>, 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 31<sup>st</sup> 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 31<sup>st</sup> to be included in that years' Needs Study.

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

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**

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, **October 2021**)

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 3 times the average construction allotment for all cities excluding cities of the first class (hereinafter referred to as the adjusted average construction allotment), 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 3 times the adjusted average construction allotment) 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.***

(Threshold for end 2022 is \$2,744,754)

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.

***The adjusted average construction allotment used for this purpose shall not decrease in value from one year to the next.***

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

**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.

### **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>

### **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

## 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 the annual amount available for advances will be between 20% and 25% of the January MSAS Construction allocation, influenced by the current construction cash balance, expenditures trends, repayments of previous advances, etc.

## General Guidelines and Process for State Aid Advances from MSAS Construction Allocation

1. In October, the District State Aid Engineers (DSAE's) will solicit state aid cities for their preliminary proposed advances for the upcoming year. The DSAE's will prioritize the preliminary advance requests within their respective districts and submit to the Deputy State Aid Engineer, who will prioritize the requests on a statewide basis.
2. In early January, State Aid will determine the amount available for advances in that calendar year. The formula used to determine the annual amount available for advances will be between 20% and 25% of the January MSAS Construction allocation, influenced by the current construction cash balance, expenditures trends, repayments of previous advances, etc.
3. In mid-January, the Deputy State Aid Engineer will contact agencies that submitted preliminary advance requests with information on which preliminary advances likely can be approved. If all preliminary advance requests likely cannot be approved, this communication will be accompanied by a prioritized list of remaining preliminary advance requests. A generalized communication will also be sent to all state aid cities regarding the status of the advance program.
4. If all anticipated advances likely cannot be approved, the Deputy State Aid Engineer and District State Aid Engineers will convene monthly to review the available balance and consider approving additional advance requests based on the priority list. Local agencies can submit additional requests throughout the year, and they will be approved immediately if possible, or they will be prioritized along with the remaining advance requests.
5. The submittal of preliminary advance requests in October/November does not constitute an official advance request approval. Municipalities must submit a State Aid Advance Resolution authorizing the advance by their city council. The correct resolution must be used for each advance type and there are sample resolutions for each on the MnDOT State Aid Finance (SAF) webpage. **Requests are good only for the year requested (cannot be submitted for multiple years) and void at 12/31 of that year.**

Advances are not limited to the projects listed on the resolution, and the resolution itself does not guarantee that funds will be held. If a city decides they need a guarantee that the funds will be held (typically when a city is sure it will complete a project and is certain it will need an advance), it can submit a “Request to Reserve Advance Funds” to ensure funds will be available for their project. If a request to reserve funds is not submitted, 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.

Sample Advance Resolutions and Request to Reserve Funds can be obtained from [SAF Forms & Resolutions webpage](#). E-mail completed forms to your [DSAE](#) for review, and after DSAE approval, email to Mohamed Farah at [mohamed.m.farah@state.mn.us](mailto:mohamed.m.farah@state.mn.us) in MnDOT State Aid Finance.

## **Prioritization**

In general, priority projects include, but are not limited to, projects where agreements have mandated the city's participation, projects with advanced federal aid, bond principal payments, large agency projects which require multiple years of allocation, and other high priority projects. Small overruns and funding shortfalls may be funded but do require MnDOT State Aid approval. Municipalities with prior advances, and still repaying, will have their advance request considered a lower priority.

## **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 principal payments due. The limit can be administratively adjusted by the MnDOT 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 MnDOT State Aid and the municipality.