

# 2021 Municipal Screening Board Data



**UNIT PRICES**  
**Spring 2021**

# 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)

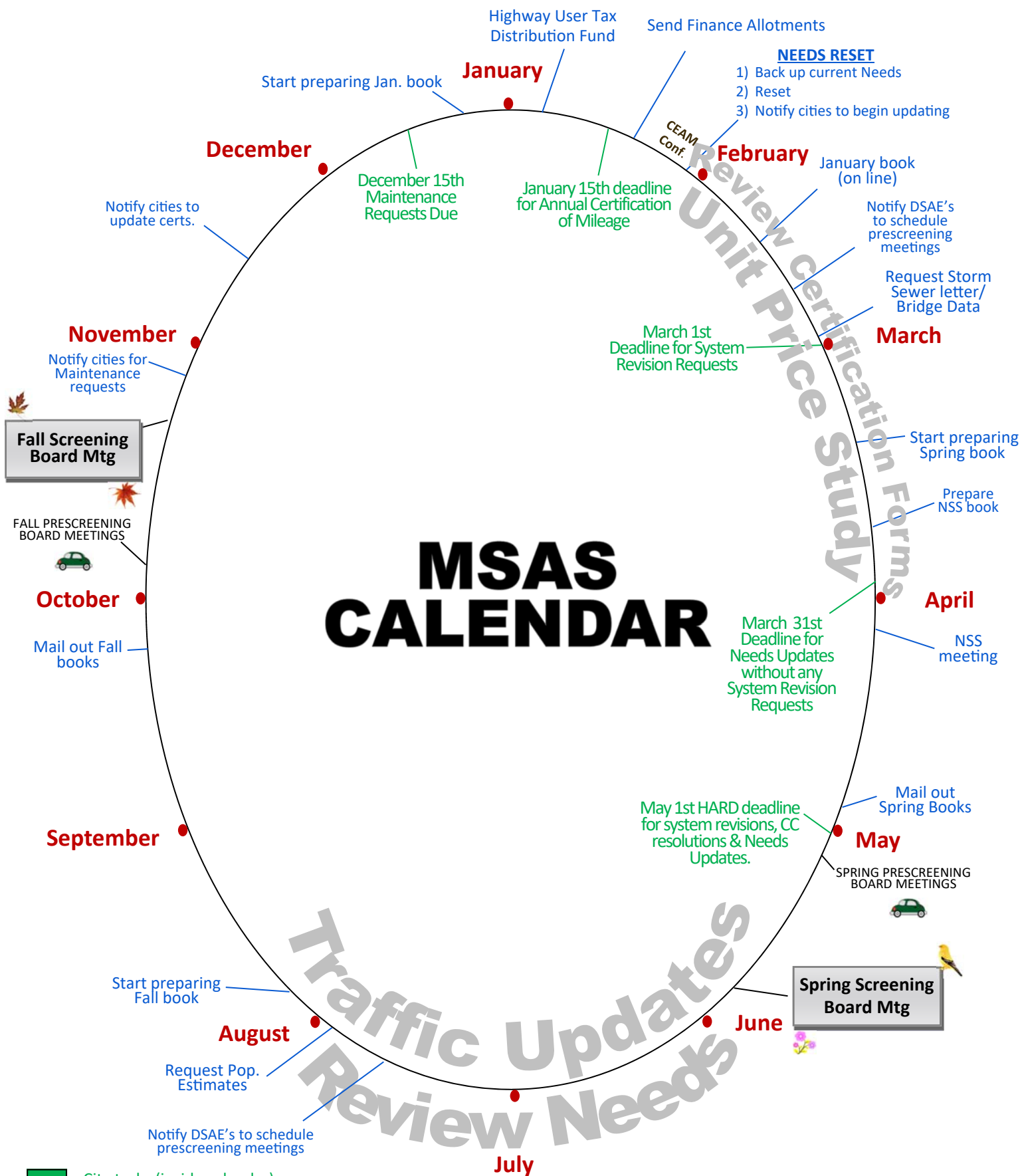
The Needs Study Subcommittee will annually review the Unit Prices for the Needs components used in the Needs Study. The Subcommittee will make its recommendation to the Municipal Screening board at its annual spring meeting.

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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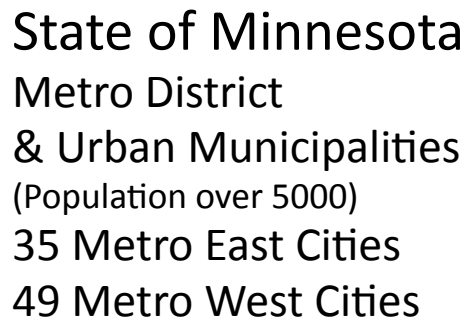
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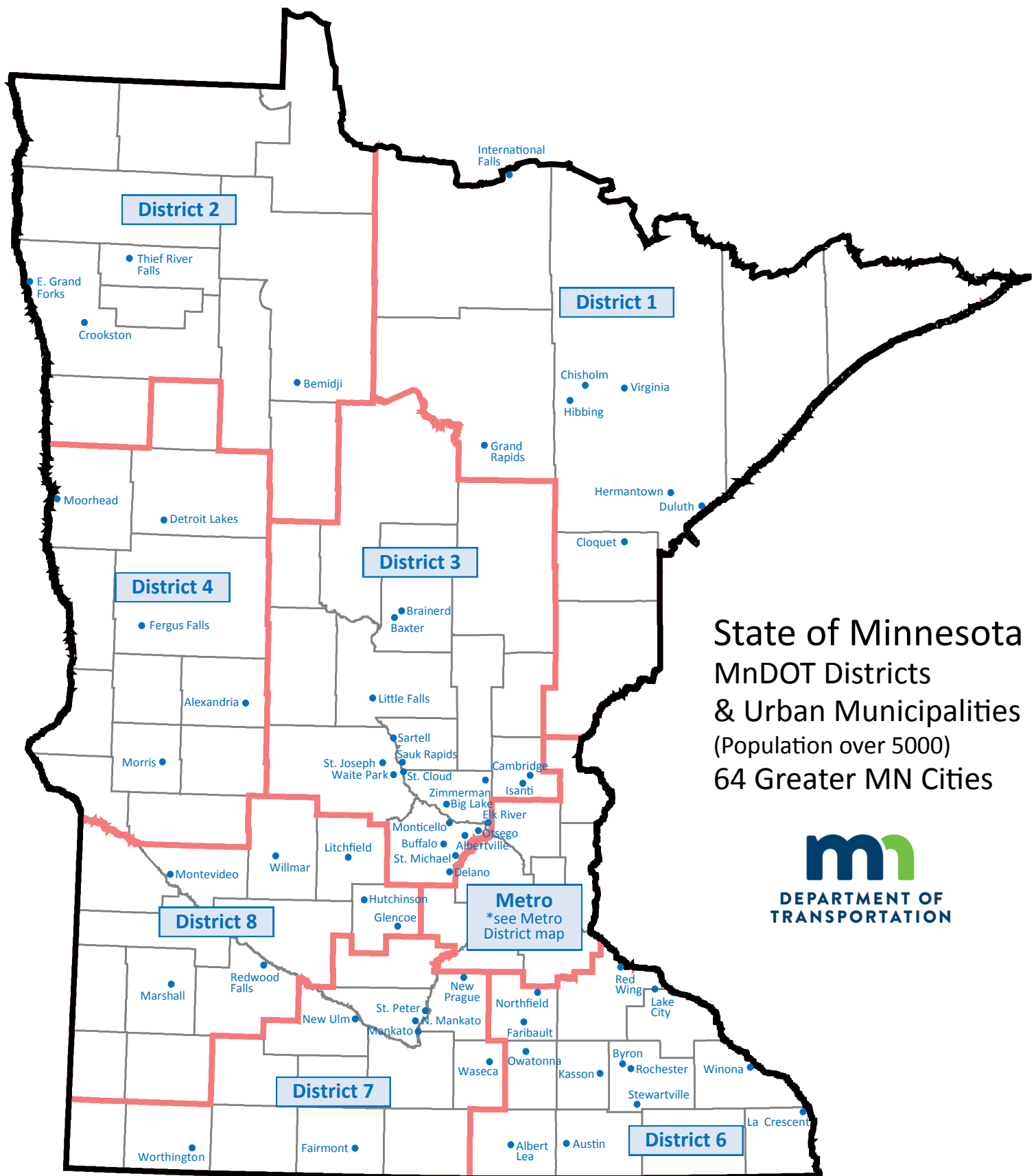
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Updated 1/8/14

# 2021 MUNICIPAL SCREENING BOARD

08-Feb-21

Officers			
Chair	Michael Thompson	Plymouth	(763) 509-5501
Vice Chair	Paul Sandy	Brainerd	(218) 454-3411
Secretary	Jen Desrude	Burnsville	(952) 895-4544

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	2019-2021	Brian Yavarow	Fergus Falls	(218) 332-5413
Metro-West	2019-2021	Chad Millner	Edina	(952) 826-0318
6	2019-2021	Kyle Skov	Owatonna	(507) 444-4350
7	2020-2022	Jeff Domras	St. Peter	(507) 625-4171
8	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	Curt Meyer	International Falls	(218) 308-2603
2	2024	Craig Gray	Bemidji	(218) 333-1851
3	2024	Cody Holmes	Saint Michael	(763) 516-7936
4	2022	Bob Zimmerman	Moorhead	(218) 299-5393
Metro-West	2022	Will Manchester	Minnetonka	(952) 939-8232
6	2022	Brandon Theobald	Kasson	(507) 288-3923
7	2023	Michael McCarty*	Mankato	(507) 387-8643
8	2024	Mike Amborn	Montevideo	(320) 269-7695
Metro-East	2023	Zachary Johnson	Lakeville	(952) 985-4501

\* Jeff Johnson or Michael McCarty



## 2021 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>Steve Lillehaug Shakopee (952) 233-9361 Expires after 2021</p> <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>Marc Culver Roseville (651) 792-7041 Expires after 2021</p> <p>John Gorder Eagan (651) 675-5645 Expires after 2022</p> <p>Justin Femrite Elk River (763) 635-1051 Expires after 2023</p>

**MINUTES**  
**MUNICIPAL SCREENING BOARD MEETING**  
**Oct 27<sup>th</sup> 2020 at 1pm to 5pm (WEBEX Meeting)**

**I. Call to Order, introduction, and welcome by Chairman Femrite at 1:05pm**

a. Introductions of MSB Officers and State Aid Personnel:

- i. Kristine Elwood, MnDOT – State Aid Engineer*
- ii. Chris Kufner, MnDOT – Deputy State Aid Engineer*
- iii. Bill Lanoux, MnDOT – Municipal State Aid Needs Unit*
- iv. Michael Thompson – Vice President of the MSB*
- v. Paul Sandy – Secretary of the MSB*

**Roll Call of Screening Board Members**

- |                         |                             |
|-------------------------|-----------------------------|
| <i>vi. District 1</i>   | Caleb Peterson, Cloquet     |
| <i>vii. District 2</i>  | Rich Clausen, Crookston     |
| <i>viii. District 3</i> | Adam Nafstad, Albertville   |
| <i>ix. District 4</i>   | Brian Yavarow, Fergus Falls |
| <i>x. Metro West</i>    | Chad Millner, Edina         |
| <i>xi. District 6</i>   | Kyle Skov, Owatonna         |
| <i>xii. District 7</i>  | Jeff Domras, St. Peter      |
| <i>xiii. District 8</i> | Owen Todd, Redwood Falls    |
| <i>xiv. Metro East</i>  | Brian Erickson, Rosemount   |
| <i>xv. Duluth</i>       | Cindy Voigt                 |
| <i>xvi. Minneapolis</i> | Jennifer Hager              |
| <i>xvii. Rochester</i>  | Dillon Dombrowski           |
| <i>xviii. St. Paul</i>  | Paul Kurtz                  |

**Also in Attendance**

Layne Otteson, Big Lake – District 3 Screening Board Alternate  
Marc Briesse – State Aid programs Engineer  
Elisa Bottos – State Aid Project Delivery Engineer  
Mark Vizecky – State Aid Operations Engineer  
Naomi Eckerd – State Aid Federal Project Specialist  
Brian Ketring – District 2 State Aid Engineer  
Kelvin Howieson – District 3 State Aid Engineer  
Nathan Gannon – District 4 State Aid Engineer  
Lisa Bigham – District 7 State Aid Engineer  
Todd Broadwell – District 8 State Aid Engineer  
Dan Erickson – Metro State Aid Engineer  
Julie Dressel – Assistant Metro State Aid Engineer  
Marc Culver – Past Chair MSB  
John Gorder – Past Chair MSB  
Steve Bot – Past Chair MSB  
Steve Lillehaug – 2021 Chair NSS  
Larry Veek – Minneapolis  
Mike Van Beusekom – St. Paul  
Tyler Niemeyer - Rochester

## **II. Review of the 2020 Municipal State Aid Needs Report**

### **a. Review May 2020 MSB Minutes (Page 8)**

Unit price recommendations were approved unanimously at the May MSB meeting.

MSB elected to revoke the Trunk highway Turnback Resolution. This resolution was removed because it was obsolete in the new method of needs calculations. Removing the resolution results in trunk highway turnbacks drawing needs like any other MSAS roadway.

Glenn Olson was due to be chair of the UCFS. Because of his retirement, the MSB took action to have Marc Culver serve a 2<sup>nd</sup> year as UCFS Chair.

Discussion of the phase-in took place, which is in its seventh year out of 7 years of implementation. The MSB elected to have the UCFS study the topic of the restriction and make a recommendation at this meeting today. UCFS Chair Marc Culver will be leading that discussion.

### **Motion to approve the minutes by Voigt, second by Clausen, Motion Carried 13-0.**

### **b. Review Population Data / Needs Data / MSB Resolutions / action items**

In March of next year, the 2020 decennial census numbers should begin to roll out. We could see some new cities join next year, or see cities fall under the 5,000-population threshold. If a city does fall below 5,000 and stays under that number for 5 years, that city may fall off this program.

Current financial forecasts have a 15% reduction in the population apportionment and construction needs apportionment for 2020. All numbers in fall book reflect this forecast.

Currently, roadways outside of city limits do not draw needs. There is a statute change proposed where the current 4 miles of listed roadways state-wide that are outside municipal boundaries would begin to draw needs. Future MSAS roadways that outside city limits would still need to meet the selection criteria based in Minnesota Rule 8820.07.

For 2020, the letter to the commissioner will be modified due to the web based MSB meeting. Votes for the Needs recommendation will be tracked and recorded on the official copy of the meeting minutes.

Lanoux gave a brief update on the Fall Book which was already presented at Pre-Screening Board meetings.

### **III. UCFS Recommendation Page 46-47**

Currently in the 7<sup>th</sup> and final year of applying the restriction. Should the MSB take no further action this would be the last year of applying any restrictions to the needs.

For the previous needs method that existed prior to 2015, only deficient segments would draw full Needs. There was also a soil factor which affected grading and base quantities. Since moving to a traffic-based needs system, all segments are now drawing continuous needs all the time. We also have a flat soil factor now. When the needs change was initially made, some cities saw significant changes in their needs calculations, which is why the 7-year phase in was implemented.

15 cities are restricted in 2020, nine of which are on the lower restriction (5 points lower than state average percentage of change) and six cities on the upper restriction (10 points above the state average percentage of change).

Some cities that have added or reduced mileage to their MSAS system have fallen into the upper or lower restriction in recent years.

The UCFS studied this topic in detail and recommended continuing to apply the lower restriction for the seventh and final year of the phase-in, which is consistent with MSB resolution. The lower restriction adjustment will only be applied to cities that have been on the lower restriction since the phase-in began (i.e. cities cannot “fall-in” to lower restriction adjustment based on having seen their 25-year Construction Needs decline in the current year). The UCFS recommends eliminating the upper restriction one year early. Therefore any city that is not on the lower restriction should have their 2021 construction Needs allocation based off their unadjusted 25-year Construction Needs figures. The UCFS felt that the upper restriction was no longer serving the purpose or intent of the original MSB resolution and is restricting growth. The UCFS recommends an annual review of the phase-in, that the committee meet in September 2021 regarding an extended period of the lower restriction, if necessary.

**Motion to approve the UCFS recommendation on page 46-47 of the report by Millner, Second by Peterson, Motion Carried 13-0.**

#### **IV. Excess Unencumbered Balance / Low Balance Incentive**

Cities with account balances of greater than 3-times their previous year's construction allotment or \$1.5 million, whichever is greater, are subject to a negative Needs adjustment equal to the amount in excess of the limit. Currently, 6 cities would receive this negative adjustment if they do not encumber any additional construction funds before the end of the year.

Kufner presented out that due to the high projected spending by State Aid and a record high amount of Advance requests in 2020, State Aid began closely monitoring the Construction Account balance. On April 13, 2020, the Advance Status changed to Code Yellow and on June 8, 2020, the Advance Status turned to Code Red. State Aid identified 6 cities that would be subject to the Excess Unencumbered Construction Balance Adjustment if no further disbursements were made to those cities.

Potential options to consider by the MSB were presented as waiving the Excess Unencumbered Balance Resolution for 2021 only, increasing the fund balance threshold, a combination of the two, or taking no action. The fund balance threshold was set at \$1,000,000 in 2002 and increased to \$1,500,000 in 2010.

Nafstad stated that the adjustment tends to affect smaller cities that may need to build up balance to do projects. Nafstad was in favor of raising the balance threshold to \$2,625,000 based on the original \$1,000,000 threshold plus the CCI increase between 2002 and 2020.

Todd agreed with Nafstad but asked if there is any reason why the MSB could not do both (i.e. waiving it in 2021 and increasing the threshold to \$2,625,000). Lanoux stated that if the threshold was raised to \$2,625,000, there would be no cities subject to the adjustment for 2021 anyways.

Nafstad added that he would like to see an annual inflationary factor to the threshold rather than having to review it annually or every 10 years.

Domras asked Lanoux what the penalty in physical money would be for excess balance. Lanoux replied that every \$1,000 in Needs is worth about \$12.50.

Lanoux stated that language to add an inflationary factor to the resolution would take some word smithing and that an actual dollar amount in the resolution would be preferred.

Millner asked if there is concern about cities getting high balances again and the money being diverted to other state priorities. Lanoux stated that could become more likely with a higher threshold.

Kurtz stated that a compromise would be to not have the resolution enforced in 2021 for all cities so that all are treated equally and that the UCFS look into the resolution and values the MSB is discussing and have a recommendation to the MSB in the spring.

Voigt and Vice Chair Thompson concurred with Kurtz's recommendation.

**Motion to waive the Excess Unencumbered Construction Balance Adjustment resolution for the 2021 apportionment with further instruction from the MSB to have the UCFS study the resolution for Excess Unencumbered Construction Fund Balance Adjustment and bring back a recommendation for changes to the Spring MSB meeting by Nafstad, Second by Todd, Motion Carried 13-0.**

## **V. Take action on Needs Recommendations**

Recommendations are on page 108 of the Needs Report. This second of the two options presented reflects no upper restriction being applied to the unadjusted 25 year construction needs, per the UCFS recommendation.

Letter to Commissioner:

Dear Commissioner Anderson Kelliher:

We members of the 2020 Municipal Screening Board, having reviewed all information available in relation to the 25 year money needs of the Municipal State Aid Street System do hereby submit our findings as required by Minnesota Statutes.

We recommend that these findings be modified as required by Screening Board Resolutions, and that any new municipalities that become eligible for State Aid by special census, incorporation, annexation or population estimates have their mileage and resulting money needs established and included in our findings.

This Board, therefore, recommends that the money needs, as listed on the attached, be modified as required and used as the basis for apportioning to the urban municipalities the 2021 Apportionment Sum as provided by Minnesota Statutes, Chapter 162.13, Subdivision 1.

**Motion to approve the Construction Needs by Dombrovski,  
second by Nafstad, Motion Carried 13-0.**

**VI. Research Account Page 112**

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

**resolution:**

*Be it resolved that an amount of \$1,051,228 (not to exceed ½ of 1% of the 2020 MSAS Apportionment sum of \$210,245,736) shall be set aside from the 2021 Apportionment fund and be credited to the research account*

Chair Femrite stated that the hit to this account based on the forecasts would come in the following year due to the fact the ½ of 1% is taken from previous years apportionment amount.

**Motion to approve the resolution language as presented above  
by Millner, Second by Nafstad, Motion Carried 13-0.**

**VII. Statutory Changes**

Kufner presented on two potential statutory changes, one related to streets outside of municipal boundaries drawing needs and the other related to bridge bonding. Both were presented out at Pre-Screening Board meetings. No further comments were received, and these recommended changes would be brought forward to the respective City Engineer Executive Committee and County Engineer Board of Directors for further discussion and direction.

**VIII. Other Discussion items**

**a. Legislative Update**

Culver sent out a summary update before the meeting that can be seen attached.

There were several special sessions in the legislative session and there was a bonding bill passed. Summary provided by the League of Minnesota Cities is in the document provided by Culver. Marc Briese sent out an email about activities that State Aid would be following up on based on this bonding bill such as LRIP and LBRP. Local Roads Wetland Replacement Fund was replenished, and many cities received earmarked funds for their projects. Both the League of Minnesota Cities and Metro Cities have detailed priorities for the 2021 legislative session.

**b. State Aid Updates**

MnDOT received word that the work from home order for MnDOT employees will be extended through June 2021. State Aid does not intend on changing its level of service to its customers.

**IX. Last Call for Any Other Discussion Topics**

Elwood asked is if the WebEx format for MSB meetings has worked for everyone and if we planned on using this for next meeting. Concurrence that the plan should continue to use this format for the meeting and if anything changes and we have enough time for planning, the Executive Committee can discuss other options further.

**X. Closing Remarks from Chair**

**XI. Adjourn**

**Motion to adjourn by Millner, Second by Todd, Motion Carried 13-0.**

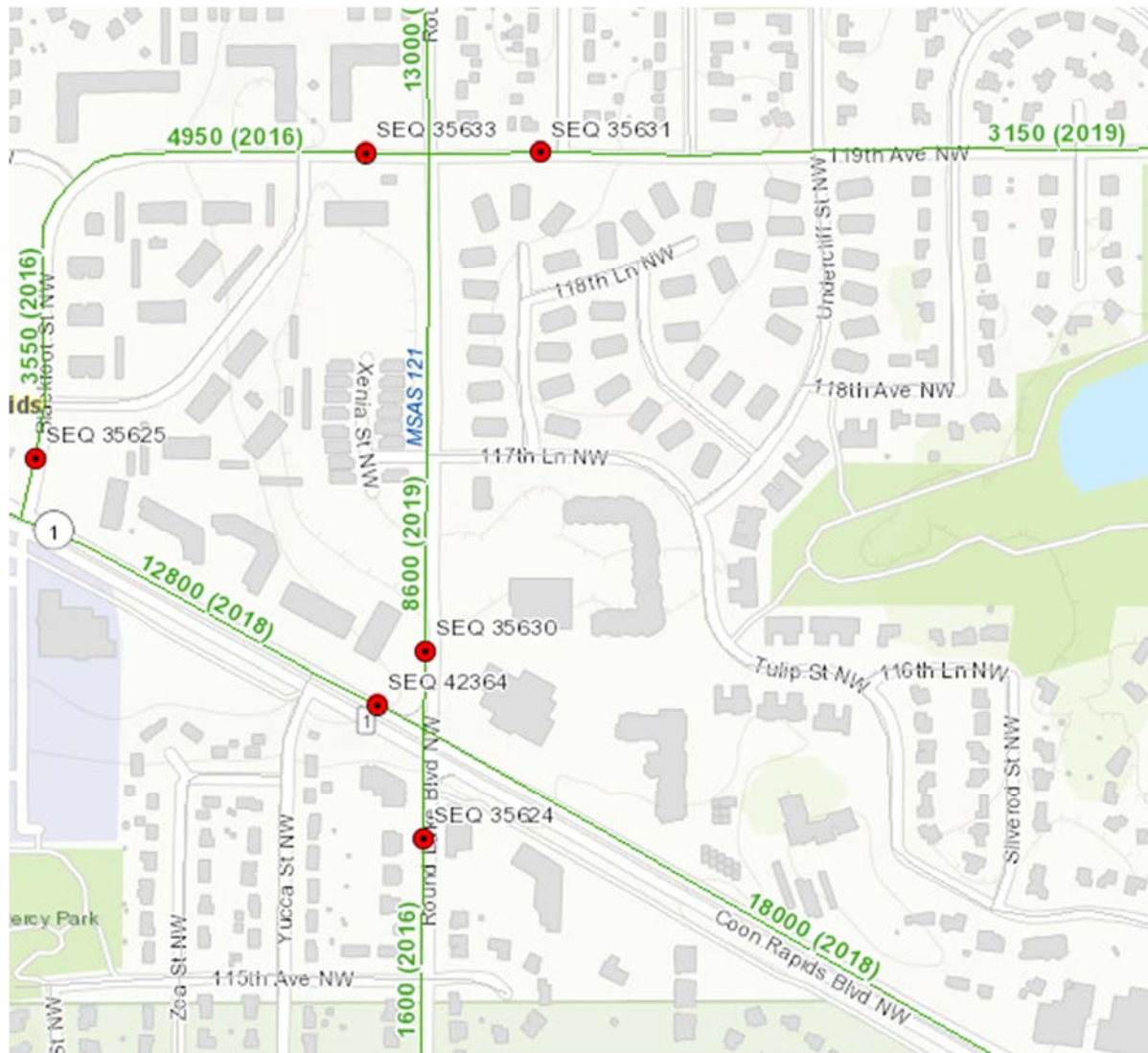
Respectfully submitted,

A handwritten signature in cursive script, reading "Paul Sandy", is written over a horizontal line.

Paul Sandy, PE  
Municipal Screening Board Secretary  
Brainerd 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

# CURRENT SCREENING BOARD RESOLUTION ON TRAFFIC

## **TRAFFIC** - June 1971 (Revised May 2014)

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

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

Traffic data for State Aid Needs Studies will be developed as follows:

- 1) The municipalities in the metropolitan area cooperate with the State by agreeing to participate in counting traffic every two or four years at the discretion of the city.
- 2) The cities in the outstate area may have their traffic counted and maps prepared by State forces every four years, or may elect to continue the present procedure of taking their own counts and have state forces prepare the maps.
- 3) Any city may count traffic with their own forces every two years at their discretion and expense, unless the municipality has made arrangements with the Mn/DOT district to do the count.
- 4) On new MSAS routes, the ADT will be determined by the City with the concurrence of the District State Aid Engineer until such time the roadway is counted in the standard MnDOT count rotation.

# **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	Street Name	TYLER ROAD NORTH
CANNON RIVER AVENUE TO .27 MILES EASTERLY	Termini	CANNON RIVER AVENUE TO .27 MILES EASTERLY
0.27	Length	0.27
Improved	Existing Roadway Type	Improved
Undivided	Existing Lane Description	Undivided
0	Existing Number of Signal Legs	0
4300	Present AADT	4300
4 ( 2000 - 4999 )	Traffic Group Code	4 ( 2000 - 4999 )
2019	Year of AADT Count	2019
N	Common Boundary Designation	N
N	Turnback Mileage	N
N	Outside City Limit	N
2009	Year of Latest SA Fund	2009
BITUMINOUS SURFACE MILLED & OVERLAYED IN 2009 WITH STATE AID FUNDS, MSAP 156-125-14, BID LETTING ON 7-6-09.	Comments	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	Structure Number	025519
0.24	Milepoint	0.24
SPRING CREEK	Feature Crossed	SPRING CREEK
93	Structure Length	93
1978	Year Built	1978
	Comments	
BRIDGE	Bridge Type	BRIDGE
4 ( 2000 - 4999 )	Bridge Group	4 ( 2000 - 4999 )

## Segment Cost Information

Segment Quantity from Unit  
Length ADT chart Cost

Cost Factor	Unit Cost	Computation Formula or Rule	Equation	Result
Gravel	MSAS Gravel Cost Group 4	Length * Quantity * UnitCost	0.27 * 19628 * 14.44	\$76,526
Bituminous	MSAS Bituminous Cost Group 4	Length * Quantity * UnitCost	0.27 * 4773 * 66.17	\$85,274
Excavation	MSAS Excavation Cost Group 4	Length * Quantity * UnitCost	0.27 * 25188 * 9.53	\$64,811
Storm Sewer	MSAS Storm Sewer Cost Group 4	Length * UnitCost	0.27 * 187500	\$50,625
Sidewalk	MSAS Sidewalk Cost Group 4	Length * UnitCost * FeetPerMile * SidewalkWidth	0.27 * 5.76 * 5280 * 10	\$82,115
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 * 16.65 * 5280 * 2	\$47,472
Signal Leg	MSAS Traffic Signals Cost Group 4	NumOfSignals * UnitCost / 4	0 * 211440 / 4	\$0
Bridge	MSAS Bridge TGC Group 4	BridgeLength * NeedsWidth * UnitCost	93 * 40 * 95.67 roadbed width	\$355,892
Engineering Cost		Percent of costs	789715 * 0.220	\$173,737
Total				\$963,452



# UNIT PRICES



# AND GRAPHS



# UNIT PRICE STUDY – History & Introduction

## HISTORY

An annual unit price study was conducted until 1997. At the end of 1996, the Municipal Screening Board made a motion to conduct the Unit Price study every two years, with the ability to adjust significant unit price changes on a yearly basis.

In 1999 and 2001, a construction cost index was applied to the 1998 and 2000 contract prices.

In 2003, the Screening Board directed the Needs Study Subcommittee to use the percent of increase in the annual National Engineering News Record Construction Cost Index to recommend Unit Costs to the Screening Board.

In 2007, the Municipal Screening Board made a motion to conduct the Unit Price study *every three years* with the option to request a Unit Price study on individual items in off years.

For 2021 we are due for the next full unit cost study which will be based on 2020 project costs.

## THIS YEAR

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

141 on-system projects were included in the study.

State Aid bridge costs from the last 5 years (2016 to 2020), will be used to determine the unit price for structures. This five year average (divided by two) provides the basis for the structure cost recommendation.

MN/DOT's hydraulic office will furnish a recommendation of costs for storm sewer construction & adjustments based on 2020 construction costs. After this year, the hydraulics office will move 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 an inflation factor in off years.

2021 UNIT PRICE STUDY						Aggregate Base (ton)			Bituminous (ton)			Curb & Gutter (Lin. feet)			Excavation (yd³)			Sidewalk (ft²)			
City #	City Name	Project#	Dist	County	Spec Item	QTY	Amount	U.Price	QTY	Amount	U.Price	QTY	Amount	U.Price	QTY	Amount	U.Price	QTY	Amount	U.Price	
101	Albert Lea	SAP	101-116-011	6	Freeborn	COMMON EXCAVATION AGGREGATE BASE CLASS 5 TYPE SP 9.5 WEARING COURSE MIXTURE (2,C) 4" CONCRETE WALK CONCRETE CURB & GUTTER DESIGN B618	1448	\$34,752.00	\$24.00	24	\$8,640.00	\$360.00	1801	\$38,541.00	\$21.40	1257	\$18,855.00	\$15.00	8044	\$52,286.00	\$6.50
102	Alexandria	SAP	102-148-001	4	Douglas	COMMON EXCAVATION AGGREGATE BASE CLASS 5 BITUMINOUS MATERIAL FOR TACK COAT TYPE SP 12.5 WEARING COURSE MIXTURE (3,C) 4" CONCRETE WALK 6" CONCRETE WALK CONCRETE CURB & GUTTER DESIGN B618	9736	\$108,180.00	\$11.11	3395	\$2,688.00 \$203,700.00	\$60.00	4526	\$61,101.00	\$13.50	13353	\$66,097.35	\$4.95	4445 452	\$18,669.00 \$3,503.00	\$4.20 \$7.75
198	Andover	SAP	198-118-005	MW	Anoka	AGGREGATE BASE CLASS 5 BITUMINOUS MATERIAL FOR TACK COAT TYPE SP 9.5 WEARING COURSE MIXTURE (3,B) 4" CONCRETE WALK 4" CONCRETE WALK - SPECIAL 6" CONCRETE WALK - SPECIAL CONCRETE CURB & GUTTER DESIGN B612 CONCRETE CURB & GUTTER DESIGN B618	15	\$561.00	\$37.40	2580	\$3,800.00 \$173,118.00	\$67.10	5 155	\$166.10 \$5,660.60	\$33.22 \$36.52				200 350 1175	\$1,848.00 \$5,505.50 \$24,428.25	\$9.24 \$15.73 \$20.79
103	Anoka	SAP	103-112-003	MW	Anoka	COMMON EXCAVATION AGGREGATE BASE CLASS 5 BITUMINOUS MATERIAL FOR TACK COAT TYPE SP 9.5 WEARING COURSE MIXTURE (2,B) - 1.5" THICK TYPE SP 9.5 WEARING COURSE MIXTURE (2,B) TYPE SP 12.5 NON-WEARING COURSE MIXTURE (2,B) 4" CONCRETE WALK 4" CONCRETE WALK - SPECIAL 8" CONCRETE WALK - SPECIAL CONCRETE CURB & GUTTER DESIGN B618	1030	\$10.30	\$0.01	7 195 244	\$363.60 \$1,230.00 \$12,480.00 \$15,372.00	\$181.82 \$64.00 \$63.00	700	\$13,300.00	\$19.00	234	\$3,042.00	\$13.00	1240 3100 414	\$6,200.00 \$27,900.00 \$5,382.00	\$5.00 \$9.00 \$13.00
103	Anoka	SAP	103-115-007	MW	Anoka	COMMON EXCAVATION AGGREGATE BASE CLASS 5 BITUMINOUS MATERIAL FOR TACK COAT TYPE SP 9.5 WEARING COURSE MIXTURE (2,B) - 1.5" THICK TYPE SP 9.5 WEARING COURSE MIXTURE (2,B) TYPE SP 12.5 NON-WEARING COURSE MIXTURE (2,B) 4" CONCRETE WALK 4" CONCRETE WALK - SPECIAL 6" CONCRETE WALK - SPECIAL 8" CONCRETE WALK - SPECIAL CONCRETE CURB & GUTTER DESIGN B618	1011	\$10.11	\$0.01	6 189 237	\$35.42 \$1,005.00 \$12,096.00 \$14,931.00	\$181.74 \$64.00 \$63.00	728	\$13,832.00	\$19.00	328	\$4,264.00	\$13.00	1110 3275 100 230	\$5,550.00 \$29,475.00 \$1,200.00 \$2,990.00	\$5.00 \$9.00 \$12.00 \$13.00
103	Anoka	SAP	103-124-006	MW	Anoka	COMMON EXCAVATION AGGREGATE BASE CLASS 5 BITUMINOUS MATERIAL FOR TACK COAT TYPE SP 9.5 WEARING COURSE MIXTURE (2,B) - 1.5" THICK TYPE SP 9.5 WEARING COURSE MIXTURE (2,B) TYPE SP 12.5 NON-WEARING COURSE MIXTURE (2,B) 4" CONCRETE WALK 4" CONCRETE WALK - SPECIAL 6" CONCRETE WALK 8" CONCRETE WALK CONCRETE CURB & GUTTER DESIGN B618	4123	\$41.23	\$0.01	25 797 996	\$1,484.42 \$4,635.00 \$51,008.00 \$62,748.00	\$181.84 \$64.00 \$63.00	2698	\$51,262.00	\$19.00	2570	\$33,410.00	\$13.00	15920 540 2800 900	\$79,600.00 \$4,860.00 \$44,800.00 \$6,300.00	\$5.00 \$9.00 \$16.00 \$7.00
103	Anoka	SAP	103-128-006	MW	Anoka	COMMON EXCAVATION AGGREGATE BASE CLASS 5 BITUMINOUS MATERIAL FOR TACK COAT TYPE SP 9.5 WEARING COURSE MIXTURE (2,B) - 1.5" THICK TYPE SP 9.5 WEARING COURSE MIXTURE (2,B) TYPE SP 12.5 NON-WEARING COURSE MIXTURE (2,B) 4" CONCRETE WALK 4" CONCRETE WALK - SPECIAL 8" CONCRETE WALK - SPECIAL	1020	\$10.20	\$0.01	21 194 243	\$360.64 \$3,840.00 \$12,416.00 \$15,309.00	\$181.82 \$64.00 \$63.00				142	\$1,846.00	\$13.00	1070 3060 435	\$5,350.00 \$27,540.00 \$5,655.00	\$5.00 \$9.00 \$13.00

2021 UNIT PRICE STUDY						Aggregate Base (ton)			Bituminous (ton)			Curb & Gutter (Lin. feet)			Excavation (yd <sup>3</sup> )			Sidewalk (ft <sup>2</sup> )		
City #	City Name	Project#	Dist	County	Spec Item	QTY	Amount	U.Price	QTY	Amount	U.Price	QTY	Amount	U.Price	QTY	Amount	U.Price	QTY	Amount	U.Price
186	Apple Valley	SAP	186-103-018	ME	Dakota	CONCRETE CURB & GUTTER DESIGN B618						701	\$13,319.00	\$19.00						
					COMMON EXCAVATION										144	\$3,600.00	\$25.00			
					AGGREGATE BASE CLASS 5	242	\$3,630.00	\$15.00												
					TYPE SP 12.5 WEARING COURSE MIXTURE (3,F)				53	\$6,625.00	\$125.00									
					TYPE SP 12.5 NON WEARING COURSE MIXTURE (3,F)				26	\$3,250.00	\$125.00									
					5" CONCRETE WALK													2669	\$18,683.00	\$7.00
					CONCRETE CURB & GUTTER DESIGN B618							846	\$15,228.00	\$18.00						
186	Apple Valley	SAP	186-103-019	ME	Dakota	COMMON EXCAVATION									290	\$4,350.00	\$15.00			
					AGGREGATE BASE CLASS 5	230	\$2,990.00	\$13.00												
					TYPE SP 12.5 WEARING COURSE MIXTURE (3,F)				85	\$5,525.00	\$65.00									
					TYPE SP 12.5 NON WEARING COURSE MIXTURE (3,F)				43	\$2,795.00	\$65.00									
186	Apple Valley	SAP	186-115-008	ME	Dakota	COMMON EXCAVATION									3225	\$74,175.00	\$23.00			
					SUBGRADE EXCAVATION										1195	\$11,950.00	\$10.00			
					AGGREGATE BASE CLASS 5	6459	\$116,262.00	\$18.00												
					TYPE SP 9.5 WEARING COURSE MIXTURE (3,C)				1895	\$115,595.00	\$61.00									
					TYPE SP 12.5 NON-WEARING COURSE MIXTURE (3,C)				1515	\$96,960.00	\$64.00									
					5" CONCRETE WALK													20127	\$100,635.00	\$5.00
					6" CONCRETE WALK													1950	\$21,450.00	\$11.00
					CONCRETE CURB & GUTTER DESIGN B618							40	\$1,640.00	\$41.00						
					CONCRETE CURB & GUTTER DESIGN V6				5660	\$73,580.00	\$13.00									
104	Austin	SAP	104-124-004	6	Mower	COMMON EXCAVATION									3900	\$33,345.00	\$8.55			
					SUBGRADE EXCAVATION										410	\$3,505.50	\$8.55			
					AGGREGATE BASE CLASS 2 OR CLASS 5	2900	\$51,707.00	\$17.83												
					TYPE SP 9.5 WEARING COURSE MIXTURE (2,B) - 4.5" THICK				37	\$6,000.00	\$161.59									
					4" CONCRETE WALK													3750	\$25,687.50	\$6.85
					6" CONCRETE WALK													750	\$8,250.00	\$11.00
					CONCRETE CURB & GUTTER DESIGN B624							120	\$3,600.00	\$30.00						
					CONCRETE CURB & GUTTER DESIGN V4							100	\$6,000.00	\$60.00						
230	Baxter	SAP	230-106-004	3	Crow Wing	COMMON EXCAVATION									2820	\$26,790.00	\$9.50			
					CALCIUM CHLORIDE		\$1,347.25													
					AGGREGATE BASE CLASS 5	3843	\$68,640.25	\$17.86												
					TYPE SP 9.5 WEARING COURSE MIXTURE (3,C) - 3.5" THICK				27	\$4,249.00	\$157.66									
					TYPE SP 9.5 WEARING COURSE MIXTURE (3,C)				1330	\$98,420.00	\$74.00									
					TYPE SP 12.5 WEARING COURSE MIXTURE (3,C)				1330	\$91,770.00	\$69.00									
					TYPE SP 12.5 NON-WEARING COURSE MIXTURE (3,C)				1330	\$91,770.00	\$69.00									
					6" CONCRETE WALK													2375	\$23,393.75	\$9.85
					CONCRETE CURB & GUTTER DESIGN B612							100	\$2,325.00	\$23.25						
					CONCRETE CURB & GUTTER DESIGN B618							160	\$4,224.00	\$26.40						
					CONCRETE CURB & GUTTER DESIGN B624							4115	\$81,477.00	\$19.80						
230	Baxter	SAP	230-109-001	3	Crow Wing	COMMON EXCAVATION									470	\$4,465.00	\$9.50			
					SUBGRADE EXCAVATION										3120	\$28,080.00	\$9.00			
					CALCIUM CHLORIDE		\$4,200.25													
					AGGREGATE BASE CLASS 5	1044	\$18,647.00	\$17.86												
					TYPE SP 9.5 WEARING COURSE MIXTURE (3,C)				340	\$25,160.00	\$74.00									
					TYPE SP 12.5 WEARING COURSE MIXTURE (3,C)				340	\$23,460.00	\$69.00									
					TYPE SP 12.5 NON-WEARING COURSE MIXTURE (3,C)				340	\$23,460.00	\$69.00									
					CONCRETE CURB & GUTTER DESIGN B618							100	\$2,640.00	\$26.40						
					CONCRETE CURB & GUTTER DESIGN B624							1275	\$25,245.00	\$19.80						
105	Bemidji	SAP	105-111-008	2	Beltrami	SUBGRADE EXCAVATION									1913	\$9,565.00	\$5.00			
					AGGREGATE BASE CLASS 5	3391	\$61,038.00	\$18.00												
					BITUMINOUS MATERIAL FOR TACK COAT					\$1,725.00										
					TYPE SP 9.5 WEARING COURSE MIXTURE (3,C)				596	\$41,720.00	\$70.00									
					TYPE SP 12.5 NON-WEARING COURSE MIXTURE (3,C)				795	\$55,650.00	\$70.00									
					4" CONCRETE WALK													12401	\$62,005.00	\$5.00
					6" CONCRETE WALK													1765	\$17,650.00	\$10.00
					CONCRETE CURB & GUTTER DESIGN B618							2895	\$46,320.00	\$16.00						
232	Big Lake	SP	232-591-001	3	Sherburne	5" CONCRETE WALK												3607	\$28,856.00	\$8.00
					6" CONCRETE WALK													1115	\$14,495.00	\$13.00
					CONCRETE CURB & GUTTER DESIGN B618							80	\$2,600.00	\$32.50						
					CONCRETE CURB & GUTTER DESIGN V612							269	\$9,415.00	\$35.00						
107	Bloomington	SAP	107-130-046	MW	Hennepin	COMMON EXCAVATION									385	\$10,472.00	\$27.20			

2021 UNIT PRICE STUDY						Aggregate Base (ton)			Bituminous (ton)			Curb & Gutter (Lin. feet)			Excavation (yd <sup>3</sup> )			Sidewalk (ft <sup>2</sup> )		
City #	City Name	Project#	Dist	County	Spec Item	QTY	Amount	U.Price	QTY	Amount	U.Price	QTY	Amount	U.Price	QTY	Amount	U.Price	QTY	Amount	U.Price
					AGGREGATE BASE CLASS 5	1697	\$32,582.40	\$19.20												
					AGGREGATE BASE CLASS 5 - 100% CRUSHED LIMESTONE	135	\$3,213.00	\$23.80												
					BITUMINOUS MATERIAL FOR TACK COAT					\$2,170.00										
					TYPE SP 4.75 WEARING COURSE MIXTURE (2,B)				130	\$19,500.00	\$150.00									
					TYPE SP 9.5 WEARING COURSE MIXTURE (3,B)				5848	\$324,564.00	\$55.50									
					TYPE SP 12.5 NON-WEARING COURSE MIXTURE (3,B)				1131	\$62,770.50	\$55.50									
					4" CONCRETE WALK													12493	\$109,313.75	\$8.75
					5" CONCRETE WALK													1162	\$19,637.80	\$16.90
					6" CONCRETE WALK													448	\$5,936.00	\$13.25
					CONCRETE CURB & GUTTER DESIGN B612 - MOD							281	\$11,521.00	\$41.00						
					CONCRETE CURB & GUTTER DESIGN B618							3666	\$157,638.00	\$43.00						
					CONCRETE CURB & GUTTER DESIGN B624							10	\$700.00	\$70.00						
107	Bloomington	SAP	107-424-010	MW	Hennepin	COMMON EXCAVATION									111	\$3,019.20	\$27.20			
					AGGREGATE BASE CLASS 5	73	\$1,401.60	\$19.20												
					AGGREGATE BASE CLASS 5 - 100% CRUSHED LIMESTONE	39	\$928.20	\$23.80												
					BITUMINOUS MATERIAL FOR TACK COAT					\$4,249.00										
					TYPE SP 4.75 WEARING COURSE MIXTURE (2,B)				19	\$2,850.00	\$150.00									
					TYPE SP 9.5 WEARING COURSE MIXTURE (3,B)				1839	\$102,064.50	\$55.50									
					TYPE SP 12.5 NON-WEARING COURSE MIXTURE (3,B)				23	\$1,276.50	\$55.50									
					4" CONCRETE WALK													2510	\$21,962.50	\$8.75
					6" CONCRETE WALK													334	\$5,644.60	\$16.90
					CONCRETE CURB & GUTTER DESIGN B618							678	\$29,154.00	\$43.00						
107	Bloomington	SAP	107-429-005	MW	Hennepin	COMMON EXCAVATION									43	\$1,169.60	\$27.20			
					AGGREGATE BASE CLASS 5	37	\$710.40	\$19.20												
					AGGREGATE BASE CLASS 5 - 100% CRUSHED LIMESTONE	15	\$357.00	\$23.80												
					BITUMINOUS MATERIAL FOR TACK COAT					\$16,667.00										
					TYPE SP 9.5 WEARING COURSE MIXTURE (3,B)				803	\$44,566.50	\$55.50									
					TYPE SP 12.5 NON-WEARING COURSE MIXTURE (3,B)				15	\$832.50	\$55.50									
					4" CONCRETE WALK													1573	\$13,763.75	\$8.75
					6" CONCRETE WALK													131	\$2,213.90	\$16.90
					CONCRETE CURB & GUTTER DESIGN B612							37	\$1,850.00	\$50.00						
					CONCRETE CURB & GUTTER DESIGN B618							445	\$19,135.00	\$43.00						
108	Brainerd	SAP	108-118-003	3	Crow Wing	COMMON EXCAVATION									174	\$3,480.00	\$20.00			
					AGGREGATE BASE CLASS 5	31	\$635.50	\$20.50												
					TYPE SP 9.5 WEARING COURSE MIXTURE (2,B) - SPECIAL				110	\$8,140.00	\$74.00									
					4" CONCRETE WALK													2679	\$17,413.50	\$6.50
					6" CONCRETE WALK													273	\$2,975.70	\$10.90
					CONCRETE CURB & GUTTER DESIGN B624							176	\$5,456.00	\$31.00						
108	Brainerd	SAP	108-134-003	3	Crow Wing	COMMON EXCAVATION									183	\$3,660.00	\$20.00			
					AGGREGATE BASE CLASS 5	141	\$2,890.50	\$20.50												
					TYPE SP 9.5 WEARING COURSE MIXTURE (2,B) - SPECIAL				116	\$8,584.00	\$74.00									
					4" CONCRETE WALK													1667	\$10,752.15	\$6.45
					6" CONCRETE WALK													857	\$9,341.30	\$10.90
					CONCRETE CURB & GUTTER DESIGN B624							244	\$7,551.80	\$30.95						
108	Brainerd	SAP	108-139-001	3	Crow Wing	COMMON EXCAVATION									3500	\$70,000.00	\$20.00			
					AGGREGATE BASE CLASS 5	2324	\$47,642.00	\$20.50												
					TYPE SP 9.5 WEARING COURSE MIXTURE (2,C)				1814	\$134,236.00	\$74.00									
					4" CONCRETE WALK													5031	\$32,449.95	\$6.45
					6" CONCRETE WALK													1604	\$17,483.60	\$10.90
					CONCRETE CURB & GUTTER DESIGN B618							3685	\$73,147.25	\$19.85						
					CONCRETE CURB & GUTTER DESIGN B624							206	\$6,375.70	\$30.95						
108	Brainerd	SAP	108-141-001	3	Crow Wing	COMMON EXCAVATION									2100	\$42,000.00	\$20.00			
					AGGREGATE BASE CLASS 5	1602	\$32,841.00	\$20.50												
					TYPE SP 9.5 WEARING COURSE MIXTURE (2,B) - SPECIAL				1278	\$94,572.00	\$74.00									
					4" CONCRETE WALK													259	\$1,670.55	\$6.45
					CONCRETE CURB & GUTTER DESIGN B618							2608	\$51,768.80	\$19.85						
					CONCRETE CURB & GUTTER DESIGN B624							58	\$1,798.00	\$31.00						
110	Brooklyn Park	SAP	110-117-005	MW	Hennepin	COMMON EXCAVATION									765	\$27,310.50	\$35.70			
					AGGREGATE BASE CLASS 5	520	\$13,052.00	\$25.10												
					BITUMINOUS MATERIAL FOR TACK COAT					\$9,405.00										
					TYPE SP 9.5 WEARING COURSE MIXTURE (3,B)				3847	\$263,904.20	\$68.60									

2021 UNIT PRICE STUDY						Aggregate Base (ton)			Bituminous (ton)			Curb & Gutter (Lin. feet)			Excavation (yd <sup>3</sup> )			Sidewalk (ft <sup>2</sup> )								
City #	City Name	Project#	Dist	County	Spec Item	QTY	Amount	U.Price	QTY	Amount	U.Price	QTY	Amount	U.Price	QTY	Amount	U.Price	QTY	Amount	U.Price						
					4" CONCRETE WALK 6" CONCRETE WALK CONCRETE CURB & GUTTER DESIGN B618										2580	\$70,692.00	\$27.40				5850	\$33,930.00	\$5.80	2220	\$29,970.00	\$13.50
110	Brooklyn Park	SAP	110-127-002	MW	Hennepin	COMMON EXCAVATION AGGREGATE BASE CLASS 5 BITUMINOUS MATERIAL FOR TACK COAT TYPE SP 9.5 WEARING COURSE MIXTURE (3,B) 4" CONCRETE WALK CONCRETE CURB & GUTTER DESIGN B618	105	\$2,635.50	\$25.10									35	\$1,249.50	\$35.70						
											\$3,808.75															
									1558	\$106,878.80	\$68.60															
															710	\$19,454.00	\$27.40							36	\$208.80	\$5.80
110	Brooklyn Park	SP	110-129-006	MW	Hennepin	COMMON EXCAVATION SUBGRADE EXCAVATION AGGREGATE BASE CLASS 5 AGGREGATE BASE CLASS 6 BITUMINOUS MATERIAL FOR TACK COAT TYPE SP 9.5 WEARING COURSE MIXTURE (4,C) TYPE SP 12.5 WEARING COURSE MIXTURE (3,B) TYPE SP 12.5 NON-WEARING COURSE MIXTURE (4,B) 4" CONCRETE WALK 6" CONCRETE WALK CONCRETE CURB & GUTTER DESIGN B612 CONCRETE CURB & GUTTER DESIGN B618 CONCRETE CURB & GUTTER DESIGN B624 CONCRETE CURB & GUTTER DESIGN D424	1314 23823	\$30,660.00 \$277,935.00	\$23.33 \$11.67									119301 23651	\$715,806.00 \$141,906.00	\$6.00 \$6.00						
189	Maple Grove		189-113-005								\$3,000.00															
									9588	\$786,216.00	\$82.00															
									1710	\$119,700.00	\$70.00															
									3979	\$250,677.00	\$63.00															
															3040	\$41,040.00	\$13.50									
															7050	\$112,800.00	\$16.00									
															135	\$4,725.00	\$35.00									
															1600	\$30,400.00	\$19.00									
179	Burnsville	SAP	179-104-012	ME	Dakota	SUBGRADE EXCAVATION BITUMINOUS MATERIAL FOR TACK COAT TYPE SP 9.5 WEARING COURSE MIXTURE (2,B) - 3.0" THICK TYPE SP 9.5 WEARING COURSE MIXTURE (3,B) TYPE SP 12.5 WEARING COURSE MIXTURE (3,B) 4" CONCRETE WALK 6" CONCRETE WALK CONCRETE CURB & GUTTER DESIGN V6												230	\$6,750.50	\$29.35						
									25	\$4,500.00	\$181.82															
									3200	\$196,800.00	\$61.50															
									800	\$49,400.00	\$61.75															
					</																					

2021 UNIT PRICE STUDY						Aggregate Base (ton)			Bituminous (ton)			Curb & Gutter (Lin. feet)			Excavation (yd <sup>3</sup> )			Sidewalk (ft <sup>2</sup> )		
City #	City Name	Project#	Dist	County	Spec Item	QTY	Amount	U.Price	QTY	Amount	U.Price	QTY	Amount	U.Price	QTY	Amount	U.Price	QTY	Amount	U.Price
					4" CONCRETE WALK													14700	\$66,150.00	\$4.50
					6" CONCRETE WALK													1000	\$12,950.00	\$12.95
114	Coon Rapids	SAP	114-148-001	MW	Anoka	AGGREGATE BASE SPECIAL	180	\$1,995.00	\$11.08											
					BITUMINOUS MATERIAL FOR TACK COAT					\$2,040.00										
					TYPE SP 9.5 WEARING COURSE MIXTURE (2,C)				1700	\$109,820.00	\$64.60									
					TYPE SP 9.5 NON WEARING COURSE MIXTURE (2,C)				3400	\$223,890.00	\$65.85									
					4" CONCRETE WALK													1960	\$8,820.00	\$4.50
					6" CONCRETE WALK													300	\$3,885.00	\$12.95
					CONCRETE CURB & GUTTER DESIGN B618 - MACHINE PLACED							200	\$2,930.00	\$14.65						
					CONCRETE CURB & GUTTER DESIGN B618 - H& PLACED							500	\$12,825.00	\$25.65						
					CONCRETE CURB & GUTTER DESIGN B624 - MACHINE PLACED							500	\$9,325.00	\$18.65						
					CONCRETE CURB & GUTTER DESIGN B624 - H& PLACED							30	\$952.50	\$31.75						
114	Coon Rapids	SAP	114-149-001	MW	Anoka	AGGREGATE BASE SPECIAL	90	\$997.50	\$11.08											
					BITUMINOUS MATERIAL FOR TACK COAT					\$765.00										
					TYPE SP 9.5 WEARING COURSE MIXTURE (2,C)				350	\$22,610.00	\$64.60									
					TYPE SP 9.5 NON WEARING COURSE MIXTURE (2,C)				700	\$46,095.00	\$65.85									
					4" CONCRETE WALK													100	\$450.00	\$4.50
					6" CONCRETE WALK													50	\$647.50	\$12.95
					CONCRETE CURB & GUTTER DESIGN B618 - MACHINE PLACED							100	\$1,465.00	\$14.65						
					CONCRETE CURB & GUTTER DESIGN B618 - H& PLACED							150	\$3,847.00	\$25.65						
180	Cottage Grove	SAP	180-102-019	ME	Washington	COMMON EXCAVATION									7635	\$114,525.00	\$15.00			
					SUBGRADE EXCAVATION										13110	\$196,650.00	\$15.00			
					AGGREGATE BASE CLASS 5	21910	\$306,740.00	\$14.00												
					BITUMINOUS MATERIAL FOR TACK COAT					\$5,535.00										
					TYPE SP 9.5 WEARING COURSE MIXTURE (2,C)				1800	\$124,200.00	\$69.00									
					TYPE SP 12.5 WEARING COURSE MIXTURE (4,F)				4060	\$263,900.00	\$65.00									
					TYPE SP 12.5 WEARING COURSE MIXTURE (4,F) - SPECIAL				4235	\$296,450.00	\$70.00									
					TYPE SP 12.5 NON-WEARING COURSE MIXTURE (4,B)				2385	\$112,095.00	\$47.00									
					CONCRETE CURB & GUTTER DESIGN B618							9710	\$155,360.00	\$16.00						
229	Dayton	SP	229-112-002	MW	Hennepin	COMMON EXCAVATION									244272	\$1,490,059.20	\$6.10			
			(costs include			SUBGRADE EXCAVATION									13250	\$67,575.00	\$5.10			
			SP 027-701-036)			AGGREGATE BASE CLASS 5	30402	\$500,910.00	\$16.48											
					AGGREGATE BASE CLASS 6	6624	\$134,320.00	\$20.28												
					TYPE SP 12.5 WEARING COURSE MIXTURE (3,C)				10430	\$704,025.00	\$67.50									
					TYPE SP 12.5 NON-WEARING COURSE MIXTURE (3,C)				7470	\$489,285.00	\$65.50									
					4" CONCRETE WALK													27130	\$192,623.00	\$7.10
					6" CONCRETE WALK													6900	\$127,650.00	\$18.50
					CONCRETE CURB & GUTTER DESIGN SPECIAL							240	\$18,360.00	\$76.50						
					CONCRETE CURB & GUTTER DESIGN B424							15990	\$351,780.00	\$22.00						
					CONCRETE CURB & GUTTER DESIGN S524 (MOD)							4130	\$103,250.00	\$25.00						
229	Dayton	SAP	229-114-001	MW	Hennepin	COMMON EXCAVATION									6803	\$37,416.50	\$5.50			
					SUBGRADE EXCAVATION										650	\$10,400.00	\$16.00			
					AGGREGATE BASE CLASS 5	7210	\$115,360.00	\$16.00												
					BITUMINOUS MATERIAL FOR TACK COAT					\$4,650.00										
					TYPE SP 9.5 WEARING COURSE MIXTURE (2,C)				1400	\$109,200.00	\$78.00									
					TYPE SP 12.5 NON-WEARING COURSE MIXTURE (2,B)				4180	\$259,160.00	\$62.00									
					6" CONCRETE WALK													2472	\$42,024.00	\$17.00
					CONCRETE CURB & GUTTER DESIGN B618							2989	\$59,780.00	\$20.00						
247	Delano	SAP	247-102-001	3	Wright	COMMON EXCAVATION									3770	\$105,560.00	\$28.00			
					SUBGRADE EXCAVATION										377	\$3.77	\$0.01			
					BITUMINOUS MATERIAL FOR TACK COAT															
					AGGREGATE BASE CLASS 5	2089	\$31,335.00	\$15.00		\$864.00										
					TYPE SP 9.5 WEARING COURSE MIXTURE (2,B)				519	\$35,811.00	\$69.00									
					TYPE SP 12.5 NON-WEARING COURSE MIXTURE (2,B)				519	\$33,735.00	\$65.00									
					4" CONCRETE WALK													9150	\$48,495.00	\$5.30
					CONCRETE CURB & GUTTER DESIGN B618							2480	\$37,200.00	\$15.00						
247	Delano	SAP	247-103-001	3	Wright	COMMON EXCAVATION									2638	\$73,864.00	\$28.00			
					SUBGRADE EXCAVATION										264	\$2.64	\$0.01			
					AGGREGATE BASE CLASS 5	1717	\$25,755.00	\$15.00												
					BITUMINOUS MATERIAL FOR TACK COAT					\$600.00										
					TYPE SP 9.5 WEARING COURSE MIXTURE (2,B)				604	\$41,676.00	\$69.00									

2021 UNIT PRICE STUDY						Aggregate Base (ton)			Bituminous (ton)			Curb & Gutter (Lin. feet)			Excavation (yd³)			Sidewalk (ft²)				
City #	City Name	Project#	Dist	County	Spec Item	QTY	Amount	U.Price	QTY	Amount	U.Price	QTY	Amount	U.Price	QTY	Amount	U.Price	QTY	Amount	U.Price		
					TYPE SP 12.5 NON-WEARING COURSE MIXTURE (2,B) 4" CONCRETE WALK CONCRETE CURB & GUTTER DESIGN B618				360	\$23,400.00	\$65.00				1860	\$27,900.00	\$15.00	6225	\$32,992.50	\$5.30		
247	Delano	SAP	247-115-001	3	Wright	COMMON EXCAVATION SUBGRADE EXCAVATION AGGREGATE BASE CLASS 5 BITUMINOUS MATERIAL FOR TACK COAT TYPE SP 9.5 WEARING COURSE MIXTURE (2,B) TYPE SP 12.5 NON-WEARING COURSE MIXTURE (2,B) 4" CONCRETE WALK CONCRETE CURB & GUTTER DESIGN B618	640	\$9,600.00	\$15.00		\$228.00 \$7,107.00 \$8,905.00	\$69.00 \$65.00			710	\$10,650.00	\$15.00	980 96	\$27,440.00 \$0.96	\$28.00 \$0.01		
247	Delano	SAP	247-129-001	3	Wright	COMMON EXCAVATION SUBGRADE EXCAVATION AGGREGATE BASE CLASS 5 BITUMINOUS MATERIAL FOR TACK COAT TYPE SP 9.5 WEARING COURSE MIXTURE (2,B) TYPE SP 12.5 NON-WEARING COURSE MIXTURE (2,B) 4" CONCRETE WALK CONCRETE CURB & GUTTER DESIGN B618	1244	\$18,660.00	\$15.00		\$452.00 \$14,007.00 \$17,615.00	\$69.00 \$65.00			1400	\$21,000.00	\$15.00	1933 193	\$54,124.00 \$1.93	\$28.00 \$0.01		
118	Duluth	SP	118-164-003	1	Saint Louis	COMMON EXCAVATION AGGREGATE BASE CLASS 5 TYPE SP 9.5 WEARING COURSE MIXTURE (3,B) TYPE SP 12.5 NON WEARING COURSE MIXTURE (3,B) CONCRETE WALK 4" CONCRETE WALK CONCRETE CURB & GUTTER DESIGN B624 CONCRETE CURB & GUTTER DESIGN B624 (MODIFIED)	95	\$2,809.00	\$29.44	1637 363	\$137,508.00 \$30,129.00	\$84.00 \$83.00		580 977	\$15,080.00 \$25,402.00	\$26.00 \$26.00	839	\$20,136.00	\$24.00	360 3673	\$4,860.00 \$33,057.00	\$13.50 \$9.00
195	Eagan	SAP	195-125-009	ME	Dakota	COMMON EXCAVATION AGGREGATE BASE CLASS 5 (100% CRUSHED) 4" CONCRETE WALK CONCRETE CURB & GUTTER DESIGN B612 - HE CONCRETE CURB & GUTTER DESIGN B618 - HE	257	\$5,116.87	\$19.91				200 25	\$5,200.00 \$658.75	\$26.00 \$26.35	462	\$13,245.00	\$28.67	1800	\$12,420.00	\$6.90	
195	Eagan	SAP	195-125-010	ME	Dakota	COMMON EXCAVATION AGGREGATE BASE CLASS 5 (100% CRUSHED) BITUMINOUS MATERIAL FOR TACK COAT TYPE SP 9.5 WEARING COURSE MIXTURE (3,B) 4" CONCRETE WALK 4" CONCRETE WALK (COLORED) 6" CONCRETE WALK CONCRETE CURB & GUTTER DESIGN B618 - HE	39	\$776.49	\$19.91	1794	\$4,690.00 \$101,056.02	\$56.33		2375	\$62,581.25	\$26.35	68	\$1,949.56	\$28.67	100 1750 1740	\$690.00 \$24,062.50 \$23,490.00	\$6.90 \$13.75 \$13.50
195	Eagan	SAP	195-142-002	ME	Dakota	COMMON EXCAVATION AGGREGATE BASE CLASS 5 (100% CRUSHED) BITUMINOUS MATERIAL FOR TACK COAT TYPE SP 9.5 WEARING COURSE MIXTURE (3,B) CONCRETE CURB & GUTTER DESIGN B618 - HE	6	\$119.46	\$19.91	173	\$402.50 \$9,745.09	\$56.33	30	\$790.50	\$26.35	5	\$143.35	\$28.67				
203	East Bethel	SAP	203-105-004	MW	Anoka	COMMON EXCAVATION AGGREGATE BASE CLASS 5 BITUMINOUS MATERIAL FOR TACK COAT TYPE SP 12.5 WEARING COURSE MIXTURE (2,B) - 3.0" THICK TYPE SP 12.5 WEARING COURSE MIXTURE (2,B) TYPE SP 12.5 NON-WEARING COURSE MIXTURE (2,B)	1000	\$16,750.00	\$16.75	24 2002 2665	\$3,159.00 \$4,514.00 \$122,122.00 \$159,900.00	\$184.85 \$61.00 \$60.00			327	\$1,635.00	\$5.00					
181	Eden Prairie	SAP	181-594-004	MW	Hennepin	COMMON EXCAVATION AGGREGATE BASE CLASS 5 TYPE SP 9.5 WEARING COURSE MIXTURE (2,B) TYPE SP 12.5 WEARING COURSE MIXTURE (2,B) TYPE SP 12.5 NON-WEARING COURSE MIXTURE (2,B) 6" CONCRETE WALK CONCRETE CURB & GUTTER DESIGN B618 CONCRETE CURB & GUTTER DESIGN B624	1251	\$34,750.00	\$27.78	191 101 218	\$23,875.00 \$12,827.00 \$27,250.00	\$125.00 \$127.00 \$125.00	91 850	\$4,095.00 \$34,000.00	\$45.00 \$40.00	968	\$53,240.00	\$55.00	858	\$13,728.00	\$16.00	
120	Edina	SAP	120-143-006	MW	Hennepin	COMMON EXCAVATION SUBGRADE EXCAVATION									10011 2946	\$367,403.70 \$48,019.80	\$36.70 \$16.30					

2021 UNIT PRICE STUDY						Aggregate Base (ton)			Bituminous (ton)			Curb & Gutter (Lin. feet)			Excavation (yd <sup>3</sup> )			Sidewalk (ft <sup>2</sup> )		
City #	City Name	Project#	Dist	County	Spec Item	QTY	Amount	U.Price	QTY	Amount	U.Price	QTY	Amount	U.Price	QTY	Amount	U.Price	QTY	Amount	U.Price
					AGGREGATE BASE CLASS 5 BITUMINOUS MATERIAL FOR TACK COAT TYPE SP 9.5 WEARING COURSE MIXTURE (3,B) TYPE SP 12.5 NON WEARING COURSE MIXTURE (3,B) 4" CONCRETE WALK WITH 6" CLASS 5 AGGREGATE BASE 6" CONCRETE WALK WITH 6" CLASS 5 AGGREGATE BASE CONCRETE CURB & GUTTER DESIGN B618	8449	\$46.94	\$0.01		\$3,019.25 1814 \$127,524.20 \$70.30 2721 \$181,218.60 \$66.60								47939 \$218,122.40 \$4.55 12046 \$70,469.10 \$5.85		
120	Edina	SAP	120-146-006	MW	Hennepin	CONCRETE WALK 6" CONCRETE WALK												1059 \$9,534.00 \$9.00 880 \$7,040.00 \$8.00		
123	Fairmont	SAP	123-111-010	7	Martin	COMMON EXCAVATION SUBGRADE EXCAVATION AGGREGATE BASE CLASS 5 TYPE SP 9.5 WEARING COURSE MIXTURE (3,C) TYPE SP 12.5 NON WEARING COURSE MIXTURE (3,B) 4" CONCRETE WALK 6" CONCRETE WALK CONCRETE CURB & GUTTER DESIGN B618 CONCRETE CURB & GUTTER DESIGN B618 - MOD CONCRETE CURB & GUTTER DESIGN SPECIAL CONCRETE CURB & GUTTER DESIGN V4	9950	\$268,650.00	\$27.00	2400 \$312,000.00 \$130.00 2350 \$270,250.00 \$115.00				14050 \$168,600.00 \$12.00 2500 \$30,000.00 \$12.00				25580 \$140,690.00 \$5.50 9200 \$73,600.00 \$8.00		
126	Fergus Falls	SAP	126-124-003	4	Otter Tail	COMMON EXCAVATION AGGREGATE BASE CLASS 5 BITUMINOUS MATERIAL FOR TACK COAT TYPE SP 9.5 WEARING COURSE MIXTURE (2,C)	195	\$3,607.00	\$18.50	\$2,436.00 1616 \$103,424.00 \$64.00					223 \$5,129.00 \$23.00					
126	Fergus Falls	SAP	126-144-001	4	Otter Tail	COMMON EXCAVATION AGGREGATE BASE CLASS 5 TYPE SP 12.5 WEARING COURSE MIXTURE (3,C) - 2.0" THICK TYPE SP 12.5 NON-WEARING COURSE MIXTURE (3,C) - 2.0" THICK 4" CONCRETE WALK 6" CONCRETE WALK CONCRETE CURB & GUTTER DESIGN B618 CONCRETE CURB & GUTTER DESIGN ADA	1719	\$30,082.50	\$17.50	378 \$24,409.80 \$64.55 378 \$25,097.40 \$66.36				3130 \$46,011.00 \$14.70				990 \$13,860.00 \$14.00 120 \$2,190.00 \$18.25		
214	Forest Lake	SAP	214-127-002	ME	Washington	COMMON EXCAVATION AGGREGATE BASE CLASS 5 TYPE SP 9.5 WEARING COURSE MIXTURE (4,C) TYPE SP 12.5 WEARING COURSE MIXTURE (4,C) 4" CONCRETE WALK 6" CONCRETE WALK CONCRETE CURB & GUTTER DESIGN B424 CONCRETE CURB & GUTTER DESIGN B612 CONCRETE CURB & GUTTER DESIGN B624 CONCRETE CURB & GUTTER DESIGN S524	3893	\$58,401.00	\$15.00	560 \$39,984.00 \$71.40 560 \$37,940.00 \$67.75				8203 \$82,030.00 \$10.00				3025 \$15,125.00 \$5.00 1845 \$25,830.00 \$14.00		
226	Glencoe	SAP	226-103-002	8	McLeod	COMMON EXCAVATION SUBGRADE EXCAVATION AGGREGATE BASE CLASS 5 TYPE SP 12.5 WEARING COURSE MIXTURE (3,C) 4" CONCRETE WALK 6" CONCRETE WALK CONCRETE CURB & GUTTER DESIGN B424 CONCRETE CURB & GUTTER DESIGN B624 CONCRETE CURB & GUTTER DESIGN R424	199	\$6,368.00	\$32.00	12 \$1,800.00 \$150.00				715 \$6,077.50 \$8.50 440 \$3,520.00 \$8.00				7098 \$50,750.70 \$7.15 2590 \$28,878.50 \$11.15		
197	Ham Lake	SAP	197-124-004	MW	Anoka	COMMON EXCAVATION SUBGRADE EXCAVATION AGGREGATE BASE CLASS 6 (LV) TYPE SP 9.5 WEARING COURSE MIXTURE (2,B) - 1.0" THICK TYPE SP 9.5 WEARING COURSE MIXTURE (2,B) - 2.0" THICK TYPE SP 9.5 WEARING COURSE MIXTURE (2,C) TYPE SP 12.5 WEARING COURSE MIXTURE (2,B) - 2.0" THICK TYPE SP 12.5 WEARING COURSE MIXTURE (2,C) CONCRETE CURB & GUTTER DESIGN B612 CONCRETE CURB & GUTTER DESIGN B618	281	\$5,075.25	\$18.04	18 \$6,920.80 \$383.64 7 \$3,250.00 \$454.55 499 \$51,646.50 \$103.50 36 \$8,364.00 \$231.82 497 \$44,108.75 \$88.75				4697 \$32,879.00 \$7.00 2809 \$21,910.20 \$7.80						
															145 \$2,900.00 \$20.00 1918 \$38,360.00 \$20.00					



2021 UNIT PRICE STUDY						Aggregate Base (ton)			Bituminous (ton)			Curb & Gutter (Lin. feet)			Excavation (yd <sup>3</sup> )			Sidewalk (ft <sup>2</sup> )		
City #	City Name	Project#	Dist	County	Spec Item	QTY	Amount	U.Price	QTY	Amount	U.Price	QTY	Amount	U.Price	QTY	Amount	U.Price	QTY	Amount	U.Price
130	Hastings	SAP	130-128-011	ME	Dakota	AGGREGATE BASE CLASS 5 BITUMINOUS MATERIAL FOR TACK COAT TYPE SP WEARING COURSE MIXTURE (3,B) TYPE SP NON-WEARING COURSE MIXTURE (3,B) 4" CONCRETE WALK 6" CONCRETE WALK CONCRETE CURB & GUTTER DESIGN B618	3	\$148.50	\$49.50		\$2,301.00 714 \$35,343.00 \$49.50 38 \$2,375.00 \$62.50							105 \$1,474.20 \$14.00 61 \$1,071.00 \$17.50		
130	Hastings	SAP	130-128-012	ME	Dakota	COMMON EXCAVATION SUBGRADE EXCAVATION AGGREGATE BASE CLASS 5 BITUMINOUS MATERIAL FOR TACK COAT TYPE SP WEARING COURSE MIXTURE (3,C) TYPE SP NON-WEARING COURSE MIXTURE (3,C) 4" CONCRETE WALK 6" CONCRETE WALK CONCRETE CURB & GUTTER DESIGN B618	5820	\$87,300.00	\$15.00		\$2,990.00 2550 \$147,900.00 \$58.00 1250 \$73,125.00 \$58.50				5400 \$81,000.00 \$15.00 150 \$1,800.00 \$12.00			8420 \$43,363.00 \$5.15 915 \$11,437.00 \$12.50		
130	Hastings	SAP	130-131-002	ME	Dakota	COMMON EXCAVATION SUBGRADE EXCAVATION AGGREGATE BASE CLASS 5 BITUMINOUS MATERIAL FOR TACK COAT TYPE SP WEARING COURSE MIXTURE (3,C) TYPE SP NON-WEARING COURSE MIXTURE (3,C) 4" CONCRETE WALK 6" CONCRETE WALK CONCRETE CURB & GUTTER DESIGN B618	2000	\$30,000.00	\$15.00		\$1,040.00 950 \$55,100.00 \$58.00 500 \$29,250.00 \$58.50				2000 \$30,000.00 \$15.00 50 \$600.00 \$12.00			5450 \$28,067.50 \$5.15 950 \$11,875.00 \$12.50		
130	Hastings	SAP	130-132-008	ME	Dakota	BITUMINOUS MATERIAL FOR TACK COAT TYPE SP WEARING COURSE MIXTURE (3,B) TYPE SP NON-WEARING COURSE MIXTURE (3,B) 4" CONCRETE WALK 6" CONCRETE WALK CONCRETE CURB & GUTTER DESIGN B618					\$2,991.30 928 \$45,936.00 \$49.50 46 \$2,875.00 \$62.50							212 \$2,973.60 \$14.00 545 \$9,544.50 \$17.50		
131	Hibbing	SAP	131-179-011	1	Saint Louis	BITUMINOUS MATERIAL FOR TACK COAT TYPE SP 9.5 WEARING COURSE MIXTURE (2,B)				\$5,500.00 2700 \$162,000.00 \$60.00										
131	Hibbing	SAP	131-196-003	1	Saint Louis	BITUMINOUS MATERIAL FOR TACK COAT TYPE SP 9.5 WEARING COURSE MIXTURE (2,B)				\$6,875.00 3350 \$201,000.00 \$60.00										
131	Hibbing	SAP	131-200-002	1	Saint Louis	BITUMINOUS MATERIAL FOR TACK COAT TYPE SP 9.5 WEARING COURSE MIXTURE (2,B)				\$2,375.00 1150 \$69,000.00 \$60.00										
131	Hibbing	SAP	131-218-003	1	Saint Louis	BITUMINOUS MATERIAL FOR TACK COAT TYPE SP 9.5 WEARING COURSE MIXTURE (2,B)				\$4,375.00 2125 \$127,500.00 \$60.00										
245	Isanti	SAP	245-116-001	3	Isanti	COMMON EXCAVATION AGGREGATE BASE SPECIAL TYPE SP 9.5 WEARING COURSE MIXTURE (2,B) TYPE SP 12.5 NON-WEARING COURSE MIXTURE (2,B) 4" CONCRETE WALK 6" CONCRETE WALK CONCRETE CURB & GUTTER DESIGN D418	396	\$1,694.00	\$4.28		\$47,465.55 \$70.95 892 \$56,517.12 \$63.36				717 \$10,898.40 \$15.20			8590 \$44,668.00 \$5.20 1845 \$27,195.30 \$14.74		
200	Little Canada	SAP	200-121-001	ME	Ramsey	COMMON EXCAVATION SUBGRADE EXCAVATION AGGREGATE BASE CLASS 6 AGGREGATE BASE CLASS 7 BITUMINOUS MATERIAL FOR TACK COAT TYPE SP 9.5 WEARING COURSE MIXTURE (2,B) TYPE SP 9.5 WEARING COURSE MIXTURE (3,C) TYPE SP 12.5 WEARING COURSE MIXTURE (3,C) CONCRETE CURB & GUTTER DESIGN B624	1132 \$22,640.00 \$20.00 6610 \$59,490.00 \$9.00				\$1,150.00 7 \$595.00 \$85.00 709 \$58,138.00 \$82.00 1181 \$88,575.00 \$75.00				4718 \$84,924.00 \$18.00 460 \$8,280.00 \$18.00					
136	Little Falls	SAP	136-133-001	3	Morrison	COMMON EXCAVATION AGGREGATE BASE CLASS 5 BITUMINOUS MATERIAL FOR TACK COAT TYPE SP 9.5 WEARING COURSE MIXTURE (3,B) TYPE SP 12.5 NON WEARING COURSE MIXTURE (3,B)	2160	\$26,820.00	\$12.42		\$913.85 708 \$48,852.00 \$69.00 945 \$59,535.00 \$63.00				3437 \$24,574.55 \$7.15					
137	Mankato	SP	137-140-001	7	Nicollet	COMMON EXCAVATION									3628	\$47,520.25	\$13.10			

2021 UNIT PRICE STUDY						Aggregate Base (ton)			Bituminous (ton)			Curb & Gutter (Lin. feet)			Excavation (yd <sup>3</sup> )			Sidewalk (ft <sup>2</sup> )					
City #	City Name	Project#	Dist	County	Spec Item	QTY	Amount	U.Price	QTY	Amount	U.Price	QTY	Amount	U.Price	QTY	Amount	U.Price	QTY	Amount	U.Price			
				Blue Earth Le Sueur	AGGREGATE BASE CLASS 5 TYPE SP 12.5 WEARING COURSE MIXTURE (3,C) TYPE SP 19.0 NON- WEARING COURSE MIXTURE (3,C) 5" CONCRETE WALK 6" CONCRETE WALK CONCRETE CURB & GUTTER DESIGN B412 CONCRETE CURB & GUTTER DESIGN B618 CONCRETE CURB & GUTTER DESIGN S STYLE CONCRETE CURB & GUTTER DESIGN B418	3942	\$46,537.50	\$11.81	1407 2111	\$117,695.60 \$157,353.90	\$83.64 \$74.55							3903 6777	\$24,784.05 \$51,840.23	\$6.35 \$7.65			
189	Maple Grove	SAP	189-108-005	MW	Hennepin	COMMON EXCAVATION SUBGRADE EXCAVATION AGGREGATE BASE CLASS 5 TYPE SP 9.5 WEARING COURSE MIXTURE (3,C) - 2.0" THICK TYPE SP 12.5 NON-WEARING COURSE MIXTURE (3,C)- 3.0" THICK 4" CONCRETE WALK 6" CONCRETE WALK CONCRETE CURB & GUTTER DESIGN B618	2016	\$26,880.00	\$13.33	2328 405	\$190,440.00 \$35,568.50	\$81.82 \$87.88				4600 160	\$49,220.00 \$1,712.00	\$10.70 \$10.70			1790 1680	\$10,650.50 \$28,224.00	\$5.95 \$16.80
189	Maple Grove	SAP	189-119-003	MW	Hennepin	COMMON EXCAVATION SUBGRADE EXCAVATION AGGREGATE BASE CLASS 5 TYPE SP 9.5 WEARING COURSE MIXTURE (3,B)- 3.0" THICK TYPE SP 9.5 WEARING COURSE MIXTURE (3,C)- 2.0" - THICK TYPE SP 12.5 NON-WEARING COURSE MIXTURE (3,C) - 2.0" THICK 5" CONCRETE WALK	54	\$0.30	\$0.01	5 491 490	\$927.30 \$35,488.80 \$35,846.65	\$170.15 \$72.27 \$73.18				42 148	\$1,654.80 \$1,480.00	\$39.40 \$10.00			450	\$3,375.00	\$7.50
189	Maple Grove	SAP	189-120-003	MW	Hennepin	COMMON EXCAVATION SUBGRADE EXCAVATION AGGREGATE BASE CLASS 5 TYPE SP 9.5 WEARING COURSE MIXTURE (2,C) - 3.0" THICK TYPE SP 9.5 WEARING COURSE MIXTURE (3,C) - 2.0" THICK TYPE SP 12.5 WEARING COURSE MIXTURE (3,C)- 2.0" THICK 5" CONCRETE WALK 6" CONCRETE WALK CONCRETE CURB & GUTTER DESIGN SPECIAL CONCRETE CURB & GUTTER DESIGN B618	8361	\$83,145.50	\$9.94	50 1333 1333	\$8,694.40 \$107,262.00 \$95,142.00	\$173.33 \$80.45 \$71.36				12500 202	\$210,000.00 \$4,949.00	\$16.80 \$24.50			16147 1060	\$113,029.00 \$16,642.00	\$7.00 \$15.70
189	Maple Grove	SAP	189-127-002	MW	Hennepin	COMMON EXCAVATION AGGREGATE BASE CLASS 5 TYPE SP 9.5 WEARING COURSE MIXTURE (3,B)- 3.0" THICK TYPE SP 9.5 WEARING COURSE MIXTURE (3,C)- 2.0" - THICK 5" CONCRETE WALK CONCRETE CURB & GUTTER - SURMOUNTABLE	135	\$0.75	\$0.01	2 1324	\$393.40 \$95,670.30	\$170.30 \$72.27				294	\$11,583.60	\$39.40			2339	\$14,542.50	\$6.22
189	Maple Grove	SAP	189-131-001	MW	Hennepin	COMMON EXCAVATION SUBGRADE EXCAVATION AGGREGATE BASE CLASS 5 TYPE SP 9.5 WEARING COURSE MIXTURE (2,B) - 3.0" THICK TYPE SP 9.5 WEARING COURSE MIXTURE (3,C) - 2.0" THICK TYPE SP 12.5 NON-WEARING COURSE MIXTURE (3,C)- 2.0" THICK TYPE SP 12.5 NON-WEARING COURSE MIXTURE (3,C)- 3.0" THICK 4" CONCRETE WALK 5" CONCRETE WALK 6" CONCRETE WALK CONCRETE CURB & GUTTER DESIGN SPECIAL CONCRETE CURB & GUTTER DESIGN B618	9900	\$132,000.00	\$13.33	150 5000 2644 48	\$19,110.00 \$409,077.00 \$197,111.60 \$4,248.50	\$127.27 \$81.82 \$74.55 \$87.87				19500 1400	\$208,650.00 \$14,980.00	\$10.70 \$10.70			12470 54940 2672	\$74,196.50 \$296,676.00 \$44,889.60	\$5.95 \$5.40 \$16.80
139	Marshall	SAP	139-124-004	8	Lyon	COMMON EXCAVATION AGGREGATE BASE CLASS 5 TYPE SP 12.5 WEARING COURSE MIXTURE (3,C) TYPE SP 12.5 NON WEARING COURSE MIXTURE (3,B) 4" CONCRETE WALK 6" CONCRETE WALK CONCRETE CURB & GUTTER DESIGN B618	10678	\$160,164.00	\$15.00	1935 2638	\$188,256.15 \$263,404.30	\$97.29 \$99.85				11999	\$167,986.00	\$14.00			12050 4217	\$61,455.00 \$29,940.70	\$5.10 \$7.10
140	Mendota Heights	SAP	140-101-012	ME	Dakota	COMMON EXCAVATION SUBGRADE EXCAVATION									861 1500	\$3,228.75 \$25,500.00	\$3.75 \$17.00						

2021 UNIT PRICE STUDY						Aggregate Base (ton)			Bituminous (ton)			Curb & Gutter (Lin. feet)			Excavation (yd³)			Sidewalk (ft²)						
City #	City Name	Project#	Dist	County	Spec Item	QTY	Amount	U.Price	QTY	Amount	U.Price	QTY	Amount	U.Price	QTY	Amount	U.Price	QTY	Amount	U.Price				
					AGGREGATE BASE CLASS 5 TYPE SP 9.5 WEARING COURSE MIXTURE (2,B) TYPE SP 9.5 WEARING COURSE MIXTURE (2,C) TYPE SP 12.5 NON-WEARING COURSE MIXTURE (2,B) 6" CONCRETE WALK CONCRETE CURB & GUTTER DESIGN B618	3380	\$62,530.00	\$18.50	1345 6300 3150	\$105,582.50 \$428,400.00 \$177,975.00	\$78.50 \$68.00 \$56.50				6410	\$233,965.00	\$36.50		4120	\$57,680.00	\$14.00			
141	Minneapolis	SAP	141-284-006	MW	Hennepin	COMMON EXCAVATION SUBGRADE EXCAVATION AGGREGATE BASE CLASS 5 TYPE SP 12.5 WEARING COURSE MIXTURE (5,L) TYPE SP 12.5 NON-WEARING COURSE MIXTURE (4,L) 3.5" CONCRETE WALK 6" CONCRETE WALK 6" CONCRETE WALK - SPECIAL CONCRETE CURB & GUTTER DESIGN B612 CONCRETE CURB & GUTTER DESIGN B624	3448	\$63,240.00	\$18.34	1890 3182	\$165,091.50 \$233,399.70	\$87.35 \$73.35			115 6009	\$2,932.00 \$176,664.60	\$25.50 \$29.40	2592 1250	\$53,784.00 \$22,187.50	\$20.75 \$17.75		12672 4938 706	\$76,032.00 \$60,984.30 \$12,884.50	\$6.00 \$12.35 \$18.25
141	Minneapolis	SP	141-313-016	MW	Hennepin	COMMON EXCAVATION SUBGRADE EXCAVATION AGGREGATE BASE CLASS 5 TYPE SP 12.5 WEARING COURSE MIXTURE (5,L) 6" CONCRETE WALK CONCRETE CURB & GUTTER DESIGN - SPECIAL 1 CONCRETE CURB & GUTTER DESIGN - SPECIAL 1 (4") CONCRETE CURB & GUTTER DESIGN B624 CONCRETE CURB & GUTTER DESIGN B624 (MODIFIED) CONCRETE CURB & GUTTER DESIGN B924 (MODIFIED)	11574	\$546,550.00	\$47.22	197	\$49,250.00	\$250.00			21 67 2171 5748 1152	\$1,320.90 \$2,505.80 \$91,182.00 \$241,416.00 \$63,705.60	\$62.90 \$37.40 \$42.00 \$42.00 \$55.30	4925 1500	\$418,625.00 \$61,950.00	\$85.00 \$41.30		126663	\$1,120,967.55	\$8.85
243	Minnetrista	SAP	243-101-002	MW	Hennepin	COMMON EXCAVATION SUBGRADE EXCAVATION AGGREGATE BASE CLASS 5 BITUMINOUS MATERIAL FOR TACK COAT TYPE SP 9.5 WEARING COURSE MIXTURE (2,B) - 3.0" THICK TYPE SP 9.5 WEARING COURSE MIXTURE (2,B) 6" CONCRETE WALK CONCRETE CURB & GUTTER DESIGN B618	36	\$530.00	\$14.72		\$3,084.00 6 1451	\$647.50 \$105.97 \$75.45						20 15	\$565.00 \$436.50	\$28.25 \$29.10		210	\$3,990.00	\$19.00
143	Montevideo	SAP	143-594-001	8	Chippewa	COMMON EXCAVATION AGGREGATE BASE CLASS 5 TYPE SP 12.5 WEARING COURSE MIXTURE (2,B) TYPE SP 12.5 NON-WEARING COURSE MIXTURE (2,B) 4" CONCRETE WALK 6" CONCRETE WALK CONCRETE CURB & GUTTER DESIGN B618 CONCRETE CURB & GUTTER DESIGN - ROLLED MODIFIED	12000	\$204,000.00	\$17.00	1070 2130	\$104,325.00 \$207,675.00	\$97.50 \$97.50			2820 2380	\$56,400.00 \$52,360.00	\$20.00 \$22.00	7100	\$92,300.00	\$13.00		16783 10217	\$113,285.25 \$91,953.00	\$6.75 \$9.00
144	Moorhead	SP	144-118-016	4	Clay	COMMON EXCAVATION AGGREGATE BASE CLASS 5 TYPE SP 12.5 WEARING COURSE MIXTURE (3,B) TYPE SP 12.5 NON WEARING COURSE MIXTURE (3,B) 4" CONCRETE WALK 6" CONCRETE WALK 6" CONCRETE WALK - SPECIAL CONCRETE CURB & GUTTER DESIGN B618 CONCRETE CURB & GUTTER DESIGN B624 CONCRETE CURB & GUTTER DESIGN S524	4347	\$96,600.00	\$22.22	3411 1227	\$230,242.50 \$88,957.50	\$67.50 \$72.50			242 9471 442	\$8,107.00 \$378,840.00 \$25,857.00	\$33.50 \$40.00 \$58.50	9586	\$119,825.00	\$12.50		39110 10271 2216	\$283,547.50 \$87,303.50 \$24,930.00	\$7.25 \$8.50 \$11.25
225	North Branch	SAP	225-103-009	ME	Chisago	TYPE SP 12.5 WEARING COURSE MIXTURE (2,B)			356	\$23,282.40	\$65.40													
225	North Branch	SAP	225-104-006	ME	Chisago	COMMON EXCAVATION SUBGRADE EXCAVATION AGGREGATE BASE CLASS 5 TYPE SP 12.5 WEARING COURSE MIXTURE (4,C) TYPE SP 12.5 NON-WEARING COURSE MIXTURE (4,B) 6" CONCRETE WALK CONCRETE CURB & GUTTER DESIGN B618 CONCRETE CURB & GUTTER DESIGN B624	1209	\$27,807.00	\$23.00	448 30	\$40,199.04 \$2,053.50	\$89.73 \$68.45			431 170	\$10,344.00 \$4,590.00	\$24.00 \$27.00	911 200	\$14,576.00 \$1,000.00	\$16.00 \$5.00		3666	\$32,994.00	\$9.00

2021 UNIT PRICE STUDY						Aggregate Base (ton)			Bituminous (ton)			Curb & Gutter (Lin. feet)			Excavation (yd³)			Sidewalk (ft²)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
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					CONCRETE CURB & GUTTER DESIGN D424 CONCRETE CURB & GUTTER DESIGN S524 CONCRETE CURB & GUTTER DESIGN V4							185	\$4,625.00	\$25.00																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
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225	North Branch	SAP	225-120-003	ME	Chisago	TYPE SP 12.5 WEARING COURSE MIXTURE (2,B)			352	\$23,020.80	\$65.40																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
225	North Branch	SAP	225-122-001	ME	Chisago	TYPE SP 12.5 WEARING COURSE MIXTURE (2,B)			1053	\$68,866.20	\$65.40																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
225	North Branch	SAP	225-128-001	ME	Chisago	TYPE SP 12.5 WEARING COURSE MIXTURE (2,B)			165	\$10,791.00	\$65.40																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
225	North Branch	SAP	225-129-001	ME	Chisago	TYPE SP 12.5 WEARING COURSE MIXTURE (2,B)			209	\$13,668.60	\$65.40																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
225	North Branch	SAP	225-130-001	ME	Chisago	TYPE SP 12.5 WEARING COURSE MIXTURE (2,B)			202	\$13,210.80	\$65.40																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
225	North Branch	SAP	225-136-001	ME	Chisago	TYPE SP 12.5 WEARING COURSE MIXTURE (2,B) 6" CONCRETE WALK CONCRETE CURB & GUTTER - SPECIAL			807	\$52,777.80	\$65.40							120	\$1,417.20	\$11.81																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
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225	North Branch	SAP	225-139-001	ME	Chisago	TYPE SP 12.5 WEARING COURSE MIXTURE (2,B)			910	\$59,514.00	\$65.40																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
149	Northfield	SAP	149-117-009	6	Rice	COMMON EXCAVATION SUBGRADE EXCAVATION AGGREGATE BASE CLASS 5 BITUMINOUS MATERIAL FOR TACK COAT TYPE SP 9.5 WEARING COURSE MIXTURE (3,B) TYPE SP 9.5 WEARING COURSE MIXTURE (3,C) TYPE SP 12.5 NON-WEARING COURSE MIXTURE (3,C) 4" CONCRETE WALK 6" CONCRETE WALK 4" CONCRETE WALK - SPECIAL 6" CONCRETE WALK - SPECIAL CONCRETE CURB & GUTTER DESIGN B618 CONCRETE CURB & GUTTER DESIGN R424	5134	\$99,820.00	\$19.44									18446 321	\$99,608.40 \$4,815.00	\$5.40 \$15.00																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												

2021 UNIT PRICE STUDY						Aggregate Base (ton)			Bituminous (ton)			Curb & Gutter (Lin. feet)			Excavation (yd <sup>3</sup> )			Sidewalk (ft <sup>2</sup> )		
City #	City Name	Project#	Dist	County	Spec Item	QTY	Amount	U.Price	QTY	Amount	U.Price	QTY	Amount	U.Price	QTY	Amount	U.Price	QTY	Amount	U.Price
					CONCRETE CURB & GUTTER DESIGN B618							1460	\$21,900.00	\$15.00						
151	North Saint Paul	SAP	151-263-005	ME	Ramsey	COMMON EXCAVATION SUBGRADE EXCAVATION AGGREGATE BASE CLASS 5 BITUMINOUS MATERIAL FOR TACK COAT TYPE SP 9.5 WEARING COURSE MIXTURE (3,B) - 3.0" THICK TYPE SP 12.5 WEARING COURSE MIXTURE (3,B) TYPE SP 12.5 NON WEARING COURSE MIXTURE (3,B) 4" CONCRETE WALK 6" CONCRETE WALK CONCRETE CURB & GUTTER DESIGN B618 CONCRETE CURB & GUTTER DESIGN S518 (MOD)	5970	\$83,580.00	\$14.00							5123 4645	\$97,337.00 \$88,255.00	\$19.00 \$19.00		
										\$4.18 \$1,800.00 \$81,900.00 \$156,000.00	\$181.82 \$78.00 \$75.00				2680 1050	\$40,200.00 \$19,425.00	\$15.00 \$18.50	524 14240	\$3,930.00 \$92,560.00	\$7.50 \$6.50
151	North Saint Paul	SAP	151-268-001	ME	Ramsey	COMMON EXCAVATION SUBGRADE EXCAVATION AGGREGATE BASE CLASS 5 BITUMINOUS MATERIAL FOR TACK COAT TYPE SP 12.5 WEARING COURSE MIXTURE (4,B) 6" CONCRETE WALK CONCRETE CURB & GUTTER DESIGN B618	1823	\$30,390.00	\$16.67							1936 1084	\$25,168.00 \$14,092.00	\$13.00 \$13.00		
										\$309.00 \$70,805.00	\$72.25				1620	\$27,540.00	\$17.00	9589	\$59,931.25	\$6.25
185	Oakdale	SAP	185-121-023	ME	Washington	COMMON EXCAVATION SUBGRADE EXCAVATION AGGREGATE BASE CLASS 5 BITUMINOUS MATERIAL FOR TACK COAT TYPE SP 12.5 WEARING COURSE MIXTURE (4,B) 4" CONCRETE WALK 6" CONCRETE WALK CONCRETE CURB & GUTTER DESIGN B618	970	\$9.70	\$0.01							300 50	\$300.00 \$50.00	\$1.00 \$1.00		
										\$30.00 \$191,590.00	\$49.00				3180	\$75,843.00	\$23.85	550 2250	\$3,217.00 \$36,000.00	\$5.85 \$16.00
223	Oak Grove	SAP	223-109-003	MW	Anoka	COMMON EXCAVATION AGGREGATE BASE CLASS 5 BITUMINOUS MATERIAL FOR TACK COAT TYPE SP 9.5 WEARING COURSE MIXTURE (3,C) - 3.0" THICK TYPE SP 9.5 WEARING COURSE MIXTURE (3,C) TYPE SP 12.5 NON-WEARING COURSE MIXTURE (3,C)	167	\$2,511.00	\$15.00							1055	\$10,180.75	\$9.65		
										\$4,416.00 \$18,443.40 \$275,597.35 \$210,491.85	\$71.51 \$62.65 \$61.35									
152	Orono	SAP	152-110-002	MW	Hennepin	COMMON EXCAVATION SUBGRADE EXCAVATION AGGREGATE BASE CLASS 5 BITUMINOUS MATERIAL FOR TACK COAT TYPE SP 9.5 WEARING COURSE MIXTURE (3,B) CONCRETE CURB & GUTTER DESIGN B618	810	\$21,375.00	\$26.39							110 370	\$4,070.00 \$14,060.00	\$37.00 \$38.00		
										\$4,250.00 \$127,072.00	\$72.20				410	\$10,906.00	\$26.60			
155	Plymouth	SAP	155-156-021	MW	Hennepin	COMMON EXCAVATION AGGREGATE BASE CLASS 5 BITUMINOUS MATERIAL FOR TACK COAT TYPE SP 9.5 WEARING COURSE MIXTURE (4,C) TYPE SP 12.5 NON-WEARING COURSE MIXTURE (4,B) 6" CONCRETE WALK CONCRETE CURB & GUTTER DESIGN B618	1170	\$30,875.00	\$26.39							1590	\$58,830.00	\$37.00		
										\$16,500.00 \$986,710.00 \$391,194.00	\$79.00 \$63.30				4220	\$112,252.00	\$26.60	4500	\$50,850.00	\$11.30
155	Plymouth	SAP	155-178-002	MW	Hennepin	COMMON EXCAVATION SUBGRADE EXCAVATION AGGREGATE BASE CLASS 5 BITUMINOUS MATERIAL FOR TACK COAT TYPE SP 9.5 WEARING COURSE MIXTURE (3,B) 6" CONCRETE WALK CONCRETE CURB & GUTTER DESIGN B618	666	\$17,575.00	\$26.39							185 450	\$6,845.00 \$17,100.00	\$37.00 \$38.00		
										\$3,250.00 \$98,192.00	\$72.20				605	\$16,093.00	\$26.60	2000	\$22,600.00	\$11.30
199	Ramsey	SAP	199-101-012	MW	Anoka	COMMON EXCAVATION SUBGRADE EXCAVATION AGGREGATE BASE CLASS 5 - MODIFIED BITUMINOUS MATERIAL FOR MIXTURE BITUMINOUS MATERIAL FOR TACK COAT TYPE SP 9.5 WEARING COURSE MIXTURE (3,C) TYPE SP 12.5 NON-WEARING COURSE MIXTURE (3,C) 6" CONCRETE WALK	5254	\$91,072.80	\$17.33							2098 7000	\$11,643.90 \$17,850.00	\$5.55 \$2.55		
										\$215,670.00 \$40.76 \$424,923.00 \$396,469.50	\$395.00 \$69.50 \$61.90							1331	\$17,569.20	\$13.20

2021 UNIT PRICE STUDY						Aggregate Base (ton)			Bituminous (ton)			Curb & Gutter (Lin. feet)			Excavation (yd³)			Sidewalk (ft²)		
City #	City Name	Project#	Dist	County	Spec Item	QTY	Amount	U.Price	QTY	Amount	U.Price	QTY	Amount	U.Price	QTY	Amount	U.Price	QTY	Amount	U.Price
238	Rogers	SAP	238-102-001	MW	Hennepin	CONCRETE CURB & GUTTER DESIGN B418						580	\$17,690.00	\$30.50						
					COMMON EXCAVATION										4618	\$15,470.30	\$3.35			
					SUBGRADE EXCAVATION										1483	\$10,974.20	\$7.40			
					HAUL & PLACE AGGREGATE BASE (CV) CLASS 5 (P)	4912	\$29,746.10	\$6.06												
					BITUMINOUS MATERIAL FOR TACK COAT					\$3,853.20										
					TYPE SP 9.5 WEARING COURSE MIXTURE (3,C) - 3.0" THICK				47	\$31,350.00	\$666.31									
					TYPE SP 9.5 WEARING COURSE MIXTURE (4,C)				888	\$74,769.60	\$84.20									
					TYPE SP 12.5 WEARING COURSE MIXTURE (4,C)				2222	\$164,428.00	\$74.00									
					4" CONCRETE WALK													10566	\$46,490.40	\$4.40
					CONCRETE CURB & GUTTER DESIGN B424							332	\$9,943.40	\$29.95						
					CONCRETE CURB & GUTTER DESIGN B618							5898	\$86,995.50	\$14.75						
208	Rosemount	SAP	208-108-008	ME	Dakota	COMMON EXCAVATION									20200	\$111,100.00	\$5.50			
					SUBGRADE EXCAVATION										643	\$9,645.00	\$15.00			
					AGGREGATE BASE CLASS 5	10769	\$99,047.80	\$9.20												
					BITUMINOUS MATERIAL FOR TACK COAT					\$7,396.00										
					TYPE SP 9.5 WEARING COURSE MIXTURE (4,C)				3891	\$260,385.72	\$66.92									
					TYPE SP 12.5 NON-WEARING COURSE MIXTURE (4,B)				2474	\$130,998.30	\$52.95									
					6" CONCRETE WALK													186	\$2,343.60	\$12.60
					CONCRETE CURB & GUTTER DESIGN B418							8200	\$98,400.00	\$12.00						
161	Saint Anthony	SAP	161-108-004	MW	Hennepin	BITUMINOUS MATERIAL FOR TACK COAT				\$2,520.00										
					TYPE SP 9.5 WEARING COURSE MIXTURE (2,B)				900	\$64,800.00	\$72.00									
					TYPE SP 9.5 WEARING COURSE MIXTURE (2,C) - 3.0" THICK				2	\$2,250.00	\$1,363.64									
					6" CONCRETE WALK															
					CONCRETE CURB & GUTTER DESIGN SURMOUNTABLE							900	\$23,625.00	\$26.25						
162	St Cloud	SAP	162-132-021	3	Stearns Sherburne Benton	COMMON EXCAVATION									4624	\$83,232.00	\$18.00			
					SUBGRADE EXCAVATION										462	\$6,006.00	\$13.00			
					AGGREGATE BASE CLASS 6	8197	\$118,404.00	\$14.44												
					BITUMINOUS MATERIAL FOR TACK COAT					\$36.82										
					TYPE SP 9.5 WEARING COURSE MIXTURE (2,C)				247	\$28,405.00	\$115.00									
					TYPE SP 9.5 WEARING COURSE MIXTURE (3,C)				3146	\$210,782.00	\$67.00									
					TYPE SP 12.5 NON WEARING COURSE MIXTURE (4,B)				579	\$35,319.00	\$61.00									
					TYPE SP 12.5 NON WEARING COURSE MIXTURE (2,C)				126	\$12,348.00	\$98.00									
					TYPE SP 12.5 NON-WEARING COURSE MIXTURE (3,B)				1634	\$94,772.00	\$58.00									
					TYPE SP 12.5 NON-WEARING COURSE MIXTURE (4,B)				725	\$44,225.00	\$61.00									
					4" CONCRETE WALK													23832	\$128,692.80	\$5.40
					6" CONCRETE WALK													13425	\$90,618.75	\$6.75
					8" CONCRETE WALK													1784	\$16,056.00	\$9.00
					CONCRETE CURB & GUTTER DESIGN B618							6690	\$93,660.00	\$14.00						
					CONCRETE CURB & GUTTER DESIGN V6							123	\$3,690.00	\$30.00						
162	St Cloud	SAP	162-151-005	3	Stearns Sherburne Benton	COMMON EXCAVATION									20313	\$233,599.50	\$11.50			
					SUBGRADE EXCAVATION										25458	\$152,748.00	\$6.00			
					AGGREGATE BASE CLASS 6	12206	\$189,868.00	\$15.56												
					BITUMINOUS MATERIAL FOR TACK COAT					\$37.86										
					TYPE SP 9.5 WEARING COURSE MIXTURE (4,F)				4258	\$304,447.00	\$71.50									
					TYPE SP 12.5 NON-WEARING COURSE MIXTURE (4,F)				2599	\$183,229.50	\$70.50									
					4" CONCRETE WALK													2682	\$15,823.80	\$5.90
					6" CONCRETE WALK													17481	\$117,996.75	\$6.75
					8" CONCRETE WALK													3469	\$32,782.05	\$9.45
					CONCRETE CURB & GUTTER DESIGN B612							239	\$5,736.00	\$24.00						
					CONCRETE CURB & GUTTER DESIGN B618							10916	\$171,162.88	\$15.68						
					CONCRETE CURB & GUTTER DESIGN R412							314	\$7,850.00	\$25.00						
235	Saint Francis	SAP	235-122-001	MW	Anoka	COMMON EXCAVATION									3245	\$51,920.00	\$16.00			
					BITUMINOUS MATERIAL FOR TACK COAT					\$975.00										
					TYPE SP 9.5 WEARING COURSE MIXTURE (2,B) - 2.5" THCK				39	\$5,040.00	\$130.91									
					TYPE SP 9.5 WEARING COURSE MIXTURE (2,B) - 3.0" THICK				100	\$13,332.00	\$133.33									
235	Saint Francis	SAP	235-140-001	MW	Anoka	COMMON EXCAVATION									1022	\$16,352.00	\$16.00			
					AGGREGATE BASE CLASS 5	880	\$8.80	\$0.01												
					BITUMINOUS MATERIAL FOR TACK COAT					\$1,680.00										
					TYPE SP 9.5 WEARING COURSE MIXTURE (2,B) - 2.5" THCK				134	\$17,550.00	\$130.91									
					TYPE SP 12.5 WEARING COURSE MIXTURE (2,B)				704	\$43,648.00	\$62.00									
					TYPE SP 12.5 NON-WEARING COURSE MIXTURE (2,B)				940	\$58,280.00	\$62.00									

2021 UNIT PRICE STUDY						Aggregate Base (ton)			Bituminous (ton)			Curb & Gutter (Lin. feet)			Excavation (yd³)			Sidewalk (ft²)			
City #	City Name	Project#	Dist	County	Spec Item	QTY	Amount	U.Price	QTY	Amount	U.Price	QTY	Amount	U.Price	QTY	Amount	U.Price	QTY	Amount	U.Price	
					6" CONCRETE WALK CONCRETE CURB & GUTTER DESIGN SPECIAL							3846	\$53,844.00	\$14.00				99	\$1,584.00	\$16.00	
235	Saint Francis	SAP	235-141-001	MW	Anoka	COMMON EXCAVATION AGGREGATE BASE CLASS 5 BITUMINOUS MATERIAL FOR TACK COAT TYPE SP 9.5 WEARING COURSE MIXTURE (2,B) - 2.5" THCK TYPE SP 12.5 WEARING COURSE MIXTURE (2,B) TYPE SP 12.5 NON-WEARING COURSE MIXTURE (2,B) CONCRETE CURB & GUTTER DESIGN SPECIAL	100	\$1.00	\$0.01		\$270.00 \$2,826.00 \$7,130.00 \$9,300.00					217	\$3,472.00	\$16.00			
									22	\$2,826.00	\$130.89										
									115	\$7,130.00	\$62.00										
									150	\$9,300.00	\$62.00	773	\$10,822.00	\$14.00							
235	Saint Francis	SAP	235-142-001	MW	Anoka	COMMON EXCAVATION AGGREGATE BASE CLASS 5 BITUMINOUS MATERIAL FOR TACK COAT TYPE SP 9.5 WEARING COURSE MIXTURE (2,B) - 3.0" THICK TYPE SP 12.5 WEARING COURSE MIXTURE (2,B) TYPE SP 12.5 NON-WEARING COURSE MIXTURE (2,B) CONCRETE CURB & GUTTER DESIGN SPECIAL	150	\$1.50	\$0.01		\$405.00 \$396.00 \$8,122.00 \$10,974.00					309	\$4,944.00	\$16.00			
									3	\$396.00	\$133.33										
									131	\$8,122.00	\$62.00										
									177	\$10,974.00	\$62.00	640	\$8,960.00	\$14.00							
235	Saint Francis	SAP	235-142-002	MW	Anoka	COMMON EXCAVATION AGGREGATE BASE CLASS 5 BITUMINOUS MATERIAL FOR TACK COAT TYPE SP 9.5 WEARING COURSE MIXTURE (2,B) - 2.5" THCK TYPE SP 12.5 WEARING COURSE MIXTURE (2,B) TYPE SP 12.5 NON-WEARING COURSE MIXTURE (2,B) CONCRETE CURB & GUTTER DESIGN SPECIAL	500	\$5.00	\$0.01		\$1,170.00 \$15,480.00 \$30,380.00 \$40,300.00					889	\$14,224.00	\$16.00			
									118	\$15,480.00	\$130.91										
									490	\$30,380.00	\$62.00										
									650	\$40,300.00	\$62.00	3323	\$46,522.00	\$14.00							
163	Saint Louis Park	SAP	163-276-036	MW	Hennepin	COMMON EXCAVATION AGGREGATE BASE CLASS 5 TYPE SP 9.5 WEARING COURSE MIXTURE (2,C) TYPE SP 12.5 WEARING COURSE MIXTURE (3,C) TYPE SP 12.5 NON-WEARING COURSE MIXTURE (3,C) CONCRETE WALK 4" CONCRETE WALK CONCRETE CURB & GUTTER DESIGN B612 CONCRETE CURB & GUTTER DESIGN B618 CONCRETE CURB & GUTTER DESIGN B624 CONCRETE CURB & GUTTER DESIGN D324	7300	\$146,000.00	\$20.00	30 2340 1150	\$1,800.00 \$140,400.00 \$69,000.00	\$60.00 \$60.00 \$60.00				7703	\$92,436.00	\$12.00	200 5900	\$2,000.00 \$29,500.00	\$10.00 \$5.00
												2775	\$55,500.00	\$20.00							
												110	\$2,200.00	\$20.00							
												425	\$8,500.00	\$20.00							
												2285	\$45,700.00	\$20.00							
163	Saint Louis Park	SAP	163-283-019	MW	Hennepin	COMMON EXCAVATION TYPE SP 12.5 WEARING COURSE MIXTURE (3,C) TYPE SP 12.5 NON-WEARING COURSE MIXTURE (3,C) 4" CONCRETE WALK 6" CONCRETE WALK CONCRETE CURB & GUTTER DESIGN B612 CONCRETE CURB & GUTTER DESIGN B618 CONCRETE CURB & GUTTER DESIGN B624 CONCRETE CURB & GUTTER DESIGN V6				725 820	\$64,525.00 \$67,781.20	\$89.00 \$82.66			100	\$5,250.00	\$52.50	5250 710	\$34,125.00 \$9,549.50	\$6.50 \$13.45	
												800	\$14,800.00	\$18.50							
												480	\$10,320.00	\$21.50							
												230	\$8,395.00	\$36.50							
												90	\$4,140.00	\$46.00							
164	Saint Paul	SP	164-113-023	ME	Ramsey	COMMON EXCAVATION SUBGRADE EXCAVATION AGGREGATE BASE CLASS 5 BITUMINOUS MATERIAL FOR TACK COAT TYPE SP 9.5 WEARING COURSE MIXTURE (3,F) - 3.0" THICK TYPE SP 9.5 WEARING COURSE MIXTURE (3,F) TYPE SP 12.5 NON-WEARING COURSE MIXTURE (2,B) 4" CONCRETE WALK 6" CONCRETE WALK CONCRETE CURB & GUTTER DESIGN B612 CONCRETE CURB & GUTTER DESIGN B624	5339	\$133,470.00	\$25.00		\$2,563.35 \$3,250.00 \$114,324.26 \$66,685.66				1385 6472	\$48,475.00 \$647.00	\$35.00 \$0.10				
									4	\$3,250.00	\$757.58										
									1583	\$114,324.26	\$72.22										
									1187	\$66,685.66	\$56.18										
												3186	\$63,210.24	\$19.84				17505 703	\$112,732.20 \$9,729.52	\$6.44 \$13.84	
												380	\$9,302.40	\$24.48							
164	Saint Paul	SP	164-129-013 (costs include SP 062-664-007)	ME	Ramsey	COMMON EXCAVATION SUBGRADE EXCAVATION AGGREGATE BASE CLASS 5 BITUMINOUS MATERIAL FOR TACK COAT TYPE SP 9.5 WEARING COURSE MIXTURE (3,C) TYPE SP 9.5 WEARING COURSE MIXTURE (4,F) TYPE SP 9.5 NON WEARING COURSE MIXTURE (4,E)	11650	\$414,208.00	\$35.56		\$1,822.39 \$136,169.72 \$96,303.44 \$93,399.00				12262 687	\$361,730.77 \$17,175.00	\$29.50 \$25.00				
									2111	\$136,169.72	\$64.50										
									1146	\$96,303.44	\$84.00										
									1146	\$93,399.00	\$81.50										

2021 UNIT PRICE STUDY						Aggregate Base (ton)			Bituminous (ton)			Curb & Gutter (Lin. feet)			Excavation (yd³)			Sidewalk (ft²)			
City #	City Name	Project#	Dist	County	Spec Item	QTY	Amount	U.Price	QTY	Amount	U.Price	QTY	Amount	U.Price	QTY	Amount	U.Price	QTY	Amount	U.Price	
					6" CONCRETE WALK CONCRETE CURB & GUTTER DESIGN B612 (MODIFIED) CONCRETE CURB & GUTTER DESIGN B618							6046 65	\$151,150.00 \$1,690.00	\$25.00 \$26.00				28359	\$263,738.70	\$9.30	
164	Saint Paul	SAP	164-132-033	ME	Ramsey	AGGREGATE BASE CLASS 5 BITUMINOUS MATERIAL FOR TACK COAT TYPE SP 12.5 WEARING COURSE MIXTURE (4,F) TYPE SP 9.5 NON WEARING COURSE MIXTURE (3,B) 6" CONCRETE WALK CONCRETE CURB & GUTTER DESIGN B624	16	\$0.90	\$0.06		\$2,932.89 \$138,433.14 \$2,679.60	\$82.16 \$116.50				75	\$2,613.00	\$34.84			
164	Saint Paul	SAP	164-214-018	ME	Ramsey	AGGREGATE BASE CLASS 5 BITUMINOUS MATERIAL FOR TACK COAT TYPE SP 12.5 WEARING COURSE MIXTURE (4,F) TYPE SP 9.5 NON WEARING COURSE MIXTURE (3,B) 6" CONCRETE WALK CONCRETE CURB & GUTTER DESIGN B624	25	\$2.50	\$0.10		\$1,055.00 \$58,194.06 \$1,799.16	\$82.20 \$112.45				124	\$4,320.16	\$34.84			
191	Sauk Rapids	SP	191-109-006	3	Benton	COMMON EXCAVATION SUBGRADE EXCAVATION AGGREGATE BASE CLASS 5 (LV) AGGREGATE BASE CLASS 5 (CV) BITUMINOUS MATERIAL FOR TACK COAT TYPE SP 9.5 WEARING COURSE MIXTURE (3,C) TYPE SP 12.5 WEARING COURSE MIXTURE (3,C) 4" CONCRETE WALK 6" CONCRETE WALK CONCRETE CURB & GUTTER DESIGN B618	5125 12676	\$92,513.47 \$251,821.92	\$18.05 \$19.87		\$1,758.00 \$175,440.00 \$183,471.00	\$80.00 \$69.00				10637 4639	\$133,281.61 \$46.39	\$12.53 \$0.01			
211	Savage	SAP	211-106-010	MW	Scott	CALCIUM CHLORIDE AGGREGATE BASE CLASS 5 (100% CRUSHED LIMESTONE) BITUMINOUS MATERIAL FOR TACK COAT TYPE SP 9.5 WEARING COURSE MIXTURE (2,C) TYPE SP 12.5 NON WEARING COURSE MIXTURE (2,C) 4" CONCRETE WALK 6" CONCRETE WALK 6" CONCRETE WALK (COLORED) 8" CONCRETE WALK CONCRETE CURB & GUTTER (ALL TYPES)	9570	\$11,940.00 \$143,550.00	\$15.00		\$4,790.00 \$242,700.00 \$351,975.00	\$60.00 \$65.00				11295	\$168,425.00	\$14.91			
166	Shakopee	SAP	166-123-001	MW	Scott	COMMON EXCAVATION SUBGRADE EXCAVATION AGGREGATE BASE CLASS 5 BITUMINOUS MATERIAL FOR TACK COAT TYPE SP 9.5 WEARING COURSE MIXTURE (2,C) - 2.0" THICK TYPE SP 12.5 WEARING COURSE MIXTURE (2,C) - 2.0" THICK 6" CONCRETE WALK CONCRETE CURB & GUTTER DESIGN B612 CONCRETE CURB & GUTTER DESIGN B618	3299	\$82,475.00	\$25.00		\$822.00 \$23,100.00 \$23,100.00	\$272.73 \$272.73				382 56	\$24,830.00 \$3,640.00	\$65.00 \$65.00			
167	Shoreview	SAP	167-270-001	ME	Ramsey	BITUMINOUS MATERIAL FOR TACK COAT TYPE SP 9.5 WEARING COURSE MIXTURE (3,C) - 2.0" THICK					\$1,687.50 \$111,711.00	\$69.00									
169	Stillwater	SAP	169-109-003	ME	Washington	COMMON EXCAVATION AGGREGATE BASE CLASS 5 BITUMINOUS MATERIAL FOR TACK COAT TYPE SP WEARING COURSE MIXTURE (3,B) TYPE SP NON WEARING COURSE MIXTURE (3,B) 5" CONCRETE WALK CONCRETE CURB & GUTTER (VARIOUS TYPES) MACHINE INSTALLED	2750	\$27.50	\$0.01		\$3.20 \$38,412.00 \$58,260.00	\$66.00 \$60.00				250	\$7,500.00	\$30.00			
169	Stillwater	SAP	169-117-003	ME	Washington	COMMON EXCAVATION AGGREGATE BASE CLASS 5 BITUMINOUS MATERIAL FOR TACK COAT TYPE SP WEARING COURSE MIXTURE (3,B) TYPE SP NON-WEARING COURSE MIXTURE (3,B) 5" CONCRETE WALK CONCRETE CURB & GUTTER (VARIOUS TYPES) HAND INSTALL CONCRETE CURB & GUTTER (VARIOUS TYPES) MACHINE INSTALLED	6500	\$73,060.00	\$11.24		\$7,140.00 \$97,725.00 \$115,805.00	\$65.15 \$60.95				50 7050	\$1,463.50 \$116,325.00	\$29.27 \$16.50			



2021 UNIT PRICE STUDY						Aggregate Base (ton)			Bituminous (ton)			Curb & Gutter (Lin. feet)			Excavation (yd <sup>3</sup> )			Sidewalk (ft <sup>2</sup> )		
City #	City Name	Project#	Dist	County	Spec Item	QTY	Amount	U.Price	QTY	Amount	U.Price	QTY	Amount	U.Price	QTY	Amount	U.Price	QTY	Amount	U.Price
209	Vadnais Heights	SAP	209-104-007	ME	Ramsey	SUBGRADE EXCAVATION AGGREGATE BASE CLASS 5 BITUMINOUS MATERIAL FOR TACK COAT TYPE SP 9.5 WEARING COURSE MIXTURE (3,C) TYPE SP 12.5 WEARING COURSE MIXTURE (3,C) TYPE SP 12.5 WEARING COURSE MIXTURE (4,F) TYPE SP 12.5 NON-WEARING COURSE MIXTURE (4,B) 4" CONCRETE WALK SPECIAL 6" CONCRETE WALK CONCRETE CURB & GUTTER DESIGN SPECIAL	567	\$10,829.70	\$19.10		\$114.00 1807 \$113,841.00 \$63.00 2626 \$160,186.00 \$61.00 50 \$6,050.00 \$121.00 18 \$1,908.00 \$106.00				205	\$6,457.50	\$31.50			
221	Waite Park	SAP	221-108-005 (costs include CP 073-138-020)	3	Stearns	COMMON EXCAVATION SUBGRADE EXCAVATION AGGREGATE BASE CLASS 6 TYPE SP 12.5 WEARING COURSE MIXTURE (4,F) TYPE SP 12.5 NON-WEARING COURSE MIXTURE (2,B) 4" CONCRETE WALK 6" CONCRETE WALK CONCRETE CURB & GUTTER DESIGN B612 CONCRETE CURB & GUTTER DESIGN B618 CONCRETE CURB & GUTTER DESIGN R424	5006	\$58,401.00	\$11.67	576 \$45,504.00 \$79.00 358 \$25,418.00 \$71.00				2130 \$19,170.00 \$9.00 1807 \$12,649.00 \$7.00  308 \$7,084.00 \$23.00 2798 \$55,960.00 \$20.00 390 \$10,140.00 \$26.00			8654 \$56,251.00 \$6.50 574 \$5,453.00 \$9.50			
173	West Saint Paul	SAP	173-122-017	ME	Dakota	AGGREGATE BASE CLASS 5 BITUMINOUS MATERIAL FOR TACK COAT TYPE SP 12.5 WEARING COURSE MIXTURE (3,B)	50	\$1,750.00	\$35.00	\$3,144.00 2578 \$123,744.00 \$48.00										
174	White Bear Lake	SAP	174-124-003	ME	Ramsey	COMMON EXCAVATION SUBGRADE EXCAVATION BITUMINOUS MATERIAL FOR TACK COAT TYPE SP 9.5 WEARING COURSE MIXTURE (2,B) TYPE SP 9.5 WEARING COURSE MIXTURE (2,B) - 2.0" THICK TYPE SP 12.5 WEARING COURSE MIXTURE (2,B) TYPE SP 12.5 WEARING COURSE MIXTURE (3,B) 4" CONCRETE WALK 6" CONCRETE WALK CONCRETE CURB & GUTTER DESIGN B618				\$10.09 732 \$52,704.00 \$72.00 118 \$25,170.60 \$212.73 977 \$62,039.50 \$63.50 2313 \$145,719.00 \$63.00			10094 \$181,692.00 \$18.00 700 \$14,000.00 \$20.00			8744 \$36,287.60 \$4.15 2345 \$24,622.50 \$10.50				
174	White Bear Lake	SAP	174-128-002	ME	Ramsey	COMMON EXCAVATION BITUMINOUS MATERIAL FOR TACK COAT TYPE SP 9.5 WEARING COURSE MIXTURE (2,B) - 2.0" THICK TYPE SP 9.5 WEARING COURSE MIXTURE (2,B) TYPE SP 12.5 WEARING COURSE MIXTURE (2,B) - 2.0" THICK TYPE SP 12.5 WEARING COURSE MIXTURE (2,B) 4" CONCRETE WALK 6" CONCRETE WALK CONCRETE CURB & GUTTER DESIGN B618				\$12,548.69 43 \$8,577.90 \$198.84 5155 \$355,901.20 \$69.04 193 \$23,148.44 \$119.64 4282 \$255,507.20 \$59.67			628 \$27,726.20 \$44.15			10532 \$48,868.48 \$4.64 1913 \$26,724.61 \$13.97				
175	Willmar	SP	175-152-006	8	Kandiyohi	COMMON EXCAVATION 4" CONCRETE WALK								629 \$14,467.00 \$23.00			27560 \$151,580.00 \$5.50			
192	Woodbury	SAP	192-102-012	ME	Washington	COMMON EXCAVATION SUBGRADE EXCAVATION AGGREGATE BASE CLASS 5 MODIFIED TYPE SP 9.5 WEARING COURSE MIXTURE (2,C) TYPE SP 12.5 WEARING COURSE MIXTURE (3,F) MODIFIED TYPE SP 12.5 NON-WEARING COURSE MIXTURE (3,C) 4" CONCRETE WALK 6" CONCRETE WALK CONCRETE CURB & GUTTER DESIGN B618	12616	\$304,050.42	\$24.10	926 \$84,904.94 \$91.69 3840 \$295,219.20 \$76.88 2354 \$173,395.64 \$73.66			10939 \$182,681.30 \$16.70 4810 \$96,440.50 \$20.05			13474 \$77,475.50 \$5.75 3992 \$46,706.40 \$11.70				
192	Woodbury	SAP	192-109-019	ME	Washington	COMMON EXCAVATION SUBGRADE EXCAVATION AGGREGATE BASE CLASS 5 TYPE SP 12.5 WEARING COURSE MIXTURE (3,F) TYPE SP 12.5 NON WEARING COURSE MIXTURE (3,B) 4" CONCRETE WALK 6" CONCRETE WALK CONCRETE CURB & GUTTER SPECIAL	5274	\$66,780.00	\$12.66	2380 \$178,500.00 \$75.00 1040 \$65,520.00 \$63.00			4770 \$35,298.00 \$7.40 5822 \$69,864.00 \$12.00			5640 \$34,404.00 \$6.10 4320 \$60,480.00 \$14.00				

2021 UNIT PRICE STUDY						Aggregate Base (ton)			Bituminous (ton)			Curb & Gutter (Lin. feet)			Excavation (yd <sup>3</sup> )			Sidewalk (ft <sup>2</sup> )			
City #	City Name	Project#	Dist	County	Spec Item	QTY	Amount	U.Price	QTY	Amount	U.Price	QTY	Amount	U.Price	QTY	Amount	U.Price	QTY	Amount	U.Price	
					CONCRETE CURB & GUTTER DESIGN B424 CONCRETE CURB & GUTTER DESIGN B618 (MOD) CONCRETE CURB & GUTTER DESIGN R424 CONCRETE CURB & GUTTER DESIGN V4 CONCRETE CURB & GUTTER DESIGN BR4-5										2280	\$47,880.00	\$21.00				
															1790	\$37,590.00	\$21.00				
															190	\$5,320.00	\$28.00				
															110	\$4,290.00	\$39.00				
															150	\$4,050.00	\$27.00				
192	Woodbury	SAP	192-117-015	ME	Washington	COMMON EXCAVATION SUBGRADE EXCAVATION AGGREGATE BASE CLASS 5 MODIFIED TYPE SP 9.5 WEARING COURSE MIXTURE (2,C) TYPE SP 9.5 WEARING COURSE MIXTURE (3,C) TYPE SP 12.5 WEARING COURSE MIXTURE (3,F) MODIFIED TYPE SP 12.5 NON-WEARING COURSE MIXTURE (3,C) 4" CONCRETE WALK 6" CONCRETE WALK 7" CONCRETE WALK SPECIAL CONCRETE CURB & GUTTER DESIGN B618	5315	\$128,101.14	\$24.10	430 148 4332 822	\$39,426.70 \$15,078.24 \$333,044.16 \$60,548.52	\$91.69 \$101.88 \$76.88 \$73.66				5451 1132	\$91,031.70 \$22,696.60	\$16.70 \$20.05			
																		11044 4169 659	\$63,503.00 \$48,777.30 \$12,455.10	\$5.75 \$11.70 \$18.90	
															5384	\$105,418.72	\$19.58				
192	Woodbury	SAP	192-124-001	ME	Washington	COMMON EXCAVATION SUBGRADE EXCAVATION AGGREGATE BASE CLASS 5 MODIFIED TYPE SP 9.5 WEARING COURSE MIXTURE (2,C) TYPE SP 12.5 WEARING COURSE MIXTURE (3,F) MODIFIED TYPE SP 12.5 NON-WEARING COURSE MIXTURE (3,C) 4" CONCRETE WALK 6" CONCRETE WALK 7" CONCRETE WALK SPECIAL CONCRETE CURB & GUTTER DESIGN B618	7070	\$170,396.64	\$24.10	687 4565 2963	\$62,991.03 \$350,957.20 \$218,254.58	\$91.69 \$76.88 \$73.66									
																		4834 6876 397	\$27,795.50 \$80,449.20 \$7,503.30	\$5.75 \$11.70 \$18.90	
															6497	\$127,211.26	\$19.58				
192	Woodbury	SAP	192-125-001	ME	Washington	COMMON EXCAVATION SUBGRADE EXCAVATION AGGREGATE BASE CLASS 5 MODIFIED TYPE SP 9.5 WEARING COURSE MIXTURE (2,C) TYPE SP 12.5 WEARING COURSE MIXTURE (3,F) MODIFIED TYPE SP 12.5 NON-WEARING COURSE MIXTURE (3,C) 6" CONCRETE WALK CONCRETE CURB & GUTTER DESIGN B618	15664	\$377,492.76	\$24.10	326 1460 954	\$29,890.94 \$112,244.80 \$70,271.64	\$91.69 \$76.88 \$73.66				2650 101	\$44,255.00 \$2,025.05	\$16.70 \$20.05			
																		615	\$7,195.50	\$11.70	
															4441	\$86,954.78	\$19.58				
177	Worthington	SAP	177-101-003	7	Nobles	COMMON EXCAVATION SUBGRADE EXCAVATION AGGREGATE BASE TYPE DSB BITUMINOUS MATERIAL FOR TACK COAT TYPE SP 12.5 WEARING COURSE MIXTURE (2,C) TYPE SP 12.5 NON WEARING COURSE MIXTURE (2,C) 4" CONCRETE WALK 6" CONCRETE WALK SPECIAL CONCRETE CURB & GUTTER DESIGN B624	815	\$33,952.50	\$41.66		\$183.40					227 529	\$4,086.00 \$10,580.00	\$18.00 \$20.00			
																		1344 549	\$8,064.00 \$4,388.80	\$6.00 \$8.00	
															443	\$12,390.00	\$28.00				
177	Worthington	SAP	177-115-001	7	Nobles	COMMON EXCAVATION AGGREGATE BASE TYPE DSB BITUMINOUS MATERIAL FOR TACK COAT TYPE SP 12.5 WEARING COURSE MIXTURE (2,C) TYPE SP 12.5 NON WEARING COURSE MIXTURE (2,C) 4" CONCRETE WALK 6" CONCRETE WALK SPECIAL CONCRETE CURB & GUTTER DESIGN B624	742	\$30,922.50	\$41.67		\$191.10					207	\$3,726.00	\$18.00			
																		25 165	\$147.00 \$1,316.00	\$6.00 \$8.00	
															394	\$11,037.60	\$28.00				
251	Zimmerman	SAP	251-105-001	3	Sherburne	COMMON EXCAVATION SUBGRADE EXCAVATION AGGREGATE BASE CLASS 5 TYPE SP 9.5 WEARING COURSE MIXTURE (2,B) TYPE SP 12.5 NON-WEARING COURSE MIXTURE (2,B) 4" CONCRETE WALK CONCRETE CURB & GUTTER DESIGN B618	2462	\$43,776.00	\$17.78	308 513	\$21,868.00 \$34,884.00	\$71.00 \$68.00									
															1672	\$25,916.00	\$15.50				
251	Zimmerman	SAP	251-106-001	3	Sherburne	COMMON EXCAVATION SUBGRADE EXCAVATION AGGREGATE BASE CLASS 5	2228	\$39,616.00	\$17.78							2020 26	\$20,200.00 \$182.00	\$10.00 \$7.00			

2021 UNIT PRICE STUDY						Aggregate Base (ton)			Bituminous (ton)			Curb & Gutter (Lin. feet)			Excavation (yd³)			Sidewalk (ft²)		
City #	City Name	Project#	Dist	County	Spec Item	QTY	Amount	U.Price	QTY	Amount	U.Price	QTY	Amount	U.Price	QTY	Amount	U.Price	QTY	Amount	U.Price
					TYPE SP 9.5 WEARING COURSE MIXTURE (2,B)				272	\$19,312.00	\$71.00									
					TYPE SP 12.5 NON-WEARING COURSE MIXTURE (2,B)				454	\$30,872.00	\$68.00							4761	\$19,044.00	\$4.00
					4" CONCRETE WALK															
					CONCRETE CURB & GUTTER DESIGN B618							1655	\$25,652.50	\$15.50						
251	Zimmerman	SAP	251-116-002	3	Sherburne	COMMON EXCAVATION									2202	\$22,020.00	\$10.00			
					SUBGRADE EXCAVATION										20	\$140.00	\$7.00			
					AGGREGATE BASE CLASS 5	1676	\$29,792.00	\$17.78												
					TYPE SP 9.5 WEARING COURSE MIXTURE (2,B)				215	\$15,265.00	\$71.00									
					TYPE SP 12.5 NON-WEARING COURSE MIXTURE (2,B)				359	\$24,412.00	\$68.00							4239	\$16,956.00	\$4.00
					4" CONCRETE WALK															
					CONCRETE CURB & GUTTER DESIGN B618							1101	\$17,065.50	\$15.50						
					CONCRETE CURB & GUTTER DESIGN B618 (MOD)							239	\$5,497.00	\$23.00						
2020 Unit Price Totals						429553	\$7,778,933.52	\$18.11	403619	\$28,146,311.65	\$69.73	371066	\$7,683,046.63	\$20.71	902417	\$9,603,417.78	\$10.64	1175309	\$8,509,411.29	\$7.24

AGGREGATE BASE: \$18.11 (ton)  
 BITUMINOUS: \$69.73 (ton)  
 CURB & GUTTER: \$20.71 (lin. feet)  
 EXCAVATION: \$10.64 (cubic yard)  
 SIDEWALK: \$7.24 (sq ft)

# Unit Cost Averages, by District

		Aggregate Base (ton)		
	# of cities w/ projects	Qty	Amt	Uprice
D1	1	95	2,809	\$29.44
D2	1	3,391	61,038	\$18.00
D3	9	66,807	1,114,900	\$16.69
D4	3	15,997	238,470	\$14.91
ME	16	146,018	2,725,849	\$18.67
MW	19	143,970	2,609,645	\$18.13
D6	3	9,482	186,279	\$19.65
D7	4	20,916	469,412	\$22.44
D8	3	22,877	370,532	\$16.20
<b>TOTAL</b>	<b>59</b>	<b>429,553</b>	<b>7,778,934</b>	<b>\$18.11</b>

		Excavation (yd <sup>3</sup> )		
	# of cities w/ projects	Qty	Amt	Uprice
D1	1	839	20,136	\$24.00
D2	1	1,913	9,565	\$5.00
D3	9	107,311	1,258,367	\$11.73
D4	3	26,292	237,062	\$9.02
ME	17	173,553	2,734,161	\$15.75
MW	19	521,509	4,588,359	\$8.80
D6	3	24,334	160,129	\$6.58
D7	4	25,783	311,288	\$12.07
D8	4	20,883	284,351	\$13.62
<b>TOTAL</b>	<b>61</b>	<b>902,417</b>	<b>9,603,418</b>	<b>\$10.64</b>

		Bituminous (ton)		
	# of cities w/ projects	Qty	Amt	Uprice
D1	3	14,055	898,362	\$63.92
D2	1	1,391	99,095	\$71.24
D3	9	44,722	2,623,809	\$58.67
D4	3	10,405	680,955	\$65.44
ME	19	131,121	8,909,510	\$67.95
MW	24	174,879	12,520,015	\$71.59
D6	3	2,751	241,727	\$87.86
D7	4	16,509	1,407,377	\$85.25
D8	3	7,785	765,460	\$98.33
<b>TOTAL</b>	<b>69</b>	<b>403,619</b>	<b>28,146,312</b>	<b>\$69.73</b>

		Sidewalk (ft <sup>2</sup> )		
	# of cities w/ projects	Qty	Amt	Uprice
D1	1	4,033	37,917	\$9.40
D2	1	14,166	79,655	\$5.62
D3	9	149,657	938,358	\$6.27
D4	3	57,604	434,003	\$7.53
ME	16	254,372	1,962,986	\$7.72
MW	19	515,968	3,829,191	\$7.42
D6	3	29,583	248,350	\$8.40
D7	4	69,410	451,108	\$6.50
D8	4	80,515	527,843	\$6.56
<b>TOTAL</b>	<b>60</b>	<b>1,175,309</b>	<b>8,509,411</b>	<b>\$7.24</b>

		Curb & Gutter (Lineal feet)		
	# of cities w/ projects	Qty	Amt	Uprice
D1	1	1,557	40,482	\$26.00
D2	1	2,895	46,320	\$16.00
D3	7	44,625	764,607	\$17.13
D4	3	15,014	488,890	\$32.56
ME	16	116,681	2,234,859	\$19.15
MW	22	150,113	3,260,481	\$21.72
D6	3	8,536	174,083	\$20.39
D7	4	12,255	280,098	\$22.86
D8	3	19,390	393,227	\$20.28
<b>TOTAL</b>	<b>60</b>	<b>371,066</b>	<b>7,683,047</b>	<b>\$20.71</b>

## 2021 UNIT PRICE RECOMMENDATIONS

*for the January 2022 distribution (FULL UNIT COST STUDY THIS YEAR)*

Needs Item		2020 MSB Approved Prices for the 2021 Distribution	2021 NSS Recommended Prices for 2022 Distribution	2021 MSB Approved Prices for the 2022 Distribution
Grading (Excavation)	Cu. Yd.	\$9.53	<b>\$10.64</b>	
Aggregate Base	Ton	14.44	<b>18.00</b>	
All Bituminous	Ton	66.17	<b>72.00</b>	
Sidewalk Construction	Sq. Ft.	5.76	<b>7.24</b>	
Curb and Gutter Construction	Lin.Ft.	16.65	<b>20.00</b>	
Traffic Signals	Per Sig	211,440	<b>231,875</b>	
Street Lighting	Mile	100,000	<b>100,000</b>	
Engineering	Percent	22	<b>22</b>	
All Structures (includes both bridges and box culverts)				
	Sq. Ft.	95.67	<b>90.70</b>	
<b>Storm Sewer (based on ADT)</b>		Per Mile		
0 ADT & Non Existing		165,500	<b>185,600</b>	
1-499		168,700	<b>189,200</b>	
500-1,999		178,100	<b>199,700</b>	
2,000-4,999		187,500	<b>210,300</b>	
5,000-8,999		200,100	<b>224,400</b>	
9,000-13,999		209,500	<b>235,000</b>	
14,000-24,999		222,100	<b>249,100</b>	
25,000 and over		234,700	<b>263,200</b>	

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## NEEDS STUDY SUBCOMMITTEE MEETING MINUTES

The Needs Study Subcommittee meeting was held at 1:00 pm on April 6, 2021. NSS members present were Steve Lillehaug (Shakopee/Chair), Matt Wegwerth (Grand Rapids), and Jay Owens (Red Wing). Also in attendance from State Aid were Bill Lanoux, Kim Delarosa, and Naomi Eckerd.

A 2021 Needs Study Subcommittee report was sent to all attendees prior to the meeting. For 2021, recommendations will be based off a Full Unit Cost Study. (For the previous two years, recommendations were based off an inflation factor.) Prior to Unit Cost discussion, Bill Lanoux reviewed several pages of other information, including the MSB meeting minutes from October 2020 and the significance of the Urban ADT Groups for Needs Purposes.

The group reviewed the Unit Cost Items that were part of this year's Unit Cost Study. The NSS made recommendations for the following items.

**Grading/Excavation:** Price used in 2020 Needs - \$9.53 Cu. Yd.  
*Committee's Recommendation for 2021 Needs - \$10.64 Cu. Yd.*

**Aggregate Base:** Price used in 2020 Needs - \$14.44 Ton  
*Committee's Recommendation for 2021 Needs - \$18.00 Ton*

**All Bituminous:** Price used in 2020 Needs - \$66.17 Ton  
*Committee's Recommendation for 2020 Needs - \$72.00 Ton*

*The Unit Cost Study yielded a result of \$69.73 but Committee felt that was somewhat low based on prices they had been seeing. Over the next two years - this year's unit cost will be the basis of what the inflation factor is applied to, so the committee is recommending \$72.00 so we are not playing 'catch up' on the next Unit Cost Study three years from now. The Committee also asked State Aid to bring some actual project cost data when we meet again in 2022.*

**Sidewalk:** Price used in 2020 Needs - \$5.76 Sq. Ft.  
*Committee's Recommendation for 2021 Needs - \$7.24 per Sq. Ft.*

*Although the Unit Cost Study yielded a 25% increase to last year's cost, the committee feels that \$7.24 is about right and they are not surprised with the significant increases to sidewalk costs in recent years. Increasing concrete costs and ADA requirements were noted as reasons for cost increases. The committee would like to see some project costs on this item next year as well – as the inflation factor from the ENR is typically too low when it comes to this particular item.*

**Curb and Gutter:** Price used in 2020 Needs - \$16.65 Lin. Ft.  
*Committee's Recommendation for 2021 Needs - \$20.00 Lin. Ft.*

*Unit Cost Study yielded a result of \$20.71 which was a significant increase from last year's Needs price (\$16.65). In past years, increases to this unit price have been more linear. After discussion the committee came down to \$20.00 and would like to see some cost data from State Aid next year.*

**Structures:** Price used in 2020 Needs - \$95.67 Sq. Ft.

*Committee's Recommendation for 2021 Needs - \$90.70 Sq. Ft*

*This recommendation has been based on a five-year average of bridge costs since 2018 (using data provided by the MnDOT State Aid Bridge Office). From 2014 to 2017 we were using just one year of data and seeing too many fluctuations in the structure Unit Cost. The committee reviewed the most recent year of data and included it in the 5-year average. Overall, there will be a slight decrease this year, but data from 2016 was just dropped from the 5-year average and that year had a high contract price. This price has seen more consistency since moving to the 5-year average.*

**Storm Sewer:** The MnDOT Hydraulics Unit performed an analysis of storm sewer Costs for 2020. (117 Storm Sewer Plans were reviewed)  
Costs are \$407,485 for new construction, and \$118,882 for adjustments to existing systems. This is an average of \$263,184 per mile. Committee makes recommendation for the highest of eight sections.

*Committee's Recommendation for 2021 Needs - \$263,200 per mile*

The recommendation of \$263,200 per mile is for a 70-foot section. The cost per mile will be prorated down through the other seven ADT groups.

*Note: The Hydraulics Office would like to get on the same Unit Cost Study schedule as State Aid and provide a full study every 3 years and apply the inflation factor in 'off years'.*

**Street Lighting:** Price used in 2020 Needs - \$100,000 per mile

*Committee's Recommendation for 2021 Needs - \$100,000 Per Mile*

*(Recommendation is consistent with Screening Board resolutions)*

**Engineering:** Price used in 2020 Needs – 22%

*Committee's Recommendation for 2021 Needs – 22%*

**Traffic Signals:** Price used in 2020 Needs - \$211,440 Per Signal

*Committee's Recommendation for 2021 Needs - \$231,875 Per Signal*

*The SALT program Engineer provided highlights from their signal study. Their statewide average cost is based off signal projects they found to be most representative of State Aid System signals. This is a 9.7 % increase from last year's cost. Bill said the Salt program engineer found in their analysis that copper and steel prices have gone up.*

**The meeting was adjourned.**

**Minutes submitted by Jay Owens**

## Annual Percentage Change of Unit Costs, 2009 - 2021

<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	<b>\$7.24</b>	<b>25.7</b>	<u>from 2020 to 2021</u>	\$14.44	<b>\$18.11</b>	<b>25.4</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	<b>\$20.71</b>	<b>24.4</b>	<u>from 2020 to 2021</u>	\$66.17	<b>\$69.73</b>	<b>5.4</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>	from 2012 to 2013	\$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>	<u>from 2017 to 2018</u>	\$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	<b>\$10.64</b>	<b>11.6</b>	<u>from 2020 to 2021</u>	\$95.67	<b>\$90.67</b>	<b>-5.2</b>

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

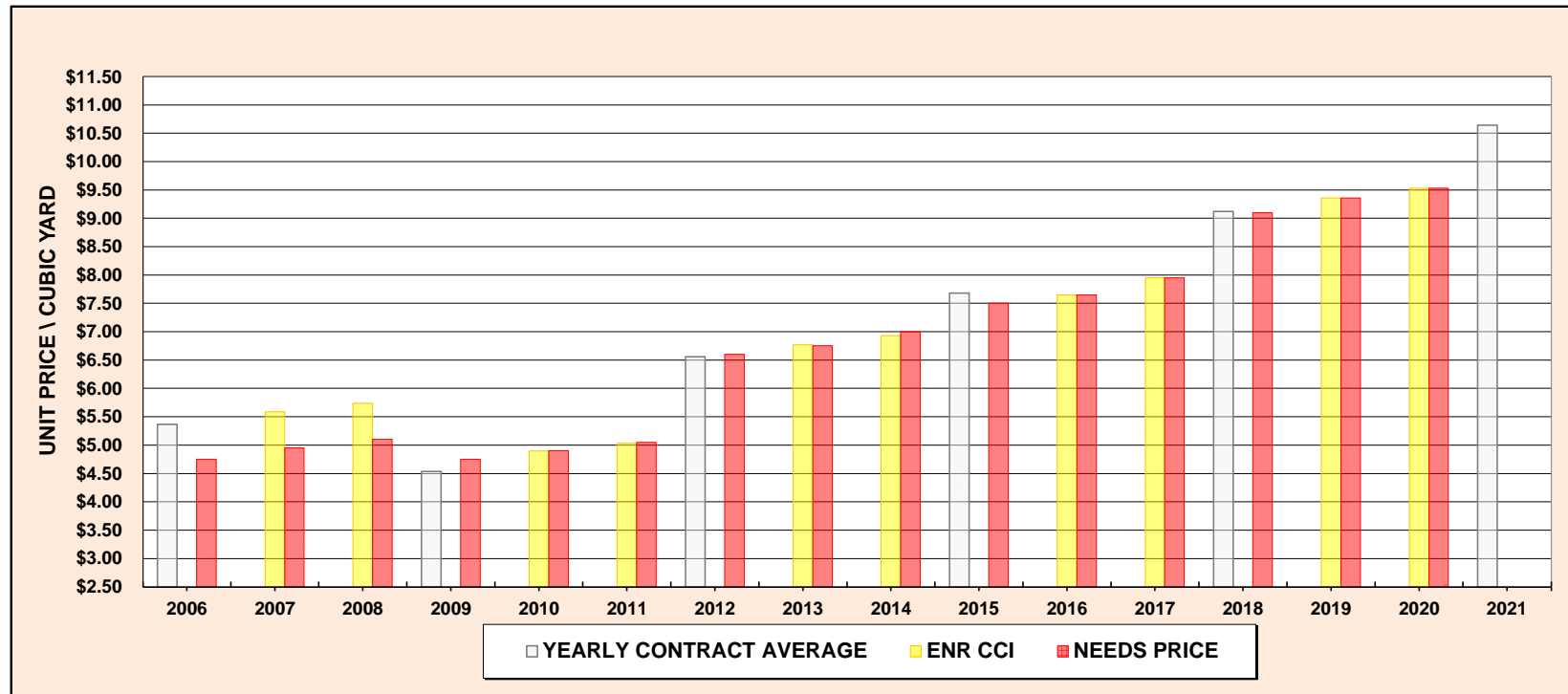
Since 2014 cost for structures have been calculated by dividing the contract price by 2.

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

\*Underlined years are years we conducted a Full Unit Cost Study



# GRADING/EXCAVATION



Needs Year	Number of Cities	Quantity (Cu.Yd)	Total Cost	Yearly Average Contract Price	Engineering News Record Construction Cost Index	Price Used in Needs	Needs Year	Number of Cities	Quantity (Cu. Yd.)	Total Cost	Yearly Average Contract Price	Engineering News Record Construction Cost Index	Price Used in Needs
2006	48	587,442	\$3,152,838	5.37		\$4.75	2014						
2007					5.59	4.95	2015	40	472,486	\$3,627,575	\$7.68	6.93	\$7.00
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	<b>\$10.64</b>		

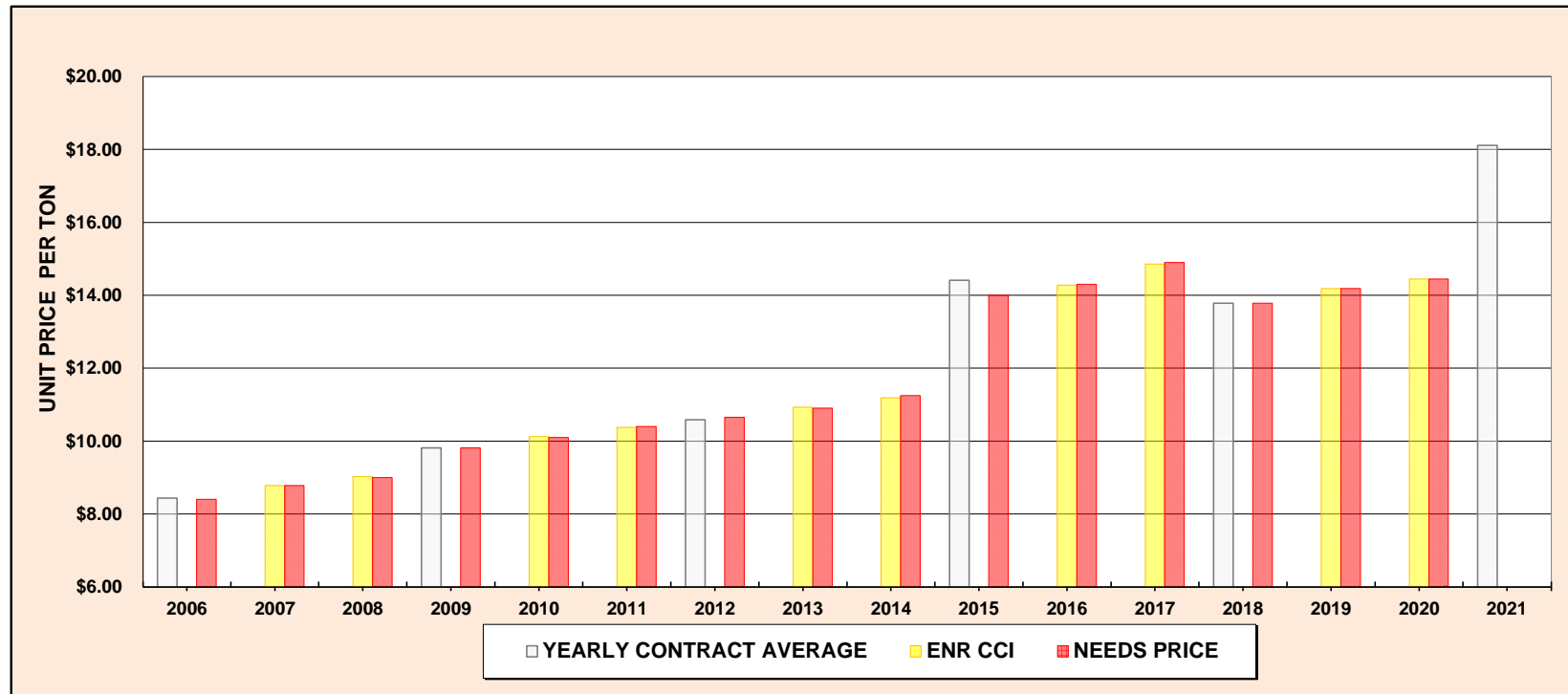
**SUBCOMMITTEE'S RECOMMENDED PRICE FOR THE 2021 NEEDS STUDY IS \$10.64 PER CUBIC YARD**

Yearly Contract Price of **\$10.64** is an 11.6% increase from "Price used in Needs" last year (\$9.53). Last year this increase was 1.8%.

Since 2014, this Unit Cost has increased by an average of \$0.52 (note \$1.15 increase in 2018 and \$1.11 this year)

(For this Unit Cost, there were 109 projects in 61 cities)

# 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
2006	46	355,866	\$3,000,906	8.43		\$8.40	2014						
2007					8.78	8.78	2015	40	199,868	\$2,880,423	\$14.41	11.19	\$11.25
2008					9.02	9.00	2016					14.28	14.30
2009	45	436,802	4,284,174	9.81		9.81	2017					14.86	14.90
2010					10.12	10.10	2018	52	317,006	4,368,054	\$13.78		13.78
2011					10.37	10.40	2019					14.18	14.18
2012	57	416,725	4,409,415	10.58		10.65	2020					14.44	14.44
2013					10.93	10.90	2021	59	429,553	7,778,934	<b>\$18.11</b>		

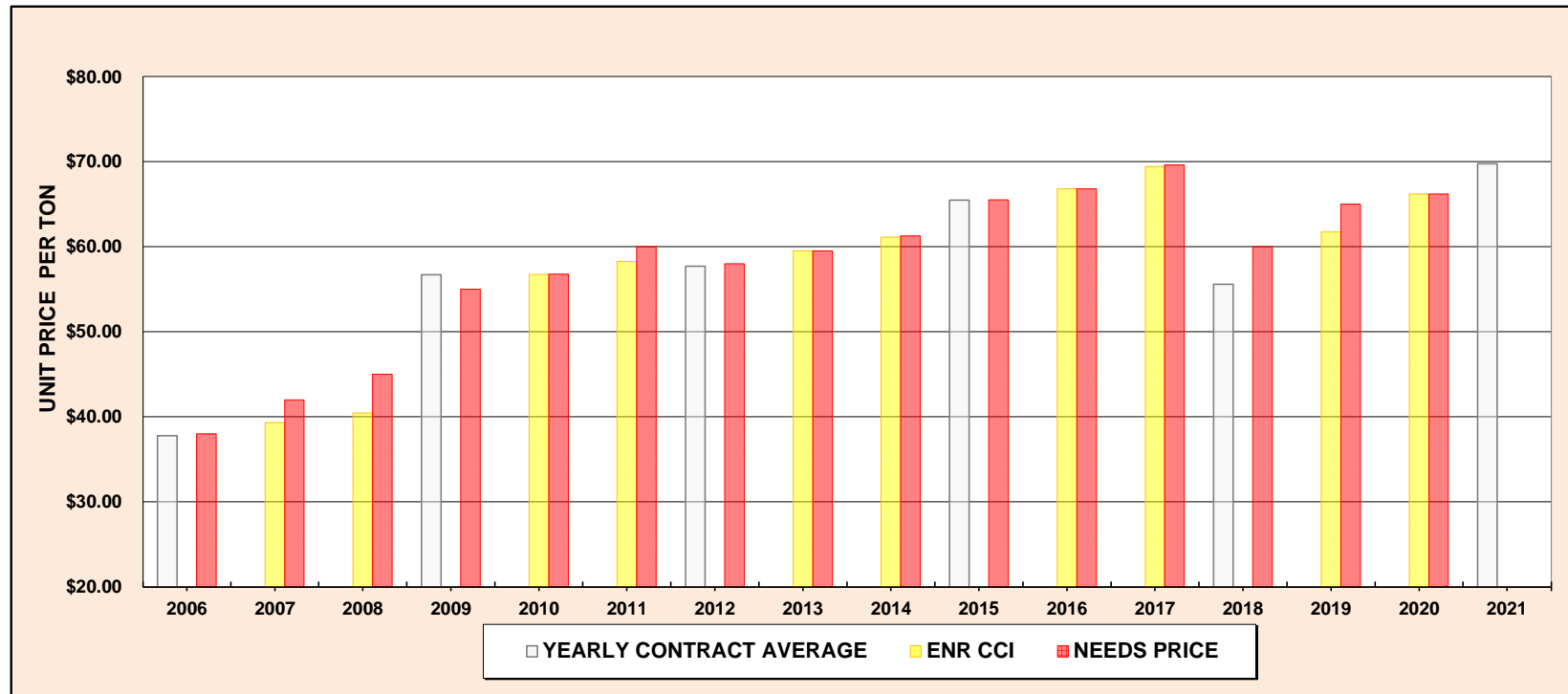
**SUBCOMMITTEE'S RECOMMENDED PRICE FOR THE 2021 NEEDS STUDY IS \$18.00 PER TON**

Yearly Contract Price of \$18.11 is a 25.4% increase from "Price used in Needs" last year (\$14.44). Last year this increase was 1.8%.

Since 2014, this Unit Cost has increased by an average of \$0.98 (note \$3.67 increase in this UC study)

(For this Unit Cost, there were 99 projects in 59 cities)

# ALL BITUMINOUS BASE & SURFACE

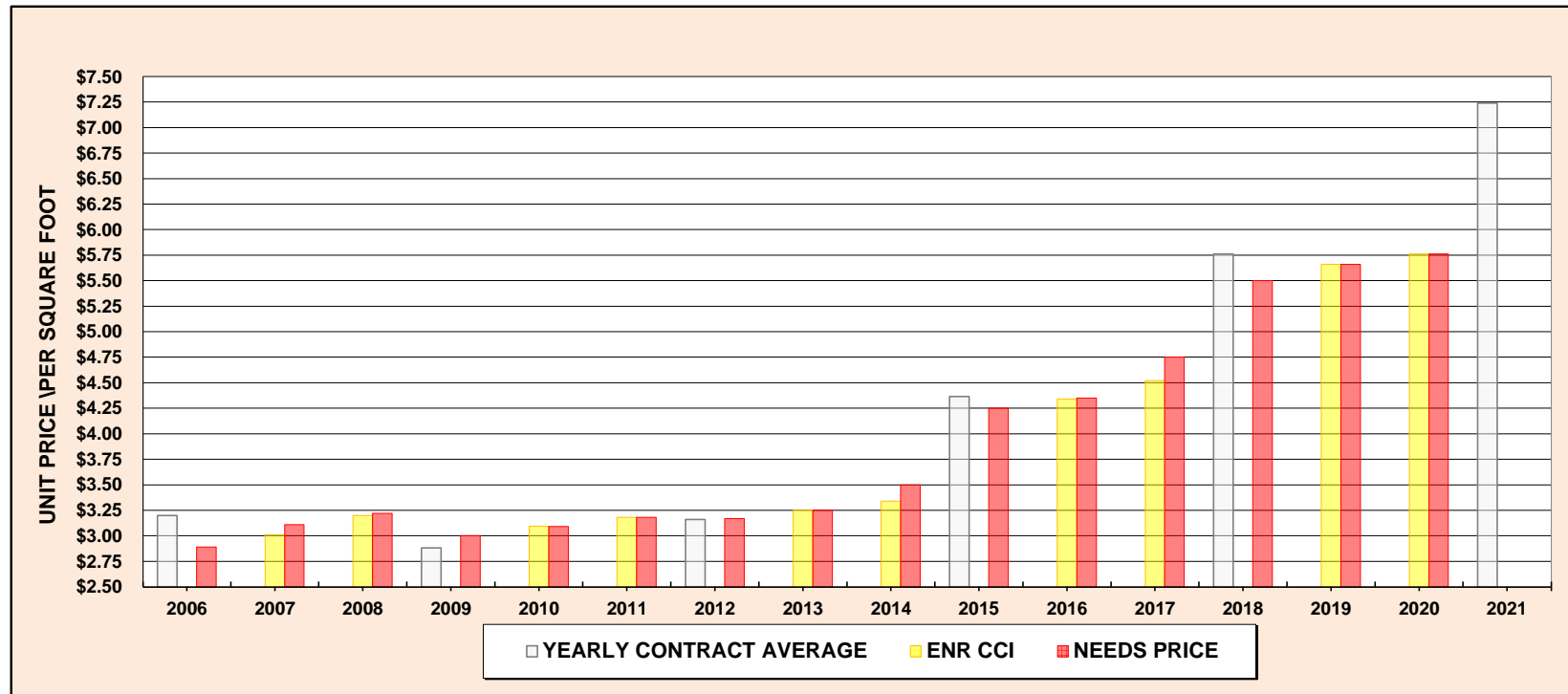


Needs Year	Number of Cities	Quantity (Ton)	Total Cost	Yearly Average Contract Price	Engineering News Record Construction Cost Index	Price Used in Needs	Needs Year	Number of Cities	Quantity (Ton)	Total Cost	Yearly Average Contract Price	Engineering News Record Construction Cost Index	Price Used in Needs
2006	51	305,073	\$11,524,574	37.78		\$38.00	2014					61.11	\$61.25
2007					39.33	42.00	2015	48	226,676	\$14,843,126	\$65.48		65.50
2008					40.42	45.00	2016					66.81	66.80
2009	44	277,797	15,744,901	56.68		55.00	2017					69.41	69.60
2010					56.72	56.75	2018	65	339,266	18,849,950	\$55.56		60.00
2011					58.27	60.00	2019					61.74	65.00
2012	65	317,687	18,334,854	57.71		58.00	2020					66.17	66.17
2013					59.51	59.50	2021	69	403,619	28,146,312	<b>\$69.73</b>		

**SUBCOMMITTEE'S RECOMMENDED PRICE FOR THE 2021 NEEDS STUDY IS \$72.00 PER TON**

Yearly Contract Price of \$69.73 is a 5.4% increase from "Price used in Needs" last year (\$66.17). Last year this increase was 1.8%.  
 Since 2014, this Unit Cost has increased by an average of \$1.21 (note -\$9.60 decrease in 2018 UC study)  
 (For this Unit Cost, there were 135 projects in 69 cities)

# SIDEWALK CONSTRUCTION

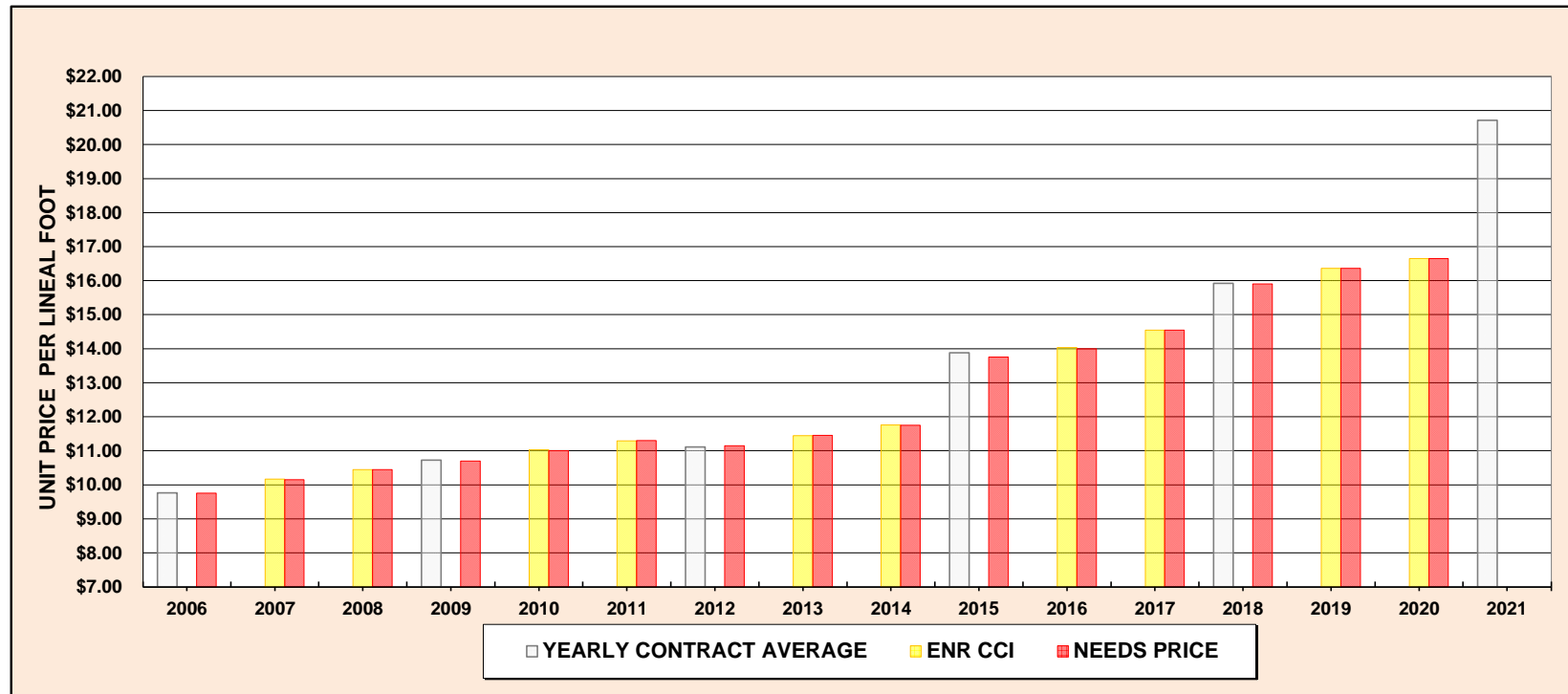


Needs Year	Number of Cities	Quantity (Sq.Ft.)	Total Cost	Yearly Average Contract Price	Engineering News Record Construction Cost Index	Price Used in Needs	Needs Year	Number of Cities	Quantity (Sq.Ft.)	Total Cost	Yearly Average Contract Price	Engineering News Record Construction Cost Index	Price Used in Needs
2006	43	69,500	\$2,004,367	3.20	3.01	\$2.89	2014	39	356,709	\$1,556,517	4.36	3.34	\$3.50
2007					3.20	3.11	2015					4.34	4.25
2008						3.22	2016					4.52	4.35
2009	44	95,689	2,482,820	2.88	3.09	3.00	2017	52	608,114	\$3,502,293	5.76	5.66	4.75
2010					3.18	3.09	2018					5.76	5.50
2011					3.17	3.18	2019						5.66
2012	51	66,045	1,880,257	3.16	3.25	3.17	2020						5.76
2013						3.25	2021	60	1,175,309	\$8,509,411	7.24		5.76

SUBCOMMITTEE'S RECOMMENDED PRICE FOR THE 2020 NEEDS STUDY IS \$7.24 PER SQ. FT.

Yearly Contract Price of \$7.24 is a 25.7% increase from "Price used in Needs" last year (\$5.76). Last year this increase was 1.8%.  
 Since 2014, this Unit Cost has increased by an average of \$0.53 (note \$1.48 increase in the 2021 UC study)  
 (For this Unit Cost, there were 108 projects in 60 cities)

# 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
2006	52	327,171	\$3,195,201	9.77		\$9.75	2014						
2007					10.17	10.15	2015	44	168,891	2,344,989	13.88	11.76	\$11.75
2008					10.45	10.45	2016					14.03	14.00
2009	43	262,251	2,812,246	10.72		10.70	2017					14.55	14.55
2010					11.03	11.00	2018	61	267,833	\$4,263,081	15.92		15.90
2011					11.29	11.30	2019					16.36	16.36
2012	63	281,751	3,130,181	11.11		11.15	2020					16.65	16.65
2013					11.44	11.45	2021	60	371,066	\$7,683,047	\$20.71		

**SUBCOMMITTEE'S RECOMMENDED PRICE FOR THE 2020 NEEDS STUDY IS \$20.00 PER LIN. FT.**

Yearly Contract Price of \$20.71 is a 24.4% increase from "Price used in Needs" last year (\$16.65). Last year this increase was 1.8%.

Since 2014, this Unit Cost has increased by an average of \$1.28 (note \$4.06 increase in the 2021 UC study)

(For this Unit Cost, there were 110 projects in 60 cities)

## Storm Sewer



## Lighting



## Signals



## 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

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

### NEEDS STUDY SUBCOMMITTEE'S RECOMMENDED PRICES FOR 2021:

Storm Sewer (high section)	<u>\$263,200</u>
Lighting / Mile	<u>\$100,000</u>
Traffic Signals (per Signal)	<u>\$231,875</u>

## LIGHTING

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

During the 2014 NSS meeting, the committee approved a motion that lighting costs should be studied as part of the 2015 Full Unit Cost Study. The highlights from that study are below:

### AVERAGE COST PER LIGHTING UNIT

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

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

For details of the 2015 Street Light Study, find the 2015 Spring Report at following website:

<http://www.dot.state.mn.us/stateaid/msas-springbooks.html>

### 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*

2021 Recommendation: \$100,000 per mile



# Memo

Date: April 5, 2021

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 2020

We have completed our analysis of storm sewer construction costs incurred for 2020 and the following assumptions can be utilized for planning purposes per roadway mile:

- Approximately \$407,485 for new construction, and
- Approximately \$118,882 for adjustment of existing systems

The preceding amounts are based on the average cost per mile of State Aid storm sewer using unit prices. A total of 117 Storm Sewer Plan sets were reviewed during 2020, comprised of 164 State Aid project numbers.

EC: Andrea Hendrickson (MnDOT file)

# STORM SEWER COST RECOMMENDATIONS FOR 2021

## 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	\$407,485			
Partial Storm Sewer Cost from Hydraulics Specialist	\$118,882			
Average SS Cost = $(\$407,485 + \$118,882) / 2 =$				
<b>NSS Recommended Unit Cost</b>	<b>\$263,200</b>			
MSB Approved Unit Cost for 2020	\$xxx,xxx			
<b>NSS recommended Storm Sewer Costs for 2021</b>				
<i>based on 2020 costs - for the 2021 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	(\$77,600)	-29.5%	\$185,600
28	1-499	(\$74,000)	-28.1%	\$189,200
34	500-1,999	(\$63,500)	-24.1%	\$199,700
40	2,000-4,999	(\$52,900)	-20.1%	\$210,300
48	5,000-8,999	(\$38,800)	-14.7%	\$224,400
54	9,000-13,999	(\$28,200)	-10.7%	\$235,000
62	14,000-24,999	(\$14,100)	-5.4%	\$249,100
70	25,000 and over	\$0	0.0%	<b>\$263,200</b>

## MSB approved Storm Sewer Costs for 2020 (last year)

*based on 2019 costs - for the 2020 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%	\$165,500
28	1-499	(\$63,600)	-28.1%	\$168,700
34	500-1,999	(\$54,500)	-24.1%	\$178,100
40	2,000-4,999	(\$45,400)	-20.1%	\$187,500
48	5,000-8,999	(\$33,300)	-14.7%	\$200,100
54	9,000-13,999	(\$24,200)	-10.7%	\$209,500
62	14,000-24,999	(\$12,100)	-5.4%	\$222,100
70	25,000 and over	\$0	0.0%	\$234,700

from last year's SS letter

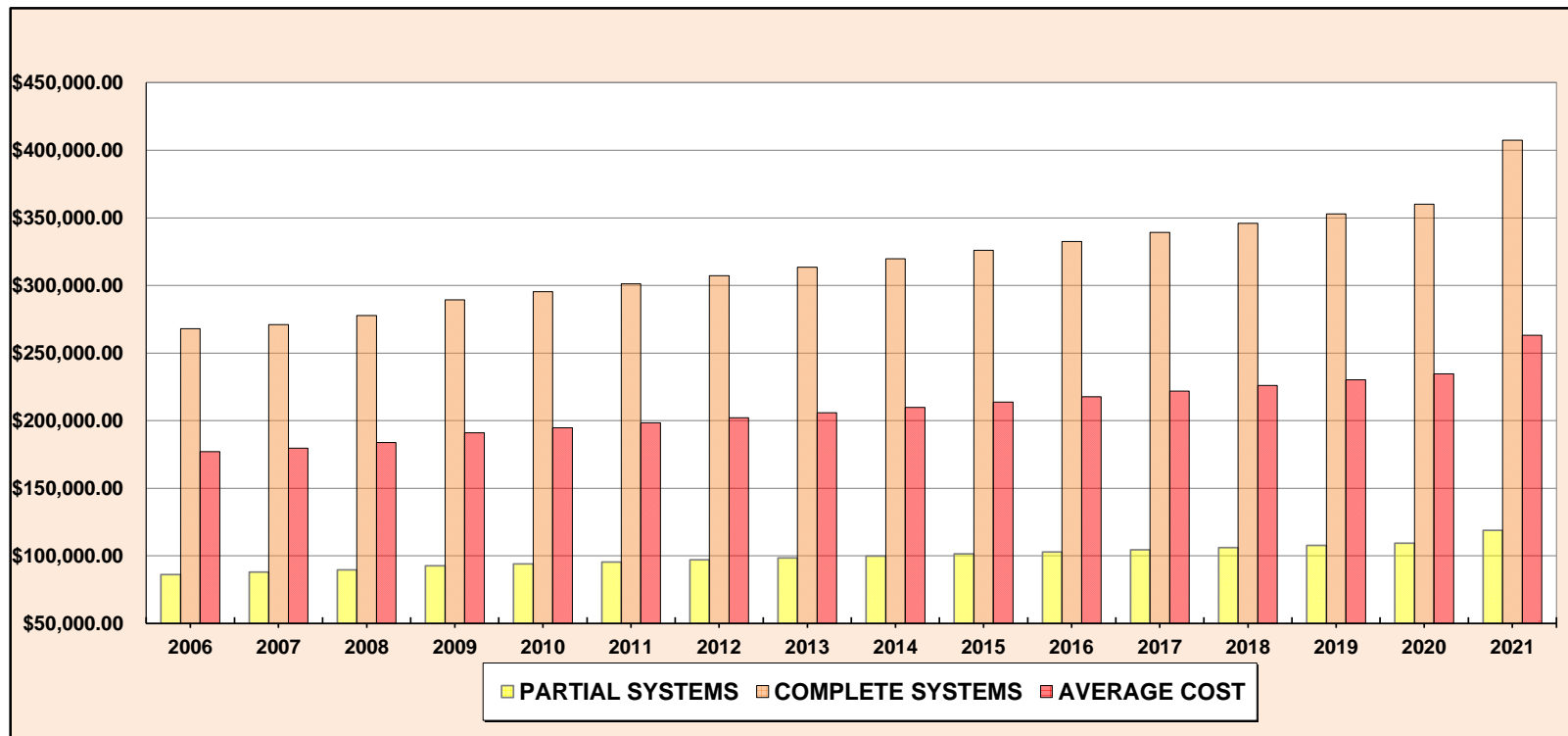
Complete: \$360,048

Partial: \$109,281

**AVG: \$234,665**

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

# STORM SEWER COSTS, 2006 - 2021



Needs Year	Partial Storm Sewer Constructions	Complete Storm Sewer Constructions	Average Cost (basis for Needs)
2006	\$86,121	\$268,035	\$177,078
2007	\$88,102	\$271,117	\$179,610
2008	\$89,687	\$277,895	\$183,791
2009	\$92,772	\$289,290	\$191,031
2010	\$94,164	\$295,365	\$194,765
2011	\$95,576	\$301,272	\$198,424
2012	\$97,010	\$307,297	\$202,154
2013	\$98,465	\$313,443	\$205,954

Needs Year	Partial Storm Sewer Constructions	Complete Storm Sewer Constructions	Average Cost (basis for Needs)
2014	\$99,942	\$319,711	\$209,827
2015	\$101,441	\$326,105	\$213,773
2016	\$102,963	\$332,627	\$217,795
2017	\$104,507	\$339,280	\$221,894
2018	\$106,075	\$346,066	\$226,071
2019	\$107,666	\$352,988	\$230,327
2020	\$109,281	\$360,048	\$234,665
2021	\$118,882	\$407,485	\$263,184

SUBCOMMITTEE'S RECOMMENDED PRICE FOR THE 2020 NEEDS STUDY IS \$263,200 (for highest section)

# Summary Signal ONLY Needs

## Greater MN

Intersection Configuration	Cost Construct	Cost Remove Existing	Grand Total Signal ONLY	Contract Total	Contract Holder	Location	Year Built
Larger 4 Legged	\$243,000	\$13,000	\$269,000	\$9,821,795	Freeborn County	Albert Lea	2020
Larger 4 Legged	\$240,000	Incidental	\$248,530	\$1,200,588	City of Monticello	Monticello	2016
Smaller 4 Legged	\$164,211	Incidental	\$164,211	\$214,970	Stearns County	Sartell	2017

## Metro

Intersection Configuration	Cost Construct	Cost Remove Existing	Grand Total Signal ONLY	Contract Total	Contract Holder	Location	Year Built
Larger 4 Legged	\$264,000	Incidental	<b>\$264,000</b>	\$1,031,568	Dakota County	Burnsville	2019
Larger 4 Legged	\$240,160	Incidental	<b>\$243,160</b>	\$2,760,079	City of Lake Elmo	Lake Elmo	2019
Smaller 4 Legged	\$198,500.	Incidental	<b>\$202,350</b>	\$997,460	City of Woodbury	Woodbury	2018

Average Cost	
Greater MN	\$227,247
Metro	\$236,503
Statewide	\$231,875

### NOTES:

These estimates do NOT account for temporary signal systems, curb and gutter, pavement, pavement marking, traffic signing, truncated domes or pedestrian ramps, interconnection, etc.

These estimates account for signal mast arms, signal heads, handholes, loops, EVP, push buttons, etc.

By: MK and MEV  
On: 03/29/21

## SIGNALS

### CURRENT SCREENING BOARD RESOLUTION ON TRAFFIC SIGNALS

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

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

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

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

### TRAFFIC SIGNALS AND THE UNIT COST STUDY

Traffic Signals are part of the Unit Cost Study. Signal Studies are conducted by The SALT Program Support Engineer once every 3 years. In 'off years' an inflation factor is applied. Here is the summary of the 2021 study:

Average Cost	
Greater MN	\$227,247
Metro	\$236,503
Statewide	\$231,875

### NSS RECOMMENDATION

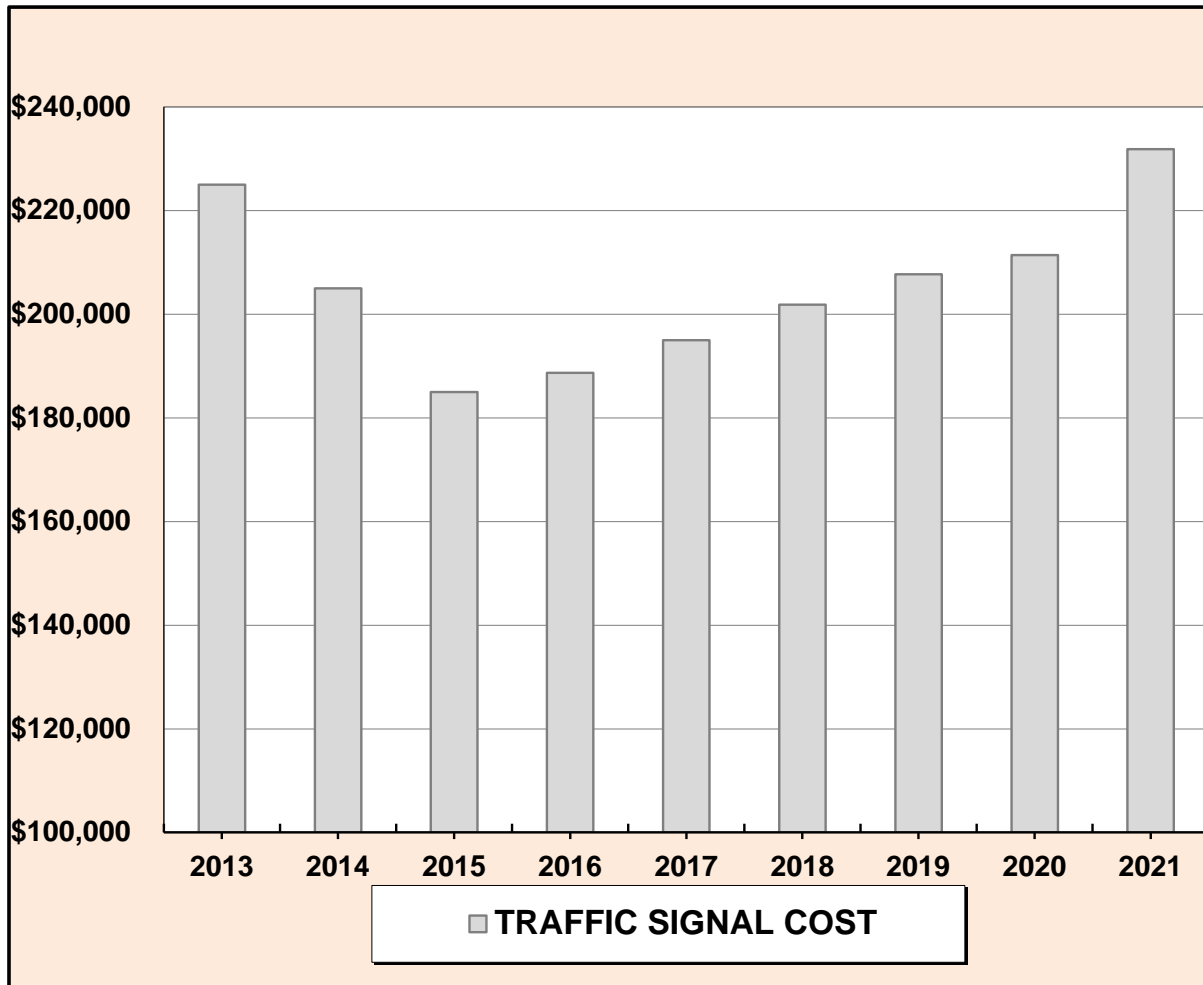
Last year's unit cost for signals was \$211,440.

**SUBCOMMITTEE'S RECOMMENDED SIGNAL PRICE FOR THE 2021 NEEDS IS \$231,875.**

### 2015 UCFS RECOMMENDATION ON TRAFFIC SIGNALS

*"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.*

# TRAFFIC SIGNALS



Needs Year	Signal Cost	% chg
2013	\$225,000	
2014	\$205,000	(8.9)
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

SUBCOMMITTEE'S RECOMMENDED PRICE FOR THE 2021 NEEDS STUDY IS \$231,875

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

# NSS Recommendation on Structures, 2018

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

# MnDOT State Aid Bridge Office 2020 Calendar Year - - Bridge Cost Report

## General Notes

The CY 2020 Bridge Cost Report reflects the unit cost (\$ per square foot of bridge area) for all of the bridges let in CY 2020.

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

## 2020 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
31580	SAP	031-599-014	26.00	TTS	6/9/2020	676	\$238,038	\$352.13
27C23	SAP	142-594-006	31.50	C-SLAB	1/1/2020	762	\$328,875	\$431.59
27C25	SAP	142-148-006	31.50	C-SLAB	1/1/2020	1045	\$717,303	\$686.41
27C24	SAP	142-594-005	31.55	C-SLAB	1/1/2020	636	\$352,865	\$554.82
04530	SAP	004-622-022	42.17	PCB	4/21/2020	1476	\$330,712	\$224.06
R0856	SP	091-090-087	51.67	TRUSS	1/16/2020	600	\$118,685	\$197.81
37556	SAP	037-599-113	55.17	PCB	6/30/2020	1710	\$237,554	\$138.92
42580	SAP	042-599-152	63.92	PCB	10/29/2020	1982	\$244,101	\$123.16
31579	SAP	031-660-009	65.17	PCB	3/3/2020	2281	\$637,893	\$279.65
29533	SAP	028-640-010	68.67	C-SLAB	5/18/2020	2427	\$471,387	\$194.23
28559	SAP	028-599-093	81.90	C-SLAB	6/15/2020	2539	\$475,234	\$187.17
65569	SAP	065-639-003	84.92	PCB	6/8/2020	3680	\$381,956	\$103.79
R0857	SP	123-090-002	92.67	TRUSS	5/21/2020	1080	\$311,496	\$288.42
37559	SAP	037-599-114	94.17	PCB	6/30/2020	3296	\$394,215	\$119.60
65572	SAP	065-599-077	94.31	C-SLAB	2/10/2020	3301	\$343,269	\$103.99
72550	SP	072-617-025	99.73	C-SLAB	2/27/2020	4289	\$586,093	\$136.65
85582	SP	085-630-009	101.93	C-SLAB	5/19/2020	3567	\$551,777	\$154.69
37557	SAP	037-613-005	110.00	C-SLAB	9/29/2020	3804	\$430,572	\$113.19
43560	SAP	043-611-013	110.17	PCB	3/13/2020	4774	\$510,984	\$107.03
85581	SP	085-637-026	111.73	C-SLAB	5/19/2020	3910	\$444,734	\$113.74
52522	SAP	052-621-027	113.92	PCB	1/1/2020	4082	\$941,502	\$230.65
27C19	SAP	163-276-036	121.92	PCB	10/8/2020	10670	\$3,550,525	\$332.76
37558	SAP	037-599-112	123.00	C-SLAB	9/29/2020	3813	\$435,033	\$114.09
31577	SP	031-598-030	123.46	C-SLAB	2/4/2020	3827	\$503,001	\$131.43
69A70	SAP	069-661-019	123.67	PCB	5/7/2020	6791	\$2,142,693	\$315.52
09536	SP	009-608-039	134.25	PCB	6/17/2020	4699	\$1,039,328	\$221.18
10554	SAP	010-650-026	142.00	PCB	6/26/2020	6106	\$1,104,689	\$180.92

<b>Total Cost</b>	<b>\$17,824,515</b>
<b>Total Deck Area</b>	<b>87,823</b>
<b>Average Cost per Sq Ft</b>	<b>\$202.96</b>
<b>Total No. of Bridges &lt; 150'</b>	<b>27</b>

# MnDOT State Aid Bridge Office 2020 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
07600	SP	007-641-007	167.72	PCB	7/15/2020	6541	\$1,187,275	\$181.51
R0862	SP	156-090-003	372.48	TRUSS	11/12/2020	5578	\$1,266,080	\$226.98
23601	SAP	023-605-038	501.67	C-SLAB	6/1/2020	16054	\$993,397	\$61.88
R0823	SP	163-090-003	1488.25	TRUSS	7/28/2020	20975	\$5,970,480	\$284.65

**Total Cost** **\$9,417,232**

**Total Deck Area** **49,148**

**Average Cost per Sq Ft** **\$191.61**

**Total No. of Bridges > 150'** **4**

# MnDOT State Aid Bridge Office 2020 Calendar Year - - Bridge Cost Report

Totals for All Bridges Let in CY 2020

<b>Total Cost for all Bridges</b>	<b>\$27,241,746</b>
<b>Total Deck Area for all Bridges</b>	<b>136,971</b>
<b>Average Cost per Sq Ft</b>	<b>\$198.89</b>
<b>Total Number of Bridges</b>	<b>31</b>

1/2 = \$99.44

**ALL BRIDGES (ready to separate for report)**

New Bridge No.	Project Type	Project Number	Length	Beam Type	Letting Date	Area	Cost	Unit Cost	
31580	SAP	031-599-014	26.00	TTS	6/9/2020	676	\$238,038	\$352.13	
27C23	SAP	142-594-006	31.50	C-SLAB	1/1/2020	762	\$328,875	\$431.59	1
27C25	SAP	142-148-006	31.50	C-SLAB	1/1/2020	1045	\$717,303	\$686.41	1
27C24	SAP	142-594-005	31.55	C-SLAB	1/1/2020	636	\$352,865	\$554.82	1
04530	SAP	004-622-022	42.17	PCB	4/21/2020	1476	\$330,712	\$224.06	1
R0856	SP	091-090-087	51.67	TRUSS	1/16/2020	600	\$118,685	\$197.81	
37556	SAP	037-599-113	55.17	PCB	6/30/2020	1710	\$237,554	\$138.92	1
42580	SAP	042-599-152	63.92	PCB	10/29/2020	1982	\$244,101	\$123.16	1
31579	SAP	031-660-009	65.17	PCB	3/3/2020	2281	\$637,893	\$279.65	1
29533	SAP	028-640-010	68.67	C-SLAB	5/18/2020	2427	\$471,387	\$194.23	1
28559	SAP	028-599-093	81.90	C-SLAB	6/15/2020	2539	\$475,234	\$187.17	1
65569	SAP	065-639-003	84.92	PCB	6/8/2020	3680	\$381,956	\$103.79	1
R0857	SP	123-090-002	92.67	TRUSS	5/21/2020	1080	\$311,496	\$288.42	
37559	SAP	037-599-114	94.17	PCB	6/30/2020	3296	\$394,215	\$119.60	1
65572	SAP	065-599-077	94.31	C-SLAB	2/10/2020	3301	\$343,269	\$103.99	1
72550	SP	072-617-025	99.73	C-SLAB	2/27/2020	4289	\$586,093	\$136.65	1
85582	SP	085-630-009	101.93	C-SLAB	5/19/2020	3567	\$551,777	\$154.69	1
37557	SAP	037-613-005	110.00	C-SLAB	9/29/2020	3804	\$430,572	\$113.19	1
43560	SAP	043-611-013	110.17	PCB	3/13/2020	4774	\$510,984	\$107.03	1
85581	SP	085-637-026	111.73	C-SLAB	5/19/2020	3910	\$444,734	\$113.74	1
52522	SAP	052-621-027	113.92	PCB	1/1/2020	4082	\$941,502	\$230.65	1
27C19	SAP	163-276-036	121.92	PCB	10/8/2020	10670	\$3,550,525	\$332.76	0
37558	SAP	037-599-112	123.00	C-SLAB	9/29/2020	3813	\$435,033	\$114.09	1
31577	SP	031-598-030	123.46	C-SLAB	2/4/2020	3827	\$503,001	\$131.43	1
69A70	SAP	069-661-019	123.67	PCB	5/7/2020	6791	\$2,142,693	\$315.52	1
09536	SP	009-608-039	134.25	PCB	6/17/2020	4699	\$1,039,328	\$221.18	1
10554	SAP	010-650-026	142.00	PCB	6/26/2020	6106	\$1,104,689	\$180.92	1
07600	SP	007-641-007	167.72	PCB	7/15/2020	6541	\$1,187,275	\$181.51	1
L5391	SP	025-597-006	180.00	REHAB	9/22/2020	4598	\$2,003,126	\$435.65	
27516	SAP	027-619-025	320.33	REHAB	2/18/2020	18847	\$2,666,598	\$141.49	
01506	SAP	001-601-021	363.33	REHAB	3/2/2020	14595	\$449,337	\$30.79	
R0862	SP	156-090-003	372.48	TRUSS	11/12/2020	5578	\$1,266,080	\$226.98	
23601	SAP	023-605-038	501.67	C-SLAB	6/1/2020	16054	\$993,397	\$61.88	0
R0864	SP	010-090-008	829.03	BRDWK	5/26/2020	10780	\$594,518	\$55.15	
R0819	SP	179-090-005	1094.31	BRDWK	6/3/2020	13525	\$1,673,030	\$123.70	
R0823	SP	163-090-003	1488.25	TRUSS	7/28/2020	20975	\$5,970,480	\$284.65	

with REHABS / BRDWKS

TOTALS

199,316

\$34,628,355

Avg Price

\$173.74

without REHABS / BRDWKS

TOTALS

136,971

\$27,241,746

Avg Price

\$198.89

(one half: \$99.44)

# BRIDGES / STRUCTURES



NEEDS YEAR	NUMBER OF PROJECTS	DECK AREA	TOTAL COST	YEARLY AVERAGE CONTRACT PRICE	PRICE USED IN NEEDS	5-YEAR AVERAGE CONTRACT PRICE
2010	56	333,867	\$34,675,259	\$103.86	\$120.00	\$112.02
2011	66	509,552	51,008,086	100.10	115.00	110.63
2012	69	475,190	64,255,407	135.22	125.00	116.49
2013	73	505,031	61,637,866	122.05	120.00	117.80
2014	91	379,364	54,646,656	144.05	72.00	120.85
2015	49	196,550	37,973,287	193.20	96.50	130.48

NEEDS YEAR	NUMBER OF PROJECTS	DECK AREA	TOTAL COST	YEARLY AVERAGE CONTRACT PRICE	PRICE USED IN NEEDS	5-YEAR AVERAGE CONTRACT PRICE
**2016	41	178,429	\$42,852,558	\$240.17	\$120.08	\$150.68
2017	47	184,138	31,962,025	173.58	90.00	158.69
*2018	42	159,281	24,786,595	155.62	87.55	175.10
*2019	41	150,251	27,812,170	185.10	95.20	190.40
*2020	29	142,041	28,354,895	199.62	95.67	191.33
*2021	31	136,971	27,241,746	198.89	90.70	181.39

\* recommended cost based off five years of data

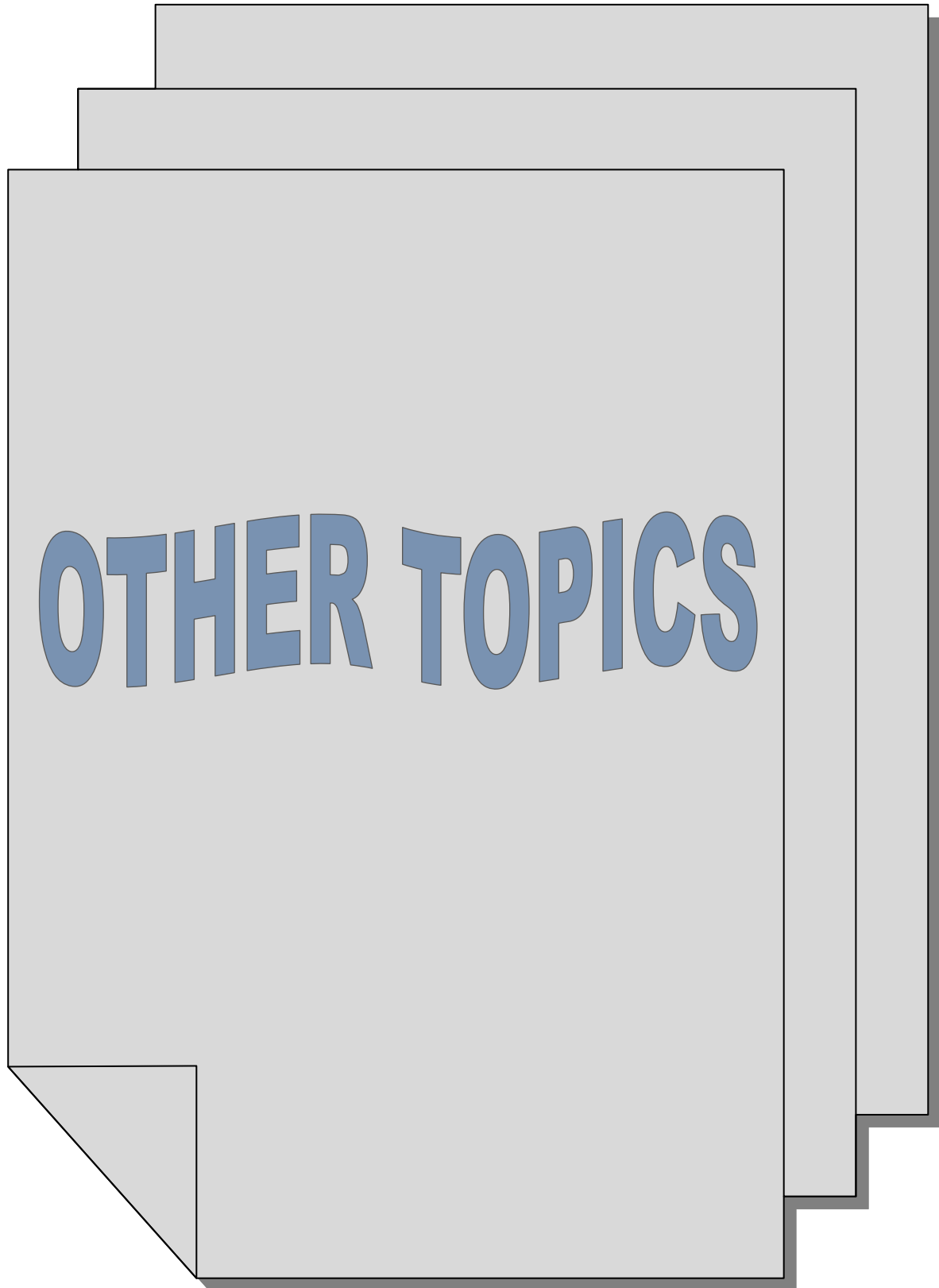
\*\* note the loss of 2016 data from the five year average

## SUBCOMMITTEES RECOMMENDED STRUCTURE PRICE FOR THE 2021 NEEDS STUDY IS \$90.70 PER SQ. FT.

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

\$90.70 would result in an -5.2% decrease from last year's Unit Cost price of \$95.67

NMS&S2021\_NBS\_BOOK/ALL\_BRIDGES\_GRAPH\_2021.XLSX



# Local Road Research Board

## Program Overview

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



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

## Board Members

The Board consists of 10 members, including:

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

## Committees

### Research Implementation Committee

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

- Four County Engineers
- Two City Engineers
- MnDOT Deputy State Aid Engineer
- A MnDOT District State Aid Engineer
- A representative from MnDOT's Research and Innovation Office

- A representative from a MnDOT's specialty office
- A representative from University of Minnesota, Center for Transportation Studies.

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

### Outreach Subcommittee

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

## Funding

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

	2016	2017	2018	2019	2020
<b>Amount Allocated</b>	\$3.5 M	\$2.5 M	\$3.5 M	\$3.6 M	\$4 M
<b>Number of New Projects</b>	17	19	20	24	30
<b>Total Number of Active Projects</b>	74	72	85	77	67

## For More Information

The LRRB publishes an annual LRRB At-a-Glance Report<sup>1</sup>. This is a summary of completed reports and active projects and describes its goals and resources.

Website: [www.lrrb.org](http://www.lrrb.org)

LRRB Board Chair: Jim Foldesi  
[foldesij@stlouiscountymn.gov](mailto:foldesij@stlouiscountymn.gov)  
 St. Louis County Engineer  
 (218) 625-3830

Research and Innovation: MnDOT Director of Research and Innovation  
 (651) 366-3765

Revised: 02/2021

<sup>1</sup> <https://lrrb.org/annual-reports/>

# Municipal State Aid Construction Account Advance Guidelines

## Advance status is currently code yellow

### State Aid Advances

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

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

The process used for advancing is dependent on the code levels which are listed below. The current State Aid advance Code Level is displayed at the beginning of this document.

### State Aid Advance Code Levels

#### SEVERE

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

#### GUARDED

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

#### LOW

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

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

If a city requests an advance on future allotments they need to submit an State Aid Advance Resolution authorizing the advance by the board. This will “ earmark ” the funding for that city, but it will NOT hold the funds. Advanced funds will be paid out on a first come first serve basis as the construction accounts are spent down to zero. The correct resolution must be used for each advance type and there is a sample resolution for each on the MnDOT State Aid Finance (SAF) webpage. **Requests are good only for the year requested**



**(cannot be summited for multiple years) and void at 12/31 of that year.**

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

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

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

## Priority System

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

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

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

## Advance Limitations

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

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

### State Aid Guidelines

Advance is limited to five times the municipalities' last construction allotment or \$4,000,000, whichever is less. Advance amount will be reduced by any similar outstanding obligations and/or bond principle payments due. The limit can be administratively adjusted by the MnDOT Chief Financial Officer.

If a municipality has a negative balance and the status is Code Red – Severe: then MnDOT State Aid Finance may not be able to pay the municipality for the local agency bond principal.

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.

**CURRENT RESOLUTIONS  
OF THE  
MUNICIPAL SCREENING BOARD**

October 2020

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

**BE IT RESOLVED:**

**ADMINISTRATION**

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

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

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

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

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

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

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

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

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

Any individual or delegation having items of concern regarding the study of State Aid Needs or State Aid Apportionment amounts, and wishing to have consideration given to these items, will send such request in writing to the State Aid Engineer. The State Aid Engineer with concurrence of the Chair of the Screening Board will determine which requests are to be referred to the Screening Board for their consideration. This resolution does not abrogate the right of the Screening Board to call any person or persons before the Board for discussion purposes.

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

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

### **Research Account** - Oct. 1961

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

### **Population Apportionment** - October 1994, 1996

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

### **Improper Needs Report** - Oct. 1961

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

### **New Cities Needs** - Oct. 1983 (Revised June 2005, May 2014)

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

### **Certified Complete Cities** – May 2014 (Revised October 2014)

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

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

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

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

### **Construction Needs Components** – May 2014

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

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

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

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

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

The Unit Price Study go to a 3 year (or triennial) cycle with the Unit Prices for the two 'off years' to be set using the Engineering News Record construction cost index on all items where a Unit Price is not estimated and provided by other MnDOT offices. The Screening Board may request a Unit Price Study on individual items in the 'off years' if it is deemed necessary.

### **Unit Costs** – May 2014, (Revised January 2015, May 2015)

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

**MSAS URBAN ADT GROUPS FOR NEEDS PURPOSES**

**Quantities Based on a One Mile Section**

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

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

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

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

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

The Unit Cost for **Traffic Signals** will be determined by the recommendation by the SALT Program Support Engineer and approved by the MSB. The Unit Cost for traffic signals will be based on a cost per signal leg, and for Needs purposes a signal leg will be defined as  $\frac{1}{4}$  of the signal cost. Only signal legs on designated MSAS routes will be included in the Needs study. Stand-alone pedestrian crossing signals will not be included in the Needs study.

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

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

## 2020 UNIT PRICE RECOMMENDATIONS

*for the January 2021 distribution*

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

### **Phase In (Restriction) May 2014**

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

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

During the seven year period the phase in is being applied, a city's Restricted Needs will be



computed using the following steps:

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

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

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

**Excess Unencumbered Construction Fund Balance Adjustment** – Oct. 2002, (Revised Jan. 2010, May 2014, May 2019)

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

The December 31 construction fund balance will be compared to the annual construction allotment from January of the same year. If the December 31 construction fund balance exceeds 3 times the January construction allotment, and the construction fund balance is over \$1,500,000, then the negative adjustment to the Needs will be 1 times the December 31 construction fund balance. In each consecutive year the December 31 construction fund balance exceeds 3 times the January construction allotment (and the balance is over \$1,500,000), the negative adjustment to the Needs will be increased to 2, 3, 4, etc. times the December 31 construction fund balance until such time the Construction Needs are adjusted to zero.

If the December 31 construction fund balance drops below 3 times the January construction allotment and subsequently increases to over 3 times, the multipliers will start over with one.

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

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

### **Trunk Highway Turnback - Oct. 1967 (Revised June 1989, May 2014; Revoked May 2020)**

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

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

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

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

**TRAFFIC** - June 1971 (Revised May 2014)

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

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

Traffic data for State Aid Needs Studies will be developed as follows:

- 1) The municipalities in the metropolitan area cooperate with the State by agreeing to participate in counting traffic every two or four years at the discretion of the city.
- 2) The cities in the outstate area may have their traffic counted and maps prepared by State forces every four years, or may elect to continue the present procedure of taking their own counts and have state forces prepare the maps.
- 3) Any city may count traffic with their own forces every two years at their discretion and expense, unless the municipality has made arrangements with the Mn/DOT district to do the count.
- 4) On new MSAS routes, the ADT will be determined by the City with the concurrence of the District State Aid Engineer until such time the roadway is counted in the standard MnDOT count rotation.