MUNICIPAL SCREENING BOARD DATA

Spring 2019

MSAS CALENDAR

January

- Highway User Tax Distribution Fund
- Send Finance Allotments
- Start preparing Jan. book
- January 15th deadline for Annual Certification of Mileage

February

- **NEEDS RESET**
  1) Back up current Needs
  2) Reset
  3) Notify cities to begin updating
- CEAM Conf.
- January book (on line)
- Notify DSAE's to schedule prescreening meetings
- Review Certification Forms

March

- Request Storm Sewer letter/ Bridge Data
- March 1st Deadline for System Revision Requests
- Unit Price Study

April

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

May

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

June

- Spring Screening Board Mtg

July

- Traffic Updates
- Review Needs

August

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

September

October

- FALL PRESCREENING BOARD MEETINGS
- Mail out Fall books

November

- Notify cities for Maintenance requests
- Fall Screening Board Mtg

December

- Notify cities to update certs.
- December 15th Maintenance Requests Due

City tasks (inside calendar)

State Aid tasks (outside calendar)

Ongoing Processes

The State Aid Program Mission Study

Mission Statement:

The purpose of the state-aid program is to provide resources, from the Highway Users Tax Distribution Fund, to assist local governments with the construction and maintenance of community-interest highways and streets on the state-aid system.

Program Goals:

The goals of the state-aid program are to provide users of secondary highways and streets with:

- Safe highways and streets;
- Adequate mobility and structural capacity on highways and streets; and
- An integrated transportation network.

Key Program Concepts:

Highways and streets of community interest are those highways and streets that function as an integrated network and provide more than only local access. Secondary highways and streets are those routes of community interest that are not on the Trunk Highway system.

A community interest highway or street may be selected for the state-aid system if it:

A. Is projected to carry a relatively heavier traffic volume or is functionally classified as collector or arterial

B. Connects towns, communities, shipping points, and markets within a county or in adjacent counties; provides access to rural churches, schools, community meeting halls, industrial areas, state institutions, and recreational areas; serves as a principal rural mail route and school bus route; or connects the points of major traffic interest, parks, parkways, or recreational areas within an urban municipality.

C. Provides an integrated and coordinated highway and street system affording, within practical limits, a state-aid highway network consistent with projected traffic demands.

The function of a road may change over time requiring periodic revisions to the state-aid highway and street network.

State-aid funds are the funds collected by the state according to the constitution and law, distributed from the Highway Users Tax Distribution Fund, apportioned among the counties and cities, and used by the counties and cities for aid in the construction, improvement and maintenance of county state-aid highways and municipal state-aid streets.

The *Needs* component of the distribution formula estimates the relative cost to build county highways or build and maintain city streets designated as state-aid routes.

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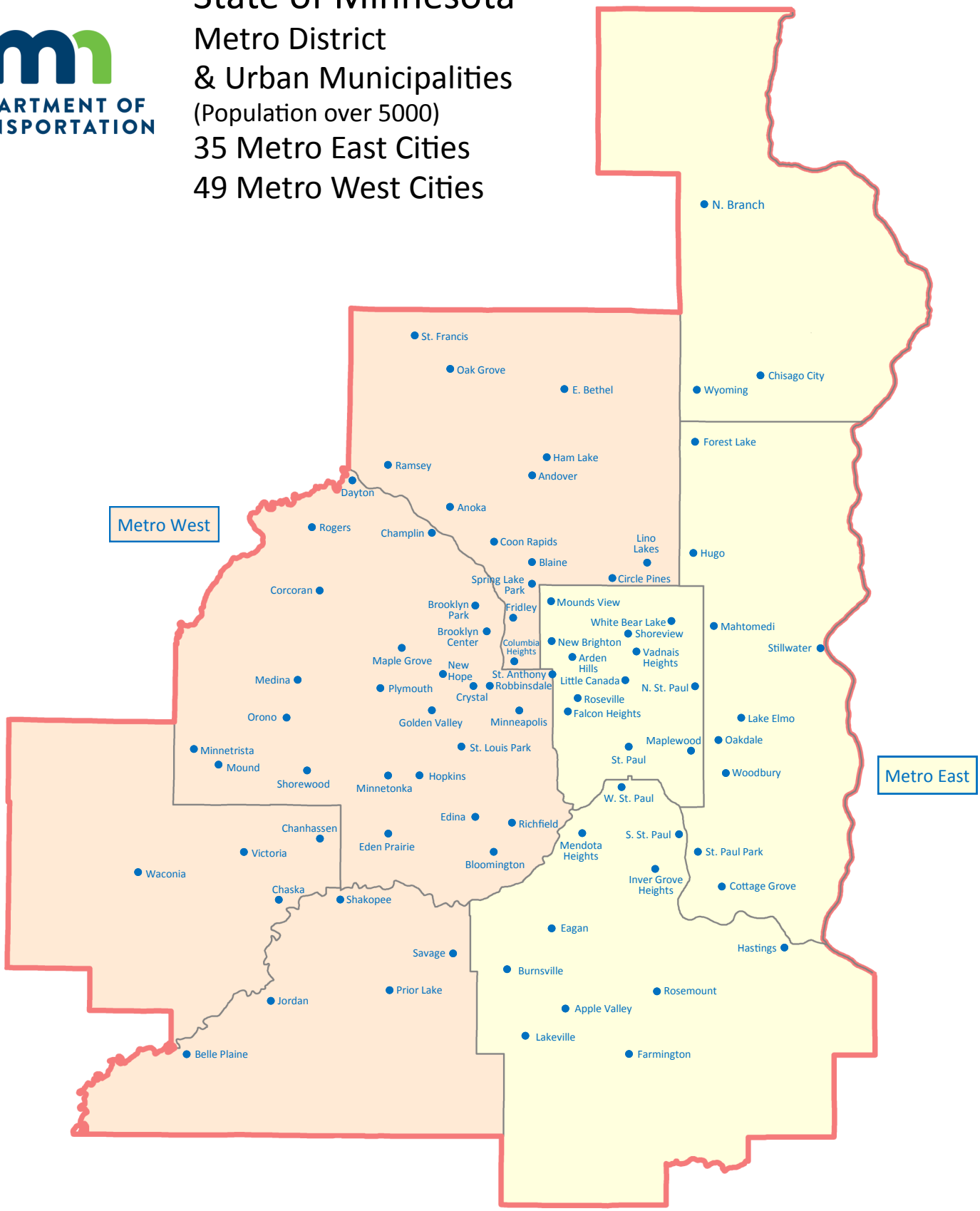
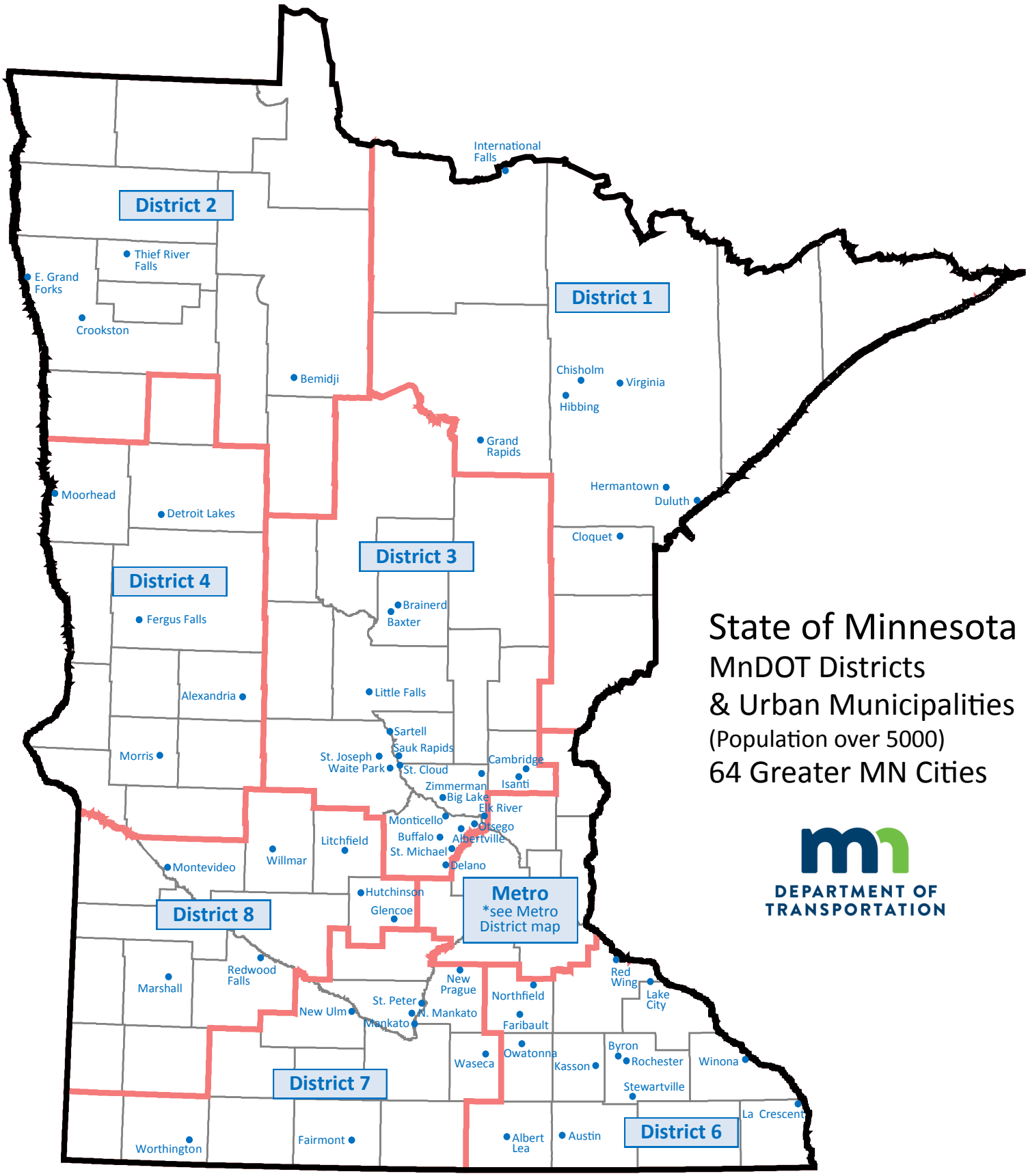
State of Minnesota
Metro District
& Urban Municipalities
(Population over 5000)

35 Metro East Cities

49 Metro West Cities



Updated 12/9/14



State of Minnesota

MnDOT Districts & Urban Municipalities

(Population over 5000)

64 Greater MN Cities

DEPARTMENT OF TRANSPORTATION

Updated 1/8/14

2019 MUNICIPAL SCREENING BOARD

12-Apr-19

Officers

Chair	John Gorder	Eagan	(651) 675-5645
Vice Chair	Justin Femrite	Elk River	(763) 635-1051
Secretary	Michael Thompson	Plymouth	(763) 509-5501

Members

District	Years Served	Representative	City	Phone
1	2017-2019	Matt Wegwerth	Grand Rapids	(218) 326-7625
2	2018-2020	Rich Clauson	Crookston	(218) 281-6522
3	2018-2020	Adam Nafstad	Albertville	(763) 497-3384
4	2019-2021	Brian Yavarow	Fergus Falls	(218) 332-5413
Metro-West	2019-2021	Chad Millner	Edina	(952) 826-0318
6	2019-2021	Kyle Skov	Owatonna	(507) 444-4350
7	2018-2019	Chris Cavett*	New Prague	(507) 388-1989
8	2018-2020	Andy Kehren	Redwood Falls	(507) 794-5541
Metro-East	2020-2022	Brian Erickson**	Rosemount	(651) 322-2025
Cities	Permanent	Cindy Voigt	Duluth	(218) 730-5200
of the	Permanent	Jenifer Hager	Minneapolis	(612) 673-3625
First	Permanent	Dillon Dombrovski	Rochester	(507) 328-2421
Class	Permanent	Paul Kurtz	Saint Paul	(651) 266-6203

Alternates

District	Year Beginning		City	Phone
1	2020	Caleb Peterson	Cloquet	(218) 879-6758
2	2021	Steve Emery	East Grand Forks	(218) 773-5626
3	2021	Layne Otteson	Big Lake	(763) 251-2984
4	2022	Bob Zimmerman	Moorhead	(218) 299-5393
Metro-West	2022	Will Manchester	Minnetonka	(952) 939-8232
6	2022	Brandon Theobald	Kasson	(507) 288-3923
7	2020	Jeff Domras	St. Peter	(507) 625-4171
8	2021	Brad DeWolf	Litchfield	(320) 231-3956
Metro-East	2023	Zachary Johnson	Lakeville	(952) 985-4501

* Seat was vacated in 2018. Chris Cavett finishing out term thru 2019.

** this is a vacated term from 2017 to 2019 being finished out by Brian Erickson. He will resume as member in 2020

2019 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
Jeff Johnson Mankato (507) 387-8640 Expires after 2019	Jeff Johnson Mankato (507) 387-8640 Expires after 2019
Sean Christensen Willmar (320) 235-4202 Expires after 2020	Marc Culver Roseville (651) 792-7041 Expires after 2020
Steve Lillehaug Shakopee (952) 233-9361 Expires after 2021	Glenn Olson Marshall (507) 537-6774 Expires after 2021

MUNICIPAL SCREENING BOARD MEETING
Meeting Minutes
Oct 23 & 24, 2018
Chase on the Lake - Walker, MN

I. Call to Order and Welcome by Chair Olson – 1:00 pm

a. Introductions
   i. *Glenn Olson* (Chair, Municipal Screening Board)
   ii. *Mitch Rasmussen*, MnDOT –State Aid Engineer
   iii. *Bill Lanoux*, MnDOT - Manager, Municipal State Aid Needs Unit
   iv. *John Gorder*, – Vice Chair MSB
   v. Past Chairs of the MSB: *Jeff Johnson and Marc Culver*
   vi. *Justin Femrite*, Secretary of the MSB

b. Secretary Femrite: conducted the roll call of the screening board members:
   i. District 1 Matt Wegwerth, Grand Rapids
   ii. District 2 Rich Clauson, Crookston
   iii. District 3 Adam Nafstad, Albertville
   iv. District 4 Jeff Kuhn, Morris
   v. Metro West Steve Lillehaug, Shakopee
   vi. District 6 Jay Owens, Red Wing
   vii. District 7 Chris Cavett, New Prague
   viii. District 8 Andy Kehren, Redwood Falls
   ix. Metro East Brian Erickson, Rosemount
   x. Duluth Cindy Voigt
   xi. Minneapolis Don Elwood
   xii. Rochester Dillon Dombrovski
   xiii. St. Paul Paul Kurtz

c. Recognized Screening Board Alternates in Attendance:
   i. District 4 Brian Yavarow, Fergus Falls
   ii. Metro West Chad Millner, Edina

d. Recognized Department of Transportation personnel:
   i. Kristine Elwood Deputy State Aid Engineer (Not Present)
   ii. Patti Loken State Aid Programs Engineer
   iii. John McDonald District 1 State Aid Engineer
   iv. Lou Tasa District 2 State Aid Engineer
   v. Kelvin Howieson District 3 State Aid Engineer (Not Present)
   vi. Nathan Gannon District 4 State Aid Engineer
   vii. Fausto Cabral District 6 State Aid Engineer
   viii. Lisa Bigham District 7 State Aid Engineer
   ix. Todd Broadwell District 8 State Aid Engineer
   x. Dan Erickson Metro State Aid Engineer
   xi. Julie Dresel Assistant Metro State Aid Engineer

e. Recognized others in Attendance:
   i. Dave Sonnenberg, Chair, CEAM Legislative Committee

ii. Larry Veek, Minneapolis
iii. Mike Van Beusekom, St. Paul
iv. Jennifer Hager, Minneapolis

II. Bill Lanoux reviewed the *'2018 Municipal State Aid Street Needs Report'*

a. Introductory information in the booklet Pages 1-12.
   i. May Screening Board minutes Pages 8-12 (Bill reviewed the action items taken at the May MSB meeting)

Motion by Kehren to approve the May Screening Board Minutes, Second by Lillehaug, Motion Carried 13-0

b. Population Data & 2019 Population Allocations, Pages 13-21
c. Mileage, Needs & Apportionment History, Pages 22-25
d. Itemized Needs Data & Mileage: Pages 26-30
e. Construction Needs, Restrictions & Adjustments, Pages 31-56
f. 2018 Adjusted Restricted Construction Needs, Pages 57-63
   i. Recommendation to Commissioner, Page 61
   ii. 2018 Needs Recommendations, 62-63
g. 2019 Construction Needs Allocations & Comparisons, Pages 64-69
h. 2019 Total Allocations & Comparisons, Pages 70-75
i. Allocation Rankings. Pages 76-79
j. Other Topics and MSB Resolutions 81-100 (**Research Acct page 85**)

Member Elwood asked, and State Aid staff clarified, that after 7-years the 'phase in" (to the new needs system) will end unless future actions of the Screening Board changes that.

III. Other Items for Day 1

a. Legislative Update- Dave Sonnenberg
   Dave reviewed highlights of interest to city engineers in the next legislative session. He mentioned full detail can be found on the league webpage.
   i. Statutory approval timelines
   ii. Right of Way management rights
   iii. Wireless Infrastructure and Equipment Siting
   iv. Adequate Funding for Transportation
   v. Looking for sustainable funding for non MSA Streets
   vi. Impact Infrastructure Fees
   vii. Sales Tax on Local Government Purchases
   viii. Local Option Sales Tax and City Revenue Diversification
   ix. Payments for Services to Tax-Exempt Property
   x. Proceeds from the Sale of Tax-Forfeit Property

b. Chair asked for any other discussion topics

IV. Call for a motion to adjourn until 8:30 Wednesday morning
Motion by Kuhn to adjourn until Wednesday morning, Second by Clauson, Motion Carried 13-0

WEDNESDAY MORNING SESSION

I. Reviewed Tuesday's subjects

a. Needs recommendations on pages 62 & 63

Call for a motion to approve the letter to the Commissioner.
Motion by Kehren to Approve the Letter to the Commissioner, Second by Clauson, Motion Carried 13-0

b. Research Account Page 85

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.

Call for a motion to approve the following resolution:

Be it resolved that an amount of $961,433 (not to exceed ½ of 1% of the 2018 MSAS Apportionment sum of $192,286,547) shall be set aside from the 2019 Apportionment fund and be credited to the research account.

Motion by Wegwerth to Approve Resolution, Second by Clauson, Motion Carried 13-0

c. Chair Olson asked for discussion on the recommended revision to Municipal Screening Board resolutions. Lanoux noted that the revision would simply be a change in wording to provide clarification to the "Excess Unencumbered Construction Fund Balance Adjustment". The revision would not result in a change if the intent of the resolution.

II. If necessary

a. Discussion about potential future screening board topic surrounding special assessments, street utilities, etc.
b. State Aid report (Mitch) Update on the Local Partnership Program (formerly called the Cooperative Agreement Program) In the recognition of the importance and success of this program, the State has doubled the amount of money they put toward it. The LPP is intended to provide state funding for local projects that have a Trunk Highway termini and/or benefit. Cities and Counties should discuss potential LPP projects with their District State Aid Engineer.

III. Called for Any Other Discussion Topics (last chance)

IV. Thanks to…….

a. Nancy, Bill, Mitch, Dave S., and All Screening Board members
b. Said goodbye to three outgoing board members (*Jeff Kuhn*, *Steve Lillehaug*, and *Jay Owens*)
c. Thank you to Don Elwood who will be stepping down from the Screening Board to be replaced by Jennifer Hager at future meetings.

V. Next Spring Screening Board meeting (location TBD), May 21 – 22, 2019

VI. Expense Reports (see Nancy with questions)

a. Find the expense report on State Aid's website. Paper copies available as well

VII. Entertained a motion for adjournment
Motion by Voigt to adjourn, Second by Cavett, Motion Carried 13-0

Respectfully submitted

Justin Femrite
Municipal Screening Board Secretary / Elk River City Engineer.

TRAFFIC COUNTING & ADT GROUPS

http://www.dot.state.mn.us/traffic/data/index.html

Municipal (MSAS) Traffic Counting

The current Municipal State Aid Traffic Counting resolution reads:

That future traffic data for State Aid Needs Studies be developed as follows:

1. **The municipalities in the metropolitan area cooperate with the State by agreeing to participate in counting traffic every two or four years at the discretion of the city.**

2. **The cities in the outstate area may have their traffic counted and maps prepared by State forces every four years, or may elect to continue the present procedure of taking their own counts and have state forces prepare the maps.**

3. **Any city may count traffic with their own forces every two years at their discretion and expense, unless the municipality has made arrangements with the Mn/DOT district to do the count.**

In 1998, cities were given the option of counting on a 2 or 4 year cycle.
In 2008, cities were given the option to revise their 2 or 4 year cycle as well as the count year.
In 2009, cities were given the option to move to a 4 year cycle with the option to count a subset of locations in the "off cycle" or 2nd year of a 4 year cycle (they will only recieve new count materials if these choose to count)

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

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

2016	2017	2018	2019	2020	2021	2022
Anoka (4)	Arden Hills (4)	Andover (4)	Blaine (2)	Anoka (4)	Arden Hills (4)	Andover (4)
Columbia Heights (4)	Blaine (2)	Apple Valley (4)	Brooklyn Center (4)	Columbia Heights (4)	Blaine (2)	Apple Valley (4)
Coon Rapids (4)	Brooklyn Park (2)	Belle Plaine (4)	Brooklyn Park (2)	Coon Rapids (4)	Brooklyn Park (2)	Belle Plaine (4)
Crystal (4)	Chanhassen (2)	**Bloomington (4*)**	Chanhassen (2)	Crystal (4)	Chanhassen (2)	**Bloomington (4*)**
Dayton (2)	Cottage Grove (2)	Burnsville (4)	Circle Pine (4)	Dayton (2)	**Coon Rapids (4*)**	Burnsville (4)
Eden Prairie (4)	East Bethel (2)	Champlin (4)	Cottage Grove (2)	Eden Prairie (4)	Cottage Grove (2)	Champlin (4)
Hopkins (4)	**Edina (4*)**	Chaska (4)	East Bethel (2)	Hopkins (4)	**East Bethel (2)**	Chaska (4)
Minneapolis (4*)	Falcon Heights (4)	Corcoran (4)	Farmington (4)	**Minneapolis (4*)**	Edina (4*)	Corcoran (4)
Mound (4)	Fridley (4)	Dayton (2)	Ham Lake (4)	Mound (4)	Falcon Heights (4)	Dayton (2)
Shakopee (4*)	Golden Valley (4)	Eagan (4)	Hastings (4)	**Shakopee (4*)**	Fridley (4)	Eagan (4)
South St. Paul (4)	Lake Elmo (2)	Forest Lake (4)	Lake Elmo (2)	South St. Paul (4)	Golden Valley (4)	Forest Lake (4)
Spring Lake Park (4)	Mahtomedi (4)	Hugo (4)	**Lakeville (4*)**	Spring Lake Park (4)	Lake Elmo (2)	Hugo (4)
St. Paul (4*)	Maplewood (4)	Inver Grove Heights (4)	Mounds View (4)	**St. Paul (4*)**	Mahtomedi (4)	Inver Grove Heights (4)
	Medina (4)	Jordan (4)	Orono (4)		Maplewood (4)	Jordan (4)
	New Brighton (4)	Lino Lakes (4)	Prior Lake (2)		Medina (4)	Lino Lakes (4)
	New Hope (4)	Little Canada (4)	Ramsey (2)		New Brighton (4)	Little Canada (4)
	North St. Paul (4)	**Maple Grove (4*)**	**Rogers (4^)**		New Hope (4)	**Maple Grove (4*)**
	Oak Grove (4)	Mendota Heights (4)	Savage (4)		North St. Paul (4)	Mendota Heights (4)
	Plymouth (4^)	**Minnetonka (4*)**	Shoreview (2)		**Oak Grove (4)**	**Minnetonka (4*)**
	Prior Lake (2)	Minnetrista (4)	St. Anthony (4)		Plymouth (4^)	Minnetrista (4)
	Ramsey (2)	Oakdale (4)	Victoria (2)		Prior Lake (2)	Oakdale (4)
	Richfield (4)	Rosemount (4)	**Woodbury (4^)**		Ramsey (2)	Rosemount (4)
	Robbinsdale (4)	**St. Francis (4^)**			Richfield (4)	**St. Francis (4^)**
	Roseville (4)	Vadnais Heights (4)			Robbinsdale (4)	Vadnais Heights (4)
	Shoreview (2)	Waconia (4)			Roseville (4)	Waconia (4)
	Shorewood (4)				Shoreview (2)	
	St. Louis Park (4)				Shorewood (4)	
	St. Paul Park (4)				St. Louis Park (4)	
	Stillwater (4)				St. Paul Park (4)	
	Victoria (2)				Stillwater (4)	
	West St. Paul (4)				Victoria (2)	
	White Bear Lake (4)				West St. Paul (4)	
					White Bear Lake (4)	

Takes counts over several years rather than just the publication year, year listed is the last year of the cycle (Bloomington, Coon Rapids, Duluth, Edina, Lakeville, Maple Grove, Minneapolis, Minnetonka, St. Paul, Shakopee)

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

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

2016	2017	2018	2019	2020	2021	2022
Albertville	Albert Lea	Alexandria	Baxter	Albertville	Albert Lea	Alexandria
Austin	Crookston	Bemidji	Brainerd	Austin	Crookston	Bemidji
Buffalo	Chisago City	Big Lake	Chisholm	Buffalo	Chisago City	Big Lake
Cambridge	East Grand Forks	Byron	**Duluth* (year 4)**	Cambridge	East Grand Forks	Byron
Delano	Glencoe	Cloquet	Fergus Falls	Delano	Glencoe	Cloquet
Detroit Lakes	Grand Rapids	Elk River	Hermantown	Detroit Lakes	Grand Rapids	Elk River
Faribault	Hutchinson	Fairmont	Hibbing	Faribault	Hutchinson	Fairmont
International Falls	Kasson	Lake City	Litchfield	International Falls	Kasson	Lake City
Isanti	Little Falls	Marshall	North Mankato	Isanti	Little Falls	Marshall
La Crescent	Mankato	New Ulm	Owatonna	La Crescent	Mankato	New Ulm
Montevideo	Moorhead	Rochester **	Red Wing	Montevideo	Moorhead	Rochester **
Monticello	Morris	Stewartville	Redwood Falls	Monticello	Morris	Stewartville
Northfield	New Prague	Willmar	Saint Peter	Northfield	New Prague	Willmar
Otsego	North Branch	Zimmerman	Sauk Rapids	Otsego	North Branch	Zimmerman
Rochester **	Saint Joseph		Thief River Falls	Saint Michael	Saint Joseph	
Saint Michael	Sartell		Virginia	Waseca	Sartell	
Waseca	St. Cloud		Worthington		St. Cloud	
	Waite Park		Winona		Waite Park	
	Wyoming				Wyoming	

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

***** Up until 2012 Rochester was counted every two years (rotating between the city and MnDOT); 2016 city choose to count***

****** No longer a city over 5000***

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

MSAS URBAN ADT GROUPS FOR NEEDS PURPOSES

Quantities Based on a One Mile Section

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

Roadway Segment Information

Status : Original

City Name : DETROIT LAKES

Segment Nbr : 117-120-010

Original		Current
NORTH SHORE DRIVE	Street Name	NORTH SHORE DRIVE
CORBETT ROAD TO TH 10	Termini	CORBETT ROAD TO TH 10
0.55	Length	0.55
Improved	Existing Roadway Type	Improved
Undivided	Existing Lane Description	Undivided
0	Existing Number of Signal Legs	0
1350	Present AADT	1350
3 (500 - 1999)	Traffic Group Code	3 (500 - 1999)
2016	Year of AADT Count	2016
N	Common Boundary Designation	N
Y	Turnback Mileage	Y
N	Outside City Limit	N
2001	Year of Latest SA Fund	2001
CONSTRUCTED UNDER PLAN # SAP 117-120-001	Comments	CONSTRUCTED UNDER PLAN # SAP 117-120-001
	Segment Override	

Culvert Information

Status: Original

Original		Current
03J19	Structure Number	03J19
0.22	Milepoint	0.22
PELICAN RIVER	Feature Crossed	PELICAN RIVER
2	Barrels	2
5	Culvert Height	5
10	Culvert Width	10
2001	Year Built	2001
	Comments	
3 (500 - 1999)	Culvert Group Code	3 (500 - 1999)

Segment Cost Information

segment length

quantity from ADT chart

unit cost

Cost Factor	Unit Cost	Computation Formula or Rule	Equation	Result
Gravel	MSAS Gravel Cost Group 3	Length * Quantity * UnitCost	0.55 * 10176 * 13.78	$77,124
Bituminous	MSAS Bituminous Cost Group 3	Length * Quantity * UnitCost	0.55 * 3978 * 60	$131,274
Excavation	MSAS Excavation Cost Group 3	Length * Quantity * UnitCost	0.55 * 17698 * 9.1	$88,578
Storm Sewer	MSAS Storm Sewer Cost Group 3	Length * UnitCost	0.55 * 171600	$94,380
Sidewalk	MSAS Sidewalk Cost Group 3	Length * UnitCost * FeetPerMile * SidewalkWidth	0.55 * 5.5 * 5280 * 10	$159,720
Street Lighting	MSAS Street Lighting Cost Group 3	Length * UnitCost	0.55 * 100000	$55,000
Curb and Gutter	MSAS Curb And Gutter Cost Group 3	Length * UnitCost * FeetPerMile * NumberOfCurbs	0.55 * 15.9 * 5280 * 2	$92,347
Signal Leg	MSAS Traffic Signals Cost Group 3	NumOfSignals * UnitCost / 4	0 * 201850 / 4	$0
Culvert	MSAS Culvert TGC Group 3	CulvertWidth * NeedsWidth * UnitCost * NumOfBarrels	10 * 34 * 87.55 * 2	$59,534
Engineering Cost		Percent of costs	757957 * 0.220	$166,751
Total				$924,708

UNIT PRICE STUDY - Introduction

HISTORY
An annual unit price study was conducted until 1997.

In 1996, the Municipal Screening Board made a motion to conduct the Unit Price study every two years, with the ability to adjust significant unit price changes on a yearly basis. There were no changes in the unit prices in 1997.

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

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

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

LAST YEAR
Last year, the Municipal State Aid Needs Unit conducted a full Unit Price Study based on project costs of on system MSAS projects. These project costs were used to calculate a statewide average cost for for *Excavation, Aggregate Base, Bituminous, Sidewalk Construction and Curb & Gutter Construction*. The SALT program engineer provided a cost for *Traffic Signals*.

THIS YEAR
At the end of 2018, the Engineering Construction Cost Index was 2.9%. Applying this inflation factor to last year's MSB approved Unit Prices for *Excavation, Aggregate Base, Bituminous, Sidewalk Construction, Curb & Gutter Construction, and Traffic Signals* will provide the basis of this year's recommendations.

For this year, average State Aid bridge costs from the last 5 years (2014 to 2018), will be used to determine the unit price for structures.

MN/DOT's hydraulic office furnished a recommendation of costs for storm sewer construction and adjustment based on 2018 construction costs.

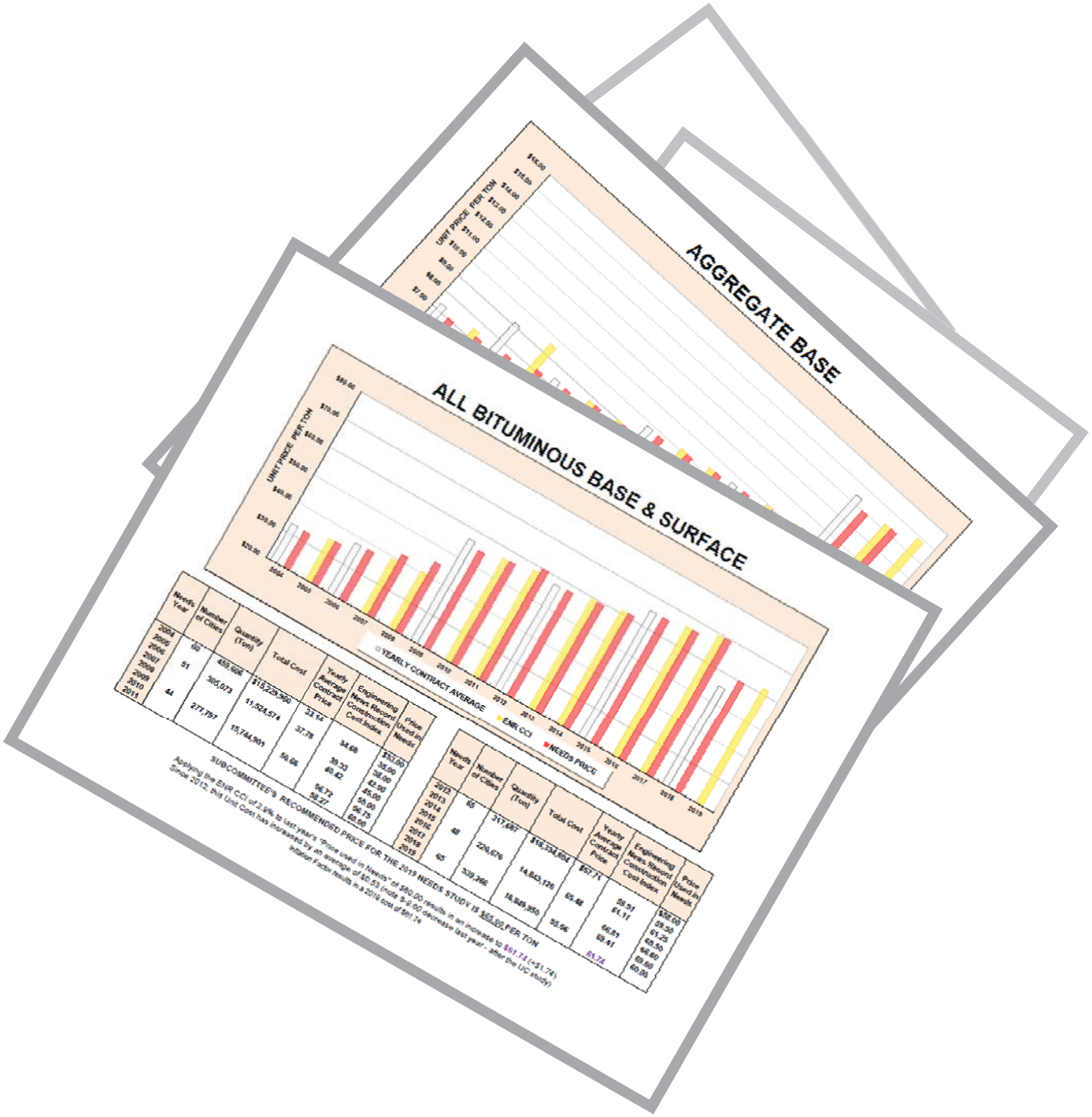
Construction Cost Index

ANNUAL INFLATION RATE **+2.9%** DEC. 2018

1913=100	INDEX VALUE	MONTH	YEAR
CONSTRUCTION COST	11185.51	0.0%	+2.9%
COMMON LABOR	23484.41	0.0%	+2.1%
WAGE $/HR.	45.09	0.0%	+2.1%

The Construction Cost Index's annual escalation rate rose to 2.9% this month, with the monthly component showing no change.

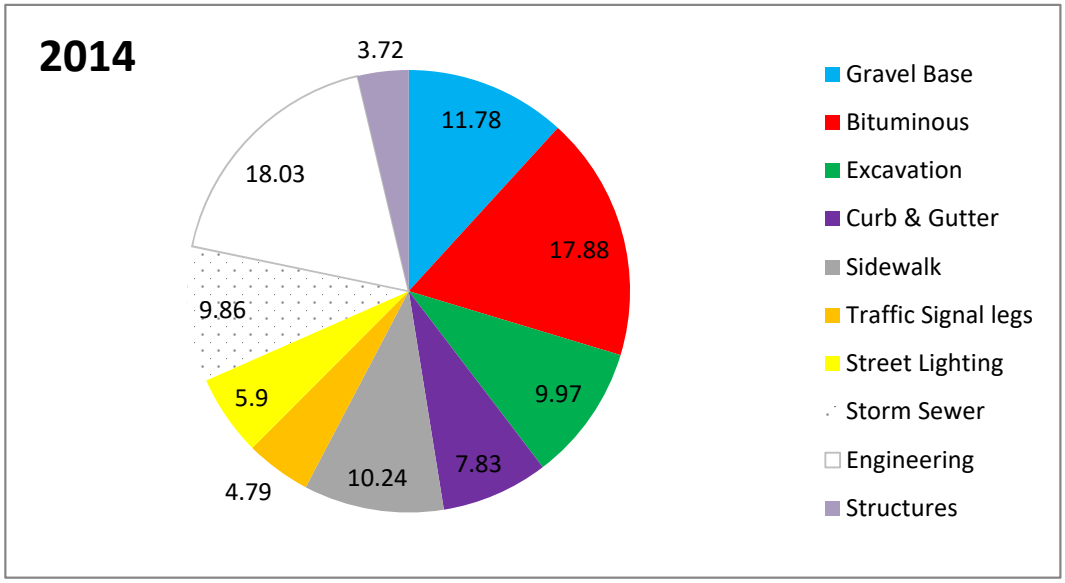
UNIT PRICES

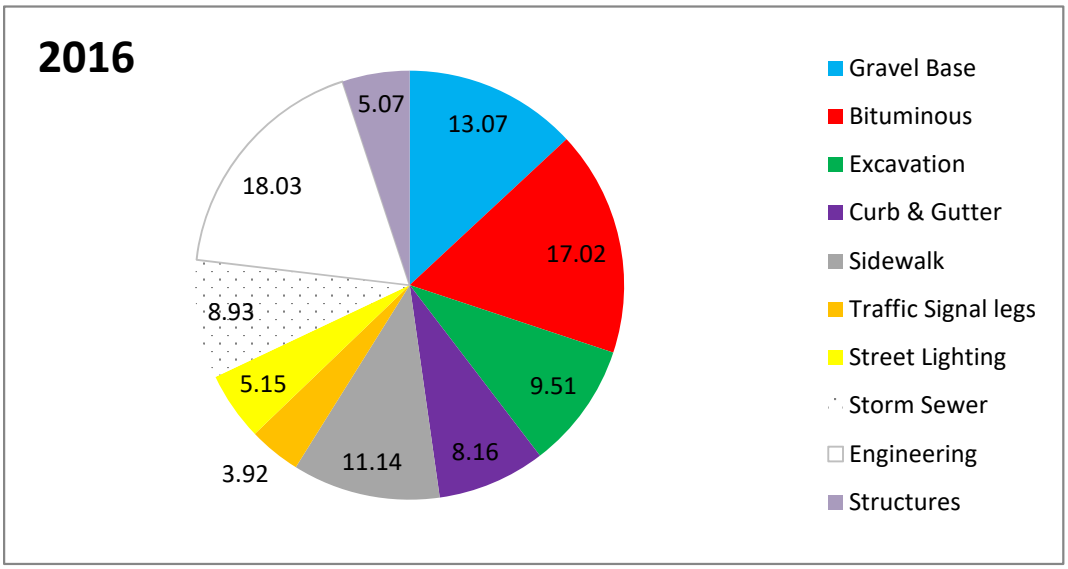


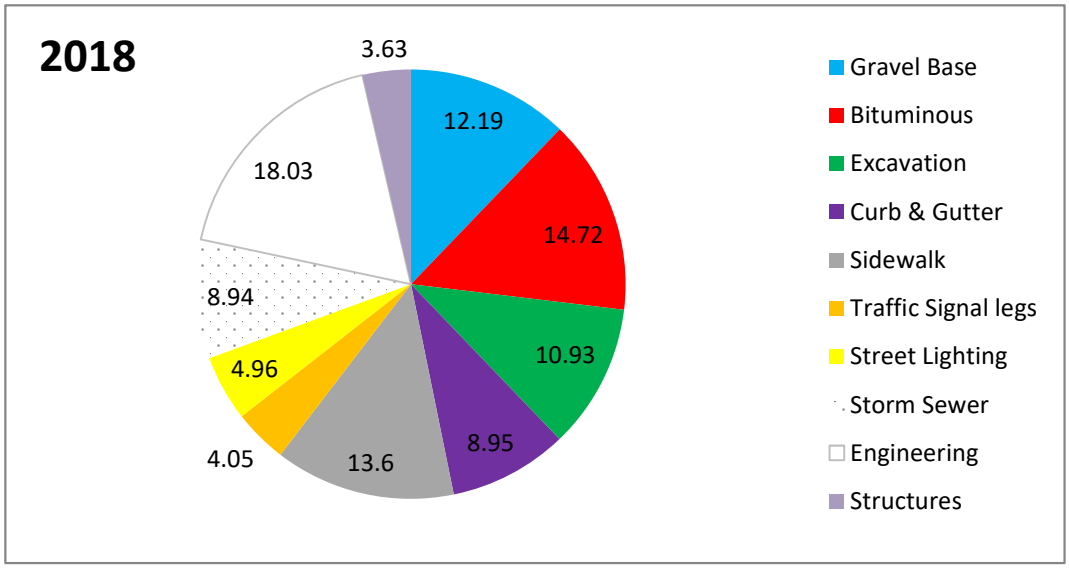
AND GRAPHS

NOTES AND COMMENTS

PERCENTAGE OF NEEDS FOR UNIT COST ITEMS







NEEDS STUDY SUBCOMMITTEE MEETING MINUTES

The Needs Study Subcommittee meeting was held on April 10, 2019 via conference call at 1:00 p.m. NSS members present were Jeff Johnson (Mankato / Chair), Sean Christensen (Willmar), and Steve Lillehaug (Shakopee). Also in attendance were: Bill Lanoux (MSAS Needs Manager) and Patti Loken (State Aid Program Engineer).

A 2019 Needs Study Subcommittee Data book was sent to all attendees prior to the meeting. Before making their Unit Cost recommendations, the group reviewed the purpose of the Needs Study Subcommittee as directed by the Municipal Screening Board. Also discussed was future attendance of the Chair of this committee at Fall Screening Board meetings. It was recommended that for Fall MSB meetings (typically held in late October), it would make sense to have the incoming Chair (for the upcoming year) in attendance, as opposed to the outgoing chair of this Committee. Bill briefly touched on recent UCFS recommendations and the significance of ADT counts as they relate to the Needs.

A full unit price study is done every 3 years, with the next one occurring in 2021. The 2019 Needs Study uses the Construction Cost Index (CCI) published by the Engineering News Record as the basis of Unit Cost recommendations. The CCI used for 2019 is 2.9%.

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

Street Lighting: Price used in 2018 Needs - $100,000 per mile
Committee's Recommendation for 2019 Needs - $100,000 Per Mile
(Recommendation is consistent with Screening Board resolutions)

Engineering: Price used in 2018 Needs – 22%
Committee's Recommendation for 2019 Needs – 22%

Grading/Excavation: Price used in 2018 Needs - $9.10 Cu. Yd.
Committee's Recommendation for 2019 Needs - $9.36 Cu. Yd.

Aggregate Base: Price used in 2018 Needs - $13.78 Ton
Committee's Recommendation for 2019 Needs - $14.18 Ton

All Bituminous: Price used in 2018 Needs - $60.00 Ton
Committee's Recommendation for 2019 Needs - $65.00 Ton

The Committee noted that this Unit Cost saw a decrease (-13.8%) last year (after the 2018 Full Unit Cost Study). Applying the inflation factor to last year's cost of $60.00 results in a cost of $61.74. After some discussion, the committee felt this was low based on a few early 2019 bid results and anticipated this unit cost increasing this year above the CCI of 2.9%. Recommendation was moved to $65.00 with an understanding that additional spring bidding results yet to come may better confirm this unit price for 2019.

Sidewalk: Price used in 2018 Needs - $5.50 Sq. Ft.
Committee's Recommendation for 2019 Needs - $5.66 per Sq. Ft.

Note: This Unit Cost had a significant increase last year after the 2018 Full Unit Cost Study.

Curb and Gutter: Price used in 2018 Needs - $15.90 Lin. Ft.
Committee's Recommendation for 2019 Needs - $16.36 Lin. Ft.

Structures: Price used in 2018 Needs - $87.55 Sq. Ft.
Committee's Recommendation for 2019 Needs - $95.20 Sq. Ft

The committee reviewed the NSS recommendation from last year (from Spring 2018) that this recommendation be based on a five-year average using data provided by the MnDOT State Aid Bridge Office. The committee reviewed the most recent year of data from the Bridge Office and eliminated bridges that were railroad bridges and pedestrian bridges. The committee removed one other large bridge project from the dataset before calculating their recommendation. This large project had an atypical low unit cost which the committee felt wasn't reflective of a typical bridge in the Needs Study. The committee recognized the overall increase in this Cost from last year.

Storm Sewer: The MnDOT Hydraulics Unit sent their annual letter for storm sewer costs. For 2018, their analysis results in a total of $352,988 for new construction and $107,666 for adjustments of existing systems. This averaged out to $230,327 per mile, which is the basis for the highest section of Storm Sewer in the Needs
Committee's Recommendation for 2019 Needs - $230,300 Per Mile
The recommendation of $230,300 per mile is for a 70 foot section. The cost per mile will be prorated down through the other seven ADT groups.

Note: The Committee recognized a trend that the storm sewer unit cost provided by State Aid Hydraulics has had a consistent growth rate over the past several years vs. being based on actual storm sewer construction costs and would like State Aid to work with the Hydraulic Office to find more details of their cost study methods before the committee meets again in 2020.

Traffic Signals: Price used in 2018 Needs - $201,850 Per Signal
Committee's Recommendation for 2019 Needs - $207,700 Per Signal

The meeting was adjourned.

Minutes submitted by Steve Lillehaug

2019 UNIT PRICE RECOMMENDATIONS

for the January 2020 distribution

Needs Item		Municipal Screening Board Approved Prices for the 2019 Distribution	2.9% ENR Construction Cost Index for Dec. 2018	Needs Study Subcommittee Recommended Prices for 2020 Distribution	Municipal Screening Board Approved Prices for the 2020 Distribution
Grading (Excavation)	Cu. Yd.	$9.10	$9.36	**$9.36**	
Aggregate Base	Ton	13.78	14.18	**14.18**	
All Bituminous	Ton	60.00	61.74	**65.00**	
Sidewalk Construction	Sq. Ft.	5.50	5.66	**5.66**	
Curb and Gutter Construction	Lin.Ft.	15.90	16.36	**16.36**	
Traffic Signals *	Per Sig	201,850	207,704	**207,700**	
Street Lighting	Mile	100,000	NA	**100,000**	
Engineering	Percent	22	NA	**22**	
All Structures (includes both bridges and box culverts)	Sq. Ft.	87.55	NA	**95.20**	
Storm Sewer (based on ADT)	Per Mile				
0 ADT & Non Existing		159,500	NA	**162,400**	
1-499		162,500	NA	**165,500**	
500-1,999		171,600	NA	**174,800**	
2,000-4,999		180,700	NA	**184,000**	
5,000-8,999		192,800	NA	**196,400**	
9,000-13,999		201,900	NA	**205,600**	
14,000-24,999		214,000	NA	**218,000**	
25,000 and over		226,100	NA	**230,300**	

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Annual Percentage Change of Unit Costs, 2009 - 2019

sidewalk	$	$	% Change
from 2009 to 2010	$3.00	$3.09	**3.0**
from 2010 to 2011	$3.09	$3.18	**2.9**
from 2011 to 2012	$3.18	$3.17	***-0.3***
from 2012 to 2013	$3.17	$3.25	**2.5**
from 2013 to 2014	$3.25	$3.50	**7.7**
from 2014 to 2015	$3.50	$4.25	***21.4***
from 2015 to 2016	$4.25	$4.35	**2.4**
from 2016 to 2017	$4.35	$4.75	**9.2**
from 2017 to 2018	$4.75	$5.50	***15.8***
from 2018 to 2019	$5.50	$5.66	***2.9***

curb & gutter			
from 2009 to 2010	$10.70	$11.00	**2.8**
from 2010 to 2011	$11.00	$11.30	**2.7**
from 2011 to 2012	$11.30	$11.15	***-1.3***
from 2012 to 2013	$11.15	$11.45	**2.7**
from 2013 to 2014	$11.45	$11.75	**2.6**
from 2014 to 2015	$11.75	$13.75	***17.0***
from 2015 to 2016	$13.75	$14.00	**1.8**
from 2016 to 2017	$14.00	$14.55	**3.9**
from 2017 to 2018	$14.55	$15.90	***9.3***
from 2018 to 2019	$15.90	$16.36	***2.9***

grading/excavtion			
from 2009 to 2010	$4.75	$4.90	**3.2**
from 2010 to 2011	$4.90	$5.05	**3.1**
from 2011 to 2012	$5.05	$6.60	***30.7***
from 2012 to 2013	$6.60	$6.75	**2.3**
from 2013 to 2014	$6.75	$7.00	**3.7**
from 2014 to 2015	$7.00	$7.50	***7.1***
from 2015 to 2016	$7.50	$7.65	**2.0**
from 2016 to 2017	$7.65	$7.95	**3.9**
from 2017 to 2018	$7.95	$9.10	***14.5***
from 2018 to 2019	$9.10	$9.36	***2.9***

*All costs shown are actual costs used in Needs.

*2019 figures (in blue) show tenative prices.

*Since 2014 structures have been based on half the contract price

*Underlined are years of a Full Unit Cost Study

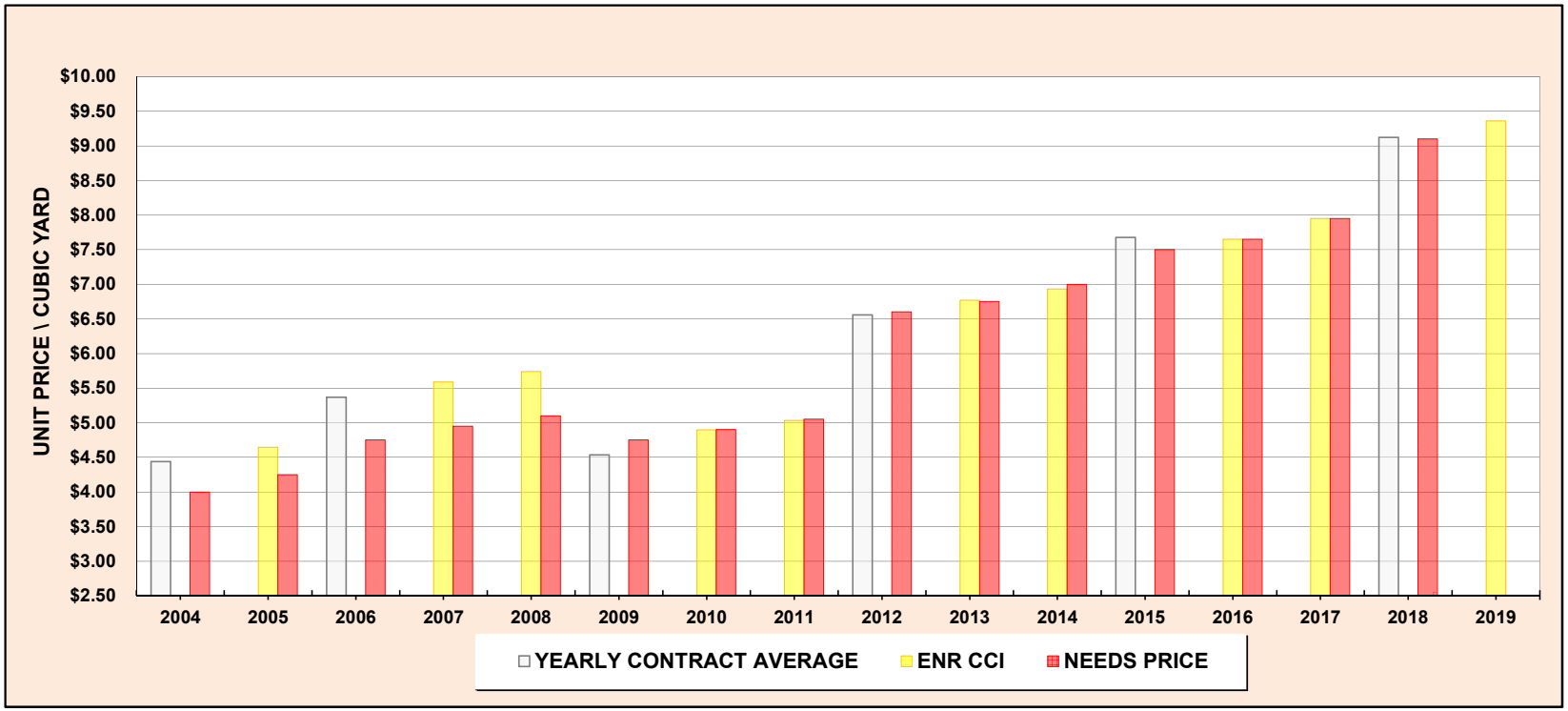
aggregate base	$	$	% Change
from 2009 to 2010	$9.81	$10.10	**3.0**
from 2010 to 2011	$10.10	$10.40	**3.0**
from 2011 to 2012	$10.40	$10.65	***2.4***
from 2012 to 2013	$10.65	$10.90	**2.3**
from 2013 to 2014	$10.90	$11.25	**3.2**
from 2014 to 2015	$11.25	$14.00	***24.4***
from 2015 to 2016	$14.00	$14.30	**2.1**
from 2016 to 2017	$14.30	$14.90	**4.2**
from 2017 to 2018	$14.90	$13.78	***-7.5***
from 2018 to 2019	$13.78	$14.18	***2.9***

all bituminous			
from 2009 to 2010	$55.00	$56.75	**3.2**
from 2010 to 2011	$56.75	$60.00	**5.7**
from 2011 to 2012	$60.00	$58.00	***-3.3***
from 2012 to 2013	$58.00	$59.50	**2.6**
from 2013 to 2014	$59.50	$61.25	**2.9**
from 2014 to 2015	$61.25	$65.50	***6.9***
from 2015 to 2016	$65.50	$66.80	**2.0**
from 2016 to 2017	$66.80	$69.60	**4.2**
from 2017 to 2018	$69.60	$60.00	***-13.8***
from 2018 to 2019	$60.00	$65.00	***8.3***

structures			
from 2009 to 2010	$115.00	$120.00	**4.3**
from 2010 to 2011	$120.00	$115.00	**-4.2**
from 2011 to 2012	$115.00	$125.00	**8.7**
from 2012 to 2013	$125.00	$120.00	**-4.0**
from 2013 to 2014	$120.00	$72.00	**-40.0**
from 2014 to 2015	$72.00	$96.50	**34.0**
from 2015 to 2016	$96.50	$120.00	**24.4**
from 2016 to 2017	$120.00	$90.00	**-25.0**
from 2017 to 2018	$90.00	$87.55	**-2.7**
from 2018 to 2019	$87.55	$95.20	**8.7**

traffic signals			
from 2009 to 2010	na	na	
from 2010 to 2011	na	na	
from 2011 to 2012	na	na	
from 2012 to 2013	na	na	
from 2013 to 2014	$225,000	$205,000	**-8.9**
from 2014 to 2015	$205,000	$185,000	**-9.8**
from 2015 to 2016	$185,000	$188,700	**2.0**
from 2016 to 2017	$188,700	$195,000	**3.3**
from 2017 to 2018	$195,000	$201,850	**3.5**
from 2018 to 2019	$201,850	$207,700	**2.9**

GRADING/EXCAVATION



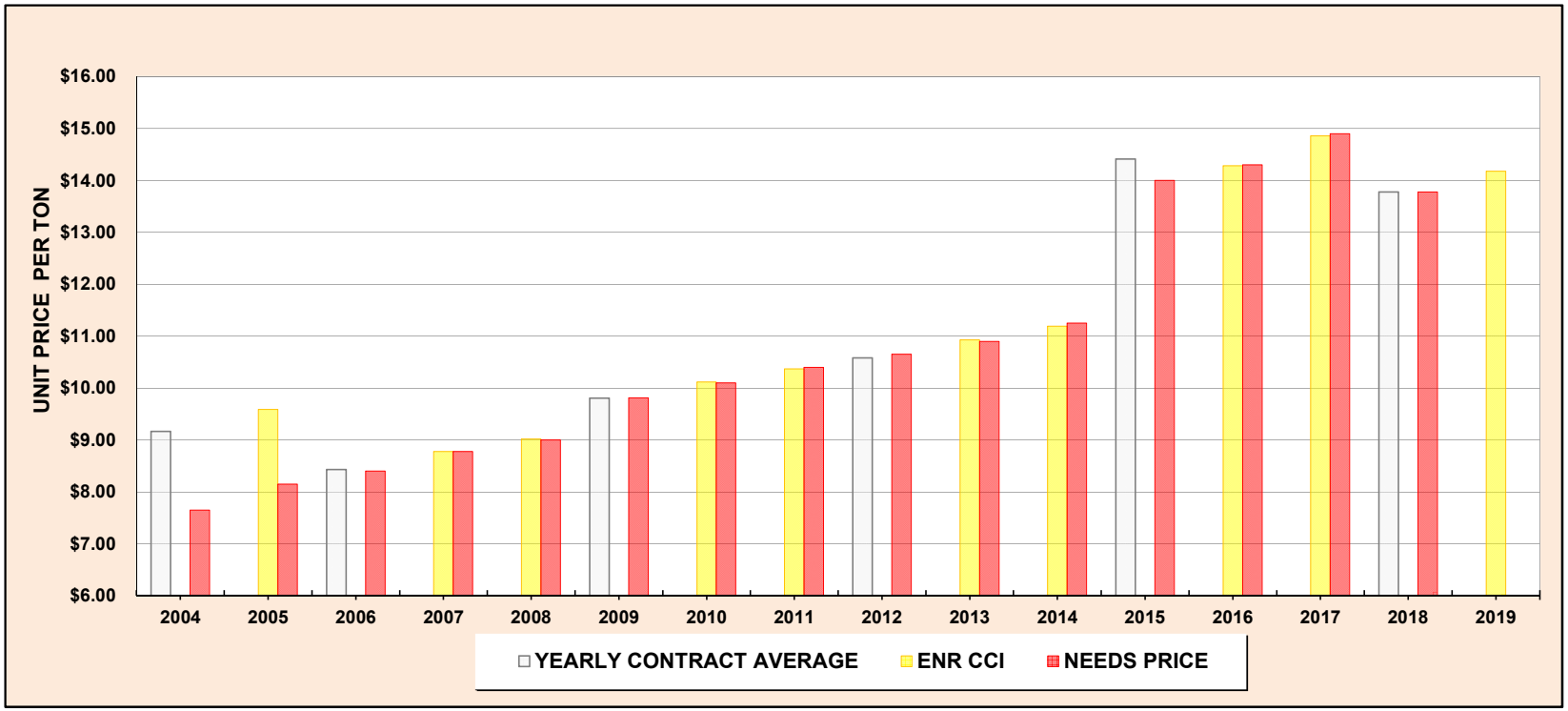
Needs Year	Number of Cities	Quantity (Cu.Yd)	Total Cost	Yearly Average Contract Price	Engineering News Record Construction Cost Index	Price Used in Needs
2004	56	1,018,912	$4,523,089	4.44		$4.00
2005					4.65	4.25
2006	48	587,442	3,152,838	5.37		4.75
2007					5.59	4.95
2008					5.74	5.10
2009	47	1,334,769	6,052,005	4.53		4.75
2010					4.90	4.90
2011					5.03	5.05

Needs Year	Number of Cities	Quantity (Cu. Yd.)	Total Cost	Yearly Average Contract Price	Engineering News Record Construction Cost Index	Price Used in Needs
2012	56	689,502	$4,521,435	$6.56		$6.60
2013					6.77	6.75
2014					6.93	7.00
2015	40	472,486	3,627,575	7.68		7.50
2016					7.65	7.65
2017					7.95	7.95
2018	56	434,347	3,959,719	9.12		9.10
2019					9.36	

SUBCOMMITTEE'S RECOMMENDED PRICE FOR THE 2019 NEEDS STUDY IS $9.36 PER CUBIC YARD

Applying the ENR CCI of 2.9% to last year's "Price used in Needs" of $9.10 results in an increase to **$9.36** (+$0.26)
Since 2012, this Unit Cost has increased by an average of $0.39 (note $1.15 increase *last year* - after the UC Study)
Inflation Factor results in a 2019 cost of $9.36

AGGREGATE BASE



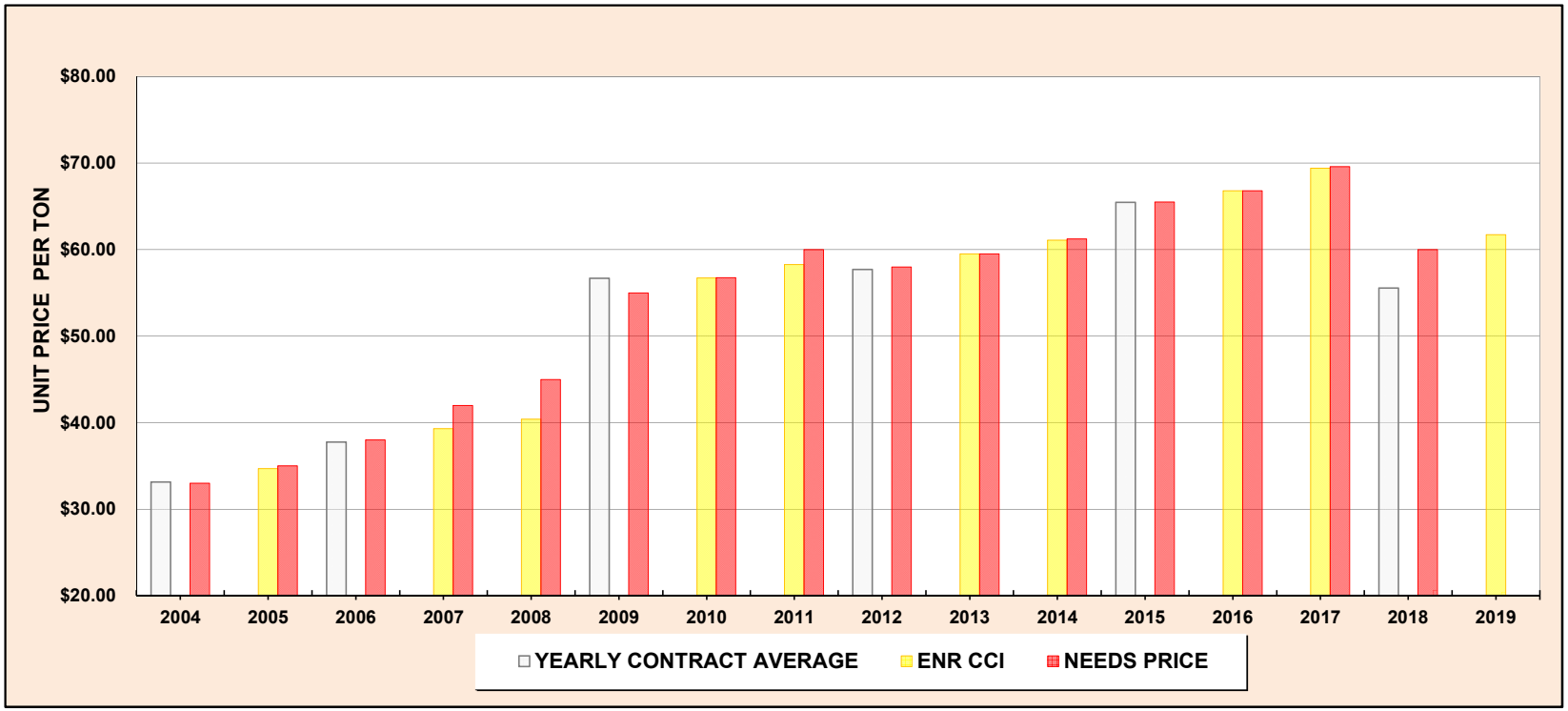
Needs Year	Number of Cities	Quantity (Ton)	Total Cost	Yearly Average Contract Price	Engineering News Record Construction Cost Index	Price Used in Needs
2004	58	573,153	$5,252,804	9.16		$7.65
2005					9.59	8.15
2006	46	355,866	3,000,906	8.43		8.40
2007					8.78	8.78
2008					9.02	9.00
2009	45	436,802	4,284,174	9.81		9.81
2010					10.12	10.10
2011					10.37	10.40

Needs Year	Number of Cities	Quantity (Ton)	Total Cost	Yearly Average Contract Price	Engineering News Record Construction Cost Index	Price Used in Needs
2012	57	416,725	$4,409,415	$10.58		$10.65
2013					10.93	10.90
2014					11.19	11.25
2015	40	199,868	2,880,423	14.41		14.00
2016					14.28	14.30
2017					14.86	14.90
2018	52	317,006	4,368,054	13.78		13.78
2019					14.18	

SUBCOMMITTEE'S RECOMMENDED PRICE FOR THE 2019 NEEDS STUDY IS $14.18 PER TON

Applying the ENR CCI of 2.9% to last year's "Price used in Needs" of $13.78 results in an increase to **$14.18** (+$0.40)
Since 2012, this Unit Cost has increased by an average of $0.50 (note -$1.12 decrease *last year* - after the UC study)
Inflation Factor results in a 2019 cost of $14.18

ALL BITUMINOUS BASE & SURFACE



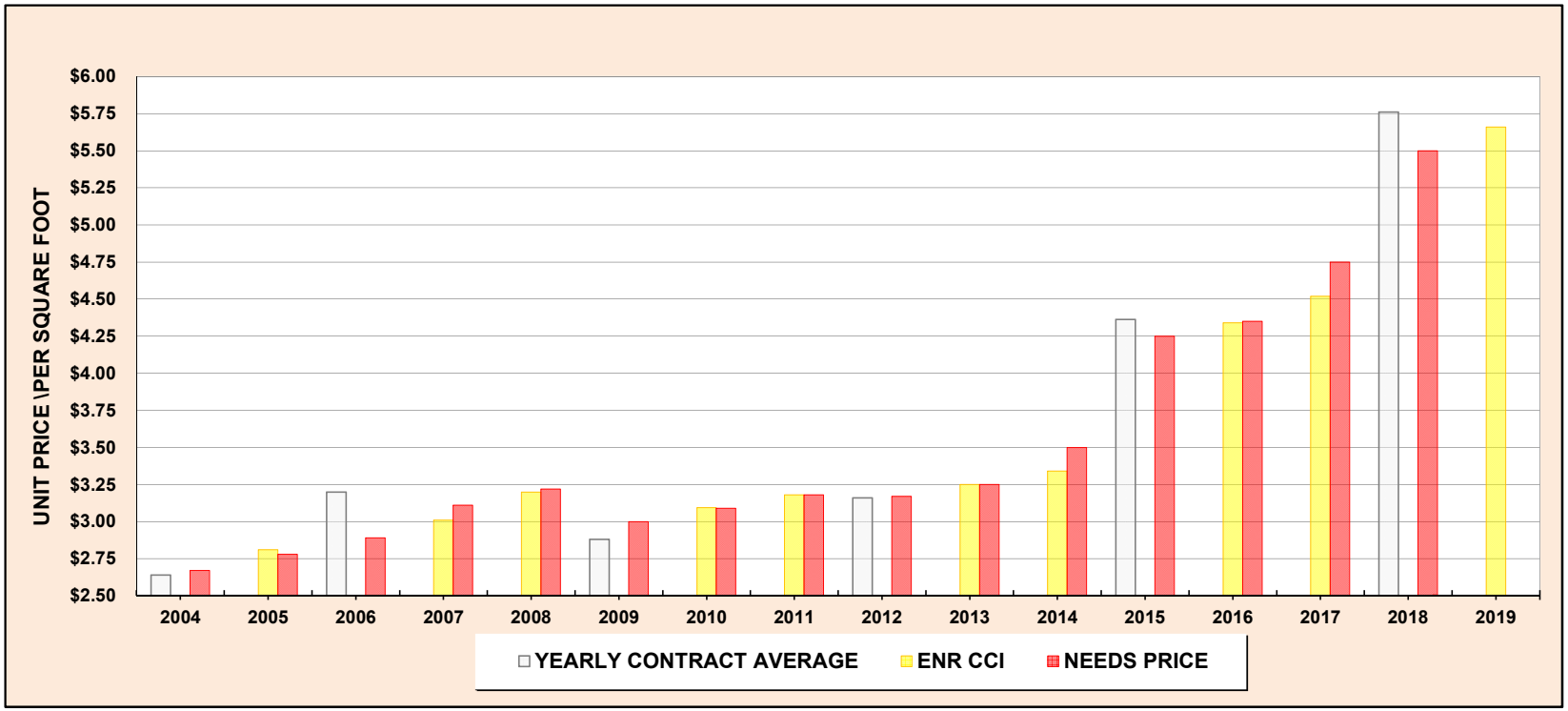
Needs Year	Number of Cities	Quantity (Ton)	Total Cost	Yearly Average Contract Price	Engineering News Record Construction Cost Index	Price Used in Needs
2004	60	459,606	$15,229,960	33.14		$33.00
2005					34.68	35.00
2006	51	305,073	11,524,574	37.78		38.00
2007					39.33	42.00
2008					40.42	45.00
2009	44	277,797	15,744,901	56.68		55.00
2010					56.72	56.75
2011					58.27	60.00

Needs Year	Number of Cities	Quantity (Ton)	Total Cost	Yearly Average Contract Price	Engineering News Record Construction Cost Index	Price Used in Needs
2012	65	317,687	$18,334,854	$57.71		$58.00
2013					59.51	59.50
2014					61.11	61.25
2015	48	226,676	14,843,126	65.48		65.50
2016					66.81	66.80
2017					69.41	69.60
2018	65	339,266	18,849,950	55.56		60.00
2019					61.74	

SUBCOMMITTEE'S RECOMMENDED PRICE FOR THE 2019 NEEDS STUDY IS $65.00 PER TON

Applying the ENR CCI of 2.9% to last year's "Price used in Needs" of $60.00 results in an increase to **$61.74** (+$1.74)
Since 2012, this Unit Cost has increased by an average of $0.53 (note $-9.60 decrease last year - after the UC study)
Inflation Factor results in a 2019 cost of $61.74

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
2004	47	123,460	$2,937,553	2.64		$2.67
2005					2.81	2.78
2006	43	69,500	2,004,367	3.20		2.89
2007					3.01	3.11
2008					3.20	3.22
2009	44	95,689	2,482,820	2.88		3.00
2010					3.09	3.09
2011					3.18	3.18

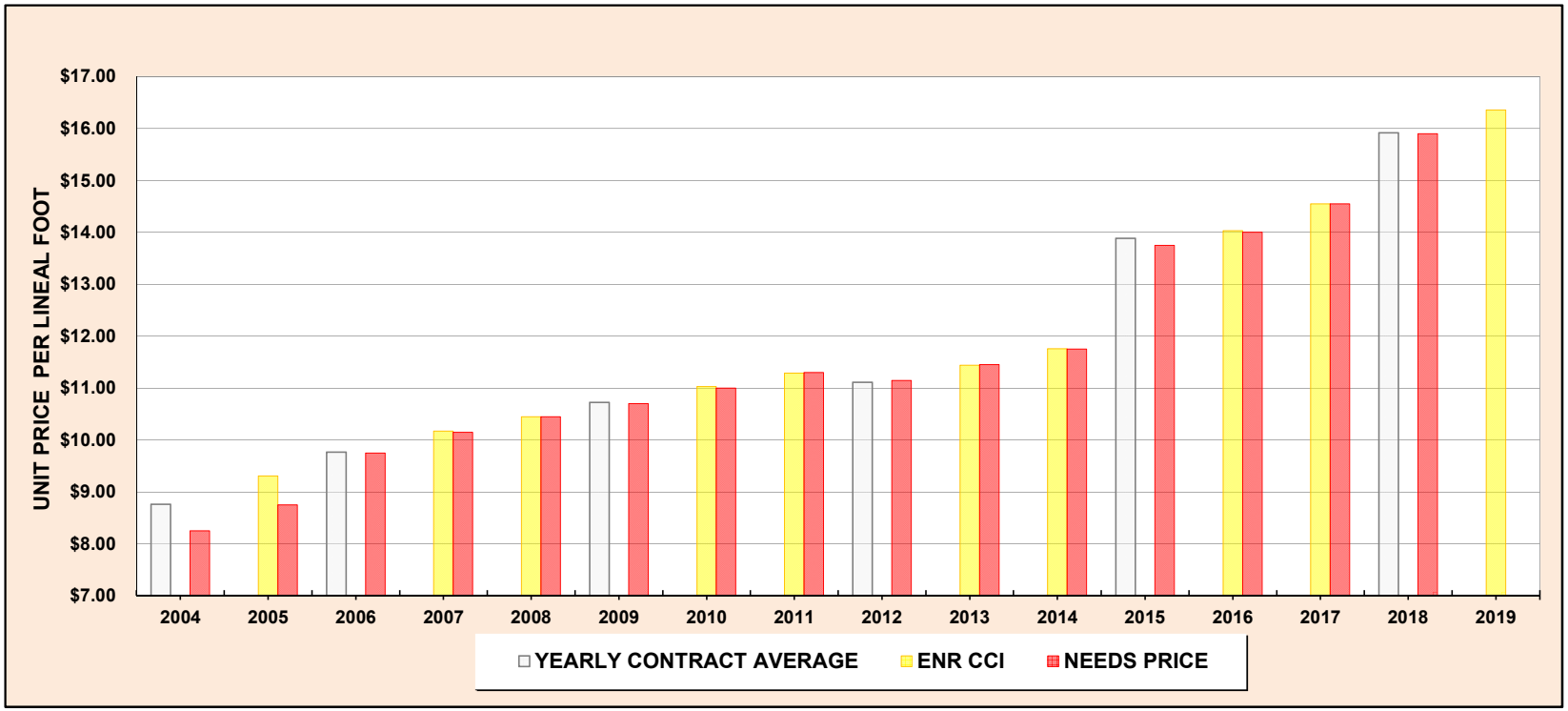
PRICE PER SQUARE YARD WAS USED UNTIL 2012 AND CHANGED TO SQUARE FOOT IN 2013

Needs Year	Number of Cities	Quantity (Sq.Ft.)	Total Cost	Yearly Average Contract Price	Engineering News Record Construction Cost Index	Price Used in Needs
2012	51	66,045	$1,880,257	$3.16		$3.17
2013					3.25	3.25
2014					3.34	3.50
2015	39	356,709	1,556,517	4.36		4.25
2016					4.34	4.35
2017					4.52	4.75
2018	52	608,114	3,502,293	5.76		5.50
2019					5.66	

SUBCOMMITTEE'S RECOMMENDED PRICE FOR THE 2019 NEEDS STUDY IS $5.66 PER SQ. FT.

Applying the ENR CCI of 2.9% to last year's "Price used in Needs" of $5.50 results in an increase to **$5.66** (+$0.16)
Since 2012, this Unit Cost has increased by an average of $0.36 (note $0.75 increase last year - after the UC study)
Inflation Factor results in a 2019 cost of $5.66

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
2004	59	469,131	$4,110,211	8.76		$8.25
2005					9.31	8.75
2006	52	327,171	3,195,201	9.77		9.75
2007					10.17	10.15
2008					10.45	10.45
2009	43	262,251	2,812,246	10.72		10.70
2010					11.03	11.00
2011					11.29	11.30

Needs Year	Number of Cities	Quantity (Ln. Ft.)	Total Cost	Yearly Average Contract Price	Engineering News Record Construction Cost Index	Price Used in Needs
2012	63	281,751	$3,130,181	$11.11		$11.15
2013					11.44	11.45
2014					11.76	11.75
2015	44	168,891	2,344,989	13.88		13.75
2016					14.03	14.00
2017					14.55	14.55
2018	61	267,833	4,263,081	15.92		15.90
2019					16.36	

SUBCOMMITTEE'S RECOMMENDED PRICE FOR THE 2019 NEEDS STUDY IS $16.36 PER LIN. FT.

Applying the ENR CCI of 2.9% to last year's "Price used in Needs" of $15.90 results in an increase to **$16.36** (+$0.46)
Since 2012, this Unit Cost has increased by an average of $0.74 (note $1.35 increase last year - after the UC Study)
Inflation Factor results in a 2019 cost of $16.36

MnDOT State Aid Bridge Office
2018 Calendar Year - - Bridge Cost Report

General Notes

The CY 2018 Bridge Cost Report reflects the unit cost ($ per square foot of bridge area) of all of the bridges let in CY 2018.

Pre-cast concrete box culverts have not been included in this report as they do not generally get reviewed (or approved) by the State Aid Bridge Office. We have produced a separate report for pre-cast concrete box culvert cost information.

The bridge unit costs are derived from the pay items on the 1st sheet of each bridge plan and therefore may include Traffic Control, Guardrail, etc.

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

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

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

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

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

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

MnDOT State Aid Bridge Office
2018 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
27C52	SAP	142-153-007	36.33	R-FRAME	2/22/2018	3796	$678,355	$178.70
70554	SAP	070-608-024	41.67	C-SLAB	8/7/2018	1972	$547,872	$277.83
69A61	SAP	069-599-043	42.17	PCB	1/25/2018	1321	$398,332	$301.54
69A65	LOCAL	*LOCAL*	42.17	PCB	2/8/2018	1321	$494,389	$374.25
31572	SAP	031-625-004	47.67	C-SLAB	4/24/2018	1685	$337,916	$200.54
17536	SAP	017-599-088	49.00	C-SLAB	3/5/2018	1519	$180,126	$118.58
79556	SAP	079-599-078	54.00	C-SLAB	7/10/2018	1674	$240,315	$143.56
23595	SAP	023-601-029	55.92	PCB	9/10/2018	1957	$374,121	$191.17
69A62	LOCAL	*LOCAL*	60.17	PCB	3/22/2018	2186	$490,576	$224.42
11531	SAP	011-598-009	64.00	TTS	4/23/2018	2048	$442,889	$216.25
32575	SAP	032-605-020	68.00	C-SLAB	4/27/2018	2675	$400,033	$149.55
54553	SAP	054-620-012	68.00	PCB	2/5/2018	2403	$368,421	$153.32
27C53	SP	027-596-009	68.00	TTS	9/25/2018	2720	$1,048,855	$385.61
64593	SAP	064-599-112	74.00	C-SLAB	5/16/2018	2590	$395,883	$152.85
42571	SAP	042-603-026	74.67	C-SLAB	5/9/2018	2937	$392,240	$133.55
31573	SAP	031-598-023	75.67	C-SLAB	12/18/2018	2674	$584,902	$218.74
02588	SAP	002-678-023	76.20	PCB	1/18/2018	7133	$1,301,413	$182.45
32568	SAP	032-599-089	81.00	C-SLAB	10/12/2018	2511	$368,060	$146.58
27C02	SAP	027-661-048	81.73	PCB	2/7/2018	6483	$1,285,438	$198.28
48534	SAP	048-597-003	83.00	C-SLAB	3/5/2018	2532	$516,374	$203.94
16525	SAP	016-605-005	89.93	PCB	4/11/2018	2916	$679,704	$233.09
67572	SAP	067-599-179	91.67	C-SLAB	3/5/2018	2842	$318,368	$112.02
64592	SAP	064-599-111	93.47	C-SLAB	5/16/2018	3271	$472,004	$144.30
07599	SAP	007-652-003	97.73	PCB	2/28/2018	3372	$461,460	$136.85

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

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

MnDOT State Aid Bridge Office
2018 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
27J67	SAP	027-666-019	100.00	C-ARCH	1/30/2018	1800	$1,335,321	$741.84
37554	SP	037-607-037	100.17	PCB	5/31/2018	3856	$682,237	$176.93
65566	SAP	065-608-012	102.92	PCB	5/7/2018	4460	$587,557	$131.74
67573	SAP	067-599-178	107.00	C-SLAB	5/14/2018	3317	$417,371	$125.83
07601	SAP	007-599-060	108.00	C-SLAB	4/11/2018	3348	$412,106	$123.09
69A64	SAP	069-652-020	110.71	PCB	12/20/2018	3912	$637,498	$162.96
68542	SP	068-598-035	111.00	C-SLAB	5/3/2018	3885	$628,938	$161.89
10552	SAP	010-599-020	119.00	PCB	5/7/2018	3689	$462,957	$125.50
73580	SAP	073-665-021	120.00	C-SLAB	1/26/2018	4680	$603,473	$128.95
45578	SP	045-598-023	123.10	C-SLAB	2/20/2018	4309	$610,061	$141.58
23536	SAP	023-599-150	133.90	C-SLAB	8/20/2018	4156	$800,288	$192.56
02589	SAP	002-678-023	136.09	PCB	1/18/2018	12589	$3,824,021	$303.76
71531	SAP	071-606-013	140.92	PCB	8/14/2018	6107	$877,475	$143.68
45577	SP	045-598-021	141.67	C-SLAB	9/25/2018	4394	$903,844	$205.70
83552	SAP	083-599-076	143.67	C-SLAB	3/15/2018	5028	$515,631	$102.55

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

Total Cost	**$26,076,826**
Total Deck Area	**136,068**
Average Cost per Sq Ft	**$191.65**
Total No. of Bridges < 150'	**39**

MnDOT State Aid Bridge Office
2018 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
17537	SAP	017-607-020	159.00	C-SLAB	7/16/2018	6837	$892,953	$130.61
71532	SAP	071-603-023	170.84	PCB	5/22/2018	7346	$842,391	$114.67

Total Cost	**$1,735,344**
Total Deck Area	**14,183**
Average Cost per Sq Ft	**$122.35**
Total No. of Bridges > 150'	**2**

MnDOT State Aid Bridge Office
2018 Calendar Year - - Bridge Cost Report

Totals for All Bridges Let in CY 2018

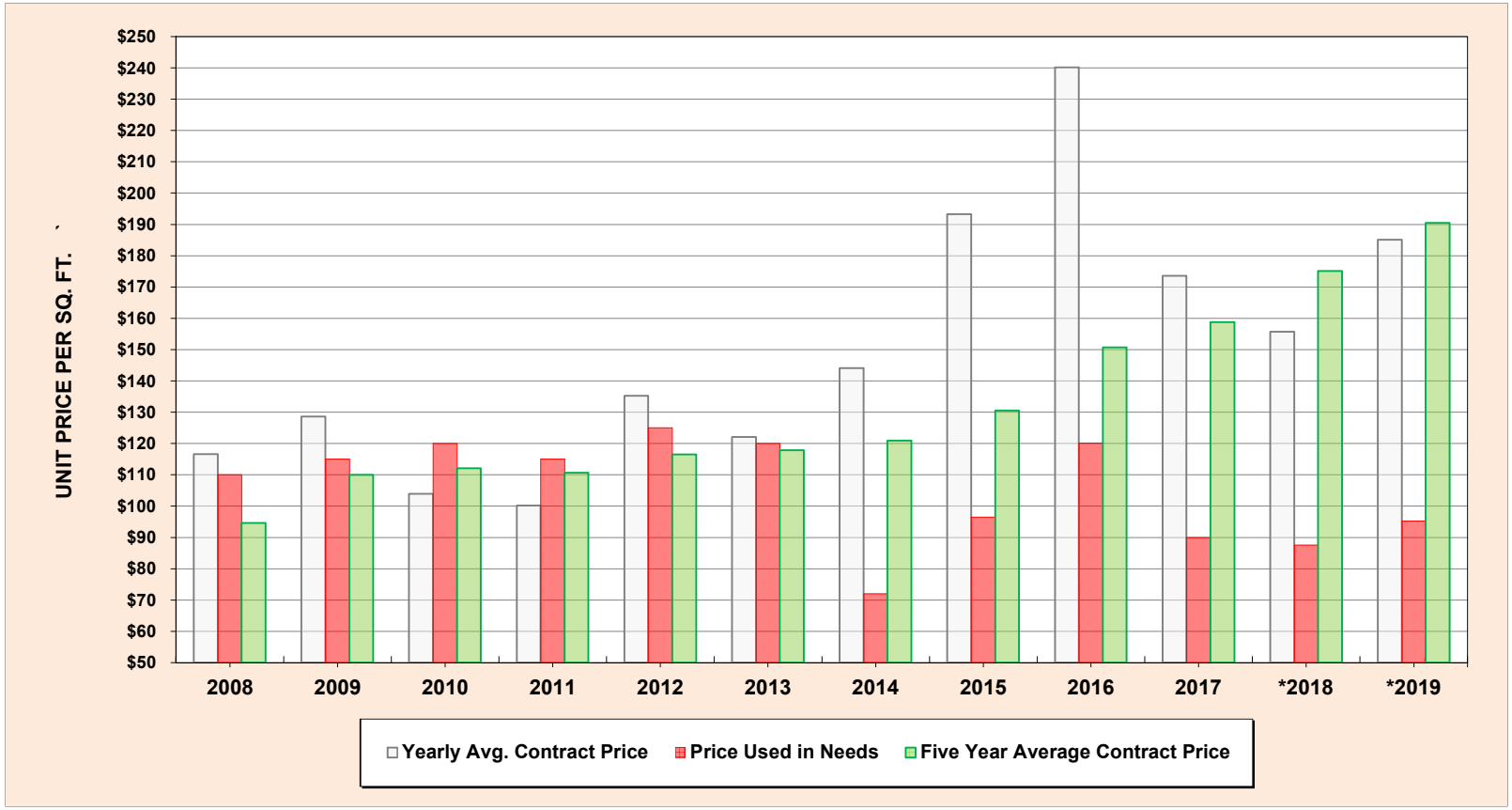
Total Cost for all Bridges	**$27,812,170**
Total Deck Area for all Bridges	**150,251**
Average Cost per Sq Ft	**$185.10**
Total Number of Bridges	**41**

ALL BRIDGES (report)

New Bridge No.	Project Type	Project Number	Length	Beam Type	Letting Date	Area	Cost	Unit Cost	Jointless? 1=Yes
27J67	SAP	027-666-019	100.00	C-ARCH	1/30/2018	1800	$1,335,321	$741.84	
70554	SAP	070-608-024	41.67	C-SLAB	8/7/2018	1972	$547,872	$277.83	1
31572	SAP	031-625-004	47.67	C-SLAB	4/24/2018	1685	$337,916	$200.54	1
17536	SAP	017-599-088	49.00	C-SLAB	3/5/2018	1519	$180,126	$118.58	1
79556	SAP	079-599-078	54.00	C-SLAB	7/10/2018	1674	$240,315	$143.56	1
32575	SAP	032-605-020	68.00	C-SLAB	4/27/2018	2675	$400,033	$149.55	1
64593	SAP	064-599-112	74.00	C-SLAB	5/16/2018	2590	$395,883	$152.85	1
42571	SAP	042-603-026	74.67	C-SLAB	5/9/2018	2937	$392,240	$133.55	1
32568	SAP	032-599-089	81.00	C-SLAB	10/12/2018	2511	$368,060	$146.58	1
48534	SAP	048-597-003	83.00	C-SLAB	3/5/2018	2532	$516,374	$203.94	1
67572	SAP	067-599-179	91.67	C-SLAB	3/5/2018	2842	$318,368	$112.02	1
64592	SAP	064-599-111	93.47	C-SLAB	5/16/2018	3271	$472,004	$144.30	1
67573	SAP	067-599-178	107.00	C-SLAB	5/14/2018	3317	$417,371	$125.83	1
07601	SAP	007-599-060	108.00	C-SLAB	4/11/2018	3348	$412,106	$123.09	1
68542	SP	068-598-035	111.00	C-SLAB	5/3/2018	3885	$628,938	$161.89	1
73580	SAP	073-665-021	120.00	C-SLAB	1/26/2018	4680	$603,473	$128.95	1
45578	SP	045-598-023	123.10	C-SLAB	2/20/2018	4309	$610,061	$141.58	1
23536	SAP	023-599-150	133.90	C-SLAB	8/20/2018	4156	$800,288	$192.56	1
45577	SP	045-598-021	141.67	C-SLAB	9/25/2018	4394	$903,844	$205.70	1
83552	SAP	083-599-076	143.67	C-SLAB	3/15/2018	5028	$515,631	$102.55	1
17537	SAP	017-607-020	159.00	C-SLAB	7/16/2018	6837	$892,953	$130.61	1
10552	SAP	010-599-020	119.00	PCB	5/7/2018	3689	$462,957	$125.50	1
16525	SAP	016-605-005	89.93	PCB	4/11/2018	2916	$679,704	$233.09	1
23595	SAP	023-601-029	55.92	PCB	9/10/2018	1957	$374,121	$191.17	1
37554	SP	037-607-037	100.17	PCB	5/31/2018	3856	$682,237	$176.93	1
54553	SAP	054-620-012	68.00	PCB	2/5/2018	2403	$368,421	$153.32	1
65566	SAP	065-608-012	102.92	PCB	5/7/2018	4460	$587,557	$131.74	1
71531	SAP	071-606-013	140.92	PCB	8/14/2018	6107	$877,475	$143.68	1
71532	SAP	071-603-023	170.84	PCB	5/22/2018	7346	$842,391	$114.67	1
02588	SAP	002-678-023	76.20	PCB	1/18/2018	7133	$1,301,413	$182.45	1
02589	SAP	002-678-023	136.09	PCB	1/18/2018	12589	$3,824,021	$303.76	0
07599	SAP	007-652-003	97.73	PCB	2/28/2018	3372	$461,460	$136.85	1
27C01	SAP	027-661-048	1807.17	PCB	2/7/2018			$67.92	0
27C02	SAP	027-661-048	81.73	PCB	2/7/2018	6483	$1,285,438	$198.28	1
69A61	SAP	069-599-043	42.17	PCB	1/25/2018	1321	$398,332	$301.54	1
69A62	LOCAL	*LOCAL*	60.17	PCB	3/22/2018	2186	$490,576	$224.42	1
69A65	LOCAL	*LOCAL*	42.17	PCB	2/8/2018	1321	$494,389	$374.25	1
52508	SAP	052-610-015	62.58	REHAB	5/1/2018			$92.30	
35502	SP	035-622-009	93.17	REHAB	5/22/2018			$221.40	
36501	SAP	036-610-010	120.00	REHAB	1/18/2018			$78.26	
7182	SAP	069-652-019	134.33	REHAB	3/1/2018			$67.11	
7183	SAP	069-700-016	168.33	REHAB	3/1/2018			$64.74	
02015	SP	002-614-044	962.41	REHAB	8/13/2018			$12.69	
62531	SP	062-636-011	986.29	REHAB	4/27/2018			$22.56	
05525	SAP	005-629-015	1173.02	REHAB	7/27/2018			$22.10	
27C52	SAP	142-153-007	36.33	R-FRAME	2/22/2018	3796	$678,355	$178.70	
14546	SAP	144-123-011	169.80	STEEL	4/25/2018			$512.12	0
14547	SAP	144-594-002	187.11	STEEL	4/25/2018			$460.74	0
14545	SAP	144-123-011	217.73	STEEL	4/25/2018			$683.28	0
66551	SP	092-090-054	150.00	TRUSS	7/10/2018			$291.76	
R0714	SP	129-090-007	307.50	TRUSS	5/8/2018			$269.00	
11531	SAP	011-598-009	64.00	TTS	4/23/2018	2048	$442,889	$216.25	
27C53	SP	027-596-009	68.00	TTS	9/25/2018	2720	$1,048,855	$385.61	
31573	SAP	031-598-023	75.67	C-SLAB	12/18/2018	2674	$584,902	$218.74	1
69A64	SAP	069-652-020	110.71	PCB	12/20/2018	3912	$637,498	$162.96	1
		Totals for all			TOTALS	**150,251**	**$27,812,170**		
					Avg price		**$185.10**		

1/2 cost is $92.55

BRIDGES / STRUCTURES



NEEDS YEAR	NUMBER OF PROJECTS	DECK AREA	TOTAL COST	YEARLY AVERAGE CONTRACT PRICE	PRICE USED IN NEEDS	5-YEAR AVERAGE CONTRACT PRICE
2008	37	247,120	$28,815,052	$116.60	**$110.00**	$94.58
2009	46	301,827	38,797,162	128.54	**115.00**	109.97
2010	56	333,867	34,675,259	103.86	**120.00**	112.02
2011	66	509,552	51,008,086	100.10	**115.00**	110.63
2012	69	475,190	64,255,407	135.22	**125.00**	116.49
2013	73	505,031	61,637,866	122.05	**120.00**	117.80

NEEDS YEAR	NUMBER OF PROJECTS	DECK AREA	TOTAL COST	AVG COST PER SQ FT YEARLY AVERAGE CONTRACT PRICE	PRICE USED IN NEEDS	AVG COST PER SQ FT 5-YEAR AVERAGE CONTRACT PRICE
2014	91	379,364	$54,646,656	$144.05	**$72.00**	$120.85
2015	49	196,550	37,973,287	193.20	**96.50**	130.48
2016	41	178,429	42,852,558	240.17	**120.08**	150.68
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

* recommended cost based off five years of data

SUBCOMMITTEES RECOMMENDED STRUCTURE PRICE FOR THE 2019 NEEDS STUDY IS <u>$95.20</u> PER SQ. FT.

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

$95.20 will result in an 8.7% increase from last year's Unit Cost price of $87.55

N:\MSAS\2019 JUNE BOOK\ALL BRIDGES GRAPH 2019.XLSX

ALL BRIDGES (ready to separate for report)

New Bridge No.	Project Type	Project Number	Length	Beam Type	Letting Date	Area	Cost	Unit Cost	Jointless? 1=Yes
27J67	SAP	027-666-019	100.00	C-ARCH	1/30/2018	1800	$1,335,321	$741.84	
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73580	SAP	073-665-021	120.00	C-SLAB	1/26/2018	4680	$603,473	$128.95	1
45578	SP	045-598-023	123.10	C-SLAB	2/20/2018	4309	$610,061	$141.58	1
23536	SAP	023-599-150	133.90	C-SLAB	8/20/2018	4156	$800,288	$192.56	1
45577	SP	045-598-021	141.67	C-SLAB	9/25/2018	4394	$903,844	$205.70	1
83552	SAP	083-599-076	143.67	C-SLAB	3/15/2018	5028	$515,631	$102.55	1
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71532	SAP	071-603-023	170.84	PCB	5/22/2018	7346	$842,391	$114.67	1
02588	SAP	002-678-023	76.20	PCB	1/18/2018	7133	$1,301,413	$182.45	1
02589	SAP	002-678-023	136.09	PCB	1/18/2018	12589	$3,824,021	$303.76	0
07599	SAP	007-652-003	97.73	PCB	2/28/2018	3372	$461,460	$136.85	1
27C01	SAP	027-661-048	1807.17	PCB	2/7/2018	102839	$6,984,919	$67.92	0
27C02	SAP	027-661-048	81.73	PCB	2/7/2018	6483	$1,285,438	$198.28	1
69A61	SAP	069-599-043	42.17	PCB	1/25/2018	1321	$398,332	$301.54	1
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35502	SP	035-622-009	93.17	REHAB	5/22/2018			$221.40	
36501	SAP	036-610-010	120.00	REHAB	1/18/2018			$78.26	
7182	SAP	069-652-019	134.33	REHAB	3/1/2018			$67.11	
7183	SAP	069-700-016	168.33	REHAB	3/1/2018			$64.74	
02015	SP	002-614-044	962.41	REHAB	8/13/2018			$12.69	
62531	SP	062-636-011	986.29	REHAB	4/27/2018			$22.56	
05525	SAP	005-629-015	1173.02	REHAB	7/27/2018			$22.10	
27C52	SAP	142-153-007	36.33	R-FRAME	2/22/2018	3796	$678,355	$178.70	
14546	SAP	144-123-011	169.80	STEEL	4/25/2018	3510	$1,797,535	$512.12	0
14547	SAP	144-594-002	187.11	STEEL	4/25/2018	4490	$2,068,707	$460.74	0
14545	SAP	144-123-011	217.73	STEEL	4/25/2018	5051	$3,451,229	$683.28	0
66551	SP	092-090-054	150.00	TRUSS	7/10/2018	1800	$525,172	$291.76	
R0714	SP	129-090-007	307.50	TRUSS	5/8/2018	3948	$1,062,028	$269.00	
11531	SAP	011-598-009	64.00	TTS	4/23/2018	2048	$442,889	$216.25	
27C53	SP	027-596-009	68.00	TTS	9/25/2018	2720	$1,048,855	$385.61	
31573	SAP	031-598-023	75.67	C-SLAB	12/18/2018	2674	$584,902	$218.74	1
69A64	SAP	069-652-020	110.71	PCB	12/20/2018	3912	$637,498	$162.96	1
					TOTALS	**$271,889**	**$43,701,760**		
					Avg price		**$160.73**	Avg price	

1/2 cost is $81.36

DEPARTMENT OF TRANSPORTATION

State Aid Hydraulics
3485 Hadley Avenue North
Oakdale, MN 55128-3307

Memo

Date: March 25, 2019

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

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

RE: State Aid Storm Sewer
Construction Costs for 2018

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

- Approximately $352,988 for new construction, and
- Approximately $107,666 for adjustment of existing systems

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

EC: Andrea Hendrickson (MnDOT file)

STORM SEWER COST RECOMMENDATIONS FOR 2019

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	$352,988	
Partial Storm Sewer Cost from Hydraulics Specialist	$107,666	
Average SS Cost = ($346,066 + $106,075) / 2 =		$230,327
NSS Recommended Unit Cost		$230,300
MSB Approved Unit Cost for 2019		$xxx,xxx

NSS recommended Storm Sewer Costs for 2019

based on 2018 costs - for the 2019 Needs Study

Needs Width of MSAS Urban ADT Groups for Needs Purposes	Existing ADT per Traffic Group	Cost difference from 70' section	MSB approved percent cost difference from 70' section	Cost based on % of Cost of highest Typical Section
26	0 ADT & Non Existing	($67,900)	-29.5%	$162,400
28	1-499	($64,800)	-28.1%	$165,500
34	500-1,999	($55,500)	-24.1%	$174,800
40	2,000-4,999	($46,300)	-20.1%	$184,000
48	5,000-8,999	($33,900)	-14.7%	$196,400
54	9,000-13,999	($24,700)	-10.7%	$205,600
62	14,000-24,999	($12,300)	-5.4%	$218,000
70	25,000 and over	$0	0.0%	**$230,300**

from last year's SS letter
Complete: $346,066
Partial: $106,075
AVG: $226,071

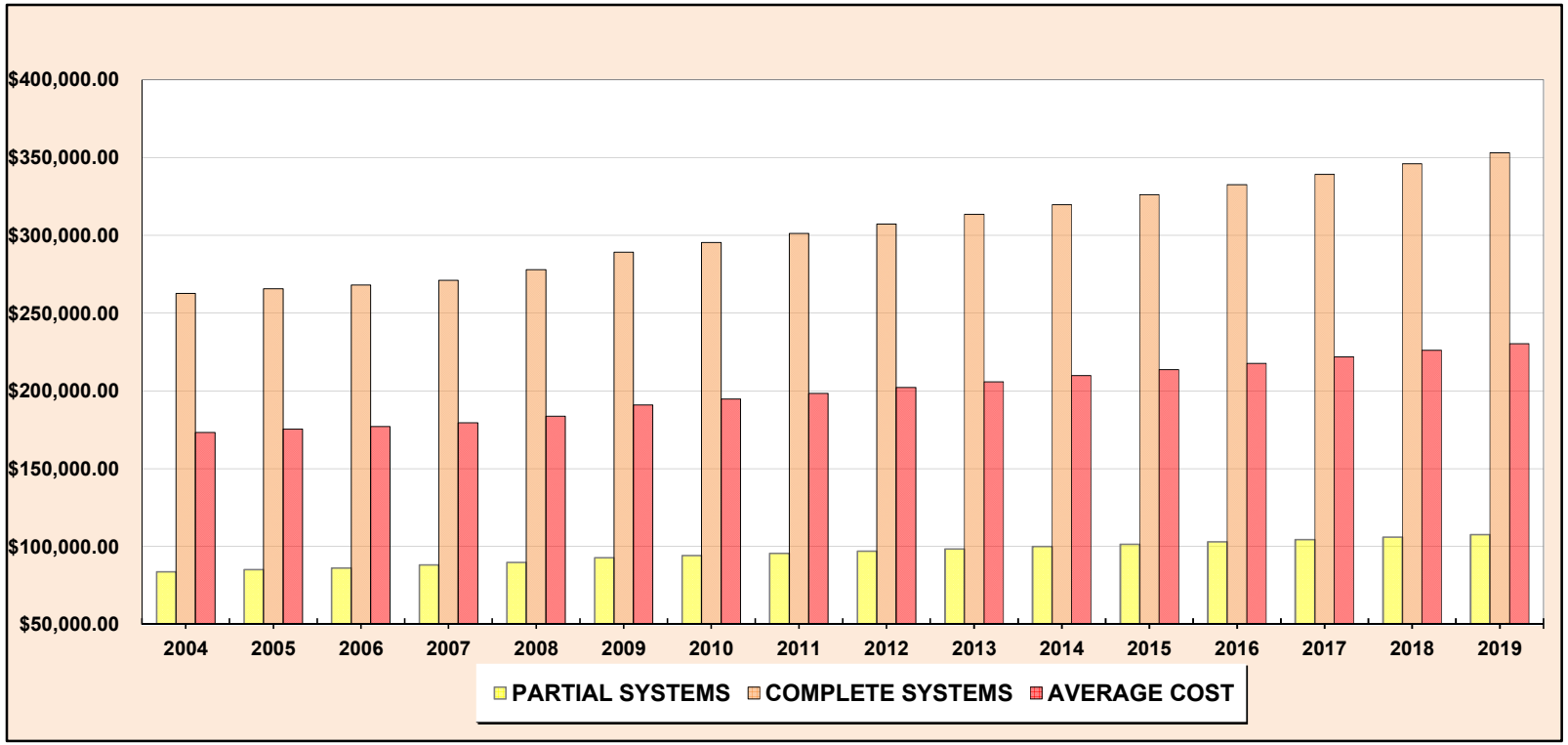
MSB approved Storm Sewer Costs for 2018 (last year)

based on 2017 costs - for the 2018 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%	$159,500
28	1-499	($63,600)	-28.1%	$162,500
34	500-1,999	($54,500)	-24.1%	$171,600
40	2,000-4,999	($45,400)	-20.1%	$180,700
48	5,000-8,999	($33,300)	-14.7%	$192,800
54	9,000-13,999	($24,200)	-10.7%	$201,900
62	14,000-24,999	($12,100)	-5.4%	$214,000
70	25,000 and over	$0	0.0%	$226,100

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

STORM SEWER COSTS since 2004



Needs Year	Partial Storm Sewer Constructions	Complete Storm Sewer Constructions	Average Cost (basis for Needs)
2004	$83,775	$262,780	$173,278
2005	$85,099	$265,776	$175,438
2006	$86,121	$268,035	$177,078
2007	$88,102	$271,117	$179,610
2008	$89,687	$277,895	$183,791
2009	$92,772	$289,290	$191,031
2010	$94,164	$295,365	$194,765
2011	$95,576	$301,272	$198,424

Needs Year	Partial Storm Sewer Constructions	Complete Storm Sewer Constructions	Average Cost (basis for Needs)
2012	$97,010	$307,297	$202,154
2013	$98,465	$313,443	$205,954
2014	$99,942	$319,711	$209,827
2015	$101,441	$326,105	$213,773
2016	$102,963	$332,627	$217,795
2017	$104,507	$339,280	$221,894
2018	$106,075	$346,066	$226,071
2019	$107,666	$352,988	$230,327

SUBCOMMITTEE'S RECOMMENDED PRICE FOR THE 2019 NEEDS STUDY IS $230,300 (for highest section)

HISTORY: STORM SEWER, LIGHTING AND SIGNAL NEEDS COSTS

NEEDS YEAR	STORM SEWER ADJUSTMENT	STORM SEWER** CONSTRUCTION	LIGHTING	SIGNALS**
1998	$76,000	$245,000	$20,000	$24,990-$99,990
1999	79,000	246,000	35,000	24,990-99,990
2000	80,200	248,500	50,000	24,990-99,990
2001	80,400	248,000	78,000	30,000-120,000
2002	81,600	254,200	78,000	30,000-120,000
2003	82,700	257,375	80,000	31,000-124,000
2004	83,775	262,780	80,000	31,000-124,000
2005	85,100	265,780	82,500	32,500-130,000
2006	86,100	268,035	100,000	32,500-130,000
2007	88,100	271,000	100,000	32,500-130,000
2008	89,700	278,200	100,000	32,500-130,000
2009	92,800	289,300	100,000	32,500-130,000
2010	94,200	295,400	100,000	34,000-136,000
2011	95,600	301,300	100,000	34,000-136,000
2012	97,000	307,300	100,000	34,000-136,000
New Needs Method				
2013	$145,260 to $205,954		100,000	$225,000/signal
2014	148,100 to 210,000		100,000	205,000/signal
2015	150,900 to 214,000		100,000	185,000/signal
2016	153,600 to 217,800		100,000	188,700/signal
2017	156,500 to 221,900		100,000	195,000/signal
2018	159,500 to 226,100		100,000	201,850/signal
2019	162,400 to 230,300		100,000	207,704/signal

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

NEEDS STUDY SUBCOMMITTEE'S RECOMMENDED PRICES FOR 2019:

Storm Sewer (high section)	**$230,300**
Lighting / Mile	**$100,000**
Traffic Signals (per Signal)	**$207,700**

SIGNALS

CURRENT SCREENING BOARD RESOLUTION ON TRAFFIC SIGNALS

*The Unit Cost for **Traffic Signals** will be determined by the recommendation by the SALT Program Support Engineer and approved by the MSB.*
The Unit Cost for traffic signals will be based on a cost per signal leg, and for Needs purposes a signal leg will be defined as ¼ of the signal cost.
Only signal legs on designated MSAS routes will be included in the Needs study.
Stand-alone pedestrian crossing signals will not be included in the Needs study.

TRAFFIC SIGNALS AND THE UNIT COST STUDY

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

SUBCOMMITTEE'S RECOMMENDED SIGNAL PRICE FOR THE 2018 NEEDS IS **$207,700**.

LIGHTING

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

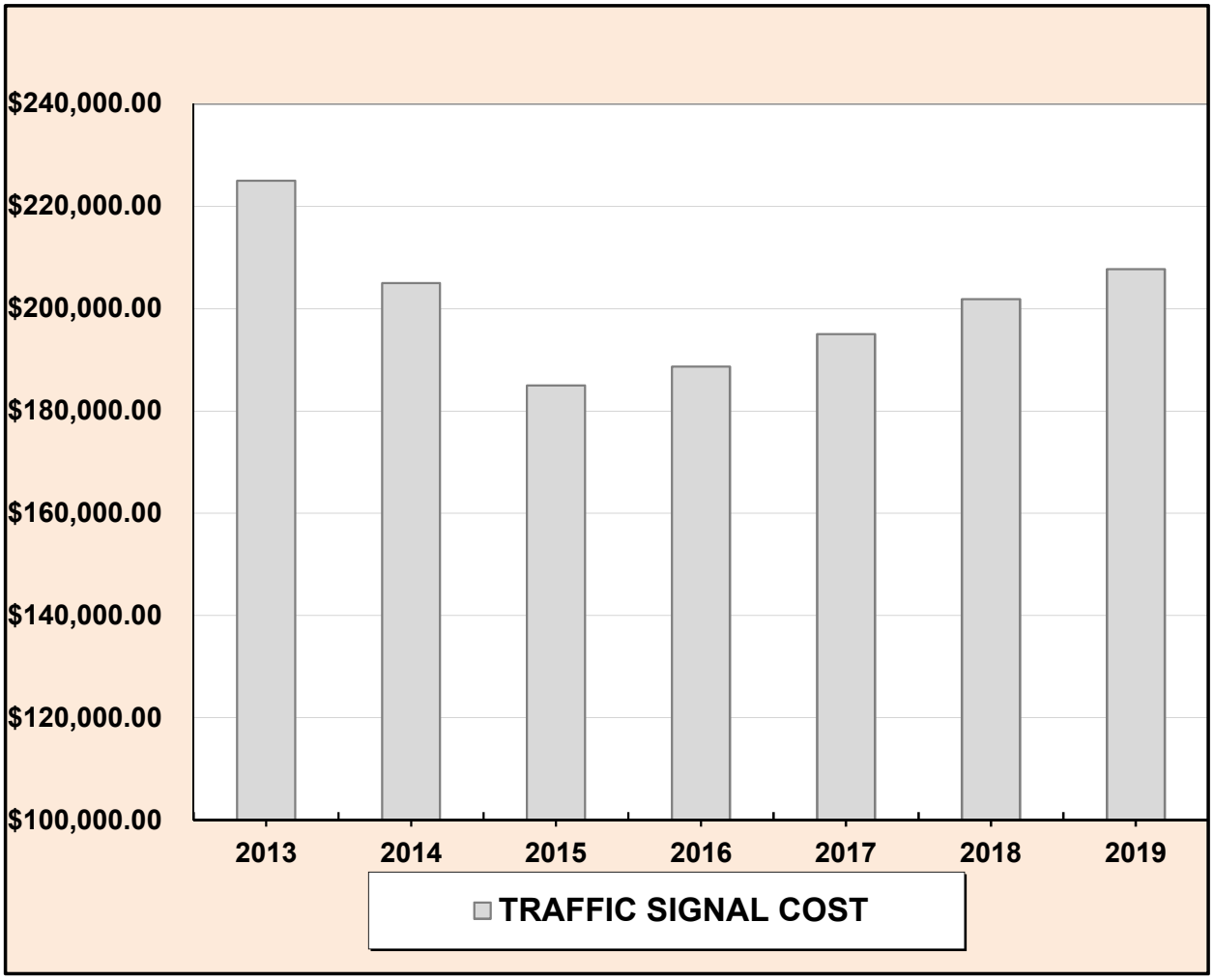
CURRENT SCREENING BOARD RESOLUTION ON STREET LIGHTING

(revised May, 2015)

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

SUBCOMMITTEE'S RECOMMENDED PRICE FOR 2018 NEEDS IS **$100,000** *PER MILE*

TRAFFIC SIGNALS



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

SUBCOMMITTEE'S RECOMMENDED PRICE FOR THE 2019 NEEDS STUDY IS <u>$207,700</u>

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

Subcommittee Meetings

Recent recommendations

THE 2015 UCFS RECOMMENDATION ON SIGNALS

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

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

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

Respectfully Submitted,

Steven G. Bot, P.E.

Unencumbered Construction Funds Subcommittee Secretary

St. Michael City Engineer

THE 2016 UCFS RECOMMENDATION ON ROUNDABOUTS

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

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

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

Respectfully submitted,

Klayton Eckles

April 16, 2018.

RECOMMENDATION ON STRUCTURE UNIT COST FOR THE NEEDS

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

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

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

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

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

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

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

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

Submitted,

Sean Christensen

NSS Secretary

Unencumbered Construction Funds Subcommittee

Meeting Minutes: December 1st, 2017

Attendees

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

Meeting Agenda Discussion

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

1) We have a set pot of money…our rules are a distribution method—more for ROW means less for other items

2) We did spend 3 years and 4 more adapting new rules to simplify….the idea is that this is about spreading money to build roads to meet larger transportation goals…the actual cost of individual roadway elements had grown to be too cumbersome, so we drastically reduced the elements, and focused more on actual traffic volume served and roadway construction items

3) ROW purchasing has a full of gamut of perspectives and issues…platting process, planning process, county/city agreements or policies, are there other funding sources (state or fed), easements vs ROW, public/private agreements, development deals with private parties.

4) Could ATF expenditures encourage counties to crank the screws on their cost participation policies? (they can pay, so we will charge)…the thought was that although some counties do have some policies that require cities participate at a high level in ROW acquisition, it is highly variable. And the policies themselves are debatable, and MSA monies are not well spent "enabling" the stricter county policies. Given the sporadic nature of the various policies, allowing ATF would provide more benefit to some than to others…which is counter to some of the base philosophies of the simplification effort.

5) Based on the general philosophy that this is meant to be a simple method of equitably distributing SA monies between eligible cities, the idea of ATF ROW needs does not fit. ATF would be more complicated, not always equitable, and doesn't improve the Municipal transportation system. Therefore *the UCFS recommends that off system expenditures on CSAH for ATF right of way be deemed an ineligible expense. IE, no change from the current practice.*

Motion carried unanimously.
Respectfully Submitted,

Klayton Eckles
UCFS Chair

Reference Materials

Local Road Research Board

Program Overview

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

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

Board Members

The Board consists of 10 members, including:

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

Committees

Research Implementation Committee

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

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

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

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

Outreach Subcommittee

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

Funding

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

	2014	2015	2016	2017	2018
Amount Allocated	$3.2 M	$3.3 M	$3.5 M	$2.5 M	$3.5
Number of New Projects	25	25	17	19	20
Total Number of Active Projects	n/a	n/a	74	72	85

For More Information

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

http://www.dot.state.mn.us/research/documents/LRRB_At-A-Glance_2016_WEB.pdf

Website: www.lrrb.org

LRRB Board Chair: Lyndon Robjent
lrobjent@co.carver.mn.us
Carver County Engineer
(952) 466-5200

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

Revised: 2/2019

COUNTY HIGHWAY TURNBACK POLICY

Definitions:

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

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

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

MILEAGE CONSIDERATIONS

County State Aid Highway Turnbacks

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

County Road Turnbacks

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

Jurisdictional Exchanges

County Road for MSAS

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

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

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

CSAH for MSAS

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

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

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

NOTE:
When a city receives **less** mileage in a CSAH exchange it will have less mileage to designate within its 20% mileage limitation and may have to revoke mileage the following year when it computes its allowable mileage.
Explanation: After this exchange is completed, a city will have more CSAH mileage and less MSAS mileage than before the exchange. The new CSAH mileage was included in the city's basic mileage when it was MSAS (before the exchange) but is not included when it is CSAH (after the exchange). So, after the jurisdictional exchange the city will have less basic mileage and 20% of that mileage will be a smaller number.
If a city has more mileage designated than the new, lower 20% allowable mileage, the city will be over designated and be required to revoke some mileage. **If a revocation is necessary, it will not have to be done until the following year after a city computes its new allowable mileage.**

MSAS designation on a County Road

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

MISCELLANEOUS

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

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

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

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

CURRENT RESOLUTIONS
OF THE
MUNICIPAL SCREENING BOARD

October 2018

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

BE IT RESOLVED:

ADMINISTRATION

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

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

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

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

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

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

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

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

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

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

Screening Board Meeting Dates and Locations - June 1996

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

Research Account - Oct. 1961

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

Population Apportionment - October 1994, 1996

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

Improper Needs Report - Oct. 1961

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

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

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

Certified Complete Cities – May 2014 (Revised October 2014)
State Aid Operational Rule 8820.18 subp.2 allows cities to spend the population based portion of their Construction Allotment on non MSAS city streets if its MSAS system has been Certified Complete.

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

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

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

Construction Needs Components – May 2014

For Construction Needs purposes, all roadways on the MSAS system will be considered as being built to Urban standards.
All segments on the MSAS system will generate continuous Construction Needs on the following items:
Excavation/Grading
Gravel Base
Bituminous
Curb and Gutter Construction
Sidewalk Construction
Storm Sewer Construction
Street Lighting
Traffic Signals
Engineering
Structures

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

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

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

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

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

MSAS URBAN ADT GROUPS FOR NEEDS PURPOSES

Quantities Based on a One Mile Section

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

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

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

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

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

The Unit Cost for **Traffic Signals** will be determined by the recommendation by the SALT Program Support Engineer and approved by the MSB.
The Unit Cost for traffic signals will be based on a cost per signal leg, and for Needs purposes a signal leg will be defined as ¼ of the signal cost.
Only signal legs on designated MSAS routes will be included in the Needs study.
Stand-alone pedestrian crossing signals will not be included in the Needs study.

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

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

2018 UNIT PRICE RECOMMENDATIONS

for the January 2019 distribution

Needs Item		Municipal Screening Board Approved Prices for the 2018 Distribution	Needs Study Subcommittee Recommended Prices for 2019 Distribution	Municipal Screening Board Approved Prices for the 2019 Distribution
Grading (Excavation)	Cu. Yd.	$7.95	$9.10	**$9.10**
Aggregate Base	Ton	14.90	13.78	**13.78**
All Bituminous	Ton	69.60	60.00	**60.00**
Sidewalk Construction	Sq. Ft.	4.75	5.50	**5.50**
Curb and Gutter Construction	Lin.Ft.	14.55	15.90	**15.90**
Traffic Signals	Per Sig	195,000	201,850	**201,850**
Street Lighting	Mile	100,000	100,000	**100,000**
Engineering	Percent	22	22	**22**
All Structures (includes both bridges and box culverts)	Sq. Ft.	90.00	87.55	**87.55**
Storm Sewer (based on ADT)	Per Mile			
0 ADT & Non Existing		156,500	159,500	**159,500**
1-499		159,500	162,500	**162,500**
500-1,999		168,400	171,600	**171,600**
2,000-4,999		177,300	180,700	**180,700**
5,000-8,999		189,200	192,800	**192,800**
9,000-13,999		198,100	201,900	**201,900**
14,000-24,999		210,000	214,000	**214,000**
25,000 and over		221,900	226,100	**226,100**

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

The maximum mileage for Municipal State Aid Street designation will be 20 percent of the municipality's basic mileage - which is comprised of the total improved mileage of local streets, county roads and county road turnbacks.

Nov. 1965 – (Revised 1969, October 1993, October 1994, June 1996, October 1998, May 2014)

That the maximum mileage for State Aid designation may be exceeded to designate trunk highway turnbacks released to the Municipality after July 1, 1965.
The maximum mileage for State Aid designation may also be exceeded to designate both County Road and County State Aid Highways released to the Municipality after May 11th, 1994.

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

The maximum mileage for Municipal State Aid Street designation will be based on the Annual Certification of Mileage current as of December 31st of the preceding year. Submittal of a supplementary certification during the year will not be permitted. Frontage roads not designated Trunk Highway, Trunk Highway Turnback or County State Aid Highways will be considered in the computation of the basic street mileage. The total mileage of local streets, county roads and county road turnbacks on corporate limits will be included in the municipality's basic street mileage. Any State Aid Street that is on the boundary of two adjoining urban municipalities will be considered as one-half mileage for each municipality.

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

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

All requests for revisions to the Municipal State Aid System must be received by the District State Aid Engineer by March first to be included in that years Needs Study. If a system revision has been requested, a City Council resolution approving the system revisions and the Needs Study reporting data must be received by May first, to be included in the current year's Needs Study. If no system revisions are requested, the District State Aid Engineer must receive the Normal Needs Updates by March 31st to be included in that years' Needs Study.

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

Any one-way streets added to the Municipal State Aid Street system must be reviewed by the Needs Study Sub-Committee, and approved by the Screening Board before any one-way street can be treated as one-half mileage in the Needs Study.

All Municipal Screening Board approved one-way streets be treated as one-half of the mileage and allow one-half complete Needs. When Trunk Highway or County Highway Turnback is used as part of a one-way pair, mileage for certification shall only be included as Trunk Highway or County Turnback mileage and not as approved one-way mileage.

Needs Adjustments

Phase In (Restriction) May 2014
The method of computing Needs is to be phased in over a period of seven years. This seven year period will begin with the January 2015 allocation and go through the January 2021 allocation.
The phase in will be reviewed annually by the Municipal Screening Board to determine if the Phase In period should be revised.
During the seven year period the phase in is being applied, a city's Restricted Needs will be computed using the following steps:

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

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

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

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

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

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

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

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

The amount of the Excess Unencumbered Construction Fund Balance Adjustment will be redistributed as a positive adjustment to the Construction Needs of all municipalities whose December 31st construction fund balance is less than 1 times their January construction allotment of the same year. This redistribution will be based on a city's prorated share of its Unadjusted Construction Needs to the total Unadjusted Construction Needs of all participating cities times the total Excess Balance Adjustment.

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

Right of Way Needs will not be included in the Needs calculations until the right of way is acquired and the actual cost established. At that time a Construction Needs adjustment will be made by annually adding the local cost (which is the total cost less county or trunk highway participation) for a 15-year period. Only right of way acquisition costs that are eligible for State-Aid funding will be included in the right-of-way Construction Needs adjustment. This Directive is to exclude all Federal or State grants.
When "After the Fact" Needs are requested for right-of-way projects that have been funded with local funds, but qualify for State Aid reimbursement, documentation (copies of warrants and description of acquisition) must be submitted to the District State Aid Engineer. The City Engineer will input the data into the Needs Update program and the data will be approved by the DSAE.

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

RR Bridge over MSAS Route Rehabilitation
Any structure that has been rehabilitated (Minnesota Administrative Rules, CHAPTER 8820, 8820.0200 DEFINITIONS, Subp. 8. Bridge rehabilitation) will not be included in the Needs calculations until the rehabilitation project has been completed and the actual cost established. At that time a Construction Needs adjustment will be made by annually adding the local cost (which is the total cost less county or trunk highway participation) for a 15-year period. Only State Aid eligible items are allowed to be included in this adjustment and all structure rehabilitation Needs adjustments must be input by the city and approved by the DSAE.

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

After the Fact Railroad Crossing Adjustment

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

Excess Maintenance Account – June 2006

Any city which requests an annual Maintenance Allocation of more than 35% of their Total Allocation, is granted a variance by the Variance Committee, and subsequently receives the increased Maintenance Allocation will receive a negative Needs adjustment equal to the amount of money over and above the 35% amount transferred from the city's Construction Account to its Maintenance Account. The Needs adjustment will be calculated for an accumulative period of twenty years, and applied as a single one-year (one time) deduction each year the city receives the maintenance allocation.

After the Fact Retaining Wall Adjustment Oct. 2006 (Revised May 2014)

Retaining wall Needs will not be included in the Needs study until such time that the retaining wall has been constructed and the actual cost established. At that time a Needs adjustment will be made by annually adding the local cost (which is the total cost less county or trunk highway participation) for a 15 year period. Documentation of the construction of the retaining wall, including eligible costs, must be submitted to your District State Aid Engineer by July 1 to be included in that years Needs study. After the Fact needs on retaining walls will begin effective for all projects awarded after January 1, 2006. All Retaining Wall adjustments must be input by the city and approved by the District State Aid Engineer.

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

Any trunk highway turnback which reverts directly to the municipality and becomes part of the Municipal State Aid Street system will not have its Construction Needs considered in the Construction Needs apportionment determination as long as the former trunk highway is fully eligible for 100 percent construction payment from the Municipal Turnback Account. During this time of eligibility, financial aid for the additional maintenance obligation, to the municipality imposed by the turnback will be computed on the basis of the current year's apportionment data and will be accomplished in the following manner.
The initial turnback maintenance adjustment when for less than 12 full months will provide partial maintenance cost reimbursement by adding said initial adjustment to the Construction Needs which will produce approximately 1/12 of $7,200 per mile in apportionment funds for each month or part of a month that the municipality had maintenance responsibility during the initial year.

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

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

TRAFFIC - June 1971 (Revised May 2014)

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

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

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

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

Municipal State Aid Construction Account Advance Guidelines

Advance status is currently code green.

State Aid Advances

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

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

The process used for advancing is dependent on the code levels which are listed below. Code levels for the current year can be obtained from the SAF Advances webpage.

State Aid Advance Code Levels

SEVERE	**Code RED - SEVERE** – Construction cash balance too low. NO MORE ADVANCES - NO EXCEPTIONS
GUARDED	**Code YELLOW - GUARDED** – Construction cash balance low; balances reviewed monthly. Advancing money may not meet the anticipated needs. Priority system will be used. Resolution required. Reserve option is available only prior to bid advertisement.
LOW	**Code GREEN - LOW** – Construction cash balance at acceptable level to approve anticipated advances. Advances approved on first-come, first- serve basis while funds are available. Resolution required. High priority projects are reserved; others optional.

General Guidelines for State Aid & Federal Aid Advance Construction

If a city requests an advance on future allotments they need to submit an Advance Resolution authorizing the advance by the board. This will "earmark" the funding for that city, but it will NOT hold the funds. Advanced funds will be paid out on a first come first serve basis as the construction accounts are spent down to zero. The

correct resolution must be used for each advance type and there is a sample resolution for each on the State Aid Finance webpage. **Requests are good only for the year requested (cannot be summited for multiple years) and void at 12/31 of that year**.

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

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

Sample Advance Resolutions and Request to Reserve Funds can be obtained from SAF Forms & Resolutions webpage. E-mail completed forms to Cindy Degener at cindy.degener@state.mn.us in State Aid Finance and your DSAE for review.

Priority System

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

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

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

Advance Limitations

Statutory – None, reference Minnesota Statutes 162.14, Subd 6.

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

State Aid Guidelines

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

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