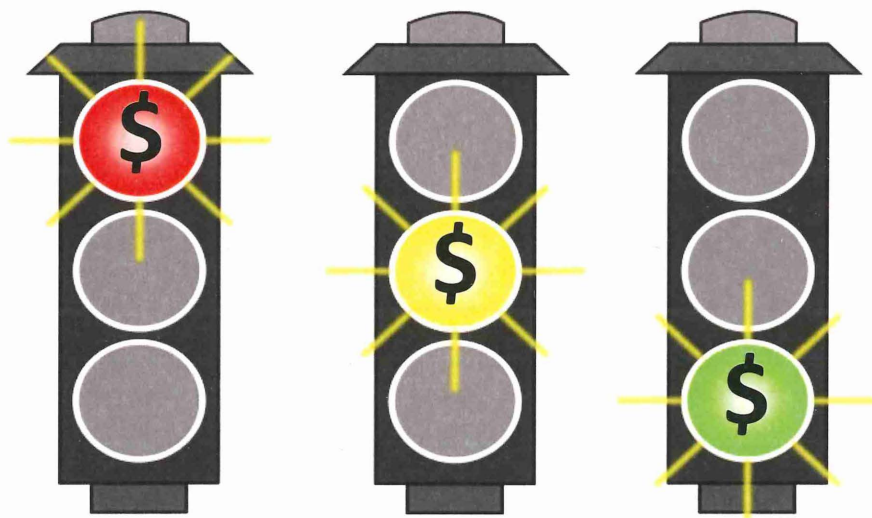


17 - 0668

2017 Municipal Screening Board Data



UNIT PRICES



Spring 2017



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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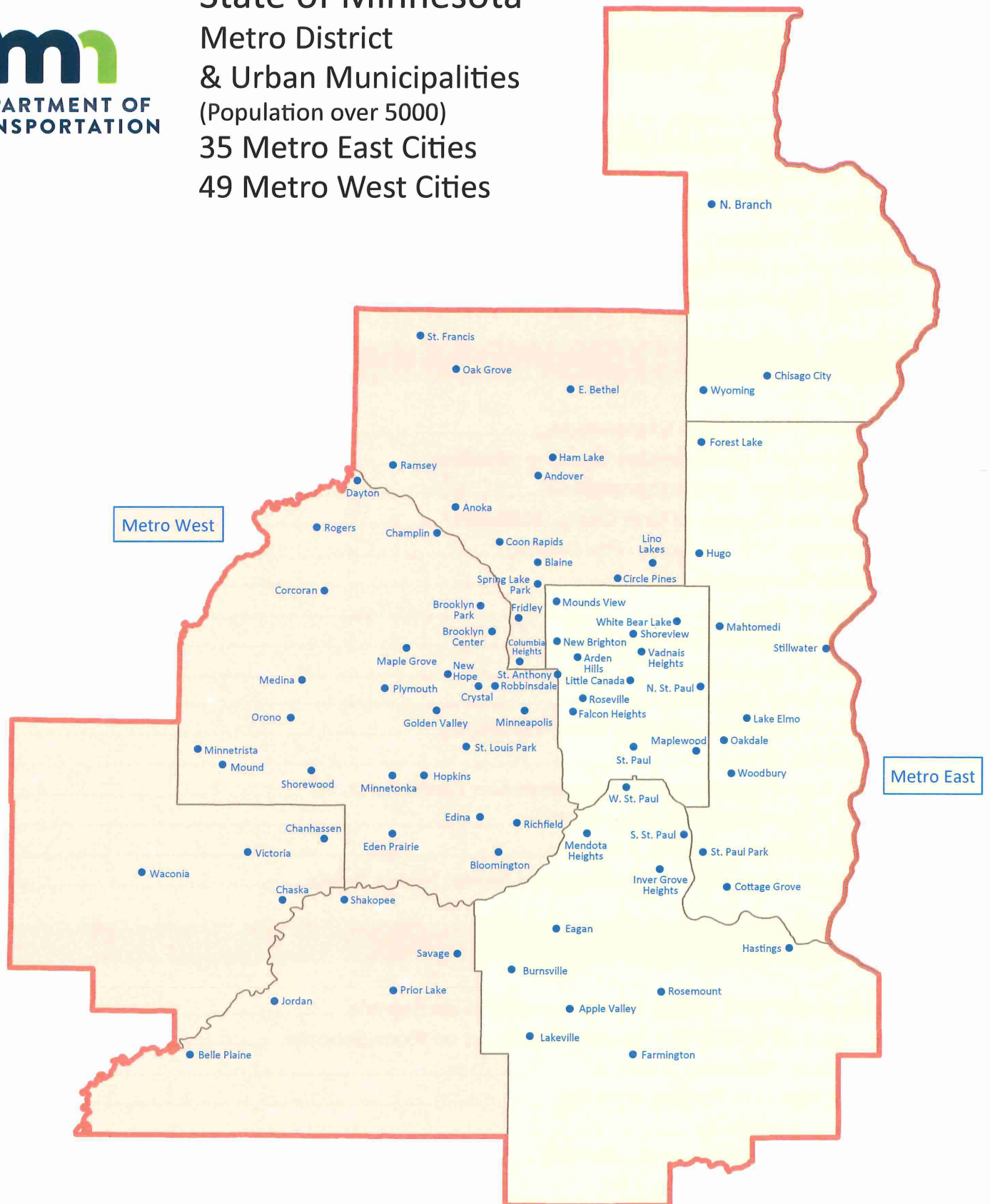
OTHER TOPICS

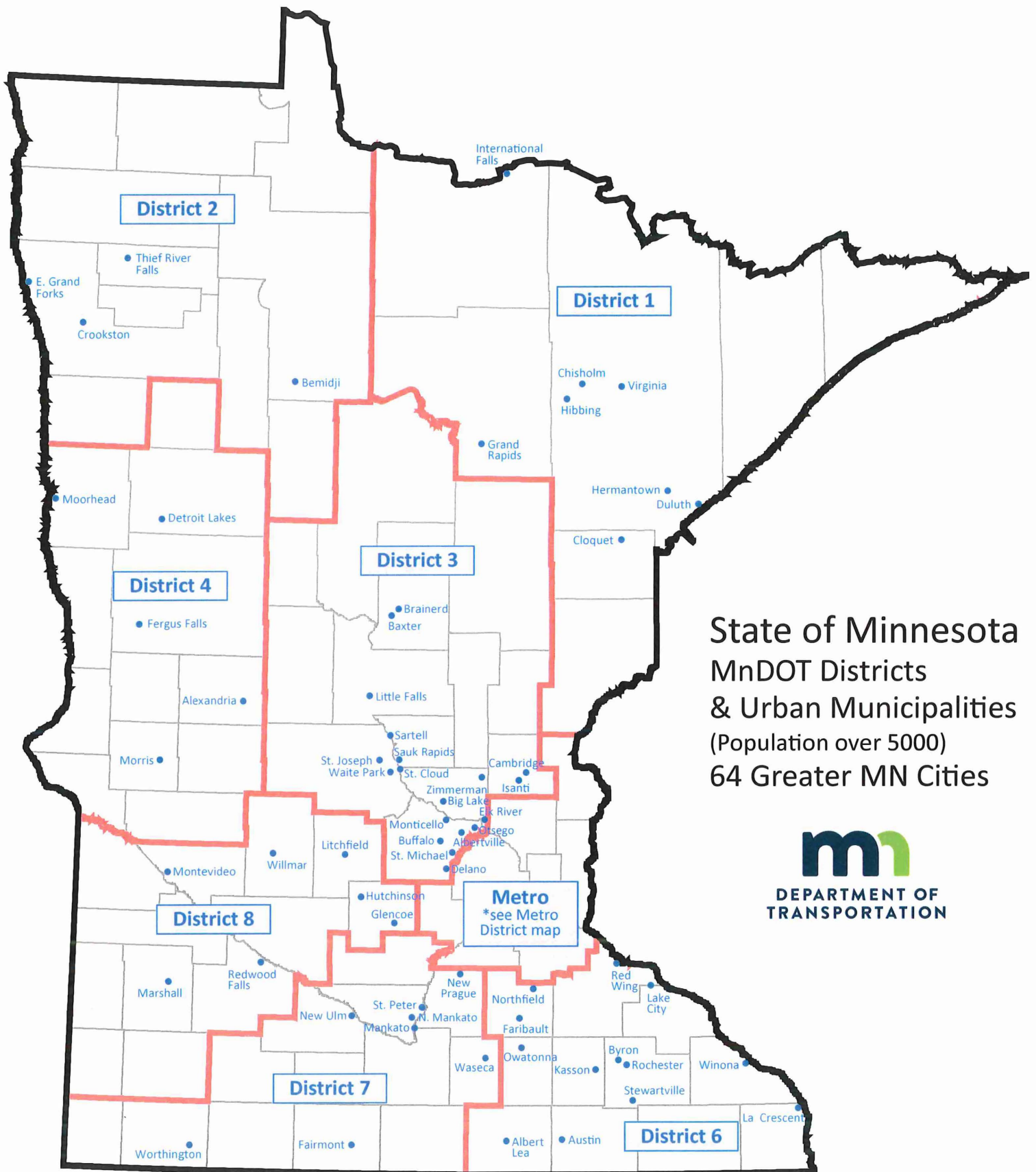
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State of Minnesota Metro District & Urban Municipalities (Population over 5000) 35 Metro East Cities 49 Metro West Cities





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



Updated 1/8/14

2017 MUNICIPAL SCREENING BOARD

18-Apr-17

Officers			
Chair	Marc Culver	Roseville	(651) 792-7041
Vice Chair	Glenn Olson	Marshall	(507) 537-6774
Secretary	John Gorder	Eagan	(651) 675-5645

Members				
District	Years Served	Representative	City	Phone
1	2017-2019	Matt Wegwerth	Grand Rapids	(218) 326-7625
2	2015-2017	Craig Gray	Bemidji	(218) 333-1851
3	2015-2017	Justin Femrite	Elk River	(763) 635-1051
4	2016-2018	Jeff Kuhn	Morris	(320) 762-8149
Metro-West	2016-2018	Steve Lillehaug	Brooklyn Center	(763) 569-3300
6	2016-2018	Jay Owens	Red Wing	(651) 385-3625
7	2017-2019	Mark DuChene	Waseca	(507) 835-9716
8	2015-2017	Sean Christensen	Willmar	(320) 214-5169
Metro-East	2017-2019	Michael Thompson	Maplewood	(651) 249-2403
<u>Cities</u>	Permanent	Cindy Voigt	Duluth	(218) 730-5200
<u>of the</u>	Permanent	Don Elwood	Minneapolis	(612) 673-3622
<u>First</u>	Permanent	Richard Freese	Rochester	(507) 328-2426
<u>Class</u>	Permanent	Paul Kurtz	Saint Paul	(651) 266-6203

Alternates				
District	Year Beginning		City	Phone
1	2020	VACANT	VACANT	(218) xxx-xxxx
2	2018	Rich Clauson	Crookston	(218) 281-6522
3	2018	Adam Nafstad	Albertville	(763) 497-3384
4	2019	Brian Yavarow	Fergus Falls	(218) 332-5413
Metro-West	2019	Chad Milner	Edina	(952) 826-0318
6	2019	Kyle Skov	Owatonna	(507) 444-4350
7	2020	Chris Cavett	New Prague	(507) 388-1989
8	2018	Andy Kehren	Redwood Falls	(507) 794-5541
Metro-East	2020	Tom Wesolowski	Shoreview	(651) 490-4652

2017 SUBCOMMITTEES

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

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

Needs Study Subcommittee	Unencumbered Construction Funds Subcommittee
<p>Rich Clauson Crookston (218) 281-6522 Expires after 2017</p> <p>Jon Pratt Detroit Lakes (218) 847-5607 Expires after 2018</p> <p>Jeff Johnson Mankato (507) 387-8640 Expires after 2019</p>	<p>Steve Bot St. Michael (763) 497-2041 Expires after 2017</p> <p>Klayton Eckles Woodbury (651) 714-3593 Expires after 2018</p> <p>Jeff Johnson Mankato (507) 387-8640 Expires after 2019</p>

MINUTES
MUNICIPAL SCREENING BOARD MEETING
October 25-26, 2016
Breezy Point Resort - Breezy Point, MN

I. The meeting was called to order and welcome given to all in attendance by Chair Jeff Johnson. Jeff introduced the head table, Subcommittee Chairs and past chairs of the Municipal Screening Board (MSB). They are:

- i. Jeff Johnson, Chair, Municipal Screening Board
- ii. Mitch Rasmussen, MnDOT –State Aid Engineer
- iii. Bill Lanoux, MnDOT - Manager, Municipal State Aid Needs Unit
- iv. Marc Culver, (Roseville) – Vice Chair MSB
- v. Kent Exner, (Hutchinson) – Chair: Unencumbered Construction Funds Subcommittee, and Past Chair, MSB
- vi. Klayton Eckles, (Woodbury) – Past Chair, MSB
- vii. Glenn Olson, Secretary

Secretary Olson conducted the roll call of the screening board members:

District 1	Matt Wegwerth, Hibbing
District 2	Craig Gray, Bemidji
District 3	Justin Femrite, Elk River
District 4	Jeff Kuhn, Morris
Metro West	Steve Lillehaug, Brooklyn Center
District 6	Jay Owens, Red Wing
District 7	Jeff Johnson, Mankato
District 8	Sean Christensen, Willmar
Metro East	Klayton Eckles, Woodbury
Duluth	Cindy Voigt
Minneapolis	Don Elwood
Rochester	Doug Nelson
St. Paul	Paul Kurtz

Jeff recognized Screening Board Alternates:

- i. District 1 Matt Wegwerth, Grand Rapids
- ii. District 7 Mark DuChene, Waseca
- iii. Metro East Michael Thompson, Maplewood

Jeff recognized Department of Transportation personnel:

- i. Ted Schoenecker Deputy State Aid Engineer (attending tomorrow)
- ii. Patti Loken State Aid Programs Engineer
- iii. Merry Daher Senior Administrative Engineer
- iv. John McDonald District 1 State Aid Engineer
- v. Lou Tasa District 2 State Aid Engineer
- vi. Kelvin Howieson District 3 State Aid Engineer
- vii. Nathan Gannon District 4 State Aid Engineer
- viii. Fausto Cabral District 6 State Aid Engineer
- ix. Gordy Regenscheid District 7 State Aid Engineer
- x. Todd Broadwell District 8 State Aid Engineer

- xi. Dan Erickson Metro State Aid Engineer
- xii. Julie Dresel Assistant Metro State Aid Engineer

Jeff recognized others in Attendance:

- i. Dave Sonnenberg, Chair, CEAM Legislative Committee
- ii. Larry Veek, Minneapolis
- iii. Mike Van Beusekom, St. Paul

II. Bill Lanoux reviewed the '2016 Municipal State Aid Street Needs Report' (Bill noted that, traditionally, the entire report is reviewed and discussed on Tuesday and any action required is taken on Wednesday morning. This will give all members a chance to informally discuss the various items Tuesday evening.)

- a. Introductory information in the booklet Pages 1-7.
 - i. May Screening Board minutes Pages 8-12 (Bill reviewed the action items taken at the May MSB meeting)

Chair Johnson called for a motion to approve minutes. Justin Femrite moved and Jeff Kuhn seconded the motion to approve the minutes. All voted Aye.

Bill continued the review of the MSAS Needs Report including:

- b. Population Data & Population Allocations, Pages 13-21
- c. Mileage, Needs & Apportionment History, Pages 22-23
- d. Itemized Needs Data: Insert, Map, & Comparison, Pages 24-27
- e. 2016 Mileage Report: Insert & Comparison, Pages 28-29
- f. Construction Needs, Restrictions & Adjustments, Pages 30-51
- g. 2016 Adjusted Restricted Construction Needs, Pages 52-58
 - i. Recommendation to Commissioner, Page 56
 - ii. 2016 Needs Recommendations, 57-58
- h. 2017 Construction Needs Allocations & Comparisons, Pages 59-64
- i. 2017 Total Allocations & Comparisons, Pages 65-70
- j. 2017 Allocation Rankings. Pages 71-74
- k. Other Topics Pages 76-81
 - i. Administrative and Research Accounts, Page 76
 - ii. Advance Guidelines, Pages 77-79
 - iii. County Highway Turnback Policy, Pages 80-81
- l. Current Resolutions of the MSB, Pages 82-92

Bill asked for any questions or comments.

Klayton Eckles commented that the Needs/\$1000 since the year 2000 may be helpful and good information. Chair Johnson indicated, at this rate, streets could be replaced approximately every 84 years (whether they needed it or not).

III. Other Items for Day 1

- a. Legislative Update- Dave Sonnenberg presented the attached summary of the Legislative Committee. Don Elwood had a question of Item 3, Page 2 concerning property rights and takings. Marc Culver commented on Item 2, Page 2 concerning BOWSR credits and funds needed for them to participate in project costs.

- There was discussion of how City input would be best during the legislative session. Maybe the weekly County/Legislative meeting.
- b. State Aid update / comments- Mitch Rasmussen
- c. Other items:
 - i. There was discussion on the December phased completion of the software update with anticipation of a February, 2017 completion date.
 - ii. A reminder of the joint City/County meeting tomorrow.
 - iii. A comment was made on the DNR permit for protected plants.
- d. Continue with Discussion Items on Wednesday morning if necessary

IV. Chair Johnson called for a motion to adjourn until 8:30 Wednesday morning. Justin Femrite moved and Cindy Voigt seconded the motion to adjourn until 8:30 Wednesday morning. All voted Aye.

WEDNESDAY MORNING SESSION

- I. Chair Johnson reviewed Tuesday's subjects and informed the MSB we would be taking action on specific items in the report.
 - a. Needs and Apportionment Data Pages 24-58 (recommendations on pages 57 & 58)

Chair Johnson called for a motion to approve the letter to the Commissioner. Jeff Kuhn made a motion to approve the letter to the Commissioner, Klayton Eckles seconded the motion. All voted Aye. (When approved, the original of the letter to the Commissioner on page 91 must be signed by the Board)

Bill indicated North Oaks inclusion in the cities over 5000 will be reviewed and a decision made by legal council.
 - b. Research Account Page 76

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

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

Be it resolved that an amount of \$868,060 (not to exceed ½ of 1% of the 2016 MSAS Apportionment sum of \$173,612,036) shall be set aside from the 2017 Apportionment fund and be credited to the research account.

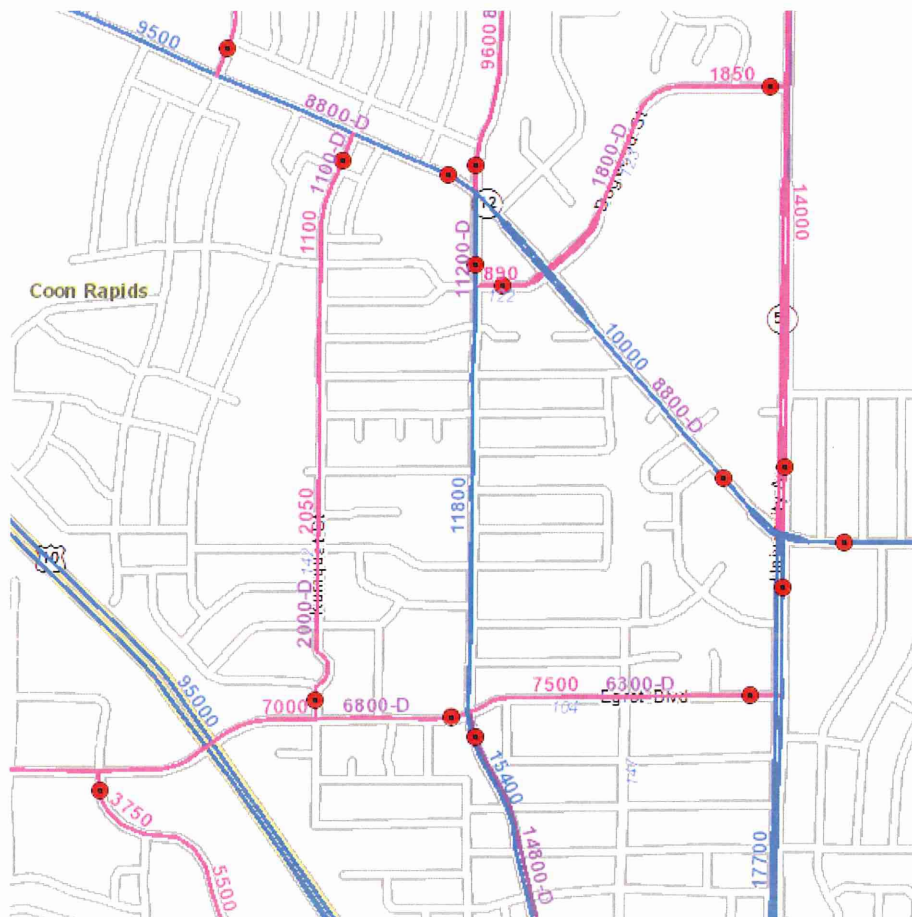
Steve Lillehaug moved and Matt Wegwerth seconded the motion described above. All voted Aye.
- II. No items were continued from yesterday's meeting.
- III. Chair Johnson asked for a last call for Any Other Discussion Topics. There were none.

- IV. Chair Johnson extended his thanks to the following:
 - a. All Screening Board members: (and then said thank you and goodbye to the following exiting Members)
 - i. Jesse Story (Hibbing)
 - ii. Klayton Eckles (Woodbury)
 - iii. Jeff Johnson (Mankato)
 - b. Past Chair of the MSB: Kent Exner
 - c. Nancy Stone from State Aid for all her work with the meeting
- V. Chair Johnson announce that the next Spring Screening Board meeting will be at Ruttger's Bay Lake Lodge, May 23rd and 24th, 2017.
- VI. Chair Johnson reminded all eligible members should fill out their Expense Reports and submit them.
 - a. On line reports preferred. They are available on the State Aid Website. However paper copies available from Nancy.
- VII. **Chair Johnson called for a motion to adjourn. Justin Femrite moved and Jeff Kuhn seconded a motion to adjourn. All voted Aye.**

Respectfully submitted,

Glenn Olson
Municipal Screening Board Secretary
Marshall Director of Public Works / City Engineer

TRAFFIC COUNTING – AADT



<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 receive new count materials if these choose to count)

See Metro and Outstate counting schedules below

(Note that Chisago County MSAS are grouped with the Outstate schedule)

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

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

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

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

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

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

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

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

*** *No longer a city over 5000*

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

CURRENT SCREENING BOARD RESOLUTION ON TRAFFIC

TRAFFIC - June 1971 (Revised May 2014)

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

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

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

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

MSAS URBAN ADT GROUPS FOR NEEDS PURPOSES
Quantities Based on a One Mile Section

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

SANEEDS - MSAS - Segment Report

Roadway Segment Information

Status : Original

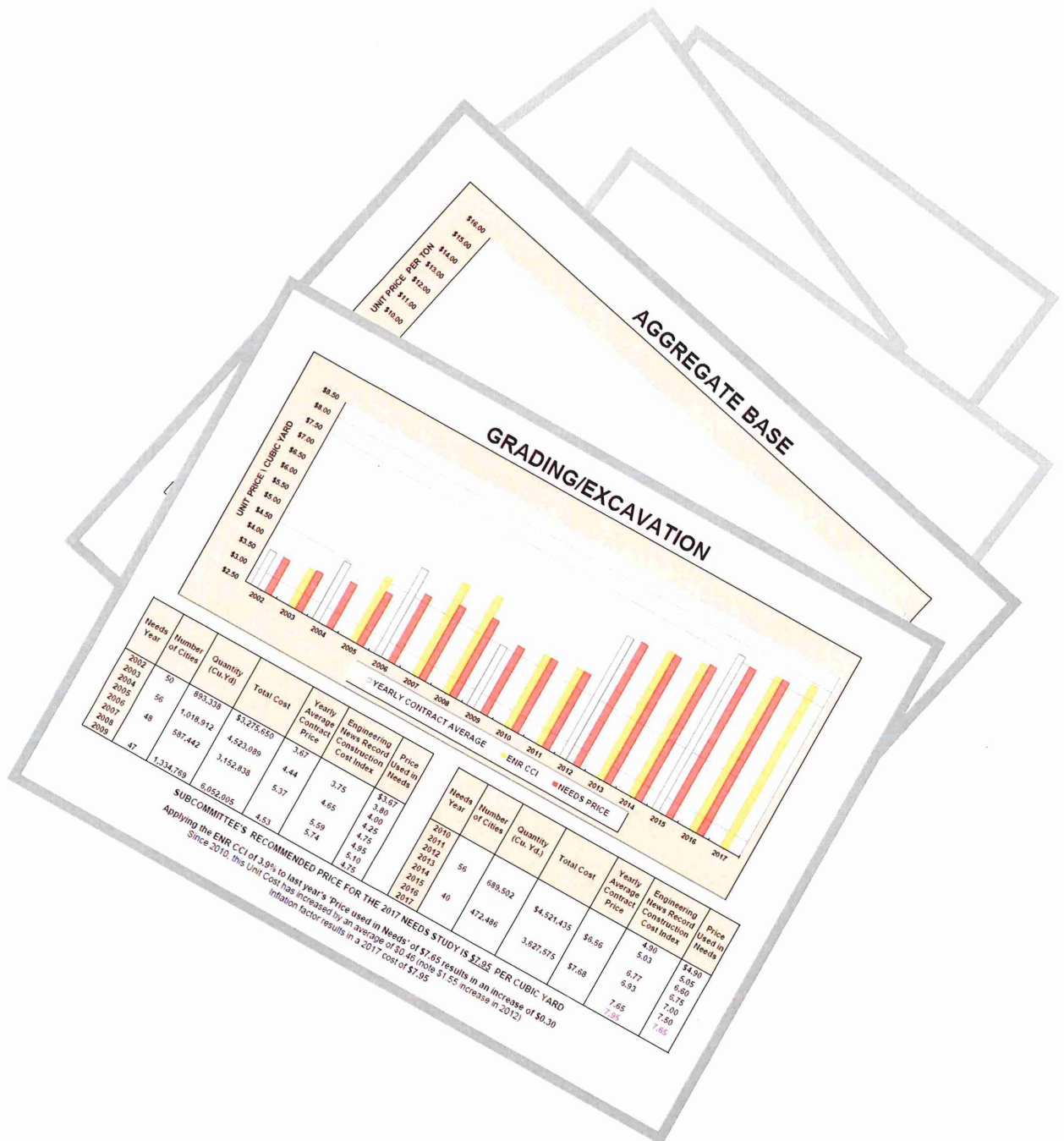
City	DULUTH
Control Section	140
Segment Number	080
Street Name	12TH STREET DIAGONAL
Termini	MINNESOTA AVENUE TO LAKE AVENUE
Length	0.10
Existing Roadway Type	Improved
Existing Lane Description	Undivided
Existing Number of Signal Legs	0
AADT	6300
Traffic Group Code	5
Year of AADT Count	2015
Common Boundary Designation	No
Shared City Number	
Turnback Mileage	No
Turnback Type	
Eligible for Trunk Highway Funds	
Outside City Limit	No
Outside City Limit Length	0.00
Year of Latest SA Fund	1984
TIS Code	0510400040
True Start Miles	3.89
True End Miles	3.99
Comments	ADDED 9 TON DESIGN 3/6/08.
Route Id	0500023945680140-I

Segment Cost Information

Computation Factor	Computation Formula	Values Used For Calculation	Computation Result
Gravel Cost	Segment Length * Gravel Cost * Gravel Quantity	0.10 * \$14.30 * 27,907	\$39,907
Bituminous Cost	Segment Length * Bituminous Cost * Bituminous Quantity	0.10 * \$66.80 * 5,834	\$38,971
Excavation Cost	Segment Length * Excavation Cost * Excavation Quantity	0.10 * \$7.65 * 32,795	\$25,088
StormSewer Cost	Segment Length * StormSewer Cost	0.10 * \$185,700.00	\$18,570
Sidewalk Cost	Segment Length * Sidewalk Unit Cost * 10 * 5,280	0.10 * \$4.35 * 10 * 5,280	\$22,968
Signal Leg Cost	Number Of Traffic Signal Legs * (Traffic Signal Unit Cost/4)	0 * (\$188,700.00/4)	\$0
Street Light Cost	Segment Length * Street Light Unit Cost	0.10 * \$100,000.00	\$10,000
Curb And Gutter Cost	Segment Length * Curb And Gutter Unit Cost * 5,280 * 2	0.10 * \$14.00 * 5,280 * 2	\$14,784
Structure Cost	SUM(Structure Cost)	\$0	\$0
Engineering Cost	Total Unadjusted Needs * (22/100)	\$170,288 * (22/100)	\$37,463
Total Segment Cost	Gravel Cost + Bituminous Cost + Excavation Cost + StormSewer Cost + Sidewalk Cost + Signal Leg Cost + Street Light Cost + Curb And Gutter Cost + Structure Cost + Engineering Cost	\$39,907 + \$38,971 + \$25,088 + \$18,570 + \$22,968 + \$0 + \$10,000 + \$14,784 + \$0 + \$37,463	\$207,751

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

UNIT PRICES



AND GRAPHS

UNIT PRICE STUDY

An annual unit price study was conducted until 1997.

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

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

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

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

These prices are applied against the quantities in the Needs Study computation program to compute the 2018 construction (money) needs apportionment.

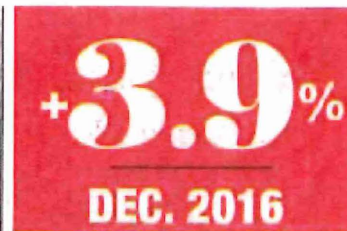
The average State Aid bridge costs from 2016 are used to determine the unit price for structures.

MN/DOT's hydraulic office furnished a recommendation of costs for storm sewer construction and adjustment based on 2016 construction costs.

The Engineering Construction Cost Index of **+3.9%** was used this year.

Construction Cost Index

ANNUAL
INFLATION RATE



1913=100	INDEX VALUE	MONTH	YEAR
CONSTRUCTION COST	10530.94	+0.9%	+3.9%
COMMON LABOR	22394.25	+1.0%	+3.7%
WAGE \$/HR.	42.96	+1.0%	+3.7%

The Construction Cost Index's annual escalation rate rose to 3.9% from 3.6% the previous month, as the labor cost component held steady.

ENR's 20-city average cost indexes, wages and material prices. Historical data and details for ENR's 20 cities can be found at ENR.com/economics

Construction Cost Index

+3.9%
DEC. 2016

ANNUAL INFLATION RATE

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The Construction Cost Index's annual escalation rate rose to 3.9% from 3.6% the previous month, as the labor cost component held steady.

Building Cost Index

+2.9%
DEC. 2016

ANNUAL INFLATION RATE

1913=100	INDEX VALUE	MONTH	YEAR
BUILDING COST	5722.81	+0.6%	+2.9%
SKILLED LABOR	10011.37	+0.8%	+2.9%
WAGE \$/HR.	55.37	+0.8%	+2.9%

The Building Cost Index's annual escalation rate rose to 2.9% from 2.6% in October, as the labor component showed no gain.

Material Cost Index

-0.1%
DEC. 2016

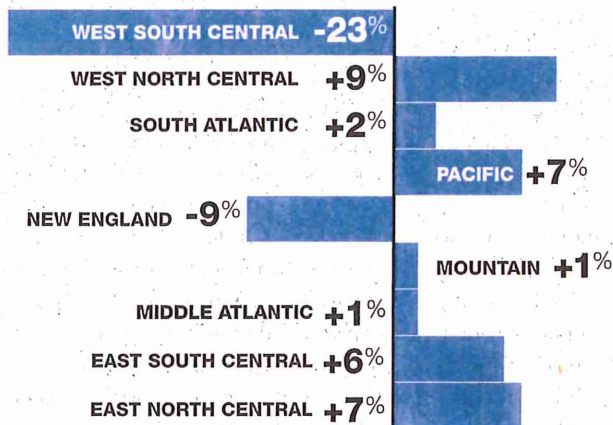
MONTHLY INFLATION RATE

1913=100	INDEX VALUE	MONTH	YEAR
MATERIALS COST	3153.32	+0.1%	+2.8%
CEMENT \$/TON	109.05	-0.6%	-5.1%
STEEL \$/CWT	49.89	-0.1%	+0.8%
LUMBER \$/MBF	522.60	+0.8%	+9.8%

The MCI slipped 0.3% this month, settling back after last month's bump due to a 1.5% increase in lumber prices.

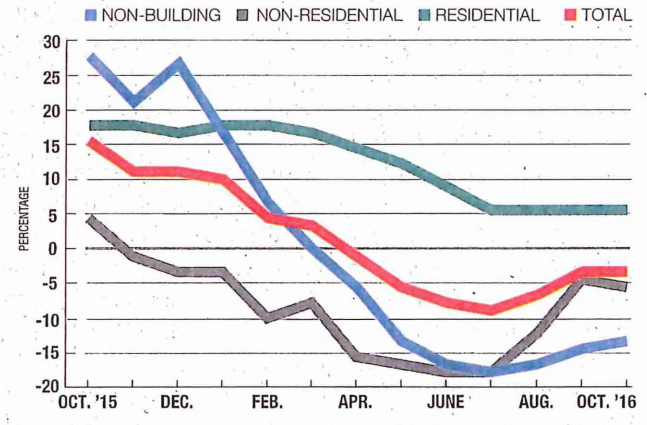
Construction Starts Regional growth trends vs. national trends

NORTH CENTRAL STARTS UP 9%



SOURCE: DODGE DATA & ANALYTICS. YEAR-TO-YEAR PERCENT CHANGE IN VALUE OF TOTAL PROJECTS STARTED OCT. 2016 FOR 12-MONTH ROLLING TOTALS.

NATIONAL CONSTRUCTION STARTS REBOUND



SOURCE: DODGE DATA & ANALYTICS. YEAR-TO-YEAR PERCENT CHANGE FOR 12-MONTH ROLLING NATIONAL TOTAL STARTS.

The dollar value of total new construction starts in Colorado was 12.8% above a year ago in October, according to Dodge Data & Analytics. Non-residential construction increased 16.9%, while residential building starts rose 13.1%. In non-building construction, power and utilities work dropped by 92.3%.

COLORADO CONSTRUCTION STARTS: \$/MIL.	2016 OCT.	2016 SEPT.	2015 OCT.	% CHG. MONTH	% CHG. YEAR
TOTAL CONSTRUCTION	17,546.601	17,047.826	15,554.135	+2.9	+12.8
NON-RESIDENTIAL	5,414.562	4,948.801	4,633.929	+9.4	+16.9
COMMERCIAL, MANUFACTURING	3,114.320	2,685.782	2,616.774	+16.0	+19.0
STORES, SHOPPING CENTERS	382.741	371.712	399.997	+3.0	-4.3
OFFICE, BANK BUILDINGS	883.737	601.306	726.327	+47.0	+21.7
HOTELS, MOTELS	832.130	790.840	383.958	+5.2	+116.7
MANUFACTURING BUILDINGS	156.186	87.588	151.200	+78.3	+3.3
INSTITUTIONAL	2,300.242	2,263.019	2,017.155	+1.6	+14.0
EDUCATIONAL BUILDINGS	1,147.746	1,095.390	727.578	+4.8	+57.8
HEALTH-CARE FACILITIES	601.110	610.913	645.933	-1.6	-6.9
RESIDENTIAL	9,467.162	9,512.875	8,367.284	-0.5	+13.1
NON-BUILDING	2,664.877	2,586.150	2,552.922	+3.0	+4.4
HIGHWAYS, BRIDGES	1,074.382	968.821	794.610	+10.9	+35.2
ENVIRONMENTAL PUBLIC WORKS	509.979	535.671	499.554	-4.8	+2.1
POWER, UTILITIES	62.749	59.136	810.957	+6.1	-92.3

SOURCE: DODGE DATA & ANALYTICS CONSTRUCTION STARTS. TOTALS MAY NOT ADD UP DUE TO EXCLUSION OF OTHER CATEGORIES. 12-MONTH ROLLING TOTALS FOR FLORIDA.

NEEDS STUDY SUBCOMMITTEE MEETING MINUTES

The Needs Study Subcommittee meeting was held on April 6, 2017 via conference call at 1:00 p.m. NSS members present were Rich Clauson (Crookston / Chair), Jon Pratt (Detroit Lakes), and Jeff Johnson (Mankato). Also in attendance were: Bill Lanoux (MSAS Needs Manager), Patti Loken (State Aid Program Engineer), Deb Hall-Kuglin and Olga Kruglova of State Aid.

A 2017 Needs Study Subcommittee Data book was sent to all attendees prior to the meeting. Bill Lanoux reminded the group of the purpose of the Needs Study Subcommittee as directed by the Municipal Screening Board. Before opening the discussion on Unit Costs, Bill reviewed several pages of reference information in the booklet, including 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 next year, in 2018. The 2017 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 2017 is 3.9%.

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

Grading/Excavation: Price used in 2016 Needs - \$7.65 Cu. Yd.
Committee's Recommendation for 2017 Needs - \$7.95 Cu. Yd

Aggregate Base: Price used in 2016 Needs - \$14.30 Ton
Committee's Recommendation for 2017 Needs - \$14.90 Ton

All Bituminous: Price used in 2016 Needs - \$66.80 Ton
Committee's Recommendation for 2017 Needs - \$69.60 Ton

Sidewalk: Price used in 2016 Needs - \$4.35 Sq. Ft.
Committee's Recommendation for 2017 Needs - \$4.75 per Sq. Ft.

Committee noted that this Unit Cost had a significant increase after the 2015 Full Unit Cost Study and anticipate that we could possibly see a similar increase after the next Full Study in 2018.

Curb and Gutter: Price used in 2016 Needs - \$14.00 Lin. Ft.
Committee's Recommendation for 2017 Needs - \$14.55 Lin. Ft.

Structures: Price used in 2016 Needs - \$120.00 Sq. Ft.
Committee's Recommendation for 2017 Needs - \$90.00 Sq. Ft

Committee noted this Unit Cost is determined annually using information provided by the MnDOT State Aid Bridge Office. The committee recognized the decrease in this Cost from last year, but kept their recommendation representative of Screening Board resolutions - and of data from the 2016 Bridge Cost report.

Storm Sewer: The MnDOT Hydraulics Unit performed an analysis of the storm sewer Costs incurred for 2016. There was a total of \$339,280 for new construction and \$104,507 for adjustment of existing systems. Amounts are based on the average cost per mile of State Aid storm sewer using unit prices. This averaged out to \$221,894 per mile.
Committee's Recommendation for 2017 Needs - \$221,900 Per Mile

The recommendation of \$221,900 per mile is for a 70 foot section. The cost per mile will be prorated down through the other ADT groups.

Street Lighting: Price used in 2016 Needs - \$100,000 per mile
Committee's Recommendation for 2017 Needs - \$100,000 Per Mile

Traffic Signals: Price used in 2016 Needs - \$188,700 Per Signal
Committee's Recommendation for 2017 Needs - \$195,000 Per Signal

Engineering: Price used in 2016 Needs – 22%
Committee's Recommendation for 2017 Needs – 22%

In closing, Bill Lanoux reminded the group that next year, the NSS we will be reviewing a Full Unit Cost Study and discussed the possibility of meeting at Central Office or a yet to be determined location.

The meeting was adjourned.

Minutes submitted by Jeff Johnson



2017 UNIT PRICE RECOMMENDATIONS

for the January 2018 distribution

Needs Item		Municipal Screening Board Approved Prices for the 2017 Distribution	3.9% ENR Construction Cost Index for 2016	Needs Study Subcommittee Recommended Prices for 2018 Distribution	Municipal Screening Board Approved Prices for the 2018 Distribution
Grading (Excavation)	Cu. Yd.	\$7.65	\$7.95	\$7.95	
Aggregate Base	Ton	14.30	14.86	14.90	
All Bituminous	Ton	66.80	69.41	69.60	
Sidewalk Construction	Sq. Ft.	4.35	4.52	4.75	
Curb and Gutter Construction	Lin.Ft.	14.00	14.55	14.55	
Traffic Signals	Per Sig	188,700	196,059	195,000	
Street Lighting	Mile	100,000	NA	100,000	
Engineering	Percent	22	NA	22	
All Structures (includes both bridges and box culverts)					
	Sq. Ft.	120.00	NA	90.00	
Storm Sewer (based on ADT)					
	Per Mile				
0 ADT & Non Existing		153,600	NA	156,500	
1-499		156,500	NA	159,500	
500-1,999		165,300	NA	168,400	
2,000-4,999		174,000	NA	177,300	
5,000-8,999		185,700	NA	189,200	
9,000-13,999		194,500	NA	198,100	
14,000-24,999		206,100	NA	210,000	
25,000 and over		217,800	NA	221,900	

Annual Percentage Change of Unit Costs, 2009 - 2017

sidewalk	\$	\$	% Change
from 2009 to 2010	\$3.00	\$3.09	3.0
from 2010 to 2011	\$3.09	\$3.18	2.9
<i>from 2011 to 2012</i>	\$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
<i>from 2014 to 2015</i>	\$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

curb & gutter			
from 2009 to 2010	\$10.70	\$11.00	2.8
from 2010 to 2011	\$11.00	\$11.30	2.7
<i>from 2011 to 2012</i>	\$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
<i>from 2014 to 2015</i>	\$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

grading/excavtion			
from 2009 to 2010	\$4.75	\$4.90	3.2
from 2010 to 2011	\$4.90	\$5.05	3.1
<i>from 2011 to 2012</i>	\$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
<i>from 2014 to 2015</i>	\$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

aggregate base	\$	\$	% Change
from 2009 to 2010	\$9.81	\$10.10	3.0
from 2010 to 2011	\$10.10	\$10.40	3.0
<i>from 2011 to 2012</i>	\$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
<i>from 2014 to 2015</i>	\$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

all bituminous			
from 2009 to 2010	\$55.00	\$56.75	3.2
from 2010 to 2011	\$56.75	\$60.00	5.7
<i>from 2011 to 2012</i>	\$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
<i>from 2014 to 2015</i>	\$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

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

*All costs shown are actual costs used in Needs, except for the 2017 figures (**blue**) - which show tentative prices.

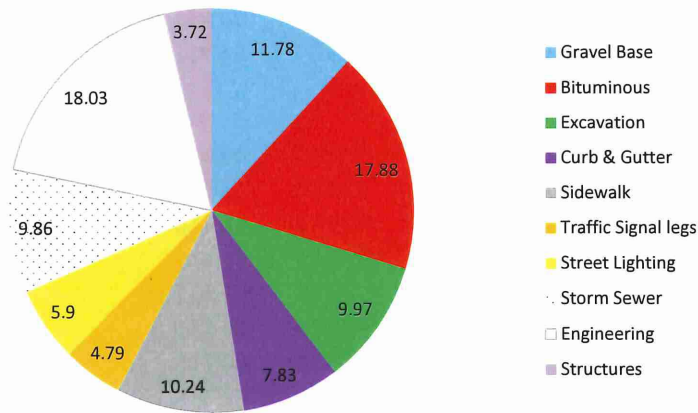
*Since 2014 cost for structures were calculated by dividing the yearly contract price by 2.

N:\MSAS\Books\2017 June BOOK ('Pct Change of Unit Costs 2009-2017')

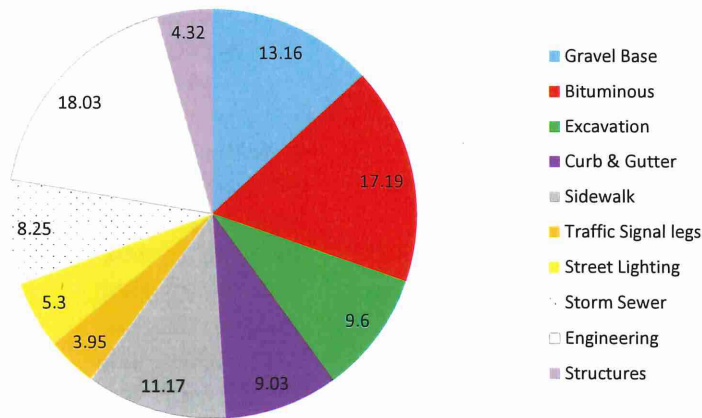
PERCENTAGE COMPARISONS

	% of the Total Needs for Gravel Base*	% of the Total Needs for Bituminous*	% of the Total Needs for Excavation*	% of the Total Needs for Storm Sewer	% of the Total Needs for Sidewalk*	% of the Total Needs for Traffic Signals*	% of the Total Needs for Street Lighting	% of the Total Needs for Curb & Gutter*	% of the Total Needs for Engineering	% of the Total Needs for Structures	Total %
October 2016 Needs	13.07	17.02	9.51	8.93	11.14	3.92	5.15	8.16	18.03	5.07	100.00
October 2015 Needs **	13.16	17.19	9.60	9.03	11.17	3.95	5.30	8.25	18.03	4.32	100.00
October 2014 Needs	11.78	17.88	9.97	9.86	10.24	4.79	5.90	7.83	18.03	3.72	100.00
Pct Change from 2015 to 2016	-0.7%	-1.0%	-0.9%	-1.1%	-0.3%	-0.8%	-2.8%	-1.1%	0.0%	17.4%	
Pct Change from 2014 to 2015	11.7%	-3.9%	-3.7%	-8.4%	9.1%	-17.5%	-10.2%	5.4%	0.0%	16.1%	

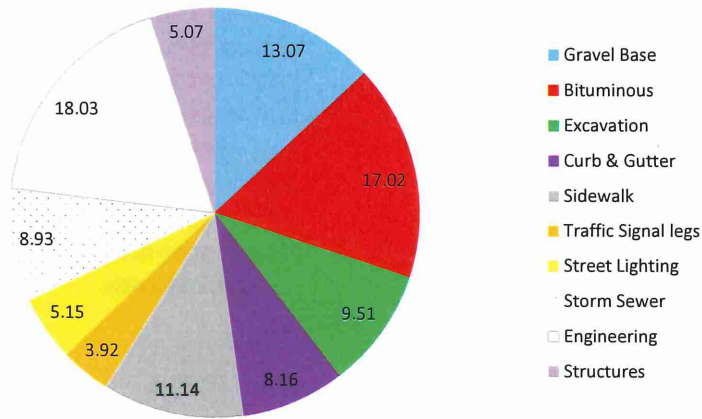
2014



2015

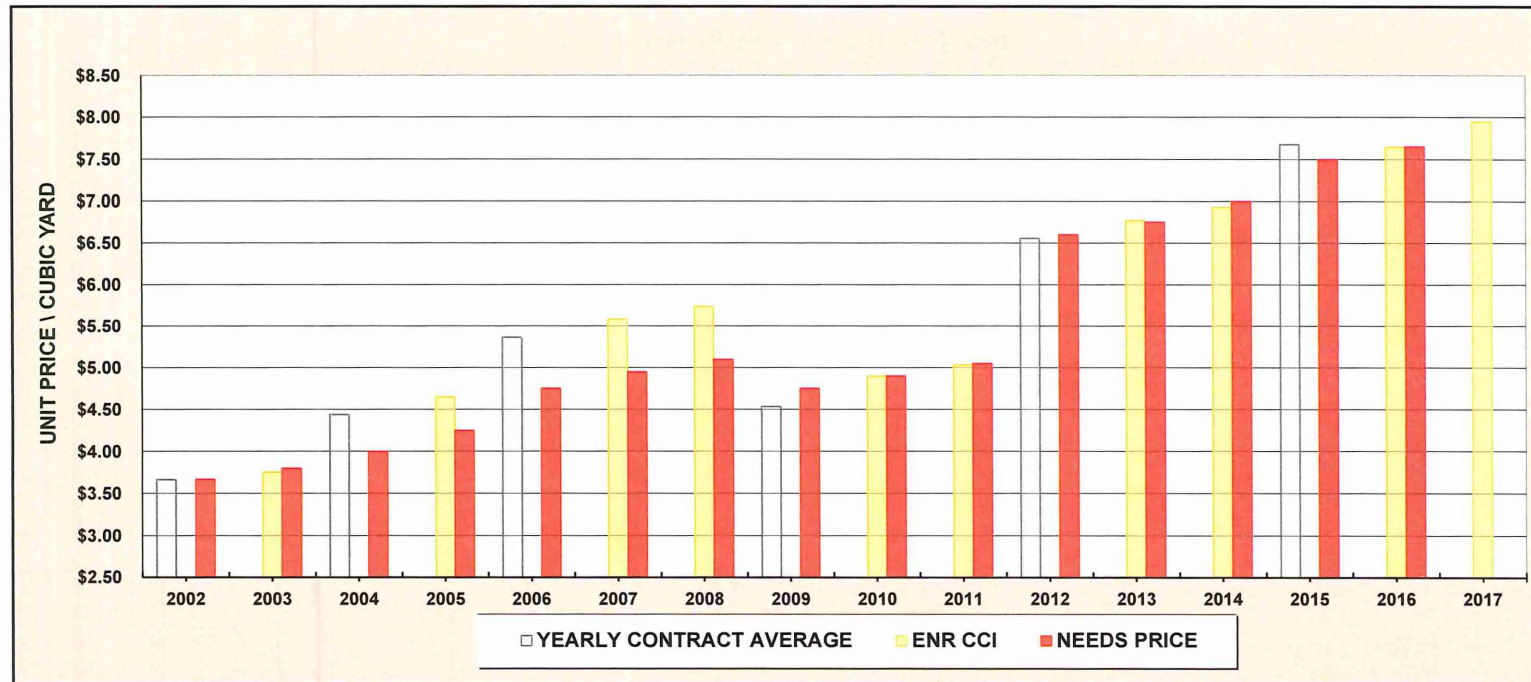


2016



* inflation factor applied to these costs
** Last full Unit Cost Study was in 2015

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
2002	50	893,338	\$3,275,650	3.67		\$3.67
2003					3.75	3.80
2004	56	1,018,912	4,523,089	4.44		4.00
2005					4.65	4.25
2006	48	587,442	3,152,838	5.37		4.75
2007					5.59	4.95
2008					5.74	5.10
2009	47	1,334,769	6,052,005	4.53		4.75

Needs Year	Number of Cities	Quantity (Cu. Yd.)	Total Cost	Yearly Average Contract Price	Engineering News Record Construction Cost Index	Price Used in Needs
2010					4.90	\$4.90
2011					5.03	5.05
2012	56	689,502	\$4,521,435	\$6.56		6.60
2013					6.77	6.75
2014					6.93	7.00
2015	40	472,486	3,627,575	\$7.68		7.50
2016					7.65	7.65
2017					7.95	7.95

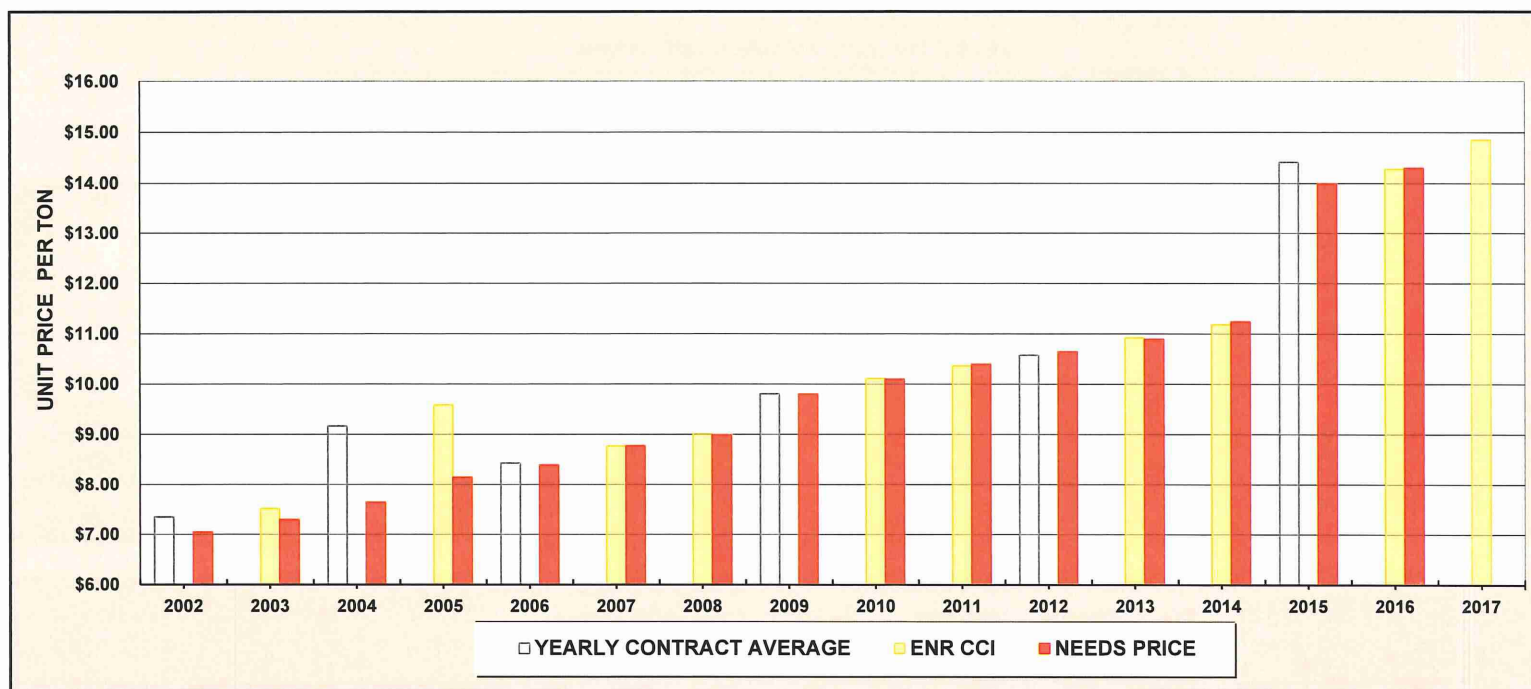
SUBCOMMITTEE'S RECOMMENDED PRICE FOR THE 2017 NEEDS STUDY IS **\$7.95** PER CUBIC YARD

Applying the ENR CCI of 3.9% to last year's 'Price used in Needs' of \$7.65 results in an increase of \$0.30

Since 2010, this Unit Cost has increased by an average of \$0.46 (note \$1.55 increase in 2012)

Inflation factor results in a 2017 cost of **\$7.95**

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
2002	52	527,592	\$3,877,688	7.35		\$7.05
2003					7.53	7.30
2004	58	573,153	5,252,804	9.16		7.65
2005					9.59	8.15
2006	46	355,866	3,000,906	8.43		8.40
2007					8.78	8.78
2008					9.02	9.00
2009	45	436,802	4,284,174	9.81		9.81

Needs Year	Number of Cities	Quantity (Ton)	Total Cost	Yearly Average Contract Price	Engineering News Record Construction Cost Index	Price Used in Needs
2010					10.12	\$10.10
2011					10.37	10.40
2012	57	416,725	\$4,409,415	\$10.58		10.65
2013					10.93	10.90
2014					11.19	11.25
2015	40	199,868	2,880,423	\$14.41		14.00
2016					14.28	14.30
2017					14.86	

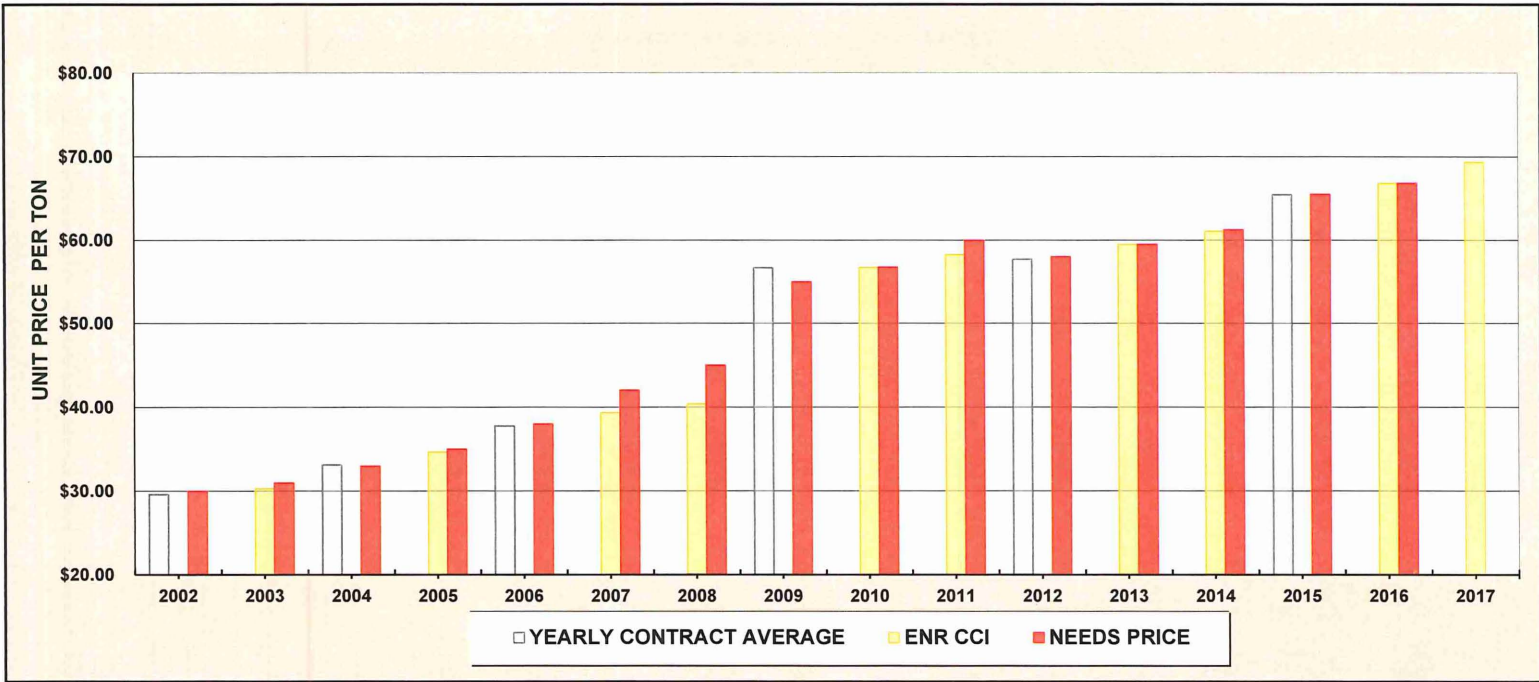
SUBCOMMITTEE'S RECOMMENDED PRICE FOR THE 2017 NEEDS STUDY IS **\$14.90** PER TON

Applying the ENR CCI of 3.9% to last year's 'Price used in Needs' of \$14.30 results in an increase of \$0.56

Since 2010, this Unit Cost has increased by an average of \$0.70 (note \$2.75 increase in 2015)

Inflation factor results in a 2017 cost of **\$14.86**

ALL BITUMINOUS BASE & SURFACE



Needs Year	Number of Cities	Quantity (Ton)	Total Cost	Yearly Average Contract Price	Engineering News Record Construction Cost Index	Price Used in Needs		Needs Year	Number of Cities	Quantity (Ton)	Total Cost	Yearly Average Contract Price	Engineering News Record Construction Cost Index	Price Used in Needs
2002	50	371,198	\$10,989,206	29.60		\$30.00		2010					56.72	\$56.75
2003					30.31	31.00		2011					58.27	60.00
2004	60	459,606	15,229,960	33.14		33.00		2012	65	317,687	\$18,334,854	\$57.71		58.00
2005					34.68	35.00		2013					59.51	59.50
2006	51	305,073	11,524,574	37.78		38.00		2014					61.11	61.25
2007					39.33	42.00		2015	48	226,676	14,843,126	\$65.48		65.50
2008					40.42	45.00		2016					66.81	66.80
2009	44	277,797	15,744,901	56.68		55.00		2017					69.41	

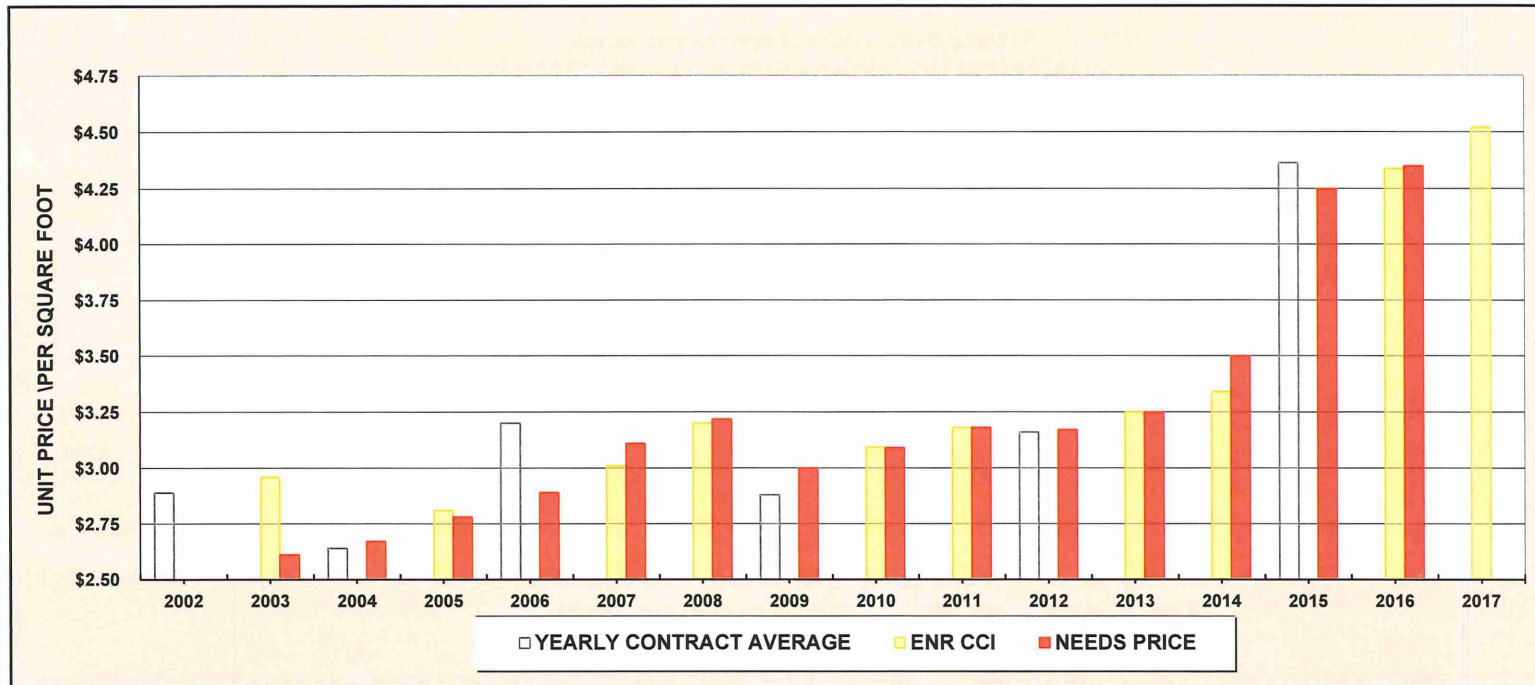
SUBCOMMITTEE'S RECOMMENDED PRICE FOR THE 2017 NEEDS STUDY IS \$69.60 PER TON

Applying the ENR CCI of 3.9% to last year's 'Price used in Needs' of \$66.80 results in an increase of \$2.61

Since 2010, this Unit Cost has increased by an average of \$1.68

Inflation factor results in a 2017 cost of **\$69.61**

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
2002	38	61,390	\$1,596,409	2.89		\$2.50
2003					2.96	2.61
2004	47	123,460	2,937,553	2.64		2.67
2005					2.81	2.78
2006	43	69,500	2,004,367	3.20		2.89
2007					3.01	3.11
2008					3.20	3.22
2009	44	95,689	2,482,820	2.88		3.00

Needs Year	Number of Cities	Quantity (Sq.Ft.)	Total Cost	Yearly Average Contract Price	Engineering News Record Construction Cost Index	Price Used in Needs
2010					3.09	\$3.09
2011					3.18	3.18
2012	51	66,045	\$1,880,257	\$3.16		3.17
2013					3.25	3.25
2014					3.34	3.50
2015	39	356,709	1,556,517	\$4.36		4.25
2016					4.34	4.35
2017					4.52	

SUBCOMMITTEE'S RECOMMENDED PRICE FOR THE 2017 NEEDS STUDY IS \$4.75 PER SQ. FT.

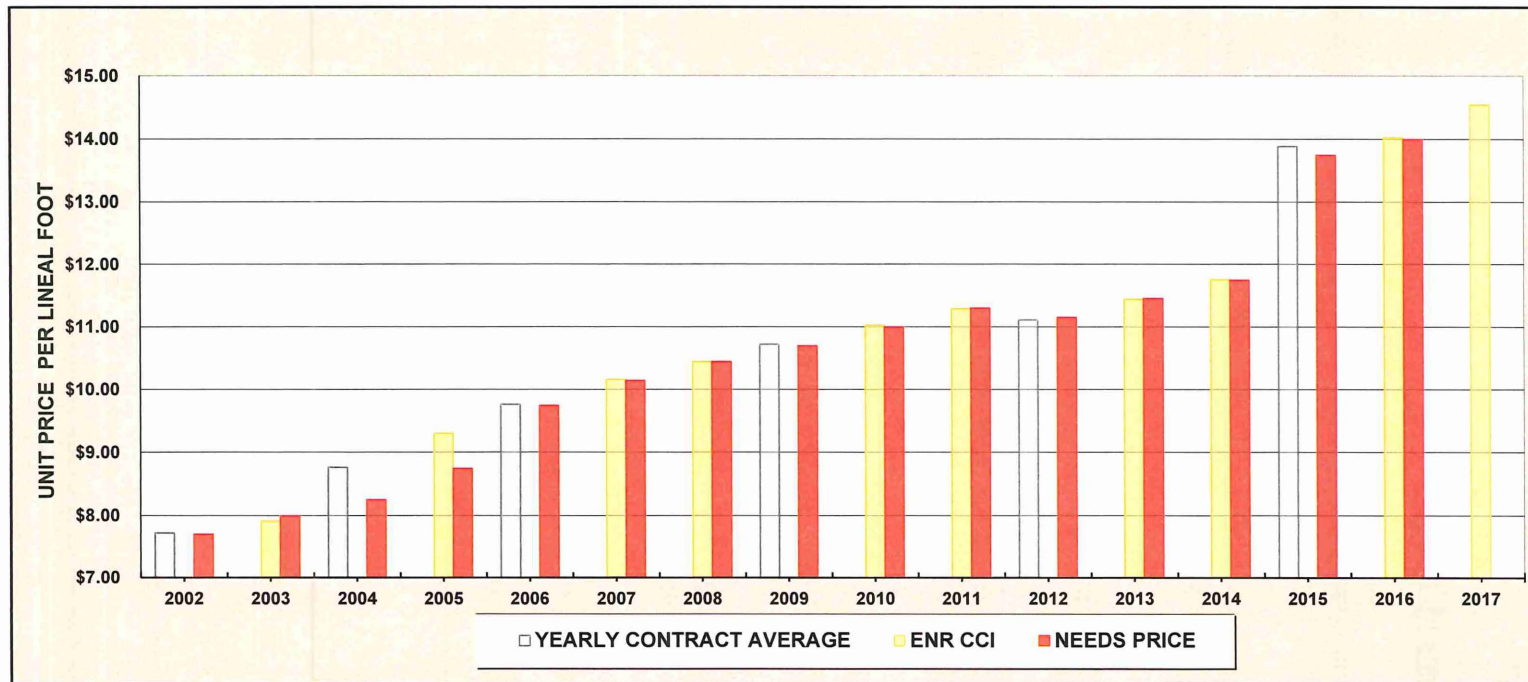
Applying the ENR CCI of 3.9% to last year's 'Price used in Needs' of \$4.35 results in an increase of \$0.17

Since 2010, this Unit Cost has increased by an average of \$0.21 (note \$0.75 increase in 2015)

Inflation factor results in a 2017 cost of **\$4.52**

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

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
2002	50	363,497	\$2,807,345	7.72		\$7.70
2003					7.91	8.00
2004	59	469,131	4,110,211	8.76		8.25
2005					9.31	8.75
2006	52	327,171	3,195,201	9.77		9.75
2007					10.17	10.15
2008					10.45	10.45
2009	43	262,251	2,812,246	10.72		10.70

Needs Year	Number of Cities	Quantity (Ln. Ft.)	Total Cost	Yearly Average Contract Price	Engineering News Record Construction Cost Index	Price Used in Needs
2010					11.03	\$11.00
2011					11.29	11.30
2012	63	281,751	\$3,130,181	\$11.11		11.15
2013					11.44	11.45
2014					11.76	11.75
2015	44	168,891	2,344,989	\$13.88		13.75
2016					14.03	14.00
2017					14.55	

SUBCOMMITTEE'S RECOMMENDED PRICE FOR THE 2017 NEEDS STUDY IS **\$14.55** PER LIN. FT.

Applying the ENR CCI of 3.9% to last year's 'Price used in Needs' of \$14.00 results in an increase of \$0.55

Since 2010, this Unit Cost has increased by an average of \$0.50 (note \$2.00 increase in 2015)

Inflation factor results in a 2017 cost of **\$14.55**

MnDOT State Aid Bridge Office 2016 Calendar Year - - Bridge Cost Report

General Notes

The CY 2016 Bridge Cost Report reflects the unit cost (\$ per square foot of bridge area) of all of the bridges let in CY 2016.

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

2016 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
09J32	SAP	009-608-017	32.00	C-ARCH	4/25/2016	6720	\$1,227,210	\$182.62
27B86	SP	027-746-005	38.17	PCB	11/8/2016	1635	\$435,865	\$266.58
32578	SAP	032-599-095	40.00	C-SLAB	7/29/2016	1254	\$224,176	\$178.77
35539	SAP	035-599-116	43.67	C-SLAB	2/25/2016	1369	\$276,436	\$201.93
77537	SAP	077-599-060	45.17	PCB	7/12/2016	1378	\$270,262	\$196.13
69A34	*LOCAL*	*LOCAL*	46.67	INV-T	1/12/2016	1649	\$467,972	\$283.79
27B85	SP	027-735-003	51.68	PCB	4/19/2016	1826	\$797,055	\$436.50
32577	SAP	032-599-098	54.00	TTS	5/13/2016	1620	\$335,747	\$207.25
69A38	*LOCAL*	*LOCAL*	55.75	PCB	1/8/2016	1747	\$395,317	\$226.28
69A37	*LOCAL*	*LOCAL*	61.69	C-SLAB	4/28/2016	1933	\$535,466	\$277.01
31570	SAP	031-598-022	63.17	PCB	4/27/2016	2232	\$321,888	\$144.22
20561	SAP	020-599-113	65.00	C-SLAB	4/13/2016	2297	\$315,136	\$137.19
83551	SAP	083-599-075	65.00	C-SLAB	8/10/2016	2297	\$344,810	\$150.11
25617	SAP	025-599-112	66.67	PCB	3/15/2016	2102	\$277,093	\$131.82
11532	SAP	011-599-015	68.00	TTS	8/9/2016	2176	\$393,492	\$180.83
69A47	*LOCAL*	*LOCAL*	75.67	C-SLAB	4/12/2016	2371	\$601,680	\$253.77
69A48	*LOCAL*	*LOCAL*	75.67	C-SLAB	4/14/2016	2371	\$606,689	\$255.88
17534	SAP	017-601-021	76.00	PCB	12/19/2016	3294	\$410,669	\$124.67
69A31	*LOCAL*	*LOCAL*	79.54	C-SLAB	4/14/2016	2537	\$632,321	\$249.24
69A53	SAP	069-621-034	80.93	PCB	3/31/2016	3508	\$716,205	\$204.16
49556	SAP	049-599-068	87.00	PCB	10/27/2016	3074	\$388,203	\$126.29
69A43	SAP	069-599-040	88.09	C-SLAB	4/28/2016	3176	\$762,330	\$240.03
78527	SAP	078-598-031	92.00	C-SLAB	3/1/2016	3235	\$324,854	\$100.42
58556	SAP	058-653-010	92.92	PCB	6/30/2016	4027	\$529,041	\$131.37
69A30	*LOCAL*	*LOCAL*	93.33	STEEL	3/17/2016	2800	\$644,496	\$230.18

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

2016 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
69A49	*LOCAL*	*LOCAL*	94.67	PCB	2/11/2016	3345	\$555,971	\$166.21
64588	SP	064-598-022	101.04	C-SLAB	4/6/2016	3490	\$331,525	\$94.99
27B84	SAP	027-646-007	103.67	PCB	10/4/2016	7447	\$2,370,452	\$318.31
69629	*LOCAL*	*LOCAL*	105.77	C-SLAB	12/15/2016	4187	\$751,416	\$179.46
71530	SP	071-598-008	112.17	PCB	3/22/2016	4412	\$531,750	\$120.52
67571	SP	067-615-009	112.50	C-SLAB	3/18/2016	3975	\$462,261	\$116.29
69A39	*LOCAL*	*LOCAL*	112.83	PCB	5/19/2016	4438	\$1,079,473	\$243.23
12554	SAP	012-599-094	113.31	C-SLAB	8/12/2016	3551	\$397,793	\$112.02
23593	SAP	023-601-028	115.67	PCB	4/25/2016	5012	\$608,294	\$121.37
42579	SAP	042-610-038	117.00	C-SLAB	8/31/2016	4602	\$473,926	\$102.98
64590	SAP	064-599-108	117.46	C-SLAB	11/9/2016	4150	\$377,813	\$91.04
22621	SP	022-606-017	118.67	C-SLAB	5/23/2016	5756	\$954,305	\$165.79
69A36	*LOCAL*	*LOCAL*	118.67	PCB	2/4/2016	3718	\$938,417	\$252.40
50587	SAP	050-597-006	124.96	PCB	7/14/2016	8789	\$2,088,989	\$237.68
23592	SAP	023-601-027	138.67	PCB	4/25/2016	6009	\$670,694	\$111.61
R0724	SP	130-090-004	143.00	TRUSS	5/12/2016	1680	\$442,937	\$263.65
27B99	SAP	155-156-018	144.67	PCB	1/21/2016	12930	\$1,803,472	\$139.48
69A35	SAP	069-659-002	149.29	PCB	9/8/2016	5313	\$784,107	\$147.58

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

Total Cost	\$27,858,008
Total Deck Area	155,432
Average Cost per Sq Ft	\$179.23
Total No. of Bridges < 150'	43

MnDOT State Aid Bridge Office 2016 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
87581	SAP	087-599-132	170.17	PCB	6/27/2016	6013	\$495,531	\$82.41
80539	SAP	080-626-021	176.01	PCB	4/26/2016	6076	\$839,461	\$138.16
69A41	SP	069-605-044	302.17	PCB	12/15/2016	10677	\$1,447,655	\$135.59
27B98	SAP	155-156-018	364.50	PCB-PED	1/21/2016	5940	\$1,321,371	\$222.45

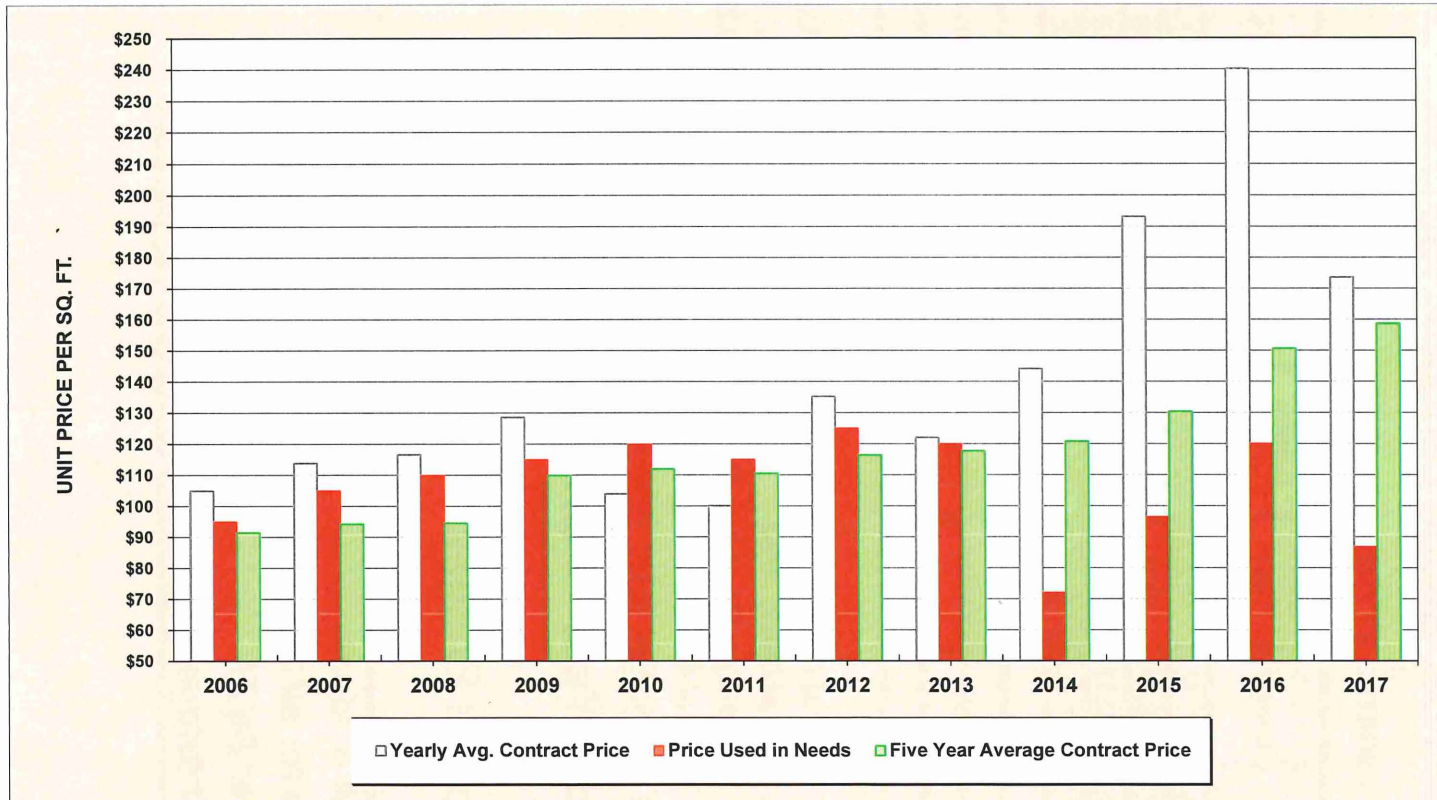
Total Cost	\$4,104,018
Total Deck Area	28,706
Average Cost per Sq Ft	\$142.97
Total No. of Bridges > 150'	4

MnDOT State Aid Bridge Office 2016 Calendar Year - - Bridge Cost Report

Totals for All Bridges Let in CY 2016

Total Cost for all Bridges	\$31,962,025
Total Deck Area for all Bridges	184,138
Average Cost per Sq Ft	\$173.58
Total Number of Bridges	47

ALL BRIDGES



NEEDS YEAR	NUMBER OF PROJECTS	DECK AREA	TOTAL COST	YEARLY AVERAGE CONTRACT PRICE	PRICE USED IN NEEDS	5-YEAR AVERAGE CONTRACT PRICE
2006	53	533,871	\$55,999,602	\$104.89	\$95.00	\$91.47
2007	49	235,505	26,798,183	113.79	105.00	94.26
2008	37	247,120	28,815,052	116.60	110.00	94.58
2009	46	301,827	38,797,162	128.54	115.00	109.97
2010	56	333,867	34,675,259	103.86	120.00	112.02
2011	66	509,552	51,008,086	100.10	115.00	110.63

NEEDS YEAR	NUMBER OF PROJECTS	DECK AREA	TOTAL COST	YEARLY AVERAGE CONTRACT PRICE	PRICE USED IN NEEDS	5-YEAR AVERAGE CONTRACT PRICE
2012	69	475,190	\$64,255,407	\$135.22	\$125.00	\$116.49
2013	73	505,031	61,637,866	122.05	120.00	117.80
2014	91	379,364	54,646,656	144.05	72.00	120.85
2015	49	196,550	37,973,287	193.20	96.50	130.48
2016	41	178,429	42,852,558	240.17	120.08	150.68
2017	47	184,138	31,962,025	173.58	86.79	158.69

SUBCOMMITTEES RECOMMENDED STRUCTURE PRICE FOR THE 2017 NEEDS STUDY IS \$90.00 PER SQ. FT.

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

NOTES AND COMMENTS

Memo

Date: March 23, 2017

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 2016

We have completed our analysis of storm sewer construction costs incurred for 2016 and the following assumptions can be utilized for planning purposes per roadway mile:

- Approximately \$339,280 for new construction, and
- Approximately \$104,507 for adjustment of existing systems

The preceding amounts are based on the average cost per mile of State Aid storm sewer using unit prices. 199 Storm Sewer Plans were submitted during 2016.

EC: Andrea Hendrickson (MnDOT file)

STORM SEWER COST RECOMMENDATIONS

Municipal Screening Board Resolutions state:

The Unit Cost per mile of Storm Sewer for the highest MSAS Urban ADT Group for Needs Purposes will be based on the average costs of all Storm Sewer Construction on the MSAS system in the previous year. To determine the Unit Cost for the highest ADT Group, average costs for Complete Storm Sewer projects and Partial Storm Sewer projects will be provided to State Aid by the MnDOT Hydraulics Office and then added together and divided by two to calculate a statewide average Unit Cost for all Storm Sewer Construction.

The Unit Cost per mile for Storm Sewer Construction will be calculated for the highest MSAS Urban ADT Group and be prorated downward for the other ADT Groups. This proration has been determined based upon an engineering study requested by the Municipal Screening Board in 2011 and will be the basis for the Needs calculations.

Complete Storm Sewer Cost from Hydraulics Specialist	\$339,280			
Partial Storm Sewer Cost from Hydraulics Specialist	\$104,507			
<hr/>				
Average SS Cost = $(\$339,280 + \$104,507) / 2 =$	\$221,894			
NSS Recommended Unit Cost	\$221,900			
<hr/>				
MSB Approved Unit Cost for 2017				
<hr/>				
NSS recommended Storm Sewer Costs for 2017				
<i>based on 2016 costs - for the January 2018 distribution</i>				
Needs Width of MSAS Urban ADT Groups for Needs Purposes	Existing ADT per Traffic Group	Cost difference from 70' section	MSB approved percent cost difference from 70' section	Cost based on % of Cost of highest Typical Section
26	0 ADT & Non Existing	(\$65,400)	-29.5%	\$156,500
28	1-499	(\$62,400)	-28.1%	\$159,500
34	500-1,999	(\$53,500)	-24.1%	\$168,400
40	2,000-4,999	(\$44,600)	-20.1%	\$177,300
48	5,000-8,999	(\$32,700)	-14.7%	\$189,200
54	9,000-13,999	(\$23,800)	-10.7%	\$198,100
62	14,000-24,999	(\$11,900)	-5.4%	\$210,000
70	25,000 and over	\$0	0.0%	\$221,900

MSB approved Storm Sewer Costs for 2016

<i>based on 2015 costs - for the January 2017 distribution</i>				
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	(\$64,200)	-29.5%	\$153,600
28	1-499	(\$61,300)	-28.1%	\$156,500
34	500-1,999	(\$52,500)	-24.1%	\$165,300
40	2,000-4,999	(\$43,800)	-20.1%	\$174,000
48	5,000-8,999	(\$32,100)	-14.7%	\$185,700
54	9,000-13,999	(\$23,300)	-10.7%	\$194,500
62	14,000-24,999	(\$11,700)	-5.4%	\$206,100
70	25,000 and over	\$0	0.0%	\$217,800

2016-2017 Percentage Change for highest section = 1.9%

LIGHTING

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

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

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

AVERAGE COST PER LIGHTING UNIT

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

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

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

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

SUBCOMMITTEE'S RECOMMENDED PRICE FOR 2017 NEEDS IS \$100,000 PER MILE

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.

During the 2014 NSS meeting, after approving the Unit Cost recommendation for Traffic Signals (which was \$205,000 in 2014), the committee approved a motion that signal costs be studied as part of the 2015 Full Unit Cost Study. The highlights from that study are below:

AVERAGE COSTS FOR TRAFFIC SIGNALS

	TRAFFIC CONTROL SIGNAL SYSTEMS	EMERGENCY VEHICLE PREEMPTION SYSTEMS	TEMPORARY SIGNAL SYSTEMS	REVISED SIGNAL SYSTEMS	STATE TOTAL AVERAGE
METRO AVERAGE	\$194,897		\$85,000	\$34,779	\$104,892
OUTSTATE AVERAGE	\$127,270		\$188,500	\$53,000	\$122,923
STATE TOTAL AVERAGE	\$173,082	\$9,897	\$105,700	\$37,816	\$182,979

Temporary and Revised Signal Systems are not included in the State Average.

Unit Price recommendation is \$185,000 (rounded up from \$182,979)

For details of the 2015 Signal Study, download the 2015 Spring Report at following website:

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

NSS RECOMMENDATION

Applying the ENR CCI of 3.9% to last year's Signal Cost of \$188,700 results in an increase to \$196,059.

SUBCOMMITTEE'S RECOMMENDED SIGNAL PRICE FOR THE 2017 NEEDS IS \$195,000.

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

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

NEEDS STUDY SUBCOMMITTEE'S RECOMMENDED PRICES FOR 2017:

Storm Sewer (high section)	Lighting / Mile	Traffic Signals (per Signal)
<u>\$221,900</u>	<u>\$100,000</u>	<u>\$195,000</u>

Applying the 3.9% inflation factor of last year's signal price of \$188,700 results in a cost of \$196,059. NSS recommendation for the 2017 Needs Study is \$195,000 per signal.

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



OTHER TOPICS

REMINDER OF THE 2015 UCFS RECOMMENDATION ON SIGNALS

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

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

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

Respectfully Submitted,

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

Steven G. Bot, P.E.

Unencumbered Construction Funds Subcommittee Secretary

St. Michael City Engineer

REMINDER OF THE 2016 UCFS RECOMMENDATION ON ROUNDABOUTS

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

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

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

Respectfully submitted,

Klayton Eckles

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.

	2012	2013	2014	2015	2016
Amount Allocated	\$2.9 M	\$3.1 M	\$3.2 M	\$3.3 M	\$3.1 M
Number of New Projects	21	24	25	25	17
Total Number of Active Projects	n/a	n/a	n/a	n/a	74

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

Linda Taylor: MnDOT Research Services and Library Director
linda.taylor@state.mn.us
(651) 366-3765

Revised: 02/2017

COUNTY HIGHWAY TURNBACK **POLICY**

Definitions:

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

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

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

MILEAGE CONSIDERATIONS

County State Aid Highway Turnbacks

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

County Road Turnbacks

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

Jurisdictional Exchanges

County Road for MSAS

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

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

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

CSAH for MSAS

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

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

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

NOTE:

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

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

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

MSAS designation on a County Road

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

MISCELLANEOUS

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

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

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

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

MUNICIPAL STATE AID CONSTRUCTION ACCOUNT ADVANCE GUIDELINES

ADVANCE STATUS IS CURRENTLY CODE GREEN

State Aid Advances

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

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

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

<http://www.dot.state.mn.us/safinance/advances.html>.

State Aid Advance Code Levels

Guidelines for advances are determined by the following codes.

SEVERE

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

GUARDED

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

LOW

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

General Guidelines for State Aid & Federal Aid Advance Construction

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

NOT hold the funds. Advanced funds will be paid out on a first come first serve basis as the construction accounts are spent down to zero. The correct resolution must be used for each advance type and there is a sample resolution for each on the State Aid Finance webpage.

Requests are good only for the year requested (cannot be summited for multiple years) and void at 12/31 of that year.

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

Advance funding is not guaranteed. If the City finds they need a guarantee that the funds will be held specifically for them they can submit a "Request to Reserve Funds" to ensure funds will be available for their project. Once approved, a signed copy will be returned to the County.

Requests are good only for the year requested (cannot be summited for multiple years) and void at 12/31 of that year.

Sample Advance Resolutions and a - Request to Reserve Funds can be obtained from SAF website - <http://www.dot.state.mn.us/safinance/formsandresolutions.html>.

E-mail completed forms to Sandra Martinez in State Aid Finance and your DSAE for review.

Priority System

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

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

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

Advance Limitations

Statutory - None

Ref. M.S.162.14, Subd 6.

State Aid Rules - None

Ref. State Aid Rules 8820.1500, Subp 10& 10b.

State Aid Guidelines

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

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

**CURRENT RESOLUTIONS
OF THE
MUNICIPAL SCREENING BOARD**

October 2016

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

BE IT RESOLVED:

ADMINISTRATION

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

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

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

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

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

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

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

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

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

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

Screening Board Meeting Dates and Locations - June 1996

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

Research Account - Oct. 1961

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

Population Apportionment - October 1994, 1996

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

Improper Needs Report - Oct. 1961

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

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

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

Certified Complete Cities – May 2014 (Revised October 2014)

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

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

population portion of its Construction Allotment.

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

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

Construction Needs Components – May 2014

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

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

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

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

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

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

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

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

MSAS URBAN ADT GROUPS FOR NEEDS PURPOSES

Quantities Based on a One Mile Section

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

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

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

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

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

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

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

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

2016 UNIT PRICE RECOMMENDATIONS

for the January 2017 distribution

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

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 year's 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.