

1990 Municipal

Screening Board

Data



May 1990

612-296-1662

TO : Municipal Engineers

SUBJECT : Municipal State Aid Screening Board

Enclosed is a copy of the June 1990 Municipal Screening Board Data.

The data included in this report will be used by the Municipal Screening Board at its June 12 and 13, 1990 meeting near Brainerd to establish unit prices for the 1990 Needs Study and the resulting 1991 apportionment. The Board will also review other recommendations of the Needs Study Subcommittee outlined in the minutes.

Should you have any suggestions or recommendations regarding the data in this publication, please refer them to your district representative along with a copy to this office, or call the above number prior to the Screening Board Meeting.

Sincerely,

us

Kenneth Straus Municipal Needs Manager

Enclosures: 1990 Municipal State Aid Screening Board Data.

MINNESOTA DEPARTMENT OF TRANSPORTATION STATE AID ENGINEER



GORDON M. FAY

GORDY BEGAN HIS ENGINEERING CAREER WITH THE MINNESOTA DEPARTMENT OF HIGHWAYS ON JULY 9, 1942. HE WORKED IN THE ROCHESTER AREA UNTIL DECEMBER 13, 1942 WHEN HE ENTERED THE UNITED STATES NAVY. HE SERVED IN THE NAVY UNTIL JANUARY 28, 1946. HE RETURNED TO THE MINNESOTA DEPARTMENT OF HIGHWAYS AND CONTINUED TO WORK IN THE ROCHESTER AREA UNTIL JULY 2, 1954 WHEN HE WAS APPOINTED WINONA COUNTY ENGINEER. HE SERVED IN THIS CAPACITY UNTIL HIS APPOINTMENT AS STATE AID ENGINEER ON MARCH 1, 1968. GORDY HAS ANNOUNCED HIS RETIREMENT FROM THE MINNESOTA DEPARTMENT OF TRANSPORTATION TO TAKE EFFECT JUNE 30 1990. HIS WORKING CAREER HAS SPANNED 48 YEARS. WE WISH GORDY AND HIS WIFE PEARL THE BEST THAT RETIREMENT CAN PRODUCE. GOOD LUCK GORDY.

1990 MUNICIPAL SCREENING BOARD DATA

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OFFICERS

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Chairman Vice Chairman	Bruce Bullert Jim Grube	Savage St.Louis Park Formus Falls	(612) 890-1045 (612) 924-2551 (218) 739-2251
Secretary	Dan Edwards	rergus raits	(210) /09 2002

MEMBERS

District	Served	Representative			
1	2	Nick Dragisich	Virginia	(218)	741-2388
2	3	James Walker	Thief River Falls	(218)	751-3004
3	3	Terry Maurer	Elk River	(612)	774-6021
4	2	Alvin Moen	Alexandria	(612)	762-8149
5	1	Michael Eastling	Richfield	(612)	869 - 7521
6	2	Tom Drake	Red Wing	(612)	227-6220
7	1	Pete McClurg	New Ulm	(507)	359-8245
8	3	Joseph Bettendorf	Litchfield	(612)	252-4740
9	1	Ken Haider	Maplewood	(612)	770-4552
(Three C	ities	Kenneth Larson	Duluth	(218)	723-3278
of the	1	Marvin Hoshaw	Minneapolis	(612)	673-2476
First C	lass)	Thomas Kuhfeld	St. Paul	(612)	292-6276

District	Alternates			-
1	Jim Pruzak	Cloquet	(218)	879-6758
2	David Kildahl	Crookston	(218)	281 - 6522
3				- ·
· 4	Herb Reimer	Moorhead	(218)	299-5390
5	Larry Anderson	Prior Lake	(612)	447-4230
6	Arnold Putnam	Owatonna	(507)	451-4541
7	Ken Saffert	Mankato	(507)	625-3161
8	Dale Swanson	Willmar	(612)	235-4202
9	Brian Bachmeier	Oakdale	(612)	739-5086

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1990 SUBCOMMITTEES APPOINTED BY THE SCREENING BOARD

NEEDS STUDY SUBCOMMITTEE

Chairman - Dan Edwards Fergus Falls (218) 739-2251 Expires in 1990

Clyde Busby Hibbing (218) 262-3486 Expires in 1991

Charles Siggerud Burnsville (612) 895-4400 Expires in 1992

UNENCUMBERED CONSTRUCTION FUNDS SUBCOMMITTEE

Chairman - Kenneth Saffert Mankato (507) 625-3161 Expires in 1990

> Fred Moore Plymouth (612) 559-2800 Expires in 1991

Ron Rudrud Bloomington (612) 881-5811 Expires in 1992

HIGHWAY DISTRICTS AND URBAN MUNICIPALITIES

AS ESTABLISHED FOR STATE AID PURPOSES



MINUTES FALL MUNICIPAL SCREENING COMMITTEE OCTOBER 23-24, 1989

The fall meeting of the Municipal Screening Committee was called to order by Chairman Ron Rudrud at 1:04 p.m., Monday, October 23, 1989. Roll call was taken by the Secretary.

Present were:

Officers and Municipal Screening Committee Members: Chairman - Ron Rudrud, Bloomington Vice Chairman - Bruce Bullert, Northfield Secretary - Jim Grube, St. Louis Park

District 1 - Nick Dragisich Virginia District 2 - Jim Walker Thief River Falls District 3 - Terry Maurer Elk River District 4 - Alvin Moen Alexandria Metro District - Bill Ottensmann Coon Rapids Golden Valley Area District 6 - Tom Drake Red Wing District 7 - Dwayne Haffield Worthington District 8 - Joe Bettendorf Litchfield Metro District - Chuck Siggerud Burnsville Oakdale Area First Class City - Ken Larson Duluth First Class City - Marv Hoshaw Minneapolis First Class City - Thomas Kuhfeld St. Paul Chairman - Needs Study Subcommittee - Gerry Butcher Maple Grove Chairman - Unencumbered Construction Funds Subcommittee - Larry Anderson Prior Lake Others: Metro District - Mike Eastling Richfield Golden Valley Area Alternate District 7 Alternate - Paul McClurg New Ulm Metro District - Ken Haider Oakdale Area Alternate Maplewood Dave Kreager Duluth Ramankutty Kannankutty Minneapolis Jon Ketokoski Minneapolis **Greg Peterson** .St. Paul Gordon M. Fay Mn/DOT Director. Office of State Aid Roy L. Hanson Mn/DOT Assistant State Aid Engineer Ken Straus Mn/DOT Municipal State Aid Needs Unit Manager Ken Hoeschen Mn/DOT County State Aid Needs Unit Manager

Mn/DOT District 1 State Aid Engineer Bill Croke Mn/DOT District 2 State Aid Engineer Jack Isaacson Mn/DOT Metro District - Golden Chuck Weichselbaum Valley Office - State Aid Engineer Mn/DOT District 6 State Aid Engineer Earl Welshons Mn/DOT District 7 State Aid Engineer Larry Hoben Mn/DOT District 8 State Aid Engineer John Hoeke Mn/DOT Metro District - Oakdale Elmer Morris Office - State Aid Engineer

I. RECOGNITION OF THOSE PRESENT

Chairman Rudrud introduced Larry Anderson, Chairman of the Unencumbered Construction Funds Subcommittee and Gerry Butcher, Chairman of the Needs Study Subcommittee. In addition, Rudrud recognized Mike Eastling the alternate representative of the Metro District - Golden Valley Area; Ken Haider the alternate representative of the Metro District - Oakdale Area; and Paul McClurg the alternate District 7 representative, noting that each would assume the responsibilities of District Representative in 1990. Ken Larson, City Engineer of Duluth, was welcomed as a new addition to the Municipal Screening Committee.

II. MINUTES CONSIDERATION:

Rudrud called for consideration and approval of the minutes of the June 13-14, 1989, Municipal Screening Committee meeting. The minutes are contained in pages 6 through 26 of the 1989 Municipal State Aid Needs Report, dated October, 1989. Chuck Siggerud (Metro District - Oakdale Area) moved, seconded by Marv Hoshaw (Minneapolis), to approve the minutes. The motion carried.

III. 1989 MUNICIPAL STATE AID NEEDS REPORT REVIEW

Ken Straus presented the 1989 Municipal State Aid Needs Report (Report), dated October, 1989. Straus directed the attendees' attention to pages 27 and 28, a summary of past years' needs and mileage apportionments. Straus noted that the estimated 1990 apportionment is \$80 million, the construction needs increased by approximately \$400 million, and the mileage increased by 34.58 miles, excluding Corcoran and Forest Lake.

Straus noted that Forest Lake (with a population of 5,386) and Corcoran (with a population of 5,114) were added to the Municipal State Aid program as a result of special census. Forest Lake was incorporated into the Report while Corcoran was not, due to the lateness of receipt of information. Corcoran will be included in the next apportionment; however, Forest Lake's needs will be computed at a cost per mile rate equal to the lowest city (\$151,000) until Road Data sheets are submitted.

Attention was directed to pages 30 to 34 of the Report which contained summaries of maximum mileage listings for communities. The increase in MSAS mileage allowed for designation from 1987 to 1988 was 39.81 miles, not including Corcoran and Forest Lake. Corcoran will have 13.61 miles allowed for designation while Forest Lake will have 4.56 miles. The summary also indicated 116.62 miles had not been designated.

Pages 33 and 34 of the Report contained the MSA improved mileage record based on the 1988 certification of mileage. The minimum street maintenance allocation is based upon the mileage contained in the summary multiplied by \$1,500 per mile. Pages 35 and 36 of the Report, as amended by handouts, were reviewed. Straus noted that reinstatement of 20 years needs caused a significant increase in the total needs. It was noted that traffic signals, street lighting, bridges and maintenance needs increased significantly and engineering needs were added. The reduction in additional surfacing needs reflects the reinstatement of the many roadway segments. The total increase in needs was approximately \$374 million (a 63.88% increase).

A handout containing needs cost per mile without bridges was presented by Straus. Straus noted Minneapolis and St. Paul have many large bridges on segments which inflate the cost per mile; therefore, comparison of needs costs per mile without bridges is more meaningful. Cities which experience costs per mile greater than \$550,000 include:

Buffalo	Farmington	Minneapolis
Northfield	St. Paul	

The average needs cost per mile for all cities is \$403,272, with East Bethel having the lowest needs cost (\$151,022). Forest Lake has been added to the system at the East Bethel rate; however, it was acknowledged that its rate would change when the Road Data Sheets are submitted. Farmington was noted to have the highest cost per mile (\$715,713).

Straus noted that page 37 of the Report contained correspondence to be submitted to the Commissioner of Transportation. Pages 38 and 39 will accompany the correspondence.

The Needs Study Update is contained on pages 40 through 44 of the Report. Straus issued a revision to the update, indicating that the revisions contained the proper summaries. Straus noted that the 20 year reinstatement of needs was the greatest factor in the increased needs experienced. The unit cost update had minimal effect on the total.

Pages 46 through 49 of the Report contain a summary of the system needs adjustments. Straus noted that segments whose rubberized railroad crossing costs exceeded \$99,999 were included in the summary, as were "after the fact" storm sewer needs, and the Unencumbered Construction Fund Balance Deduction. In addition, off-system adjustments related to fund expenditure on CSAH or Trunk Highways are also included, as are bond account adjustments, non-existing bridge adjustments, and (15 year) "after the fact" right of way adjustments.

Pages 50 through 52 of the Report contain a summary of the 1990 Money Needs Apportionment. It was noted that \$1,000 in Adjusted Money Needs equals \$41.62 in Money Needs for 1990, down from approximately \$65.00 in 1989. This reduction reflects the significant increase in total needs reporting as a result of reinstatement of the 20 year needs and other changes initiated by the Municipal Screening Committee in 1989.

Pages 54 through 56 of the Report contain a listing of "after the fact" storm sewer needs. Straus noted that it is his desire to include all storm sewer projects in the 1990 apportionment which were financed with local funds and are presently in the Hydraulics Office, as 1989 is the last year "after the fact" storm sewer needs will be eligible. Pages 57 and 58 of the Report summarize the total accumulation of "after the fact" storm sewer needs. The Unencumbered Construction Fund Balance summary is contained on pages 59 through 61 of the Report. As of September 1, 1989, the unencumbered funds available in the account totaled \$104,567,031, or approximately 1 1/2 times the apportionment.

Rudrud called upon Larry Anderson to report on the activities of the Unencumbered Construction Fund Subcommittee. Anderson noted that the October, 1988 rule change regarding adjustments to cities' accounts containing excess unencumbered construction funds caused the subcommittee's 1989 activities to be very straightforward. Anderson noted that with the exception of one community, all cities retained unencumbered fund balances within established guidelines. Anderson noted that the subcommittee recommended that Maplewood receive an adjustment of its 25 year needs in the form of a reduction equal to three times the amount available prior to receiving its apportionment. In response to a question from Siggerud regarding the adjustment factor, Anderson noted that the factor varies in accordance with the action taken by the city to reduce the balance. In the case of Maplewood, Anderson noted that last year's adjustment was two, while next year's adjustment (for 1991) will be four if no action is taken to reduce the balance.

Following Anderson's report regarding the success of the program revision in prompting communities to reduce unencumbered fund balances to below established maximums, Straus noted that Metro District (Golden Valley Area) engineers were concerned with the lack of appeal opportunity to the Unencumbered Construction Fund Subcommittee. Bi11 Ottensmann (Metro District - Golden Valley Area) confirmed Straus' evaluation of the engineers' concerns, noting that Fridley is trying to establish a significant fund balance to finance a large project. Apparently Fridley's financial needs exceed the maximum allowable unencumbered fund balance, thereby causing the community great concern. Ottensmann noted that the engineers' concerns remain the same as last year-circumstances beyond a city's control may preclude the construction of projects, causing the city's apportionment to be adjusted. Ottensmann noted that the engineers were also interested in making the appeal process retroactive if it is reinstated. Straus added that some engineers were also concerned that a city receiving an adjustment may be able to successfully litigate the validity of the adjustment because of lack of appeal rights. In response, Thomas Kuhfeld (St. Paul) indicated that a community could appeal to the Municipal Screening Committee.

Straus continued the Report review by drawing attention to pages 63 and 64, a listing of off-system expenditures in 1988 which affect apportionment for 10 years. Straus noted that pages 65 and 66 contain the tabulation of all approved off-system expenditures. Total off-system expenditures exceed \$26 million.

Pages 67 and 68 of the Report contain a summary of unamortorized bond account balances. The present bond account adjustment is over \$6.7 million.

Page 69 of the Report contains a listing of non-existing bridge construction which represents after the fact needs for 15 years. Straus noted that in June, 1989 the Municipal Screening Commitee deleted "after the fact" reconstruction needs and recalled that the Duluth lift bridge, at \$1,054,200, was omitted from the other needs areas, thereby necessitating its inclusion under this category. If the Duluth bridge is added, the revised total for the category is \$15,289,311. Page 70 of the Report lists right of way acquisition in 1988. Right of way payments of \$521,155 were made in 1988. The summary of "after the fact" right of way needs were listed in pages 71 and 72. The total "after the fact" needs for right of way are approximately \$32 million.

Trunk Highway turnback maintenance allowances are listed on page 73 and 74 of the Report. Straus noted the unit rate has been increased from \$1,500 per mile to \$7,200 per mile, yielding an allowance total of \$63,264.

Straus noted that the population apportionment is contained on pages 75 through 78 of the Report. Population apportionment represents half the total apportionment, and for computation purposes the total funding available is \$40 million. Straus indicated Apple Valley took a special census which confirmed a population increase from 27,172 to 32,122 (yielding an approximate \$78,000 increase in apportionment). Corcoran had a population of 5,114, yielding an approximate \$80,000 population apportionment. Forest Lake, with a population of 5,386, yielded an apportionment of \$84,801. International Falls consolidated with South International Falls, increasing the population base to 7,867, thereby increasing the population apportionment by approximately \$35,000. Woodbury's special census indicated its population is 19,388 (up from 14,726).

At the present time each person earns approximately \$15.75 in population apportionment; however, the amount is subject to change if additional census information is submitted prior to year's end.

The theoretical apportionment totals are listed on pages 79 through 81 of the Report, and a comparison of 1989 and 1990 apportionments are contained on pages 82 through 84. Straus noted that there was discussion at the Metro District (Golden Valley Area) engineers meeting regarding establishment of a maximum reduction a city can receive from one year to the next. Straus noted that a primary reason for apportionment loss was due to failure to submit updated Road Data Sheets for reinstatement of 20 year improvement needs.

Variances are listed on pages 85 through 92 of the Report. Straus noted that needs adjustments must be made as a result of variance issuance, the amounts of which are calculated and shown. Those cities affected include Minneapolis and St. Paul. In order to justify a claim that no needs adjustment is necessary, a city must furnish documentation that past needs computations were based on the variance width granted. Straus noted that special action of the Municipal Screening Committee is necessary to delay the adjustment, giving Minneapolis and St. Paul time to issue their justifications.

Straus completed his review by noting that the Research Account summary is contained on page 93 of the Report, and the Administration Account summary is contained on page 94.

Rudrud introduced Gerry Butcher, Chairman of the Needs Study Subcommittee and asked that he report on the subcommittee's meeting of August 2, 1989. Butcher cited page 24 of the June Municipal Screening Committee meeting minutes, wherein his subcommittee was directed to review the status of cities presently collecting "after the fact" storm sewer needs, to determine whether storm sewer reconstruction needs should be included/deleted from the needs computation. Butcher noted the subcommittee consists of Dan Edwards, Clyde Busby, and himself, and indicated that the minutes of the subcommittee meeting are contained on pages 95 through 98 of the Report. Butcher noted that the various options explored relative to storm sewer needs were contained on pages 95 and 96. Butcher indicated that the subcommittee favors option 2A - removal of "after the fact" needs from the 1991 apportionment and thereafter, without adjustment. Butcher noted this action is consistent with past actions regarding "after the fact" reconstruction needs.

Butcher noted the subcommittee considered it important that in-place storm sewer draw storm sewer adjustment needs. It was also noted that it is essential to attain consistency in storm sewer needs computation between the districts. For existing streets which do not meet state aid criteria yet have sewer, it is likely significant storm sewer improvements will be necessary to serve the reconstructed street. Accordingly, needs computations are necessary and valid. Butcher continued by noting rural roadway section designs require special drainage needs rates to eliminate disparity between rural and urban section needs and actual costs. In addition, Butcher suggested that existing storm sewer not be placed on the system for complete needs unless the city submits a report to the District State Aid Engineer outlining circumstances which justify storm sewer reconstruction.

Siggerud asked Butcher what the relationship was between the amount of storm sewer needs based on the \$196,000/mile rate and the approximate \$26 million "after the fact" needs. In response, Butcher noted that storm sewer needs based upon the \$196,000/mile rate would represent 10% to 15% of the total needs; therefore, the present method of computation will result in storm sewer needs of approximately \$105 million, which is far in excess of \$26 million "after the fact" needs.

Butcher indicated that while the majority of the subcommittee meeting focused on storm sewer issues, there was discussion regarding pedestrian walkways and skyways. The subcommittee recommended that the policy defined in a February 22, 1989 letter from the Office of State Aid be retained, noting that sidewalks, crosswalks with signals, etc., are eligible for State Aid funds and draw needs. In regard to skyways, Butcher indicated State Aid funds may be used to construct skyways.

Hoshaw noted Minneapolis raised the issue of skyway construction funding, not the drawing of needs. In response, Butcher noted that the use of State Aid funds for skyway construction does not reduce the needs computation, since skyways do not draw needs. Since needs adjustments are not made when skyways are financed by State Aid funds, apportionments are not reduced.

Hoshaw explained to those present that Minneapolis' concerns relate to the urban setting at the edge of the downtown district, where the I-394 parking garages are located. Hoshaw noted that there are not sufficient facilities to handle the increased pedestrian traffic accessing the parking structures. Accordingly, a second pedestrian system is required. Prior to the February 22 State Aid Office letter, Minneapolis had utilized MSA funding for skyway crossings of MSA streets based upon full street right of way width. Hoshaw continued by noting that in the case of skyways connected to the I-394 parking garages, Minneapolis sought funding for skyways construction both along (parallel to) and across (perpendicular to) MSA streets, perhaps resulting in the issuance of the February 22 letter by the Office of State Aid. Butcher continued his report by drawing attention to page 97 of the Report. Noting that consideration was given to bridge widening versus bridge replacement, it may be less expensive to replace a structure. Butcher also noted that the item "overhead" may be required to compensate for various contingency conditions which may occur, thereby reflecting the actual cost of constructing an MSA street. In closing his report, Butcher referred to pages 99 and 100 which provided an example of the effect of storm sewer construction on storm sewer needs computation.

Rudrud inquired of the attendees if there was any old business to discuss. There being none, Rudrud introduced new business items, beginning with a legislative item the counties supported in the 1989 legislative session. Rudrud noted the legislative item related to the counties' desire to remove CSAH designation from a road a county wishes to improve if after a year from the time the county has submitted plans to the affected city, the city refuses to agree to the improvement. Rudrud noted that because concerns were raised by the City Engineers Association, the legislative proposal was withdrawn. Recent proposals by county representatives have provided the use of a "variance type" review panel which would submit its recommendation to the Commissioner of Transportation. Rudrud indicated that a county/city/State Aid conference call is scheduled for October 30.

In response to a request of Jim Walker (District 2) to explain the repeal of CSAH designations, Gordon Fay indicated that a CSAH designation or repeal must meet with the approval of the city in which the route is located. Similarly, the route cannot be reconstructed without the approval of the city. Finally, Fay noted that no legislation is pending at this time. Rudrud continued by asking Fay if the one year period between plan submittal and failure of the city to act is a part of existing or considered legislation. Fay indicated the concept was proposed but not passed. Anderson sought further clarification regarding the existence of a provision which allows a county to repeal CSAH designation if a city refuses to approve plans after one year, and in response Fay repeated that the provision does not now exist.

Walker noted that there are many cities under 5,000 in population (the threshold for inclusion in the MSA system) that may object to the repeal of CSAH designation because a county road may be the major street through the city. Any process which addresses the issue must consider such communities.

Hoshaw noted the issue may reflect liability/exposure on the part of the county and community.

Hearing no further comments, Rudrud reminded the attendees that informal discussions regarding issues raised at the afternoon session would begin at 8 P.M. and that the formal meeting would resume at 8:30 A.M. on October 24. The meeting was adjourned at 2:46 P.M.

EVENING SESSION

Chairman Rudrud called the informal discussion session to order at 8:15 P.M.. Issues discussed during the session included:

- Variance Adjustments At issue was the adjustment of needs as a result of variance issuance. Discussion centered on the alternative of refraining from needs adjustment for one year to allow cities to provide substantiation of the basis of pre-variance needs computation. It was agreed that the information should be submitted with the hold harmless resolution.
- Storm Sewer Needs It was agreed that no adjustments will be considered for storm sewer systems constructed between 1984 and 1989.
- Unencumbered Construction Fund Adjustment Appeal Process The attendees were reluctant to change the process since it has worked well. It was agreed that the issue could be returned to the Unencumbered Construction Fund Subcommittee for a recommendation.
- County Legislation Repeal of CSAH Designation The attendees explored various options, but favored the variance committee approach to resolution of county/community differences.
- Construction Fund Expenditure for Skyways While present State Aid policy seems to provide payment for only that portion of a skyway between curb lines, Minneapolis representatives noted the city used to be compensated for the full street right of way distance. Minneapolis sought reinstatement of that position, plus compensation for skyways constructed along (parallel to or at a nonperpendicular angle) MSA routes. Attendees favored payment for right of way line to right of way line construction only.
- Limits on Apportionment Changes Attendees realized some cities receive reduced apportionments approaching 20% to 25%, but supported no changes in the present policy.

The evening session adjourned at 10:45 P.M.

Chairman Rudrud called the Municipal Screening Committee back into session at 8:34 A.M., October 24, 1989. Roll call was taken and the list of attendees was the same as the October 23 session.

IV. AFTER THE FACT STORM SEWER NEEDS

Rudrud called upon Butcher to present proposed wording for a revision to the "Storm Sewer" resolution contained on page 109 of the 1989 Municipal State Aid Needs Report (Report). Butcher noted the Municipal Screening Committee must reinstate needs for storm sewer construction and remove "after the fact" storm sewer needs from the 1991 apportionment and thereafter.

- MOTION: By Hoshaw, seconded by Ottensmann provided for the following revisions to the "<u>Storm Sewer</u> June, 1986" resolution contained on page 109 of the Report:
 - 1. Delete the first paragraph, inserting:

"For the 1990 needs and the 1991 apportionment, and thereafter, the money needs for Municipal State Aid segments requiring complete storm sewer shall be included in the Needs Study at the unit rate annually set by the Municipal Screening Committee. Storm sewer adjustment needs shall be included in the Needs Study for street segments rated inadequate or deficient yet possess completed storm sewers."

2. Revise the second paragraph to read as follows:

"For and through the 1990 apportionment, all complete Storm Sewer Construction projects let in 1984 through 1988 where State Aid Funds"

3. Delete the words "and subsequent years," in the second line of the third paragraph, replacing them with "through 1988,".

The motion carried.

MOTION: By Hoshaw, seconded by Ottensmann to remove "after the fact" storm sewer needs from the 1991 apportionment and thereafter without needs adjustment was carried.

V. NEEDS AND APPORTIONMENT DATA

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Rudrud directed the attendees' attention to the needs and apportionment data contained on pages 35 to 84 of the Report and called for its approval. Rudrud noted that approval of the data should include:

- 1. Revision of all recitations of 25 year construction needs to 20 year construction needs (if authorized by law).
- 2. That Corcoran be included in the computation in recognition of a recent census result confirming its population in excess of 5,000.

- 3. That the Forest Lake needs be revised to reflect its Road Data Sheet submittals (if and when received).
- 4. The Duluth lift bridge be included as a non-existent bridge for needs purposes, at an estimated cost of \$1,054,200.
- MOTION: By Ottensmann, seconded by Tom Drake (District 6) to approve the needs and apportionment data contained on pages 35 to 84 of the Report, as revised by Rudrud's proposed amendments, was adopted.

VI. RESEARCH ACCOUNT

MOTION: By Hoshaw, seconded by Drake to approve the transfer of up to 1/4 of 1% of the 1989 MSAS apportionment sum (or \$191,254 of \$76,501,442) from the 1990 Apportionment fund to the Research Account was adopted.

VII. ADMINISTRATIVE ACCOUNT

Rudrud indicated no action need be taken on the transfer of up to $1 \frac{1}{2\%}$ of the Apportionment fund for administration of State Aid. It was also noted that any unexpended year end balance in the Administration Account will be transferred back to the Apportionment fund.

VIII. APPEAL PROCESS FOR UNENCUMBERED CONSTRUCTION FUNDS

Discussion continued (from October 23) regarding the reinstatement of the appeal process, wherein cities receiving an adjustment of needs for excess unencumbered construction funds could appeal the adjustment to the Unencumbered Construction Funds Subcommittee.

MOTION: By Siggerud, seconded by Terry Mauer (District 3), to table for one year consideration of the revision of the present method of enacting adjustments to the Unencumbered Construction Fund apportionment to cities was adopted with one dissenting vote (Ottensmann).

IX. EXCESS UNENCUMBERED CONSTRUCTION FUND ADJUSTMENT

MOTION: By Hoshaw, seconded by Walker to support the reduction of the unencumbered construction needs of the City of Maplewood in the amount of three times the amount available (amount available equals the unencumbered construction fund balance less the current year's construction allotment) was adopted.

X. SKYWAYS

Hoshaw again recommended that cities be authorized to expend MSA funds for the construction of skyways on State Aid routes based upon full right of way width rather than on street width. Hoshaw noted the request could affect reimbursement for 3 or 4 skyways scheduled to serve the I-394 parking garages, and that the revision in width computation will increase the eligibility from 50 feet to 80 feet. The Minneapolis recommendation did not include the retrofitting of the buildings or construction of a skyway parallel to the route centerline. Following much discussion relating to policy for pedestrian bridge financing, wherein it was noted that construction funds can be utilized in spite of the fact that needs are not computed, the attendees indicated an inclination to support the financing of skyway construction from right of way line to right of way line only.

MOTION: By Drake, seconded by Walker that Municipal State Aid funds may be expended for the construction of pedestrian skyways crossing State Aid routes, with fund expenditure based upon a typical right of way width of the route in the vicinity of the crossing only, and specifically omitting as ineligible, any and all building retrofit costs, was adopted.

Upon adoption of the motion, Rudrud requested that the Office of State Aid issue a letter of clarification to cities indicating the procedure it will follow regarding the determination of funding eligibility.

XI. ADJUSTMENT OF APPORTIONMENT - MAXIMUM REDUCTIONS

Rudrud again introduced the issue of establishing a maximum percentage apportionment reduction that may be experienced by a city as a result of unit price changes, population changes, and apportionment changes. Drake noted that loss of MVET funding will cause a significant, uncontrolled loss of appropriation for all cities, thereby rendering a maximum percentage loss policy inapplicable. Straus noted an MVET loss will affect all cities proportionally, the issue is actually related to needs, and those cities that failed to submit Road Data Sheets for reinstatement of streets after 20 years were the ones most greatly impacted. Hoshaw indicated it is inadvisable to set maximum "losses" because the result negatively impacts all other cities through the loss in apportionment.

It was agreed by all present that no maximum apportionment reduction percentage would be established.

XII. COUNTY LEGISLATION

No discussion was held regarding the proposed county legislation to initiate an impartial panel (similar to the Variance Committee) for purposes of dispute resolution when a county proposes to improve a County State Aid Highway in a community objecting to the improvement (refer to minutes of October 23 afternoon and evening sessions).

XIII. NEEDS ADJUSTMENTS RELATED TO VARIANCE ISSUANCE

Rudrud called upon Vice Chairman Bruce Bullert to present issues related to the adjustment of needs as a result of variance issuance. Bullert directed the attendees' attention to page 110 of the Report, "Variance Granted - Reduction of Money Needs" and page 104, "Design - Less Than Minimum Width". Bullert noted it may be appropriate to revise the resolution "Variance Granted - Reduction of Money Needs" (page 110) to provide that documentation indicating historical needs claims be submitted for the subject route segment before the variance is issued.

MOTION: By Hoshaw, seconded by Siggerud, providing for the revision of the <u>"Variance Granted - Reduction of Money Needs"</u> resolution printed on page 110 of the Report was adopted. The adopted revision shall read as follows: Beginning in the second paragraph, line 5:

... (Documentation shall be furnished by the City to the State Aid Office at the same time as the "Hold Harmless" City Council resolution is submitted for final variance approval)....

MOTION: By Ottensmann, seconded by Dwayne Haffield (District 7), to defer the enactment of needs adjustments related to variance approvals received by Minneapolis and St. Paul in 1989 for one year to allow the cities to submit documentation of historical needs claims was adopted.

Rudrud requested that the Office of State Aid review the existing law/ rules regarding 25 year needs and if appropriate, reduce the figure to 20 years. Rudrud noted the resolution previously addressed by the Ottensmann/Haffield motion contained a 25 year citation.

XIV. REPORT OF GORDON FAY, STATE AID DIRECTOR-

A. Rules for State Aid Design/Construction

Fay thanked the Municipal Screening Committee, as representatives of the State's City Engineers for comments submitted relative to the existing and proposed rules for State Aid street design/ construction. Fay noted rules related to bridge inspection and qualification of bridge inspectors will be considered for revision. Further, it was noted that bridge loading designs will be revised from HS20 to HS25, causing an average 4 percent increase in bridge construction cost.

It was noted that the national trucking industry favors longer, wider trailers, and that North Dakota already permits loads in excess of 80,000 lbs., while Canada allows 124,000 lb. loads.

Fay noted that 2 or 3 legislators are very interested in the rules/standards revision process and its progress.

B. Cold Regions Road Project

The project located along I-94 near Monticello, has been renamed from the "Minnesota Test Road" and is making progress. The design is essentially complete, and one element has been completed as an alternate to the interstate and will carry interstate traffic. Wave/motion scales are installed and data is being collected and transmitted to the University of Minnesota. The University of Minnesota has a new pavement engineer who has shown great interest in the project. Rick Walters was the Mn/DOT representative on the project; however, he has joined the Asphalt Institute and no replacement has been named.

Whereas the Federal Highway Administration had not been interested in the project, it now appears to be interested and may provide funding. In addition, other states and the Aeronautics Division and Corps of Engineers are now considering means by which they can provide funding.

C. Certification of Technicians

The certification of technicians is an issue that is gaining support, not only for Mn/DOT personnel, but also for cities, counties, and consultants. Bridge inspection is an especially sensitive area where inspector certification should be required. From a compensation aspect, certification will provide support for increased salary. City and county engineers will be asked to participate on certification gualification committees.

D. Computer Program

The city engineers have received information on the program for purchase of computer hardware/software, with the Office of State Aid providing 60 percent of the funding for purchase of designated equipment and programs. Various federal and state programs will be available via modem connection to the state's computer. The annual City Engineer's Conference will feature a segment on the status of the computer program.

The meeting was recessed at 9:45 A.M. and was reconvened at 9:57 A.M..

XV. OPEN COMMENT PERIOD

A. State Aid Standards

Roy Hanson (Assistant State Aid Engineer) noted that the city engineers should closely review the proposed standards for roadway design, and urged the engineers to comment on the proposal.

Drake indicated District 6 engineers discussed the proposed State Aid standards. The engineers consider this to be an opportunity to lend support to those changes which will be of benefit to the communities and offer recommendations for further changes where deemed necessary. The engineers consider it necessary to establish a City Engineers Association review committee to offer comment on the proposed standards.

Roy Hanson indicated that a standards review committee had been chosen, although not all members had been approached. The proposed membership included:

Name/Title

John Murray/Mayor Martin Lepak/Commissioner Ken Murphy/Councilmember Walter Leu/County Engineer John Dolentz/City Engineer Howard Warnberg/Commissioner Herbert Reimer/City Engineer Robert Stevenson/Commissioner Michael Eastling/City Engineer Paul Ruud/County Engineer Roger Plumb/City Engineer Robert Thompson/Commissioner Carl Wyczawsk, Mayor Mike Wagner/County Engineer Richard Victor/City Engineer Frank Swedzinski/Commissioner

<u>Kepresenting</u>							
District	1	-	International Falls				
District	1	-	St. Louis County				
District	2	-	Thief River Falls				
District	2	-	Bagley				
District	3	-	St. Cloud				
District	3	-	Little Falls				
District	4	-	Moorhead				
District	4	-	Morris				
District	5	-	Richfield				
District	5	-	Anoka				
District	6	-	Rochester				
District	6	-	Lanesboro				
District	7	-	New Ulm				
District	7	-	St. Peter				
District	8	- '	Marshall				
District	8	-	Porter				

Name/Title	Representing
Leslie Proper/City Engineer Don Wisniewski/County Engineer	District 9 - New Brighton District 9 - Stillwater
Marv Hoshaw/Assistant Director	First Class City - Minneapolis
Joseph Koenig/Associate City Engineer Kenneth Larson/City Engineer	First Class City - St. Paul First Class City - Duluth

Fay indicated that the Office of State Aid was not planning to sponsor informal meetings on the issue. Formal meeting notices will be printed in the State Register.

Bullert noted that it would be appropriate to include the issue at the annual City Engineers Conference in January, 1990 and that the review committee could present a summary of its activity at that time. Anderson suggested that the review committee could include a more formal summary of its position, including comments on the proposed standards, at the January meeting.

Drake and Sigerrud presented a motion to the attendees, providing that the review committee mail its comments to the City Engineers before the January meeting; however, when it was pointed out that the review committee will not have had enough time to substantially discuss the issues before January, the motion was withdrawn.

As a final comment on the issue, Rudrud asked the State Aid Office to include a member of the City Engineer Association Executive Committee on the standards review committee. Rudrud also indicated the issue would be presented at the annual City Engineers Association business meeting in January, 1990.

B. Metro District Organization

Siggerud asked representatives of the State Aid Office to comment on the recent combination of Districts 5 and 9 and its effect on the system as it now exists. In response, Fay indicated there is now one construction district, with one District Engineer supervising the following divisions:

- o Administration
- o State Aid
- o Planning and Programming
- o Maintenance and Construction
- o Traffic Operations

The District State Aid office, as it now functions, has two District State Aid Engineers and two assistants. It will probably be increased by (at least) one person, so the combined offices will have (at least) one more person; however, regardless of staffing level proposed, the Department of Employee Relations must review the reorganization plan.

Hoshaw noted Commissioner Levine indicated he would seek input from city/county engineers regarding the effects of reorganization on the District State Aid Engineer's functions. To this point the District 5/9 combination has taken place and no communication from the Commissioner has been received. Rudrud called for a motion that provides for 2 Metro District representatives to the Municipal Screening Committee. Much discussion ensued regarding the law as it related to representation from each construction district and cities of the first class.

MOTION: By Ottensman, seconded by Nick Dragisich (District 1) that the Municipal Screening Committee's Executive Committee review existing laws pertaining to representation on the Municipal Screening Committee as a result of the consolidation of Districts 5 and 9, and that appropriate action be taken to insure the retention of 2 representatives from the newly organized Metro District was adopted.

Rudrud returned to the issue of providing input regarding the various changes that occur. Hoshaw suggested that the Executive Committee of the City Engineers Association and County Engineers Association should collaborate and approach the Commissioner regarding the State Aid element of the District 5/9 reorganization. Rudrud agreed to pursue a joint City/County Engineers letter of correspondence to the Commissioner on the issue.

C. District 4 State Aid Engineer Vacancy

The District 4 (Detroit Lakes) State Aid Engineer's position remains unfilled, although Vern Korzendorfer has returned on a temporary basis. The process has been moving slowly since the opening occurred in June.

XVI. OLD BUSINESS

There was no old business to consider.

XVII. NEW BUSINESS

A. Status of the Municipal State Aid Fund

At the request of Ottensmann for fund status, Fay indicated that the MSA fund can be accessed by the legislature every 6 years; however, only 5 percent of the total fund can be accessed (leaving 95 percent intact for distribution). Fay indicated the fund was accessed by the legislature last year (1989). Fay indicated the legislature has been accessing the County and Trunk Highway funds with greater frequency; however, Mn/DOT has not taken a position on the issue to avoid conflict. Fay indicated the legislature earmarked an additional 10 percent of the MVET fund to the Trunk Highway Fund, not the Road User Fund (from which cities receive allocation). Fay again indicated MVET is not a reliable source of funds, as it is legislatively controlled. B. Parameters for Existing Storm Sewer Needs

Butcher directed the attendees' attention to page 96 of the Report regarding the computation of needs on existing storm sewer, and indicated that a consistent reporting structure must be developed.

- MOTION: By Hoshaw, seconded by Siggerud, that the Needs Study Subcommittee be directed to collaborate with the Office of State Aid to establish parameters for the reporting of existing storm sewer needs was adopted.
- C. Recognition of Service Rendered

Rudrud thanked Dwayne Haffield, Bill Ottensmann, and Chuck Siggerud for serving their respective districts ably for the last three years, and Larry Anderson and Gerry Butcher for serving as Chairman of the Unencumbered Construction Fund Subcommittee and Needs Study Subcommittee respectively.

Hoshaw thanked Rudrud for the leadership he had provided to both the Municipal Screening Committee and City Engineers Association for the last three years.

XVIII. ADJOURNMENT

A motion by Hoshaw, seconded by Siggerud, to adjourn the meeting was passed. The meeting adjourned at 10:46 A.M..

Respectfully submitted,

Las he

Jim Grube Secretary

CEAM/MT102389

NEEDS STUDY SUBCOMMITTEE

Minutes of March 29, 1990 Meeting

Room 716, transportation Bldg.

St. Paul, MN

Meeting convened at 8:30 AM

Present: Ken Straus Dan Edwards Clyde Busby Charles Siggerud

The first topic of discussion was to set the construction unit price recommendations for consideration by the full Screening Board at their June meeting.

Grading (excavation) was set at \$3.00 per cu. yd. in 1989. There was not sufficient data to justify a change, therefore the unit price was left at \$3.00.

Curb and Gutter removal prices have been coming down for the last four years, therefore the Subcommittee recommends reducing the unit price from \$1.75 to \$1.60 per lin. ft.

Sidewalk removal remains unchanged at \$4.00 per sq. yd.

Concrete pavement removal went up to \$5.01 per sq. yd. in 1989, a large increase over the previous four years. Rather than make a large change based on only one year, Subcommittee recommends a .25¢ increase, to \$4.00 per sq. yd. for 1990.

The 1989 tree removal cost average was \$81.60 per tree, which is considerably below previous years. The City of Andover represented a large percentage of the trees reported, with 700 small trees removed. This brought the average unit price down. The Subcommittee does not believe that this is a true representation of the tree removal needs, therefore the recommendation is to leave the tree removal unit price at \$140 per tree, which represents clearing and grubbing.

Class 4 Subbase remains unchanged at \$4.75 per ton. Only a few cities use Class 4.

Class 5 base has dropped in price the last four years, therefore the Subcommittee recommends reducing the unit cost from \$5.75 to \$5.50 per ton.

The recommendation for bituminous base and surface (#2331) are reduced by \$1.00 to \$20.00 per ton, because oil prices were lower than anticipated last year. #2341 and #2361 are also reduced \$0.50 and \$1.00 respectively.

Gravel shoulders, #2221 was increased from \$4.25 to \$6.50 per ton, due to the relatively small amounts used. Subcommittee recommends using what Municipalities spent instead of using County needs study unit prices for the recommendation.

Subcommittee recommends no change in unit prices from last year for curb and gutter construction and sidewalk construction.

Minutes of March 29, 1990 Meeting

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Subcommittee also recommends holding last years unit prices on street lighting, traffic signals, right of way, and engineering due to lack of supporting data to indicate otherwise. Storm sewer and storm sewer adjustment recommendation is based on memo from MN/DOT hydraulics engineer.

Bridge replacement needs for bridges 0 to 149 ft. and 150 to 499 ft. are based on averages from State Aid bridges only. Last year prices seem in line, therefore no change recommended. Bridges over 500 ft. are based on an average of MN/DOT bridges for \$58.67 per sq. ft., therefore the Subcommittee recommends reducing the cost from \$70 down to \$65 per sq. ft. Bridge widening is recommended at \$150 per sq. ft. of widened area.

Railroad bridge needs appear low, based on only one built in 1989 however, Committee recommends raising to \$4000 per lin. ft. for first track and \$3000 per lin. ft. for each additional track.

Railroad grade crossings, single and multiple track, signing, signalizing, and rubber crossing surfacing prices are as recommended by the Director of Railroad Administration, with an increase in all items over last year.

Other topics of discussion were as follows:

- 1. established drainage cost for rural section
- 2. review the storm sewer needs guide
- 3. determine what to do with streets that have inplace storm sewers and are presently receiving complete storm sewer needs.
- 4. determine when streets should receive sidewalk needs.
- 5. discuss City of Savage bond account adjustment.

Rural section drainage needs: some cities have a certain amount of rural section streets or roads which are unlikely to ever require curb and gutter section and storm sewers, that is, urban section needs. It would seem that they should draw some needs however for ditching, driveway culverts, centerline culverts, rip-rap, etc. There are two ways to handle this inequity, come up with an average cost per mile, or have cities submit special drainage needs. After considerable discussion it was decided to recommend cost of \$25,000 per mile - based on an average of 25 driveways per mile and four centerline pipe per mile. If cities feel this does not represent their needs or if they have out of the ordinary drainage needs they have the option to submit special drainage needs. These would be subject to approval by the District State Aid Engineer.

Storm sewers: The question arose what to do with storm sewer needs in cases where there is some storm sewer in place and yet the City wants to draw full storm sewer needs; should they get storm sewer adjustment or full needs? It is obvious that they can't draw both. The outstanding problem with storm sewers is that it is difficult, if not impossible to arrive at an average usefull life. The Storm Sewer Needs Guide, defines most conditions concerning storm sewers. The Subcommittee recommends that existing streets with storm sewer can draw adjustment needs if they meet the stated conditions. Areas without storm sewer may draw full needs if the municipality can justify the need and receive approval from the District State Aid Engineer. The Subcommittee recommends Municipalities would be required to justify complete storm sewer needs which were in the needs study during the "after the fact" needs. Subcommittee further recommends that complete

Minutes of March 29; 1990 Meeting

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storm sewer needs be received for 1990 but justification for further complete storm sewer needs will be required with the 1991 needs update. It was pointed out that storm sewers can receive adjustment needs when the street is reinstated after 20 years and has storm sewer in place.

A long discussion was held concerning bridges and when their needs should be reinstated, that is, should it be left at 35 years. It was pointed out that a bridge built at the same time as a road will draw 15 years more needs than the road. Is this fair? Cities with lots of bridges may benefit at the expense of those with few bridges. The question seems to be - will 35 years of needs net more gain for the City than the bridge will cost to replace? No action was taken to recommend a change from the present rules.

Bond Account Adjustment: The City of Savage would like to have their bond account adjustment reinstated. Due to oversight by the City, change in personnal etc. They failed to turn in Report of State Aid Contract. Therefore the State Aid office was not aware of their project, hence did not draw down on the bond account and give bond account adjustments. Since it was an honest error and the impact on other cities allotments is small, the Subcommittee recommends reinstatement.

Sidewalks: Last year the State Aid Office included sidewalk needs regardless if there were some existing sidewalks or not. Some cities are requesting sidewalk on almost all streets, but it appears that during construction they are not putting in as much as they have been claiming for needs. There may be some abuse in this area. Two possible solutions were discussed. One was the City Councils established by resolution a plan of intent, that is to always put in full walks each side, one side only, etc. The second solution was to have the District State Aid Engineers review sidewalk needs with the Cities, their past practices, maybe drive the areas with the engineer to see first hand if the needs are realistic. This would be similar to what was done with non-existant storm sewers a few years ago. A good topic for Screening Board discussion - to give some guide lines to State Aid engineers how to handle this situation.

State Aid received a letter from Minneapolis concerning ways to receive needs adjustment on a street which had an approved variance. No action taken at this time and will be considered at the fall meeting.

Offsystem vs. Onsystem expenditures: An example was presented and discussed showing how it is advantageous to spend money Off-system, as it reduces the unencumbered fund balance adjustment. This is an adjustment all cities receive if there is a balance in their account on September 1st, and should not be confused with the excess fund balance. It was shown that it is actually a plus to spend money off-system instead of a penalty as most people understood from the 10 year needs adjustment. Discussion only, no recommendations.

A list of nine ways to increase State Aid needs was presented and reviewed. It described ways that needs may be increased which apparently many city engineers are not aware of. The list may be presented at District Meetings or mailed to all cities.

Subcommittee adjourned at 12:45 PM

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NEEDS SUBCOMMITTEE MEMBER

1990 UNIT PRICE RECOMMENDATIONS

NEEDS ITEM		1989 Prices	SUB- Committee Suggested Prices For 1990	SCREENING BOARD Recommended Prices For 1990
GRADING (EXCAVATION) Gravel Shoulders #2221	Cu. Yd. Ton	\$3.00 4.25	\$3.00 6.50	
Curb and Gutter Removal Sidewalk Removal Concrete Pavement Removal Tree Removal	LIN.FT. Sq. Yd. Sq. Yd. Unit	1.754.003.75140.00	1.604.004.00140.00	
CLASS 4 SUBBASE #2211 CLASS 5 BASE #2211 Bituminous Base #2331	TON Ton Ton	4.75 5.75 21.00	4.75 5.50 20.00	
BITUMINOUS SURFACE #2331 BITUMINOUS SURFACE #2341 BITUMINOUS SURFACE #2361	Ton Ton Ton	21.00 24.00 34.00	20.00 23.50 33.00	
CURB AND GUTTER CONSTRUCTION SIDEWALK CONSTRUCTION STORM SEWER ADJUSTMENT STORM SEWER STREET LIGHTING TRAFFIC SIGNALS	LIN.FT. Sq. Yd. Mile Mile Mile Mile	5.50 14.00 62,000.00 196,000.00 16,000.00 75,000.00	5.50 14.00 62,000.00 196,000.00 16,000.00 75,000.00	
SIGNAL NEEDS BASED ON PROJECTED PROJECTED TRAFFICPROJECTED PERCENTAGE 0 - 4,9990 - 4,999.205,000 - 9,999.4010,000 & OVER.60	D TRAFFIC E X U	C NIT PRICE = \$75,000 = 75,000 = 75,000 =	NEEDS PER MIL \$15,000 30,000 45,000	.E
RIGHT OF WAY (NEEDS ONLY) Engineering	Acre Percent	60,000.00 18	60,000.00 18	
RAILROAD GRADE CROSSING				
SIGNS ONLY	UNIT	300.00	400.00	and the second
LOW SPEED)	UNIT	70,000.00	75,000.00	
TRACK - HIGH & LOW SPEED) RUBBERIZED MATERIAL (PER TRACK)	UNIT Lin.Ft.	99,000.00 700.00	110,000.00 750.00	
BRIDGES				
0 TO 149 FT.	Sa. Ft.	55.00 60.00	55.00 60.00	
500 FT. AND OVER Bridge Widening	Sα. Fτ. Sα. Fτ.	70.00 200.00	65.00 150.00	
RAILROAD BRIDGES OVER HIGHWAYS	-			
NUMBER OF TRACKS - 1 Additional Track (each)	LIN.FT. LIN.FT.	2,250.00 1,750.00	4000.00 3000.00	

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EXCAVATION

YEAR	NO. OF CITIES	QUANTITY	COST	MUNICIPAL COST PER TON	MUNICIPAL NEEDS STUDY UNIT PRICE
1987	62	796,486	\$2,113,700	\$2.65	\$3.00
1988	70	1,406,108	3,024,233	2.15	3.00
1989	65	1,263,652	2,733,063	2.16	3.00

SUBCOMMITTEE RECOMMENDED PRICE FOR 1990 NEEDS STUDY \$3.00 PER TON

GRAVEL SHOULDERS

YEAR	NO. OF CITIES	QUANTITY	COST	MUNICIPAL COST PER TON	MUNICIPAL NEEDS STUDY UNIT PRICE	COUNTY NEEDS STUDY AVERAGE
1987	4	1,247	\$8,437	\$6.77	\$4.25	\$4.02
1988	7	3,485	21,554	6.18	4.25	4.11
1989	6	3,714	24,444	6.58	4.25	3.85

SUBCOMMITTEE RECOMMENDED PRICE FOR 1990 NEEDS STUDY \$6.50 PER TON



M.S.A.S. UNIT PRICE STUDY

YEAR	NO.OF	QUANTITY	COST	COST PER LIN. FT.	UNIT PRICE	AVERAGE
1980	26	83,672	93,360	1.12	1.75	1.21
1981	24	41.852	58,030	1.39	1.75	1.31
1982	45	77.339	86,596	1.12	1.50	1.35
1983	33	42,589	66,635	1.56	1.50	1.37
1984	43	106.678	176,974	1.66	1.50	1.37
1985	50	145,294	208,971	1.44	1.50	1.43
1986	46	119,913	216,648	1.81	1.50	1.52
1987	35	83,232	139,029	1.67	1.75	1.63
1988	64	211.446	290,721	1.37	1.75	1.59
1989	38	215,935	301,389	1.40	1.75	1.54
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SUBCOMMITTEES RECOMMENDED PRICE FOR 1990 NEEDS STUDY 1.60 Based upon 1989 construction costs.

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UNIT PRICE



YEAR	NO.OF CITIES	QUANTITY	COST	COST PER SQ. YD.	NEEDS STUDY UNIT PRICE	5-YEAR AVERAGE
1980	17	30, 387	95,782	3.15	4.00	2.79
19 81	19	20,627	68,003	3.30	4.00	3.17
1982	33	61,909	98,144	1.59	3.50	2.98
1983	21	27,288	98,276	3.60	2.50	3.07
1984	30	59,315	222,584	3.75	3.50	3.08
1985	38	56,873	254,161	4.47	3.50	3.34
1986	38	44,695	159,347	3.57	4.00	3.39
1987	25	35,889	141,549	3.94	4.00	3.87
1988	46	77,633	270,831	3.49	4.00	3.84
1989	41	50,017	192,021	3.84	4.00	3.86

SUBCOMMITTEES RECOMMENDED PRICE FOR 1990 NEEDS STUDY $\frac{4.00}{2}$ Based upon 1989 construction costs.



YEAR	NO.OF	QUANTITY	COST	COST PER SQ. YD.	NEEDS STUDY UNIT PRICE	5-YEAR AVERAGE
1980	8	42,322	139,785	3.30	4.50	3.21
1981	16	83,263	345,180	4.15	4.00	3.63
1982	23	229,468	533,404	2.32	4.00	3.47
1983	18	119,864	541,569	4.52	3.50	3.76
1984	16	81,645	301,726	3.70	4.50	3.60
1985	28	134,698	494,572	3.67	3.75	3.67
1986	15	132,405	440,715	3.33	3.75	3.51
1987	25	106,550	493,029	4.63	3.75	3.97
1988	44	276,630	886,757	3.21	4.00	3.71
1989	27	88,278	339,571	3.85	3.75	3.74

SUBCOMMITTEE RECOMMENDED PRICE FOR 1990 NEEDS STUDY \$4.00 Based upon 1989 construction costs.



YEAR	NO.OF CITIES	QUANTITY	COST	COST PER TREE	NEEDS STUDY UNIT PRICE	5-YEAR AVERAGE
1980	23	2,338	133,306	57.02	90.00	86.11
19 81	20	1,362	100,003	73.42	80.00	84.32
1982	31	3,122	123,015	39.40	80.00	74.67
1983	17	841	78,574	93.43	50.00	68.31
1984	34	3,743	221,765	59.25	90.00	64.50
1985	.30	1,442	82,586	57.27	90.00	64.56
1986	18	311	42,365	136.22	90.00	77.11
1987	19	535	71,490	133.63	100.00	95.96
19 88	40	884	122,030	138.04	135.00	104.88
1989	37	1,659	135,381	81.60	140.00	109.35

SUBCOMMITTEE RECOMMENDED PRICE FOR 1990 NEEDS STUDY \$ 140.00 Based upon 1989 construction costs.



YEAR	NO.OF CITIES	QUANTITY	CÓST	COST PER TON	NEEDS STUDY UNIT PRICE	5-YEAR AVERAGE
1980	4	15,662	69,469	4.44	4.50	3.40
1981	5	68,562	264,587	3.86	4.50	3.70
1982	7	29,887	114,531	3.83	4.00	4.02
1983	6	30,625	125,717	4.11	4.00	4.17
1984	13	146,141	691,052	4.73	4.25	4.19
1085	 4	21,968	123,871	5.64	4.50	4.43
1086	6	52,643	248,938	4.73	5.00	4.61
1097	. U 	60 793	239,623	3.94	5.00	4.63
1000	10	68 406	286.398	4.19	4.75	4.64
1989	5	56,590	240,949	4.26	4.75	4.55
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SUBCOMMITTEE RECOMMENDED PRICE FOR 1990 NEEDS STUDY $\frac{4.75}{100}$ Based upon 1989 construction costs.



YEAR	NO. OF CITIES	QUANTITY	COST	COST PER TON	NEEDS STUDY UNIT PRICE	5-YEAR AVERAGE
1980	42	397,897	1,753,637	4.41	4.85	3.57
1981	43	307,088	1,360,272	4.43	4.85	3.92
1982	48	431,148	1,984,392	4.60	4.85	4.25
1983	46	335,849	1,694,167	5.04	4.85	4.60
1984	50	444,073	2,210,475	4.98	5.25	4.69
1985	63	584,097	2,651,362	4.54	5.25	4.72
1986	61	455,259	2,768,438	6.08	5.25	5.05
1987	51	381,898	2,185,112	5.72	6.00	5.27
1988	70	648,988	3,385,938	5.22	6.00	5.31
1989	68	715,922	3,696,421	5.16	5.75	5.34

SUBCOMMITTEE RECOMMENDED PRICE FOR 1990 NEEDS STUDY \$ 5.50 Based upon 1989 construction costs.

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YEAR	NO.OF CITIES	QUANTITY	COST	COST PER TON	NEEDS STUDY UNIT PRICE	5-YEAR AVERAGE
1980	39	220,016	3,513,820	15.97	17.00	12.83
1981	44	211,045	4,164,825	19.73	17.00	14.83
1982	55	211,326	4,062,409	19.22	19.00	16.52
1983	44	159,242	3,363,455	21.12	20.00	18.46
1984	54	376,525	7,922,674	21.04	23.50	19.42
1985	62	294,318	6,000,326	20.39	23.50	20.30
1986	63	261,043	5,130,552	19.65	22.00	20.29
1987	50	176,177	3,515,861	19.96	22.00	20.43
1988	71	316,333	5,793,245	18.31	21.00	19.87
1989	61	313,022	5,517,034	17.63	21.00	19.19

SUBCOMMITTEE RECOMMENDED PRICE FOR 1990 NEEDS STUDY \$ 20.00 Based upon 1989 construction costs.



YEAR	NO.OF CITIES	QUANTITY	COST	COST PER TON	NEEDS STUDY UNIT PRICE	5-YEAR AVERAGE
1980	39	164,346	2,928,915	17.82	20.00	14.12
1981	38	123,479	2,595,032	21.02	20.00	15.98
1982	43	139,280	2,846,138	20.43	20.50	17.65
1983	42	113,894	2,551,729	22.40	21.50	19.47
1984	47	144,567	3,295,718	22.80	25.00	20.89
1985	. 50	154,773	3,876,447	. 25.05	25.00	2 2 .34
1986	55	122,701	2,851,035	23.24	25.00	22 .78
1987	47	101,894	2,352,539	23.09	25.00	23.31
1988	58	144,986	3,119,592	21.52	24.00	23.14
1989	44	127,267	2,707,906	21,28	24.00	22.83

SUBCOMMITTEE RECOMMENDED PRICE FOR 1990 NEEDS STUDY \$23.50 Based upon 1989 construction costs.

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YEAR	NO.OF CITIES	QUANTITY	COST	COST PER TON	NEEDS STUDY UNIT PRICE	5-YEAR AVERAGE
1980	16	17,695	469,842	26.55	. 27.00	22.63
1981	17	24,336	780,247	32.06	27.00	25.09
1982	18	26,628	725,878	27.26	30.00	26.55
1983	17	21,339	707,320	33.15	30.00	29.24
1984	16	38,723	1,212,779	31.32	35.50	30.07
1985	18	36,507	1,213,006	33.23	35.50	31.40
1986	14	25,213	855,500	33.93	35.50	31.78
1987	11	23,776	713,311	30.00	35.50	32.33
1988	17	25,201	770,369	30.57	35.50	31.81
1989	14	31,527	888,370	28.18	34.00	31.18
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SUBCOMMITTEE RECOMMENDED PRICE FOR 1990 NEEDS STUDY \$33.00 Based upon 1989 construction costs.

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YEAR	NO.OF CITIES	QUANTITY	COST	COST PER LIN. FT.	NEEDS STUDY UNIT PRICE	5-YEAR AVERAGE
1980	41	433,513	2,085,243	4.81	6.50	4.33
1981	48	332,455	1,651,673	4.97	6.50	4.65
1982	58	450,590	2,124,634	4.72	5.50	4.83
1983	47	354, 529	1,826,990	5.15	5.50	4.98
1984	. 58	554,327	2,907,985	5.25	5.50	4.98
1985	61	469,258	2,498,655	5.32	6.50	5.08
1986	67	434,124	2,243,498	5.17	6.00	5.12
1987	51	359,952	1,868,721	5.19	6.00	5.22
1 988	73	606,413	3,002,995	4.95	6.00	5.18
1989	57	603,356	2,954,409	4.90	5.50	5.11

SUBCOMMITTEE RECOMMENDED PRICE FOR 1990 NEEDS STUDY \$5.50 Based upon 1989 construction costs.

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YEAR	NO.OF CITIES	QUANTITY	COST	COST PER SQ. YD.	NEEDS STUDY UNIT PRICE	5-YEAR AVERAGE
1980	32	71,946	937,803	13.03	14.00	10.76
1981	31	46,222	577,293	12.49	14.00	11.45
1982.	44	91,266	1,112,414	12.19	13.50	12.40
1983	35	69,630	940,122	13.50	13.50	13.01
1984	44	96,059	1,277,135	13.30	14.00	12.90
1985	48	103,377	1,446,980	14.00	14.00	13.09
1986	51	79,756	1,126,616	14.13	14.00	13.42
1987	40	94,423	1,376,749	14.58	14.50	13.90
1988	62	159,205	2,150,360	13.51	14.50	13.90
1989	54	125,748	1,639,735	13.04	14.00	13.85
	5.	•				

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SUBCOMMITTEE RECOMMENDED PRICE FOR 1990 NEEDS STUDY \$14.00 BASED UPON 1989 CONSTRUCTION COSTS.

UNIT PRICE

STATE OF MINNESOTA DEPARTMENT OF TRANSPORTATION OFFICE MEMORANDUM OFFICE OF BRIDGES AND STRUCTURES

TO K. G. Straus : State Aid Needs Unit ntr FROM : D. V. Halvorson Hydraulics Engineer 71

DATE : March 2, 1990 PHONE : 612/296-0824 FAX : 612/297-2070

SUBJECT : State Aid Storm Sewer Construction Costs for 1990

We have analyzed the State Aid storm sewer construction costs for 1990 and find that, for planning and needs purposes, a figure of \$196,000 per mile can again be used. For storm sewer adjustments we suggest \$62,000 per mile.

The above amounts are based on the average cost per mile of State Aid storm sewers using highway unit prices on approximately 150 plans over a one-year period. This study, in recent years, has been updated in accordance with unit price increases as per Mn/DOT Estimating Unit records.

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cc: D. V. Halvorson E. H. Aswegan PREVIOUS STORM SEWER, LIGHTING AND SIGNAL COSTS

(All unit prices are per mile)

STORM SEWER ADJUSTMENT	STORM SEWER CONSTRUCTION	LIGHTING	SIGNALS
\$54,000	\$172,000	\$2,000	\$10,000
54,000	172,000	2,000	10,000
62 000	196,000	2,000	10,000
62,000	196,000	2,000	10,000
62,000	98 000 *	2,000	10,000
62,000	0 *	2,000	10,000
62,000	106 000 +	2,000	10,000
62,000	196,000	2,000	12 000
62,000	196,000 *	2,000	15,000
62,000	196,000 *	16,000	15,000
62,000	196,000 *	16,000	15,000-45,000
	STORM SEWER ADJUSTMENT \$54,000 62,000 62,000 62,000 62,000 62,000 62,000 62,000 62,000 62,000 62,000 62,000	STORM SEWER STORM SEWER ADJUSTMENT CONSTRUCTION \$54,000 \$172,000 54,000 172,000 62,000 196,000 62,000 98,000 * 62,000 196,000 62,000 196,000 * 62,000 196,000 * 62,000 196,000 * 62,000 196,000 * 62,000 196,000 *	STORM SEWER ADJUSTMENT STORM SEWER CONSTRUCTION LIGHTING \$54,000 \$172,000 \$2,000 54,000 172,000 2,000 62,000 196,000 2,000 62,000 196,000 2,000 62,000 196,000 2,000 62,000 196,000 2,000 62,000 196,000 2,000 62,000 196,000 2,000 62,000 196,000 2,000 62,000 196,000 16,000 62,000 196,000 16,000 62,000 196,000 16,000

* Years that "After the Fact Needs" were in effect. 1986 to 1989 price was used only for needs purposes.

PREVIOUS RAILROAD CROSSINGS COSTS

NEEDS YEAR	SIGNS (Per Unit)	SIGNALS (Low Speed) (Per Unit)	SIGNALS & GATES (High Speed) (Per Unit)	RUBBERIZED MATERIAL (Per Ft.)
1980	\$300	\$50,000	\$90,000	
1981	300	55,000	90,000	
1982	300	60,000	95,000	
1983	300	65,000	95,000	
1984	300	65,000	· 95,000	
1985	300	65,000	95,000	
1986	300	65,000	95,000	
1987	-300	65,000	95,000	
1988	300	65,000	95,000	\$700
1989	300	70,000	99,000	700

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DEPARTME Railroad Room 810	NT OF TRANSPORTATION s and Waterways	S 0	T A F F	7	T I	E C 1	O E	F M	M E	I M	N 0	N R	E A	S (<u>N I</u>	ГА Ј <u>М</u>
то:	Kenneth Straus Highway Needs Unit					Da	ate	: N	lar	ch	n 6	; ,	19	90	
FROM:	Robert G. Swanson, Director Railroad Administration					PI	NOF	E:	29	6-	·24	72			
SUBJECT:	Projected Railroad Grade Crossin Improvements - Cost for 1990	g													
	We have projected 1990 costs for grade crossing improvements. Th follows:	ra: ey a	ilr are	0a €	ad- exp	-hi pec	igh cte	way d t	/ w :0	or be	k a	at s			
	Railroad Grade Crossings:														
	Signals (Single Track - Low Spee (Average Price)	d)*					Un.	it	\$	75	,0	00.	. 0 ()	
	Signals and Gates: (Multiple Track - High & Low : (Average Price)	Spee	ed)	*	: *		Un:	it	\$1	10	, 0	00.	00)	
	Signs Only						Un.	it		:	\$4	00.	00)	
	Crossing Surfaces: (Rubber Crossing Surface) Complete reconstruction of the crossing. Labor and Materials	9	Þ	er	T	ra	ck	Ft		:	\$7	50.	00)	
	* Modern signals with motion se activated when train enters elect if train stops before reaching cr	enso cric coss	ors al inq	- c J·	s ir	ig Cu	na] it	ls -	ar) dea	e act	tiv	vat	ed		
	** Modern signals with grade cro capabilities in (*) above, plus a distance of train from crossing t second warning of approaching tra MPH.	ossi abil cog ains	ng ity ive tr	₽ ? a	re to co ve	di g ns li	cto aug tar ng	ors Je It fr	- 20- om	ha eed -25 5	as 1 a 5 to	and > 8	0		

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1989 BRIDGE CONSTRUCTION COSTS -

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Bridges 0-149 Feet

BRIDGE NUMBER	PROJECT NUMBER	DECK AREA	BRIDGE COST	COST Sq. Ft.	LENGTH
		2.416	\$128,681	\$53.26	75.50
54538	54-599-45 65-597-01	2,568	83,745	32.61	73.67
0554/	35-599-20	2,755	136,371	49.50	76.54
35522	45-617-04	4,790	207,828	43.39	133.04
40044	43-615-04	5,708	209,554	36.71	120.58
42042	42-013 04	3,060	115,915	37.88	90.00
49533	77-611-22	4,840	157,815	32.61	121.00
77522	25-599-21	3,338	163,611	49.01	113.79
23533	64-599-31	4,320	197,630	45.75	144.00
76513	76-607-04	4,640	197,778	42.62	131.33
33524	33-598-05	1,860	79,041	42.50	62.00
50566	50-599-41	4,522	175,339	38.77	145.67
87558	87-617-06	3,232	132,019	40.85	102.00
87559	87-617-05	3,232	129,211	39.98	95.00
87566	87-599-42	2,520	111,145	44.11	84.00
22587	22-601-17	2,136	89,373	41.84	59.33
84516	84-609-05	3,120	151,034	48.41	104.00
27628	141-197-15	2,775	327,795	118.12	41.83
05528	05-604-14	3,232	112,571	34.83	67.33
58529	58-640-08	2,998	119,285	39.79	85.83
15513	45-599-27	2,721	129,137	47.46	84.17
45544	45-612-09	4,577	209,309	45.73	130.67
22585	22-602-16	2,280	84,814	37.20	63.33
69586	69-710-08	3,244	153,232	47.24	77.25
42540	42-601-06	4,725	180,965	38.30	134.98
42540	49-636-03	3,834	184,268	48.06	112.75
02541	02 - 601 - 29	5,532	694,199	125.49	56.07
12543	12-599-33	1,833	75,254	41.06	61.10
27683	120-136-08	8,623	722,982	83.84	103.45
27003	*	15,140	1,693,018	111.82	56.56
27709	*	22,976	2,256,994	98.23	83.88
25003	*	5,604	277,450	49.51	119.21
45005	*	5,257	298,010	56.69	124.67
43012	*	6,582	234,892	35.69	102.33
27049	*	5,718	470,545	82.29	126.23
49032	*	3,852	166,097	43.12	100.92
27748	*	5,291	535,070	101.13	112.00
27749	*	14,960	747,961	50.00	109.11
27750	*	6,096	608,171	99.77	96.00
27790	*	5,775	363,171	62.89	110.61
87015	*	5,953	257,041	43.18	118.67
62701	*	5,922	634,964	107.22	115.35
Total	42	214,557	\$14,003,285	\$65.27	AVERAGE
		105 101	ČE 450 001	\$51 70	AVERAGE
STATE A	ID PROJECTS	105,431	20,407,701 Co 610 201	¢78 99	AVERAGE
* MN/DO	T PROJECTS	109,126	20,243,204	¥10.23	

1989 BRIDGE CONSTRUCTION PROJECTS

BRIDGE NUMBER	DECK AREA	BRIDGE COST	COST SQ. FT.	LENGTH
27964	11,841	\$619,055	\$52.28	226.25
27820	28,204	2,248,625	79.73	174.17
62894	14,330	1,054,872	73.61	202.47
62888	13,770	1,254,295	91.09	246.18
62897	23,707	1,744,735	73.60	483.81
62817	15,330	1,245,286	81.23	250.06
43011	7,955	295,416	37.14	172.30
62882	8,627	598,127	69.33	252.31
27023	21,526	1,485,201	69.00	317.74
27752	58,385	3,072,390	52.62	324.07
27786	10,286	641,946	62.41	243.91
27787	9,310	550,740	59.16	243.91
27788	7,602	642,980	84.58	288.67
27791	13,910	997,688	71.72	495.00
62828	15,755	928,611	58.94	199.84
27705	23,412	1,681,693	71.83	389.32
33003	8,956	318,591	35.57	194.00
62810	17,720	887,810	50.10	170.16
62830	10,241	653,160	63.78	238.50
62874	5,352	608,674	113.73	205.29
* 19527	44,408	2,785,889	62.73	290.82
* 14520	15,107	801,931	53.08	348.62
* 69539	8,253	376,017	45.56	263.40
* 69580	10,241	536,796	52.42	289.85
* 08534	14,148	453,103	32.03	326.50
TOTAL	418,376	\$26,483,631	\$63.30 AVE	RAGE
MN/DOT BRIDO	ES 326.219	\$21.529.895	\$66.00 AVE	RACE
STATE AID BE	RIDGES 92,157	\$4,953,736	\$53.75 AVE	RAGE
Bridges 500	Feet and Over			
BRIDGE	DECK	BRIDGE	COST	
NUMBER	AREA	COST	SQ. FT.	LENGTH
		¢2 000 100		
27052	94 700	52, 550, 199	300.U/ 62.45	602.00
27032	62 061	0,000,000	03.40	1,231.66
27077	31 754	2,082,130	33.55	/34.42
27732	32 393	1 401 210	44.57	608.51
27751	17 126	1 388 180	43.20 91 AC	660 90
27753	27,120 23 5Q2	1 755 1 <i>67</i>	01.00 71 10	507.8U
27754	23,392	1,158,735	19.40	520.00
27789	41 032	2,649,830	64 59	222.00
62082	122.744	12,109,595	98 66	1 102 22
62875	72.706	2,890,810	39.76	±,±03.00 701 ≤0
62876	80.395	2,916,161	36,27	721.02 724 51
62858	43,209	1,412,136	32.68	707.00
TOTAL	684,812	\$40,178,274	\$58.67 AVE	RAGE

BRIDGES BETWEEN 150 FT. - 499 FT.

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1989 BRIDGE CONSTRUCTION COSTS

BRIDGE WIDENING

	BRIDGE NUMBER		DECK AREA	BRIDGE COST	COST SQ. FT.	LENGTH
<pre>(1) (2) (2) (3) (3) (4) (4) (1) (1) (2) (1)</pre>	279.09 5310 6694 73817 86803 59001 9549 69808 9701 7017 55519	*	1,265 5,517 1,411 7,465 10,189 1,066 1,615 6,066 3,961 2,168 1,165	\$191,109 986,155 250,819 437,873 575,455 181,584 215,520 1,847,092 569,545 302,674 211,276	\$151.07 178.75 177.76 58.66 56.48 170.34 133.45 304.50 143.79 139.61 181.35	72.83 234.04 99.00 192.79 285.79 99.54 93.17 776.00 270.02 153.25 264.68
TOTA	L 11		41,888	\$5,769,102	\$137.73	AVERAGE

Deck Area is for the widening portion. * State Aid Bridges (1) Bridge Widening + Substructure Work (1) Bridge Widening + Substructure Work + Replace Deck
(2) Bridge Widening + Substructure Work + Deck Overlay
(4) Bridge Widening + Substructure Work + Replace Superstructure

RAILROAD	BRIDGES
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NUMBER	OF TRACKS	COST	LIN. FT.	LENGTH
62016	2	\$3,699,430	\$8,536.23	433.38

BRIDGE COSTS

Price per sq. ft.

:	Bri pri	dge & S ce aver	tructure	S	: Screening Committee : Recomendations					
: Const. : Year	0' to 149'	150' to 499'	500' and over	Wide- ning	: 0' to 149'	150' to 499'	500' and over	Wide- ning	Needs year	
: 1980	39.00	43.00	62.00	75.00	39.00	43.00	62.00	75.00	81	
: 1981	36.00	43.00	62.00	75.00	36.00	43.00	62.00	75.00	82	
: 1982	36.00	41.00	62.00	70.00	36.00	43.00	62.00	75.00	83	
: 1983	38.00	44.00	50.00	65.00	38.00	44.00	50.00	65.00	84	
: 1984	45.00	51.00	48.00	57.00	45.00	51.00	50.00	65.00	85	
: 1985	45.00	46.00	61.00	49.00	49.00	51.00	55.00	65.00	86	
: 1986	36.40	39.66	54.12	116.67	37.00	40.00	54.00	100.00	87	
: 1987	41.50	47.30	56.04	147.46	41.50	47.00	56.00	120.00	88	
: 1988	55.02	58.40	120.94	199.88	55.00	60.00	70.00	200.00	89	
: : 1989	65.27	63.30	58.67	137.73					90	
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Lotus-File_123 (Unitcomp)

1990 COUNTY SCREENING BOARD DATA

JUNE, 1990

C.S.A.H. Roadway Unit Price Report

Construction Item	1989 CSAH Needs Study Average	1985-1989 CSAH 5-Year Construction Average	1989 CSAH Construction Average	1990 CSAH Needs Study Unit Price Recommended by CSAH Subcommittee
Decide				
Rural & Orban Design				
Grav. Base Cl 5 & 6/Ton	\$3.56	\$3.82	\$3.87	
				•
Rural Design	,			
Subbase Cl 3 & 4/Ton	\$3.41	\$3.58	\$3.73	
Bit.Base & Surf. 2331/Tor	1 15.53	16.25	14.29	
Bit.Surf. 2341/Ton	16.15	17.59	15.82	
Con.Surf. 2301/Sq.Yd.	11.80		(11.80)	
		o 81	(1987-MH/DOT))
Gravel Surf. 2118/Ton	3.55	3.71	3.70	
Gravel Shldr. 2221/Ton	4.11	4.07	5.05	
Unhan Dogign				
Urban Design				
Subbase Cl 3 & 4/Ton	\$3.56	\$5.41	\$5.91	
Bit. Base & Surf. 2331/To:	n 18.34	19.07	17.13	
Bit.Surf. 2341/Ton	19.26	23.16	18.41	
Con.Surf. 2301/Sq.Yd.	14.89	නො නො අතා	(14.89) (1987-Mn/DOT))

* The Recommended Gravel Base Unit Price for each individual county is shown on the state map foldout (Fig. A).

G.B. - The gravel base price as shown on the state map.

25 YEAR CONSTRUCTION NEEDS FOR EACH INDIVIDUAL CONSTRUCTION ITEM

ITEM	1988 APPORTIONMENT COST	1989 APPORTIONMENT COST	DIFFERENCE	1989 % OF THE TOTAL
Grading	\$58.252.881	\$86.051.741	\$27 798 860	••••••••••••••••••••••••••••••••••••••
Special Drainage	2.034 617	1 537 367	<i>407</i> 250	0.076
Storm Sever Adjustment	9 386 180	12 662 990	(497,200)	0.10%
Curb & Gutter Removal	6 770 249	11 202,000	3,278,700	1.318
Sidewalk Removal	4 217 120	11,493,344	4,523,073	1.1/3
Pavement Removal	13 722 460	0,400,970	4,083,856	0.8/8
Tree removal	13,133,400	25,8/1,629	12,138,161	2.67%
TICE TEMOVAL	3,303,855	3,638,040	334,185	0.38%
SUBTOTAL GRADING	\$97,798,370	\$149,455,955	\$51,657,585	15.43%
Gravel Subbase #2211	41,318,004	58 667 843	17 3/0 920	6 06%
Gravel Base #2211	33,618,686	45 871 540	17 787 081	0.005
Bituminous Base #2331	51,849,780	76,965,569	25,115,789	4.748 7.95%
SUBTOTAL BASE	\$126,786,470	\$181,504,952	\$54,718,482	18.74%
Bituminous Surface #2331	2,583,042	2,711,415	128,373	0.28%
Bituminous Surface #2341	112,700,142	141,291,618	28,591,476	14.59%
Bituminous Surface #2361	43,680,850	46,032,759	2,351,909	4.75%
Surface Widening	3,182,736	2,197,440	(985,296)	0.23%
SUBTOTAL SURFACE	\$162,146,770	\$192,233,232	\$30,086,462	19.85%
Gravel Shoulders #2221	478,519	629,116	150,597	0.06%
SUBTOTAL SHOULDERS	\$478,519	\$629,116	\$150,597	0.06%
Curb and Gutter	51,370,494	64,560,851	13,190,357	6.67%
Sidewalk	15,130,192	28,800,254	13,670,062	2.97%
Traffic Signals	32,757,240	54,965,700	22,208,460	5.68%
Street Lighting	35,196,800	36,053,920	857,120	3.72%
Retaining Walls	2,019,333	2,839,433	820,100	0.29%
SUBTOTAL MISCELLANEOUS	\$136,474,059	\$187;220,158	\$50,746,099	19.33%
TOTAL ROADWAY	\$523,684,188	\$711,043,413	\$187,359,225	73.43%
Bridge	30 501 006			
Railroad Crossings	J7,J01,020 12 012 000	50,546,506	16,964,680	5.84%
Maintenance	13,813,800	17,155,200	3,341,400	1.77%
Engineering	4,905,401	12,083,911	7,118,510	1.25%
THATHEET TIR		1/1,969,881	171,969,881	17.76%
SUBTOTAL OTHERS	\$58,361,027	\$257,755,498	\$199,394,471	26.62%
TOTAL	\$582,045,215	\$968,338,775	\$386,293,560	100.00%

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Minnesota Department of Transportation

MINNESOTA 19

Transportation Building,

St. Paul, MN 55155

February 12, 1990

(612) 296-1662

In reply refer to: Unencumbered Construction Fund Balance

Dear

The present Screening Board Directive states that whenever a municipality's construction fund balance available as of September 1, of the current year, not including the current year's allotment, exceeds \$300,000 or two times their annual construction allotment (whichever is greater), shall receive an adjustment to their money needs.

Our records show that as of February 1, 1990 you have a balance of \$ ______available for construction, not including the 1990 allotment. Recent submittals for payment were not deducted from the construction fund balance.

According to the guidelines set forth by the Screening Board Resolution, you have an excess balance of \$_____. This excess must be reduced by September 1, 1990 to avoid an adjustment to the money needs.

Any excess above the specified limits will result in \$_____ loss of money needs. The effect of this loss for the 1991 apportionment, based on the 1990 apportionment, will be approximately \$_____.

A copy of this notice was also sent to the Municipal Clerk when a Consulting Engineer is retained.

If there are questions regarding your fund balance, please feel free to call me at the above number.

Sincerely,

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Kenneth Straus Municipal State Aid Needs Manager

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TENTATIVE UNENCUMBERED BALANCE ADJUSTMENT

The guidelines setforth in the resolution will affect the city's apportionment the following year by approximately the amount of (F) if the balance is not reduced to the allowable balance (C) by September 1,1990. See attached resolution.

		(A)	(B)	(C)	()	D)	(E) (2xB)	(F) ***	(G)
	Balance	1990	Amount	*	(B-	-C)	(Negative)	Estimated	Column B
	As Of (-)	Construction	(=) Available	(-) Allowable	(=) Exc	cess	Adjustment Of	Loss Of 1991	Divided By
Municipality	2-01-90	Allotment	2-01-90	Balance	Bala	ance	Needs	Apportionment	Column A
Anoka	\$685,151	\$200,230	\$484,921	\$400,460	\$		\$969,842	\$40,724	2.42
Blaine	2,500,653	784,216	1,716,437	1,568,432	14	48,005	3,432,874	144,146	2.19
Brooklyn Center	2,743,106	731,147	2,011,959	1,462,294	54	49,665	4,023,918	168,964	2.75
Cloquet	1,431,972	406,376	1,025,596	812,752	21	12,844	2,051,192	86,130	2.52
Fridley	1,769,758	587,431	1,182,327	1,174,862		7,465	2,364,654	7,465 **	2.01
Hermantown	1,041,162	241,853	799,309	483,706	31	15,603	1,598,618	67,126	3.30
Lake Elmo	519,244	126,981	392,263	300,000	ç	92,263	784,526	32,942	3.09
Lino Lakes	1,169,840	278,716	891,124	557,432	33	3,692	1,782,248	74,837	3.20
Litchfield	749,579	212,346	537,233	424,692	11	2,541	1,074,466	45,117	2.53
Little Falls	998,687	312,175	686,512	624,350	(52,162	1,373,024	57,653	2.20
Maplewood	3,196,092	411,837	2,784,255	823,674	1,96	50,581	11,137,020	467,643	6.76
Northfield	1,112,602	329,086	783,516	658,172	12	25,344	1,567,032	65,800	2.38
Prior Lake	1,048,772	299, 324	749,448	598,648	. 15	50,800	1,498,896	62,939	2.50
Redwood Falls	474,784	124,863	349,921	300,000	4	9,921	699,842	29,386	2.80
Richfield	2,494,081	760,152	1,733,929	1,520,304	21	3,625	3,467,858	145,615	2.28
Rochester	5,822,605	1,732,946	4,089,659	3,465,892	62	3,767	8,179,318	343,450	2.36
St. Louis Park	3,209,772	799,588	2,410,184	1,599,176	81	1,008	4,820,368	202,407	3.01
Spring Lake Park	506,428	133,097	373,331	300,000	7	3,331	746,662	31,352	2.80
Stillwater	1,345,436	362,263	983,173	724,526	25	8,647	1,966,346	82,567	2.71
Vadnais Heights	443,910	127,663	316,247	300,000	1	6,247	632,494	16,247 **	2.48
Woodbury	2,699,458	718,936	1,980,522	1,437,872	54	2,650	3,961,044	166,324	2.75
	\$35,963,092	\$9,681,226	\$26,281,866	\$19,537,244	\$6,74	4,622	\$58,132,242	\$2,338,835	 2.71

* The allowable balance in (C) is two times the construction allotment or \$300,000 (whichever is greater.)

** The initial adjustment loss in apportionment in (F) cannot exceed excess balance in (D).

*** Based on the 1990 apportionment \$1000 of money needs = \$41.99.

Storm Sewer Needs Guide

A. Storm Sewer Adjustment

- Inplace storm sewer will receive storm sewer adjustment needs for the full segment length when the street is considered to be deficient or reinstated due to the 20 year reinstatement.
- The street is eligible for storm sewer adjustment needs when catch basins are more than 500 feet apart.

B. Complete Storm Sewer Needs

- Non-existing streets shall receive complete storm sewer needs for the entire length of the street segment where an urban section is proposed.
- Storm sewer needs shall be received for the total length of an urban section instead of reducing the length for non-tributary road segments.
- 3. New designations which have an existing storm sewer can not receive complete storm sewer needs unless a report is submitted to and approved by the District State Aid Engineer outlining the special circumstances which would justify storm sewer reconstruction.

- 4. Streets will be eligible for complete storm sewer needs when the inplace storm sewer has deteriorated to a point that the present system is required to be replaced within 20 years. (An example - first layer rebars exposed, numerous pipes broken, etc.).
- 5. A street will not be eligible for complete storm sewer needs if State Aid funds were expended for the existing storm sewer until a life determination has been made.
- 6. A street will be eligible for complete storm sewer needs which was constructed with local funds prior to MSAS designation and is found to be inadequate to handle the drainage.
- 7. Establish a special drainage needs dollar rate per mile to address rural and suburban section design (example - cross culverts, approach culverts, etc.). This would eliminate the disparity between rural and urban sections. (A unit price be established by the June Screening Committee).



FAX (612) 890-3815

April 4, 1990

Municipal Screening Board MN/DOT State Aid Office Transportation Building, Room 420 St. Paul, MN 55155

RE: STATE AID BOND ACCOUNT

Dear Board Members:

As most of you know, I accepted the position of City Engineer for the City of Savage in January of this year. During my review of their state aid system, updating their needs, and completing various other state aid items, the status of their state aid bond account revealed some discrepancies between the data included in the Needs and Apportionment books prepared by the State Aid Office, and the information contained within the City's files on their state aid system. I will try to provide some history regarding this matter.

The City of Savage was first included within the Municipal State Aid system beginning with the 1985 apportionment. During the first three years, the City accumulated their funds and initiated their first Municipal State Aid projects. Four (4) MSA projects were contracted for in 1987, totalling \$1,078,417.35 in initial approved MSA payments (June and July, 1987) for construction and preliminary engineering. Since the City had received only three years of apportionment at that time (\$496,831.00 construction allotment), a shortfall of \$581,586.35 existed in the financing of these projects. The City of Savage, therefore, issued state aid bonds in the amount of \$875,000 in October, 1987, to offset the deficit. Unfortunately, this deficit amount of \$581,586.35 has not been credited to the City's state aid bond account which imposes a negative impact upon the City's future apportionment amounts.

The apportionment years affected by this lack of state aid bond adjustment are 1989, 1990, and 1991. These years are based upon the method used in determining state aid bond adjustment and the aspect that this matter will now be finalized in 1990. Therefore, the City's state aid bond account will be correct as of December 31, 1990 which is the basis for the 1992 apportionment. The loss in MSA apportionments is summarized on the next page:

Municipal Screening Board Members April 4, 1990

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<u>CITY OF SAVAGE</u> STATE AID BOND ACCOUNT							
Date of Is Amount of	sue: Issue:	October 1, 1987 \$875,000					
	UNAMORTIZED BOND <u>BALANCE</u>	TOTAL DISPERSEMENT & OBLIG. TO <u>DEC. 31</u>	UNENCUMBERED BOND BALANCE AVAILABLE	BOND ACCOUNT <u>ADJUST.</u>			
1. 1989 Apportionment							
Needs Listing Proposed Actual	\$875,000 875,000	<u>1987</u> -0- 581,586.35	\$875,000 293,413.65	-0- <u>\$581,586.35</u>			
Difference				\$581,586.35			
1989 MSA Apportionment	Loss:						
Revised Money Needs Apportionment =	<u>38,233,14</u> (588,403,918 +	<u>1 </u>)38,963 + 581,58	36) = 235,023			
Actual Money Needs & Apportionment =				<u>\$197,465</u>			
MSA Apportionment Loss	=			\$ 37,558			
2. 1990 Apportionment							
Needs Listing Proposed Actual	\$875,000 875,000	<u>1988</u> -0- 581,586.35	\$875,000 293,413.65	-0- <u>\$581,586.35</u>			
Difference				\$581,586.35			
1990 MSA Apportionment Loss:							
Revised Money Needs Apportionment = (9	<u>40,696,010</u> 69,162,426 + 5	x (5,11	4,749 + 581,586) = \$239,051			
Actual Money Needs Apportionment =				6714 773			
MSA Apportionment Loss:				\$ 24.278			

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Municipal Screening Board Members April 4, 1990

Page Three

3. 1991 Apportionment

		<u>1989</u>		
Needs Listing	\$775,000	-0-	\$875,0 00	(100,000.00)
Proposed Actual	775,000	581,586.35	293,413.65	<u>\$481,586.35</u>

Difference

\$581,586.35

1991 MSA Apportionment Loss = \$581,586.35 x Unknown = \$??

The total apportionment loss, to date, is \$61,836.00 with the 1991 figure yet to be determined. Copies of the State Aid Partial Payment notice for the four (4) MSA projects contracted for in 1987 are attached for your information. These payment notices addressed the initial construction obligation and preliminary engineering costs. Further, the City has not received any funds from their regular construction account apportionment from the years 1988, 1989, and 1990 to offset this deficit. Copies of the 1989 and 1990 Apportionment Books applicable to the bond adjustment are also attached for your information.

The City of Savage respectfully requests the Municipal Screening Board to review this matter and take action deemed appropriate to address this apportionment loss experienced by the City associated with this bond account adjustment discrepancy. Thank you very much for your consideration of this matter.

If you have any questions or require additional information, please feel free to contact me.

Sincerely,

Bruce R. Bully

Bruce R. Bullert City Engineer

BRB:ctk Enclosures

cc: Mr. Kenneth Strauss

Unamortized Bond Account Balance

(Amount as of December 31, 1988)

(For Reference, see Bond Adjustment Resolution)

(For Computations)

Step A: Amount of issue minus disbursements = unencumbered balance.

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Step B: Unamortized bond balance minus unencumbered balance = bond account adjustment.

Municipality	Date of Issue	Amount of Issue	Unamortized Bond Balance	Total Disbursements and Obligations to December 31, 1988	Unencumbered Bond Balance Available	Off System Disburse- ment	Bond Account Adjustment
Andover	9-1-84	\$510,000	\$310,000	\$333,350	\$176,650		\$133,350
Andover	8-1-88	500,000	500,000	59,197	440,803		59,197
Anoka	7-1-86	985,000	825,000	0	985,000		(160,000)
Apple Valley	4-1-71	250,000	40,000	250,000	0		40,000
Apple Valley	12-1-74	100,000	35,000	100,000	0		35,000
Apple Valley	8-1-79	875,000	690,000	875,000	0		690,000
Brainerd	6-1-74	620,000	115,000	620,000	0		115,000
Brainerd	10-1-85	430,000	380,000	430,000	0		380,000
Brooklyn Center	9-1-70	1,050,000	180,000	1,050,000	0		180,000
Cottage Grove	5-1-77	560,000	295,000	541,186	18,814		276,186
Cottage Grove	5-1-78	610,000	115,000	0	610,000		(495,000)
Crystal	6-20-86	407,000	0	407,000	0		0
Duluth	4-1-85	1,425,000	558,750	1,300,000	125,000		433,750
Eagan	7-1-86	3,000,000	2,690,000	371,183	2,628,817		61,183
East Grand Forks	9-1-65	325,000	105,000	325,000	0		105,000
Eden Prairie	12-1-82	2,300,000	650,000	2,211,663	88.337		561.663
Falcon Heights	4-21-80	170,000	0	142,012	27,988		(27,988)
Faribault	7-1-74	550,000	75,000	550,000	0		75,000
Grand Rapids	6-1-69	200,000	20,000	200,000	0		20,000
Ham Lake	7-1-80	330,000	40,000	330,000	0		40,000
Hibbing	9-1-82	1,100,000	400,000	748,867	351,133		48,867

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Municipality	Date of Issue	Amount of Issue	Unamortized Bond Balance	Total Disbursements and Obligations to December 31, 1988	Unencumbered Bond Balance Available	Off System Disburse- ment	Bond Account Adjustment
		\$225.000	\$150,000	\$225,000	0		\$150,000
Little Canada	8-1-86	340.000	325,000	169,032	170,968		154,032
Maple Grove	7-16-79	1,100,000	160,000	1,080,299	19,701		140,299
Manlawood	8-1-71	540 000	130.000	540,000	0		130,000
Maplewood	7-1-81	310,000	0	235,496	74,504		(74,504)
Mendota Heights	3-1-75	360,000	200,000	360,000	0		200,000
+	E 14 72	101 000	٥	100.397	603	(84,422)	0
New Hope	0 1 72	215 000	0	315,000	0		0
North Mankato	9-1-73 6-1-86	550,000	0	0	550,000		(550,000)
•	0 1 70	070 000	٥	204 747	65,253		(65,253)
Orono	8-1-/9	270,000	125 000	600,000	0		125,000
Red Wing Redwood Falls	9-1-84 1982	215,000	85,000	0	215,000		(130,000)
					0		2.075.000
Roseville	12-1-85	2,225,000	2,075,000	2,225,000	0		130,000
St. Cloud	6-1-70	1,335,000	130,000	1,335,000	020 767		715,233
St. Cloud	7-1-82	1,000,000	955,000	760,233	239,707		, ,
Ct Claud	9-1-93	1 645 000	1 535 000	830,906	814,094		720,906
51. LIQUU	3-1-0J **	**	**	**	**	**	402,739
Savage	10-1-87	875,000	875,000	0	875,000		0
-		•					(13 803)
Spring Lake Park	1980	195,000	25,000	156,107	38,893		125,000
Virginia	2-1-78	420,000	125,000	420,000	0		10 953
Woodbury	11-12-75	263,000	30,000	243,853	19,147		10,000
TOTAL		\$29,181,000	\$14,948,750	\$20,645,528	\$8,535,472	(\$84,422)	\$6,816,620

* Since the unamortized bond balance is 0, no deduction is made for the offsystem disbursement.

** St. Paul - Improvement bond issue not included.

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Hunicipality	1989 Actual 25-Year Const. Heeds	Screening Board Adjustagat	(+) After The Pact Storm Sewer Adjustment	Unencumbered Const. Fund Deduction	(-) Bxpend. Off-State Aid System	(+ or -) Bond Account Adjustment	(+) Noa- Bxisting Bridge Adjustment	(+) R/W Acquisition Adjustment	Adjusted 25-Year Const. Needs	Noney Needs Apport. Minus (THTB Adj.)	(+) Turnback Maintenance Adjuntment	1990 Nomey Needs Apport.	Dist. X
St. Pater	42.718.825	***************			(\$10.829)	**			\$2,796,641	\$117,433		4117,433	0.2881
Sauk Ranide	3.225.970		291.193	(91,933)	(135.926)			9,834	3,299,138	138,534	••	138,534	0.3401
Bavage	5,815,121		222,984	(123, 362)		••			5,114,749	214, 173		214,173	0.5211
Bhakopee	5,228,989		207,933	(134,417)	(106,906)	••			5,195,599	218,168		218,168	0.6351
horeview	2.570.652		78,494	(71,824)	(122,675)	••			2,454,647	103,073		103,073	0.2531
Shorewood	1,396,954		•-		••		••		1,396,954	58,659		58,659	0.1448
South St. Paul	6.580.475		168.924	(193,262)	(2,139)	••	••	••	6,543,998	274,788		274,788	0.6741
Soring Lake Park	1.150.183		••	(266,344)	(7,532)	(13,093)			862,414	36,214		36,214	0.0891
Stillwater	4,644,420		119,053	(566,525)	(8,993)		**	104,442	4,352,397	102,761		102,761	0.4463
Thief River Palls	5,760,765		29,586		(400,557)			2,269	5,381,983	225,994		225,994	0.5541
Vadoais Heights	1,648,838		25,761	(406,713)			*-		1,259,886	52,904		52,904	0.1301
Virginia	4,483,296		33,107	••	(38,403)	125,000	••		4,603,000	193,284		193,284	0.4745
Vancea	1,538,564		23,639	(104,893)		**		5,000	1,462,310	61,404		. 61,404	0.1511
West St. Paul	4,158,297		174,858	(13,673)	(190,000)				4,129,482	173,401		173,401	0.4251
White Bear Lake	6,913,687		250,355	(231,534)	(99,420)	••		279,823	7,112,911	298,678	••	298,678	0.1338
Villear	7,599,182	• .	69,368	(212,700)	(391,721)			22,500	7,086,629	297,574	23,184	320,758	0.7875
Visons	7,396,232		83,668	(315,054)		**		340,950	7,445,796	312,656		312,656	0.1611
Woodbury	11,584,748		14,224	(1,253,910)	(71,559)	10,853		80,054	10,364,402	435,211		435,211	1.068
Vorthington	4,823,205		54,463	(8,523)	(31,113)	••	••	26,842	4,864,874	204,280	••	204,280	0.5017
STATE TOTAL	4969,735,729	(\$1,041,102	\$30,909,282	(\$47,156,035)	(\$25,978,584)	\$6,816,620	\$15,289,311	\$25,006,086	\$969,162,426	\$40,696,010	\$62,544	\$40,758,554	100.0007

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MAPLEWOOD \$7,047,102 NEGATIVE ADJUSTED NOWEY MERDS - ADJUSTED CONSTRUCTION NEEDS CANNOT BE LESS THAN ZERO.

Noney Needs		\$40,6 96 ,010				
Apportionment	:		equals	0.0419909077	I	Adj. 25 Yr. Const. Needs
		\$969,162,426				

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1990 MONEY NEEDS APPORTIONMENT WITH SAVAGE BOND ACCOUNT ADJUSTMENT (Affect on other municipalities if adjustment was included in the 1990 apportionment)

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Municipality	1990 Money Needs Apport.	Money Needs Apport. With Adjustment	Difference With Savage Bond Account Adjustment
Albert I.02	\$324,716	\$324,521	(\$195)
Alevandria	148,403	148,314	(89)
Andover	268,727	268,566	(161)
Anoka	150,004	149,914	(90)
Apple Vallev	236,590	236,448	(142)
Arden Hills	59,745	59,709	(36)
Austin	489,117	488,824	(293)
Bemidii	289,904	289,730	(174)
Blaine	264,225	264,066	(159)
Bloomington	1,707,235	1,706,211	(1,024)
Brainerd	236,937	236,794	(143)
Brooklyn Center	265,508	265,349	(159)
Brooklyn Park	366,613	366,399	(214)
Buffalo	150,157	150,066	(91)
Burnsville	621,037	620,665	(372)
Champlin	98,577	98,520	(57)
Chanhassen	190,871	190,757	(114)
Chaska	117,123	117,053	(70)
Chisholm	129,486	129,408	(78)
Cloquet	364,309	364,091	(218)
Columbia Heights	211,466	211,339	(127)
Coon Rapids	457,375	457,101	(274)
Corcoran	198,106	197,987	(119)
Cottage Grove	329,569	329,372	(197)
Crookston	236,989	236,854	(135)
Crvstal	411,849	411,602	. (247)
Detroit Lakes	115,117	115,048	(69)
Duluth	2,204,373	2,203,052	(1,321)
Eagan	462,625	462,348	(2//)
East Bethel	133,960	133,879	(81)
East Grand Forks	157,575	157,481	(94)
Eden Prairie	582,969	582,619	(350)
Edina	347,331	347,123	(208)

Municipality	1990 Money Needs Apport.	Money Needs Apport. With Adjustment	Difference With Savage Bond Account Adjustment
Elk River	\$279,909	\$279,741	(\$168)
Eveleth	105,613	105,550	(63)
Fairmont	360,304	360,088	(216)
Falcon Heights	20,439	20,427	(12)
Faribault	322,406	322,212	(194)
Farmington	199,619	199,499	(120)
Fergus Falls	193,055	192,939	(116)
Forest Lake	69,037	68,996	(41)
Fridley	301,618	301,437	(181)
Golden Valley	501,818	501,517	(301)
Grano Kapios Hamiako	222,089	222,400	(134)
nam Lake	110,403	110,392	(/1)
Hastings	115,424	115,355	(69)
Hermantown	153,647	153,554	(93)
Hibbing	507,107	506,803	(304)
Hopkins	189,990	189,876	(114)
Hutchinson	156,924	156,830	(94)
International Falls	167,270	167,169	(101)
Inver Grove Heights	222,114	221,981	(133)
Lake Elmo	84,927	84,876	(51)
Lakeville	393,947	393,711	(236)
Lino Lakes	203,633	203,511	(122)
Litchfield	130,022	129,944	(78)
Little Canada	61,452	61,415	(37)
Little Falls	216,671	216,541	(130)
Mankato	307,698	307,516	(182)
Maple Grove	616,790	616,423	(367)
Maplewood	0	0	0
Marshall	105,253	105,190	(63)
Mendota Heights	119,179	119,107	(72)
Minneapolis	5,719,608	5,716,179	(3,429)
Minnetonka	578,373	578,026	(347)
Montevideo	100,234	100,174	(60)
Moorhead	474,026	473,742	(284)
Morris	82,767	82,717	(50)
Mound	83,211	83,161	(50)
Mounds View	77,587	77,540	(47)
New Brighton	162,105	162,008	(97)
New Hope	121,428	121,355	(73)

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Municipality	1990 Money Needs Apport.	Money Needs Apport. With Adjustment	Difference With Savage Bond Account Adjustment
New Ulm	\$212,705	\$212,578	(\$127)
Northfield	218,935	218,803	(132)
North Mankato	104,445	104,382	(03)
North St. Paul	106,749	106,685	(64)
Oakdale	188,543	188,429	(82)
Orono	137,585	137,505	()
Owatonna	287,003	286,831	(172) (262)
Plymouth	435,874	430,014	(202)
Prior Lake	151,418	101,027	(/
Ramsey	263,557	263,399	(158)
Red Wing	479,344	4/9,050	(200)
Redwood Falls	48,332	48,303	(==)
Richfield	410,455	410,209	(246)
Robbinsdale	118,425	118,354	(/1)
Rochester	864,430	863,912	(518)
Rosemount	234,205	234,065	(140)
Roseville	495,977	495,680	(297)
St. Anthony	27,355	41,339	(10)
St. Cloud	574,641	574,300	(341)
St. Louis Park	315,567	315,378	(109)
St. Paul	5,285,191	5,202,022	(0/200/
st. Peter	117,433	117,363	(70)
Sauk Rapids	138,534	138,451	24 279
Savage	<u>21</u> 4,773	239,051	24,278
Shakopee	218,168	218,037	(131)
Shoreview	103,073	103,011	(62)
Shorewood	58,659	58,624	(33)
South St. Paul	274,788	274,624	(164)
Spring Lake Park	36,214	36,192	(22)
Stillwater	182,761	182,001	(110)
Thief River Falls	225,994	225,859	(135)
Vadnais Heights	52,904	52,872	(32)
Virginia	193,284	193,168	(110)
Waseca	61,404	61,367	(37)
West St. Paul	173,401	173,297	(104)
White Bear Lake	298,678	298,498	(100)
Willmar	320,758	320,579	(179)
Winona	312,656	312,468	(188)
Woodbury	435,211	434,950	(201)
Worthington	204,280	204,1J0 	(± ± ± ± ± ± ± ± ± ± ± ± ± ± ± ± ± ± ±
STATE TOTAL	\$40,758,554	\$40,758,554	\$0

ANNUAL MAINTENANCE COST FOR MUNICIPAL STATE AID STREET NEEDS

These are the current maintenance prices used in the needs study to determine maintenance apportionment needs.

I suggest that the following be incorporated into a resolution.

Maintenance Needs Costs

That for the study of needs on the Municipal State Aid Street System, the following costs shall be used in determining the maintenance apportionment needs cost for existing facilities only.

	Cost For Under 1000 Vehicles Per Day	Cost For Over 1000 Vehicles Per Day
Traffic Lanes: Segment length times number of traffic lanes times cost per mile.	\$1,200 (Per Mile)	\$2,000 (Per Mile)
Parking Lanes: Segment length times number of parking lanes times cost per mile.	\$1,200 (Per Mile)	\$1,20 0 (P er M ile)
Median Strip: Segment length times cost per mile.	\$400 (Per Mile)	\$8 00 (Per Mile
Storm Sewer: Segment length times cost per mile.	\$400 (Per Mile)	\$400 (Per Mile
Traffic Signals: Number of traffic signals times cost for each signal.	\$400 (Per Each)	\$400 (Per Each
Unlimited Segments: Normal M.S.A.S. Streets.		
Minimum allowance for mile is determined by segment length times cost per mile.	\$4,000 (Per Mile)	\$4, 000 (Per Mile)
Limited Segments: Combination Routes.		
Minimum allowance for mile is determined by segment length times cost per mile.	\$2,000 (Per Mile)	\$2,000 (Per Mile)

Suggested by Ken Straus

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STATUS OF MUNICIPAL TRAFFIC COUNTING

1. Seven County Metropolitan Traffic Area

Cities in the seven county metropolitan area count cooperatively with Mn/DOT on a two year cycle. Minneapolis and St. Paul count one half each year.

2. Out-State Municipalities

The out-state cities will be counted on a four-year cycle.

- A. Municipalities that have a count annually Duluth counts 1/4 of the city each year.
- B. Traffic to be counted in 1990 by state forces Alexandria Rochester Worthington Cloquet Willmar

C. Traffic to be counted in 1991 by state forces

Bemidji Chisholm Elk River Eveleth Fergus Falls Hermantown Hibbing	Hutchinson Litchfield North Mankato Owatonna Red Wing Redwood Falls St. Cloud	St. Peter Sauk Rapids Thief River Falls Virginia Waseca Winona
-		

D. Traffic to be counted in 1992 by state forces Austin Detroit Lakes Montevideo Buffalo International Falls

F. Traffic to be counted in 1993 by state forces

Albert Lea Brainerd Crookston East Grand Forks Fairmont	Faribault Grand Rapids Little Falls Mankato Marshall	Moorhead Morris New Ulm Northfield



CITY OF MANKATO, MINNESOTA

202 East Jackson Street Box 3368, Mankato, MN 56001 Telephone: 507-625-3161 FAX 507-388-7530

March 27, 1990

Mr. Gordon Fay, State Aid Engineer Minnesota Department of Transportation Building Room 420 St. Paul, MN 55155

RE: Request for 1990 Apportionment

Dear Mr. Fay:

In late January when the 1990 apportionments were announced, we were surprised to notice that a 1989 annexation was not reflected in our population apportionment, and that the population remained 29,746. February 1, I requested the Mankato Planning Office to verify with the State Demographer regarding the officially certified population. The 511 people included in the annexation obviously would have a significant impact on our apportionment. In mid-March, we were informed by Mr. James Hibbs of the Demographer's office that the official population for the City of Mankato as of December 31, 1989, was 30,257 people, but he indicated that Municipal State Aid was not obligated to use the State Demographer's population. These comments were directly contrary to information provided by Ken Straus when he assured me that great pains were taken to use the Demographer's official December 31, 1989, figures. Obviously, with over \$8,000 at stake, we are very concerned with the processing of our apportionment. Please verify our proper apportionment. Thank you for your consideration.

Sincerely Ken Saffert. City Engineer

KS:tk

cc: Jim Harberts, City Planner Ken Straus, Office of State Aid

Mankato is an affirmative action actual opportunity employer

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STATE OF MINNESOTA State Planning Agency 300 Centennial Building 658 Cedar Street St. Paul, Minnesota 35155 (612) 296-3985

April 9, 1990

TO: Ken Straus MnDOT 420 Transportation Bldg. FROM: Jim Hibbs J. M. Office of State Demographer

SUBJECT: Mankato Population

I had a conversation with Jim Harberts, the Mankato City Planning Director, in mid-March, but I never told him that the official estimate for Mankato was 30,257. I confirmed our official 1988 estimate was 29,779. I added that I believed the Department of Transportation was required to use figures from the 1980 Census or a subsequent special census. Since the result of the special census conducted for Mankato in 1985 was 29,746, I assumed this figure would be used by MnDOT. I had contacted Mr. Harberts to advise him that we didn't know how to handle their annexation with respect to local government aids and levy limits and had requested an opinion from the Attorney General's Office.

When annexations occur under M.S. 414.01, Subd. 14, we have statutory authority to adjust the most recent population estimates for the affected areas. These adjustments have been forwarded to the Department of Revenue and the Department of Transportion. There are other types of annexations which may involve population, but it is not clear how these annexations should be handled for your purposes. When annexations occur under M.S. 414.0325, the Municipal Board has determined that they have no authority to adjust population. An annexation under this statute by Northfield in February 1986 involved population, but no adjustment was made to the population estimate in effect at the time.

The Mankato annexation order was issued under M.S. 414.033. We are not sure we have the power to make adjustments for such annexations. We are still waiting to hear from the Attorney General's Office. We are also concerned about the reliability of the population counts in such annexations. When an annexation takes place under M.S. 414.01, Subd. 14, there is an opportunity during the hearing conducted by the Municipal Board to question the population count if it seems unreasonable. No such oversight exists with M.S. 414.033.

This whole debate raises a key question. What authority does the Department of Transportation have to adjust population for annexations? As I read M.S. 162.09, Subd 4, only the decennial census or a subsequent special census should be used to determine population. Why should cities

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> which increase their population through annexation be entitled to additional aid when cities which are growing within their existing borders do not receive any increase? Within the next year, I hope that all parties concerned with annexations can sit down and discuss the problems and ambiguities which currently exist.

cc: R. Thomas Gillaspy, State Demographer

			M.:	S.A.S. UNIT PR	ICE STUDY			PAGE 8	
				EXCAVATION	CU. YD.				1971.
	TOTALS		TOTAL Cost	COST PER MILE	TOTAL QUANTITY	QUANIITY PER MILE	PRICE	LENGIN	
			32,628	171,726	<u> </u>	-57,242 - 13,162	<u> </u>	19 .29	
	GRAND RAPIDS HIBBING	ŤŎŤ TŎŤ	111,427 18,687	94,430 35,937	38,872 6,229	32,942 11,979	2.87 3.00	1.18 ,52	
	VIRGINIA HERMANTOWN		50,627 1,855	126,568 1,855	<u>12,944</u> 1,060	32,360 1,060	<u>3,91</u> 1.75	1.00 3.58	
	DISTRICT 1		232,513	64,948 25 161	2,600	8.387	3.15	31	
	CROOKSTON FAST GRAND FORKS	TOT	41,127	24,925	13,827 15,020	8,380 11,734	2.97 3.92	1,65 1,28	
	THIEF RIVER FALLS DISTRICT 2	TOT	45,966 153,748	85,122 40,674	15,432 46,879	28,578 12,402	2.98 <u>3.28</u>	3.78	
	BRAINERD	TOT	2,360	21,455	1,049	9,536	2.25	.11	
	SI CLUUD ELK RIVER		<u>34,800</u> 68,564	23,673	<u>29,000</u> 51,824	<u> </u>	<u> </u>	<u> </u>	
	DETROIT LAKES	тот	20,589	38,847	6,335	11,953	3.25	, 53	
, A	FERGUS FALLS MOORHEAD	<u> </u>	5,884 2,692	42,029	<u> </u>	10,007 452 7,002	<u> 4.20 </u> 4.16 7.68	1.43 2.10	
e }	DISTRICT 4	TOT	29,165	13,888	8,383	3,992	3.40	58	
6			<u> </u>	131.723	4,057	33,374	1.03	1.33	
	BROOKLYN CENTER Columbia Heights	ŤŎŤ ŤŎŤ	2,295 3,804	22,950	270	2,700 1,057	8.50		
	COON RAPIDS Edina	TOT Tot	9,060 51,134	5,524 106,529	10,800 12,696	6,585 26,450	.84 4.03 2.47	1.64 .48 .02	
	FRIDLEY GOLDEN_VALLEY		42,552		12,118 5,554	<u> </u>	$-\frac{2.67}{3.51}$		<u>स्तर</u> ा
	MINNETONKA		1,675	4,653	6,700 34,000	18,611 60,714	.25	. 36 . 56	
	ST ANTHONY ST LOUIS PARK	<u>tôt</u> Tot	138	601,545	<u>23</u> 57,440	185,290	<u> </u>	. 31	
	NEW HOPE Maple grove	TOT TOT TOT	30,721 131,240	15,208 108,463	7,924 86,965 36,050	3,923 71,872	3.88 1.51 1.23	2.02 1.21	
			16,447	11,918	13,357	9,679	1.23	1,38 3,92	
	RAMSEY PRIOR LAKE	TOT	8,050	17,128 37,808	8,050	17,128 21,315	1.00	.47 	
, ۵۰ م	EAST BETHEL LINO LAKES	TOT TOT	22,160 550	19,103 2,200	14,773	12,735 2,200	1.50 1.00	1.16	
•	DISTRICT 5	тот	961,797	46,509	447,058	21,618	2.15	20.68	**.
	ALBERT LEA AUSTIN FADIDAULT		4,675 12,766 46 212	58,958 31,137 67 502	1,466 5,106 21 606	12,454	2.50 3 00	:41 :95	•.•
	FARIDAULI	IUI	91,616	911976	640 AN A		* • * *		

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			M.:	EXCAVATION	CU. YD.			PAGE 9
	TOTALS NORTHFIELD OWATONNA WINDNA DISTRICT 6	TOT TOT TOT	TOTAL COST 12,635 3,194 19,078 116,750	COST PER MILE 22,973 10,647 90,848 45,890	TOTAL QUANTITY 6,650 597 2,777 38,000	QUANTITY PER MILE 12,091 1,990 13,224 14 961	UNIT PRICE 1.90 5.35 6.87 3.07	LENGTH .55 .30 .21 2 54
•.	FAIRMONT MANKATO ST PETER Worthington District 7	TOT TOT TOT TOT TOT TOT	13,862 62,194 80,221 16,160 172,437	46,207 388,713 64,177 47,529 84,116	2,750 22,616 31,779 4,617 61,762	9,167 141,350 25,423 13,579 30,128	5.04 2.75 2.52 3.50 2.79	30 .16 1.25 .34
	LITCHFIELD MARSHALL WILLMAR DISTRICT 8	TOT TOT TOT TOT	1,152 31,916 32,385 65,453	7,680 34,318 29,986 30,302	707 14,998 10,795 26,500	9,713 16,127 9,995 12,269	1.63 2.13 3.00 2.47	,15 .93 1.08 2.16
ų	MAPLEWOOD NEW BRIGHTON NORTH ST PAUL ST PAUL SHOREVIEW WEST ST PAUL	TOT TOT TOT TOT TOT TOT TOT	26,496 27.604 18,913 235,318 55,040 26,861	33,969 8,626 61,010 42,553 33,767 44,768	21,315 8,823 6,950 71,547 17,774 6,806	27,327 2,757 22,419 12,938 10,904 11,343	1.24 3.13 2.72 3.29 3.10 3.95	.78 3.20 .31 5.53 1.63 .60
age 64	BURNSVILLE APPLE VALLEY LAKEVILLE EAGAN LAKE ELMO ROSEMOUNT	TOT TOT TOT TOT TOT TOT TOT	25,851 96,048 84,417 283,981 15,948 27,165	11,592 63,149 27,678 46,631 18,544 27,165	14,289 95,898 78,418 145,556 12,268 27,234	6,408 63,091 25,711 23,901 14,265 27,234	1.81 1.00 1.08 1.95 1.30 1.00	2.23 1.52 3.05 6.09 .86 1.00
	VADNAIS HEIGHTS DISTRICT 9		9,184 932,826	12,935 33,909	2,570 509,448	3,620 18,519	3,57 1.83	.71
	STATE TOTAL		2,733,063	41,068	1,263,652	18,988	2.16	66.55
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			M,S E	.A.S. UNIT PR KCAVATION	ICE STUDY Cu. YD.			PAGE 10
	TOTALS		TOTAL Cost	COST PER MILE	TOTAL QUANTITY	QUANTITY PER MILE	UNIT PRICE	LENGTH
	DISTRICT 1 DISTRICT 2 DISTRICT 3 DISTRICT 3	TOT TOT TOT TOT	232,513 153,748 68,564 29 165	64,948 40,674 31,890	73,798 46,879 51,824 8,383	20,614 12,402 24,104 3,992	3.15 3.28 1.32 3.48	3.78 2.15 2.10
	DISTRICT 9 DISTRICT 5 DISTRICT 6 DISTRICT 7 DISTRICT 8 DISTRICT 9	TOT TOT TOT TOT TOT TOT	961,797 116,560 172,437 65,453 932,826	46,509 45,890 84,116 30,302 33,909	447,058 38,000 61,762 26,500 509,448	21,618 14,961 30,128 12,269 18,519	2.15 3.07 2.79 2.47 1.83	20.68 2.54 2.05 2.16 27.51
	STATE TOTAL		2,733,063	41,068	1,263,652	18,988	2.16	66.55
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			M	S A S UNTT PR	ICE STUDY			PAGE 00	
	TOTALS		AI TOTAL	GG, SHLD, 2221 COST	TONS	QUANTITY	UNIT	LENGTH	
	HERMANTONN DISTRICT 1 DETROIT LAKES DISTRICT 4	TOT TOT TOT	COST	PER MILE 7,272 7,272 644	QUANTITY 1,372 1,372 31	PER MILE 1,372 1,372 124 124	PRICE 5.30 5.30 5.52 5.52		
	BLOOMINGTON MINNETONKA CHASKA ANDOVER DISTRICT 5 EAGAN DISTRICT 9	TOT TOT TOT TOT TOT TOT TOT	430 781 5,932 7,175 14,318 2,683 2,683	443 2,169 8,239 4,570 3,955 3,440 3,440	81 110 1,050 700 1,941 370 370	84 306 1,458 446 536 474 474	5.31 7.10 5.65 10.25 7.38 7.25 7.25	.25 .97 .36 .72 1.57 3.62 .78 .78	
Page	STATE TOTAL		29,444	4,326	3,714		<u>6</u> .,58		
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¢	M.S.A.S. UNIT PR Urb & Gutter Rem	ICE STUDY , LIN. FT.			PAGE 132
TOTALS TOTAL COST	COST PER MILE	TOTAL QUANTITY	QUANTITY PER MILE	UNIT PRICE	LENGTH
CLOQUET TOT 123 DULUTH TOT 1,400 EVELETH TOT 2,423 GRAND RAPIDS TOT 20,013 HIBBING TOT 2,063 VIRGINIA TOT 5,236	647 4,828 7,342 18,030 4,689 13,090	123 700 2,423 11,436 1,375 3,382	647 2,414 7,342 10,303 3,125 8,455	1.00 2.00 1.00 1.75 1.50 1.55	19 ,29 ,33 1,11 ,44 ,40
DISTRICT 1 TOT 31,258 <u>CROOKSTON</u> TOT 5,684 EAST GRAND FORKS TOT 8,644 THIEF RIVER FALLS TOT 480 DISTRICT 2 TOT 14,808	11,325 <u>4,511</u> 4,968 3,200 4,701	19,439 3,586 6,561 200 10,347	7,043 2,846 3,771 1,333 3,285	1.61 1.59 1.32 2.40 1.43	2.76 1.26 1.74 .15 3.15
BRAINERD TOT 67 DISTRICT 3 TOT 67	609 609	48 48	436 436	1.40 1.40	.11 .11
ALEXANDRIA TOT 494 DETROIT LAKES TOT 2,501 FERGUS FALLS TOT 1,436 MOORHEAD TOT 5,299 DISTRICT 4 TOT 9,730	1,098 4,719 1,088 3,706 2,609	247 3,335 490 1,674 5,746	549 6,292 371 1,171 1,540	2.00 .75 2.93 3.17 1.69	45 53 1,32 1,43 3,73
ANOKA TOT 563 BLOOMINGTON TOT 66,683 BROOKLYN CENTER TOT 1,551 COON RAPIDS TOT 3,129 EDINA TOT 265 FRIDLEY TOT 11,692 GOU DEN VALLEY TOT 11,692	971 24,882 15,510 2,251 552 12,709	225 50,103 1,034 2,500 126 9,328 70	388 18,695 10,340 1,799 263 10,139 50	2.50 1.33 1.50 1.25 2.10 1.25 2.66	.58 2.68 10 1.39 .48 .92
MINNEAPOLIS TOT 15,649 ST LOUIS PARK TOT 731 NEW HOPE TOT 17,688 MAPLE GROVE TOT 10,000	16,827 12,183 7,047	8,942 260 13,390	9,615 4,333 5,335	1.75 2.81 1.32	.93 .06 2.51
ANDOVER TOT 113 PRIOR LAKE TOT 877 DISTRICT 5 TOT 119,226	6.746 9,122	30 231 86,289	19 1,777 6,602	3.77 3.80 1.38	1.57 13 13,07
ALBERT LEA TOT 514 FARIBAULT TOT 5,628 NORTHFIELD TOT 1,626 OWATONNA TOT 937	4,283 5,924 2,956 3,123	1,234 2,814 980 937	10,283 2,962 1,782 3,123	.42 2.00 1.66	.12 .95 .55 30
RED WING TOT 2,438 WINDNA TOT 3,376 DISTRICT 6 TOT 14,519	24,380 16,076 6,511	1,060 2,110 9,135	10,600 10,048 4,096	2.30 1.60 1.59	10 2.23 2.23
FAIRMONTTOT4,575MANKATOTOT7,141NORTHMANKATOTOTSIPETERTOTHORTHINGTONTOT4,133DISTRICT714	15,250 44,631 523 12,156 8,245	3,050 7,141 400 436 3,306 16 333	10,167 44,631 <u>349</u> 9,724	1.50 1.00 1.00 1.50 1.25	.30 .16 .16

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			M.S Curi	A.S. UHIT PR & GUTTER REM	ICE STUDY . LIN. FT.			PAGE 133	
	TOTALS	тот	TOTAL COST 6,419	COST PER MILE 4,337	TOTAL QUANTITY 4,388	QUANTITY PER MILE 2,965	UNIT PRICE 1.46	LENGTH	
	WILLMAR DISTRICT 8	<u>тот</u> тот	<u>15,249</u> 22,827	14,119 6,323	7,766 12,982 90	3,596	1.76 1.26	3.61	
	NEW BRIGHTON ST PAUL Shoreview	TOT TOT TOT TOT	<u>4,347</u> 29,326 280	<u>1,035</u> 7,424 217	3,855 24,925 140	<u>918</u> 6,310 109	1.13 1.18 2.00	<u>4,20</u> 3.95 1.29	in an
	WEST ST PAUL BURNSVILLE APPLE VALLEY	TOT TOT TOT	4,561 1,413 5,227	7,602 <u>634</u> 3,439 3,52	6,270 1,275 2,539 314	10,450 572 1,667 155	.73 <u>111</u> 2.06 2.27	2.23 1.52 2.02	
	LAKEVILLE EAGAN <u>Rosemount</u> District 9	TOT TOT TOT TOT	25,982 90 72,051	7,060 191 3,563	18,183 30 57,616	4,941 64 2,849	1.43 3.00 1.25	3,68 47 20,22	
	STATE TOTAL		301,389	5,918	215,935	4,240			
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	TOTALS		CURI	B & GUTTER REM.	LIN. FT.	QUANTITY	UNIT	LENGTH	
	DISTRICT 1 DISTRICT 2 DISTRICT 3 DISTRICT 4 DISTRICT 5 DISTRICT 6 DISTRICT 7 DISTRICT 8	TOT TOT TOT TOT TOT TOT TOT TOT	COST 31,258 14,808 67 9,730 119,226 14,519 16,903 22,827	PER MILE 11,325 4,701 609 2,609 9,122 6,511 8,245 6,323	QUANTITY 19,439 10,347 48 5,746 86,289 9,135 14,333 12,982	PER MILE 7,043 3,285 436 1,540 6,602 4,096 6,992 3,596	PRICE 1.43 1.43 1.40 1.69 1.38 1.59 1.18 1.26	2.76 3.15 .11 3.73 13.07 2.23 2.05 2.05	
	DISTRICT 9 State total	ŤŎŤ	72,051 301,389	3,563 5,918	215,935	<u>2,849</u> 4,240	1.40	20.22 50.93	
Page									
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			M.S Side	.A.S. UNIT PRI Walk Removal	CE STUDY SQ, FT.			PAGE 139
	TOTALS		TOTAL Cost	COST PER MILE	TOTAL QUANTITY	QUANTITY PER MILE	UNIT PRICE	LENGTH
	CLOQUET DULUTH EVELETH GRAND RAPIDS HTBEING	TOT TOT TOT TOT TOT	2,786 6,305 7,024 12,941 3,402	14,663 21,741 21,285 11,659 7,732	9,288 18,545 7,394 35,874 11,340	48,884 63,948 22,406 32,319 25,773	30 .34 .95 .36 .30	
<u> </u>	VIRGINIA DISTRICT 1	TOT TOT	4,776 37,234	11,940 13,491	9,480 91,921	23,700 33,305	.50 .41	2.76
	BEMIDJI CROOKSTON EAST GRAND FORKS THIEF RIVER FALLS DISTRICT 2	TOT TOT TOT TOT TOT TOT	10,750 12,907 5,707 205 29,569	34,677 13,170 5,334 1,367 11,7 8 0	21,500 20,787 14,267 155 56,709	69,355 21,211 13,334 1,033 22,593	.50 .62 .40 1.32 .52	.98 1.07 .15 2.51
	ALEXANDRIA DETROIT LAKES FERGUS FALLS MOORHEAD	TOT TOT TOT TOT	477 180 1,021 2,954	1,060 340 <u>858</u> 2,308	954 720 2,039 5,908	2,120 1,358 1,713 4,616	.50 .25 .50 .50	.45 .53 <u>1.19</u> 1.28 3.45
Page	DISTRICT 4 BLOOMINGTON BROOKLYN CENTER COON RAPIDS	TOT <u>TOT</u> TOT TOT TOT	4,632 	1,343 <u>8,081</u> 5,070 119	9,621 35,343 1,692 400	<u>26,574</u> <u>26,574</u> 16,920 541	. 40 	<u>1.33</u> .10 .74
9 7 1	GOLDEN VALLEY GOLDEN VALLEY MINNEAPOLIS ST LOUIS PARK	TOT TOT TOT TOT TOT	576 1,167 32,605 840 1,815	1,340 834 30,472 5,600 1,243	1,440 1,715 54,691 3,500 3,025	3,349 1,225 51,113 23,333 2,072	.40 .68 .60 .24 .60	
	PRIOR LAKE		<u>835</u> 49,181	6,423 7,222	795 102,601	6,115 15,066	<u>1.05</u> .48	6.81
	ALBERT LEA AUSTIN FARIBAULT OWATONNA RED WING ROCHESTER	TOT TOT TOT TOT TOT TOT	727 2,029 1,752 94 4,700 120	6,058 4,949 1,844 313 47,000 194	1,931 6,766 5,841 846 9,400 108	16,092 16,502 6,148 2,820 94,000 174	.38 .30 .11 .50 1.11	.12 .95 .30 .10 .250
	DISTRICT 6 Mankato	ТОТ Тот	9,422 5,727	3,769 35,794	24,892	9,937 71,588	. 50	.16
	NORTH MANKATO WORTHINGTON DISTRICT 7	<u></u>	<u>1,790</u> 80 7,597	235 15,194	3,580 146 15,180 2,937	429 30,360 3,263	.50 .50	34 50 .90
	LITCHFIELD MARSHALL WILLMAR DISTRICT 8	TOT TOT TOT TOT TOT	522 2,891 930 4,343	2,558 1,603 1,664	2,93, 18,558 27,900 49,395	16,423 48,103 18,925	.16 .03 .09	1.13 .58 2.61
	NEW BRIGHTON ST PAUL WEST ST PAUL	TOT TOT TOT TOT	1,032 37,065 9,863	279 7,458 16,438	6,637 59,290 25,450	1,794 11,930 42,417	.16 .63 .39	3.70 4.97 .60



			M.S Side	A.S. UNIT PR WALK REMOVAL	ICE STUDY SQ. FT.			PAGE 141	
	TOTALS		TOTAL COST	COST PER MILE	TOTAL QUANTITY	QUANTITY PER MILE	UNIT PRICE	LENGTH	
	DISTRICT 1 DISTRICT 2 DISTRICT 4 DISTRICT 5	TOT TOT TOT TOT	37,234 29,569 4,632 49,181	13,491 11,780 1,343 7,222	91,921 56,709 9,621 102,601	22,593 2,789 15,066	. 52 . 48 . 48	2.51 3.45 6.81	
	DISTRICT 6 DISTRICT 7 DISTRICT 8 DISTRICT 9	<u>†ō†</u> Tot Tot Tot Tot	9,422 7,597 4,343 50,043	3,749 15,194 1,664 3,532	24,892 15,180 49,395 99,830	9,957 30,360 18,925 7,045	. 50 . 09 . 50	2,50 .50 2.61 14.17	
	STATE TOTAL		192,021	5,438	450,149	12,748	.43	35,31	
<u> </u>	<u></u>								
Page			\$ 192,021	÷ 450,149	X 9 = \$	3.84 per.	sq. yd.		
73									
<u> </u>	<u></u>								
			<u></u>	<u>.</u>				<u></u>	ad - a anno 1999 ann an 19
, il								<u>321777777777777777777777777777777777777</u>	ـــــــــــــــــــــــــــــــــــــ

			M		PAGE 145			
			CON	C. PAVEM, REM,	SQ. FT.			LUAE 143
	TOTALS		TOTAL Cost	COST PER MILE	TOTAL QUANTITY	QUANTITY PER MILE	UNIT PRICE	LENGTH
	CLOQUET DULUTH	TOT TOT	18,234 10,351	95,968 9,858	<u>54,702</u> 28,026	287,905 26,691	<u>. 33</u> . 37	<u>.19</u> 1.05
	VIRGINIA DISTRICT 1	TOT TOT TOT	2,010 29,869 60,464	2,577 74,673 24,985	3,618 41,859 128,205	4,638 104,648 52,977	.56 .71 .47	.78 .40 2.42
	CROOKSTON East_grand_forks	TOT Tot	2,140 64,486	2,184 60,267	2,916 178,578	2,976 166,895	.73	.98 1.07
	THIEF RIVER FALLS DISTRICT 2	TOT	30 66,656	1,500 32,201	135 181,629	6,750 87,743	.22 .37	2.07
	DETROIT LAKES MOORHEAD DISTRICT 4	TOT TOT TOT	531 2,984 3,515	1,002 7,853	1,593 5,967 7,560	3,006 15,703 8,308	.33	.53
	ANOKA MINNEAPOLIS		252 74,172	434 164,827	630	1,086	.40	.58
	ST LOUIS PARK New Hope District 5	TOT TOT TOT	525 1,200 76,149	23,797	135 2,700 114,723	900 1,337 35,851	3.89 .44 .66	
age	ALBERT LEA AUSTIN ONATONNA	TOT TOT	1,232 25,546	10,267 62,307	2,264 95,796	18,867 233,649	. 54 . 27	.12 .41
74	RED WING DISTRICT 6	TOT	11,616 38,934	116,160 41,865	486 31,680 130,226	1,620 <u>316,800</u> 140,028	1.11 <u>.37</u> .30	.30 <u>.10</u> .93
	MANKATO St_Peter	TOT <u>TOT</u>	31,893 999	199,331 799	95,679 2,997	597,994 2,398	.33	.16
	DISTRICT 7	TOT TOT	17,008 49,900	50,024 28,514	38,268 136,944	112,553 78,254	. 44 . 36	.34 1.75
	LITCHFIELD MARSHALL WILLMAR DISTRICT 8	TOT TOT TOT TOT TOT	4,197 5,789 8,800 18,786	4,663 13,157 97,778 13,137	16,072 18,945 19,800 54,817	17,858 43,057 220,000 38,334	.26 .31 .44 .34	.90 .44 .09 1.43
	NEW BRIGHTON ST PAUL	TOT TOT	1,559 22,612	768 26,293	3,272 30,735	1,612 35,738	.48 .74	2.03 .86
	BURNSVILLE DISTRICT 9		25,167	1,132 274 4,609	4,950 <u>1,445</u> 40,402	14,559 <u>648</u> 7,400	.08 .42 .62	.34 <u>2.23</u> 5.46
	STATE TOTAL		339,571	18,689	794,506	43.726	. 43	18.17

\$ 339,571 - 794,506 X 9 = \$ 3.85 per. sq. yd.

				M.S	A.S. UNIT PRI	ICE STUDY			PAGE 146	
		TOTALS		TOTAL COST	COST PER MILE	TOTAL QUANTITY	QUANTITY PER MILE	UNIT PRICE	LENGTH	* <u>,</u>
		DISTRICT 1 DISTRICT 2	TOT TOT TOT	60,464 66,656 3,515	24,985 32,201 3,863	128,205 181,629 7,560	52,977 87,743 8,308	.47 .37 .46	2.42 2.07 .91	an a
		DISTRICT 5 DISTRICT 6 DISTRICT 7	TÖT TÖT TÖT TÖT	76,149 38,934 49,900	23,797 41,865 28,514	114,723 130,226 136,944	35,851 <u>140,028</u> 78,254 38,336	.66 .30 .36 .36	3.20 .93 1.75 1.43	
		DISTRICT 8 DISTRICT 9		18,786 25,167	4,609	40,402	7,400	.62	5.46 	
		STATE TOTAL	S	339,571 339,571	18,689 - 794,506	794,506 X 9 = \$ 3	43,726	.43 sq. yd.	18.17	
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			M.: Cle/	S.A.S. UNIT PR Aring 2101	ICE STUDY NUMBER			PAGE 151
1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	TOTALS		TOTAL COST	COST PER MILE	TOTAL QUANTITY	QUANTITY PER MILE	UNIT PRICE	LENGTH
	DULUTH Eveleth Grand Rapids Virginia	TOT TOT TOT TOT	3,125 400 1,200 300	10,776 1,212 1,041 4,246	25 4 14 4	86 12 13 57	125.00 100.00 85.71 75.00	29 33 1.11 .07
- <u></u>	CROOKSTON DISTRICT 2	<u> </u>	5,025 6,600 6,600	2,792 8,800 8,800	47 12 12	26 16 16		
	BRAINERD Elk River District 3	TOT TOT TOT	300 2,000 2,300	1,111 1,361 1,322	6 50 56	22 34 32	50,00 40.00 41.07	1.47 1.47 1.79
, <u>, , , , , , , , , , , , , , , , , , </u>	DETROIT LAKES Fergus Falls District 4	TOT Tot Tot	600 231 831	2,143 624 1,278	12 3 15	43 8 23	50.00 77.00 55.40	.28 .37 .65
H	BLAINE BLOOMINGTON Coon Rapids Fdina	TOT TOT TOT TOT	127 1,160 600	1,966 811 713	4 145 20	246 27	31.75 8.00 30.00	:59 :74
age 7	GOLDEN VALLEY MINNEAPOLIS ST LOUIS PARK MAPLE GROVE	TOT TOT TOT TOT TOT	5,325 3,000 454 150	3,804 6,667 7,567 349	47 10 15 9	34 22 250 21	113.30 300.00 30.27 16.67	1.40 .45 .06 .43
0	HAM LAKE Andover Prior Lake District 5	TOT TOT TOT TOT	3,150 20,900 675 35,912	3,750 6,183 9,643 4,255	90 700 3 1,045	107 207 43 124	35.00 29.86 225.00 34.37	.84 3.38 .07 8.44
	ALBERT LEA Faribault RED Wing	TOT TOT TOT	1,400 1,470 	11,667 1,547 2,800	14 49 1	117 52 10	100.00 30.00 280.00	.12 .95 .10
	WINDNA DISTRICT 6 WORTHINGTON	101 101 <u>101</u>	70 3,220 <u>200</u>	333 2,333 <u>588</u>	1 65 4	47 12	70.00 49.54 	.21 1.38
	LITCHFIELD DISTRICT 8	TOT TOT TOT	200 869 869	588 5,793 5,793	4 9 9	12 60 60	50.00 96.56 <u>96.56</u>	.34 .15 .15
	NEW BRIGHTON North St Paul St Paul	TOT TOT TOT	1,830 640 5,810	1,500 2,065 3,701	46	38 26 31	39.78 80.00 	1.22 .31 1.57
	SHUKEVIEW BURNSVILLE APPLE VALLEY LAKEVILLE	TOT TOT TOT TOT	1,000 451 120 <u>2,210</u>	775 202 300 789	10 8 3 	8 4 8 18	100.00 56.38 40.00 <u>- 44.20</u>	1.29 2.23 .40 2.80
	LAKE ELMO ROSEMOUNT		1,866 3,700 2,500	4,302 4,717	66 37 100	23 43 189	28,27 100.00 25.00	2.90 .86 .53

TOTALS TOTALS TOTAL PER MLE TOTALS OUNTITY PHILE PHILE				PAGE 152						
STATE TOTAL 75.084 2.557 1.630 56 46.06 29.36 Tree Removal Tree Removal Cost Clearing 1,630 \$ 75,084 Grubbing 1,630 \$ 75,084 3,318 \$ 135,381 \$ 135,381 Average per tree \$ 135,381 - 1.659 = \$ 81.60		TOTALS DISTRICT 9	тот	TOTAL COST 20,127	COST PER MILE 1,426	TOTAL QUANTITY 377	QUANTITY PER MILE 27	UNIT PRICE 53.39	LENGTH 14.11	<u></u>
$\frac{\text{Tree Removal}}{\text{Clearing}} 1,630 \qquad \$ \begin{array}{c} \frac{\text{Cost}}{\text{S} \cdot 75,084} \\ \hline \\ \text{Grubbing} \\ \hline \\ 3,318 \\ \hline \\ 3,318 \\ \hline \end{array} \begin{array}{c} 2 = 1,659 \\ \hline \\ \text{trees} \end{array}$		STATE TOTAL		75,084	2,557	1,630	56	46.06	29.36	
$\frac{1}{1,630} = \frac{1}{1,630} = \frac{1}{5,381} = \frac{1}{1,659} = \frac{5}{5,81.60}$										
No. Cost Clearing 1,630 \$ 75,084 Grubbing $\frac{1,688}{3,318}$ \$ 60,297 3,318 \$ 135,381 Average per tree \$ 135,381 $\frac{1,659}{1,659} = $ 81.60$		Tree Removal								
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Pag	Clearing		<u>No.</u> 1,63	0	<u>Cost</u> \$ 75,08	34			
Average per tree \$ 135,381 ÷ 1,659 = \$ 81.60	e 7	Grubbing		1,688 3,318 3,3	B 5 18 ÷ 2	$\frac{\$ 60,29}{\$135,38}$ = 1,659 tre	97 31 2es			
		Average per tree	\$ 135	,381 ÷	1,659 =	\$ 81.60				
· ·						<u>.</u>	_ •			
Clearing and grubbing are combined to compute tree removal.		Clearing and grub	bing are	e combine	d to comput	e tree remo	val.			
						·				



			M.\$	A.S. UNIT PRI	CE STUDY			PAGE 158	
			GF	RUBBING 2101				1 5110714	
	TOTALS		TOTAL Cost	COST PER MILE	TOTAL QUANTITY	QUANTITY PER MILE	PRICE	LENGIN	
				10,552		117 12	<u></u>	<u>29</u> .33	
	GRAND RAPIDS		1,200	1,081	14 25	13 104	85.71 50.00	1.11 .24	
			6,285	5,357 3,081	<u> </u>	71	75.00 76.65	.07 2.04	<u> </u>
	CROOKSTON	TOT	6,600	8,800	12	16	550.00	.75	
	DISTRICT 2	TOT	6,600	8,800	12	16 22		27	
	BRAINERD ELK RIVER DISTRICT 3		300 1,250 1,550		50	34 32	25,00 	1:47	
<u>. 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 19</u>	DETROIT LAKES	TOT	600	2,143	12	43	50.00	. 28	
	FERGUS FALLS DISTRICT 4	TOT TOT	54 654	146 1,006	3 	8 23	18.00 <u>43.60</u>	. 37	
	BLAINE	TOT	85 676	1 166	4 169	286	21.25	. 59	
Pac	<u>COON RAPIDS</u>	<u> </u>	700	2,319	<u> </u>	<u> </u>	<u> 35.00 </u> 185.50	.48	
e e	GOLDEN VALLEY MINNEAPOLIS	TOT TOT	2,563 1,000	1,831 2,222	40 10	29 22	$64.08 \\ 100.00$	1.40 .45	
9	ST LOUIS PARK Maple grove	<u> </u>	<u>578</u> 150	9,633	159	250 21 107	<u></u>	.43	
	HAM LAKE Andover		3,150 16,100	3,750 4,763 5,357	700	207	23.00	3.38	
<u></u>	DISTRICT 5	TOT	26,490	3,139	1,066	126	24.85	8.44	
	ALBERT LEA Faribault	TOT TOT	700	5,833 1,547	14 	117 52	50.00 <u>30.00</u>	.12	
	WINONA DISTRICT 6	TOT Tot	40 2,210	190 1,727	1 64	5 50	40,00 34,53	1,28	
	WORTHINGTON		200	588	<u> </u>	<u>12</u>	<u>50,00</u>	.34	
		тот	187	1,247	9	60	20.78	.15	
	DISTRICT 8	ŤŎŤ		<u>1,247</u>	9	60	20.78		
	NEW BRIGHTON North St Paul	TOT TOT	1,650 640	1,352 2,065	41 8 57	34 26	40.24 80.00 70.47	1.22	
	SHOREVIEW		3,735 500 250	1,858 388 962	9 10 5	<u>6</u> 8 19	50.00	1.29	
	WEST ST PAUL BURNSVILLE APPLE VALLEY	TOT	451 60	202	83	4 8	56.38	2.23	- 1
		töt tot	1,360 2,200	486 759	50 65	18 22	27.20 33.85	2,80 2,90	
	LAKE ELMO	TOT	2,775	3,227	37	43	75.00	.86	



			M.S Gr	.A.S. UNIT PR Ubbing 2101	ICE STUDY			PAGE 160	
<u> </u>	TOTALS		TOTAL Cost	COST Per Mile	TOTAL QUANTITY	QUANTITY PER MILE	UNIT PRICE	LENGTH	
	DISTRICT 1 DISTRICT 2 DISTRICT 3 DISTRICT 4 DISTRICT 5	TOT TOT TOT TOT TOT TOT	6,285 6,600 1,550 654 26,490	3,081 8,800 891 1,006 3,139	82 12 56 15 1,066	40 16 32 23 126	76.65 550.00 27.68 43.60 24.85	2.04 .75 1.74 .65 8.44	
	DISTRICT 6 DISTRICT 7 DISTRICT 8 DISTRICT 9	TOT TOT TOT TOT	2,210 200 187 16,121	1,727 588 1,247 1,089	64 4 9 <u>380</u>	50 12 60 26	54.55 50.00 20.78 42.42	1.20 .34 .15 14.81	
	STATE TOTAL		60,297	1,997	1,688	56	35.72	30.20	
þ									
age 8	Iree Removal								
	Clearing		<u>Nc.</u> 1,630		<u>Cost</u> \$ 75	,084			
	Grubbing		1,688		<u>\$ 60</u>	297			
			3,318		\$135	,381			
•			3,318	$\frac{1}{2} = 1$,659 trees				
	Average per tre	e	\$ 135,3	81 ; 1,659	= \$ 81.60				
	Clearing and gr	ubbing are	combined	to compute	e tree remova	11.			<u>) :::</u>
<u></u>		<u> </u>		aan oo oo oo oo ahaa ahaa ahaa ahaa ahaa					

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			M.: Gravi	5.A.S. UNIT PRI El subbase 2211	CE STUDY Tons			PAGE 23	
	TOTALS		TOTAL Cost	COST PER MILE	TOTAL Quantity	QUANTITY PER MILE	UNIT PRICE	LENGTH	
4	VIRGINIA DISTRICT 1	TOT TOT	17:073 17;073	89,858 89,858	3,777 3,777	<u> 19,879 </u> 19,879	<u>4.52</u> 4.52		
	THIEF RIVER FALL DISTRICT 2	5 TOT TOT	76,600			40,348	3.52 	. 54	
	DISTRICT 5		83,886 83,886	90,200	18,600	20,000	4.51 4.51	.93	
	EAGAN DISTRICT 9		16,800 63,390	29,474 47,306	4,000 12,425	7,018	5.55 4.20 5.10	.57 1.34	
	STATE TOTAL		240,949	80,316	56,590	18,863	4.26	3.00	
Page									
8 2									
		0.45		- A.199					

			M.S Grave	.A.S. UNIT PR L SUBBASE 221	ICE STUDY 1 tons			PAGE 24	
	TOTALS	<u>2008 - 1998 - 1998 - 1998</u>	TOTAL Cost	COST PER MILE	TOTAL QUANTITY	QUANTITY PER MILE	UNIT PRICE	LENGTH	<u>an an a</u>
	DISTRICT 1 DISTRICT 2 DISTRICT 5 DISTRICT 9	TOT TOT TOT TOT	17,073 76,600 83,886 63,390	89,858 141,852 90,200 47,306	3,777 21,788 18,600 12,425	19,879 40,348 20,000 9,272	4.52 3.52 4.51 5.10	.19 .54 .93 1.34	
	STATE TOTAL	2	40,949	80,316	56,590	18,863	4.26	3.00	
Page		·							
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			M	SAS UNT PR	CE STUDY		<u></u>	PAGE 34
	TOTALS		GR	AVEL BASE 2211	TONS	QUANTITY	UNIT	LENGTH
	DISTRICT 1 DISTRICT 2 DISTRICT 3 DISTRICT 4 DISTRICT 5 DISTRICT 6 DISTRICT 7 DISTRICT 8	TOT TOT TOT TOT TOT TOT TOT TOT	COST 225,053 117,609 93,652 50,819 1,134,786 183,055 191,120 116,485	PER MILE 48.191 53,217 43,559 44,973 49,210 56,152 88,074 30,099 50,717	QUANTITY 38,639 19,975 21,021 13,438 216,539 29,327 45,980 24,099 207	PER MILE 8,231 9,038 9,777 11,892 9,390 8,996 21,189 6,227 0,756	PRICE 5.85 5.89 4.46 3.78 5.24 6.24 4.16 4.83 5.16	6.67 2.21 2.15 1.13 23.06 3.26 2.17 3.87 71 68
	STATE TOTAL		3,696,421	49,952	715,922	9,675	5.16	74.00
Page								
4 4 								

gen Maria (Maria) Antonio (Maria)				S.A.S. UNIT PK	ICE STUDY			FAOL JE	
			GR	AVEL BASE 2211	TONS				
<u>:</u>	TOTALS		TOTAL Cost	COST PER MILE	TOTAL QUANTITY	QUANTITY PER MILE	UNIT PRICE	LENGTH	
	CLOQUET	TOT	13,760	72,421	3,251	<u> </u>	<u>4.23</u> 5.75	.19	
	EVELETH	TOT	3,500	10,606	473	1,433	7.40	.33	
	GRAND RAPIDS HIBBING	 	<u>33,395</u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	+; <u>52</u>	
	VIRGINIA Hermantown	TOT	24,864 5,469	62,160 5,469	4,906	1,181	4.63	1.00	
	DISTRICT 1	TOT	225,053	48,191	58,439	8,231	5.65	4.0/	
	BEMIDJI Crookston	TOT TOT	20,550 82,959	66,290 60,999	9,064 12,971	13,110 9,538	5.06	1,36	
	THIEF RIVER FALLS DISTRICT 2	TOT 	14,100 117,609	26,111 53,217	2,940 19,975	5,444 9,038	4.80 		
	BRAINERD	тот	2,600	23,636	614	5,582	4.23	.11	
	ST CLOUD Elk river	TOT TOT	28,052 63,000	49,214 42,857	6,407 14,000	11,240 9,524	4.38 <u>4.50</u>	. 57	. व स्टब्स्य स्ट्रा
	DISTRICT 3	TOT	93,652	43,559	21,021	9,777	4.46	2,15	
J	ALEXANDRIA DETROIT LAKES	TOT	30,852 11,024	67,070	9,493 2,120	20,637 4,000	3.25 5.20	.46	
	FERGUS FALLS	TOT	8,943	63,879	1,825 13,438	13,036 11,892	4.90 3.78	$\begin{array}{c} .14\\ 1.13\end{array}$	
8	ΔΝΟΚΔ	тот	26,460	45.621	5,250	9,052	5.04		
ຫ		TOT	1,140	57.384	187 13,716	9,024	6.10 6.36	1.52	
	BROOKLYN CENTER	TOT	4,750	47,500 11.083	475	4,750	10.00	.10 .60	
		TOT	78,042	47,587	13,575	8,277 20,817	5.75 7.10	1.64 .48	•
· ·	FRIDLEY	TOT	102,400	111,304	14,600	15,870	7.01	.92	
	MINNEAPOLIS	ŢŎŢ	26,380	28,366	2,493	2,681	10.58	.93	
	PLYMOUTH		72,206	128,939	14,980	26,750	4.82	. 56	
	ST LOUIS PARK	TOT	12,229	58,233	1,766	8,410	6.92	.21 2.02	
	MAPLE GROVE	TOT	100,995	83,467	32,397	26,774	3.12	1.21	
	HAM LAKE		32,929	23,862	5,746	4,164	5.73	1.38	
	RAMSEY	TOT	109,504	23,521	2,010	9,277	5.50		
	EAST BETHEL	TOT	60,000	51,724	12,000	10,345	5.00	1.16	
	LINO LAKES District 5	TOT	14,400 1,134,786	57,600 49,210	216,539	9,600	5.24	23.06	
	ALBERT LEA	TOT	6,840	57,000	1,043	8,692	6.56	.12	
	AUSTIN FARIBAULT	TOT TOT	16,544 93,256	40,391 98,164	2,330 14,530	15,295	6.42	.95	

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				S.A.S. UNIT PR	ICE STUDY			PAGE 33	
			GR	AVEL DAJE 2211	TUNS				
	TOTALS		TOTAL			QUANTITY		LENGTH	
	NORTHFIELD OWATONNA	TOT TOT	24,570	44,673	4,680 1,018	8,509 3,393	5.25	.55	
		tõt	7,600	76,000	1,512	15,120	5.03	.10	
	WINONA DISTRICT 4		23,002	109,533	3,286	15,648	7.00	:21	
- <u></u>	UISIKIUI B		103,033	207136					<u>-4. 616</u>
	FAIRMONT Mankato	TOT Tot	12,478 87,748	41,593 548,425	2,492 19,981	8,307 124,881	5.01 4.39	.30 .16	•
	NORTH MANKATO		1,565	13.042	215	1,792	7.28	.12	
	WORTHINGTON	tot	14,355	42,221	2,466	7,253	5.82	.34	
	DISTRICT /	101	191,120	00,0/4	45,960	21,189	9.16	2.17	
	LITCHFIELD Marshall	TOT	10,493 35,594	9,993 20,456	2,874	2,737 3,218	3.65	1.05	
	WILLMAR DISTRICT 8	TOT	70,398	65,183	15,625	14,468	4.51	1.08	
	DISIRICI 8		110,103		241033	••••			
	NEW BRIGHTON	101 Tot	/1,500 23,180	91,667 11,419	10,400 3,954	13,333 1,948	6.88 5.86	.78 2.03	
Pac	NORTH ST PAUL		16,616	53,600	2,480	<u> </u>	<u> </u>		
je	SHOREVIEW	ŤŎŤ	84,180	51,644	12,200	7,485	6.90	1.63	•
8	BURNSVILLE	TQT	<u>48,972</u> 22,308	10,004	5,895	14,240	5.73 <u>3.78</u>	.60	<u>*************************************</u>
	APPLE VALLEY	TOT TOT	131,456	86,484	33,423	21,989	3.93	1.52	
		ŤÕŤ	676,852	58,908	138,523	12,056	4.89	11.49	
<u></u>	ROSEMOUNT	TOT	29,994	29,994	6,647	6,647	4.51	1.00	<u> </u>
	VADNAIS HEIGHTS DISTRICT 9	TOT Tot	3,572 1,583,842	5,031 50,313	470 307,104	662 9.756	7.60 5.16	.71 31.48	
		•							
	STATE TOTAL		3,696,421	49,952	715,922	9,675	5.16	74.00	

	M.S.A.S. UNIT PRICE STUDY							PAGE 41		
성 전체에 가지 않는 것이다. 1993년 - 1993년 2007년 - 1993년 - 19			BI	(T. SURF, 2331	TONS					
<u>ili (n. 1914). An an an an an</u>	TOTALS		TOTAL COST	COST PER MILE	TOTAL QUANTITY	QUANTITY PER MILE	UNIT PRICE	LENGTH		
	CLOQUET	TOT	23,093	121,542	1,146	6,032	<u> 20 15 </u>	<u></u>		
	DULUTH EVELETH	TOT	50,670 4,484	66,671 13,588	3,000	5,947 606	16.89			
	GRAND RAPIDS HIBBING	101 TOT	192,783 31,152 63,661	163,375 111,257 108,683	0,232 <u>1,524</u> 2 123	<u> </u>	20.44 20.44 20.47	<u></u>		
	HERMANTOWN	TOT	49,558	49,558	2,922	2,922	16.96 20.64	1.00 4.14		
	BEMIDJI	TOT	43,700	140,968	2,000	6,452	21.85	.31		
	CROOKSTON Thief River Falls	TOT	83,908 61,072	44,871 109,057	3,990 3,025	2,134 5,402 3,200	21.03	1.87 .56 2.76		
-	DISTRICT_2	TOT	188,680	55,391	9,019 241	2,191	25.28	.11		
		TOT	33,088	58,049 35,697	2,750 3,400	4,825 2,313	12.03 15.43	. 57 1.47		
	DISTRICT 3	TÖT	91,656	42,631	6,391	2,973	14.34	2,15		
	ALEXANDRIA DETROIT LAKES		181,872 57,098	58,858 	10,355 <u>2,550</u> 2727	3,351 	17.56 -22.39 10.70			
ge	HERGUS FALLS MOORHEAD DISTRICT 6		14,384 112,785	13,076 84,168 60,419	727 5,545 19,177	4,138	20.34	1.34 6.06		
8 ·		тот	137,994	237,921	7,300	12,586	18.90	.58		
	BLAINE Bloomington	TOT TOT	4,446 288,595	189,865	230 16,381	10,777	19.33 17.62	1.52		
	COON RAPIDS	TOT TOT	9,732	<u>97,320</u> 54,179	<u> </u>	<u> </u>	$\frac{21.02}{16.06}$	1.64		
		TOT	76,523	177,960 90.656	3,725	8,663	20.54	.43		
	MINNEAPOLIS	TOT TOT	247,305 14,540	265,919 40,389	10,379 725	11,160 2,014	23.83 20.06	.93 ,36		
	ST LOUIS PARK	<u> </u>	3,366 90,654	56,100 44,878	125 5,380	2,083 2,663	26.93 <u>16.85</u>			
	CHASKA HAM LAKE	TOT TOT	50,625 22,493	54,435 16,299 18 180	5,000 1,220 5,583	3,226 884 1,017	10.00 18.44 17.89	.93 1.38 5.49		
	ANDUVER RAMSEY PRIOR LAKE		17,200	36,596	1,005	<u> </u>	<u>17.11</u> 22.45	47 .13		
	EAST BETHEL LINO LAKES	ŤŎŤ TOT	69,225 11,336	59,677 45,344	3,550 530	3,060 2,120	19.50 21.39	1,16 ,25		
	DISTRICT 5	T0T	1,417,632	73,338	74,888	3,874		12		
-	ALBERT LEA FARIBAULT	TOT	1,62/ 64,695 9 9 9 9	13,598 68,100 18,004	55 3,408 540	3,587	18.98 18.34	.95		
			1,968	6,560	52	173 5,484	37.85 22.84	.30 .62		
	WINONA	tõt	33,898	161,419	Ĩ,Ì99	5,710	28.27	.21		

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			Μ,	S.A.S. UNIT PRI	ICE STUDY			PAGE 42	
			B	IT. SURF, 2331	TONS				
- <u></u>	TOTALS		TOTAL COST	COST PER MILE	TOTAL QUANTITY	QUANTITY PER MILE	UNIT PRICE	LENGTH	
•	DISTRICT 6	101	189,750	69,000	8,632	5,139	21.98	2.75	
	FAIRMONT North Mankato St Peter Horthuston	TOT TOT TOT TOT	129,322 500 83,932	431,073 4,167 67,146 69,206	6,638 15 5,238	22,127 125 4,190	19.48 33.33 16.02	.30 .12 1.25 .36	
1 <u></u>	DISTRICT 7	TOT	230,484	114,669	12,339	6,139	18.68	2.01	
• - - - - -	LITCHFIELD MARSHALL	тот тот	8,277 166,466	7,883 178,996	450 10,127	429 10,889	18.39 <u>16.44</u>	1.05	
	WILLMAR DISTRICT 8		204,280 379,023	88,052 88,145	11,151 21,728	4,806 5,053	18.32	2.32 4.30	
	MAPLEWOOD New Brighton North St Paul	TOT TOT TOT TOT	31,965 36,530 11,820	61,471 10,776 38,129	<u>1,700</u> 2,121 690	3,269 626 2,226 7,616	18.80 17.22 17.13	52 3.39 .31 7.63	<u>tetert ja si se se</u>
	ST FAUL SHOREVIEW WEST ST PAUL		<u> </u>	<u> </u>	<u> </u>	2,147 7,148	<u>18.02</u> 17.01	1.63	
ש	BURNSVILLE APPLE VALLEY LAKEVILLE	TOT TOT TOT	75,353 216,630 71,818	33,791 142,520 23,547	2,921 15,442 4,626	1,310 10,159 <u>1,517</u>	25.80 14.03 15.52	2.23 1.52 3.05	
age	EAGAN Lake Elmo Vadnais heights	TOT TOT TOT	729,484 37,727 43,150	63,489 43,869 60,775	47,430 2,100 1,800	4,128 2,442 2,535	15.38 17.97 23.97	11.49 .86 .71	
8	DISTRICT 9	<u> </u>	2,258,469	66,937	141,705	4,200	15.94	33.74	
	STATE TOTAL		5,517,034	71,446	313,022	4,054	17.63	77.22	

TOTALS TOTAL COST COST PER MILE TOTAL QUANTITY QUANTITY UNIT PER MILE LENGTH DISTRICT 1 TOT 395,201 95,459 19,147 4,625 20,64 4,14 DISTRICT 2 TOT 188,680 68,861 9,015 3,290 20,93 2,74 DISTRICT 3 TOT 91,656 42,631 6,391 2,973 14,34 2,15	
DISTRICT 1 101 395,201 95,459 19,147 4,625 20,64 4,14 DISTRICT 2 TOT 188,680 68,861 9,015 3,290 20,93 2,74 DISTRICT 3 TOT 91,656 42,631 6,391 2,973 14,34 2,15 DISTRICT 6 TOT 7,66 42,631 6,177 3,165 10,00 6,66	
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DISTRICT 5 101 1,417,632 73,538 74,888 5,874 18,93 19,33 DISTRICT 6 TOT 189,750 69,000 8,632 3,139 21.98 2.75 DISTRICT 7 TOT 230,484 114,669 12,339 6,139 18.68 2.01 DISTRICT 8 TOT 379,023 88,145 21,728 5,053 17.44 4.30 DISTRICT 9 TOT 2,258,469 66,937 141,705 4,200 15.94 33.74	
STATE TOTAL 5,517.034 71.446 313,022 4,054 17.63 77.22	
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			M.5 B1	5,A.S. UNIT PR (t. surf, 2341	ICE STUDY Tons			PAGE 49
	TOTALS		TOTAL COST	COST PER MILE	TOTAL QUANTITY	QUANTITY PER MILE	UNIT PRICE	LENGTH
	CLOQUET VIRGINIA	<u> </u>	<u>13,673</u> 7,008	71,963	573 264 877	3,016 2,200 2,700	23.86 26.55 26.71	
	CROOKSTON DISTRICT 2	<u> </u>	72,768 72,768	57,752 57,752	<u>2,913</u> 2,913	<u>2,312</u> 2,312	<u>24.98</u> 24.98	1,26 1.26
	BRAINERD ST CLOUD	TOT TOT	6,815 32,853	61,955	321 2,190	2,918 3,842	21.23 15.00	.11
	ELK RIVER DISTRICT 3	TOT TOT	51,175 90,843	34,813 42,253	2,750 5,261	1,871 2,447	18.61 17.27	1.47 2.15
	FERGUS FALLS DISTRICT 4	<u> </u>	70,988 70,988	<u>53,779</u> 53,779	<u> </u>	2,304 2,304	23,34 23.34	1.32 1.32
	BLOOMINGTON BROOKLYN CENTER	TOT TOT TOT	149,807 2,525 77,756	98,557 25,250 47,412	7,370	4,849 1,000 2,390	20.33 25.25 19.84	1.52
H	EDINA FRIDLEY GOLDEN VALLEY	TOT	21,500 74,874	44,792 81,385 82,319	889 3,900 2,481	1,852 4,239 1,772	24.18 19.20 46.45	
age	MINNEAPOLIS MINNETONKA ST LOUIS PARK	TOT TOT TOT TOT	204,376 17,420 838	219,759 48,389 13,967	7,311 750 30	7,861 2,083 500	27.95 23.23 27.93	.93 .36 .06
90 0	NEW HOPE Chaska Ham lake Andover	TOT TOT TOT TOT TOT	140,951 78,929 29,170 208,253	56,156 47,836 21,138 37,933	7,475 4,090 1,288 8,982	2,978 2,479 933 1,636	18.86 19.30 22.65 23.19	2-51 1.65 1.38 5.49
	PRIOR LAKE LINO LAKES DISTRICT 5	TOT TOT TOT TOT	16,820 8,826 11,978 1,159,269	55,787 67,892 47,912 60,097	800 354 530 50,269	2,723 2,120 2,606	24.93 24.93 22.60 23.06	.13 .25 19.29
	FARIBAULT Northfield Owatonna District 6	TOT TOT TOT TOT TOT	36,144 8,794 1,338 46,276	38,046 15,989 4,460 25,709	1,729 421 52 2,202	1,820 765 173 1,223	20.90 20.89 25.73 21.02	.95 .55 .30 1-80
	NORTH MANKATO St Peter District 7	TOT TOT TOT	507 44,327 44,834	4,225 35,462 32,726	15 2,272 2,287	125 1,818 1,669	33.80 19.51 19.60	.12 1.25 1.37
	LITCHFIELD Marshall District 8	TOT TOT TOT	6,706 38,668 45,374	6,387 41,578 22,916	313 2,012 2,325	298 2,163 1,174	21.42 19.22 19.52	1,05 ,93 1.98
· · · · · · · · · · · · · · · · · · ·	MAPLEWOOD New Brighton North_St_Paul	TOT TOT TOT	66,367 139,007 11,623	85,086 46,647 37,494	3,080 6,640 510	3,949 2,228 1,645	21.55 20.93 22.79	.78 2.98 .31
	ST PAUL Shoreview South St Paul	TOT TOT TOT	75,501 78,533 10,262	29,961 48,180 48,867	3,198 3,500 380	1,269 2,147 1,810	23.61 22.44 27.01	2,52 1,63 ,21

	M.S.A.S. UNIT PRICE STUDY PAGE 50									
		TOTALS WEST ST PAUL	TOT	TOTAL COST 33,891 26,221	COST PER MILE 56,485	TOTAL QUANTITY 1,744 1,204	QUANTITY PER MILE 2,907 540	UNIT PRICE 19.43 20.12	LENGTH .60 2 23	
		APPLE VALLEY LAKEVILLE EAGAN LAKE ELMO	101 101 101 101 101	108,418 68,682 431,293 29,166	71,328 22,519 40,195 33,914	6,040 3,610 22,496 1,470	3,974 1,184 2,097 1,709	17.95 19.03 19.17 	1.52 3.05 10.73 	
		ROSEMOUNT VADNAIS HEIGHTS DISTRICT 9	ТОТ Тот тот	41,369 38,540 1,156,873	78,095 54,282 40,365	2,410 1,850 58,132	4,547 2,606 2,028	17.17 20.83 19.90	. 55 . 71 28 . 66	
		STATE TOTAL		2,707,906	46,576	127,267	2,189	21.28	58.14	
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			M. 5 B1	(CE STUDY			(<u>(</u>) PAGE 51	
	TOTALS		TOTAL COST 20,681	COST PER MILE 66+713 57 782	TOTAL QUANTITY 837 2,913	QUANTITY PER MILE	UNIT PRICE 24.71 24.98	LENGTH	
	DISTRICT 3 DISTRICT 4 DISTRICT 5 DISTRICT 6 DISTRICT 7 DISTRICT 8	TOT TOT TOT TOT TOT TOT TOT TOT	90,843 70,988 ,159,269 46,276 44,834 45,374	42,253 53,779 60,097 25,709 32,726 22,916	5,261 3,041 50,269 2,202 2,287 2,325	2,947 2,304 2,606 1,223 1,669 1,174	17.27 23.34 23.06 21.02 19.60 19.52	2.15 1.32 19.29 1.80 1.37 1.98	
3	DISTRICT 9 STATE TOTAL	2	,707,906	40,365	127,267	2,189	21.28	28.66.	
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				B.	IT. SURF, 2361	TONS				
		TOTALS		TOTAL Cost	COST PER MILE	TOTAL QUANTITY	QUANTITY PER MILE	UNIT PRICE	LENGTH	i.
		DULUTH EVELETH GRAND RAPIDS HIBBING VIRGINIA DISTRICT 1	TOT TOT TOT TOT TOT TOT	25,260 13,632 87,447 23,410 17,232 166,981	33,237 41,309 74,108 45,019 43,080 52,345	850 450 2,786 855 584 5,525	1,118 1,364 2,361 1,644 1,460 1,732	29.72 30.29 31.39 27.38 29.51 30.22	76 33 1.18 52 40 3.19	
		ST CLOUD DISTRICT 3 MOORHEAD DISTRICT 4	TOT TOT TOT TOT	20,009 20,009 22,829 22,829 22,829	35,104 35,104 60,076 60,076	1,025 1,025 628 628	1,798 1,798 1,653 1,653	19.52 19.52 36.35 36.35	.57 .57 .38 .38	
<u>1. (18)</u>	<u></u>	BLAINE BLOOMINGTON ST LOUIS PARK DISTRICT 5	TOT TOT TOT TOT TOT	944 19,404 644 20,992	102,126 10,733 83,968	33 635 12 680	3,342 200 2,720	28.61 30.56 53.67 30.87	.19 .06 .25	
м		FAIRMONT DISTRICT 7	TOT Tot	21,418 21,418	71,393 71,393	486 486	1,620 1,620	44.07 44.07	;30 ;30	
Page 93		NEW BRIGHTON ST PAUL EAGAN DISTRICT 9	TOT TOT TOT TOT TOT	6,230 241,137 388,774 636,141	5,107 39,401 42,911 38,789	204 8,303 14,676 23,183	167 1,357 1,620 1,414	30.54 29.04 26.49 27.44	1.22 6.12 9.06 16.40	
		STATE TOTAL		888,370	42,123	31,527	1,495	28.18	21,09	

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			Μ,	S.A.S. UNIT PR	PAGE 66				
			CURB &	GUTTER 2531	LIN. FT,				
<u></u>	TOTALS		TOTAL Cost	COST PER MILE	TOTAL QUANTITY	QUANTITY Per Mile	UNIT PRICE	LENGTH	
	CLOQUET	IOI	15,264	80,337	2,462	12,958	<u> </u>	<u></u>	
	EVELETH		29,655	55,258	2,605	7,894	7.00	.33	
	HIBBING		32,593	62,679	<u> </u>		<u> </u>	<u>52</u>	
	DISTRICT 1	TOT	192,182	33,895	30,652	5,406	6.27	5.67	
	BEMIDJI		20,088	64.800	3,100	10,000	<u> </u>	.31	
	EAST GRAND FORKS	TOT	92,155	52,963	13,165	7,566	7.00	1,74 .54	
	DISTRICT 2	ŤŎŤ	179,469		30,754	6,896	5.84	4.46	
	BRAINERD ST CLOUD	TOT TOT	7,955 26,800	72,318 47.018	1,075 6,700	9,773 11,754	7.40 4.00	.11 .57	
	ELK RIVER DISTRICT 3	TOT	67,500	45,918	<u> </u>	10,204 10,593	<u>4.50</u> 4.49	<u> </u>	
	ALEXANDRIA	тот	21,038	23,119	5,357	5,887	3.93	,91	
Ра	DETROIT LAKES FERGUS FALLS	<u>†0†</u> Tot	23,025	<u>43,443</u> 9,868	<u> </u>	<u> </u>	<u> </u>	.53 1.21	
ģ	MOORHEAD DISTRICT 4	TOT Tot	14,511 70,514	10,829 17,673	1,563 13,281	1,166 3,329	9.28 5.31	1.34 3.99	
ອ ກ	ANOKA	TOT	41,448	71,462	8,050	13,879	5.15	, 58	
	BLAINE BLOOMINGTON	TOT	18,368 264,996	63,396	51,752	12,381	5.12 5.05	4.18	
	COON RAPIDS		60,908	37,139	15,466	9,430	3.94	1.64	
	EDINA FRIDLEY		22,698 55,815	47,200 60,668 61,661	13,196	14,343	4.23	.92	
	MINNEAPOLIS		60,742	65,314	8,664	9,316	7.01	1.93	
	ORONO	TOT	37,923	12,899	4,928 5,930	1,676	7.70	2.94	
	ST LOUIS PARK	TOT	11,913	56,729	2,295	10,929	5.19	.21	
	MAPLE GROVE	TOT	62,639	51,768	13,741	11,356	4.56	1.21	
			30,913	22,401	8,184	5,930 6,118	3.78 3.91	1.38 5.49	
	RAMSEY PRIOR LAKE	TOT	19,864	42,264	4,966 862	10,566 6,631	4.00 5.67	.47	
		TOT	12,361 1,012.318	49,444 37,957	2,784 212,839	11,136 7,980	4.44 4.76	.25 26.67	
	ALBERT LEA	TOT	6,050	50.417	1,363	11,358	4.44	.12	
	AUSTIN FARIBAULT	ŤŌŤ TOT	15,433 59,290	55,118	2,748 9,920	9,814 10,442	5.62 5.98	.28 .95	
	NORTHFIELD	tōt	7,849	14,271	1,834	3,335	4.28	.55	

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			M.S	.A.S. UNIT PRI	CE STUDY			PAGE 67	
			CURB &	GUTTER 2531	LIN. FT.				
	TOTALS		TOTAL	COST PER MILE	TOTAL QUANTITY	QUANTITY PFR MILE	UNIT	LENGTH	
	OWATONNA	TOT	6,067	20,223	931	3,103	6.52	. 30	
	ROCHESTER	tot	35,797	57.737	6,763	10,908	5.29	.62	
	WINONA District 6	TOT Tot	14,049 151,815	66,900 48,503	2,051 26,650	9,767 8,514	6.85 5.70	3.13	
	FAIRMONT	TOT	16,444	54,813	3,088	10,293	5.33	. 30	
	MANKATU North Mankato	TOT	47,040 2,275	294,050	7,468	40,075	6.50	. 10	
	ST_PETER DISTRICT 7	<u> </u>	<u>50,187</u> 115,954	<u> 40,150 </u>	<u> </u>	<u> </u>	<u> </u>	$\frac{1.25}{1.71}$	
	LITCHETELD	TOT	4.559	30,393	865	5,767	5.27	.15	
			37,169	21,361	<u> </u>	3,909	<u>5,46</u> 4 19	1.74	
	DISTRICT 8	tot	79,983	26,930	16,797	5,656	4.76	2.97	
-	MAPLEWOOD	<u> </u>	43,478	55,741	9,585	12,288	4.54		
	NEW BRIGHTON North St Paul	TOT TOT	22,032 16,125	7,393 52,016	3,620 3,225	1,215	6.09 5.00	2.98	
н	ST PAUL Shorevtew	TOT	240,894	47,702	46,296	9,168 	5,20	5.05	
ag	WEST ST PAUL	TOT	28,020	46,700	6,600	11,000	4.25	.60	
Ø	APPLE VALLEY	TOT	93,232	61,337	21,358	14,051	4.37	1.52	
0 0	EAGAN	101 TOT	403,289	25.093	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
	LAKE ELMO VADNATS HEIGHTS	TOT	2,800 32,957	3,256	350 7,300	407 10.282	8,00 4,51	.86 .71	
	DISTRICT 9	<u> </u>	1,049,919	33,640	228,957	7,336	4.59	31,21	
	STATE TOTAL		2.954.409	36.047	603,356	7,362	4.90	81.96	

			M.S.A Curb & Gu	A.S. UNIT PRICE	STUDY LIN. FT.		P	AGE 68
	TOTALS	тот 1	TOTAL COST 92.182	COST PER MILE	TOTAL QUANTITY	QUANTITY PER MILE	UNIT PRICE	LENGTH
	DISTRICT 2 DISTRICT 3 DISTRICT 4 DISTRICT 5	TÖT 1 TOT 1 TOT 1.0	79,469 02,255 70,514 12,318	40,240 47,560 17,673 37,057	30,754 22,775 13,281 212,839	6,896 10,593 3,329 7,980	5.84 4.49 5.31 	4.46 2.15 3.99 -26.67
	DISTRICT 6 DISTRICT 7 DISTRICT 8 DISTRICT 9	TOT 1 TOT 1 TOT 1 TOT 1,0	51,815 15,954 79,983 49,919	48,503 67,809 26,930 33,640	26,650 20,651 16,797 228,957	8,514 12,077 5,656 7,336	5.70 5.61 4.76 <u>4.59</u>	3.13 1.71 2.97
	STATE TOTAL	2,9	54,409	36,047	603,356	7,362	4.90	81.96
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				M.:	S.A.S. UNIT PRI	ICE STUDY			PAGE 124	
SIDEWALK CONSTR. SQ. FT.										
		TOTALS		TOTAL Cost	COST PER MILE	TOTAL Quantity	QUANTITY PER MILE	UNIT PRICE	LENGTH	
* 			ŢOŢ	16.007		9,416	49,558	1.70	.19	
		EVELETH GRAND BARTDS	TOT	25,915 9,641 76 045	29,215 66.707	14,008 5,843 108,922	17,706	1.65		
		HIBBING VIRGINIA		<u>31,249</u> 40,123	<u>60,094</u> 100,308	<u>17,095</u> 18,718	<u>32,875</u> 46,795	<u>1.83</u> 2.14	.40	
p.		DISTRICT 1	TOT	196,980	69,359	174,002	61,268	1.13	2.84	
(BEMIDJI CROOKSTON	TOT TOT	17,510 75,866	56,484 63,222	<u> </u>	33,226	1.91	1,20	
		THIEF RIVER FALLS	TOT	20,340 303 114.027	2,020	11,909 155 62,050	1,033	1.95	.15	
	•	BRAINERD	TOT	136	1,236	47	427	2.89	.11	
		ST CLOUD DISTRICT_3	TOT TOT	24,100 24,236	42,281 35,641	24,100 24,147	42,281 35,510	1.00 <u>1.00</u>	.57	
Page 98		ALEXANDRIA	TOT	1,908	4,240	954 1 720	2,120	2.00	,45	
		FERGUS FALLS		<u> </u>	12,387	<u>, , , , , , , , , , , , , , , , , , , </u>	<u> </u>	2.01	<u>1,19</u> 1.41	
		DISTRICT 4	ŤŎŤ	49,286	13,767	23,021	6,430	2.14	3.58	
		ANOKA BLOOMINGTON		17.365 145,052	<u> </u>	15,100 98,082	<u>26,034</u> 64,528	$\frac{1.15}{1.48}$		
		BRUUKLYN CENTER COON RAPIDS		21,132	21,345	1,700	17,000	1.10	.10 .99 .48	
	<u> inter de la constant</u> e de la constante de la	FRIDLEY GOLDEN VALLEY	TOT TOT	19,714	45,847 23,194	13,411 31,485	31,188 17,019	1.47	.43 1.85	
-		MINNEAPOLIS ORONO	TOT TOT	89,714 41,571	96,467 14,140	46,954 30,567	50,488 10,397	1.91	.93 2.94	12 <u>-12-11-12-3-1</u> -
		ST LOUIS PARK	TOT	6,481 13,254	43,207 9,078	4,985 9,200	33,233 6,301	1.30	.15 1,46	
		PRIOR LAKE		15,863 6,263 638,668	36,691 	<u> </u>	<u> </u>	1.34 <u>1.41</u> 1.47	.43 .13 .11 99	
		ALBERT LEA	тот	1,656	13,800	1,072	8,933	1.54	.12	
: 		AUSTIN FARIBAULT	<u>101</u> 101	12,013 12,047	29,300 12,6 4 1	7,281	<u> </u>	<u>1.65</u> 1.89	.95	
		NORTHFIELD Owatonna	TOT TOT	14,317 9,818	26,031 32,727	10,555	19,191 23,140	1.36	,55 ,30	
, <u>.</u>	<u>mara sa sa sa sa sa</u>			7,131 40 108	11,502 190,990	<u>1∡, 360</u> 3, 513 23, 257	5,666 110.748	2.03	.62	<u> </u>
•		DISTRICT 6	TOT	121,603	37,302	71,354	21,888	1.70	3.26	
		FAIRMONT MANKATO	TOT	40,140 62,110	133,800 388,188	22,583 44,364	75,277 277,275	1.78 1.40	.30 .16	
		NORTH MANKATO	TOT	936		520		1.80		

			M. :	S.A.S. UNIT PR	ICE STUDY			PAGE 125	
		SIDEWALK CONSTR. SQ. FT.							
<u>. 1999 (2007) - 1999 (2007) - 1</u>	TOTALS		TOTAL	COST PER MILE	TOTAL QUANTITY	QUANTITY PER MILE	UNIT PRICE	LENGTH	
	ST PETER	TOT	45,056	36,045	33,375	26,700	1.35	1.25	
	DISTRICT 7	töt	179,733	68,340	115,875	44,059	1.55	2:63	
	LITCHFIELD	TOT	3,718	4,131	2,618	2,909	1.42	,90 1 76	
	WILLMAR DISTRICT 8	TOT TOT TOT	24,890 104,093	23,046 27,982	19,000 69,804	17,593 18,765	1.31 1.49	1.08 3.72	
	MAPLEWOOD New Brighton St Paul Shoreview	TOT TOT TOT TOT TOT	8,750 65,342 90,081 52,313	33,654 17,660 16,290 32,094	6,250 46,888 51,615 38,750	24,038 12,672 9,334 23,773	1.40 1.39 1.75 1.35	26 3.70 5.53 1.63	
	BURNSVILLE APPLE VALLEY LAKEVILLE FAGAN	TOT TOT TOT TOT TOT	6,130 7,383 96,963 8,057 76,110	10,217 4,148 63,791 6,446 16,333	5,864 5,864 68,870 6,093 64,050	6,900 3,294 45,309 4,874 13,745	1.97 1.26 1.41 1.32 1.19	1.78 1.52 1.25 4.66	
н	DISTRICT 9	töt	411;129	19,643	292,280	13,965	1.41	20.93	
page 99	STATE TOTAL		1,639,735	31,317	<u>1,131,736</u>	<u> 21,615 </u>	<u>1,45</u>	52.36	<u> </u>

\$ 1,639,735 ÷ 1,131,736 X 9 = \$13.04 per sq. yd.



CURRENT RESOLUTIONS OF THE MUNICIPAL SCREENING BOARD

OCTOBER 1989

BE IT RESOLVED:

ADMINISTRATION

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

That annually the Commissioner of Mn/DOT will 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 Nine Construction Districts together with one representative from each of the three (3) major cities of the first class.

Screening Board Chairman and Vice Chairman - June 1987

That the Chairman and Vice Chairman, 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 shall 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.

Screening Board Secretary - Oct. 1961

That annually, the Commissioner of the Minnesota Department of Transportation (Mn/DOT) may be requested to appoint a secretary, upon recommendation of the City Engineers' Association of Minnesota, as a non-voting member of the Municipal Screening Board for the purpose of recording all Screening Board actions.

Appointment to the Needs Study Subcommittee - June 1987

The Screening Board Chairman shall 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 shall be made after the annual Spring meeting of the Municipal Screening Board. The appointed subcommittee person shall serve as chairman of the subcommittee in the third year of the appointment.

Appointment to Unemcumbered Construction Funds Subcommittee - Revised June 1979

The Screening Board past Chairman be appointed to serve a three-year term on the Unencumbered Construction Fund Subcommittee. This will continue to maintain an experienced group to follow a program of accomplishments.

Screening Board Alternate Attendance - June 1979

The alternate to a third year member be invited to attend the final meeting. A formal request to the alternates governing body would request that he attend the meetings and the municipality pay for its expenses.

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

That 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, shall, in a written report, communicate with the State Aid Engineer. The State Aid Engineer with concurrence of the Chairman of the Screening Board shall 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.

Research Account - Oct. 1961

That an annual resolution be considered for setting aside a reasonable amount of money for the Research Account to continue municipal street research activity.

Soil Type - Oct. 1961

That the soil type classification as approved by the 1961 Municipal Screening Board, for all municipalities under Municipal State Aid be adopted for the 1962 Needs Study and 1963 apportionment on all streets in the respective municipalities. Said classifications are to be continued in use until subsequently amended or revised by Municipal Screening Board action.

Improper Needs Report - Oct. 1961

That the Office of State Aid and the District State Aid Engineer is 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

Any new city which has determined their eligible mileage, but does not have an approved State Aid System, their money needs will be determined at the cost per mile of the lowest other city.

Construction Cut Off Date - Oct. 1962 (Revised 1967)

That for the purpose of measuring the Needs of the Municipal State Aid Highway System, the annual cut off date for recording construction accomplishments based upon the project award date shall be December 31st of the preceding year.

Construction Accomplishments - (Oct. 1988)

When a Municipal State Aid Street is constructed to State Aid Standards, said street shall be considered adequate for a period of 20 years from the date of project letting or encumbrance of force account funds.

If, during the period that complete needs are being received the street is improved with a bituminous overlay or concrete joint repair the municipality will continue to receive complete needs but shall have the non-local cost of the bituminous resurfacing or concrete joint repair construction project deducted from its total needs for a period of ten (10) years.

If the construction of the Municipal State Aid Street is accomplished with local funds, only the construction needs necessary to bring the roadway up to State Aid Standards will be permitted in subsequent needs for 20 years from the date of the letting or encumbrance of force account funds. At the end of the 20 year period, reinstatement for complete construction needs shall be initiated by the Municipality.

Needs for resurfacing, lighting, and traffic signals shall be allowed on all Municipal State Aid Streets at all times.

That any bridge construction project shall cause the needs of the affected bridge to be removed for a period of 35 years from the project letting date or date of force account agreement. At the end of the 35 year period, needs for complete reconstruction of the bridge will be reinstated in the needs study at the initiative of the Municipal Engineer. If, during the period that complete bridge needs are being received the bridge is improved with a bituminous overlay, the municipality will continue to receive complete needs but shall have the non-local cost of the overlay deducted from its total needs for a period of ten (10) years.

The adjustments above will apply regardless of the source of funding for the road or bridge project. Needs may be granted as an exception to this resolution upon request by the Municipal Engineer and justification to the satisfaction of the State Aid Engineer (e.g., a deficiency due to changing standards, projected traffic, or other verifiable causes). In the event that a M.S.A.S route earning "After the Fact" needs is removed from the M.S.A. system, then, the "After the Fact" needs shall 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.

DESIGN

Design Limitation on Non-Existing Streets - Oct. 1965

That non-existing streets shall not have their needs computed on the basis of urban design unless justified to the satisfaction of the Commissioner.

Less Than Minimum Width - Oct. 1961 (Revised 1986)

That in the event that a Municipal State Aid Street is constructed with State Aid Funds to a width less than the standard design width as reported in the Needs Study, the total needs shall be taken off such constructed street other than the surface replacement need. Surface replacement and other future needs shall be limited to the constructed width unless exception is justified to the satisfaction of the Commissioner.

Greater Than Minimum Width

If a Municipal State Aid Street is constructed to a width wider than required, only the width required by rules will be allowed for future resurfacing needs.

Miscellaneous Limitations - Oct. 1961

That miscellaneous items such as fence removal, bituminous surface removal, manhole adjustment, and relocation of street lights are not permitted in the Municipal State Aid Street Needs Study. The item of retaining walls, however, shall be included in the Needs Study.

MILEAGE

(Feb. 1959)

The maximum mileage for Municipal State Aid Street designation shall be 20 percent of the municipality's basic mileage - which is comprised of the total improved streets less Trunk Highway and County State Aid Highways.
(Nov. 1965 - Revised 1972)

The maximum mileage for Municipal State Aid Street designation shall 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 shall not be permitted.

(Nov. 1965 - Revised 1969)

However, the maximum mileage for State Aid designation may be exceeded to the extent necessary to designate trunk highway turnbacks, only if sufficient mileage is not available as determined by the Annual Certification of Mileage.

(Jan. 1969)

Any mileage for designation prior to the trunk highway turnback shall be used for the turnback before exceeding the maximum mileage.

In the event the maximum mileage is exceeded by a trunk highway turnback, no additional designation other than trunk highway turnbacks can be considered until allowed by the computations of the Annual Certification of Mileage within which the maximum mileage for State Aid designation is determined.

Oct. 1961 (Revised May 1980, Oct. 1982 and Oct. 1983)

All requests for additional mileage or revisions to the Municipal State Aid System must be received by the District State Aid Engineer by March first. The District State Aid Engineer will forward the request to the State Aid Engineer for review. A City Council resolution of approved mileage and the Needs Study reporting data must be received by the State Aid Engineer by May first, to be included in the current year's Needs Study. Any requests for additional mileage or revisions to the Municipal State Aid Systems received by the District State Aid Engineer after March first will be included in the following year's Needs Study.

One Way Street Mileage - June 1983 (Revised Oct. 1984)

That 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.

A one-way street will be treated as one-half of a full four-lane width divided street of either 56 feet or 72 feet (72 feet when the projected ADT is over 8,000) for needs, and that the roadway system must be operating as one-way streets prior to the time of designation.

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St. Paul

MSA ROUTE NO.	TERMINI		APPROVAL DATE	MILEAGE	NEEDS WIDTH	
134	EB Fifth St.	- Fort Rd. (W. 7th St.)	6/89	0.85 Miles	28' & 36'	
198	WB Sixth St.	to Broadway St.		0.86 Miles	36'	
235	NB Wabasha St.	- Kellogg Blvd.	6/89	0.61 Miles	36'	
236	SB St. Peter St.	to Twelfth St.		0.62 Miles	36'	
165	NB Minnesota St.	- Kellogg Blvd.	6/89	0.47 Miles	36'	
117	SB Cedar St.	to Tenth St.		0.46 Miles	36'	
196	NB Sibley St. SB Jackson St.	- Shepard Road to Seventh St.	6/89	0.34 Miles CSAH 4.21 Miles	36'	

COST

Construct	<u>ion Item Unit</u>	Prices -	(Revise	d Annual	1y)			
Right of Way:					\$	60,000.00	Acre	
Grading:				\$	3.00	Cu. Yd.		
Base:								
	Class 4	Spec.	#2211		\$	4.75	Ton	
•	Class 5	Spec.	#2211		\$	5.75	Ton	
	Bituminous	Spec.	#2331		\$	21.00	Ton	
Surface:	:							
	Bituminous	Spec.	#2331		\$	21.00	Ton	
	Bituminous	Spec.	#2341			24.00	Ton	
	Bituminous	Spec.	#2361			34.00	Ton	
Shoulder	:::							
	Gravel	Spec.	#2221		\$	4.25	Ton	
Miscella	meous:							
•	Storm Sewer C	Construct	ion		\$2	196,000.00	Mile	
	Storm Sewer A	djustmen	t			62,000.00	Mile	
	Traffic Signa	ls		15,000	to	45,000.00	Mile	
	Street Lighti	.ng				16,000.00	Mile	
	Curb & Gutter	•				5.50	Lin. Ft.	
	Sidewalk					14.00	Sq. Yd.	
	Engineering				18%			
Remov al	Items:							
	Curb & Gutter				\$	1.75	Lin. Ft.	
	Sidewalk					4.00	Sq. Yd.	
	Concrete Pave	ment				3.75	Sq. Yd.	
	Tree Removal					140.00	Unit	

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STRUCTURES

Bridge Costs - Oct. 1961 (Revised Annually)

That for the study of needs on the Municipal State Aid Street System, bridge costs shall be computed as follows:

Bridges 0 to 149 Ft.	\$ 55.00 Sq. Ft.
Bridges 150 to 499 Ft.	\$ 60.00 Sq. Ft.
Bridges 500 & Over	\$ 70.00 Sq. Ft.
Bridge Widening	\$200.00 Sq. Ft.

"The money needs for all "non-existing" bridges and grade separations be removed from the Needs Study until such time that a construction project is awarded. At that time a money needs adjustment shall be made by annually adding the total amount of the structure cost that is eligible for State Aid reimbursement for a 15-year period." This directive to exclude all Federal or State grants.

Bridge Width & Costs - (Revised Annually)

That after conferring with the Bridge Section of Mn/DOT and using the criteria as set forth by this Department as to the standard design for railroad structures, that the following costs based on number of tracks be used for the Needs Study:

Railroad Over Highway

Number of Tracks - l	\$2,250 Lin	. Ft.
Each Additional Track	\$1,750 Lin	. Ft.

RAILROAD CROSSINGS

Railroad Crossing Costs - (Revised Annually)

That for the study of needs on the Municipal State Aid Street System, the following costs shall be used in computing the needs of the proposed Railroad Protection Devices:

Railroad Grade Crossings

Signals - (Single track - low speed)	\$70	,000	Unit	
Signals and Gates(Multiple Track - high	. \$99	,000	Unit	
Signs Only & low speed)	\$	300	Unit	
Rubberized Railroad Crossings	\$	700	Lin.	Ft.

NEEDS ADJUSTMENTS

Expenditures Off State Aid System - Oct. 1961

That any authorized Municipal State Aid expenditure on County State Aid or State Trunk Highway projects shall be compensated for by annually deducting the full amount thereof from the Money Needs for a period of ten years.

Bond Adjustment - Oct. 1961 (Revised 1976, 1979)

That a separate annual adjustment shall be made in total money Needs of a municipality that has sold and issued bonds pursuant to Minnesota Statutes, Section 162.18, for use on State Aid projects.

That this adjustment, which covers the amortization period, and which annually reflects the net unamortized bonded debt shall be accomplished by adding said net unamortized amount to the computed money needs of the municipality.

For the purpose of this adjustment, the net unamortized bonded debt shall be the total unamortized bonded indebtedness less the unexpended bond amount as of December 31st of the preceding year.

That for the purpose of this separate annual adjustment, the unamortized balance of the St. Paul Bond Account, as authorized in 1953, 2nd United Improvement Program, and as authorized in 1946, Capital Approach Improvement Bonds, shall be considered in the same manner as those bonds sold and issued pursuant to Minnesota Statutes, Section 162.18.

"Bond account money spent off State Aid System would not be eligible for Bond Account Adjustment. This action would not be retroactive, but would be in effect for the remaining term of the Bond issue."

Unencumbered Construction Fund Balance Adjustment - Oct. 1961

(Revised June 1986)

That for the determination of Apportionment Needs, the amount of the unencumbered construction fund balance as of September 1st of the current year, not including the current year construction apportionment, shall be deducted from the 25-year total Needs of each individual municipality.

Projects that have been received before September 1st by the District State Aid Engineer for payment shall be considered as being encumbered and the construction balances shall be so adjusted.

Excess Unencumbered Construction Fund Balance (Revised June 1989)

Whenever a municipality's construction fund balance available as of February 1, of the current year, not including the current years allotment, exceeds \$300,000 or two times their annual construction allotment (whichever is greater), the State Aid Office shall notify the City in writing by March 1st

of this excess balance and outline the financial impact to the City if this unencumbered construction fund balance is not reduced to the stated amount by September 1, of that year. The State Aid Office shall review the balance as of June 30, and send a second notice to those cities still exceeding the allowable unencumbered construction fund balance based upon the criteria stated above and include further explanation of the financial impact to their city if the balance is not reduced within the guidelines by September 1, of that same year. The Unencumbered Construction Fund Subcommittee shall meet with those cities still having an excess unencumbered construction fund balance after September 1, of that year and inform them of the adjustment which will be made to their 25 year construction needs for the following year. It is understood that either the submittal of a report of State Aid Contract or report of final contract approved by the District State Aid Engineer by September 1, which reduces the fund balance within required limits shall be considered acceptable to meeting the intent of this particular resolution. In the event the city does not meet the requirements of this resolution to reduce their unencumbered construction fund balance as per the criteria stated above, an adjustment of twice the amount available (city's unencumbered construction fund balance less the current years construction allotment) will be deducted from the city's twenty-five year needs prior to the succeeding year apportionment. The initial adjustment, based on the last allocation, loss of apportionment shall not exceed the excess balance. Unless the balance is reduced in future years, this deduction will be increased annually to 3, 4, 5, etc. times the amount until such time the money needs are reduced to zero. This adjustment would be in addition to the unencumbered construction fund balance adjustment previously defined.

(Revised Oct. 1981)

By January 1, 1983, each nunicipality shall submit a revised 5-year construction program which has been approved by their city council. This program shall include sufficient projects to utilize all existing and anticipated funds accruing during the life of the program. The program will be updated at 3-year intervals and a review made at that time to ascertain program implementation.

Storm Sewer - June 1986 (revised October 1989)

For the 1990 needs and the 1991 apportionment and thereafter, the money needs for municipal State Aid segments requiring complete storm sewer shall be included in the Needs Study at the unit rate annually set by the Municipal Screening Committee. Storm sewer adjustment needs shall be included in the Needs Study for street segments rated inadequate or deficient yet possess completed storm sewers.

For and through the 1990 apportionment, all complete Storm Sewer Construction projects let in 1984 through 1988 where State Aid Funds have participated in the cost, the complete Storm Sewer Needs will be determined by the Office of State Aid using the participating plan quantities, the participating percentage and the contract or force account prices. In order to receive needs for qualifying Storm Sewer Construction projects funded with local funds let in 1984 through 1988, a plan and an Abstract of Bids or Construction Proceed Order must be submitted to the Office of State Aid by the City Engineers. The Hydraulics Section of the Office of Design Services will determine the eligible percentage of participating storm sewer and the Office of State Aid will determine the complete Storm Sewer Needs.

Right of Way - Oct. 1965 (Revised June 1986)

The Right of Way needs shall be included in the apportionment needs based on the unit price per mile, until such time that the right of way is acquired and the actual cost established. At that time a money needs adjustment shall 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 reimbursement shall be included in the right-of-way money needs adjustment. This Directive to exclude all Federal or State grants. Right-of-way projects that are funded with State Aid Funds will be compiled by the State Aid Office. 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 State Aid Office.

Variance Granted - Reduction of Money Needs - Oct. 1982 (Revised Oct. 1984) (Revised Oct. 1987) (Revised Oct. 1989)

That the State Aid Office give future money needs based on the date of variance approval.

The adjustment for width variances will be based on the needs cost of the base and surface, times the proportional difference between the minimum standards and the granted variance, times fifteen or the proportional difference between average past 15 years of base and surface needs received and the granted variance times fifteen (Documentation shall be furnished by the City to the State Aid Office at the same time as the "Hold Harmless" City Council resolution is submitted for final variance approval.) This would be a one-year adjustment to the 25-year needs.

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

That any trunk highway turnback which reverts directly to the municipality and becomes part of the State Aid Street system shall not have its construction needs considered in the money 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, of the municipality imposed by the turnback shall be computed on the basis of the current year's apportionment data and shall be accomplished in the following manner. Initial Turnback Maintenance Adjustment - Fractional Year Reimbursement:

The initial turnback adjustment when for less than 12 full months shall provide partial maintenance cost reimbursement by adding said initial adjustment to the money 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 shall be added to the annual money needs. This needs adjustment per mile shall produce sufficient apportionment funds so that at least \$7,200 in apportionment shall be earned for each mile of trunk highway turnback on Municipal State Aid Street System.

Turnback adjustments shall terminate at the end of the calendar year during which a construction contract has been awarded that fulfills the Municipal Turnback Account Payment provisions; and the resurfacing needs for the awarded project shall be included in the Needs Study for the next apportionment.

TRAFFIC - June 1971

Traffic Limitation on Non-Existing Streets - Oct. 1965

That non-existing street shall not have their needs computed on a traffic count of more than 4,999 vehicles per day unless justified to the satisfaction of the Commissioner.

Traffic Manual - Oct. 1962

That for the 1965 and all future Municipal State Aid Street Needs Studies, the Needs Study procedure shall utilize traffic data developed according to the Traffic Estimating Manual - M.S.A.S. #5-892.700. This manual shall be prepared and kept current under the direction of the Screening Board regarding methods of counting traffic and computing average daily traffic. The manner and scope of reporting is detailed in the above mentioned manual.

Traffic Counting - Sept. 1973 (Revised June 1987)

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 years.
- 2. The cities in the outstate area may have their traffic counted for a nominal fee and maps prepared by State forces every four years, or may elect to continue the present procedure of taking their own counts and preparing their own traffic maps at four year intervals.

. . . 3. Some deviations from the present four-year counting cycle shall be permitted during the interim period of conversion to counting by State forces in the outstate area.