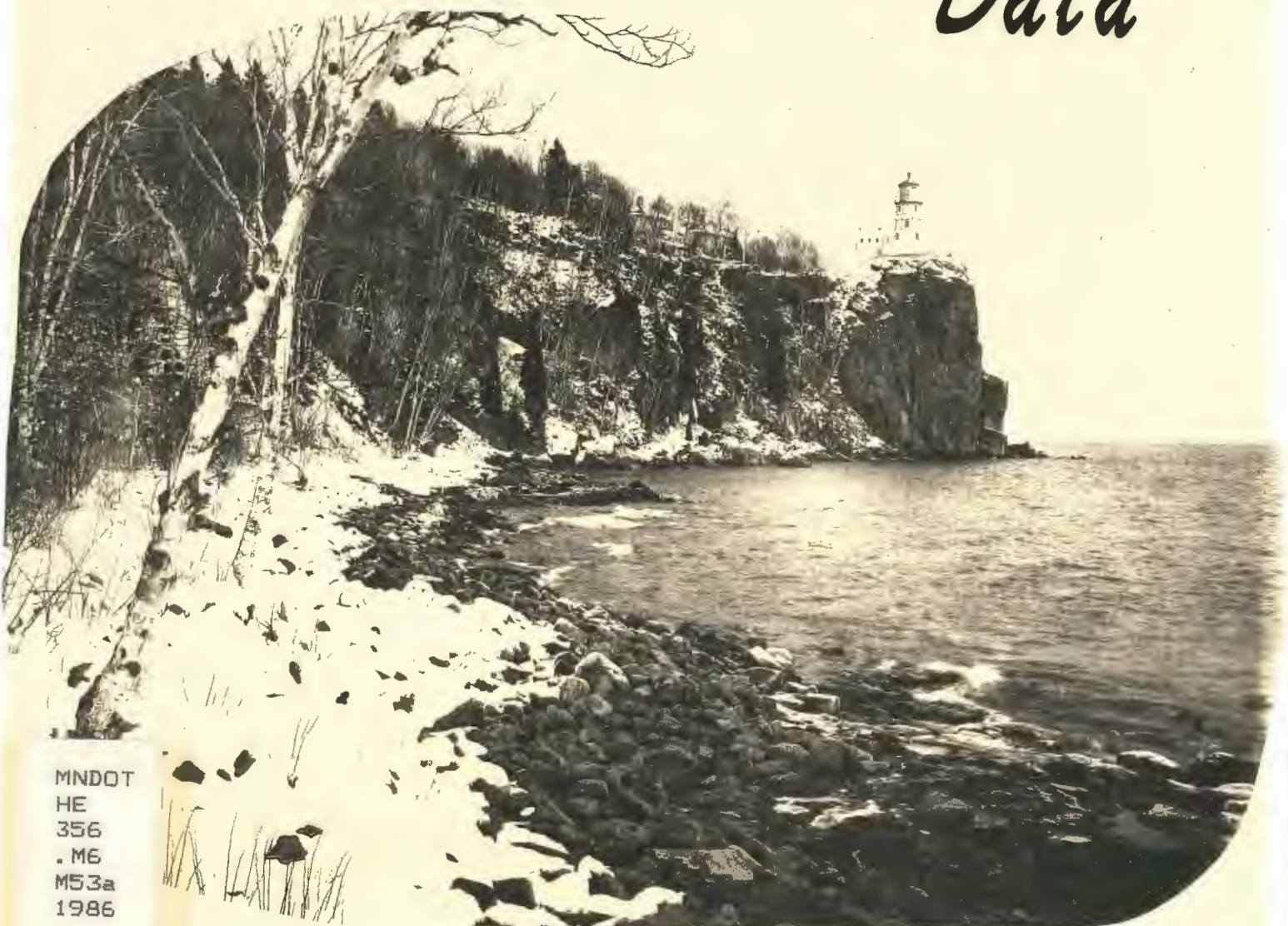


MN DEPT OF TRANSPORTATION
3 0314 00003 0717

1986 Municipal Screening Board Data



MNDOT
HE
356
. M6
M53a
1986

JUNE 1986

1986 Municipal

Screening

Board

Data



JUNE 1986

1986 MUNICIPAL SCREENING BOARD DATA

June 1986

	<u>Table of Contents</u>	<u>Page</u>
I.	1986 Municipal Board Data	1
II.	1986 Subcommittee appointed by the screening Board	2
III.	Map of Highway Districts and Urban Municipalities	3
IV.	Minutes of the October 22, 1985 Screening Committee Meeting ...	4
V.	Activities of the 1986 Municipal Needs Study Subcommittee	5
	A. Minutes of the May 13, 1986 Subcommittee Meeting	14-17
	B. Relationship of the total 25-year needs to each Individual Construction Item.....	18
	Municipal State Aid Street Unit Price and Graphs.	
	C. Curb and Gutter Removal # 2104	19
	D. Sidewalk Removal # 2105	21
	E. Concrete Pavement Removal # 2106	23
	F. Tree Removal # 2101	25
	G. Class 4 - Subbase # 2211	27
	H. Class 5 - Gravel Base # 2212	29
	I. Bituminous Base or Surface # 2331	31
	J. Bituminous Base # 2341	33
	K. Bituminous Surface # 2351 & 2361	35
	L. Curb and Gutter Construction # 2531	37
	M. Sidewalk Construction # 2521	39
	N. 1986 Storm Sewer Costs Mn/DOT Hydraulics Section	41
	O. 1985 Bridge Structural Costs Mn/DOT Bridge Section	42
	P. 1986 Railroad Crossing Costs Mn/DOT Railroad Operations ..	44
	Q. Preliminary County State Aid Unit Price Study	45
VI.	Unit Price Recommendation to the 1986 Screening Committee	46
VII.	M.S.A.S. Unit Price Study Computer Run	48-121
VIII.	City of Duluth's After the Fact Bridge Needs	122-123
IX.	Status of Problem Bond Accounts	124
X.	Status of Construction Fund Balances	125-126
XI.	Status of Municipal Traffic Counting	127
XII.	Current Resolutions of the Municipal Screening Board	128-138

1986 MUNICIPAL SCREENING BOARD

OFFICERS

Chairman	Larry Anderson	Prior Lake	(612) 447-4230
Vice Chairman	Kenneth Saffert	Mankato	(507) 625-3161
Secretary	Fred Moore	Plymouth	(612) 559-2800

MEMBERS

<u>District</u>	<u>Served</u>	<u>Representative</u>		
1	1	Clyde Busby	Hibbing	(218) 262-3486
2	2	Gary Sanders	East Grand Forks	(218) 773-1185
3	2	Ronald Schweninger	Brainerd	(218) 829-1495
4	1	Dan Edwards	Fergus Falls	(218) 739-2251
5	3	Ronald Rudrud	Bloomington	(612) 881-5811
6	1	Richard Murphy	Austin	(507) 437-7671
7	3	Martin Menk	North Mankato	(507) 625-4171
8	2	Thomas Rodeberg	Montevideo	(612) 269-6575
9	3	Steven Gatlin	White Bear Lake	(612) 429-8526
(Three Cities		John Carlson	Duluth	(218) 723-3278
of the		Marvin Hoshaw	Minneapolis	(612) 348-2456
First Class)		Robert Peterson	St. Paul	(612) 298-5070

<u>District</u>	<u>Alternates</u>		
1	Norman Schmidt	Hermantown	(218) 729-6331
2	David Kildahl	Thief River Falls	(218) 681-2944
3	John Gilbertson	Elk River	(612) 425-2181
4	Alvin Moen	Alexandria	(612) 762-8149
5	William Ottensman	Coon Rapids	(612) 755-2880
6	Robert Bollant	Winona	(507) 452-8550
7	Brian Amundson	Fairmont	(507) 238-9461
8	Marlow Priebe	Hutchinson	(612) 587-5151
9	Charles Siggerud	Burnsville	(612) 890-4100

1986 SUBCOMMITTEES APPOINTED BY THE SCREENING BOARD

NEEDS STUDY SUBCOMMITTEE

Chairman - Donald Asmus
Minnetonka
(612-933-2511)
Expires in 1986

Duane Aden
Marshall
(507-537-6774
Expires in 1987

Roger Plumb
Rochester
(507-281-6008)
Expires in 1988

UNENCUMBERED CONSTRUCTION FUNDS SUBCOMMITTEE

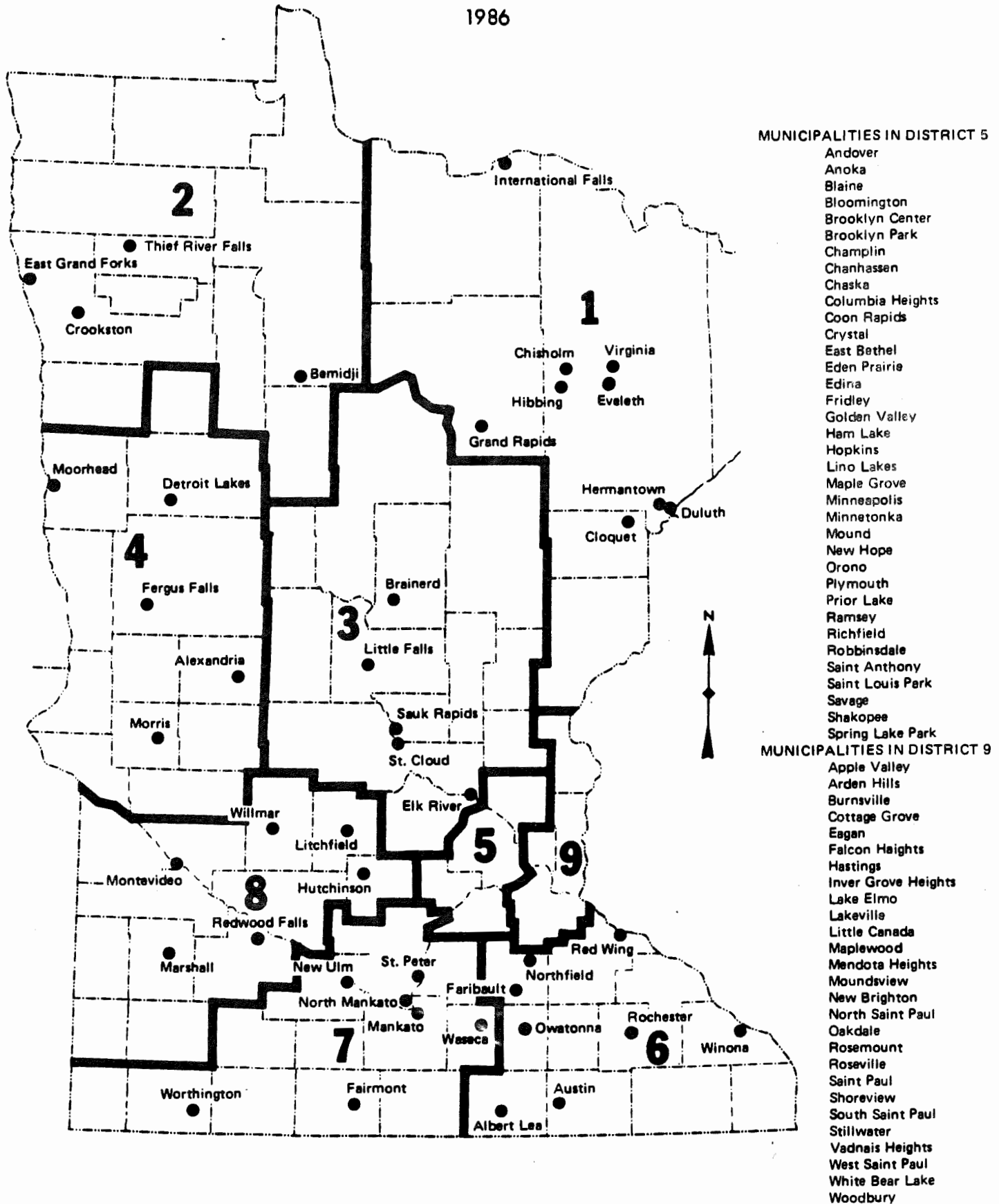
Chairman - Robert Simon
South St. Paul
(612-451-1738)
Expires in 1986

Herbert Reimer
Moorhead
(218-299-5390)
Expires in 1987

H. R. Spurrier
Brooklyn Center
(612-561-5440)
Expires in 1988

HIGHWAY DISTRICTS AND URBAN MUNICIPALITIES AS ESTABLISHED FOR STATE AID PURPOSES

1986



January 10, 1986

MINUTES
FALL MUNICIPAL SCREENING BOARD
OCTOBER 22 AND 23, 1985

The fall meeting of the Screening Board was called to order by Chairman Spurrier at 1:15 p.m., Tuesday, October 22, 1985.

PRESENT WERE:

OFFICERS:

Chairman, Henry Bo Spurrier	Shakopee
Vice Chairman, Larry Anderson	Prior Lake
Secretary, Ken Saffert	Mankato

MEMBERS:

District 1 - James Prusak	Cloquet
District 2 - Gary Sanders	East Grand Forks
District 3 - Ron Schweninger	Brainerd
District 4 - Erving Bakken	Detroit Lakes
District 5 - Ron Rudrud	Bloomington
District 6 - Roger Plumb	Rochester
District 7 - Brian Amundson	Fairmont
District 8 - Tom Rodeberg	Montevideo
District 9 - Steven Gatlin	White Bear Lake
First Class City - Marvin Hoshaw	Minneapolis
First Class City - Robert Peterson	St. Paul
First Class City - John Carlson	Duluth

OTHERS:

Don Tufte	St. Paul
Don Asmus	Minnetonka
Lowell Odland	Golden Valley
Perry Smith	Minneapolis
Jon Ketokoski	Minneapolis
Bill Croke	Mn/DOT Dist. 1, State Aid
Jack Isaacson	Mn/DOT Dist. 2, State Aid
David Reed	Mn/DOT Dist. 3, State Aid
Chuck Weichselbaum	Mn/DOT Dist. 5, State Aid
Earl Welshons	Mn/DOT Dist. 6, State Aid
Harv Suedbeck	MN/DOT Dist. 7, State Aid
Elmer Morris	Mn/DOT Dist. 9, State Aid
Gordon Fay	Mn/DOT State Aid
Roy Hanson	Mn/DOT State Aid
Ken Hoeschen	Mn/DOT State Aid
Dick Murphy	Austin
Vern Karzendorfer*	Mn/DOT Dist. 4
John Hoeke*	Mn/DOT dist. 8

*Wednesday Only

MINUTES CONSIDERATION:

Chairman Spurrier called for the consideration of the minutes of the June 18 and 19, 1985, Screening Committee. Steve Gatlin moved to approve the minutes with one minor exception. He stated in the report minutes on page 9 that District 9 had a similar motion to District 6 which stated that Urban State Aid streets be reimbursed on the basis of \$196,000 per mile for 15 years after construction. It should correctly state that District 9's position was to return to the old \$196,000 per mile. Robert Peterson seconded to approve the minutes with the change. Motion carried.

NEEDS STUDY SUBCOMMITTEE:

Roy Hanson reported on the information included in the 1985 Municipal State Aid Needs Report. Hanson informed members that pages 16 and 17 of the 1985 Municipal State Aid included historical data relating to how many miles, how many cities, and how many needs and apportioned dollars existed for the years through 1986. Pages 18 through 21 are the maximum mileage records listing mileage on the system, miles eligible, mileage below maximum, trunk highway turnback mileage over maximum, and the mileage change from 1983 to 1984. Ely, Luverne, Pipestone and St. Paul Park have lost their state aid designation by population dropping under 5,000. Pipestone has recently designated the 6.61 miles into the County State Aid Highway system; Luverne is considering it; St. Paul Park is not too anxious, and Ely has not decided if they will request the County designation of their routes.

Chairman Spurrier discussed the 1985 itemized tabulation of needs. This tabulation shows all the construction items used in the Municipal State Aid Needs Study for apportionment purposes. This tabulation was provided to give each municipality the opportunity to compare their needs to the other cities. It was pointed out that the cost per mile does not include bridges because the large bridges in some cities would distort the average. The average is based on roadway construction items only. The average cost per mile is \$261,234; the lowest average is \$80,395 recorded by Richfield. Cloquet, International Falls, Lino Lakes, Maple Grove, Maplewood, Minneapolis, Morris, Northfield, Rosemont, St. Paul, Savage, and Woodbury are the twelve cities which exceed \$300,000 per mile; the highest average is International Falls with \$404,531 per mile. A discussion followed on how the cost per mile would compare to the needs per mile and also on the storm sewer needs.

Chairman Spurrier moved on to the tabulation reflecting the total difference between the 1984 and the 1985 25-year Construction Needs Studies. This update was accomplished in two individual steps. The 1984 Construction Accomplishments and System Revisions includes construction accomplishments, system revisions, corporate limit revisions and other miscellaneous changes. The 1984 Unit Cost Revisions measures the effect of the unit prices approved by this committee at the 1985 spring meeting. Revisions were made in the concrete pavement removal \$3.75/S.Y.; Subbase Class 4 \$4.50/ton; Curb and gutter construction \$6.50/lin. ft.; Bridges: 0-149 ft. \$45/S.F., 150-499 ft. \$51/S.F., 500 ft. and over \$50/S.F. There was no traffic update received by the Office of State Aid in 1984; therefore, there were no adjustments for traffic volume this year. The resulting 1985 25-Year Construction Needs will be used in computing the 1986 money needs allotment. A discussion followed.

The next item on the agenda was the tentative 1986 money needs apportionment determination as shown on pages 27 through 30 in the 1985 Municipal State Aid Needs Report. This summary will be used to establish the 1986 Money Needs Apportionment Determination. These adjustments will be reviewed individually for each municipality. It was noted that a resolution was passed to compensate for State Aid Expenditures off the State Aid System that are not reflected in the Municipal State Aid Needs Studies. Discussion followed on the unamortized bond account balance. A separate annual adjustment shall be made in total money needs of a municipality that has sold and issued bonds pursuant to Minnesota Statutes, Chapter 162.18 for use on State Aid Projects.

Hanson gave a report on the non-existing bridge construction. To obtain the adjusted needs, start with the actual 25-year construction needs, then deduct for having excess money in your construction fund, then deduct for spending the money off the system, then add for using State Aid Bonds, and then add for building a non-existing bridge and add right-of-way and reconstruction adjustments.

Discussion followed on the right-of-way needs adjustments. Listed on pages 38 and 39 are municipalities that have spent money for right-of-way acquisition on State Aid projects. Page 40 lists the reconstruction projects where municipalities were given a credit adjustment whenever State Aid Funds were spent on a State Aid Street for the second time. It was noted that there should be a plus column added for storm sewers. To date St. Paul is the only municipality that reported 1984 contracts for storm sewers.

The trunk highway turnback adjustments are listed on page 42. Included in this tabulation are all turnbacks eligible for maintenance payments.

Members were informed that they will be required to sign a letter that will be submitted to the Commissioner recommending the money needs. A copy of this letter can be found on page 43 of the 1985 Municipal State Aid Needs Report. On pages 44 and 45 is a listing of the tentative money needs recommendations.

A brief summary was presented on the actual 1985 money needs versus the tentative 1986 money needs. A listing can be found on pages 47-49.

A discussion followed on the 1986 population apportionment and the 1986 total apportionment. It was noted that there has not been any change in population. Before January 1, MSA will check with the Secretary of State to see who had a census and adjustments.

REPORT FROM THE UNENCUMBERED CONSTRUCTION FUND SUBCOMMITTEE:

In Herb Reimer's absence, Charles Honchell reported on the Unencumbered Construction Fund Subcommittee meeting. Seven communities were reviewed by the subcommittee.

1. St. Anthony - The amount of money available on June 30, 1985, was \$311,245, without the 1985 allotment. On the 16th of October, they had \$371,000 in their construction allotment. Without the 1985 allotment, they would be down to \$247,000 which is less than two times their current allotment. The Committee recommended no adjustment.

2. St. Peter - They had \$302,728 available on June 30, 1985. October 16, they have \$113,000 available so they are already spending the 1985 construction allotment. No adjustment recommended.
3. New Ulm - They have \$953,490 available on October 16. If we deduct their 1985 allotment, they will be down to \$664,444. There is a construction project; an FAU project which is shown as Item 1 on page 63 will use about \$150,000 of their State Aid funds. A letting date has been established for December 17 for that job so if we deduct that \$150,000 from the \$664,444, they would be down to \$514,000 which would be less than two times their 1985 allotment. Recommendation is for the City of New Ulm to be reduced by two times their present construction fund less the current year construction allotment unless they have encumbered the funds on one of three projects which would bring them within State Aid compliance by the time the screening committee meets in late October and/or the screening committee feels that they have made significant progress on moving one of these projects to construction. If screening committee conditions are not met, it is recommended that in 1986 the needs be adjusted for New Ulm by reducing them by a factor of two times the balance in the construction fund that existed as of June 30, 1985. Brian Amundson submitted a letter from New Ulm Engineer Putnam stating that bid dates were set on two projects; FAU SP 148-101-02 & SP 148-112-02 for December 17 budgeting \$150,000 and the North Garden Storm Water Holding pond for November 19 budgeted at \$190,000 for MSA. He requested that New Ulm's actions be considered as meeting the encumbering criteria for No Reduction. The letter is attached.
4. Shakopee - Their balance of October 16 is \$495,000. If we took \$230,000 away, they would be down to \$265,000 which is less than the 1985 allotment. The recommendation is for the City of Shakopee to be reduced by two times their present construction fund balance less the current year's construction allotments unless they have encumbered the funds by awarding the contract by the time the screening committee meets in October.
5. Crystal - They have reduced their construction balance a little. It was \$1,195,861 in October 16. If we deduct \$220,000, it will be down to \$975,153. Crystal has a job tied in with Hennepin County. The County hasn't requested the money as of October 16. It is recommended the City of Crystal be reduced by seven times their present construction fund balance less the current year's construction allotments unless they have encumbered the funds on one of these projects by the time the screening committee meets in October and/or the screening committee feels they have made significant progress on moving to the construction stage on one of these projects so as to have funds encumbered by January 1, 1986.
6. Hopkins - They presently have \$740,383 in their account. If you subtract \$238,140, it comes to \$502,243 so there is no change. Recommended action for the construction needs for the City of Hopkins be reduced by two times their present construction funds balance less the current year's construction allotment.

7. West St. Paul - October 16 they had \$1,081,237. Without the 1985 construction allotment, there is \$769,483. No one appeared to represent the City at the subcommittee meeting. The recommended action is to reduce by two times their present construction funds balance less the current year's construction allotment.

VARIANCES:

The variance resolution states that: "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. This would be a one year adjustment to the 25-year needs." The variances for Orono, Shakopee, Marshall, Burnsville, New Ulm, Orono and Mound do not affect the needs.

Segments that were granted variances for street width are:

1. Brooklyn Center - They requested a variances to go 18 feet instead of the required 22' for a portion of the street. The adjustment will be \$13,683.
2. Coon Rapids - a. To permit a bridge width of 30 feet instead of the required 32 feet. No needs requested so no adjustment was necessary.
b. Foley Boulevard from CSAH 11 to T.H. 242, to permit a street width of 52 instead of the required 72 feet; they had only 44 feet requested in the needs so no adjustment was necessary.
3. Duluth - a. MSAS 129 they requested a street of 42 feet. They only requested needs for 42 feet so no adjustment was necessary.
b. MSAS 136 to permit a street width of 46 feet instead of the required 50 feet. They had 48 feet in the needs. The adjustment is \$5,880.
c. MSAS 140 to permit a street width of 46 instead of the required 52 feet. They had only requested 46 in the needs so there is no adjustment necessary.
d. MSAS 141 to permit a street width of 46 instead of the required 48 feet. They had only 46 feet requested in the needs. No adjustment necessary.
e. MSAS 143 to permit a street width of 42 instead of the required 44. They had 44 feet in the needs so the adjustment is \$2,203.
f. MSAS 144 to permit a street width of 34 instead of the required 36 feet. They had 44 feet in the needs so that adjustment is \$77,420.
g. MSAS 171 to permit street widths of 44 and 56 instead of the 52 and 62 feet. They required in the needs for 44 and 56. No adjustment necessary.
Total adjustment for Duluth is \$85,503.
4. Minneapolis - MSAS 199 to permit a street width of 40 instead of the required 44 feet. Their needs reported only 40. No adjustment necessary.
5. Minneapolis/Edina/St. Louis Park - T.H. 121 to permit two lanes instead of the required four lanes and to permit a street width of 36 instead of the required 38 feet. Minneapolis, Edina and St. Louis Park are paying for it so there are no needs but that money will be treated as an expenditure off the system.
6. Moorhead - MSAS 104 to permit a street width of 28 feet with no parking and 34 feet with parking on one side instead of the required 32 and 36 feet. Needs have not been on the system as an approved designation in January 1985. No adjustment necessary.

7. St. Paul - a. MSAS 132 to permit street widths of 48 foot divided and 48 foot undivided instead of the required 68 foot divided and 62 foot undivided. The needs requested is 48 feet so no adjustment necessary.
b. CSAH 42 for expenditure off system. No needs adjustment necessary.

OTHER NEEDS DETERMINATION:

Thomas Drake, City of Red Wing made a presentation. The City is in the process of constructing a bridge and retaining wall 25560. They are requesting that \$1,053,332.60 be added to their needs as a non-existing bridge construction. They wrote a letter to the Needs Subcommittee. The Needs Subcommittee reviewed the City of Red Wing's request and determined that a portion of the retaining wall would not be eligible; however, the two southeast walls would be eligible. That was referred to the Bridge Section Mn/DOT Central Office to determine what those costs were. Bridge Section came up with \$419,709. The Needs Subcommittee took it one step further. They recommended that the additional piling supplement be included. The City of Red Wing would like to have that \$740,000 included. State Aid Funds for this project were encumbered on July 11, 1984 with City bonding for \$600,000 over and beyond their 1984 construction balance. A lengthy discussion followed on the City of Red Wing's request. Ken Saffert informed Committee members that this bridge was submitted back to State Aid Office to see if there would be any complications with considering basic needs calculated first on contract costs and then revised onto a final cost once a final was submitted. The other question was whether there were complications for the Needs Section if any of these items have to be recalculated subsequent to the contract award. The State Aid Office will check for complications.

RESEARCH ACCOUNT:

This account is reviewed and approved by the Screening Committee. It was explained that at the end of each year the remaining balance is put back into the fund and redistributed. The last few years one-half of the allocations have been spent. The University of Minnesota has requested Mn/DOT to support a transportation research center in Minnesota which means that they would need additional staff to do some additional research. They plan to use their money on research for "Cold Weather Zone Research." The University of Minnesota would need \$5,000,000 annually. Transportation Research Board (TRB) also does a lot of contracting with Universities.

OTHER NEW BUSINESS:

1. Roy Hanson reported on the storm sewer justification unit cost update (pages 24 and 25) and construction accomplishments and system revisions. Some cities take quite a bump because they contract an overlay and then lose all of their needs. Ron Rudrud distributed the Storm Sewer Needs Subcommittee report. Chairman Spurrier informed the members that there was also a written recommendation from the District State Aid Engineers that he would like to have distributed for review for discussion at the evening meeting. Members should be ready to make a final decision on storm sewers. Both papers are attached.

2. APWA will have a session on needs report preparation at the fall conference November 22.
3. Don Asmus commented on R/W negotiations and the analysis of total takings and full reimbursements for R/W. It may affect needs reporting more in the future. The process should be evaluated.

Moved by Irv Bakken and seconded by Marv Hoshaw to adjourn the meeting until 9 a.m., October 23, for further discussion on the items herein discussed. Motion carried. Adjournment at 2:56 p.m.

SECOND SESSION:

Chairman Spurrier called the Municipal Screening Board meeting back into session at 9:13 a.m. on October 23.

THE ENCUMBERED CONSTRUCTION FUND BALANCES:

The action would be to approved the recommendation of the Unencumbered Construction Fund Subcommittee.

1. A motion was made by Erv Bakken, seconded by Ron Schweninger to take no action on the communities that have met the requirements set by the Subcommittee. They are St. Peter, St. Anthony and Shakopee. Motion carried.
2. Crystal's report was considered pointing out that the Report of State Aid Contract must be submitted by Hennepin County whose actions are beyond the control of the City of Crystal. This will be an off-system expenditure when it is submitted. Ron Rudrud moved to approve Crystal's project schedule with no needs adjustment but that off system expenditure adjustments be handled in a normal manner. Seconded by Bob Peterson. Discussion followed with a hand vote which carried 7 to 5.
3. The consideration of Hopkins was moved by John Carlson that we follow the Committee recommendation. Seconded by Steve Gatlin. Motion carried.
4. Regarding West St. Paul, motion was made by Ron Schweninger, seconded by Tom Rodeberg to accept the Committee's recommendation. Motion carried.

VARIANCES:

Considerations of the variances took place with Erv Bakken moving and Ron Schweninger seconding a motion to approve all of the variance adjustments where no adjustment were warranted. Motion carried.

1. Consideration of Brooklyn Center. The reconstruction to adjust needs by \$13,683 was moved by Ron Rudrud, seconded by Roger Plumb. Motion carried.
2. Consideration of Coon Rapids. Brian Amundson moved, seconded by Gary Sanders that needs be approved without penalty. Carried.

3. Duluth - John Carlson voiced a comment that he suspected that there may be an error in the variance computation for Duluth; however, he was not able to check out the needs before the meeting. Ron Rudrud moved approval of all committee recommendations subject to cross checking and community verification as to accuracy. Motion withdrawn.

Marv Hoshaw moved approval of all the Committee recommendations for items 3 to 7 beginning on page 71 of the report subject to Community and State Aid staff review. Seconded by Ron Schweninger. It was pointed out that the France Avenue project jointly between the three cities was a trunk highway project but because State Aid monies were being spent, State Aid standards needed to be met. This required a variance from the normal standards since the route is a trunk highway rather than a State Aid route. MSA funds can be spent; the variances can be obtained; but the project is subject to an off system adjustment. Motion carried resulting in a needs adjustment of \$85,503 for Duluth.

OTHER NEEDS ADJUSTMENTS:

Consideration occurred on the Red Wing's request for bridge expenditures as incurred rather than on contract amount basis. Roger Plumb presented a layout of the bridge arrangement and the right-of-way restrictions which caused the grade separation and retaining wall combination. He moved that the total bridge amounting to adjustment of \$940,257 be considered; \$739,709 for the bridge and right-of-way expense of \$200,548 for a wall in lieu of right-of-way be approved. Seconded by Ron Rudrud. Plumb indicated that this motion was consistent with the Needs Subcommittee's report submitted earlier. Peterson said the wall was necessary to build the bridge. Hoshaw requested that all cities be treated similarly on prior bridges and be rated at the final construction cost. Plumb indicated that the bridge resolution said actual cost should be figured in Needs. It was pointed out that it would be up to the city to claim actual cost if they desired to update the cost figures. Hoshaw moved to amend the motion to include all of Red Wing's cost or \$991,306.90 as the non-existing bridge cost. Seconded by Brian Amundson. Amendment carried. Question called on the main motion as amended. Carried.

RESEARCH ACCOUNT:

Concerns on the carryover balance as shown on the report was discussed. Moved by Tom Rodeberg, seconded by Brian Amundson to approve the Research Report and the allotment, deleting the allotment balance column total from the report. Carried.

MONIES NEEDS REPORT:

It was moved by Marv Hoshaw, seconded by Ron Rudrud to approve the Needs recommendations with storm sewer to update it to the current regulations and bridges updated to the current values. Roger Plumb moved to set two columns; one of Total Needs and one of Apportionment Needs for carrying in the annual reports. Seconded by Ron Rudrud who pointed out that retroactive needs should be only on the local share and not on federal grants, etc. He said MSA eligible costs should be calculated not to include federal, state, or other grants so that storm sewer is similar to non-existing bridges. Chairman Spurrier pointed out that the resolution on page 81 of the report states that:

"The money needs for all complete storm sewer shall be removed from the Needs Study until such time as the Money Needs adjustment shall be made annually by adding the amount of the project costs that is eligible for State Aid participation for a 15-year period." He stated that the resolution, as it now stands is for State Aid eligible not subject to any grants exemptions. Vote called on the amendment to add the Total Needs and Apportionment Needs columns. Carried. Vote on the main motion. Carried.

COMMITTEE APPOINTMENTS STATUS:

It was moved by Ron Rudrud, seconded by Roger Plumb to abolish the Storm Sewer Subcommittee. Discussion. Carried.

Moved by Ron Rudrud, seconded by Marv Hoshaw to abolish the Standards Subcommittee Discussion. Carried.

It was pointed out that the Needs Study Subcommittee and the Unencumbered Funds Subcommittee would need to continue. The Unencumbered Fund Subcommittee procedures automatically deletes Charles Honchell and adds H.R. Spurrier with Robert Simon as the new Chairman.

STATE AID ENGINEER REPORT:

The Chairman referred to Gordon Fay for his report. Mr. Fay reported on several items:

1. Raids are occurring on the Minnesota road user tax. Natural Resources receives three-quarters of one-percent; these annual fees amount to \$4 million. The 1985 Legislature proposed to double this amount to one and a half percent. There is an attempt being made now to claim funds for seventeen hundred miles of forest roads. There is also a claim for approximately \$200,000 a year for County State Aid Highways in State Parks so that the State Parks might build and maintain these roads on their priorities rather than on County priorities.
2. There is a significant reduction in gas tax revenues because of the gas alcohol exemption. It has turned out that most gas alcohol is foreign produced rather than from Minnesota produced products; therefore, the exemption is being questioned.
3. The Legislative Audit Report questions the fund allocation of County State Aid Highway funds, the enabling legislation which set it up, the screening committee make up, and its actions. When reference was made to the Municipal State Aid system, there was an attempt to imply guilt by association. The result is active pursuit of the jurisdiction studies started 3 years ago. It appears the general constitution ratio of road user allocations of 62%-29%-9% will likely stay as is; however, there are studies that reduce the state highway mileage by turnback to counties and city. Constitutionally Mn/DOT mileage cannot exceed 12,200 miles; however, a limit of 30,000 miles on the County State Aid highway system has been eliminated and it appears that many roads will be turned back to counties, municipalities, and townships.

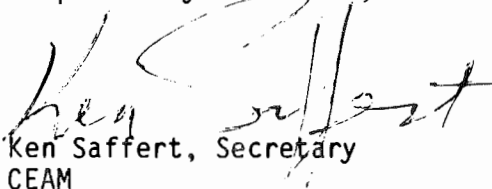
4. Mn/DOT is studying a legislated mandate to establish market artery routes. It is acknowledged that ten-ton arteries are vital to the State. However, their location and cost of construction generate more questions than answers.
5. The Legislature has set up several research committees and some individuals have been appointed to investigate and compile information on transportation related issues. These are not to be taken lightly. The information supplied to the Committee must be factual and well thought out. Beware of "off the cuff" answers.
6. The action against debarred contractors is continuing. Dealing with low bidder must be in accordance with Minnesota Statutes §161.315 Subdivision 3. It provides that government agencies cannot award to a debarred contractor unless the contracting is of an emergency nature. The Attorney General's Office is working on collecting funds from guilty contractors. Monies collected could be put into a State pool. No determination has been made as to how funds would be dispursed or expended.
7. Mn/DOT is reviewing delays on the use of Federal Funds. Certified acceptance is being studied. Some States are using it now. Mn/DOT is attempting to develop a system.
8. Mr. Fay explained the staffing changes taking place at the State Aid Office. The result was that the October 1985 Municipal State Aid Needs Report was not ready in advance of the Screening Committee meeting. The reports are approximately three weeks late. Difficulties are being alleviated.

Chairman Spurrier appointed Roger Plumb to the Needs Subcommittee, completing work from earlier in the session. Approval was moved by Erv Bakken and seconded by Steve Gatlin. Carried.

The Chairman extended his thanks to Erv Bakken, Jim Prusak, and Roger Plumb whose terms on the Board will expire before the spring meeting.

The meeting was adjourned at 11:30.

Respectfully submitted,


Ken Saffert, Secretary
CEAM

MINUTES OF MUNICIPAL STATE AID NEEDS SUBCOMMITTEE

The Needs Subcommittee convened at the Transportation Building on May 13, 1986.

Members Present: Chairman, Don Asmus, Duane Aden, Roger Plumb.

Others Present: Roy Hanson, Gordon Fay, Kenneth Straus, Municipal State Aid.

The Committee first reviewed the submitted data for individual unit prices for Municipal State Aid Construction Costs and also some County State Aid Construction Prices. The Subcommittee recommendation for unit prices remained the same as 1985 except sidewalk removal be increased from \$3.50 to \$4.00 per sq. yd; Class 4 base be increased from \$4.50 to \$5.00 per ton; bituminous #2331 base and surface be decreased from \$23.50 to \$22.00 per ton; curb and gutter decreased from \$6.50 to \$6.00 per lin. ft.; bridge structures from 0 to 149 ft. be increased from \$45.00 to \$49.00 per sq. ft. and bridge structures 500 ft. and over be increased from \$50.00 to \$55.00 per sq. ft.

It has been noted in the review of the MSA Needs Study that unit prices for box culverts are not uniform or comparable to prices used in the County State Aid Needs Study. It was, therefore, recommended that Urban State Aid Needs use the same box culvert prices as the County Needs Section.

A request by the City of Duluth for After The Fact Needs of the Aerial Bridge was discussed.

Duluth reported No needs since 1965 but spent \$3,485,078 of State Aid and State Aid bond funds on rehabilitation of the bridge. The Subcommittee recommended that no after the fact needs be granted because the bridge had been reported as adequate and the rehabilitation did not enhance the traffic carrying capability or alter the geometrics.

Concern was raised on unused bond balances where principal payments have exceeded amount spent on construction projects. A recommendation was made to have the Screening Committee pass a motion that would support the Office of State Aid in applying outstanding bond balances to projects as funding requests are received.

A discussion was had on Cities constructing streets to a lesser geometric that reported in the Needs Study. This usually happens when traffic projections are adjusted to fit the construction plan submitted for approval. The projection factor is then changed from the normal 2.0 to fit what is proposed. It was the consensus that the 2.0 projection factor is not typical of the majority of the streets on the MSA Street System. It is the recommendation of this Committee to reduce the normal projection factor for all Cities to 1.5. As is presently the policy, any deviation from the normal factor is acceptable with justification and approval by the District State Aid Engineer.

The following resolutions were brought up for discussion and a proposal was made to change and add to the existing resolutions as shown.

Construction Accomplishments - Oct. 1965 (Revised June 1983)

That when a Municipal State Aid Street is constructed to State Aid standards with State Aid funds, said construction shall be considered to be 100 percent accomplishment of total needs with the exception of additional surfacing. 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 are permitted in subsequent needs.

The money needs for all streets and bridges constructed with State Aid funds with the exception of additional surfacing, shall be removed from the Needs Study until such time as a reconstruction project is awarded. At that time, a money needs adjustment shall be made by annually adding the total amount of the street or bridge cost that is eligible for State Aid reimbursement for a 15-year period (except for preliminary engineering). This cost to exclude any federal or State Aid grants and to be effective on all reconstruction projects awarded after January 1, 1983.

Each city will be responsible for reporting their qualified reconstruction projects with the annual needs update, beginning December 31, 1983.

That in order to be consistent with the previous resolution, the Office of State of State Aid is instructed to remove all needs except additional surface for streets that have been improved with the use of State Aid funds.

Suggestion: Add to the existing resolution.

State Aid Funds.] or are reported adequate.
Additional surfacing shall be based on existing geometrics but not greater than widths allowed by the State Aid Design Standards currently in force.

Right of Way - Oct. 1965 (Revised June 1981)

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.

Suggestion: Add to the existing resolution.

Right-of-Way costs that are funded with State Aid Funds will be adjusted by State Aid Needs Personnel. When needs are requested for Right-of-Way costs that are eligible for State Aid, but are funded with local funds, submit documentation showing parcel numbers, type of Right-of-Way, to whom paid, and amounts.

Storm Sewer

The money needs for all complete storm sewers shall be removed from the Needs Study until such time that a money needs storm sewer adjustment shall be made by annually adding the amount of the project cost that is eligible for State Aid participation for a 15-year period. Storm sewer adjustment will continue to be included as a needs item. ~~Each city will be responsible for reporting their qualifying storm sewer projects with their annual needs update, beginning December 31, 1984.~~

~~This adjustment will be phased over a 2-year period to temper the effect over the 1985-1986 apportionments.~~

Suggestion: Add to existing resolution.

Storm Sewer

On all complete storm sewer construction projects let in 1984 and subsequent years, where State Aid funds have been expended, complete storm sewer needs will be determined by State Aid Needs Unit using the qualifying plan quantities, the eligible percentage participating and the Contract bid amounts in order to receive needs for qualifying projects funded with local funds in 1984 and subsequent years, a plan and an abstract of bids must be submitted to State Aid Office by the City Engineer. The Hydraulics Section of the Office of Design Services will make a determination of the eligible storm sewer % participation all projects submitted and the Needs Unit will determine the qualifying needs.

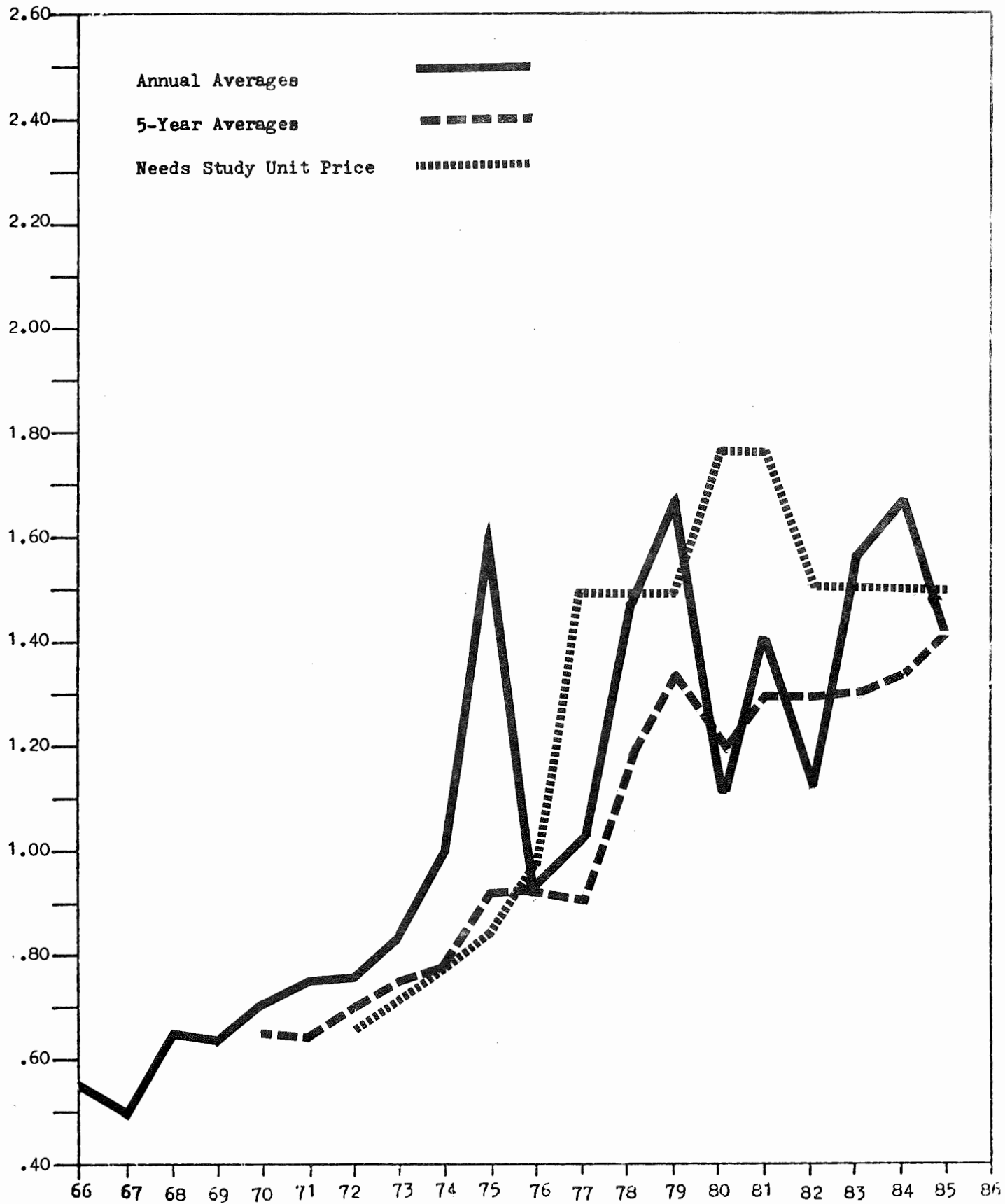
Respectfully Submitted,

Regan E. Plumb

1985 RELATIONSHIP OF THE TOTAL 25-YEAR NEEDS TO EACH INDIVIDUAL CONSTRUCTION ITEM

	APPORTIONMENT COST	% OF THE TOTAL
Grading	54,368,481	9.79
Special Drainage	1,133,587	0.20
Storm Sewer Adjustment	9,621,780	1.73
Curb Removal	5,433,620	0.99
Sidewalk Removal	3,994,491	0.72
Pavement Removal	13,132,355	2.37
Tree Removal	2,725,830	0.49
TOTAL GRADING	\$ 90,410,144	16.29
Gravel Base #2211	41,511,196	7.48
Gravel Base #2212	31,438,819	5.66
Bituminous Base	61,200,250	11.03
TOTAL BASE	\$ 134,150,265	24.17
Bituminous Surface #2331	2,526,263	0.45
Bituminous Surface #2341	113,891,414	20.52
Bituminous Surface #2361	48,025,231	8.65
Surface Widening	3,774,225	0.68
TOTAL SURFACE	\$ 168,217,133	30.30
Gravel Shoulders	697,686	0.13
TOTAL SHOULDERS	\$ 697,686	0.13
Curb and Gutter	57,507,287	10.36
Sidewalk	15,347,192	2.76
Traffic Signals	21,121,672	3.81
Street Lighting	4,224,540	0.76
Retaining Walls	2,259,238	0.41
TOTAL MISCELLANEOUS	100,459,929	18.10
TOTAL ROADWAY		
Bridge	40,671,092	7.32
Railroad Crossings	15,815,600	2.85
Maintenance	2,483,823	0.45
Right-of-Way	2,175,700	0.39
TOTAL OTHERS	\$ 61,146,215	11.01
TOTAL	\$ 555,081,372	

MUNICIPAL STATE AID STREET UNIT PRICE STUDY
CURB & GUTTER REMOVAL #2104

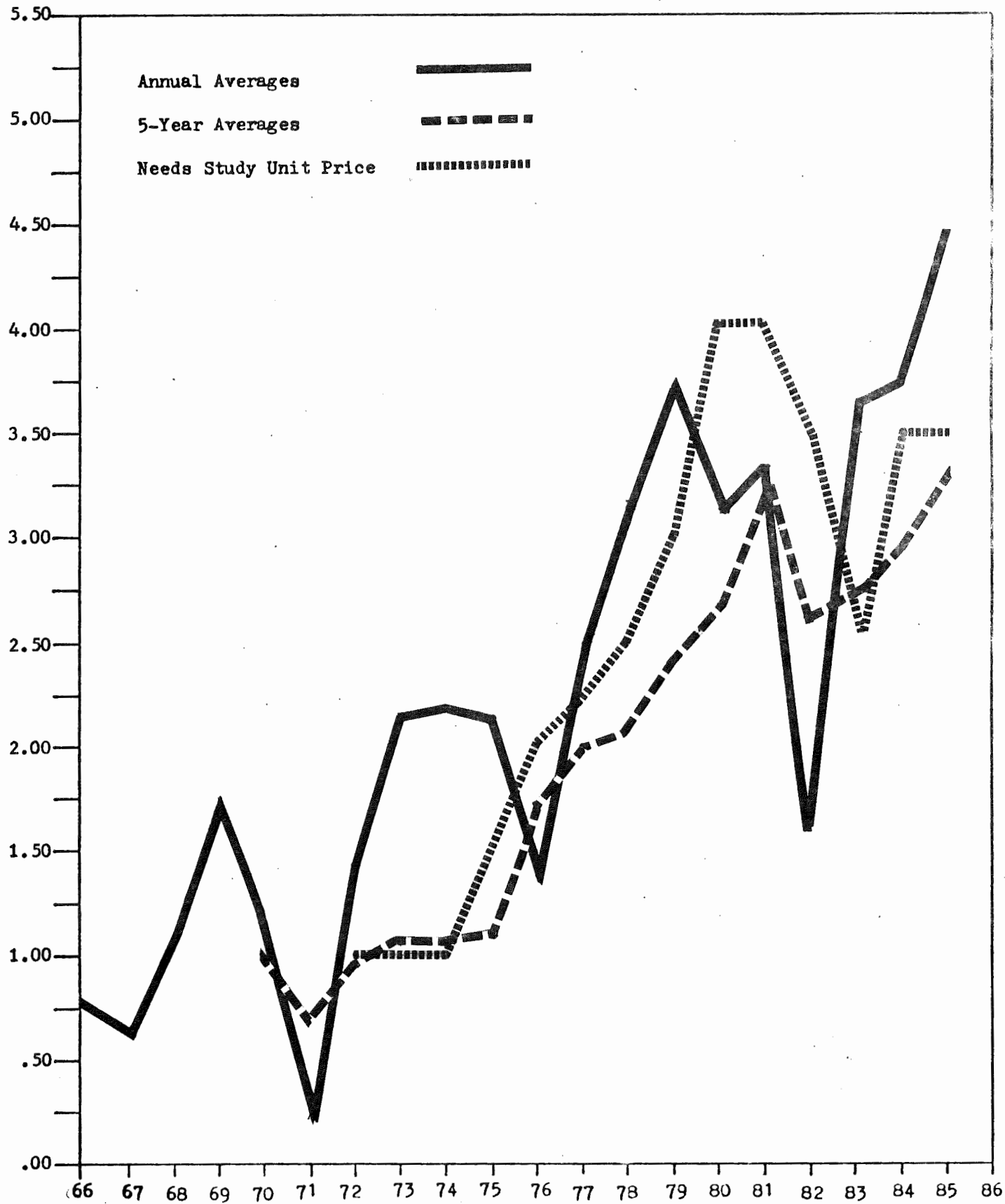


MUNICIPAL STATE AID STREET UNIT PRICE STUDY
CURB & GUTTER REMOVAL #2104

<u>Year</u>	<u>No. of Cities</u>	<u>Quantities</u>	<u>Cost</u>	<u>Cost Per Lin. Ft.</u>	<u>Needs Study Unit Price</u>
1966	24	59,532	\$ 32,332	\$.54	\$ -
1967	21	73,031	36,592	.50	-
1968	28	76,302	49,669	.65	-
1969	19	47,268	29,607	.63	-
1970	32	159,504	113,005	.71	-
1971	20	44,767	33,630	.75	-
1972	23	88,188	67,387	.76	.65
1973	30	123,954	102,972	.83	.73
1974	27	39,256	39,140	1.00	.77
1975	26	49,508	78,796	1.59	.85
1976	17	41,176	37,554	.91	1.00
1977	18	28,011	24,847	.89	1.50
1978	24	28,277	41,774	1.47	1.50
1979	25	45,053	74,853	1.66	1.50
1980	26	83,672	93,360	1.12	1.75
1981	24	41,852	58,030	1.39	1.75
1982	45	77,339	86,596	1.12	1.50
1983	33	42,589	66,635	1.56	1.50
1984	43	106,678	176,974	1.66	1.50
1985	50	145,294	208,971	1.44	1.50

Subcommittees recommended price for 1986 Needs Study \$ 1.50
Based upon 1985 construction costs.

MUNICIPAL STATE AID STREET UNIT PRICE STUDY
SIDEWALK REMOVAL #2105

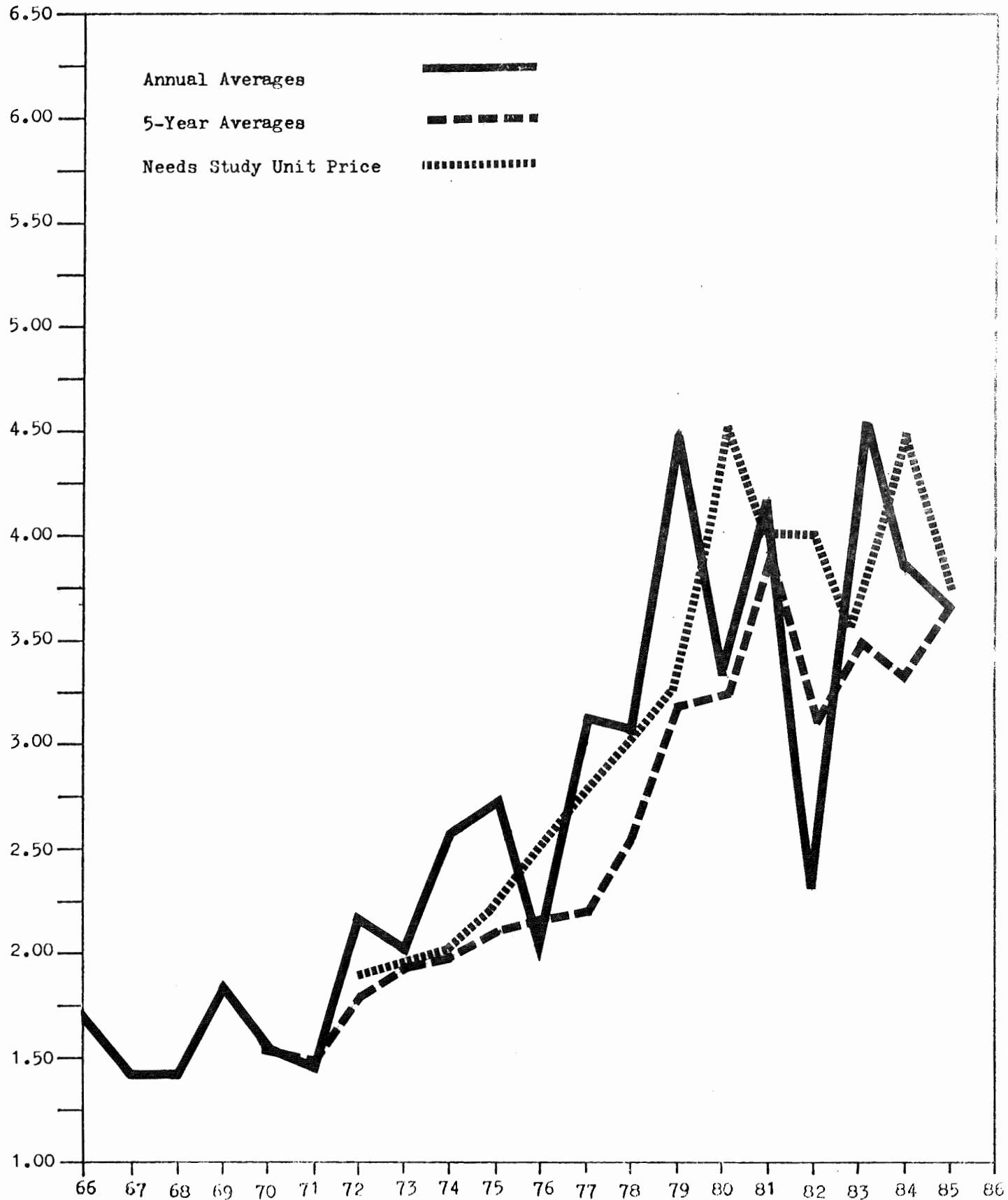


MUNICIPAL STATE AID STREET UNIT PRICE STUDY
SIDEWALK REMOVAL #2105

<u>Year</u>	<u>No. of Cities</u>	<u>Quantities</u>	<u>Cost</u>	<u>Cost Per Sq. Yd.</u>	<u>Needs Study Unit Price</u>
1966	18	19,887	\$ 15,742	\$.79	\$ -
1967	21	21,607	14,570	.67	-
1968	24	36,820	41,060	1.12	-
1969	18	9,105	14,879	1.63	-
1970	28	44,882	55,188	1.23	-
1971	18	97,565	23,084	.24	-
1972	19	69,223	99,576	1.44	1.00
1973	20	46,628	101,998	2.18	1.00
1974	21	17,422	38,380	2.20	1.00
1975	19	18,465	40,094	2.17	1.50
1976	14	32,917	45,829	1.39	2.00
1977	14	13,237	33,250	2.51	2.20
1978	15	13,268	42,115	3.17	2.50
1979	16	23,223	85,805	3.69	3.00
1980	17	30,387	95,782	3.15	4.00
1981	19	20,627	68,003	3.30	4.00
1982	33	61,909	98,144	1.59	3.50
1983	21	27,288	98,276	3.60	2.50
1984	30	59,315	222,584	3.75	3.50
1985	38	56,873	254,161	4.47	3.50

Subcommittees recommended price for 1986 Needs Study \$ 4.00
Based upon 1985 construction costs.

MUNICIPAL STATE AID STREET UNIT PRICE STUDY
CONCRETE PAVEMENT REMOVAL #2106

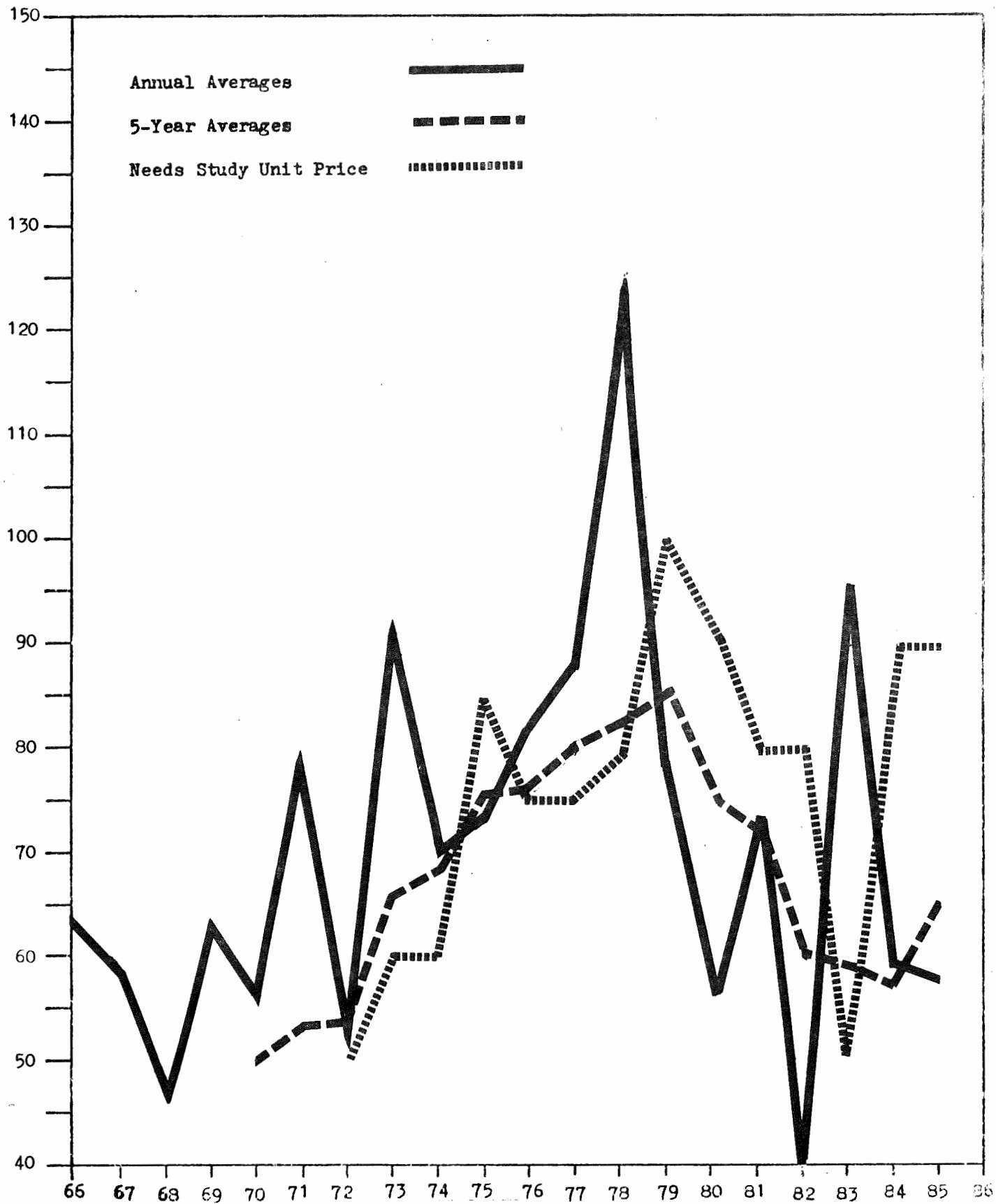


**MUNICIPAL STATE AID STREET UNIT PRICE STUDY
CONCRETE PAVEMENT REMOVAL #2106**

<u>Year</u>	<u>No. of Cities</u>	<u>Quantities</u>	<u>Cost</u>	<u>Cost Per Sq. Yd.</u>	<u>Needs Study Unit Price</u>
1966	7	30,405	\$ 51,572	\$1.70	\$ -
1967	13	21,386	30,668	1.43	-
1968	20	59,026	83,708	1.42	-
1969	8	9,196	16,821	1.83	-
1970	25	110,940	173,446	1.56	-
1971	14	56,559	81,979	1.45	-
1972	11	187,366	408,919	2.18	1.90
1973	12	188,588	379,940	2.01	1.95
1974	11	40,506	103,569	2.56	2.00
1975	12	21,211	57,984	2.73	2.20
1976	9	62,379	127,199	2.04	2.50
1977	9	15,279	47,801	3.13	2.75
1978	11	35,176	108,531	3.08	3.00
1979	9	65,081	292,769	4.50	3.25
1980	8	42,322	139,785	3.30	4.50
1981	16	83,263	345,180	4.15	4.00
1982	23	229,468	533,404	2.32	4.00
1983	18	119,864	541,569	4.52	3.50
1984	16	81,645	301,726	3.70	4.50
1985	28	134,698	494,572	3.67	3.75

Subcommittees recommended price for 1986 Needs Study \$ 3.75
Based upon 1985 construction costs.

MUNICIPAL STATE AID STREET UNIT PRICE STUDY
TREE REMOVAL #2101

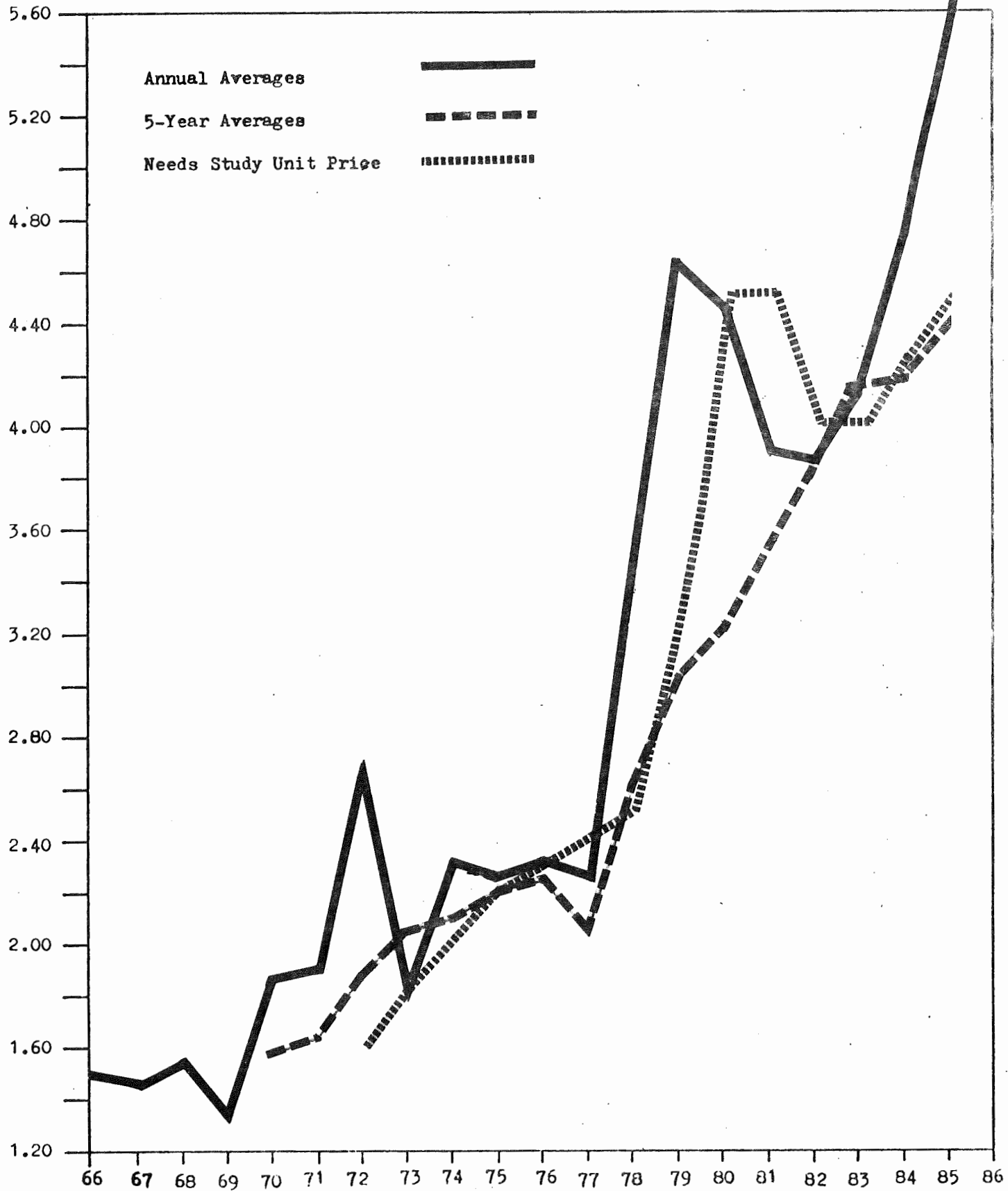


MUNICIPAL STATE AID STREET UNIT PRICE STUDY
TREE REMOVAL #2101

<u>Year</u>	<u>No. of Cities</u>	<u>Quantities</u>	<u>Cost</u>	<u>Cost Per Tree</u>	<u>Needs Study Unit Price</u>
1966	23	811	\$ 51,020	\$ 62.90	\$ -
1967	16	600	34,743	57.90	-
1968	31	1,398	64,848	46.39	-
1969	13	308	19,502	63.31	-
1970	36	2,172	122,015	56.17	-
1971	10	245	19,184	78.30	-
1972	13	324	17,380	53.64	50.00
1973	29	925	84,043	90.85	60.00
1974	27	1,150	81,001	70.43	60.00
1975	24	802	58,836	73.36	85.00
1976	18	819	67,463	82.37	75.00
1977	16	492	43,110	87.62	75.00
1978	19	485	60,745	125.24	80.00
1979	20	1,171	91,659	78.24	100.00
1980	23	2,338	133,306	56.76	90.00
1981	20	1,362	100,003	73.42	80.00
1982	31	3,122	123,015	39.40	80.00
1983	17	841	78,574	93.43	50.00
1984	34	3,743	221,765	59.25	90.00
1985	30	1,442	82,586	57.27	90.00

Subcommittees recommended price for 1986 Needs Study \$ 90.00
Based upon 1985 construction costs.

MUNICIPAL STATE AID STREET UNIT PRICE STUDY
CLASS 4 - SUBBASE #2211

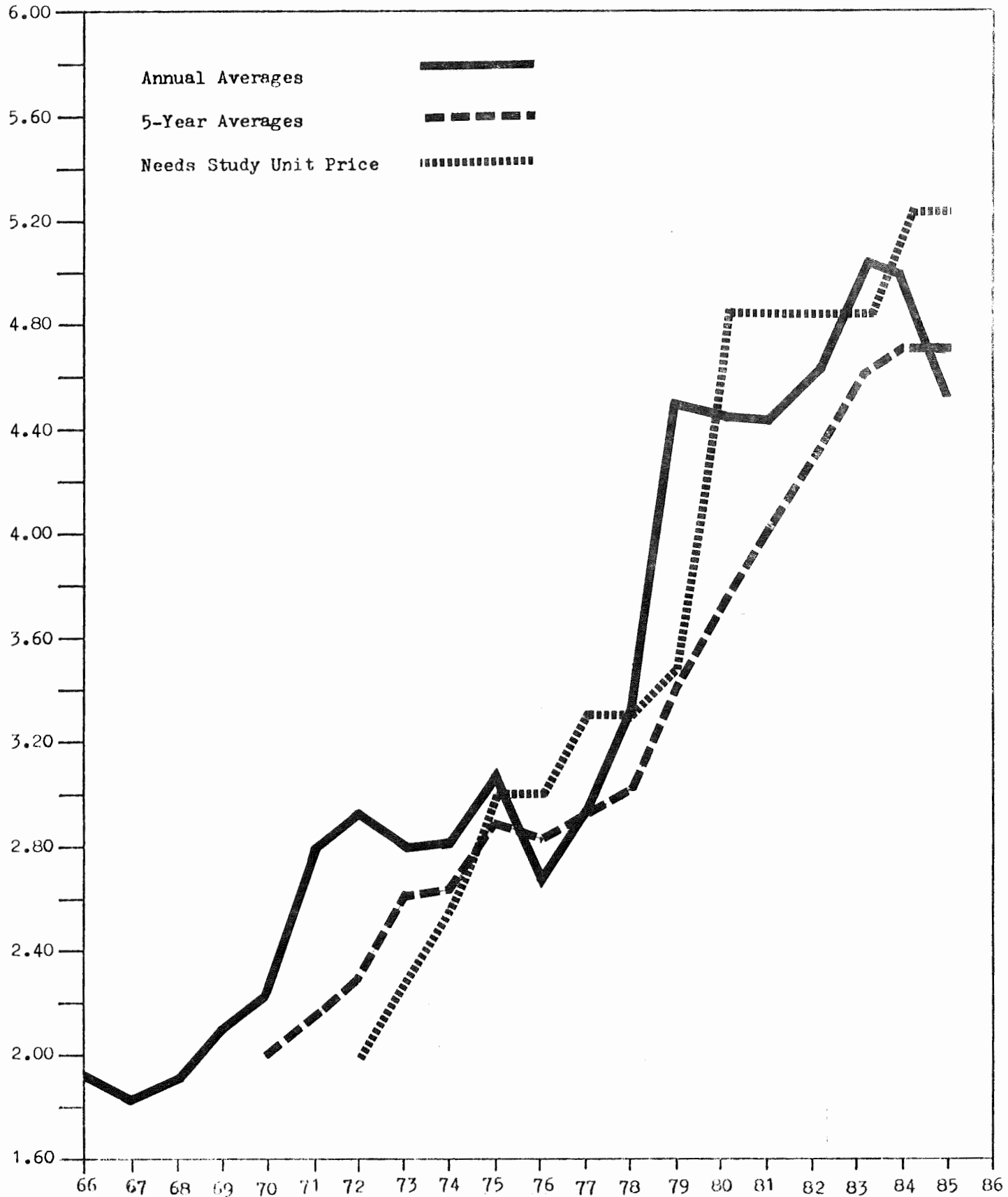


MUNICIPAL STATE AID STREET UNIT PRICE STUDY
CLASS 4 - SUBBASE #2211

<u>YEAR</u>	<u>NO. OF CITIES</u>	<u>QUANTITIES</u>	<u>COST</u>	<u>COST PER TON</u>	<u>NEEDS STUDY UNIT PRICE</u>
1966	19	162,227	\$244,388	\$1.51	\$ -
1967	20	146,505	217,241	1.48	-
1968	18	168,867	264,211	1.56	-
1969	6	118,431	160,615	1.35	-
1970	22	306,697	568,987	1.86	-
1971	13	64,690	123,445	1.91	-
1972	21	127,852	345,571	2.70	1.60
1973	12	170,461	308,583	1.81	1.85
1974	14	65,447	152,247	2.33	2.05
1975	8	34,597	78,175	2.26	2.20
1976	6	56,428	131,657	2.33	2.30
1977	6	48,481	109,817	2.25	2.40
1978	14	101,757	338,832	3.28	2.50
1979	5	44,710	206,741	4.62	3.25
1980	4	15,662	69,469	4.44	4.50
1981	5	68,562	264,587	3.86	4.50
1982	7	29,887	114,531	3.83	4.00
1983	6	30,625	125,717	4.11	4.00
1984	13	146,141	691,052	4.73	4.25
1985	4	21,968	123,871	5.64	4.50

Subcommittees recommended price for 1986 Needs Study \$ 5.00
Based upon 1985 construction costs.

MUNICIPAL STATE AID STREET UNIT PRICE STUDY
CLASS 5 - GRAVEL BASE #2212

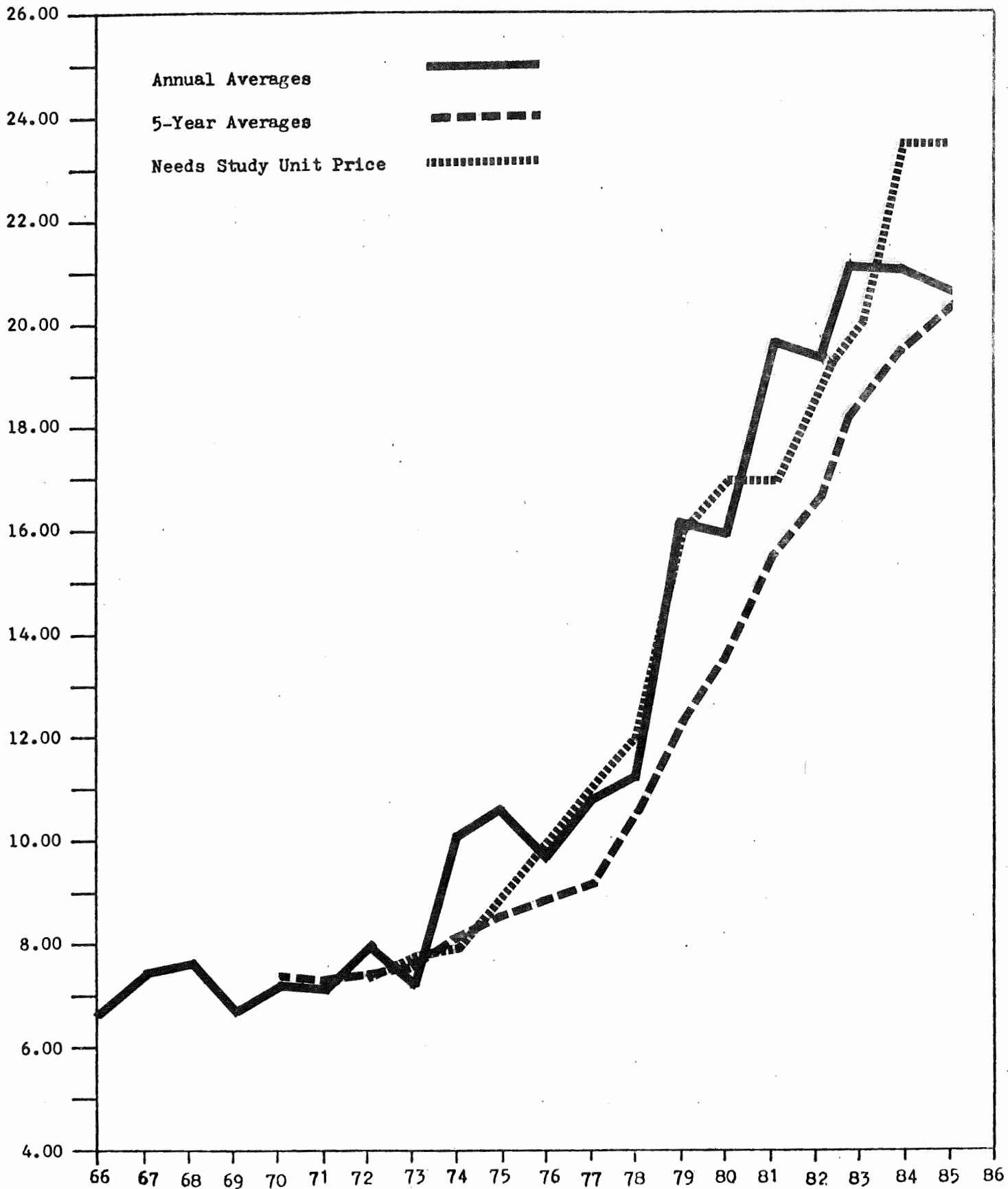


MUNICIPAL STATE AID STREET UNIT PRICE STUDY
CLASS 5 - GRAVEL BASE #2212

<u>Year</u>	<u>No. of Cities</u>	<u>Quantities</u>	<u>Cost</u>	<u>Cost Per Ton</u>	<u>Needs Study Unit Price</u>
1966	28	141,595	\$ 272,406	\$1.92	\$ -
1967	34	177,601	325,300	1.83	-
1968	36	220,664	419,319	1.90	-
1969	19	81,525	170,982	2.10	-
1970	47	335,261	749,335	2.24	-
1971	21	86,534	241,303	2.79	-
1972	31	155,513	457,010	2.93	2.00
1973	38	258,756	724,450	2.80	2.30
1974	38	163,212	459,956	2.82	2.55
1975	34	166,600	513,641	3.08	3.00
1976	32	237,857	641,603	2.69	3.00
1977	30	157,357	462,151	2.94	3.30
1978	37	294,730	975,587	3.31	3.30
1979	38	288,809	1,300,553	4.50	3.50
1980	42	397,897	1,753,637	4.41	4.85
1981	43	307,088	1,360,272	4.43	4.85
1982	48	431,148	1,984,392	4.60	4.85
1983	46	335,849	1,694,167	5.04	4.85
1984	50	444,073	2,210,475	4.98	5.25
1985	63	584,097	2,651,362	4.54	5.25

Subcommittees recommended price for 1986 Needs Study \$ 5.25
Based upon 1985 construction costs.

MUNICIPAL STATE AID STREET UNIT PRICE STUDY
BITUMINOUS BASE OR SURFACE #2331

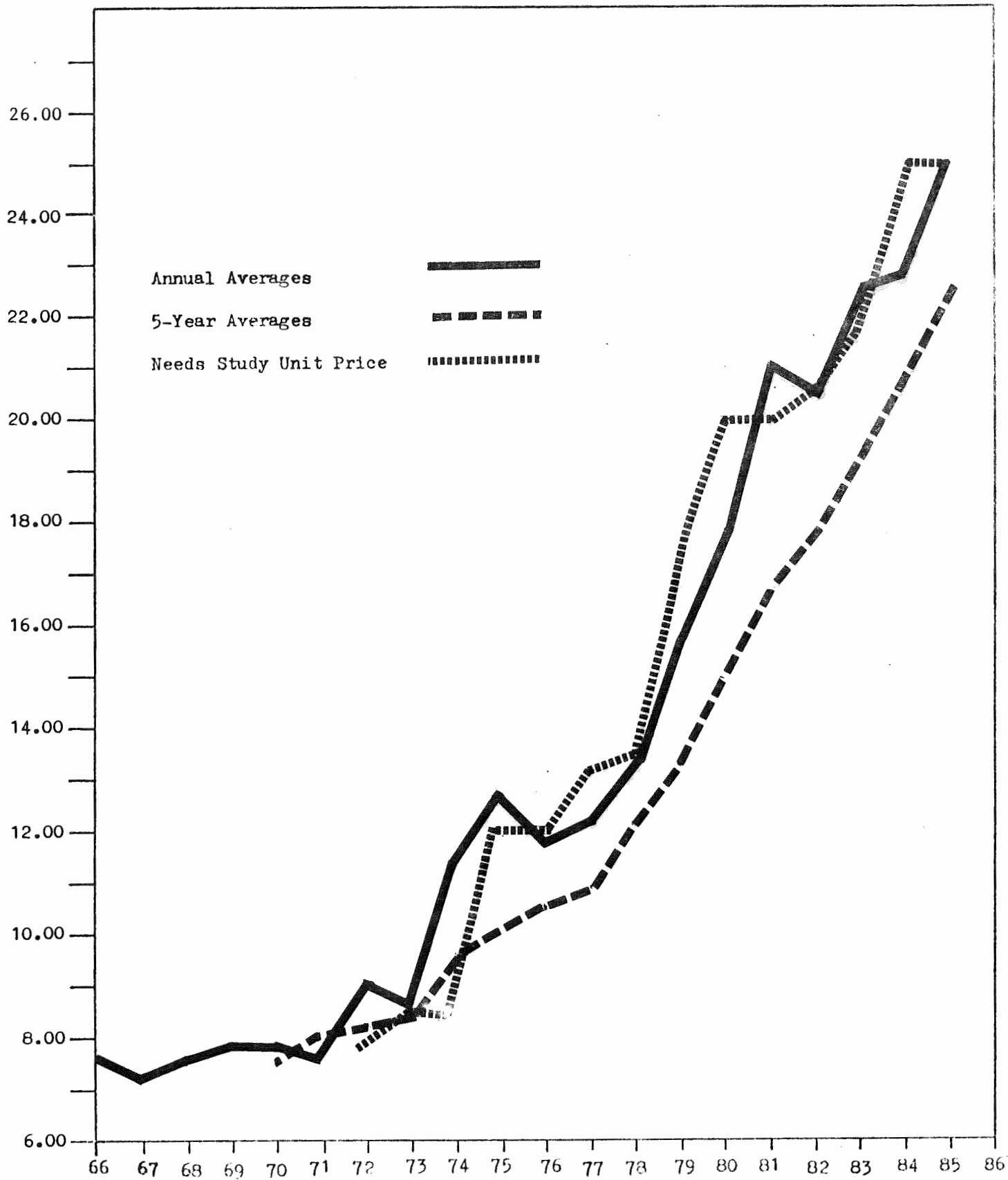


MUNICIPAL STATE AID STREET UNIT PRICE STUDY
BITUMINOUS BASE OR SURFACE #2331

<u>Year</u>	<u>No. of Cities</u>	<u>Quantities</u>	<u>Cost</u>	<u>Cost Per Ton</u>	<u>Needs Study Unit Price</u>
1966	14	25,029	\$ 171,625	\$ 6.86	\$ -
1967	12	18,472	135,910	7.36	-
1968	21	63,156	479,784	7.60	-
1969	11	34,627	228,695	6.60	-
1970	29	138,590	991,585	7.15	-
1971	21	84,866	603,153	7.11	-
1972	33	246,781	1,979,516	8.02	7.20
1973	38	401,085	2,886,763	7.20	7.87
1974	40	257,613	2,606,149	10.12	7.87
1975	31	138,117	1,473,830	10.67	9.00
1976	28	158,260	1,533,606	9.69	10.00
1977	32	135,287	1,461,919	10.81	11.00
1978	38	164,748	1,881,493	11.20	12.00
1979	42	229,249	3,723,054	16.24	16.00
1980	39	220,016	3,513,820	15.97	17.00
1981	44	211,045	4,164,825	19.73	17.00
1982	55	211,326	4,062,409	19.22	19.00
1983	44	159,242	3,363,455	21.12	20.00
1984	54	376,525	7,922,674	21.04	23.50
1985	62	294,318	6,000,326	20.59	23.50

Subcommittees recommended price for 1986 Needs Study \$ 22.00
Based upon 1985 construction costs.

MUNICIPAL STATE AID STREET UNIT PRICE STUDY
BITUMINOUS SURFACE #2341

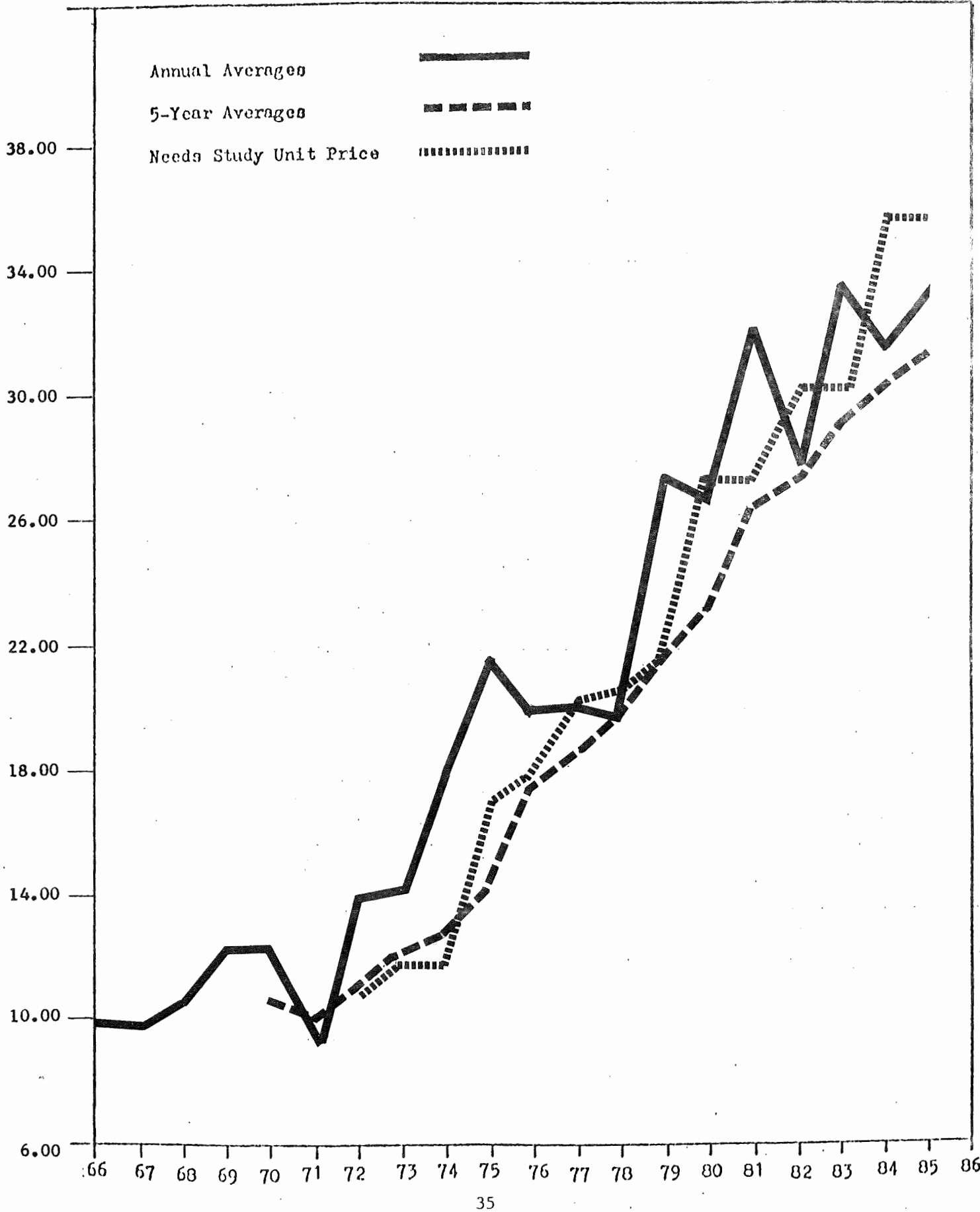


MUNICIPAL STATE AID STREET UNIT PRICE STUDY
BITUMINOUS SURFACE #2341

<u>Year</u>	<u>No. of Cities</u>	<u>Quantities</u>	<u>Cost</u>	<u>Cost Per Ton</u>	<u>Needs Study Unit Price</u>
1966	20	58,504	\$ 442,817	\$ 7.57	\$ -
1967	21	66,918	474,309	7.09	-
1968	21	62,920	480,045	7.62	-
1969	12	31,532	248,437	7.88	-
1970	36	162,736	1,274,195	7.82	-
1971	24	74,558	563,358	7.56	-
1972	38	143,523	1,294,668	9.02	7.60
1973	39	241,907	2,078,158	8.59	8.40
1974	37	148,666	1,705,930	11.47	8.36
1975	31	147,041	1,863,333	12.67	12.00
1976	31	72,803	854,492	11.74	12.00
1977	26	63,007	760,571	12.07	13.00
1978	32	102,935	1,368,723	13.29	13.50
1979	37	126,977	1,989,710	15.67	17.50
1980	39	164,346	2,928,915	17.82	20.00
1981	38	123,479	2,595,032	21.02	20.00
1982	43	139,280	2,846,138	20.43	20.50
1983	42	113,894	2,551,729	22.40	21.50
1984	47	144,567	3,295,718	22.80	25.00
1985	50	154,773	3,876,447	25.05	25.00

Subcommittees recommended price for 1986 Needs Study \$ 25.00
Based upon 1985 construction costs.

MUNICIPAL STATE AID STREET UNIT PRICE STUDY
BITUMINOUS SURFACE #2351 & 2361

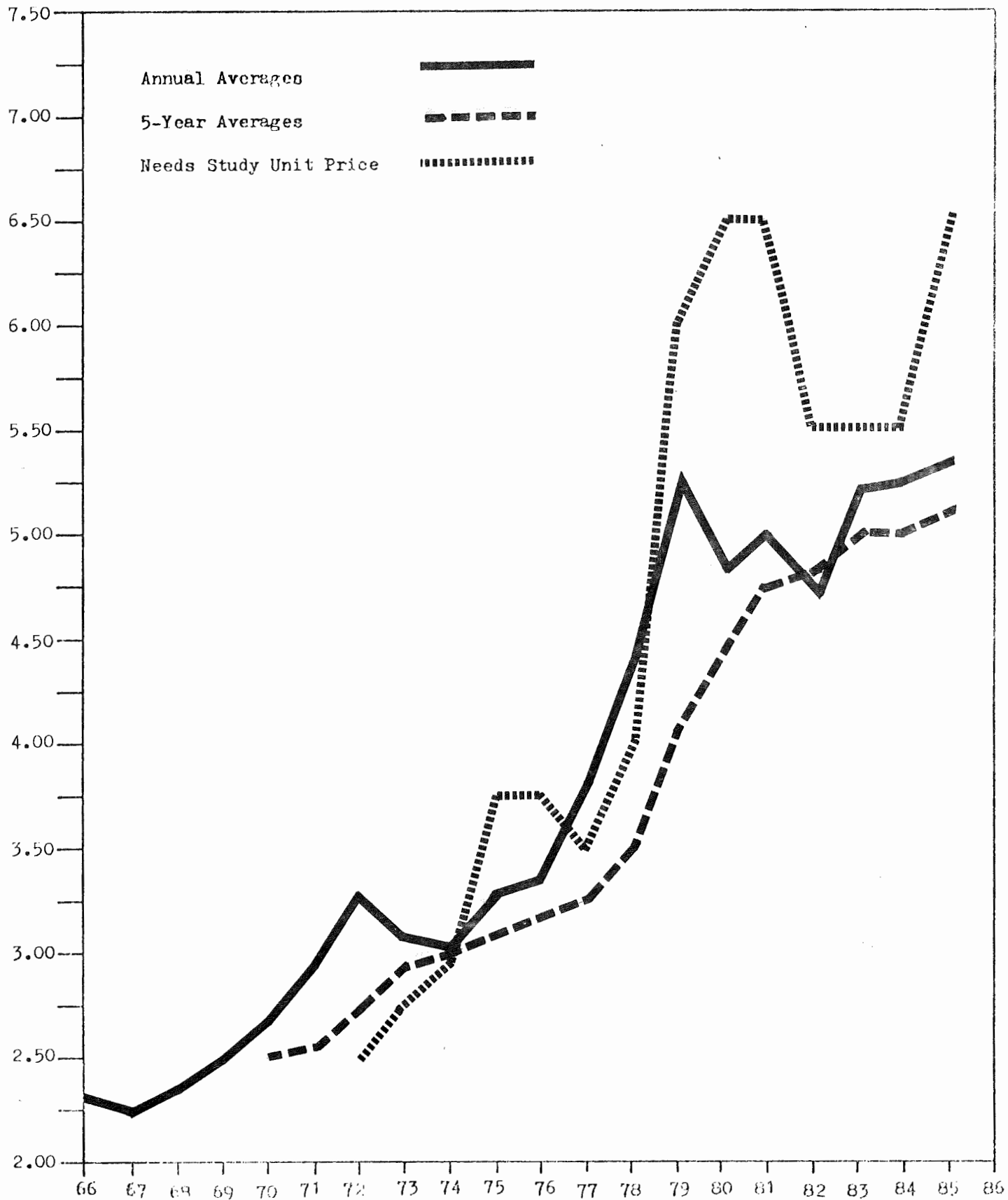


MUNICIPAL STATE AID STREET UNIT PRICE STUDY
BITUMINOUS SURFACE #2351 & 2361

<u>Year</u>	<u>No. of Cities</u>	<u>QUANTITIES</u>	<u>Cost</u>	<u>Cost Per Ton</u>	<u>Needs Study Unit Price</u>
1966	4	13,958	\$ 136,537	\$ 9.78	\$ -
1967	3	10,532	101,892	9.67	-
1968	6	15,890	165,736	10.43	-
1969	3	5,603	67,839	12.11	-
1970	5	7,500	91,604	12.21	-
1971	7	43,399	395,433	9.11	-
1972	11	25,950	361,721	13.94	10.50
1973	9	25,777	369,207	14.32	11.55
1974	9	18,308	327,581	17.89	11.55
1975	9	22,256	481,927	21.65	17.00
1976	10	18,759	371,123	19.78	18.00
1977	10	13,038	259,918	19.94	20.00
1978	14	14,080	277,452	19.70	20.50
1979	19	20,158	548,208	27.20	21.50
1980	16	17,695	469,842	26.55	27.00
1981	17	24,336	780,247	32.06	27.00
1982	18	26,628	725,878	27.26	30.00
1983	17	21,339	707,320	33.15	30.00
1984	16	38,723	1,212,779	31.32	35.50
1985	18	36,507	1,213,006	33.23	35.50

Subcommittees recommended price for 1986 Needs Study \$ 35.50
Based upon 1985 construction costs.

MUNICIPAL STATE AID STREET UNIT PRICE STUDY
CURB & GUTTER CONSTRUCTION #2531

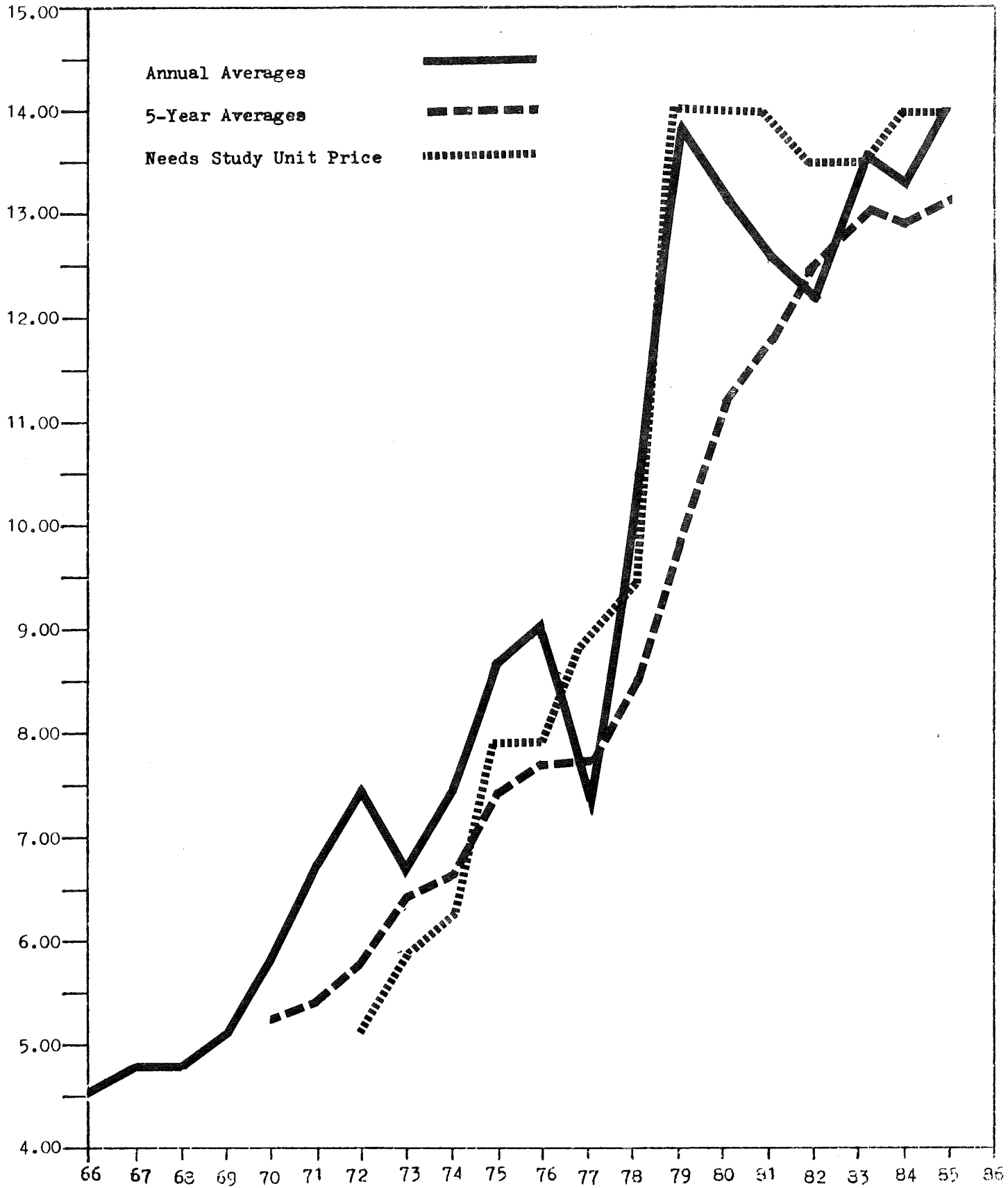


MUNICIPAL STATE AID STREET UNIT PRICE STUDY
CURB & GUTTER CONSTRUCTION #2531

<u>Year</u>	<u>No. of Cities</u>	<u>Quantities</u>	<u>Cost</u>	<u>Cost Per Lin. Ft.</u>	<u>Needs Study Unit Price</u>
1966	32	193,479	\$ 449,022	\$2.32	\$ -
1967	32	257,915	580,506	2.25	-
1968	33	340,092	801,016	2.36	-
1969	22	137,210	338,159	2.46	-
1970	48	611,958	1,641,158	2.68	-
1971	21	156,083	454,436	2.91	-
1972	29	235,760	773,022	3.28	2.50
1973	42	605,809	1,866,455	3.08	2.75
1974	43	454,315	1,387,797	3.05	2.98
1975	40	328,669	1,078,802	3.28	3.75
1976	39	314,645	1,050,777	3.34	3.75
1977	33	178,206	681,953	3.83	3.50
1978	41	298,122	1,317,943	4.42	4.00
1979	42	336,428	1,764,138	5.24	6.00
1980	41	433,513	2,085,243	4.81	6.50
1981	48	332,455	1,651,673	4.97	6.50
1982	58	450,590	2,124,634	4.72	5.50
1983	47	354,529	1,826,990	5.15	5.50
1984	58	554,327	2,907,985	5.25	5.50
1985	61	469,258	2,498,655	5.32	6.50

Subcommittees recommended price for 1986 Needs Study \$ 6.00
Based upon 1985 construction costs.

MUNICIPAL STATE AID STREET UNIT PRICE STUDY
SIDEWALK CONSTRUCTION #2521



**MUNICIPAL STATE AID STREET UNIT PRICE STUDY
SIDEWALK CONSTRUCTION #2521**

<u>Year</u>	<u>No. of Cities</u>	<u>Quantities</u>	<u>Cost</u>	<u>Cost Per Sq. Yd.</u>	<u>Needs Study Unit Price</u>
1966	22	35,725	\$ 161,851	\$ 4.53	\$ -
1967	26	41,798	199,193	4.77	-
1968	38	58,058	278,247	4.79	-
1969	17	18,871	95,808	5.08	-
1970	38	113,416	662,759	5.84	-
1971	8	9,548	64,052	6.71	-
1972	27	43,194	321,089	7.43	5.20
1973	33	85,944	579,410	6.74	5.90
1974	29	46,901	350,067	7.46	6.44
1975	32	46,139	399,470	8.66	8.00
1976	27	48,343	436,681	9.03	8.00
1977	24	42,666	317,200	7.43	9.00
1978	23	37,875	395,539	10.44	9.50
1979	26	43,738	604,904	13.83	14.00
1980	32	71,946	937,803	13.03	14.00
1981	31	46,222	577,293	12.49	14.00
1982	44	91,266	1,112,414	12.19	13.50
1983	35	69,630	940,122	13.50	13.50
1984	44	96,059	1,277,135	13.30	14.00
1985	48	103,377	1,446,980	14.00	14.00

Subcommittees recommended price for 1986 Needs Study \$ 14.00
Based upon 1985 construction costs.

DEPARTMENT Mn/DOT - Design Services
Room 718

Office Memorandum

TO: K. G. Straus
State Aid Needs Unit

DATE: April 7, 1986

FROM: D. V. Halvorson *DVH*
Hydraulics Engineer

PHONE: 296-0824

SUBJECT: State Aid Storm Sewer Construction Costs (1986)

We have analyzed the State Aid storm sewer construction costs for 1986 and find that, for planning purposes, a figure of \$196,000 per mile can be used. For storm sewer adjustments we suggest \$62,000 per mile. These figures are unchanged from 1985.

If we can be of further assistance, please advise.

cc:

G. M. Fay
D. V. Halvorson
E. H. Aswegan

DVH/ms
(EHA)

STATE OF MINNESOTA

DEPARTMENT Mn/DOT - OFFICE OF BRIDGES AND
ROOM 610 STRUCTURES*Office Memorandum*TO : Kenneth Straus
Needs Unit - Room 420

DATE: March 7, 1986

FROM : *Walter I. Immel*
Walter I. Immel
Bridge Estimates Engineer

PHONE: 296-0816

SUBJECT: 1985 Structures Costs

The actual structures costs for County and Municipal State Aid projects in calendar year 1985 that you requested are as follows:

<u>Length of Structure</u>	<u>Structures</u>	<u>1985 Av. Cost/S.F.</u>
0 - 149	29	\$51
150 - 499	19	\$46
500 - Greater	3	\$61
Widening*	1	\$49

*Care should be exercised when widening cost estimates are computed due to the variety of widening concepts available.

cc: G. M. Fay
L. G. Hegland

BRIDGE COSTS
Price per sq. ft.

Bridge & Structures price averages					Screening Committee Recommendations				
Const. Year	0' to 149'	150' to 499'	500' over	Widen- ing	0' to 149'	150' to 499'	500' & over	Widen- ing	Allot- ment year
1980	39.00	43.00	62.00	75.00	39.00	43.00	62.00	75.00	82
1981	36.00	43.00	62.00	75.00	36.00	43.00	62.00	75.00	83
1982	36.00	41.00	62.00	70.00	36.00	43.00	62.00	75.00	84
1983	38.00	44.00	50.00	65.00	38.00	44.00	50.00	65.00	85
1984	45.00	51.00	48.00	57.00	45.00	51.00	50.00	65.00	86
1985	45.00	46.00	61.00	49.00					87

STATE OF MINNESOTA

DEPARTMENT Mn/DOT - Railroads and Waterways
Room 810*Office Memorandum*TO: Kenneth Straus
Highway Needs Unit

DATE: April 15, 1986

FROM: Robert G. Swanson
Director, Railroad Administration *RS*

PHONE: 296-2472

SUBJECT: Projected Railroad Grade Crossing
Improvements - Cost for 1986

We have projected 1986 costs for railroad-highway at grade crossing improvements. They are expected to be as follows:

Railroad Grade Crossings:

Signals (Single Track - Low Speed)¹ Unit \$65,000.00
(Average Price)

Signals and Gates:
(Multiple Track - High & Low Speed)² Unit \$95,000.00
(Average Price)

Signs Only Unit \$ 300.00

¹ Modern signals with motion sensors - signals are activated when train enters electrical circuit - deactivated if train stops before reaching crossing.

² Modern signals with grade crossing predictors - has capabilities in 1 above, plus ability to gauge speed and distance of train from crossing go give constant 20-25 second warning of approaching trains traveling from 5 to 80 MPH.

cc:
Gordon M. Fay
R. F. Mattson

1985 C.S.A.H. UNIT PRICE STUDY

1985 Projects

	<u>Unit</u>	<u>Quantity</u>	<u>Cost</u>	<u>Cost Per Unit</u>	
2211	Ton	\$ 729,577	\$ 2,803,465	\$ 3.84	Gravel Base
2212	Ton	2,574,482	10,476,758	4.07	Gravel Base
2221	Ton	988,140	4,411,013	4.46	Gravel Shoulder
2301	Sq. Yd.	76,125	1,233,473	16.20	Concrete Surface
2331	Ton	2,491,261	49,596,140	19.91	Bituminous Surface
2341	Ton	223,479	5,450,872	24.39	Bituminous Surface
2351	Ton	33,806	1,096,629	32.42	Bituminous Surface

- Comments -

UNIT PRICE RECOMMENDATION TO THE 1986 SCREENING BOARD

	Pay Item	1985 Prices	Subcommittee Suggested Prices For 1986	Screening Board Recommended Prices For 1986
<u>Grading</u>				
	Cu.Yd.	\$ 3.00	3.00	
<u>Removal Items</u>				
	Lin. Ft.	\$ 1.50	1.50	
	Sq. Yd.	3.50	4.00	
	Sq. Yd.	3.75	3.75	
	Unit	90.00	90.00	
<u>Base</u>				
	Ton	\$ 4.50	5.00	
	Ton	5.25	5.25	
	Ton	23.50	22.00	
<u>Surface</u>				
	Ton	\$ 23.50	22.00	
	Ton	25.00	25.00	
	Ton	35.50	35.50	
<u>Shoulders</u>				
	Ton	\$ 4.25	4.25	
<u>Miscellaneous</u>				
	Mi.	62,000.00	* 62,000.00	
	Mi.	10,000.00	10,000.00	
	Mi.	2,000.00	2,000.00	
	Lin. Ft.	6.50	6.00	
	Sq. Yd.	14.00	14.00	
<u>Structures</u>				
	Sq. Ft.	\$ 45.00*	49.00	
	Sq. Ft.	51.00*	51.00	
	Sq. Ft.	50.00*	55.00	
	Sq. Ft.	65.00*	65.00	
<u>Railroad over Highway</u>				
	Lin. Ft.	\$ 2,250.00*	2,250.00	
	Lin. Ft.	1,750.00*	1,750.00	
<u>Railroad Grade Crossing</u>				
	Unit	\$ 65,000.00*	65,000.00	
	Unit	95,000.00*	95,000.00	
	Unit	300.00*	300.00	

* Average Prices Not Computed -- Used Other Sources -- See Memos.

CURB AND GUTTER REMOVAL - SPEC 2104

YEAR PROJECT		TOTAL COST	COST PER MILE	TOTAL QUANTITY	QUANTITY PER MILE	UNIT PRICE	LENGTH	RURAL/ URBAN
85 112-104-01		996	6,640	996	6,640	1.00	0.15	1
85 112-136-01		2,680	10,720	2,680	10,720	1.00	0.25	1
CLOQUET	TOT	3,676	9,190	3,676	9,190	1.00	0.40	1
85 118-171-03		20,513	23,852	8,205	9,541	2.50	0.86	1
DULUTH	TOT	20,513	23,852	8,205	9,541	2.50	0.86	1
85 122-220-04		1,377	1,481	1,377	1,481	1.00	0.93	1
EVELETH	TOT	1,377	1,481	1,377	1,481	1.00	0.93	1
85 134-020-05		120	31	86	22	1.40	3.90	1
INTERNATIONAL FALLS	TOT	120	31	86	22	1.40	3.90	1
85 171-206-02		2,170	8,346	2,170	8,346	1.00	0.26	1
VIRGINIA	TOT	2,170	8,346	2,170	8,346	1.00	0.26	1
DISTRICT 1	TOT	27,856	4,387	15,514	2,443	1.80	6.35	1
85 105-108-04		915	3,978	610	2,652	1.50	0.23	1
BEMIDJI	TOT	915	3,978	610	2,652	1.50	0.23	1
85 115-133-01		695	4,633	547	3,647	1.27	0.15	1
85 115-143-01		204	3,400	161	2,683	1.27	0.06	1
CROOKSTON	TOT	899	4,281	708	3,371	1.27	0.21	1
85 170-010-02		567	515	378	344	1.50	1.10	1
85 170-010-03		9,824	12,758	6,549	8,505	1.50	0.77	1
THIEF RIVER FALLS	TOT	10,391	5,557	6,927	3,704	1.50	1.87	1
DISTRICT 2	TOT	12,205	5,284	8,245	3,569	1.48	2.31	1
85 108-124-05		131	285	100	217	1.31	0.46	1
85 108-112-03		1,885	13,464	1,439	10,279	1.31	0.14	1
85 108-109-01		791	11,300	604	8,629	1.31	0.07	1
BRAINERD	TOT	2,807	4,190	2,143	3,199	1.31	0.67	1
DISTRICT 3	TOT	2,807	4,190	2,143	3,199	1.31	0.67	1
85 126-050-14		3,488	16,610	1,395	6,643	2.50	0.21	1
FERGUS FALLS	TOT	3,488	16,610	1,395	6,643	2.50	0.21	1
85 144-131-01		2,800	11,200	2,800	11,200	1.00	0.25	1
MOORHEAD	TOT	2,800	11,200	2,800	11,200	1.00	0.25	1
85 190-020-04		550	1,058	110	212	5.00	0.52	1
MORRIS	TOT	550	1,058	110	212	5.00	0.52	1

M.S.A.S UNIT PRICE STUDY

PAGE 7

CURB AND GUTTER REMOVAL - SPEC 2104

YEAR PROJECT		TOTAL COST	COST PER MILE	TOTAL QUANTITY	QUANTITY PER MILE	UNIT PRICE	LENGTH	RURAL/ URBAN
DISTRICT 4	TOT	6,838	6,978	4,305	4,393	1.59	0.98	1
85 103-134-04 ANOKA	TOT	6,405 6,405	42,700 42,700	2,135 2,135	14,233 14,233	3.00 3.00	0.15 0.15	1 1
85 106-109-03 BLAINE	TOT	11,834 11,834	15,992 15,992	2,440 2,440	3,297 3,297	4.85 4.85	0.74 0.74	1 1
85 107-020-24 85 107-419-09 BLOOMINGTON	TOT	12,076 3,244 15,320	120,760 32,440 76,600	8,945 2,403 11,348	89,450 24,030 56,740	1.35 1.35 1.35	0.10 0.10 0.20	1 1 1
85 110-102-07 85 110-110-05 BROOKLYN PARK	TOT	2,709 150 2,859	18,060 107 1,845	1,432 230 1,662	9,547 164 1,072	1.89 .65 1.72	0.15 1.40 1.55	1 1 1
85 114-114-03 COON RAPIDS	TOT	1,140 1,140	726 726	570 570	363 363	2.00 2.00	1.57 1.57	1 1
85 116-324-02 85 116-318-03 CRYSTAL	TOT	400 500 900	3,077 3,571 3,333	200 200 400	1,538 1,429 1,481	2.00 2.50 2.25	0.13 0.14 0.27	1 1 1
85 128-332-02 GOLDEN VALLEY	TOT	150 150	395 395	200 200	526 526	.75 .75	0.38 0.38	1 1
85 141-199-06 MINNEAPOLIS	TOT	3,044 3,044	2,718 2,718	1,845 1,845	1,647 1,647	1.65 1.65	1.12 1.12	1 1
85 142-010-08 85 142-128-04 MINNETONKA	TOT	276 525 801	789 2,100 1,335	345 350 695	986 1,400 1,158	.80 1.50 1.15	0.35 0.25 0.60	1 1 1
85 166-108-01 SHAKOPEE	TOT	468 468	473 473	234 234	236 236	2.00 2.00	0.99 0.99	1 1
85 182-101-07 85 182-107-03 NEW HOPE	TOT	675 1,000 1,675	16,875 20,000 18,611	450 500 950	11,250 10,000 10,556	1.50 2.00 1.76	0.04 0.05 0.09	1 1 1
85 189-115-02 MAPLE GROVE	TOT	500 500	676 676	250 250	338 338	2.00 2.00	0.74 0.74	1 1
DISTRICT 5	TOT	45,096	5,369	22,729	2,706	1.98	8.40	1
85 101-110-12 ALBERT LEA	TOT	920 920	4,600 4,600	613 613	3,065 3,065	1.50 1.50	0.20 0.20	1 1
85 104-020-06		2,688	5,486	6,600	13,469	.41	0.49	1

CURB AND GUTTER REMOVAL - SPEC 2104

YEAR PROJECT		TOTAL COST	COST PER MILE	TOTAL QUANTITY	QUANTITY PER MILE	UNIT PRICE	LENGTH	RURAL/ URBAN
85 104-107-02 AUSTIN	TOT	400 3,088	8,000 5,719	500 7,100	10,000 13,148	.80 .43	0.05 0.54	1 1
85 125-118-02 FARIBAULT	TOT	176 176	926 926	88 88	463 463	2.00 2.00	0.19 0.19	1 1
85 149-118-01 85 149-101-01 NORTHFIELD	TOT	2,436 3,620 6,056	20,300 21,294 20,883	1,218 1,810 3,028	10,150 10,647 10,441	2.00 2.00 2.00	0.12 0.17 0.29	1 1 1
85 153-126-01 85 153-112-01 OWATONNA	TOT	442 3,691 4,133	4,911 7,237 6,888	553 4,614 5,167	6,144 9,047 8,612	.80 .80 .80	0.09 0.51 0.60	1 1 1
DISTRICT 6	TOT	14,373	7,897	15,996	8,789	.90	1.82	1
85 137-020-11 85 137-010-15 85 137-119-02 MANKATO	TOT	5,929 707 2,829 9,465	3,637 906 5,547 3,241	4,743 404 1,768 6,915	2,910 518 3,467 2,368	1.25 1.75 1.60 1.37	1.63 0.78 0.51 2.92	1 1 1 1
85 148-112-02 85 148-101-02 NEW ULM	TOT	1,034 309 1,343	3,566 1,343 2,583	1,590 475 2,065	5,483 2,065 3,971	.65 .65 .65	0.29 0.23 0.52	1 1 1
85 150-116-01 NORTH MANKATO	TOT	480 480	539 539	120 120	135 135	4.00 4.00	0.89 0.89	1 1
85 165-114-01 85 165-107-02 ST PETER	TOT	1,110 5,258 6,368	7,400 15,023 12,736	740 3,505 4,245	4,933 10,014 8,490	1.50 1.50 1.50	0.15 0.35 0.50	1 1 1
85 172-102-02 WASECA	TOT	2,520 2,520	5,478 5,478	2,520 2,520	5,478 5,478	1.00 1.00	0.46 0.46	1 1
85 177-111-01 WORTHINGTON	TOT	1,254 1,254	3,300 3,300	1,254 1,254	3,300 3,300	1.00 1.00	0.38 0.38	1 1
85 205-114-01 LIVERNE	TOT	948 948	1,394 1,394	920 920	1,353 1,353	1.03 1.03	0.68 0.68	1 1
DISTRICT 7	TOT	22,378	3,524	18,039	2,841	1.24	6.35	1
85 135-104-01 LITCHFIELD	TOT	9,881 9,881	19,762 19,762	6,862 6,862	13,724 13,724	1.44 1.44	0.50 0.50	1 1
85 139-107-01 MARSHALL	TOT	2,130 2,130	8,520 8,520	1,420 1,420	5,680 5,680	1.50 1.50	0.25 0.25	1 1

M.S.A.S UNIT PRICE STUDY

PAGE 9

CURB AND GUTTER REMOVAL - SPEC 2104

YEAR PROJECT		TOTAL COST	COST PER MILE	TOTAL QUANTITY	QUANTITY PER MILE	UNIT PRICE	LENGTH	RURAL/ URBAN
85 154-102-05		2,540	7,257	1,752	5,006	1.45	0.35	1
85 154-107-03		536	7,657	370	5,286	1.45	0.07	1
PIPESTONE	TOT	3,076	7,324	2,122	5,052	1.45	0.42	1
85 175-010-01		810	4,500	810	4,500	1.00	0.18	1
WILLMAR	TOT	810	4,500	810	4,500	1.00	0.18	1
DISTRICT 8	TOT	15,897	11,776	11,214	8,307	1.42	1.35	1
85 130-134-01		5,306	24,118	4,245	19,295	1.25	0.22	1
HASTINGS	TOT	5,306	24,118	4,245	19,295	1.25	0.22	1
85 140-103-06		204	703	102	352	2.00	0.29	1
MENDOTA HEIGHTS	TOT	204	703	102	352	2.00	0.29	1
85 160-225-02		88	251	35	100	2.51	0.35	1
ROSEVILLE	TOT	88	251	35	100	2.51	0.35	1
85 164-253-01		340	708	680	1,417	.50	0.48	1
85 164-232-15		12,600	8,289	14,000	9,211	.90	1.52	1
85 164-214-10		5,168	3,828	7,950	5,889	.65	1.35	1
85 164-117-08		1,800	7,200	2,000	8,000	.90	0.25	1
85 164-020-55		11,284	13,275	8,680	10,212	1.30	0.85	1
ST PAUL	TOT	31,192	7,009	33,310	7,485	.94	4.45	1
85 167-253-01		45	85	09	17	5.00	0.53	1
85 167-258-02		20	154	04	31	5.00	0.13	1
SHOREVIEW	TOT	65	98	13	20	5.00	0.66	1
85 169-119-01		68	219	34	110	2.00	0.31	1
STILLWATER	TOT	68	219	34	110	2.00	0.31	1
85 178-103-09		900	957	360	383	2.50	0.94	1
INVER GROVE HEIGHTS	TOT	900	957	360	383	2.50	0.94	1
85 179-113-09		3,120	4,657	780	1,164	4.00	0.67	1
85 179-113-11		2,700	9,310	900	3,103	3.00	0.29	1
85 179-108-04		4,100	3,037	2,050	1,519	2.00	1.35	1
85 179-113-07		1,634	3,335	817	1,667	2.00	0.49	1
85 179-101-06		540	3,176	180	1,059	3.00	0.17	1
BURNSVILLE	TOT	12,094	4,072	4,727	1,592	2.56	2.97	1
85 186-105-01		800	2,162	400	1,081	2.00	0.37	1
85 186-104-05		9,774	28,747	3,258	9,582	3.00	0.34	1
85 186-102-04		75	99	75	99	1.00	0.76	1
APPLE VALLEY	TOT	10,649	7,244	3,733	2,539	2.85	1.47	1
85 188-010-01		630	500	420	333	1.50	1.26	1
LAKEVILLE	TOT	630	500	420	333	1.50	1.26	1
85 195-119-01		200	313	80	125	2.50	0.64	1

CURB AND GUTTER REMOVAL - SPEC 2104

YEAR PROJECT		TOTAL COST	COST PER MILE	TOTAL QUANTITY	QUANTITY PER MILE	UNIT PRICE	LENGTH	RURAL/ URBAN
85 195-110-01 EAGAN	TOT	125 325	481 361	50 130	192 144	2.50 2.50	0.26 0.90	1 1
DISTRICT 9	TOT	61,521	4,452	47,109	3,409	1.31	13.82	1
STATE TOTAL		208,971	4,970	145,294	3,455	1.44	42.05	1

M.S.A.S UNIT PRICE STUDY

PAGE 11

CURB AND GUTTER REMOVAL - SPEC 2104

TOTALS		TOTAL COST	COST PER MILE	TOTAL QUANTITY	QUANTITY PER MILE	UNIT PRICE	LENGTH	RURAL/ URBAN
CLOQUET	TOT	3,676	9,190	3,676	9,190	1.00	0.40	1
DULUTH	TOT	20,513	23,852	8,205	9,541	2.50	0.86	1
EVELETH	TOT	1,377	1,481	1,377	1,481	1.00	0.93	1
INTERNATIONAL FALLS	TOT	120	31	86	22	1.40	3.90	1
VIRGINIA	TOT	2,170	8,346	2,170	8,346	1.00	0.26	1
DISTRICT 1	TOT	27,856	4,387	15,514	2,443	1.80	6.35	1
BEMIDJI	TOT	915	3,978	610	2,652	1.50	0.23	1
CROOKSTON	TOT	899	4,281	708	3,371	1.27	0.21	1
THIEF RIVER FALLS	TOT	10,391	5,557	6,927	3,704	1.50	1.87	1
DISTRICT 2	TOT	12,205	5,284	8,245	3,569	1.48	2.31	1
BRAINERD	TOT	2,807	4,190	2,143	3,199	1.31	0.67	1
DISTRICT 3	TOT	2,807	4,190	2,143	3,199	1.31	0.67	1
FERGUS FALLS	TOT	3,488	16,610	1,395	6,643	2.50	0.21	1
MOORHEAD	TOT	2,800	11,200	2,800	11,200	1.00	0.25	1
MORRIS	TOT	550	1,058	110	212	5.00	0.52	1
DISTRICT 4	TOT	6,838	6,978	4,305	4,393	1.59	0.98	1
ANOKA	TOT	6,405	42,700	2,135	14,233	3.00	0.15	1
BLAINE	TOT	11,834	15,992	2,440	3,297	4.85	0.74	1
BLOOMINGTON	TOT	15,320	76,600	11,348	56,740	1.35	0.20	1
BROOKLYN PARK	TOT	2,859	1,845	1,662	1,072	1.72	1.55	1
COON RAPIDS	TOT	1,140	726	570	363	2.00	1.57	1
CRYSTAL	TOT	900	3,333	400	1,481	2.25	0.27	1
GOLDEN VALLEY	TOT	150	395	200	526	.75	0.38	1
MINNEAPOLIS	TOT	3,044	2,718	1,845	1,647	1.65	1.12	1
MINNETONKA	TOT	801	1,335	695	1,158	1.15	0.60	1
SHAKOPEE	TOT	468	473	234	236	2.00	0.99	1
NEW HOPE	TOT	1,675	18,611	950	10,556	1.76	0.09	1
MAPLE GROVE	TOT	500	676	250	338	2.00	0.74	1
DISTRICT 5	TOT	45,096	5,369	22,729	2,706	1.98	8.40	1
ALBERT LEA	TOT	920	4,600	613	3,065	1.50	0.20	1
AUSTIN	TOT	3,088	5,719	7,100	13,148	.43	0.54	1
FARIBAULT	TOT	176	926	88	463	2.00	0.19	1
NORTHFIELD	TOT	6,056	20,883	3,028	10,441	2.00	0.29	1
OWATONNA	TOT	4,133	6,888	5,167	8,612	.80	0.60	1
DISTRICT 6	TOT	14,373	7,897	15,996	8,789	.90	1.82	1
MANKATO	TOT	9,465	3,241	6,915	2,368	1.37	2.92	1
NEW ULM	TOT	1,343	2,583	2,065	3,971	.65	0.52	1
NORTH MANKATO	TOT	480	539	120	135	4.00	0.89	1
ST PETER	TOT	6,368	12,736	4,245	8,490	1.50	0.50	1
WASECA	TOT	2,520	5,478	2,520	5,478	1.00	0.46	1
WORTHINGTON	TOT	1,254	3,300	1,254	3,300	1.00	0.38	1
LIVERNE	TOT	948	1,394	920	1,353	1.03	0.68	1
DISTRICT 7	TOT	22,378	3,524	18,039	2,841	1.24	6.35	1
LITCHFIELD	TOT	9,881	19,762	6,862	13,724	1.44	0.50	1
MARSHALL	TOT	2,130	8,520	1,420	5,680	1.50	0.25	1

CURB AND GUTTER REMOVAL - SPEC 2104

TOTALS		TOTAL COST	COST PER MILE	TOTAL QUANTITY	QUANTITY PER MILE	UNIT PRICE	LENGTH	RURAL/ URBAN
PIPESTONE	TOT	3,076	7,324	2,122	5,052	1.45	0.42	1
WILLMAR	TOT	810	4,500	810	4,500	1.00	0.18	1
DISTRICT 8	TOT	15,897	11,776	11,214	8,307	1.42	1.35	1
HASTINGS	TOT	5,306	24,118	4,245	19,295	1.25	0.22	1
MENDOTA HEIGHTS	TOT	204	703	102	352	2.00	0.29	1
ROSEVILLE	TOT	88	251	35	100	2.51	0.35	1
ST PAUL	TOT	31,192	7,009	33,310	7,485	.94	4.45	1
SHOREVIEW	TOT	65	98	13	20	5.00	0.66	1
STILLWATER	TOT	68	219	34	110	2.00	0.31	1
INVER GROVE HEIGHTS	TOT	900	957	360	383	2.50	0.94	1
BURNSVILLE	TOT	12,094	4,072	4,727	1,592	2.56	2.97	1
APPLE VALLEY	TOT	10,649	7,244	3,733	2,539	2.85	1.47	1
LAKEVILLE	TOT	630	500	420	333	1.50	1.26	1
EAGAN	TOT	325	361	130	144	2.50	0.90	1
DISTRICT 9	TOT	61,521	4,452	47,109	3,409	1.31	13.82	1
STATE TOTAL		208,971	4,970	145,294	3,455	1.44	42.05	1

M.S.A.S UNIT PRICE STUDY

PAGE 13

CURB AND GUTTER REMOVAL - SPEC 2104

TOTALS		TOTAL COST	COST PER MILE	TOTAL QUANTITY	QUANTITY PER MILE	UNIT PRICE	LENGTH	RURAL/ URBAN
DISTRICT 1	TOT	27,856	4,387	15,514	2,443	1.80	6.35	1
DISTRICT 2	TOT	12,205	5,284	8,245	3,569	1.48	2.31	1
DISTRICT 3	TOT	2,807	4,190	2,143	3,199	1.31	0.67	1
DISTRICT 4	TOT	6,838	6,978	4,305	4,393	1.59	0.98	1
DISTRICT 5	TOT	45,096	5,369	22,729	2,706	1.98	8.40	1
DISTRICT 6	TOT	14,373	7,897	15,996	8,789	.90	1.82	1
DISTRICT 7	TOT	22,378	3,524	18,039	2,841	1.24	6.35	1
DISTRICT 8	TOT	15,897	11,776	11,214	8,307	1.42	1.35	1
DISTRICT 9	TOT	61,521	4,452	47,109	3,409	1.31	13.82	1
STATE TOTAL		208,971	4,970	145,294	3,455	1.44	42.05	1

SIDEWALK REMOVAL - SPEC 2105

YEAR PROJECT		TOTAL COST	COST PER MILE	TOTAL QUANTITY	QUANTITY PER MILE	UNIT PRICE	LENGTH	RURAL/ URBAN
85 112-104-01		1,909	12,727	848	5,653	2.25	0.15	1
85 112-136-01		191	764	85	340	2.25	0.25	1
CLOQUET	TOT	2,100	5,250	933	2,333	2.25	0.40	1
85 118-171-03		62,774	72,993	8,206	9,542	7.65	0.86	1
DULUTH	TOT	62,774	72,993	8,206	9,542	7.65	0.86	1
85 122-220-04		2,598	2,794	962	1,034	2.70	0.93	1
EVELETH	TOT	2,598	2,794	962	1,034	2.70	0.93	1
85 171-206-02		3,734	14,362	1,659	6,381	2.25	0.26	1
VIRGINIA	TOT	3,734	14,362	1,659	6,381	2.25	0.26	1
DISTRICT 1	TOT	71,206	29,064	11,760	4,800	6.05	2.45	1
85 105-108-04		925	4,022	206	896	4.49	0.23	1
BEMIDJI	TOT	925	4,022	206	896	4.49	0.23	1
85 115-133-01		432	2,880	126	840	3.43	0.15	1
85 115-143-01		30	500	09	150	3.33	0.06	1
CROOKSTON	TOT	462	2,200	135	643	3.42	0.21	1
85 170-010-02		160	145	32	29	5.00	1.10	1
85 170-010-03		7,754	10,070	1,567	2,035	4.95	0.77	1
THIEF RIVER FALLS	TOT	7,914	4,232	1,599	855	4.95	1.87	1
DISTRICT 2	TOT	9,301	4,026	1,940	840	4.79	2.31	1
85 108-112-03		3,646	26,043	737	5,264	4.95	0.14	1
85 108-109-01		1,145	16,357	231	3,300	4.96	0.07	1
BRAINERD	TOT	4,791	22,814	968	4,610	4.95	0.21	1
DISTRICT 3	TOT	4,791	22,814	968	4,610	4.95	0.21	1
85 126-050-14		4,982	23,724	1,107	5,271	4.50	0.21	1
FERGUS FALLS	TOT	4,982	23,724	1,107	5,271	4.50	0.21	1
85 144-104-08		3,906	11,160	1,085	3,100	3.60	0.35	1
85 144-131-01		1,850	7,400	411	1,644	4.50	0.25	1
MOORHEAD	TOT	5,756	9,593	1,496	2,493	3.85	0.60	1
DISTRICT 4	TOT	10,738	13,257	2,603	3,214	4.13	0.81	1
85 103-134-04		2,206	14,707	1,114	7,427	1.98	0.15	1
ANOKA	TOT	2,206	14,707	1,114	7,427	1.98	0.15	1

M.S.A.S UNIT PRICE STUDY

PAGE 15

SIDEWALK REMOVAL - SPEC 2105

YEAR PROJECT		TOTAL COST	COST PER MILE	TOTAL QUANTITY	QUANTITY PER MILE	UNIT PRICE	LENGTH	RURAL/ URBAN
85 107-020-24		3,137	31,370	996	9,960	3.15	0.10	1
85 107-419-09		419	4,190	133	1,330	3.15	0.10	1
BLOOMINGTON	TOT	3,556	17,780	1,129	5,645	3.15	0.20	1
85 109-126-01		525	1,094	150	313	3.50	0.48	1
BROOKLYN CENTER	TOT	525	1,094	150	313	3.50	0.48	1
85 110-102-07		870	5,800	744	4,960	1.17	0.15	1
BROOKLYN PARK	TOT	870	5,800	744	4,960	1.17	0.15	1
85 114-114-03		4,840	3,083	2,420	1,541	2.00	1.57	1
COON RAPIDS	TOT	4,840	3,083	2,420	1,541	2.00	1.57	1
85 116-318-03		600	4,286	67	479	8.96	0.14	1
85 116-324-02		125	962	56	431	2.23	0.13	1
CRYSTAL	TOT	725	2,685	123	456	5.89	0.27	1
85 141-199-06		5,244	4,682	1,059	946	4.95	1.12	1
MINNEAPOLIS	TOT	5,244	4,682	1,059	946	4.95	1.12	1
85 182-101-07		250	6,250	111	2,775	2.25	0.04	1
85 182-107-03		88	1,760	39	780	2.26	0.05	1
NEW HOPE	TOT	338	3,756	150	1,667	2.25	0.09	1
DISTRICT 5	TOT	18,304	4,542	6,889	1,709	2.66	4.03	1
85 101-110-12		1,550	7,750	310	1,550	5.00	0.20	1
ALBERT LEA	TOT	1,550	7,750	310	1,550	5.00	0.20	1
85 104-020-06		800	1,633	444	906	1.80	0.49	1
85 104-107-02		2,250	45,000	500	10,000	4.50	0.05	1
AUSTIN	TOT	3,050	5,648	944	1,748	3.23	0.54	1
85 125-118-02		243	1,279	54	284	4.50	0.19	1
FARIBAULT	TOT	243	1,279	54	284	4.50	0.19	1
85 149-118-01		2,205	18,375	490	4,083	4.50	0.12	1
85 149-101-01		2,955	17,382	657	3,865	4.50	0.17	1
NORTHFIELD	TOT	5,160	17,793	1,147	3,955	4.50	0.29	1
85 153-112-01		650	1,275	250	490	2.60	0.51	1
85 153-126-01		681	7,567	262	2,911	2.60	0.09	1
OWATONNA	TOT	1,331	2,218	512	853	2.60	0.60	1
85 159-119-01		1,163	4,010	517	1,783	2.25	0.29	1
85 159-115-03		567	3,544	180	1,125	3.15	0.16	1
ROCHESTER	TOT	1,730	3,844	697	1,549	2.48	0.45	1
DISTRICT 6	TOT	13,064	5,755	3,664	1,614	3.57	2.27	1

SIDEWALK REMOVAL - SPEC 2105

YEAR PROJECT		TOTAL COST	COST PER MILE	TOTAL QUANTITY	QUANTITY PER MILE	UNIT PRICE	LENGTH	RURAL/ URBAN
85 137-119-02		4,714	9,243	1,164	2,282	4.05	0.51	1
85 137-020-11		5,773	3,542	1,604	984	3.60	1.63	1
MANKATO	TOT	10,487	4,900	2,768	1,293	3.79	2.14	1
85 148-112-02		798	2,752	591	2,038	1.35	0.29	1
85 148-101-02		578	2,513	428	1,861	1.35	0.23	1
NEW ULM	TOT	1,376	2,646	1,019	1,960	1.35	0.52	1
85 165-114-01		2,088	13,920	357	2,380	5.85	0.15	1
85 165-107-02		7,169	20,483	1,225	3,500	5.85	0.35	1
ST PETER	TOT	9,257	18,514	1,582	3,164	5.85	0.50	1
85 172-102-02		1,878	4,083	1,043	2,267	1.80	0.46	1
WASECA	TOT	1,878	4,083	1,043	2,267	1.80	0.46	1
85 177-111-01		16	42	05	13	3.20	0.38	1
WORTHINGTON	TOT	16	42	05	13	3.20	0.38	1
DISTRICT 7	TOT	23,014	5,754	6,417	1,604	3.59	4.00	1
85 135-104-01		341	682	227	454	1.50	0.50	1
LITCHFIELD	TOT	341	682	227	454	1.50	0.50	1
85 139-107-01		3,059	12,236	874	3,496	3.50	0.25	1
MARSHALL	TOT	3,059	12,236	874	3,496	3.50	0.25	1
85 154-102-05		1,059	3,026	118	337	8.97	0.35	1
85 154-107-03		1,344	19,200	149	2,129	9.02	0.07	1
PIPESTONE	TOT	2,403	5,721	267	636	9.00	0.42	1
85 175-010-01		3,805	21,139	846	4,700	4.50	0.18	1
WILLMAR	TOT	3,805	21,139	846	4,700	4.50	0.18	1
DISTRICT 8	TOT	9,608	7,117	2,214	1,640	4.34	1.35	1
85 130-134-01		19,276	87,618	4,819	21,905	4.00	0.22	1
HASTINGS	TOT	19,276	87,618	4,819	21,905	4.00	0.22	1
85 160-225-02		50	143	11	31	4.55	0.35	1
ROSEVILLE	TOT	50	143	11	31	4.55	0.35	1
85 164-232-15		4,900	3,224	1,556	1,024	3.15	1.52	1
85 164-214-10		5,400	4,000	1,000	741	5.40	1.35	1
85 164-198-18		18,405	12,871	1,712	1,197	10.75	1.43	1
85 164-204-03		220	1,375	31	194	7.10	0.16	1
85 164-117-08		280	1,120	89	356	3.15	0.25	1
85 164-179-09		2,364	9,850	1,751	7,296	1.35	0.24	1
85 164-020-55		38,270	45,024	8,504	10,005	4.50	0.85	1
ST PAUL	TOT	69,839	12,041	14,643	2,525	4.77	5.80	1

M.S.A.S UNIT PRICE STUDY

PAGE 17

SIDEWALK REMOVAL - SPEC 2105

YEAR PROJECT		TOTAL COST	COST PER MILE	TOTAL QUANTITY	QUANTITY PER MILE	UNIT PRICE	LENGTH	RURAL/ URBAN
85 179-113-07		1,825	3,724	312	637	5.85	0.49	1
85 179-113-11		1,150	3,966	256	883	4.49	0.29	1
85 179-108-04		1,400	1,037	311	230	4.50	1.35	1
BURNSVILLE	TOT	4,375	2,054	879	413	4.98	2.13	1
85 186-104-05		295	868	33	97	8.94	0.34	1
85 186-102-04		300	395	33	43	9.09	0.76	1
APPLE VALLEY	TOT	595	541	66	60	9.02	1.10	1
DISTRICT 9	TOT	94,135	9,806	20,418	2,127	4.61	9.60	1
STATE TOTAL		254,161	9,403	56,873	2,104	4.47	27.03	1

SIDEWALK REMOVAL - SPEC 2105

TOTALS		TOTAL COST	COST PER MILE	TOTAL QUANTITY	QUANTITY PER MILE	UNIT PRICE	LENGTH	RURAL/ URBAN
CLOQUET	TOT	2,100	5,250	933	2,333	2.25	0.40	1
DULUTH	TOT	62,774	72,993	8,206	9,542	7.65	0.86	1
EVELETH	TOT	2,598	2,794	962	1,034	2.70	0.93	1
VIRGINIA	TOT	3,734	14,362	1,659	6,381	2.25	0.26	1
DISTRICT 1	TOT	71,206	29,064	11,760	4,800	6.05	2.45	1
BEMIDJI	TOT	925	4,022	206	896	4.49	0.23	1
CROOKSTON	TOT	462	2,200	135	643	3.42	0.21	1
THIEF RIVER FALLS	TOT	7,914	4,232	1,599	855	4.95	1.87	1
DISTRICT 2	TOT	9,301	4,026	1,940	840	4.79	2.31	1
BRAINERD	TOT	4,791	22,814	968	4,610	4.95	0.21	1
DISTRICT 3	TOT	4,791	22,814	968	4,610	4.95	0.21	1
FERGUS FALLS	TOT	4,982	23,724	1,107	5,271	4.50	0.21	1
MOORHEAD	TOT	5,756	9,593	1,496	2,493	3.85	0.60	1
DISTRICT 4	TOT	10,738	13,257	2,603	3,214	4.13	0.81	1
ANOKA	TOT	2,206	14,707	1,114	7,427	1.98	0.15	1
BLOOMINGTON	TOT	3,556	17,780	1,129	5,645	3.15	0.20	1
BROOKLYN CENTER	TOT	525	1,094	150	313	3.50	0.48	1
BROOKLYN PARK	TOT	870	5,800	744	4,960	1.17	0.15	1
COON RAPIDS	TOT	4,840	3,083	2,420	1,541	2.00	1.57	1
CRYSTAL	TOT	725	2,685	123	456	5.89	0.27	1
MINNEAPOLIS	TOT	5,244	4,682	1,059	946	4.95	1.12	1
NEW HOPE	TOT	338	3,756	150	1,667	2.25	0.09	1
DISTRICT 5	TOT	18,304	4,542	6,889	1,709	2.66	4.03	1
ALBERT LEA	TOT	1,550	7,750	310	1,550	5.00	0.20	1
AUSTIN	TOT	3,050	5,648	944	1,748	3.23	0.54	1
FARIBAULT	TOT	243	1,279	54	284	4.50	0.19	1
NORTHFIELD	TOT	5,160	17,793	1,147	3,955	4.50	0.29	1
OWATONNA	TOT	1,331	2,218	512	853	2.60	0.60	1
ROCHESTER	TOT	1,730	3,844	697	1,549	2.48	0.45	1
DISTRICT 6	TOT	13,064	5,755	3,664	1,614	3.57	2.27	1
MANKATO	TOT	10,487	4,900	2,768	1,293	3.79	2.14	1
NEW ULM	TOT	1,376	2,646	1,019	1,960	1.35	0.52	1
ST PETER	TOT	9,257	18,514	1,582	3,164	5.85	0.50	1
WASECA	TOT	1,878	4,083	1,043	2,267	1.80	0.46	1
WORTHINGTON	TOT	16	42	05	13	3.20	0.38	1
DISTRICT 7	TOT	23,014	5,754	6,417	1,604	3.59	4.00	1
LITCHFIELD	TOT	341	682	227	454	1.50	0.50	1
MARSHALL	TOT	3,059	12,236	874	3,496	3.50	0.25	1
PIPESTONE	TOT	2,403	5,721	267	636	9.00	0.42	1
WILLMAR	TOT	3,805	21,139	846	4,700	4.50	0.18	1
DISTRICT 8	TOT	9,608	7,117	2,214	1,640	4.34	1.35	1
HASTINGS	TOT	19,276	87,618	4,819	21,905	4.00	0.22	1
ROSEVILLE	TOT	50	143	11	31	4.55	0.35	1
ST PAUL	TOT	69,839	12,041	14,643	2,525	4.77	5.80	1

M.S.A.S UNIT PRICE STUDY

PAGE 19

SIDEWALK REMOVAL - SPEC 2105

TOTALS		TOTAL COST	COST PER MILE	TOTAL QUANTITY	QUANTITY PER MILE	UNIT PRICE	LENGTH	RURAL/ URBAN
BURNSVILLE	TOT	4,375	2,054	879	413	4.98	2.13	1
APPLE VALLEY	TOT	595	541	66	60	9.02	1.10	1
DISTRICT 9	TOT	94,135	9,806	20,418	2,127	4.61	9.60	1
STATE TOTAL		254,161	9,403	56,873	2,104	4.47	27.03	1

SIDEWALK REMOVAL - SPEC 2105

TOTALS		TOTAL COST	COST PER MILE	TOTAL QUANTITY	QUANTITY PER MILE	UNIT PRICE	LENGTH	RURAL/ URBAN
DISTRICT 1	TOT	71,206	29,064	11,760	4,800	6.05	2.45	1
DISTRICT 2	TOT	9,301	4,026	1,940	840	4.79	2.31	1
DISTRICT 3	TOT	4,791	22,814	968	4,610	4.95	0.21	1
DISTRICT 4	TOT	10,738	13,257	2,603	3,214	4.13	0.81	1
DISTRICT 5	TOT	18,304	4,542	6,889	1,709	2.66	4.03	1
DISTRICT 6	TOT	13,064	5,755	3,664	1,614	3.57	2.27	1
DISTRICT 7	TOT	23,014	5,754	6,417	1,604	3.59	4.00	1
DISTRICT 8	TOT	9,608	7,117	2,214	1,640	4.34	1.35	1
DISTRICT 9	TOT	94,135	9,806	20,418	2,127	4.61	9.60	1
STATE TOTAL		254,161	9,403	56,873	2,104	4.47	27.03	1

M.S.A.S UNIT PRICE STUDY

PAGE 21

CONC. PAVEMENT REMOVAL - SPEC 2106

YEAR PROJECT		TOTAL COST	COST PER MILE	TOTAL QUANTITY	QUANTITY PER MILE	UNIT PRICE	LENGTH	RURAL/ URBAN
85 112-104-01 CLOQUET	TOT	3,538 3,538	23,587 23,587	7,075 7,075	47,167 47,167	.50 .50	0.15 0.15	1 1
85 118-171-03 DULUTH	TOT	51,892 51,892	60,340 60,340	12,973 12,973	15,085 15,085	4.00 4.00	0.86 0.86	1 1
85 134-020-05 INTERNATIONAL FALLS	TOT	297 297	76 76	33 33	08 08	9.00 9.00	3.90 3.90	1 1
85 171-206-02 VIRGINIA	TOT	7,718 7,718	29,685 29,685	1,715 1,715	6,596 6,596	4.50 4.50	0.26 0.26	1 1
DISTRICT 1	TOT	63,445	12,272	21,796	4,216	2.91	5.17	1
85 115-143-01 CROOKSTON	TOT	53 53	883 883	10 10	167 167	5.30 5.30	0.06 0.06	1 1
DISTRICT 2	TOT	53	883	10	167	5.30	0.06	1
85 108-124-05 85 108-112-03 85 108-109-01 BRAINERD	TOT	7,444 14,188 5,478 27,110	16,183 101,343 78,257 40,463	6,588 3,362 1,298 11,248	14,322 24,014 18,543 16,788	1.13 4.22 4.22 2.41	0.46 0.14 0.07 0.67	1 1 1 1
DISTRICT 3	TOT	27,110	40,463	11,248	16,788	2.41	0.67	1
85 144-104-08 MOORHEAD	TOT	5,044 5,044	14,411 14,411	1,940 1,940	5,543 5,543	2.60 2.60	0.35 0.35	1 1
DISTRICT 4	TOT	5,044	14,411	1,940	5,543	2.60	0.35	1
85 103-134-04 ANOKA	TOT	6,960 6,960	46,400 46,400	3,480 3,480	23,200 23,200	2.00 2.00	0.15 0.15	1 1
85 107-020-24 BLOOMINGTON	TOT	83,133 83,133	831,330 831,330	18,474 18,474	184,740 184,740	4.50 4.50	0.10 0.10	1 1
85 110-102-07 BROOKLYN PARK	TOT	615 615	4,100 4,100	338 338	2,253 2,253	1.82 1.82	0.15 0.15	1 1
85 116-318-03 85 116-324-02 CRYSTAL	TOT	150 625 775	1,071 4,808 2,870	25 500 525	179 3,846 1,944	6.00 1.25 1.48	0.14 0.13 0.27	1 1 1
85 141-226-02		8,548	61,057	3,053	21,807	2.80	0.14	1

CONC. PAVEMENT REMOVAL - SPEC 2106

YEAR PROJECT		TOTAL COST	COST PER MILE	TOTAL QUANTITY	QUANTITY PER MILE	UNIT PRICE	LENGTH	RURAL/ URBAN
85 141-199-06 MINNEAPOLIS	TOT	63,650 72,198	56,830 57,300	12,730 15,783	11,366 12,526	5.00 4.57	1.12 1.26	1 1
85 142-010-08 MINNETONKA	TOT	376 376	1,074 1,074	47 47	134 134	8.00 8.00	0.35 0.35	1 1
85 189-107-07 MAPLE GROVE	TOT	3,313 3,313	1,937 1,937	818 818	478 478	4.05 4.05	1.71 1.71	1 1
85 198-108-05 ANDOVER	TOT	320 320	711 711	40 40	89 89	8.00 8.00	0.45 0.45	1 1
DISTRICT 5	TOT	167,690	37,768	39,505	8,898	4.24	4.44	1
85 104-020-06 85 104-107-02 AUSTIN	TOT	551 4,176 4,727	1,124 83,520 8,754	175 1,200 1,375	357 24,000 2,546	3.15 3.48 3.44	0.49 0.05 0.54	1 1 1
85 149-118-01 85 149-101-01 NORTHFIELD	TOT	10,800 14,350 25,150	90,000 84,412 86,724	4,320 4,100 8,420	36,000 24,118 29,034	2.50 3.50 2.99	0.12 0.17 0.29	1 1 1
85 153-112-01 85 153-126-01 OWATONNA	TOT	20 198 218	39 2,200 363	04 55 59	08 611 98	5.00 3.60 3.69	0.51 0.09 0.60	1 1 1
85 159-119-01 ROCHESTER	TOT	61 61	210 210	16 16	55 55	3.81 3.81	0.29 0.29	1 1
DISTRICT 6	TOT	30,156	17,533	9,870	5,738	3.06	1.72	1
85 137-010-15 85 137-020-11 85 137-119-02 MANKATO	TOT	1,107 3,678 10,904 15,689	1,419 2,256 21,380 5,373	123 613 2,077 2,813	158 376 4,073 963	9.00 6.00 5.25 5.58	0.78 1.63 0.51 2.92	1 1 1 1
85 148-112-02 85 148-101-02 NEW ULM	TOT	232 372 604	800 1,617 1,162	116 186 302	400 809 581	2.00 2.00 2.00	0.29 0.23 0.52	1 1 1
85 172-102-02 WASECA	TOT	250 250	543 543	50 50	109 109	5.00 5.00	0.46 0.46	1 1
85 177-111-01 WORTHINGTON	TOT	6,394 6,394	16,826 16,826	1,421 1,421	3,739 3,739	4.50 4.50	0.38 0.38	1 1
DISTRICT 7	TOT	22,937	5,359	4,586	1,071	5.00	4.28	1

M.S.A.S UNIT PRICE STUDY

PAGE 23

CONC. PAVEMENT REMOVAL - SPEC 2106

YEAR PROJECT		TOTAL COST	COST PER MILE	TOTAL QUANTITY	QUANTITY PER MILE	UNIT PRICE	LENGTH	RURAL/ URBAN
85 135-104-01		44,581	89,162	17,691	35,382	2.52	0.50	1
LITCHFIELD	TOT	44,581	89,162	17,691	35,382	2.52	0.50	1
85 139-107-01		400	1,600	100	400	4.00	0.25	1
MARSHALL	TOT	400	1,600	100	400	4.00	0.25	1
85 154-102-05		270	771	54	154	5.00	0.35	1
85 154-107-03		485	6,929	97	1,386	5.00	0.07	1
PIPESTONE	TOT	755	1,798	151	360	5.00	0.42	1
DISTRICT 8	TOT	45,736	39,091	17,942	15,335	2.55	1.17	1
85 164-179-09		12,540	52,250	4,560	19,000	2.75	0.24	1
85 164-132-27		1,850	2,403	500	649	3.70	0.77	1
85 164-117-08		1,460	5,840	400	1,600	3.65	0.25	1
85 164-020-55		51,013	60,015	4,790	5,635	10.65	0.85	1
85 164-232-15		40,150	26,414	11,000	7,237	3.65	1.52	1
85 164-217-10		11,610	8,600	2,150	1,593	5.40	1.35	1
85 164-204-03		8,303	51,894	3,321	20,756	2.50	0.16	1
85 164-198-18		5,375	3,759	1,075	752	5.00	1.43	1
ST PAUL	TOT	132,301	20,137	27,796	4,231	4.76	6.57	1
85 179-108-04		100	74	05	04	20.00	1.35	1
BURNSVILLE	TOT	100	74	05	04	20.00	1.35	1
DISTRICT 9	TOT	132,401	16,717	27,801	3,510	4.76	7.92	1
STATE TOTAL		494,572	19,184	134,698	5,225	3.67	25.78	1

CONC. PAVEMENT REMOVAL - SPEC 2106

TOTALS		TOTAL COST	COST PER MILE	TOTAL QUANTITY	QUANTITY PER MILE	UNIT PRICE	LENGTH	RURAL/ URBAN
CLOQUET	TOT	3,538	23,587	7,075	47,167	.50	0.15	1
DULUTH	TOT	51,892	60,340	12,973	15,085	4.00	0.86	1
INTERNATIONAL FALLS	TOT	297	76	33	08	9.00	3.90	1
VIRGINIA	TOT	7,718	29,685	1,715	6,596	4.50	0.26	1
DISTRICT 1	TOT	63,445	12,272	21,796	4,216	2.91	5.17	1
CROOKSTON	TOT	53	883	10	167	5.30	0.06	1
DISTRICT 2	TOT	53	883	10	167	5.30	0.06	1
BRAINERD	TOT	27,110	40,463	11,248	16,788	2.41	0.67	1
DISTRICT 3	TOT	27,110	40,463	11,248	16,788	2.41	0.67	1
MOORHEAD	TOT	5,044	14,411	1,940	5,543	2.60	0.35	1
DISTRICT 4	TOT	5,044	14,411	1,940	5,543	2.60	0.35	1
ANOKA	TOT	6,960	46,400	3,480	23,200	2.00	0.15	1
BLOOMINGTON	TOT	83,133	831,330	18,474	184,740	4.50	0.10	1
BROOKLYN PARK	TOT	615	4,100	338	2,253	1.82	0.15	1
CRYSTAL	TOT	775	2,870	525	1,944	1.48	0.27	1
MINNEAPOLIS	TOT	72,198	57,300	15,783	12,526	4.57	1.26	1
MINNETONKA	TOT	376	1,074	47	134	8.00	0.35	1
MAPLE GROVE	TOT	3,313	1,937	818	478	4.05	1.71	1
ANDOVER	TOT	320	711	40	89	8.00	0.45	1
DISTRICT 5	TOT	167,690	37,768	39,505	8,898	4.24	4.44	1
AUSTIN	TOT	4,727	8,754	1,375	2,546	3.44	0.54	1
NORTHFIELD	TOT	25,150	86,724	8,420	29,034	2.99	0.29	1
OWATONNA	TOT	218	363	59	98	3.69	0.60	1
ROCHESTER	TOT	61	210	16	55	3.81	0.29	1
DISTRICT 6	TOT	30,156	17,533	9,870	5,738	3.06	1.72	1
MANKATO	TOT	15,689	5,373	2,813	963	5.58	2.92	1
NEW ULM	TOT	604	1,162	302	581	2.00	0.52	1
WASECA	TOT	250	543	50	109	5.00	0.46	1
WORTHINGTON	TOT	6,394	16,826	1,421	3,739	4.50	0.38	1
DISTRICT 7	TOT	22,937	5,359	4,586	1,071	5.00	4.28	1
LITCHFIELD	TOT	44,581	89,162	17,691	35,382	2.52	0.50	1
MARSHALL	TOT	400	1,600	100	400	4.00	0.25	1
PIPESTONE	TOT	755	1,798	151	360	5.00	0.42	1
DISTRICT 8	TOT	45,736	39,091	17,942	15,335	2.55	1.17	1
ST PAUL	TOT	132,301	20,137	27,796	4,231	4.76	6.57	1
BURNSVILLE	TOT	100	74	05	04	20.00	1.35	1
DISTRICT 9	TOT	132,401	16,717	27,801	3,510	4.76	7.92	1
STATE TOTAL		494,572	19,184	134,698	5,225	3.67	25.78	1

M.S.A.S UNIT PRICE STUDY

PAGE 25

CONC. PAVEMENT REMOVAL - SPEC 2106

TOTALS		TOTAL COST	COST PER MILE	TOTAL QUANTITY	QUANTITY PER MILE	UNIT PRICE	LENGTH	RURAL/ URBAN
DISTRICT 1	TOT	63,445	12,272	21,796	4,216	2.91	5.17	1
DISTRICT 2	TOT	53	883	10	167	5.30	0.06	1
DISTRICT 3	TOT	27,110	40,463	11,248	16,788	2.41	0.67	1
DISTRICT 4	TOT	5,044	14,411	1,940	5,543	2.60	0.35	1
DISTRICT 5	TOT	167,690	37,768	39,505	8,898	4.24	4.44	1
DISTRICT 6	TOT	30,156	17,533	9,870	5,738	3.06	1.72	1
DISTRICT 7	TOT	22,937	5,359	4,586	1,071	5.00	4.28	1
DISTRICT 8	TOT	45,736	39,091	17,942	15,335	2.55	1.17	1
DISTRICT 9	TOT	132,401	16,717	27,801	3,510	4.76	7.92	1
STATE TOTAL		494,572	19,184	134,698	5,225	3.67	25.78	1

TREE REMOVAL - SPEC 2101

YEAR PROJECT		TOTAL COST	COST PER MILE	TOTAL QUANTITY	QUANTITY PER MILE	UNIT PRICE	LENGTH	RURAL/ URBAN
85	112-104-01	100	667	02	13	50.00	0.15	1
	CLOQUET	TOT 100	667	02	13	50.00	0.15	1
85	118-171-03	720	837	09	10	80.00	0.86	1
	DULUTH	TOT 720	837	09	10	80.00	0.86	1
85	171-206-02	510	1,962	03	12	170.00	0.26	1
	VIRGINIA	TOT 510	1,962	03	12	170.00	0.26	1
	DISTRICT 1	TOT 1,330	1,047	14	11	95.00	1.27	1
85	170-010-02	820	745	04	04	205.00	1.10	1
	THIEF RIVER FALLS	TOT 820	745	04	04	205.00	1.10	1
	DISTRICT 2	TOT 820	745	04	04	205.00	1.10	1
85	108-112-03	300	2,143	02	14	150.00	0.14	1
	BRAINERD	TOT 300	2,143	02	14	150.00	0.14	1
85	162-123-09	240	1,846	03	23	80.00	0.13	1
85	162-138-06	4,320	3,429	54	43	80.00	1.26	1
	ST CLOUD	TOT 4,560	3,281	57	41	80.00	1.39	1
	DISTRICT 3	TOT 4,860	3,176	59	39	82.37	1.53	1
85	144-131-01	720	2,880	03	12	240.00	0.25	1
	MOORHEAD	TOT 720	2,880	03	12	240.00	0.25	1
85	190-020-04	200	385	02	04	100.00	0.52	1
	MORRIS	TOT 200	385	02	04	100.00	0.52	1
	DISTRICT 4	TOT 920	1,195	05	06	184.00	0.77	1
85	106-109-03	340	459	17	23	20.00	0.74	1
	BLAINE	TOT 340	459	17	23	20.00	0.74	1
85	114-114-03	1,350	860	10	06	135.00	1.57	1
	COON RAPIDS	TOT 1,350	860	10	06	135.00	1.57	1
85	116-318-03	450	3,214	03	21	150.00	0.14	1
	CRYSTAL	TOT 450	3,214	03	21	150.00	0.14	1
85	128-332-02	6,490	17,079	22	58	295.00	0.38	1
85	128-330-03	1,665	11,893	45	321	37.00	0.14	1
	GOLDEN VALLEY	TOT 8,155	15,683	67	129	121.72	0.52	1

M.S.A.S UNIT PRICE STUDY

PAGE 2

TREE REMOVAL - SPEC 2101

YEAR	PROJECT	TOTAL COST	COST PER MILE	TOTAL QUANTITY	QUANTITY PER MILE	UNIT PRICE	LENGTH	RURAL/ URBAN
85	142-128-04	2,997	11,988	09	36	333.00	0.25	1
85	142-010-08	4,800	13,714	32	91	150.00	0.35	1
	MINNETONKA	TOT	7,797	41	68	190.17	0.60	1
85	152-102-08	2,800	1,489	40	21	70.00	1.88	1
	ORONO	TOT	2,800	40	21	70.00	1.88	1
85	189-102-03	3,000	9,091	30	91	100.00	0.33	1
	MAPLE GROVE	TOT	3,000	30	91	100.00	0.33	1
85	193-110-01	1,700	3,778	10	22	170.00	0.45	1
	CHAMPLIN	TOT	1,700	10	22	170.00	0.45	1
85	198-108-05	6,400	14,222	80	178	80.00	0.45	1
	ANDOVER	TOT	6,400	80	178	80.00	0.45	1
85	203-105-02	360	310	03	03	120.00	1.16	1
	EAST BETHEL	TOT	360	03	03	120.00	1.16	1
	DISTRICT 5	TOT	32,352	301	38	107.48	7.84	1
85	104-020-06	975	1,990	05	10	195.00	0.49	1
	AUSTIN	TOT	975	05	10	195.00	0.49	1
85	159-119-01	2,943	10,148	18	62	163.50	0.29	1
85	159-115-03	100	625	02	13	50.00	0.16	1
	ROCHESTER	TOT	3,043	20	44	152.15	0.45	1
	DISTRICT 6	TOT	4,018	25	27	160.72	0.94	1
85	165-114-01	870	5,800	03	20	290.00	0.15	1
85	165-107-02	870	2,486	03	09	290.00	0.35	1
	ST PETER	TOT	1,740	06	12	290.00	0.50	1
85	172-102-02	900	1,957	06	13	150.00	0.46	1
	WASECA	TOT	900	06	13	150.00	0.46	1
85	177-111-01	480	1,263	06	16	80.00	0.38	1
	WORTHINGTON	TOT	480	06	16	80.00	0.38	1
	DISTRICT 7	TOT	3,120	18	13	173.33	1.34	1
85	130-134-01	1,000	4,545	02	09	500.00	0.22	1
	HASTINGS	TOT	1,000	02	09	500.00	0.22	1
85	140-103-06	2,175	7,500	18	62	120.83	0.29	1
	MENDOTA HEIGHTS	TOT	2,175	18	62	120.83	0.29	1

TREE REMOVAL - SPEC 2101

YEAR PROJECT		TOTAL COST	COST PER MILE	TOTAL QUANTITY	QUANTITY PER MILE	UNIT PRICE	LENGTH	RURAL/ URBAN
85 160-225-02		480	1,371	04	11	120.00	0.35	1
ROSEVILLE	TOT	480	1,371	04	11	120.00	0.35	1
85 164-253-01		300	625	01	02	300.00	0.48	1
85 164-214-10		880	652	08	06	110.00	1.35	1
85 164-117-08		1,225	4,900	07	28	175.00	0.25	1
ST PAUL	TOT	2,405	1,156	16	08	150.31	2.08	1
85 178-103-08		24,956	39,613	950	1,508	26.27	0.63	1
INVER GROVE HEIGHTS	TOT	24,956	39,613	950	1,508	26.27	0.63	1
85 179-108-04		1,750	1,296	14	10	125.00	1.35	1
BURNSVILLE	TOT	1,750	1,296	14	10	125.00	1.35	1
85 186-104-05		2,400	7,059	12	35	200.00	0.34	1
APPLE VALLEY	TOT	2,400	7,059	12	35	200.00	0.34	1
DISTRICT 9	TOT	35,166	6,686	1,016	193	34.61	5.26	1
STATE TOTAL		82,586	4,119	1,442	72	57.27	20.05	1

M.S.A.S UNIT PRICE STUDY

PAGE 4

TREE REMOVAL - SPEC 2101

TOTALS		TOTAL COST	COST PER MILE	TOTAL QUANTITY	QUANTITY PER MILE	UNIT PRICE	LENGTH	RURAL/ URBAN
CLOQUET	TOT	100	667	02	13	50.00	0.15	1
DULUTH	TOT	720	837	09	10	80.00	0.86	1
VIRGINIA	TOT	510	1,962	03	12	170.00	0.26	1
DISTRICT 1	TOT	1,330	1,047	14	11	95.00	1.27	1
THIEF RIVER FALLS	TOT	820	745	04	04	205.00	1.10	1
DISTRICT 2	TOT	820	745	04	04	205.00	1.10	1
BRAINERD	TOT	300	2,143	02	14	150.00	0.14	1
ST CLOUD	TOT	4,560	3,281	57	41	80.00	1.39	1
DISTRICT 3	TOT	4,860	3,176	59	39	82.37	1.53	1
MOORHEAD	TOT	720	2,880	03	12	240.00	0.25	1
MORRIS	TOT	200	385	02	04	100.00	0.52	1
DISTRICT 4	TOT	920	1,195	05	06	184.00	0.77	1
BLAINE	TOT	340	459	17	23	20.00	0.74	1
COON RAPIDS	TOT	1,350	860	10	06	135.00	1.57	1
CRYSTAL	TOT	450	3,214	03	21	150.00	0.14	1
GOLDEN VALLEY	TOT	8,155	15,683	67	129	121.72	0.52	1
MINNETONKA	TOT	7,797	12,995	41	68	190.17	0.60	1
ORONO	TOT	2,800	1,489	40	21	70.00	1.88	1
MAPLE GROVE	TOT	3,000	9,091	30	91	100.00	0.33	1
CHAMPLIN	TOT	1,700	3,778	10	22	170.00	0.45	1
ANDOVER	TOT	6,400	14,222	80	178	80.00	0.45	1
EAST BETHEL	TOT	360	310	03	03	120.00	1.16	1
DISTRICT 5	TOT	32,352	4,127	301	38	107.48	7.84	1
AUSTIN	TOT	975	1,990	05	10	195.00	0.49	1
ROCHESTER	TOT	3,043	6,762	20	44	152.15	0.45	1
DISTRICT 6	TOT	4,018	4,274	25	27	160.72	0.94	1
ST PETER	TOT	1,740	3,480	06	12	290.00	0.50	1
WASECA	TOT	900	1,957	06	13	150.00	0.46	1
WORTHINGTON	TOT	480	1,263	06	16	80.00	0.38	1
DISTRICT 7	TOT	3,120	2,328	18	13	173.33	1.34	1
HASTINGS	TOT	1,000	4,545	02	09	500.00	0.22	1
MENDOTA HEIGHTS	TOT	2,175	7,500	18	62	120.83	0.29	1
ROSEVILLE	TOT	480	1,371	04	11	120.00	0.35	1
ST PAUL	TOT	2,405	1,156	16	08	150.31	2.08	1
INVER GROVE HEIGHTS	TOT	24,956	39,613	950	1,508	26.27	0.63	1
BURNSVILLE	TOT	1,750	1,296	14	10	125.00	1.35	1
APPLE VALLEY	TOT	2,400	7,059	12	35	200.00	0.34	1
DISTRICT 9	TOT	35,166	6,686	1,016	193	34.61	5.26	1
STATE TOTAL		82,586	4,119	1,442	72	57.27	20.05	1

TREE REMOVAL - SPEC 2101

TOTALS		TOTAL COST	COST PER MILE	TOTAL QUANTITY	QUANTITY PER MILE	UNIT PRICE	LENGTH	RURAL/ URBAN
DISTRICT 1	TOT	1,330	1,047	14	11	95.00	1.27	1
DISTRICT 2	TOT	820	745	04	04	205.00	1.10	1
DISTRICT 3	TOT	4,860	3,176	59	39	82.37	1.53	1
DISTRICT 4	TOT	920	1,195	05	06	184.00	0.77	1
DISTRICT 5	TOT	32,352	4,127	301	38	107.48	7.84	1
DISTRICT 6	TOT	4,018	4,274	25	27	160.72	0.94	1
DISTRICT 7	TOT	3,120	2,328	18	13	173.33	1.34	1
DISTRICT 9	TOT	35,166	6,686	1,016	193	34.61	5.26	1
STATE TOTAL		82,586	4,119	1,442	72	57.27	20.05	1

M.S.A.S UNIT PRICE STUDY

PAGE 26

SUBBASE CLASS 4 - SPEC 2211

YEAR PROJECT		TOTAL COST	COST PER MILE	TOTAL QUANTITY	QUANTITY PER MILE	UNIT PRICE	LENGTH	RURAL/ URBAN
85 137-119-02		46,980	92,118	7,371	14,453	6.37	0.51	1
MANKATO	TOT	46,980	92,118	7,371	14,453	6.37	0.51	1
85 165-114-01		3,444	22,960	984	6,560	3.50	0.15	1
85 165-107-02		17,150	49,000	4,900	14,000	3.50	0.35	1
ST PETER	TOT	20,594	41,188	5,884	11,768	3.50	0.50	1
DISTRICT 7	TOT	67,574	66,905	13,255	13,124	5.10	1.01	1
85 160-225-02		24,960	71,314	4,800	13,714	5.20	0.35	1
ROSEVILLE	TOT	24,960	71,314	4,800	13,714	5.20	0.35	1
85 164-020-55		12,000	14,118	874	1,028	13.73	0.85	1
85 164-232-15		10,350	6,809	2,093	1,377	4.95	1.52	1
85 164-204-03		8,987	56,169	946	5,913	9.50	0.16	1
ST PAUL	TOT	31,337	12,386	3,913	1,547	8.01	2.53	1
DISTRICT 9	TOT	56,297	19,548	8,713	3,025	6.46	2.88	1
STATE TOTAL		123,871	31,843	21,968	5,647	5.64	3.89	1

SUBBASE CLASS 4 - SPEC 2211

TOTALS		TOTAL COST	COST PER MILE	TOTAL QUANTITY	QUANTITY PER MILE	UNIT PRICE	LENGTH	RURAL/ URBAN
MANKATO	TOT	46,980	92,118	7,371	14,453	6.37	0.51	1
ST PETER	TOT	20,594	41,188	5,884	11,768	3.50	0.50	1
DISTRICT 7	TOT	67,574	66,905	13,255	13,124	5.10	1.01	1
ROSEVILLE	TOT	24,960	71,314	4,800	13,714	5.20	0.35	1
ST PAUL	TOT	31,337	12,386	3,913	1,547	8.01	2.53	1
DISTRICT 9	TOT	56,297	19,548	8,713	3,025	6.46	2.88	1
STATE TOTAL		123,871	31,843	21,968	5,647	5.64	3.89	1

M.S.A.S UNIT PRICE STUDY

PAGE 28

SUBBASE CLASS 4 - SPEC 2211

TOTALS		TOTAL COST	COST PER MILE	TOTAL QUANTITY	QUANTITY PER MILE	UNIT PRICE	LENGTH	RURAL/ URBAN
DISTRICT 7	TOT	67,574	66,905	13,255	13,124	5.10	1.01	1
DISTRICT 9	TOT	56,297	19,548	8,713	3,025	6.46	2.88	1
STATE TOTAL		123,871	31,843	21,968	5,647	5.64	3.89	1

GRAVEL BASE CLASS 5 - SPEC 2212

YEAR PROJECT		TOTAL COST	COST PER MILE	TOTAL QUANTITY	QUANTITY PER MILE	UNIT PRICE	LENGTH	RURAL/ URBAN
85 112-136-01		20,892	83,568	3,006	12,024	6.95	0.25	1
85 112-104-01		11,098	73,987	1,572	10,480	7.06	0.15	1
CLOQUET	TOT	31,990	79,975	4,578	11,445	6.99	0.40	1
85 118-103-03		600	30,000	140	7,000	4.29	0.02	1
85 118-171-03		4,340	5,047	586	681	7.41	0.86	1
DULUTH	TOT	4,940	5,614	726	825	6.80	0.88	1
85 122-220-04		1,440	1,548	340	366	4.24	0.93	1
EVELETH	TOT	1,440	1,548	340	366	4.24	0.93	1
85 131-203-01		115,570	81,387	25,400	17,887	4.55	1.42	1
HIBBING	TOT	115,570	81,387	25,400	17,887	4.55	1.42	1
85 134-020-05		12,952	3,321	3,060	785	4.23	3.90	1
INTERNATIONAL FALLS	TOT	12,952	3,321	3,060	785	4.23	3.90	1
85 171-206-02		4,005	15,404	1,009	3,881	3.97	0.26	1
VIRGINIA	TOT	4,005	15,404	1,009	3,881	3.97	0.26	1
DISTRICT 1	TOT	170,897	21,938	35,113	4,507	4.87	7.79	1
85 105-108-04		12,188	52,991	1,625	7,065	7.50	0.23	1
BEMIDJI	TOT	12,188	52,991	1,625	7,065	7.50	0.23	1
85 115-133-01		14,508	96,720	3,047	20,313	4.76	0.15	1
85 115-143-01		5,148	85,800	1,081	18,017	4.76	0.06	1
CROOKSTON	TOT	19,656	93,600	4,128	19,657	4.76	0.21	1
85 119-102-05		5,888	18,994	875	2,823	6.73	0.31	1
EAST GRAND FORKS	TOT	5,888	18,994	875	2,823	6.73	0.31	1
DISTRICT 2	TOT	37,732	50,309	6,628	8,837	5.69	0.75	1
85 108-109-01		1,624	23,200	232	3,314	7.00	0.07	1
85 108-136-01		12,005	27,919	1,715	3,988	7.00	0.43	1
85 108-124-05		13,258	28,822	1,894	4,117	7.00	0.46	1
85 108-112-03		4,151	29,650	593	4,236	7.00	0.14	1
BRAINERD	TOT	31,038	28,216	4,434	4,031	7.00	1.10	1
85 162-020-10		20,728	129,550	4,897	30,606	4.23	0.16	1
85 162-138-06		84,140	66,778	19,346	15,354	4.35	1.26	1
85 162-123-09		6,494	49,954	1,493	11,485	4.35	0.13	1
ST CLOUD	TOT	111,362	71,846	25,736	16,604	4.33	1.55	1
DISTRICT 3	TOT	142,400	53,736	30,170	11,385	4.72	2.65	1

M.S.A.S UNIT PRICE STUDY

PAGE 30

GRAVEL BASE CLASS 5 - SPEC 2212

YEAR PROJECT		TOTAL COST	COST PER MILE	TOTAL QUANTITY	QUANTITY PER MILE	UNIT PRICE	LENGTH	RURAL/ URBAN
85 126-050-14 FERGUS FALLS	TOT	7,614 7,614	36,257 36,257	1,442 1,442	6,867 6,867	5.28 5.28	0.21 0.21	1 1
85 190-020-04 MORRIS	TOT	43,400 43,400	83,462 83,462	11,718 11,718	22,535 22,535	3.70 3.70	0.52 0.52	1 1
DISTRICT 4	TOT	51,014	69,882	13,160	18,027	3.88	0.73	1
85 103-134-04 ANOKA	TOT	10,407 10,407	69,380 69,380	1,770 1,770	11,800 11,800	5.88 5.88	0.15 0.15	1 1
85 106-109-03 BLAINE	TOT	34,465 34,465	46,574 46,574	5,650 5,650	7,635 7,635	6.10 6.10	0.74 0.74	1 1
85 107-020-24 BLOOMINGTON	TOT	104,787 104,787	1,047,870 1,047,870	17,683 17,683	176,830 176,830	5.93 5.93	0.10 0.10	1 1
85 109-124-01 BROOKLYN CENTER	TOT	13,500 13,500	28,125 28,125	2,160 2,160	4,500 4,500	6.25 6.25	0.48 0.48	1 1
85 110-110-05 BROOKLYN PARK	TOT	120,566 120,566	86,119 86,119	24,406 24,406	17,433 17,433	4.94 4.94	1.40 1.40	1 1
85 114-114-03 COON RAPIDS	TOT	80,500 80,500	51,274 51,274	14,000 14,000	8,917 8,917	5.75 5.75	1.57 1.57	1 1
85 116-318-03 CRYSTAL	TOT	10,230 10,230	73,071 73,071	1,559 1,559	11,136 11,136	6.56 6.56	0.14 0.14	1 1
85 127-340-02 FRIDLEY	TOT	10,290 10,290	36,750 36,750	1,400 1,400	5,000 5,000	7.35 7.35	0.28 0.28	1 1
85 141-226-02 MINNEAPOLIS	TOT	25,972 25,972	185,514 185,514	3,578 3,578	25,557 25,557	7.26 7.26	0.14 0.14	1 1
85 142-020-15 85 142-128-04 MINNETONKA	TOT	98,072 27,818 125,890	217,938 111,272 179,843	20,147 5,142 25,289	44,771 20,568 36,127	4.87 5.41 4.98	0.45 0.25 0.70	1 1 1
85 152-102-08 85 152-101-07 ORDNO	TOT	1,820 2,730 4,550	968 2,167 1,449	200 300 500	106 238 159	9.10 9.10 9.10	1.88 1.26 3.14	1 1 1
85 155-161-05 PLYMOUTH	TOT	157,151 157,151	124,723 124,723	29,119 29,119	23,110 23,110	5.40 5.40	1.26 1.26	1 1
85 166-108-01 SHAKOPEE	TOT	34,800 34,800	35,152 35,152	5,800 5,800	5,859 5,859	6.00 6.00	0.99 0.99	1 1
85 182-107-03 85 182-101-07		4,070 5,250	81,400 131,250	550 700	11,000 17,500	7.40 7.50	0.05 0.04	1 1

GRAVEL BASE CLASS 5 - SPEC 2212

YEAR PROJECT		TOTAL COST	COST PER MILE	TOTAL QUANTITY	QUANTITY PER MILE	UNIT PRICE	LENGTH	RURAL/ URBAN
NEW HOPE	TOT	9,320	103,556	1,250	13,889	7.46	0.09	1
85 189-107-07		7,397	4,326	1,189	695	6.22	1.71	1
85 189-102-03		6,123	18,555	939	2,845	6.52	0.33	1
85 189-115-02		11,040	14,919	2,268	3,065	4.87	0.74	1
85 189-103-02		21,815	90,896	4,659	19,413	4.68	0.24	1
MAPLE GROVE	TOT	46,375	15,356	9,055	2,998	5.12	3.02	1
85 193-010-01		899	7,492	165	1,375	5.45	0.12	1
85 193-110-01		15,380	34,178	2,822	6,271	5.45	0.45	1
85 193-020-01		1,363	11,358	250	2,083	5.45	0.12	1
CHAMPLIN	TOT	17,642	25,568	3,237	4,691	5.45	0.69	1
85 196-010-04		11,700	48,750	1,950	8,125	6.00	0.24	1
CHASKA	TOT	11,700	48,750	1,950	8,125	6.00	0.24	1
85 197-101-02		58,986	47,569	49,329	39,781	1.20	1.24	1
HAM LAKE	TOT	58,986	47,569	49,329	39,781	1.20	1.24	1
85 198-108-05		19,500	43,333	3,250	7,222	6.00	0.45	1
ANDOVER	TOT	19,500	43,333	3,250	7,222	6.00	0.45	1
85 199-110-01		10,800	37,241	1,800	6,207	6.00	0.29	1
RAMSEY	TOT	10,800	37,241	1,800	6,207	6.00	0.29	1
85 203-105-02		46,230	39,853	6,700	5,776	6.90	1.16	1
EAST BETHEL	TOT	46,230	39,853	6,700	5,776	6.90	1.16	1
DISTRICT 5	TOT	953,661	52,198	209,485	11,466	4.55	18.27	1
85 104-107-02		2,346	46,920	425	8,500	5.52	0.05	1
85 104-020-06		22,990	46,918	3,800	7,755	6.05	0.49	1
AUSTIN	TOT	25,336	46,919	4,225	7,824	6.00	0.54	1
85 125-118-02		11,772	61,958	1,811	9,532	6.50	0.19	1
85 125-125-03		12,069	63,521	1,690	8,895	7.14	0.19	1
FARIBAULT	TOT	23,841	62,739	3,501	9,213	6.81	0.38	1
85 149-101-01		20,800	122,353	3,200	18,824	6.50	0.17	1
85 149-118-01		25,350	211,250	3,900	32,500	6.50	0.12	1
NORTHFIELD	TOT	46,150	159,138	7,100	24,483	6.50	0.29	1
85 153-112-01		26,051	51,080	3,803	7,457	6.85	0.51	1
85 153-124-04		526	1,948	90	333	5.84	0.27	1
85 153-126-01		4,007	44,522	585	6,500	6.85	0.09	1
OWATONNA	TOT	30,584	35,154	4,478	5,147	6.83	0.87	1
DISTRICT 6	TOT	125,911	60,534	19,304	9,281	6.52	2.08	1

M.S.A.S UNIT PRICE STUDY

PAGE 32

GRAVEL BASE CLASS 5 - SPEC 2212

YEAR PROJECT		TOTAL COST	COST PER MILE	TOTAL QUANTITY	QUANTITY PER MILE	UNIT PRICE	LENGTH	RURAL/ URBAN
85 137-010-15 MANKATO	TOT	8,106	10,392	1,247	1,599	6.50	0.78	1
		8,106	10,392	1,247	1,599	6.50	0.78	1
85 148-101-02		8,007	34,813	2,550	11,087	3.14	0.23	1
85 148-112-02		9,235	31,845	2,941	10,141	3.14	0.29	1
NEW ULM	TOT	17,242	33,158	5,491	10,560	3.14	0.52	1
85 165-107-02		22,757	65,020	6,460	18,457	3.52	0.35	1
85 165-114-01		3,514	23,427	1,004	6,693	3.50	0.15	1
ST PETER	TOT	26,271	52,542	7,464	14,928	3.52	0.50	1
85 172-102-02		25,890	56,283	4,315	9,380	6.00	0.46	1
WASECA	TOT	25,890	56,283	4,315	9,380	6.00	0.46	1
85 177-111-01		442	1,163	64	168	6.91	0.38	1
WORTHINGTON	TOT	442	1,163	64	168	6.91	0.38	1
85 205-114-01		6,525	9,596	1,305	1,919	5.00	0.68	1
LUVERNE	TOT	6,525	9,596	1,305	1,919	5.00	0.68	1
DISTRICT 7	TOT	84,476	25,445	19,886	5,990	4.25	3.32	1
85 133-117-06		4,704	11,760	1,120	2,800	4.20	0.40	1
85 133-108-02		14,994	74,970	3,060	15,300	4.90	0.20	1
HUTCHINSON	TOT	19,698	32,830	4,180	6,967	4.71	0.60	1
85 135-104-01		32,329	64,658	6,806	13,612	4.75	0.50	1
LITCHFIELD	TOT	32,329	64,658	6,806	13,612	4.75	0.50	1
85 139-107-01		4,660	18,640	623	2,492	7.48	0.25	1
MARSHALL	TOT	4,660	18,640	623	2,492	7.48	0.25	1
85 154-102-05		42	120	06	17	7.00	0.35	1
PIPESTONE	TOT	42	120	06	17	7.00	0.35	1
85 175-010-01		3,333	18,517	406	2,256	8.21	0.18	1
WILLMAR	TOT	3,333	18,517	406	2,256	8.21	0.18	1
DISTRICT 8	TOT	60,062	31,948	12,021	6,394	5.00	1.88	1
85 130-134-01		24,520	111,455	5,793	26,332	4.23	0.22	1
HASTINGS	TOT	24,520	111,455	5,793	26,332	4.23	0.22	1
85 140-103-06		14,175	48,879	2,100	7,241	6.75	0.29	1
MENDOTA HEIGHTS	TOT	14,175	48,879	2,100	7,241	6.75	0.29	1
85 146-229-04		3,850	7,700	700	1,400	5.50	0.50	1
MOUNDS VIEW	TOT	3,850	7,700	700	1,400	5.50	0.50	1

GRAVEL BASE CLASS 5 - SPEC 2212

YEAR PROJECT		TOTAL COST	COST PER MILE	TOTAL QUANTITY	QUANTITY PER MILE	UNIT PRICE	LENGTH	RURAL/ URBAN
85 160-225-02		20,676	59,074	2,600	7,429	7.95	0.35	1
ROSEVILLE	TOT	20,676	59,074	2,600	7,429	7.95	0.35	1
85 164-179-09		8,350	34,792	1,578	6,575	5.29	0.24	1
85 164-232-15		12,750	8,388	2,410	1,586	5.29	1.52	1
85 164-198-18		37,664	26,338	6,471	4,525	5.82	1.43	1
85 164-253-01		9,690	20,188	2,391	4,981	4.05	0.48	1
ST PAUL	TOT	68,454	18,652	12,850	3,501	5.33	3.67	1
85 167-258-02		14,943	114,946	1,928	14,831	7.75	0.13	1
SHOREVIEW	TOT	14,943	114,946	1,928	14,831	7.75	0.13	1
85 169-119-01		34,800	112,258	5,481	17,681	6.35	0.31	1
STILLWATER	TOT	34,800	112,258	5,481	17,681	6.35	0.31	1
85 178-103-07		19,690	25,244	4,475	5,737	4.40	0.78	1
85 178-103-09		880	936	200	213	4.40	0.94	1
85 178-103-08		29,136	46,248	5,995	9,516	4.86	0.63	1
INVER GROVE HEIGHTS	TOT	49,706	21,151	10,670	4,540	4.66	2.35	1
85 179-113-09		31,075	46,381	21,357	31,876	1.46	0.67	1
85 179-108-04		113,204	83,855	23,009	17,044	4.92	1.35	1
85 179-113-11		96,653	333,286	23,290	80,310	4.15	0.29	1
85 179-101-06		20,250	119,118	4,500	26,471	4.50	0.17	1
85 179-113-07		81,267	165,851	21,386	43,645	3.80	0.49	1
BURNSVILLE	TOT	342,449	115,303	93,542	31,496	3.66	2.97	1
85 180-103-01		135,794	47,815	31,580	11,120	4.30	2.84	1
COTTAGE GROVE	TOT	135,794	47,815	31,580	11,120	4.30	2.84	1
85 186-105-01		14,250	38,514	3,800	10,270	3.75	0.37	1
85 186-104-05		155,002	455,888	38,272	112,565	4.05	0.34	1
85 186-102-04		41,205	54,217	12,300	16,184	3.35	0.76	1
APPLE VALLEY	TOT	210,457	143,168	54,372	36,988	3.87	1.47	1
85 187-102-01		450	2,813	30	188	15.00	0.16	1
ARDEN HILLS	TOT	450	2,813	30	188	15.00	0.16	1
85 188-010-01		17,662	14,017	3,532	2,803	5.00	1.26	1
LAKEVILLE	TOT	17,662	14,017	3,532	2,803	5.00	1.26	1
85 195-110-01		18,843	72,473	2,855	10,981	6.60	0.26	1
85 195-119-01		36,940	57,719	5,597	8,745	6.60	0.64	1
EAGAN	TOT	55,783	61,981	8,452	9,391	6.60	0.90	1
85 200-101-03		31,490	98,406	4,700	14,688	6.70	0.32	1
LITTLE CANADA	TOT	31,490	98,406	4,700	14,688	6.70	0.32	1
DISTRICT 9	TOT	1,025,209	57,791	238,330	13,435	4.30	17.74	1
STATE TOTAL		2,651,362	48,023	584,097	10,580	4.54	55.21	1

M.S.A.S UNIT PRICE STUDY

PAGE 34

GRAVEL BASE CLASS 5 - SPEC 2212

TOTALS		TOTAL COST	COST PER MILE	TOTAL QUANTITY	QUANTITY PER MILE	UNIT PRICE	LENGTH	RURAL/ URBAN
CLOQUET	TOT	31,990	79,975	4,578	11,445	6.99	0.40	1
DULUTH	TOT	4,940	5,614	726	825	6.80	0.88	1
EVELETH	TOT	1,440	1,548	340	366	4.24	0.93	1
HIBBING	TOT	115,570	81,387	25,400	17,887	4.55	1.42	1
INTERNATIONAL FALLS	TOT	12,952	3,321	3,060	785	4.23	3.90	1
VIRGINIA	TOT	4,005	15,404	1,009	3,881	3.97	0.26	1
DISTRICT 1	TOT	170,897	21,938	35,113	4,507	4.87	7.79	1
BEMIDJI	TOT	12,188	52,991	1,625	7,065	7.50	0.23	1
CROOKSTON	TOT	19,656	93,600	4,128	19,657	4.76	0.21	1
EAST GRAND FORKS	TOT	5,888	18,994	875	2,823	6.73	0.31	1
DISTRICT 2	TOT	37,732	50,309	6,628	8,837	5.69	0.75	1
BRAINERD	TOT	31,038	28,216	4,434	4,031	7.00	1.10	1
ST CLOUD	TOT	111,362	71,846	25,736	16,604	4.33	1.55	1
DISTRICT 3	TOT	142,400	53,736	30,170	11,385	4.72	2.65	1
FERGUS FALLS	TOT	7,614	36,257	1,442	6,867	5.28	0.21	1
MORRIS	TOT	43,400	83,462	11,718	22,535	3.70	0.52	1
DISTRICT 4	TOT	51,014	69,882	13,160	18,027	3.88	0.73	1
ANOKA	TOT	10,407	69,380	1,770	11,800	5.88	0.15	1
BLAINE	TOT	34,465	46,574	5,650	7,635	6.10	0.74	1
BLOOMINGTON	TOT	104,787	1,047,870	17,683	176,830	5.93	0.10	1
BROOKLYN CENTER	TOT	13,500	28,125	2,160	4,500	6.25	0.48	1
BROOKLYN PARK	TOT	120,566	86,119	24,406	17,433	4.94	1.40	1
COON RAPIDS	TOT	80,500	51,274	14,000	8,917	5.75	1.57	1
CRYSTAL	TOT	10,230	73,071	1,559	11,136	6.56	0.14	1
FRIDLEY	TOT	10,290	36,750	1,400	5,000	7.35	0.28	1
MINNEAPOLIS	TOT	25,972	185,514	3,578	25,557	7.26	0.14	1
MINNETONKA	TOT	125,890	179,843	25,289	36,127	4.98	0.70	1
ORONO	TOT	4,550	1,449	500	159	9.10	3.14	1
PLYMOUTH	TOT	157,151	124,723	29,119	23,110	5.40	1.26	1
SHAKOPEE	TOT	34,800	35,152	5,800	5,859	6.00	0.99	1
NEW HOPE	TOT	9,320	103,556	1,250	13,889	7.46	0.09	1
MAPLE GROVE	TOT	46,375	15,356	9,055	2,998	5.12	3.02	1
CHAMPLIN	TOT	17,642	25,568	3,237	4,691	5.45	0.69	1
CHASKA	TOT	11,700	48,750	1,950	8,125	6.00	0.24	1
HAM LAKE	TOT	58,986	47,569	49,329	39,781	1.20	1.24	1
ANDOVER	TOT	19,500	43,333	3,250	7,222	6.00	0.45	1
RAMSEY	TOT	10,800	37,241	1,800	6,207	6.00	0.29	1
EAST BETHEL	TOT	46,230	39,853	6,700	5,776	6.90	1.16	1
DISTRICT 5	TOT	953,661	52,198	209,485	11,466	4.55	18.27	1
AUSTIN	TOT	25,336	46,919	4,225	7,824	6.00	0.54	1
FARIBAULT	TOT	23,841	62,739	3,501	9,213	6.81	0.38	1
NORTHFIELD	TOT	46,150	159,138	7,100	24,483	6.50	0.29	1
OWATONNA	TOT	30,584	35,154	4,478	5,147	6.83	0.87	1
DISTRICT 6	TOT	125,911	60,534	19,304	9,281	6.52	2.08	1
MANKATO	TOT	8,106	10,392	1,247	1,599	6.50	0.78	1
NEW ULM	TOT	17,242	33,158	5,491	10,560	3.14	0.52	1

GRAVEL BASE CLASS 5 - SPEC 2212

TOTALS		TOTAL COST	COST PER MILE	TOTAL QUANTITY	QUANTITY PER MILE	UNIT PRICE	LENGTH	RURAL/ URBAN
ST PETER	TOT	26,271	52,542	7,464	14,928	3.52	0.50	1
WASECA	TOT	25,890	56,283	4,315	9,380	6.00	0.46	1
WORTHINGTON	TOT	442	1,163	64	168	6.91	0.38	1
LIVERNE	TOT	6,525	9,596	1,305	1,919	5.00	0.68	1
DISTRICT 7	TOT	84,476	25,445	19,886	5,990	4.25	3.32	1
HUTCHINSON	TOT	19,698	32,830	4,180	6,967	4.71	0.60	1
LITCHFIELD	TOT	32,329	64,658	6,806	13,612	4.75	0.50	1
MARSHALL	TOT	4,660	18,640	623	2,492	7.48	0.25	1
PIPESTONE	TOT	42	120	06	17	7.00	0.35	1
WILLMAR	TOT	3,333	18,517	406	2,256	8.21	0.18	1
DISTRICT 8	TOT	60,062	31,948	12,021	6,394	5.00	1.88	1
HASTINGS	TOT	24,520	111,455	5,793	26,332	4.23	0.22	1
MENDOTA HEIGHTS	TOT	14,175	48,879	2,100	7,241	6.75	0.29	1
MOUNDS VIEW	TOT	3,850	7,700	700	1,400	5.50	0.50	1
ROSEVILLE	TOT	20,676	59,074	2,600	7,429	7.95	0.35	1
ST PAUL	TOT	68,454	18,652	12,850	3,501	5.33	3.67	1
SHOREVIEW	TOT	14,943	114,946	1,928	14,831	7.75	0.13	1
STILLWATER	TOT	34,800	112,258	5,481	17,681	6.35	0.31	1
INVER GROVE HEIGHTS	TOT	49,706	21,151	10,670	4,540	4.66	2.35	1
BURNSVILLE	TOT	342,449	115,303	93,542	31,496	3.66	2.97	1
COTTAGE GROVE	TOT	135,794	47,815	31,580	11,120	4.30	2.84	1
APPLE VALLEY	TOT	210,457	143,168	54,372	36,988	3.87	1.47	1
ARDEN HILLS	TOT	450	2,813	30	188	15.00	0.16	1
LAKEVILLE	TOT	17,662	14,017	3,532	2,803	5.00	1.26	1
EAGAN	TOT	55,783	61,981	8,452	9,391	6.60	0.90	1
LITTLE CANADA	TOT	31,490	98,406	4,700	14,688	6.70	0.32	1
DISTRICT 9	TOT	1,025,209	57,791	238,330	13,435	4.30	17.74	1
STATE TOTAL		2,651,362	48,023	584,097	10,580	4.54	55.21	1

M.S.A.S UNIT PRICE STUDY

PAGE 36

GRAVEL BASE CLASS 5 - SPEC 2212

TOTALS		TOTAL COST	COST PER MILE	TOTAL QUANTITY	QUANTITY PER MILE	UNIT PRICE	LENGTH	RURAL/ URBAN
DISTRICT 1	TOT	170,897	21,938	35,113	4,507	4.87	7.79	1
DISTRICT 2	TOT	37,732	50,309	6,628	8,837	5.69	0.75	1
DISTRICT 3	TOT	142,400	53,736	30,170	11,385	4.72	2.65	1
DISTRICT 4	TOT	51,014	69,882	13,160	18,027	3.88	0.73	1
DISTRICT 5	TOT	953,661	52,198	209,485	11,466	4.55	18.27	1
DISTRICT 6	TOT	125,911	60,534	19,304	9,281	6.52	2.08	1
DISTRICT 7	TOT	84,476	25,445	19,886	5,990	4.25	3.32	1
DISTRICT 8	TOT	60,062	31,948	12,021	6,394	5.00	1.88	1
DISTRICT 9	TOT	1,025,209	57,791	238,330	13,435	4.30	17.74	1
STATE TOTAL		2,651,362	48,023	584,097	10,580	4.54	55.21	1

BITUMINOUS SURFACE - SPEC 2331

YEAR PROJECT		TOTAL COST	COST PER MILE	TOTAL QUANTITY	QUANTITY PER MILE	UNIT PRICE	LENGTH	RURAL/ URBAN
85 112-136-01		11,967	47,868	494	1,976	24.22	0.25	1
85 112-104-01		13,197	87,980	524	3,493	25.19	0.15	1
CLOQUET	TOT	25,164	62,910	1,018	2,545	24.72	0.40	1
85 118-171-03		68,340	79,465	1,572	1,828	43.47	0.86	1
DULUTH	TOT	68,340	79,465	1,572	1,828	43.47	0.86	1
85 131-203-01		78,679	55,408	3,955	2,785	19.89	1.42	1
HIBBING	TOT	78,679	55,408	3,955	2,785	19.89	1.42	1
85 134-020-05		85,705	21,976	3,204	822	26.75	3.90	1
INTERNATIONAL FALLS	TOT	85,705	21,976	3,204	822	26.75	3.90	1
85 171-206-02		4,415	16,981	142	546	31.09	0.26	1
VIRGINIA	TOT	4,415	16,981	142	546	31.09	0.26	1
DISTRICT 1	TOT	262,303	38,348	9,891	1,446	26.52	6.84	1
85 105-108-04		17,425	75,761	607	2,639	28.71	0.23	1
BEMIDJI	TOT	17,425	75,761	607	2,639	28.71	0.23	1
85 115-133-01		20,402	136,013	882	5,880	23.13	0.15	1
85 115-143-01		7,063	117,717	309	5,150	22.86	0.06	1
CROOKSTON	TOT	27,465	130,786	1,191	5,671	23.06	0.21	1
85 170-010-02		356,836	324,396	16,095	14,632	22.17	1.10	1
85 170-010-03		23,215	30,149	1,025	1,331	22.65	0.77	1
THIEF RIVER FALLS	TOT	380,051	203,236	17,120	9,155	22.20	1.87	1
DISTRICT 2	TOT	424,941	183,957	18,918	8,190	22.46	2.31	1
85 108-109-01		3,479	49,700	161	2,300	21.61	0.07	1
85 108-112-03		8,932	63,800	413	2,950	21.63	0.14	1
85 108-124-05		17,030	37,022	792	1,722	21.50	0.46	1
85 108-136-01		25,651	59,653	1,197	2,784	21.43	0.43	1
BRAINERD	TOT	55,092	50,084	2,563	2,330	21.50	1.10	1
85 162-020-10		58,427	365,169	2,471	15,444	23.65	0.16	1
85 162-123-09		9,375	72,115	650	5,000	14.42	0.13	1
85 162-138-06		131,693	104,518	9,100	7,222	14.47	1.26	1
ST CLOUD	TOT	199,495	128,706	12,221	7,885	16.32	1.55	1
DISTRICT 3	TOT	254,587	96,071	14,784	5,579	17.22	2.65	1
85 126-050-14		22,735	108,262	1,080	5,143	21.05	0.21	1
FERGUS FALLS	TOT	22,735	108,262	1,080	5,143	21.05	0.21	1

M.S.A.S UNIT PRICE STUDY

PAGE 38

BITUMINOUS SURFACE - SPEC 2331

YEAR PROJECT		TOTAL COST	COST PER MILE	TOTAL QUANTITY	QUANTITY PER MILE	UNIT PRICE	LENGTH	RURAL/ URBAN
85 144-131-01		132,054	528,216	6,202	24,808	21.29	0.25	1
85 144-104-08		84,541	241,546	4,128	11,794	20.48	0.35	1
MOORHEAD	TOT	216,595	360,992	10,330	17,217	20.97	0.60	1
85 190-020-04		58,835	113,144	2,170	4,173	27.11	0.52	1
MORRIS	TOT	58,835	113,144	2,170	4,173	27.11	0.52	1
DISTRICT 4	TOT	298,165	224,184	13,580	10,211	21.96	1.33	1
85 103-134-04		30,616	204,107	1,379	9,193	22.20	0.15	1
ANOKA	TOT	30,616	204,107	1,379	9,193	22.20	0.15	1
85 106-109-03		34,660	46,838	1,330	1,797	26.06	0.74	1
BLAINE	TOT	34,660	46,838	1,330	1,797	26.06	0.74	1
85 107-419-09		23,516	235,160	1,187	11,870	19.81	0.10	1
85 107-020-24		143,748	1,437,480	6,045	60,450	23.78	0.10	1
BLOOMINGTON	TOT	167,264	836,320	7,232	36,160	23.13	0.20	1
85 109-126-01		19,073	39,735	805	1,677	23.69	0.48	1
BROOKLYN CENTER	TOT	19,073	39,735	805	1,677	23.69	0.48	1
85 110-102-07		18,019	120,127	817	5,447	22.06	0.15	1
85 110-110-05		273,927	195,662	13,666	9,761	20.04	1.40	1
85 110-103-07		72,461	362,305	3,825	19,125	18.94	0.20	1
BROOKLYN PARK	TOT	364,407	208,233	18,308	10,462	19.90	1.75	1
85 114-114-03		99,269	63,229	5,320	3,389	18.66	1.57	1
COON RAPIDS	TOT	99,269	63,229	5,320	3,389	18.66	1.57	1
85 116-318-03		10,397	74,264	418	2,986	24.87	0.14	1
CRYSTAL	TOT	10,397	74,264	418	2,986	24.87	0.14	1
85 128-332-02		69,797	183,676	3,135	8,250	22.26	0.38	1
85 128-330-03		28,502	203,586	1,235	8,821	23.08	0.14	1
GOLDEN VALLEY	TOT	98,299	189,037	4,370	8,404	22.49	0.52	1
85 141-226-02		43,269	309,064	1,799	12,850	24.05	0.14	1
85 141-318-05		13,710	274,200	585	11,700	23.44	0.05	1
85 141-199-06		36,522	32,609	1,487	1,328	24.56	1.12	1
MINNEAPOLIS	TOT	93,501	71,375	3,871	2,955	24.15	1.31	1
85 142-010-08		144,034	411,526	7,335	20,957	19.64	0.35	1
85 142-128-04		35,528	142,112	1,604	6,416	22.15	0.25	1
85 142-020-15		90,749	201,664	4,180	9,289	21.71	0.45	1
MINNETONKA	TOT	270,311	257,439	13,119	12,494	20.60	1.05	1
85 152-102-08		5,293	2,815	263	140	20.13	1.88	1
85 152-101-07		4,293	3,407	258	205	16.64	1.26	1
ORONO	TOT	9,586	3,053	521	166	18.40	3.14	1

BITUMINOUS SURFACE - SPEC 2331

YEAR PROJECT		TOTAL COST	COST PER MILE	TOTAL QUANTITY	QUANTITY PER MILE	UNIT PRICE	LENGTH	RURAL/ URBAN
85 155-161-05 PLYMOUTH	TOT	149,541 149,541	118,683 118,683	9,626 9,626	7,640 7,640	15.54 15.54	1.26 1.26	1 1
85 166-108-01 SHAKOPEE	TOT	36,890 36,890	37,263 37,263	1,800 1,800	1,818 1,818	20.49 20.49	0.99 0.99	1 1
85 182-101-07 85 182-107-03 NEW HOPE	TOT	9,475 7,598 17,073	236,875 151,960 189,700	345 270 615	8,625 5,400 6,833	27.46 28.14 27.76	0.04 0.05 0.09	1 1 1
85 189-103-02 85 189-107-07 85 189-115-02 85 189-102-03 MAPLE GROVE	TOT	24,573 23,793 20,400 13,918 82,684	102,388 13,914 27,568 42,176 27,379	1,087 1,101 741 598 3,527	4,529 644 1,001 1,812 1,168	22.61 21.61 27.53 23.27 23.44	0.24 1.71 0.74 0.33 3.02	1 1 1 1 1
85 193-110-01 85 193-010-01 85 193-020-01 CHAMPLIN	TOT	27,773 2,307 1,012 31,092	61,718 19,225 8,433 45,061	1,283 113 42 1,438	2,851 942 350 2,084	21.65 20.42 24.10 21.62	0.45 0.12 0.12 0.69	1 1 1 1
85 196-010-04 CHASKA	TOT	22,180 22,180	92,417 92,417	690 690	2,875 2,875	32.14 32.14	0.24 0.24	1 1
85 197-101-02 HAM LAKE	TOT	45,120 45,120	36,387 36,387	2,068 2,068	1,668 1,668	21.82 21.82	1.24 1.24	1 1
85 198-108-05 ANDOVER	TOT	15,480 15,480	34,400 34,400	720 720	1,600 1,600	21.50 21.50	0.45 0.45	1 1
85 199-110-01 RAMSEY	TOT	22,830 22,830	78,724 78,724	1,000 1,000	3,448 3,448	22.83 22.83	0.29 0.29	1 1
DISTRICT 5	TOT	1,620,273	83,865	78,157	4,045	20.73	19.32	1
85 125-118-02 85 125-125-03 FARIBAULT	TOT	42,225 28,350 70,575	222,237 149,211 185,724	1,610 881 2,491	8,474 4,637 6,555	26.23 32.18 28.33	0.19 0.19 0.38	1 1 1
85 149-101-01 85 149-118-01 NORTHFIELD	TOT	18,188 19,880 38,068	106,988 165,667 131,269	760 750 1,510	4,471 6,250 5,207	23.93 26.51 25.21	0.17 0.12 0.29	1 1 1
85 176-113-02 WINONA	TOT	60,213 60,213	67,655 67,655	1,900 1,900	2,135 2,135	31.69 31.69	0.89 0.89	1 1
DISTRICT 6	TOT	168,856	108,241	5,901	3,783	28.61	1.56	1
85 137-119-02		9,626	18,875	428	839	22.49	0.51	1

M.S.A.S UNIT PRICE STUDY

PAGE 40

BITUMINOUS SURFACE - SPEC 2331

YEAR PROJECT		TOTAL COST	COST PER MILE	TOTAL QUANTITY	QUANTITY PER MILE	UNIT PRICE	LENGTH	RURAL/ URBAN
85 137-020-11		229,848	141,011	8,833	5,419	26.02	1.63	1
85 137-010-15		23,692	30,374	1,312	1,682	18.06	0.78	1
MANKATO	TOT	263,166	90,125	10,573	3,621	24.89	2.92	1
85 148-101-02		24,117	104,857	1,182	5,139	20.40	0.23	1
85 148-112-02		20,553	70,872	858	2,959	23.95	0.29	1
NEW ULM	TOT	44,670	85,904	2,040	3,923	21.90	0.52	1
85 150-116-01		30,170	33,899	1,260	1,416	23.94	0.89	1
NORTH MANKATO	TOT	30,170	33,899	1,260	1,416	23.94	0.89	1
85 165-114-01		4,600	30,667	200	1,333	23.00	0.15	1
85 165-107-02		29,380	83,943	1,270	3,629	23.13	0.35	1
ST PETER	TOT	33,980	67,960	1,470	2,940	23.12	0.50	1
85 172-102-02		91,418	198,735	4,437	9,646	20.60	0.46	1
WASECA	TOT	91,418	198,735	4,437	9,646	20.60	0.46	1
85 177-111-01		123,659	325,418	4,391	11,555	28.16	0.38	1
WORTHINGTON	TOT	123,659	325,418	4,391	11,555	28.16	0.38	1
85 205-114-01		202,830	298,279	10,315	15,169	19.66	0.68	1
LUVERNE	TOT	202,830	298,279	10,315	15,169	19.66	0.68	1
DISTRICT 7	TOT	789,893	124,393	34,486	5,431	22.90	6.35	1
85 133-117-06		51,215	128,038	2,270	5,675	22.56	0.40	1
85 133-108-02		19,055	95,275	804	4,020	23.70	0.20	1
HUTCHINSON	TOT	70,270	117,117	3,074	5,123	22.86	0.60	1
85 135-104-01		46,839	93,678	1,881	3,762	24.90	0.50	1
LITCHFIELD	TOT	46,839	93,678	1,881	3,762	24.90	0.50	1
85 139-107-01		49,912	199,648	1,758	7,032	28.39	0.25	1
85 139-120-04		27,450	249,545	1,040	9,455	26.39	0.11	1
MARSHALL	TOT	77,362	214,894	2,798	7,772	27.65	0.36	1
85 154-102-05		20,057	57,306	565	1,614	35.50	0.35	1
85 154-107-03		8,156	116,514	222	3,171	36.74	0.07	1
PIPESTONE	TOT	28,213	67,174	787	1,874	35.85	0.42	1
85 175-010-01		7,678	42,656	195	1,083	39.37	0.18	1
WILLMAR	TOT	7,678	42,656	195	1,083	39.37	0.18	1
DISTRICT 8	TOT	230,362	111,826	8,735	4,240	26.37	2.06	1
85 130-134-01		11,866	53,936	586	2,664	20.25	0.22	1
HASTINGS	TOT	11,866	53,936	586	2,664	20.25	0.22	1

BITUMINOUS SURFACE - SPEC 2331

YEAR PROJECT		TOTAL COST	COST PER MILE	TOTAL QUANTITY	QUANTITY PER MILE	UNIT PRICE	LENGTH	RURAL/ URBAN
85 140-103-06 MENDOTA HEIGHTS	TOT	33,477	115,438	1,580	5,448	21.19	0.29	1
		33,477	115,438	1,580	5,448	21.19	0.29	1
85 146-229-04 MOUNDS VIEW	TOT	77,675	155,350	4,025	8,050	19.30	0.50	1
		77,675	155,350	4,025	8,050	19.30	0.50	1
85 160-225-02 ROSEVILLE	TOT	16,130	46,086	851	2,431	18.95	0.35	1
		16,130	46,086	851	2,431	18.95	0.35	1
85 164-253-01		48,720	101,500	2,310	4,813	21.09	0.48	1
85 164-214-10		27,066	20,049	1,660	1,230	16.30	1.35	1
85 164-232-15		154,535	101,668	8,900	5,855	17.36	1.52	1
85 164-132-27		57,566	74,761	3,385	4,396	17.01	0.77	1
85 164-179-09		32,500	135,417	1,860	7,750	17.47	0.24	1
85 164-198-18		12,177	8,515	767	536	15.88	1.43	1
85 164-204-03		26,143	163,394	1,587	9,919	16.47	0.16	1
85 164-020-55		176,951	208,178	9,715	11,429	18.21	0.85	1
85 164-117-08 ST PAUL	TOT	14,718	58,872	850	3,400	17.32	0.25	1
		550,376	78,068	31,034	4,402	17.73	7.05	1
85 167-258-02 SHOREVIEW	TOT	5,828	44,831	250	1,923	23.31	0.13	1
		5,828	44,831	250	1,923	23.31	0.13	1
85 169-119-01 STILLWATER	TOT	54,172	174,748	2,481	8,003	21.83	0.31	1
		54,172	174,748	2,481	8,003	21.83	0.31	1
85 178-103-07 INVER GROVE HEIGHTS	TOT	90,334	115,813	4,950	6,346	18.25	0.78	1
		90,334	115,813	4,950	6,346	18.25	0.78	1
85 179-113-07		38,588	78,751	2,073	4,231	18.61	0.49	1
85 179-108-04		67,113	49,713	3,780	2,800	17.75	1.35	1
85 179-113-09		90,768	135,475	4,710	7,030	19.27	0.67	1
85 179-101-06		14,604	85,906	770	4,529	18.97	0.17	1
85 179-113-11 BURNSVILLE	TOT	93,920	323,862	5,100	17,586	18.42	0.29	1
		304,993	102,691	16,433	5,533	18.56	2.97	1
85 180-103-01 COTTAGE GROVE	TOT	108,707	38,277	5,635	1,984	19.29	2.84	1
		108,707	38,277	5,635	1,984	19.29	2.84	1
85 186-105-01		19,415	52,473	1,100	2,973	17.65	0.37	1
85 186-102-04		40,250	52,961	2,300	3,026	17.50	0.76	1
85 186-104-05 APPLE VALLEY	TOT	174,145	512,191	9,555	28,103	18.23	0.34	1
		233,810	159,054	12,955	8,813	18.05	1.47	1
85 187-102-01 ARDEN HILLS	TOT	5,133	32,081	35	219	146.66	0.16	1
		5,133	32,081	35	219	146.66	0.16	1
85 188-010-01 LAKEVILLE	TOT	495,021	392,874	27,744	22,019	17.84	1.26	1
		495,021	392,874	27,744	22,019	17.84	1.26	1
85 195-110-01		7,857	30,219	441	1,696	17.82	0.26	1
85 195-119-01 EAGAN	TOT	15,567	24,323	866	1,353	17.98	0.64	1
		23,424	26,027	1,307	1,452	17.92	0.90	1

M.S.A.S UNIT PRICE STUDY

PAGE 42

BITUMINOUS SURFACE - SPEC 2331

YEAR PROJECT		TOTAL COST	COST PER MILE	TOTAL QUANTITY	QUANTITY PER MILE	UNIT PRICE	LENGTH	RURAL/ URBAN
DISTRICT 9	TOT	2,010,946	104,573	109,866	5,713	18.30	19.23	1
STATE TOTAL		6,060,326	98,302	294,318	4,774	20.59	61.65	1

BITUMINOUS SURFACE - SPEC 2331

TOTALS		TOTAL COST	COST PER MILE	TOTAL QUANTITY	QUANTITY PER MILE	UNIT PRICE	LENGTH	RURAL/ URBAN
CLOQUET	TOT	25,164	62,910	1,018	2,545	24.72	0.40	1
DULUTH	TOT	68,340	79,465	1,572	1,828	43.47	0.86	1
HIBBING	TOT	78,679	55,408	3,955	2,785	19.89	1.42	1
INTERNATIONAL FALLS	TOT	85,705	21,976	3,204	822	26.75	3.90	1
VIRGINIA	TOT	4,415	16,981	142	546	31.09	0.26	1
DISTRICT 1	TOT	262,303	38,348	9,891	1,446	26.52	6.84	1
BEMIDJI	TOT	17,425	75,761	607	2,639	28.71	0.23	1
CROOKSTON	TOT	27,465	130,786	1,191	5,671	23.06	0.21	1
THIEF RIVER FALLS	TOT	380,051	203,236	17,120	9,155	22.20	1.87	1
DISTRICT 2	TOT	424,941	183,957	18,918	8,190	22.46	2.31	1
BRAINERD	TOT	55,092	50,084	2,563	2,330	21.50	1.10	1
ST CLOUD	TOT	199,495	128,706	12,221	7,885	16.32	1.55	1
DISTRICT 3	TOT	254,587	96,071	14,784	5,579	17.22	2.65	1
FERGUS FALLS	TOT	22,735	108,262	1,080	5,143	21.05	0.21	1
MOORHEAD	TOT	216,595	360,992	10,330	17,217	20.97	0.60	1
MORRIS	TOT	58,835	113,144	2,170	4,173	27.11	0.52	1
DISTRICT 4	TOT	298,165	224,184	13,580	10,211	21.96	1.33	1
ANOKA	TOT	30,616	204,107	1,379	9,193	22.20	0.15	1
BLAINE	TOT	34,660	46,838	1,330	1,797	26.06	0.74	1
BLOOMINGTON	TOT	167,264	836,320	7,232	36,160	23.13	0.20	1
BROOKLYN CENTER	TOT	19,073	39,735	805	1,677	23.69	0.48	1
BROOKLYN PARK	TOT	364,407	208,233	18,308	10,462	19.90	1.75	1
COON RAPIDS	TOT	99,269	63,229	5,320	3,389	18.66	1.57	1
CRYSTAL	TOT	10,397	74,264	418	2,986	24.87	0.14	1
GOLDEN VALLEY	TOT	98,299	189,037	4,370	8,404	22.49	0.52	1
MINNEAPOLIS	TOT	93,501	71,375	3,871	2,955	24.15	1.31	1
MINNETONKA	TOT	270,311	257,439	13,119	12,494	20.60	1.05	1
ORONO	TOT	9,586	3,053	521	166	18.40	3.14	1
PLYMOUTH	TOT	149,541	118,683	9,626	7,640	15.54	1.26	1
SHAKOPEE	TOT	36,890	37,263	1,800	1,818	20.49	0.99	1
NEW HOPE	TOT	17,073	189,700	615	6,833	27.76	0.09	1
MAPLE GROVE	TOT	82,684	27,379	3,527	1,168	23.44	3.02	1
CHAMPLIN	TOT	31,092	45,061	1,438	2,084	21.62	0.69	1
CHASKA	TOT	22,180	92,417	690	2,875	32.14	0.24	1
HAM LAKE	TOT	45,120	36,387	2,068	1,668	21.82	1.24	1
ANDOVER	TOT	15,480	34,400	720	1,600	21.50	0.45	1
RAMSEY	TOT	22,830	78,724	1,000	3,448	22.83	0.29	1
DISTRICT 5	TOT	1,620,273	83,865	78,157	4,045	20.73	19.32	1
FARIBAULT	TOT	70,575	185,724	2,491	6,555	28.33	0.38	1
NORTHFIELD	TOT	38,068	131,269	1,510	5,207	25.21	0.29	1
WINONA	TOT	60,213	67,655	1,900	2,135	31.69	0.89	1
DISTRICT 6	TOT	168,856	108,241	5,901	3,783	28.61	1.56	1
MANKATO	TOT	263,166	90,125	10,573	3,621	24.89	2.92	1
NEW ULM	TOT	44,670	85,904	2,040	3,923	21.90	0.52	1
NORTH MANKATO	TOT	30,170	33,899	1,260	1,416	23.94	0.89	1
ST PETER	TOT	33,980	67,960	1,470	2,940	23.12	0.50	1

M.S.A.S UNIT PRICE STUDY

PAGE 44

BITUMINOUS SURFACE - SPEC 2331

TOTALS		TOTAL COST	COST PER MILE	TOTAL QUANTITY	QUANTITY PER MILE	UNIT PRICE	LENGTH	RURAL/ URBAN
WASECA	TOT	91,418	198,735	4,437	9,646	20.60	0.46	1
WORTHINGTON	TOT	123,659	325,418	4,391	11,555	28.16	0.38	1
LIVERNE	TOT	202,830	298,279	10,315	15,169	19.66	0.68	1
DISTRICT 7	TOT	789,893	124,393	34,486	5,431	22.90	6.35	1
HUTCHINSON	TOT	70,270	117,117	3,074	5,123	22.86	0.60	1
LITCHFIELD	TOT	46,839	93,678	1,881	3,762	24.90	0.50	1
MARSHALL	TOT	77,362	214,894	2,798	7,772	27.65	0.36	1
PIPESTONE	TOT	28,213	67,174	787	1,874	35.85	0.42	1
WILLMAR	TOT	7,678	42,656	195	1,083	39.37	0.18	1
DISTRICT 8	TOT	230,362	111,826	8,735	4,240	26.37	2.06	1
HASTINGS	TOT	11,866	53,936	586	2,664	20.25	0.22	1
MENDOTA HEIGHTS	TOT	33,477	115,438	1,580	5,448	21.19	0.29	1
MOUNDS VIEW	TOT	77,675	155,350	4,025	8,050	19.30	0.50	1
ROSEVILLE	TOT	16,130	46,086	851	2,431	18.95	0.35	1
ST PAUL	TOT	550,376	78,068	31,034	4,402	17.73	7.05	1
SHOREVIEW	TOT	5,828	44,831	250	1,923	23.31	0.13	1
STILLWATER	TOT	54,172	174,748	2,481	8,003	21.83	0.31	1
INVER GROVE HEIGHTS	TOT	90,334	115,813	4,950	6,346	18.25	0.78	1
BURNSVILLE	TOT	304,993	102,691	16,433	5,533	18.56	2.97	1
COTTAGE GROVE	TOT	108,707	38,277	5,635	1,984	19.29	2.84	1
APPLE VALLEY	TOT	233,810	159,054	12,955	8,813	18.05	1.47	1
ARDEN HILLS	TOT	5,133	32,081	35	219	146.66	0.16	1
LAKEVILLE	TOT	495,021	392,874	27,744	22,019	17.84	1.26	1
EAGAN	TOT	23,424	26,027	1,307	1,452	17.92	0.90	1
DISTRICT 9	TOT	2,010,946	104,573	109,866	5,713	18.30	19.23	1
STATE TOTAL		6,060,326	98,302	294,318	4,774	20.59	61.65	1

BITUMINOUS SURFACE - SPEC 2331

TOTALS		TOTAL COST	COST PER MILE	TOTAL QUANTITY	QUANTITY PER MILE	UNIT PRICE	LENGTH	RURAL/ URBAN
DISTRICT 1	TOT	262,303	38,348	9,891	1,446	26.52	6.84	1
DISTRICT 2	TOT	424,941	183,957	18,918	8,190	22.46	2.31	1
DISTRICT 3	TOT	254,587	96,071	14,784	5,579	17.22	2.65	1
DISTRICT 4	TOT	298,165	224,184	13,580	10,211	21.96	1.33	1
DISTRICT 5	TOT	1,620,273	83,865	78,157	4,045	20.73	19.32	1
DISTRICT 6	TOT	168,856	108,241	5,901	3,783	28.61	1.56	1
DISTRICT 7	TOT	789,893	124,393	34,486	5,431	22.90	6.35	1
DISTRICT 8	TOT	230,362	111,826	8,735	4,240	26.37	2.06	1
DISTRICT 9	TOT	2,010,946	104,573	109,866	5,713	18.30	19.23	1
STATE TOTAL		6,060,326	98,302	294,318	4,774	20.59	61.65	1

M.S.A.S UNIT PRICE STUDY

PAGE 46

BITUMINOUS SURFACE - SPEC 2341

YEAR PROJECT		TOTAL COST	COST PER MILE	TOTAL QUANTITY	QUANTITY PER MILE	UNIT PRICE	LENGTH	RURAL/ URBAN
85 112-136-01		13,255	53,020	500	2,000	26.51	0.25	1
85 112-104-01		14,618	97,453	531	3,540	27.53	0.15	1
CLOQUET	TOT	27,873	69,683	1,031	2,578	27.03	0.40	1
85 118-171-03		16,020	18,628	266	309	60.23	0.86	1
DULUTH	TOT	16,020	18,628	266	309	60.23	0.86	1
85 122-220-04		18,210	19,581	784	843	23.23	0.93	1
EVELETH	TOT	18,210	19,581	784	843	23.23	0.93	1
DISTRICT 1	TOT	62,103	28,358	2,081	950	29.84	2.19	1
85 170-010-03		5,726	7,436	204	265	28.07	0.77	1
THIEF RIVER FALLS	TOT	5,726	7,436	204	265	28.07	0.77	1
DISTRICT 2	TOT	5,726	7,436	204	265	28.07	0.77	1
85 108-136-01		22,059	51,300	909	2,114	24.27	0.43	1
85 108-109-01		3,004	42,914	123	1,757	24.42	0.07	1
85 108-112-03		7,707	55,050	315	2,250	24.47	0.14	1
85 108-124-05		14,652	31,852	602	1,309	24.34	0.46	1
BRAINERD	TOT	47,422	43,111	1,949	1,772	24.33	1.10	1
85 162-123-09		3,155	24,269	180	1,385	17.53	0.13	1
85 162-138-06		139,018	110,332	7,615	6,044	18.26	1.26	1
ST CLOUD	TOT	142,173	102,283	7,795	5,608	18.24	1.39	1
DISTRICT 3	TOT	189,595	76,143	9,744	3,913	19.46	2.49	1
85 126-050-14		13,122	62,486	500	2,381	26.24	0.21	1
FERGUS FALLS	TOT	13,122	62,486	500	2,381	26.24	0.21	1
DISTRICT 4	TOT	13,122	62,486	500	2,381	26.24	0.21	1
85 103-134-04		7,408	49,387	212	1,413	34.94	0.15	1
ANOKA	TOT	7,408	49,387	212	1,413	34.94	0.15	1
85 106-109-03		43,925	59,358	1,445	1,953	30.40	0.74	1
BLAINE	TOT	43,925	59,358	1,445	1,953	30.40	0.74	1
85 107-419-09		12,043	120,430	350	3,500	34.41	0.10	1
85 107-020-24		68,525	685,250	2,457	24,570	27.89	0.10	1
BLOOMINGTON	TOT	80,568	402,840	2,807	14,035	28.70	0.20	1
85 109-126-01		16,246	33,846	612	1,275	26.55	0.48	1

BITUMINOUS SURFACE - SPEC 2341

YEAR PROJECT		TOTAL COST	COST PER MILE	TOTAL QUANTITY	QUANTITY PER MILE	UNIT PRICE	LENGTH	RURAL/ URBAN
BROOKLYN CENTER	TOT	16,246	33,846	612	1,275	26.55	0.48	1
85 110-110-05		92,846	66,319	3,993	2,852	23.25	1.40	1
85 110-103-07		23,970	119,850	1,028	5,140	23.32	0.20	1
BROOKLYN PARK	TOT	116,816	73,010	5,021	3,138	23.27	1.60	1
85 114-114-03		98,001	62,421	4,360	2,777	22.48	1.57	1
COON RAPIDS	TOT	98,001	62,421	4,360	2,777	22.48	1.57	1
85 116-324-02		4,425	34,038	159	1,223	27.83	0.13	1
85 116-318-03		11,918	85,129	424	3,029	28.11	0.14	1
CRYSTAL	TOT	16,343	60,530	583	2,159	28.03	0.27	1
85 127-340-02		31,613	112,904	1,115	3,982	28.35	0.28	1
FRIDLEY	TOT	31,613	112,904	1,115	3,982	28.35	0.28	1
85 128-332-02		39,153	103,034	1,585	4,171	24.70	0.38	1
85 128-330-03		19,455	138,964	786	5,614	24.75	0.14	1
GOLDEN VALLEY	TOT	58,608	112,708	2,371	4,560	24.72	0.52	1
85 141-199-06		103,664	92,557	3,766	3,363	27.53	1.12	1
85 141-318-05		4,651	93,020	163	3,260	28.53	0.05	1
MINNEAPOLIS	TOT	108,315	92,577	3,929	3,358	27.57	1.17	1
85 142-117-05		38,906	45,240	1,650	1,919	23.58	0.86	1
85 142-020-15		120,058	266,796	4,851	10,780	24.75	0.45	1
85 142-118-04		27,767	47,874	1,172	2,021	23.69	0.58	1
85 142-010-08		29,888	85,394	998	2,851	29.95	0.35	1
85 142-125-02		33,495	38,063	1,420	1,614	23.59	0.88	1
MINNETONKA	TOT	250,114	80,165	10,091	3,234	24.79	3.12	1
85 152-102-08		58,806	31,280	2,735	1,455	21.50	1.88	1
85 152-101-07		58,097	46,109	2,703	2,145	21.49	1.26	1
ORONO	TOT	116,903	37,230	5,438	1,732	21.50	3.14	1
85 155-161-05		176,373	139,979	7,052	5,597	25.01	1.26	1
PLYMOUTH	TOT	176,373	139,979	7,052	5,597	25.01	1.26	1
85 166-108-01		47,270	47,747	1,900	1,919	24.88	0.99	1
SHAKOPEE	TOT	47,270	47,747	1,900	1,919	24.88	0.99	1
85 182-101-07		3,096	77,400	95	2,375	32.59	0.04	1
85 182-107-03		2,970	59,400	90	1,800	33.00	0.05	1
NEW HOPE	TOT	6,066	67,400	185	2,056	32.79	0.09	1
85 189-102-03		56,805	172,136	2,161	6,548	26.29	0.33	1
85 189-107-07		15,444	9,032	458	268	33.72	1.71	1
85 189-103-02		13,491	56,213	478	1,992	28.22	0.24	1
MAPLE GROVE	TOT	85,740	37,605	3,097	1,358	27.68	2.28	1
85 193-110-01		22,741	50,536	1,037	2,304	21.93	0.45	1
85 193-010-01		1,291	10,758	58	483	22.26	0.12	1
85 193-020-01		1,482	12,350	67	558	22.12	0.12	1

M.S.A.S UNIT PRICE STUDY

PAGE 48

BITUMINOUS SURFACE - SPEC 2341

YEAR PROJECT		TOTAL COST	COST PER MILE	TOTAL QUANTITY	QUANTITY PER MILE	UNIT PRICE	LENGTH	RURAL/ URBAN
CHAMPLIN	TOT	25,514	36,977	1,162	1,684	21.96	0.69	1
85 197-101-02		50,760	40,935	2,068	1,668	24.55	1.24	1
HAM LAKE	TOT	50,760	40,935	2,068	1,668	24.55	1.24	1
85 198-108-05		17,840	39,644	720	1,600	24.78	0.45	1
ANDOVER	TOT	17,840	39,644	720	1,600	24.78	0.45	1
85 199-110-01		20,151	69,486	750	2,586	26.87	0.29	1
RAMSEY	TOT	20,151	69,486	750	2,586	26.87	0.29	1
85 203-105-02		52,605	45,349	2,100	1,810	25.05	1.16	1
EAST BETHEL	TOT	52,605	45,349	2,100	1,810	25.05	1.16	1
DISTRICT 5	TOT	1,427,179	65,799	57,018	2,629	25.03	21.69	1
85 125-118-02		15,732	82,800	468	2,463	33.62	0.19	1
85 125-125-03		15,642	82,326	420	2,211	37.24	0.19	1
FARIBAULT	TOT	31,374	82,563	888	2,337	35.33	0.38	1
85 149-101-01		14,766	86,859	520	3,059	28.40	0.17	1
85 149-118-01		14,445	120,375	515	4,292	28.05	0.12	1
NORTHFIELD	TOT	29,211	100,728	1,035	3,569	28.22	0.29	1
85 159-115-03		29,400	183,750	1,183	7,394	24.85	0.16	1
85 159-119-01		3,306	11,400	117	403	28.26	0.29	1
ROCHESTER	TOT	32,706	72,680	1,300	2,889	25.16	0.45	1
DISTRICT 6	TOT	93,291	83,296	3,223	2,878	28.95	1.12	1
85 137-010-15		3,668	4,703	139	178	26.39	0.78	1
85 137-119-02		6,209	12,175	245	480	25.34	0.51	1
85 137-020-11		303,436	186,157	10,875	6,672	27.90	1.63	1
MANKATO	TOT	313,313	107,299	11,259	3,856	27.83	2.92	1
85 148-101-02		21,155	91,978	863	3,752	24.51	0.23	1
85 148-112-02		28,761	99,176	920	3,172	31.26	0.29	1
NEW ULM	TOT	49,916	95,992	1,783	3,429	28.00	0.52	1
85 150-116-01		72,035	80,938	2,793	3,138	25.79	0.89	1
NORTH MANKATO	TOT	72,035	80,938	2,793	3,138	25.79	0.89	1
85 165-114-01		4,340	28,933	160	1,067	27.13	0.15	1
85 165-107-02		26,968	77,051	1,010	2,886	26.70	0.35	1
ST PETER	TOT	31,308	62,616	1,170	2,340	26.76	0.50	1
85 177-111-01		29,925	78,750	915	2,408	32.70	0.38	1
WORTHINGTON	TOT	29,925	78,750	915	2,408	32.70	0.38	1

BITUMINOUS SURFACE - SPEC 2341

YEAR PROJECT		TOTAL COST	COST PER MILE	TOTAL QUANTITY	QUANTITY PER MILE	UNIT PRICE	LENGTH	RURAL/ URBAN
DISTRICT 7	TOT	496,497	95,297	17,920	3,440	27.71	5.21	1
85 139-120-04		6,911	62,827	195	1,773	35.44	0.11	1
85 139-107-01		16,896	67,584	486	1,944	34.77	0.25	1
MARSHALL	TOT	23,807	66,131	681	1,892	34.96	0.36	1
DISTRICT 8	TOT	23,807	66,131	681	1,892	34.96	0.36	1
85 130-134-01		19,487	88,577	837	3,805	23.28	0.22	1
HASTINGS	TOT	19,487	88,577	837	3,805	23.28	0.22	1
85 140-103-06		24,355	83,983	1,010	3,483	24.11	0.29	1
MENDOTA HEIGHTS	TOT	24,355	83,983	1,010	3,483	24.11	0.29	1
85 146-229-04		64,278	128,556	2,758	5,516	23.31	0.50	1
MOUNDS VIEW	TOT	64,278	128,556	2,758	5,516	23.31	0.50	1
85 160-225-02		22,162	63,320	711	2,031	31.17	0.35	1
ROSEVILLE	TOT	22,162	63,320	711	2,031	31.17	0.35	1
85 164-253-01		22,340	46,542	830	1,729	26.92	0.48	1
85 164-198-18		122,150	85,420	3,491	2,441	34.99	1.43	1
85 164-204-03		8,748	54,675	382	2,388	22.90	0.16	1
85 164-214-10		95,254	70,559	3,795	2,811	25.10	1.35	1
85 164-232-15		113,680	74,789	4,100	2,697	27.73	1.52	1
85 164-117-08		16,430	65,720	600	2,400	27.38	0.25	1
85 164-179-09		5,215	21,729	175	729	29.80	0.24	1
ST PAUL	TOT	383,817	70,685	13,373	2,463	28.70	5.43	1
85 167-253-01		25,865	48,802	1,012	1,909	25.56	0.53	1
85 167-258-02		9,159	70,454	330	2,538	27.75	0.13	1
SHOREVIEW	TOT	35,024	53,067	1,342	2,033	26.10	0.66	1
85 169-119-01		26,787	86,410	1,011	3,261	26.50	0.31	1
STILLWATER	TOT	26,787	86,410	1,011	3,261	26.50	0.31	1
85 178-103-07		53,160	68,154	2,475	3,173	21.48	0.78	1
85 178-103-09		1,485	1,580	50	53	29.70	0.94	1
INVER GROVE HEIGHTS	TOT	54,645	31,770	2,525	1,468	21.64	1.72	1
85 179-113-07		78,705	160,622	3,856	7,869	20.41	0.49	1
85 179-108-04		129,401	95,853	6,039	4,473	21.43	1.35	1
85 179-113-09		96,545	144,097	4,710	7,030	20.50	0.67	1
85 179-101-06		26,401	155,300	1,155	6,794	22.86	0.17	1
85 179-113-11		94,577	326,128	5,090	17,552	18.58	0.29	1
BURNSVILLE	TOT	425,629	143,309	20,850	7,020	20.41	2.97	1
85 180-103-01		102,221	35,993	4,225	1,488	24.19	2.84	1
COTTAGE GROVE	TOT	102,221	35,993	4,225	1,488	24.19	2.84	1

M.S.A.S UNIT PRICE STUDY

PAGE 50

BITUMINOUS SURFACE - SPEC 2341

YEAR PROJECT		TOTAL COST	COST PER MILE	TOTAL QUANTITY	QUANTITY PER MILE	UNIT PRICE	LENGTH	RURAL/ URBAN
85 186-102-04		54,155	71,257	2,700	3,553	20.06	0.76	1
85 186-104-05		110,044	323,659	5,597	16,462	19.66	0.34	1
85 186-105-01		22,885	61,851	1,100	2,973	20.80	0.37	1
APPLE VALLEY	TOT	187,084	127,268	9,397	6,393	19.91	1.47	1
85 188-010-01		19,889	15,785	846	671	23.51	1.26	1
LAKEVILLE	TOT	19,889	15,785	846	671	23.51	1.26	1
85 195-119-01		31,931	49,892	1,471	2,298	21.71	0.64	1
85 195-110-01		16,307	62,719	750	2,885	21.74	0.26	1
EAGAN	TOT	48,238	53,598	2,221	2,468	21.72	0.90	1
85 200-101-03		52,084	162,763	2,240	7,000	23.25	0.32	1
LITTLE CANADA	TOT	52,084	162,763	2,240	7,000	23.25	0.32	1
DISTRICT 9	TOT	1,465,700	76,180	63,346	3,292	23.14	19.24	1
STATE TOTAL		3,777,020	70,890	154,717	2,904	24.41	53.28	1

BITUMINOUS SURFACE - SPEC 2341

TOTALS		TOTAL COST	COST PER MILE	TOTAL QUANTITY	QUANTITY PER MILE	UNIT PRICE	LENGTH	RURAL/ URBAN
CLOQUET	TOT	27,873	69,683	1,031	2,578	27.03	0.40	1
DULUTH	TOT	16,020	18,628	266	309	60.23	0.86	1
EVELETH	TOT	18,210	19,581	784	843	23.23	0.93	1
DISTRICT 1	TOT	62,103	28,358	2,081	950	29.84	2.19	1
THIEF RIVER FALLS	TOT	5,726	7,436	204	265	28.07	0.77	1
DISTRICT 2	TOT	5,726	7,436	204	265	28.07	0.77	1
BRAINERD	TOT	47,422	43,111	1,949	1,772	24.33	1.10	1
ST CLOUD	TOT	142,173	102,283	7,795	5,608	18.24	1.39	1
DISTRICT 3	TOT	189,595	76,143	9,744	3,913	19.46	2.49	1
FERGUS FALLS	TOT	13,122	62,486	500	2,381	26.24	0.21	1
DISTRICT 4	TOT	13,122	62,486	500	2,381	26.24	0.21	1
ANOKA	TOT	7,408	49,387	212	1,413	34.94	0.15	1
BLAINE	TOT	43,925	59,358	1,445	1,953	30.40	0.74	1
BLOOMINGTON	TOT	80,568	402,840	2,807	14,035	28.70	0.20	1
BROOKLYN CENTER	TOT	16,246	33,846	612	1,275	26.55	0.48	1
BROOKLYN PARK	TOT	116,816	73,010	5,021	3,138	23.27	1.60	1
COON RAPIDS	TOT	98,001	62,421	4,360	2,777	22.48	1.57	1
CRYSTAL	TOT	16,343	60,530	583	2,159	28.03	0.27	1
FRIDLEY	TOT	31,613	112,904	1,115	3,982	28.35	0.28	1
GOLDEN VALLEY	TOT	58,608	112,708	2,371	4,560	24.72	0.52	1
MINNEAPOLIS	TOT	108,315	92,577	3,929	3,358	27.57	1.17	1
MINNETONKA	TOT	250,114	80,165	10,091	3,234	24.79	3.12	1
ORONO	TOT	116,903	37,230	5,438	1,732	21.50	3.14	1
PLYMOUTH	TOT	176,373	139,979	7,052	5,597	25.01	1.26	1
SHAKOPEE	TOT	47,270	47,747	1,900	1,919	24.88	0.99	1
NEW HOPE	TOT	6,066	67,400	185	2,056	32.79	0.09	1
MAPLE GROVE	TOT	85,740	37,605	3,097	1,358	27.68	2.28	1
CHAMPLIN	TOT	25,514	36,977	1,162	1,684	21.96	0.69	1
HAM LAKE	TOT	50,760	40,935	2,068	1,668	24.55	1.24	1
ANDOVER	TOT	17,840	39,644	720	1,600	24.78	0.45	1
RAMSEY	TOT	20,151	69,486	750	2,586	26.87	0.29	1
EAST BETHEL	TOT	52,605	45,349	2,100	1,810	25.05	1.16	1
DISTRICT 5	TOT	1,427,179	65,799	57,018	2,629	25.03	21.69	1
FARIBAULT	TOT	31,374	82,563	888	2,337	35.33	0.38	1
NORTHFIELD	TOT	29,211	100,728	1,035	3,569	28.22	0.29	1
ROCHESTER	TOT	32,706	72,680	1,300	2,889	25.16	0.45	1
DISTRICT 6	TOT	93,291	83,296	3,223	2,878	28.95	1.12	1
MANKATO	TOT	313,313	107,299	11,259	3,856	27.83	2.92	1
NEW ULM	TOT	49,916	95,992	1,783	3,429	28.00	0.52	1
NORTH MANKATO	TOT	72,035	80,938	2,793	3,138	25.79	0.89	1
ST PETER	TOT	31,308	62,616	1,170	2,340	26.76	0.50	1
WORTHINGTON	TOT	29,925	78,750	915	2,408	32.70	0.38	1
DISTRICT 7	TOT	496,497	95,297	17,920	3,440	27.71	5.21	1
MARSHALL	TOT	23,807	66,131	681	1,892	34.96	0.36	1
DISTRICT 8	TOT	23,807	66,131	681	1,892	34.96	0.36	1

M.S.A.S UNIT PRICE STUDY

PAGE 52

BITUMINOUS SURFACE - SPEC 2341

TOTALS		TOTAL COST	COST PER MILE	TOTAL QUANTITY	QUANTITY PER MILE	UNIT PRICE	LENGTH	RURAL/ URBAN
HASTINGS	TOT	19,487	88,577	837	3,805	23.28	0.22	1
MENDOTA HEIGHTS	TOT	24,355	83,983	1,010	3,483	24.11	0.29	1
MOUNDS VIEW	TOT	64,278	128,556	2,758	5,516	23.31	0.50	1
ROSEVILLE	TOT	22,162	63,320	711	2,031	31.17	0.35	1
ST PAUL	TOT	383,817	70,685	13,373	2,463	28.70	5.43	1
SHOREVIEW	TOT	35,024	53,067	1,342	2,033	26.10	0.66	1
STILLWATER	TOT	26,787	86,410	1,011	3,261	26.50	0.31	1
INVER GROVE HEIGHTS	TOT	54,645	31,770	2,525	1,468	21.64	1.72	1
BURNSVILLE	TOT	425,629	143,309	20,850	7,020	20.41	2.97	1
COTTAGE GROVE	TOT	102,221	35,993	4,225	1,488	24.19	2.84	1
APPLE VALLEY	TOT	187,084	127,268	9,397	6,393	19.91	1.47	1
LAKEVILLE	TOT	19,889	15,785	846	671	23.51	1.26	1
EAGAN	TOT	48,238	53,598	2,221	2,468	21.72	0.90	1
LITTLE CANADA	TOT	52,084	162,763	2,240	7,000	23.25	0.32	1
DISTRICT 9	TOT	1,465,700	76,180	63,346	3,292	23.14	19.24	1
STATE TOTAL		3,777,020	70,890	154,717	2,904	24.41	53.28	1

BITUMINOUS SURFACE - SPEC 2341

TOTALS		TOTAL COST	COST PER MILE	TOTAL QUANTITY	QUANTITY PER MILE	UNIT PRICE	LENGTH	RURAL/ URBAN
DISTRICT 1	TOT	62,103	28,358	2,081	950	29.84	2.19	1
DISTRICT 2	TOT	5,726	7,436	204	265	28.07	0.77	1
DISTRICT 3	TOT	189,595	76,143	9,744	3,913	19.46	2.49	1
DISTRICT 4	TOT	13,122	62,486	500	2,381	26.24	0.21	1
DISTRICT 5	TOT	1,427,179	65,799	57,018	2,629	25.03	21.69	1
DISTRICT 6	TOT	93,291	83,296	3,223	2,878	28.95	1.12	1
DISTRICT 7	TOT	496,497	95,297	17,920	3,440	27.71	5.21	1
DISTRICT 8	TOT	23,807	66,131	681	1,892	34.96	0.36	1
DISTRICT 9	TOT	1,465,700	76,180	63,346	3,292	23.14	19.24	1
STATE TOTAL		3,777,020	70,890	154,717	2,904	24.41	53.28	1

M.S.A.S UNIT PRICE STUDY

PAGE 54

BITUMINOUS SURFACE - SPEC 2361

YEAR PROJECT		TOTAL COST	COST PER MILE	TOTAL QUANTITY	QUANTITY PER MILE	UNIT PRICE	LENGTH	RURAL/ URBAN
85 118-171-03 DULUTH	TOT	18,120 18,120	21,070 21,070	321 321	373 373	56.45 56.45	0.86 0.86	1 1
85 122-220-04 EVELETH	TOT	37,806 37,806	40,652 40,652	1,292 1,292	1,389 1,389	29.26 29.26	0.93 0.93	1 1
85 131-203-01 HIBBING	TOT	26,105 26,105	18,384 18,384	850 850	599 599	30.71 30.71	1.42 1.42	1 1
85 134-020-05 INTERNATIONAL FALLS	TOT	164,975 164,975	42,301 42,301	5,568 5,568	1,428 1,428	29.63 29.63	3.90 3.90	1 1
85 171-206-02 VIRGINIA	TOT	23,035 23,035	88,596 88,596	623 623	2,396 2,396	36.97 36.97	0.26 0.26	1 1
DISTRICT 1	TOT	270,041	36,641	8,654	1,174	31.20	7.37	1
85 162-020-10		14,798	92,488	426	2,663	34.74	0.16	1
85 162-123-09		5,056	38,892	190	1,462	26.61	0.13	1
85 162-138-06		88,492	70,232	3,260	2,587	27.14	1.26	1
ST CLOUD	TOT	108,346	69,901	3,876	2,501	27.95	1.55	1
DISTRICT 3	TOT	108,346	69,901	3,876	2,501	27.95	1.55	1
85 144-131-01		14,822	59,288	396	1,584	37.43	0.25	1
85 144-104-08		8,289	23,683	310	886	26.74	0.35	1
MOORHEAD	TOT	23,111	38,518	706	1,177	32.74	0.60	1
DISTRICT 4	TOT	23,111	38,518	706	1,177	32.74	0.60	1
85 110-102-07 BROOKLYN PARK	TOT	12,015 12,015	80,100 80,100	386 386	2,573 2,573	31.13 31.13	0.15 0.15	1 1
85 116-324-02 CRYSTAL	TOT	56,854 56,854	437,338 437,338	1,745 1,745	13,423 13,423	32.58 32.58	0.13 0.13	1 1
85 141-199-06		147,926	132,077	4,285	3,826	34.52	1.12	1
85 141-318-05		5,833	116,660	181	3,620	32.23	0.05	1
85 141-226-02		9,500	67,857	265	1,893	35.85	0.14	1
MINNEAPOLIS	TOT	163,259	124,625	4,731	3,611	34.51	1.31	1
85 142-010-08 MINNETONKA	TOT	39,957 39,957	114,163 114,163	1,115 1,115	3,186 3,186	35.84 35.84	0.35 0.35	1 1
DISTRICT 5	TOT	272,085	140,250	7,977	4,112	34.11	1.94	1

BITUMINOUS SURFACE - SPEC 2361

YEAR PROJECT		TOTAL COST	COST PER MILE	TOTAL QUANTITY	QUANTITY PER MILE	UNIT PRICE	LENGTH	RURAL/ URBAN
85 137-119-02 MANKATO	TOT	1,480 1,480	2,902 2,902	36 36	71 71	41.11 41.11	0.51 0.51	1 1
DISTRICT 7	TOT	1,480	2,902	36	71	41.11	0.51	1
85 133-117-06		17,420	43,550	520	1,300	33.50	0.40	1
85 133-108-02 HUTCHINSON	TOT	8,856 26,276	44,280 43,793	246 766	1,230 1,277	36.00 34.30	0.20 0.60	1 1
85 175-010-01 WILLMAR	TOT	23,935 23,935	132,972 132,972	545 545	3,028 3,028	43.92 43.92	0.18 0.18	1 1
DISTRICT 8	TOT	50,211	64,373	1,311	1,681	38.30	0.78	1
85 164-020-55		85,912	101,073	2,370	2,788	36.25	0.85	1
85 164-132-27		41,596	54,021	1,150	1,494	36.17	0.77	1
85 164-179-09		11,892	49,550	300	1,250	39.64	0.24	1
85 164-198-18		109,686	76,703	2,740	1,916	40.03	1.43	1
85 164-204-03 ST PAUL	TOT	8,081 257,167	50,506 74,541	207 6,767	1,294 1,961	39.04 38.00	0.16 3.45	1 1
85 179-113-09 BURNSVILLE	TOT	51,280 51,280	76,537 76,537	1,500 1,500	2,239 2,239	34.19 34.19	0.67 0.67	1 1
85 186-104-05 APPLE VALLEY	TOT	122,356 122,356	359,871 359,871	3,908 3,908	11,494 11,494	31.31 31.31	0.34 0.34	1 1
85 188-010-01 LAKEVILLE	TOT	56,929 56,929	45,182 45,182	1,772 1,772	1,406 1,406	32.13 32.13	1.26 1.26	1 1
DISTRICT 9	TOT	487,732	85,268	13,947	2,438	34.97	5.72	1
STATE TOTAL		1,213,006	65,674	36,507	1,977	33.23	18.47	1

M.S.A.S UNIT PRICE STUDY

PAGE 56

BITUMINOUS SURFACE - SPEC 2361

TOTALS		TOTAL COST	COST PER MILE	TOTAL QUANTITY	QUANTITY PER MILE	UNIT PRICE	LENGTH	RURAL/ URBAN
DULUTH	TOT	18,120	21,070	321	373	56.45	0.86	1
EVELETH	TOT	37,806	40,652	1,292	1,389	29.26	0.93	1
HIBBING	TOT	26,105	18,384	850	599	30.71	1.42	1
INTERNATIONAL FALLS	TOT	164,975	42,301	5,568	1,428	29.63	3.90	1
VIRGINIA	TOT	23,035	88,596	623	2,396	36.97	0.26	1
DISTRICT 1	TOT	270,041	36,641	8,654	1,174	31.20	7.37	1
ST CLOUD	TOT	108,346	69,901	3,876	2,501	27.95	1.55	1
DISTRICT 3	TOT	108,346	69,901	3,876	2,501	27.95	1.55	1
MOORHEAD	TOT	23,111	38,518	706	1,177	32.74	0.60	1
DISTRICT 4	TOT	23,111	38,518	706	1,177	32.74	0.60	1
BROOKLYN PARK	TOT	12,015	80,100	386	2,573	31.13	0.15	1
CRYSTAL	TOT	56,854	437,338	1,745	13,423	32.58	0.13	1
MINNEAPOLIS	TOT	163,259	124,625	4,731	3,611	34.51	1.31	1
MINNETONKA	TOT	39,957	114,163	1,115	3,186	35.84	0.35	1
DISTRICT 5	TOT	272,085	140,250	7,977	4,112	34.11	1.94	1
MANKATO	TOT	1,480	2,902	36	71	41.11	0.51	1
DISTRICT 7	TOT	1,480	2,902	36	71	41.11	0.51	1
HUTCHINSON	TOT	26,276	43,793	766	1,277	34.30	0.60	1
WILLMAR	TOT	23,935	132,972	545	3,028	43.92	0.18	1
DISTRICT 8	TOT	50,211	64,373	1,311	1,681	38.30	0.78	1
ST PAUL	TOT	257,167	74,541	6,767	1,961	38.00	3.45	1
BURNSVILLE	TOT	51,280	76,537	1,500	2,239	34.19	0.67	1
APPLE VALLEY	TOT	122,356	359,871	3,908	11,494	31.31	0.34	1
LAKEVILLE	TOT	56,929	45,182	1,772	1,406	32.13	1.26	1
DISTRICT 9	TOT	487,732	85,268	13,947	2,438	34.97	5.72	1
STATE TOTAL		1,213,006	65,674	36,507	1,977	33.23	18.47	1

BITUMINOUS SURFACE - SPEC 2361

TOTALS		TOTAL COST	COST PER MILE	TOTAL QUANTITY	QUANTITY PER MILE	UNIT PRICE	LENGTH	RURAL/ URBAN
DISTRICT 1	TOT	270,041	36,641	8,654	1,174	31.20	7.37	1
DISTRICT 3	TOT	108,346	69,901	3,876	2,501	27.95	1.55	1
DISTRICT 4	TOT	23,111	38,518	706	1,177	32.74	0.60	1
DISTRICT 5	TOT	272,085	140,250	7,977	4,112	34.11	1.94	1
DISTRICT 7	TOT	1,480	2,902	36	71	41.11	0.51	1
DISTRICT 8	TOT	50,211	64,373	1,311	1,681	38.30	0.78	1
DISTRICT 9	TOT	487,732	85,268	13,947	2,438	34.97	5.72	1
STATE TOTAL		1,213,006	65,674	36,507	1,977	33.23	18.47	1

M.S.A.S UNIT PRICE STUDY

PAGE 66

CURB & GUTTER CONSTRUCTION-SPEC 2531

YEAR	PROJECT	TOTAL COST	COST PER MILE	TOTAL QUANTITY	QUANTITY PER MILE	UNIT PRICE	LENGTH	RURAL/ URBAN
85	112-136-01	18,224	72,896	2,680	10,720	6.80	0.25	1
85	112-104-01	13,169	87,793	2,026	13,507	6.50	0.15	1
	CLOQUET TOT	31,393	78,483	4,706	11,765	6.67	0.40	1
85	118-171-03	95,061	110,536	8,817	10,252	10.78	0.86	1
85	118-103-03	370	18,500	185	9,250	2.00	0.02	1
	DULUTH TOT	95,431	108,444	9,002	10,230	10.60	0.88	1
85	122-220-04	7,936	8,533	992	1,067	8.00	0.93	1
	EVELETH TOT	7,936	8,533	992	1,067	8.00	0.93	1
85	134-020-05	31,268	8,017	3,594	922	8.70	3.90	1
	INTERNATIONAL FALLS TOT	31,268	8,017	3,594	922	8.70	3.90	1
85	171-206-02	19,800	76,154	2,640	10,154	7.50	0.26	1
	VIRGINIA TOT	19,800	76,154	2,640	10,154	7.50	0.26	1
	DISTRICT 1 TOT	185,828	29,172	20,934	3,286	8.88	6.37	1
85	105-108-04	8,353	36,317	1,285	5,587	6.50	0.23	1
	BEMIDJI TOT	8,353	36,317	1,285	5,587	6.50	0.23	1
85	115-143-01	4,127	68,783	616	10,267	6.70	0.06	1
85	115-133-01	10,117	67,447	1,510	10,067	6.70	0.15	1
	CROOKSTON TOT	14,244	67,829	2,126	10,124	6.70	0.21	1
85	119-102-05	19,331	62,358	3,190	10,290	6.06	0.31	1
	EAST GRAND FORKS TOT	19,331	62,358	3,190	10,290	6.06	0.31	1
85	170-010-02	32,239	29,308	5,590	5,082	5.77	1.10	1
85	170-010-03	49,071	63,729	7,992	10,379	6.14	0.77	1
	THIEF RIVER FALLS TOT	81,310	43,481	13,582	7,263	5.99	1.87	1
	DISTRICT 2 TOT	123,238	47,037	20,183	7,703	6.11	2.62	1
85	108-112-03	7,505	53,607	1,498	10,700	5.01	0.14	1
85	108-124-05	480	1,043	100	217	4.80	0.46	1
85	108-136-01	23,747	55,226	4,740	11,023	5.01	0.43	1
85	108-109-01	3,026	43,229	604	8,629	5.01	0.07	1
	BRAINERD TOT	34,758	31,598	6,942	6,311	5.01	1.10	1
85	162-138-06	105,896	84,044	23,720	18,825	4.46	1.26	1
85	162-020-10	14,610	91,313	2,435	15,219	6.00	0.16	1
85	162-123-09	1,515	11,654	365	2,808	4.15	0.13	1
	ST CLOUD TOT	122,021	78,723	26,520	17,110	4.60	1.55	1
	DISTRICT 3 TOT	156,779	59,162	33,462	12,627	4.69	2.65	1

CURB & GUTTER CONSTRUCTION-SPEC 2531

YEAR PROJECT		TOTAL COST	COST PER MILE	TOTAL QUANTITY	QUANTITY PER MILE	UNIT PRICE	LENGTH	RURAL/ URBAN
85 126-050-14 FERGUS FALLS	TOT	11,618 11,618	55,324 55,324	2,192 2,192	10,438 10,438	5.30 5.30	0.21 0.21	1 1
85 144-131-01 85 144-104-08 MOORHEAD	TOT	28,750 26,110 54,860	115,000 74,600 91,433	4,600 3,730 8,330	18,400 10,657 13,883	6.25 7.00 6.59	0.25 0.35 0.60	1 1 1
85 190-020-04 MORRIS	TOT	31,349 31,349	60,287 60,287	5,598 5,598	10,765 10,765	5.60 5.60	0.52 0.52	1 1
DISTRICT 4	TOT	97,827	73,554	16,120	12,120	6.07	1.33	1
85 103-134-04 ANOKA	TOT	9,577 9,577	63,847 63,847	1,250 1,250	8,333 8,333	7.66 7.66	0.15 0.15	1 1
85 107-020-24 85 107-419-09 BLOOMINGTON	TOT	76,419 11,532 87,951	764,190 115,320 439,755	12,999 1,983 14,982	129,990 19,830 74,910	5.88 5.82 5.87	0.10 0.10 0.20	1 1 1
85 109-126-01 BROOKLYN CENTER	TOT	26,260 26,260	54,708 54,708	5,200 5,200	10,833 10,833	5.05 5.05	0.48 0.48	1 1
85 110-103-07 85 110-102-07 85 110-110-05 BROOKLYN PARK	TOT	14,190 10,674 90,142 115,006	70,950 71,160 64,387 65,718	2,725 1,800 18,994 23,519	13,625 12,000 13,567 13,439	5.21 5.93 4.75 4.89	0.20 0.15 1.40 1.75	1 1 1 1
85 114-114-03 COON RAPIDS	TOT	65,785 65,785	41,901 41,901	14,320 14,320	9,121 9,121	4.59 4.59	1.57 1.57	1 1
85 116-324-02 85 116-318-03 CRYSTAL	TOT	2,120 8,048 10,168	16,308 57,486 37,659	200 1,450 1,650	1,538 10,357 6,111	10.60 5.55 6.16	0.13 0.14 0.27	1 1 1
85 127-340-02 FRIDLEY	TOT	16,800 16,800	60,000 60,000	3,500 3,500	12,500 12,500	4.80 4.80	0.28 0.28	1 1
85 128-332-02 85 128-330-03 GOLDEN VALLEY	TOT	26,808 10,114 36,922	70,547 72,243 71,004	5,075 1,510 6,585	13,355 10,786 12,663	5.28 6.70 5.61	0.38 0.14 0.52	1 1 1
85 141-318-05 85 141-199-06 85 141-226-02 MINNEAPOLIS	TOT	2,590 22,533 10,313 35,436	51,800 20,119 73,664 27,050	370 3,219 1,072 4,661	7,400 2,874 7,657 3,558	7.00 7.00 9.62 7.60	0.05 1.12 0.14 1.31	1 1 1 1
85 142-020-15 85 142-010-08 85 142-128-04 MINNETONKA	TOT	39,225 17,798 15,263 72,286	87,167 50,851 61,052 68,844	7,500 3,236 2,760 13,496	16,667 9,246 11,040 12,853	5.23 5.50 5.53 5.36	0.45 0.35 0.25 1.05	1 1 1 1

M.S.A.S UNIT PRICE STUDY

PAGE 68

CURB & GUTTER CONSTRUCTION-SPEC 2531

YEAR PROJECT		TOTAL COST	COST PER MILE	TOTAL QUANTITY	QUANTITY PER MILE	UNIT PRICE	LENGTH	RURAL/ URBAN
85 155-161-05 PLYMOUTH	TOT	56,814 56,814	45,090 45,090	13,247 13,247	10,513 10,513	4.29 4.29	1.26 1.26	1 1
85 166-108-01 SHAKOPEE	TOT	1,204 1,204	1,216 1,216	136 136	137 137	8.85 8.85	0.99 0.99	1 1
85 182-101-07 85 182-107-03 NEW HOPE	TOT	4,770 5,300 10,070	119,250 106,000 111,889	450 500 950	11,250 10,000 10,556	10.60 10.60 10.60	0.04 0.05 0.09	1 1 1
85 189-102-03 85 189-103-02 85 189-115-02 85 189-107-07 MAPLE GROVE	TOT	13,646 11,250 8,035 15,494 48,425	41,352 46,875 10,858 9,061 16,035	2,660 2,400 1,400 2,676 9,136	8,061 10,000 1,892 1,565 3,025	5.13 4.69 5.74 5.79 5.30	0.33 0.24 0.74 1.71 3.02	1 1 1 1 1
85 197-101-02 HAM LAKE	TOT	21,285 21,285	17,165 17,165	4,500 4,500	3,629 3,629	4.73 4.73	1.24 1.24	1 1
85 198-100-05 ANDOVER	TOT	20,240 20,240	44,978 44,978	4,600 4,600	10,222 10,222	4.40 4.40	0.45 0.45	1 1
85 199-110-01 RAMSEY	TOT	12,960 12,960	44,690 44,690	3,000 3,000	10,345 10,345	4.32 4.32	0.29 0.29	1 1
DISTRICT 5	TOT	647,189	43,377	124,732	8,360	5.19	14.92	1
85 101-110-12 ALBERT LEA	TOT	1,462 1,462	7,310 7,310	613 613	3,065 3,065	2.38 2.38	0.20 0.20	1 1
85 104-107-02 85 104-020-06 AUSTIN	TOT	520 6,500 7,020	10,400 13,265 13,000	55 6,500 6,555	1,100 13,265 12,139	9.45 1.00 1.07	0.05 0.49 0.54	1 1 1
85 125-118-02 FARIBAULT	TOT	13,563 13,563	71,384 71,384	2,055 2,055	10,816 10,816	6.60 6.60	0.19 0.19	1 1
85 149-118-01 85 149-101-01 NORTHFIELD	TOT	6,840 9,234 16,074	57,000 54,318 55,428	1,140 1,620 2,760	9,500 9,529 9,517	6.00 5.70 5.82	0.12 0.17 0.29	1 1 1
85 153-126-01 85 153-112-01 OWATONNA	TOT	4,590 29,331 33,921	51,000 57,512 56,535	765 5,101 5,866	8,500 10,002 9,777	6.00 5.75 5.78	0.09 0.51 0.60	1 1 1
85 159-115-03 85 159-119-01 ROCHESTER	TOT	9,860 20,545 30,405	61,625 70,845 67,567	1,700 2,935 4,635	10,625 10,121 10,300	5.80 7.00 6.56	0.16 0.29 0.45	1 1 1
DISTRICT 6	TOT	102,445	45,130	22,484	9,905	4.56	2.27	1

CURB & GUTTER CONSTRUCTION-SPEC 2531

YEAR PROJECT		TOTAL COST	COST PER MILE	TOTAL QUANTITY	QUANTITY PER MILE	UNIT PRICE	LENGTH	RURAL/ URBAN
85 137-010-15		3,168	4,062	396	508	8.00	0.78	1
85 137-119-02		12,687	24,876	2,018	3,957	6.29	0.51	1
85 137-020-11		75,691	46,436	12,885	7,905	5.87	1.63	1
MANKATO	TOT	91,546	31,351	15,299	5,239	5.98	2.92	1
85 148-112-02		19,558	67,441	3,056	10,538	6.40	0.29	1
85 148-101-02		12,243	53,230	1,913	8,317	6.40	0.23	1
NEW ULM	TOT	31,801	61,156	4,969	9,556	6.40	0.52	1
85 150-116-01		1,440	1,618	120	135	12.00	0.89	1
NORTH MANKATO	TOT	1,440	1,618	120	135	12.00	0.89	1
85 165-107-02		21,000	60,000	3,500	10,000	6.00	0.35	1
85 165-114-01		4,590	30,600	765	5,100	6.00	0.15	1
ST PETER	TOT	25,590	51,180	4,265	8,530	6.00	0.50	1
85 172-102-02		21,950	47,717	4,390	9,543	5.00	0.46	1
WASECA	TOT	21,950	47,717	4,390	9,543	5.00	0.46	1
85 177-111-01		7,402	19,479	1,028	2,705	7.20	0.38	1
WORTHINGTON	TOT	7,402	19,479	1,028	2,705	7.20	0.38	1
85 205-114-01		24,130	35,485	4,340	6,382	5.56	0.68	1
LUVERNE	TOT	24,130	35,485	4,340	6,382	5.56	0.68	1
DISTRICT 7	TOT	203,859	32,104	34,411	5,419	5.92	6.35	1
85 135-104-01		54,999	109,998	8,857	17,714	6.21	0.50	1
LITCHFIELD	TOT	54,999	109,998	8,857	17,714	6.21	0.50	1
85 139-120-04		7,070	64,273	1,010	9,182	7.00	0.11	1
85 139-107-01		9,905	39,620	1,415	5,660	7.00	0.25	1
MARSHALL	TOT	16,975	47,153	2,425	6,736	7.00	0.36	1
85 154-107-03		2,743	39,186	422	6,029	6.50	0.07	1
85 154-102-05		1,102	3,149	140	400	7.87	0.35	1
PIPESTONE	TOT	3,845	9,155	562	1,338	6.84	0.42	1
85 175-010-01		8,274	45,967	1,303	7,239	6.35	0.18	1
WILLMAR	TOT	8,274	45,967	1,303	7,239	6.35	0.18	1
DISTRICT 8	TOT	84,093	57,598	13,147	9,005	6.40	1.46	1
85 130-134-01		23,548	107,036	4,060	18,455	5.80	0.22	1
HASTINGS	TOT	23,548	107,036	4,060	18,455	5.80	0.22	1
85 140-103-06		19,264	66,428	3,440	11,862	5.60	0.29	1
MENDOTA HEIGHTS	TOT	19,264	66,428	3,440	11,862	5.60	0.29	1

M.S.A.S UNIT PRICE STUDY

PAGE 70

CURB & GUTTER CONSTRUCTION-SPEC 2531

YEAR PROJECT		TOTAL COST	COST PER MILE	TOTAL QUANTITY	QUANTITY PER MILE	UNIT PRICE	LENGTH	RURAL/ URBAN
85 146-229-04		27,900	55,800	6,200	12,400	4.50	0.50	1
MOUNDS VIEW	TOT	27,900	55,800	6,200	12,400	4.50	0.50	1
85 160-225-02		17,969	51,340	3,805	10,871	4.72	0.35	1
ROSEVILLE	TOT	17,969	51,340	3,805	10,871	4.72	0.35	1
85 164-232-15		82,170	54,059	14,950	9,836	5.50	1.52	1
85 164-253-01		32,916	68,575	5,200	10,833	6.33	0.48	1
85 164-117-08		8,960	35,840	1,600	6,400	5.60	0.25	1
85 164-179-09		5,350	22,292	535	2,229	10.00	0.24	1
85 164-214-10		59,595	44,144	8,700	6,444	6.85	1.35	1
ST PAUL	TOT	188,991	49,216	30,985	8,069	6.10	3.84	1
85 167-253-01		231	436	30	57	7.70	0.53	1
85 167-258-02		6,791	52,238	1,245	9,577	5.45	0.13	1
SHOREVIEW	TOT	7,022	10,639	1,275	1,932	5.51	0.66	1
85 169-119-01		21,357	68,894	3,780	12,194	5.65	0.31	1
STILLWATER	TOT	21,357	68,894	3,780	12,194	5.65	0.31	1
85 178-103-07		33,928	43,497	8,275	10,609	4.10	0.78	1
85 178-103-09		1,476	1,570	360	383	4.10	0.94	1
INVER GROVE HEIGHTS	TOT	35,404	20,584	8,635	5,020	4.10	1.72	1
85 179-108-04		78,324	58,018	18,300	13,556	4.28	1.35	1
85 179-113-07		34,691	70,798	7,975	16,276	4.35	0.49	1
85 179-113-09		50,400	75,224	12,600	18,806	4.00	0.67	1
85 179-113-11		42,363	146,079	10,460	36,069	4.05	0.29	1
85 179-101-06		7,503	44,135	1,830	10,765	4.10	0.17	1
BURNSVILLE	TOT	213,281	71,812	51,165	17,227	4.17	2.97	1
85 180-103-01		11,880	4,183	2,400	845	4.95	2.84	1
COTTAGE GROVE	TOT	11,880	4,183	2,400	845	4.95	2.84	1
85 186-104-05		131,164	385,776	31,379	92,291	4.18	0.34	1
85 186-105-01		8,500	22,973	2,000	5,405	4.25	0.37	1
85 186-102-04		32,280	42,474	8,400	11,053	3.84	0.76	1
APPLE VALLEY	TOT	171,944	116,969	41,779	28,421	4.12	1.47	1
85 188-010-01		103,558	82,189	15,118	11,998	6.85	1.26	1
LAKEVILLE	TOT	103,558	82,189	15,118	11,998	6.85	1.26	1
85 195-110-01		11,044	42,477	2,325	8,942	4.75	0.26	1
85 195-119-01		30,723	48,005	6,468	10,106	4.75	0.64	1
EAGAN	TOT	41,767	46,408	8,793	9,770	4.75	0.90	1
85 200-101-03		13,512	42,225	2,350	7,344	5.75	0.32	1
LITTLE CANADA	TOT	13,512	42,225	2,350	7,344	5.75	0.32	1
DISTRICT 9	TOT	897,397	50,844	183,785	10,413	4.88	17.65	1

CURB & GUTTER CONSTRUCTION-SPEC 2531

YEAR PROJECT	TOTAL COST	COST PER MILE	TOTAL QUANTITY	QUANTITY PER MILE	UNIT PRICE	LENGTH	RURAL/ URBAN
STATE TOTAL	2,498,655	44,924	469,258	8,437	5.32	55.62	1

M.S.A.S UNIT PRICE STUDY

PAGE 72

CURB & GUTTER CONSTRUCTION-SPEC 2531

TOTALS		TOTAL COST	COST PER MILE	TOTAL QUANTITY	QUANTITY PER MILE	UNIT PRICE	LENGTH	RURAL/ URBAN
CLOQUET	TOT	31,393	78,483	4,706	11,765	6.67	0.40	1
DULUTH	TOT	95,431	108,444	9,002	10,230	10.60	0.88	1
EVELETH	TOT	7,936	8,533	992	1,067	8.00	0.93	1
INTERNATIONAL FALLS	TOT	31,268	8,017	3,594	922	8.70	3.90	1
VIRGINIA	TOT	19,800	76,154	2,640	10,154	7.50	0.26	1
DISTRICT 1	TOT	185,828	29,172	20,934	3,286	8.88	6.37	1
BEMIDJI	TOT	8,353	36,317	1,285	5,587	6.50	0.23	1
CROOKSTON	TOT	14,244	67,829	2,126	10,124	6.70	0.21	1
EAST GRAND FORKS	TOT	19,331	62,358	3,190	10,290	6.06	0.31	1
THIEF RIVER FALLS	TOT	81,310	43,481	13,582	7,263	5.99	1.87	1
DISTRICT 2	TOT	123,238	47,037	20,183	7,703	6.11	2.62	1
BRAINERD	TOT	34,758	31,598	6,942	6,311	5.01	1.10	1
ST CLOUD	TOT	122,021	78,723	26,520	17,110	4.60	1.55	1
DISTRICT 3	TOT	156,779	59,162	33,462	12,627	4.69	2.65	1
FERGUS FALLS	TOT	11,618	55,324	2,192	10,438	5.30	0.21	1
MOORHEAD	TOT	54,860	91,433	8,330	13,883	6.59	0.60	1
MORRIS	TOT	31,349	60,287	5,598	10,765	5.60	0.52	1
DISTRICT 4	TOT	97,827	73,554	16,120	12,120	6.07	1.33	1
ANOKA	TOT	9,577	63,847	1,250	8,333	7.66	0.15	1
BLOOMINGTON	TOT	87,951	439,755	14,982	74,910	5.87	0.20	1
BROOKLYN CENTER	TOT	26,260	54,708	5,200	10,833	5.05	0.48	1
BROOKLYN PARK	TOT	115,006	65,718	23,519	13,439	4.89	1.75	1
COON RAPIDS	TOT	65,785	41,901	14,320	9,121	4.59	1.57	1
CRYSTAL	TOT	10,168	37,659	1,650	6,111	6.16	0.27	1
FRIDLEY	TOT	16,800	60,000	3,500	12,500	4.80	0.28	1
GOLDEN VALLEY	TOT	36,922	71,004	6,585	12,663	5.61	0.52	1
MINNEAPOLIS	TOT	35,436	27,050	4,661	3,558	7.60	1.31	1
MINNETONKA	TOT	72,286	68,844	13,496	12,853	5.36	1.05	1
PLYMOUTH	TOT	56,814	45,090	13,247	10,513	4.29	1.26	1
SHAKOPEE	TOT	1,204	1,216	136	137	8.85	0.99	1
NEW HOPE	TOT	10,070	111,889	950	10,556	10.60	0.09	1
MAPLE GROVE	TOT	48,425	16,035	9,136	3,025	5.30	3.02	1
HAM LAKE	TOT	21,285	17,165	4,500	3,629	4.73	1.24	1
ANDOVER	TOT	20,240	44,978	4,600	10,222	4.40	0.45	1
RAMSEY	TOT	12,960	44,690	3,000	10,345	4.32	0.29	1
DISTRICT 5	TOT	647,189	43,377	124,732	8,360	5.19	14.92	1
ALBERT LEA	TOT	1,462	7,310	613	3,065	2.38	0.20	1
AUSTIN	TOT	7,020	13,000	6,555	12,139	1.07	0.54	1
FARIBAULT	TOT	13,563	71,384	2,055	10,816	6.60	0.19	1
NORTHFIELD	TOT	16,074	55,428	2,760	9,517	5.82	0.29	1
OWATONNA	TOT	33,921	56,535	5,866	9,777	5.78	0.60	1
ROCHESTER	TOT	30,405	67,567	4,635	10,300	6.56	0.45	1
DISTRICT 6	TOT	102,445	45,130	22,484	9,905	4.56	2.27	1
MANKATO	TOT	91,546	31,351	15,299	5,239	5.98	2.92	1
NEW ULM	TOT	31,801	61,156	4,969	9,556	6.40	0.52	1
NORTH MANKATO	TOT	1,440	1,618	120	135	12.00	0.89	1

III

CURB & GUTTER CONSTRUCTION-SPEC 2531

TOTALS		TOTAL COST	COST PER MILE	TOTAL QUANTITY	QUANTITY PER MILE	UNIT PRICE	LENGTH	RURAL/ URBAN
ST PETER	TOT	25,590	51,180	4,265	8,530	6.00	0.50	1
WASECA	TOT	21,950	47,717	4,390	9,543	5.00	0.46	1
WORTHINGTON	TOT	7,402	19,479	1,028	2,705	7.20	0.38	1
LIVERNE	TOT	24,130	35,485	4,340	6,382	5.56	0.68	1
DISTRICT 7	TOT	203,859	32,104	34,411	5,419	5.92	6.35	1
LITCHFIELD	TOT	54,999	109,998	8,857	17,714	6.21	0.50	1
MARSHALL	TOT	16,975	47,153	2,425	6,736	7.00	0.36	1
PIPESTONE	TOT	3,845	9,155	562	1,338	6.84	0.42	1
WILLMAR	TOT	8,274	45,967	1,303	7,239	6.35	0.18	1
DISTRICT 8	TOT	84,093	57,598	13,147	9,005	6.40	1.46	1
HASTINGS	TOT	23,548	107,036	4,060	18,455	5.80	0.22	1
MENDOTA HEIGHTS	TOT	19,264	66,428	3,440	11,862	5.60	0.29	1
MOUNDS VIEW	TOT	27,900	55,800	6,200	12,400	4.50	0.50	1
ROSEVILLE	TOT	17,969	51,340	3,805	10,871	4.72	0.35	1
ST PAUL	TOT	188,991	49,216	30,985	8,069	6.10	3.84	1
SHOREVIEW	TOT	7,022	10,639	1,275	1,932	5.51	0.66	1
STILLWATER	TOT	21,357	68,894	3,780	12,194	5.65	0.31	1
INVER GROVE HEIGHTS	TOT	35,404	20,584	8,635	5,020	4.10	1.72	1
BURNSVILLE	TOT	213,281	71,812	51,165	17,227	4.17	2.97	1
COTTAGE GROVE	TOT	11,880	4,183	2,400	845	4.95	2.84	1
APPLE VALLEY	TOT	171,944	116,969	41,779	28,421	4.12	1.47	1
LAKEVILLE	TOT	103,558	82,189	15,118	11,998	6.85	1.26	1
EAGAN	TOT	41,767	46,408	8,793	9,770	4.75	0.90	1
LITTLE CANADA	TOT	13,512	42,225	2,350	7,344	5.75	0.32	1
DISTRICT 9	TOT	897,397	50,844	183,785	10,413	4.88	17.65	1
STATE TOTAL		2,498,655	44,924	469,258	8,437	5.32	55.62	1

M.S.A.S UNIT PRICE STUDY

PAGE 74

CURB & GUTTER CONSTRUCTION-SPEC 2531

TOTALS		TOTAL COST	COST PER MILE	TOTAL QUANTITY	QUANTITY PER MILE	UNIT PRICE	LENGTH	RURAL/ URBAN
DISTRICT 1	TOT	185,828	29,172	20,934	3,286	8.88	6.37	1
DISTRICT 2	TOT	123,238	47,037	20,183	7,703	6.11	2.62	1
DISTRICT 3	TOT	156,779	59,162	33,462	12,627	4.69	2.65	1
DISTRICT 4	TOT	97,827	73,554	16,120	12,120	6.07	1.33	1
DISTRICT 5	TOT	647,189	43,377	124,732	8,360	5.19	14.92	1
DISTRICT 6	TOT	102,445	45,130	22,484	9,905	4.56	2.27	1
DISTRICT 7	TOT	203,859	32,104	34,411	5,419	5.92	6.35	1
DISTRICT 8	TOT	84,093	57,598	13,147	9,005	6.40	1.46	1
DISTRICT 9	TOT	897,397	50,844	183,785	10,413	4.88	17.65	1
STATE TOTAL		2,498,655	44,924	469,258	8,437	5.32	55.62	1

SIDEWALK CONSTRUCTION - SPEC 2521

YEAR PROJECT		TOTAL COST	COST PER MILE	TOTAL QUANTITY	QUANTITY PER MILE	UNIT PRICE	LENGTH	RURAL/ URBAN
85 112-136-01		753	3,012	49	196	15.37	0.25	1
85 112-104-01		18,642	124,280	1,218	8,120	15.31	0.15	1
CLOQUET	TOT	19,395	48,488	1,267	3,168	15.31	0.40	1
85 118-171-03		6,825	7,936	292	340	23.37	0.86	1
85 118-103-03		730	36,500	45	2,250	16.22	0.02	1
DULUTH	TOT	7,555	8,585	337	383	22.42	0.88	1
85 122-220-04		14,822	15,938	969	1,042	15.30	0.93	1
EVELETH	TOT	14,822	15,938	969	1,042	15.30	0.93	1
85 171-206-02		17,634	67,823	1,225	4,712	14.40	0.26	1
VIRGINIA	TOT	17,634	67,823	1,225	4,712	14.40	0.26	1
DISTRICT 1	TOT	59,406	24,051	3,798	1,538	15.64	2.47	1
85 105-108-04		3,375	14,674	278	1,209	12.14	0.23	1
BEMIDJI	TOT	3,375	14,674	278	1,209	12.14	0.23	1
85 115-143-01		189	3,150	11	183	17.18	0.06	1
85 115-133-01		2,043	13,620	120	800	17.03	0.15	1
CROOKSTON	TOT	2,232	10,629	131	624	17.04	0.21	1
85 170-010-03		23,443	30,445	1,579	2,051	14.85	0.77	1
85 170-010-02		137	125	08	07	17.13	1.10	1
THIEF RIVER FALLS	TOT	23,580	12,610	1,587	849	14.86	1.87	1
DISTRICT 2	TOT	29,187	12,635	1,996	864	14.62	2.31	1
85 108-136-01		10,030	23,326	811	1,886	12.37	0.43	1
85 108-109-01		2,871	41,014	221	3,157	12.99	0.07	1
85 108-112-03		7,294	52,100	576	4,114	12.66	0.14	1
BRAINERD	TOT	20,195	31,555	1,608	2,513	12.56	0.64	1
85 162-020-10		840	5,250	62	388	13.55	0.16	1
85 162-138-06		27,996	22,219	2,592	2,057	10.80	1.26	1
ST CLOUD	TOT	28,836	20,307	2,654	1,869	10.87	1.42	1
DISTRICT 3	TOT	49,031	23,801	4,262	2,069	11.50	2.06	1
85 126-050-14		14,334	68,257	995	4,738	14.41	0.21	1
FERGUS FALLS	TOT	14,334	68,257	995	4,738	14.41	0.21	1
85 144-131-01		12,240	48,960	800	3,200	15.30	0.25	1
85 144-104-08		18,000	51,429	1,000	2,857	18.00	0.35	1
MOORHEAD	TOT	30,240	50,400	1,800	3,000	16.80	0.60	1

M.S.A.S UNIT PRICE STUDY

PAGE 59

SIDEWALK CONSTRUCTION - SPEC 2521

YEAR PROJECT		TOTAL COST	COST PER MILE	TOTAL QUANTITY	QUANTITY PER MILE	UNIT PRICE	LENGTH	RURAL/ URBAN
85 190-020-04 MORRIS	TOT	16,307 16,307	31,360 31,360	1,294 1,294	2,488 2,488	12.60 12.60	0.52 0.52	1 1
DISTRICT 4	TOT	60,881	45,775	4,089	3,074	14.89	1.33	1
85 103-134-04 ANOKA	TOT	19,296 19,296	128,640 128,640	1,239 1,239	8,260 8,260	15.57 15.57	0.15 0.15	1 1
85 107-020-24 85 107-419-09 BLOOMINGTON	TOT	55,410 20,638 76,048	554,100 206,380 380,240	4,104 1,529 5,633	41,040 15,290 28,165	13.50 13.50 13.50	0.10 0.10 0.20	1 1 1
85 109-126-01 BROOKLYN CENTER	TOT	2,079 2,079	4,331 4,331	140 140	292 292	14.85 14.85	0.48 0.48	1 1
85 110-102-07 85 110-110-05 85 110-107-07 BROOKLYN PARK	TOT	8,420 52,611 7,526 68,557	56,133 37,579 37,630 39,175	709 5,173 565 6,447	4,727 3,695 2,825 3,684	11.88 10.17 13.32 10.63	0.15 1.40 0.20 1.75	1 1 1 1
85 114-114-03 COON RAPIDS	TOT	10,368 10,368	6,604 6,604	794 794	506 506	13.06 13.06	1.57 1.57	1 1
85 116-318-03 85 116-324-02 CRYSTAL	TOT	8,860 1,325 10,185	63,286 10,192 37,722	679 56 735	4,850 431 2,722	13.05 23.66 13.86	0.14 0.13 0.27	1 1 1
85 128-332-02 GOLDEN VALLEY	TOT	11,125 11,125	29,276 29,276	989 989	2,603 2,603	11.25 11.25	0.38 0.38	1 1
85 141-226-02 85 141-199-06 MINNEAPOLIS	TOT	13,580 4,240 17,820	97,000 3,786 14,143	928 224 1,152	6,629 200 914	14.63 18.93 15.47	0.14 1.12 1.26	1 1 1
85 142-010-08 85 142-020-15 85 142-128-04 MINNETONKA	TOT	4,341 11,920 12,461 28,722	12,403 26,489 49,844 27,354	322 889 1,026 2,237	920 1,976 4,104 2,130	13.48 13.41 12.15 12.84	0.35 0.45 0.25 1.05	1 1 1 1
85 182-107-03 85 182-101-07 NEW HOPE	TOT	928 2,650 3,578	18,560 66,250 39,756	39 111 150	780 2,775 1,667	23.79 23.87 23.85	0.05 0.04 0.09	1 1 1
85 189-107-07 MAPLE GROVE	TOT	3,060 3,060	1,789 1,789	167 167	98 98	18.32 18.32	1.71 1.71	1 1
DISTRICT 5	TOT	250,838	28,152	19,683	2,209	12.74	8.91	1
85 101-110-12		6,107	30,535	438	2,190	13.94	0.20	1

SIDEWALK CONSTRUCTION - SPEC 2521

YEAR PROJECT		TOTAL COST	COST PER MILE	TOTAL QUANTITY	QUANTITY PER MILE	UNIT PRICE	LENGTH	RURAL/ URBAN
ALBERT LEA	TOT	6,107	30,535	438	2,190	13.94	0.20	1
85 104-107-02		5,740	114,800	389	7,780	14.76	0.05	1
85 104-020-06		7,395	15,092	483	986	15.31	0.49	1
AUSTIN	TOT	13,135	24,324	872	1,615	15.06	0.54	1
85 125-118-02		315	1,658	19	100	16.58	0.19	1
FARIBAULT	TOT	315	1,658	19	100	16.58	0.19	1
85 149-118-01		10,260	85,500	633	5,275	16.21	0.12	1
85 149-101-01		14,697	86,453	907	5,335	16.20	0.17	1
NORTHFIELD	TOT	24,957	86,059	1,540	5,310	16.21	0.29	1
85 153-126-01		4,264	47,378	296	3,289	14.41	0.09	1
85 153-124-04		10,456	38,726	726	2,689	14.40	0.27	1
85 153-112-01		4,564	8,949	267	524	17.09	0.51	1
OWATONNA	TOT	19,284	22,166	1,289	1,482	14.96	0.87	1
85 159-119-01		7,600	26,207	422	1,455	18.01	0.29	1
85 159-115-03		2,204	13,775	169	1,056	13.04	0.16	1
ROCHESTER	TOT	9,804	21,787	591	1,313	16.59	0.45	1
DISTRICT 6	TOT	73,602	28,977	4,749	1,870	15.50	2.54	1
85 137-119-02		38,930	76,333	2,544	4,988	15.30	0.51	1
85 137-020-11		41,347	25,366	2,702	1,658	15.30	1.63	1
MANKATO	TOT	80,277	37,513	5,246	2,451	15.30	2.14	1
85 148-112-02		13,662	47,110	949	3,272	14.40	0.29	1
85 148-101-02		9,974	43,365	693	3,013	14.39	0.23	1
NEW ULM	TOT	23,636	45,454	1,642	3,158	14.39	0.52	1
85 165-107-02		24,786	70,817	1,700	4,857	14.58	0.35	1
85 165-114-01		3,596	23,973	247	1,647	14.56	0.15	1
ST PETER	TOT	28,382	56,764	1,947	3,894	14.58	0.50	1
85 172-102-02		15,694	34,117	1,125	2,446	13.95	0.46	1
WASECA	TOT	15,694	34,117	1,125	2,446	13.95	0.46	1
85 177-111-01		72	189	03	08	24.00	0.38	1
WORTHINGTON	TOT	72	189	03	08	24.00	0.38	1
DISTRICT 7	TOT	148,061	37,015	9,963	2,491	14.86	4.00	1
85 135-104-01		6,070	12,140	218	436	27.84	0.50	1
LITCHFIELD	TOT	6,070	12,140	218	436	27.84	0.50	1
85 139-107-01		9,004	36,016	606	2,424	14.86	0.25	1
MARSHALL	TOT	9,004	36,016	606	2,424	14.86	0.25	1

M.S.A.S UNIT PRICE STUDY

PAGE 61

SIDEWALK CONSTRUCTION - SPEC 2521

YEAR PROJECT		TOTAL COST	COST PER MILE	TOTAL QUANTITY	QUANTITY PER MILE	UNIT PRICE	LENGTH	RURAL/ URBAN
85 154-102-05		2,050	5,857	114	326	17.98	0.35	1
85 154-107-03		2,672	38,171	148	2,114	18.05	0.07	1
PIPESTONE	TOT	4,722	11,243	262	624	18.02	0.42	1
85 175-010-01		11,323	62,906	711	3,950	15.93	0.18	1
WILLMAR	TOT	11,323	62,906	711	3,950	15.93	0.18	1
DISTRICT 8	TOT	31,119	23,051	1,797	1,331	17.32	1.35	1
85 130-134-01		44,308	201,400	3,282	14,918	13.50	0.22	1
HASTINGS	TOT	44,308	201,400	3,282	14,918	13.50	0.22	1
85 146-229-04		18,500	37,000	1,644	3,288	11.25	0.50	1
MOUNDS VIEW	TOT	18,500	37,000	1,644	3,288	11.25	0.50	1
85 160-225-02		300	857	11	31	27.27	0.35	1
ROSEVILLE	TOT	300	857	11	31	27.27	0.35	1
85 164-232-15		23,550	15,493	1,667	1,097	14.13	1.52	1
85 164-253-01		9,204	19,175	541	1,127	17.01	0.48	1
85 164-179-09		2,860	11,917	159	663	17.99	0.24	1
85 164-198-18		1,573	1,100	94	66	16.73	1.43	1
85 164-204-03		1,169	7,306	31	194	37.71	0.16	1
85 164-214-10		19,780	14,652	956	708	20.69	1.35	1
85 164-020-55		63,200	74,353	3,511	4,131	18.00	0.85	1
85 164-117-08		1,178	4,712	83	332	14.19	0.25	1
ST PAUL	TOT	122,514	19,509	7,042	1,121	17.40	6.28	1
85 167-253-01		19,190	36,208	1,568	2,958	12.24	0.53	1
85 167-258-02		4,012	30,862	328	2,523	12.23	0.13	1
SHOREVIEW	TOT	23,202	35,155	1,896	2,873	12.24	0.66	1
85 169-119-01		12,432	40,103	933	3,010	13.32	0.31	1
STILLWATER	TOT	12,432	40,103	933	3,010	13.32	0.31	1
85 178-103-07		25,168	32,267	2,311	2,963	10.89	0.78	1
85 178-103-09		29,373	31,248	2,697	2,869	10.89	0.94	1
INVER GROVE HEIGHTS	TOT	54,541	31,710	5,008	2,912	10.89	1.72	1
85 179-113-11		57,942	199,800	5,961	20,555	9.72	0.29	1
85 179-113-07		34,328	70,057	3,051	6,227	11.25	0.49	1
85 179-113-09		42,105	62,843	4,456	6,651	9.45	0.67	1
85 179-101-06		10,824	63,671	978	5,753	11.07	0.17	1
85 179-108-04		73,448	54,406	6,911	5,119	10.63	1.35	1
BURNSVILLE	TOT	218,647	73,619	21,357	7,191	10.24	2.97	1
85 186-102-04		600	789	44	58	13.64	0.76	1
85 186-104-05		57,674	169,629	4,782	14,065	12.06	0.34	1
85 186-105-01		11,000	29,730	1,111	3,003	9.90	0.37	1
APPLE VALLEY	TOT	69,274	47,125	5,937	4,039	11.67	1.47	1

SIDEWALK CONSTRUCTION - SPEC 2521

YEAR PROJECT		TOTAL COST	COST PER MILE	TOTAL QUANTITY	QUANTITY PER MILE	UNIT PRICE	LENGTH	RURAL/ URBAN
85 188-010-01		101,397	80,474	5,930	4,706	17.10	1.26	1
LAKEVILLE	TOT	101,397	80,474	5,930	4,706	17.10	1.26	1
DISTRICT 9	TOT	665,115	42,256	53,040	3,370	12.54	15.74	1
STATE TOTAL		1,367,240	33,585	103,377	2,539	13.23	40.71	1

M.S.A.S UNIT PRICE STUDY

PAGE 63

SIDEWALK CONSTRUCTION - SPEC 2521

TOTALS		TOTAL COST	COST PER MILE	TOTAL QUANTITY	QUANTITY PER MILE	UNIT PRICE	LENGTH	RURAL/ URBAN
CLOQUET	TOT	19,395	48,488	1,267	3,168	15.31	0.40	1
DULUTH	TOT	7,555	8,585	337	383	22.42	0.88	1
EVELETH	TOT	14,822	15,938	969	1,042	15.30	0.93	1
VIRGINIA	TOT	17,634	67,823	1,225	4,712	14.40	0.26	1
DISTRICT 1	TOT	59,406	24,051	3,798	1,538	15.64	2.47	1
BEMIDJI	TOT	3,375	14,674	278	1,209	12.14	0.23	1
CROOKSTON	TOT	2,232	10,629	131	624	17.04	0.21	1
THIEF RIVER FALLS	TOT	23,580	12,610	1,587	849	14.86	1.87	1
DISTRICT 2	TOT	29,187	12,635	1,996	864	14.62	2.31	1
BRAINERD	TOT	20,195	31,555	1,608	2,513	12.56	0.64	1
ST CLOUD	TOT	28,836	20,307	2,654	1,869	10.87	1.42	1
DISTRICT 3	TOT	49,031	23,801	4,262	2,069	11.50	2.06	1
FERGUS FALLS	TOT	14,334	68,257	995	4,738	14.41	0.21	1
MOORHEAD	TOT	30,240	50,400	1,800	3,000	16.80	0.60	1
MORRIS	TOT	16,307	31,360	1,294	2,488	12.60	0.52	1
DISTRICT 4	TOT	60,881	45,775	4,089	3,074	14.89	1.33	1
ANOKA	TOT	19,296	128,640	1,239	8,260	15.57	0.15	1
BLOOMINGTON	TOT	76,048	380,240	5,633	28,165	13.50	0.20	1
BROOKLYN CENTER	TOT	2,079	4,331	140	292	14.85	0.48	1
BROOKLYN PARK	TOT	68,557	39,175	6,447	3,684	10.63	1.75	1
COON RAPIDS	TOT	10,368	6,604	794	506	13.06	1.57	1
CRYSTAL	TOT	10,185	37,722	735	2,722	13.86	0.27	1
GOLDEN VALLEY	TOT	11,125	29,276	989	2,603	11.25	0.38	1
MINNEAPOLIS	TOT	17,820	14,143	1,152	914	15.47	1.26	1
MINNETONKA	TOT	28,722	27,354	2,237	2,130	12.84	1.05	1
NEW HOPE	TOT	3,578	39,756	150	1,667	23.85	0.09	1
MAPLE GROVE	TOT	3,060	1,789	167	98	18.32	1.71	1
DISTRICT 5	TOT	250,838	28,152	19,683	2,209	12.74	8.91	1
ALBERT LEA	TOT	6,107	30,535	438	2,190	13.94	0.20	1
AUSTIN	TOT	13,135	24,324	872	1,615	15.06	0.54	1
FARIBAULT	TOT	315	1,658	19	100	16.58	0.19	1
NORTHFIELD	TOT	24,957	86,059	1,540	5,310	16.21	0.29	1
OWATONNA	TOT	19,284	22,166	1,289	1,482	14.96	0.87	1
ROCHESTER	TOT	9,804	21,787	591	1,313	16.59	0.45	1
DISTRICT 6	TOT	73,602	28,977	4,749	1,870	15.50	2.54	1
MANKATO	TOT	80,277	37,513	5,246	2,451	15.30	2.14	1
NEW ULM	TOT	23,636	45,454	1,642	3,158	14.39	0.52	1
ST PETER	TOT	28,382	56,764	1,947	3,894	14.58	0.50	1
WASECA	TOT	15,694	34,117	1,125	2,446	13.95	0.46	1
WORTHINGTON	TOT	72	189	03	08	24.00	0.38	1
DISTRICT 7	TOT	148,061	37,015	9,963	2,491	14.86	4.00	1
LITCHFIELD	TOT	6,070	12,140	218	436	27.84	0.50	1
MARSHALL	TOT	9,004	36,016	606	2,424	14.86	0.25	1
PIPESTONE	TOT	4,722	11,243	262	624	18.02	0.42	1
WILLMAR	TOT	11,323	62,906	711	3,950	15.93	0.18	1

SIDEWALK CONSTRUCTION - SPEC 2521

TOTALS		TOTAL COST	COST PER MILE	TOTAL QUANTITY	QUANTITY PER MILE	UNIT PRICE	LENGTH	RURAL/ URBAN
DISTRICT 8	TOT	31,119	23,051	1,797	1,331	17.32	1.35	1
HASTINGS	TOT	44,308	201,400	3,282	14,918	13.50	0.22	1
MOUNDS VIEW	TOT	18,500	37,000	1,644	3,288	11.25	0.50	1
ROSEVILLE	TOT	300	857	11	31	27.27	0.35	1
ST PAUL	TOT	122,514	19,509	7,042	1,121	17.40	6.28	1
SHOREVIEW	TOT	23,202	35,155	1,896	2,873	12.24	0.66	1
STILLWATER	TOT	12,432	40,103	933	3,010	13.32	0.31	1
INVER GROVE HEIGHTS	TOT	54,541	31,710	5,008	2,912	10.89	1.72	1
BURNSVILLE	TOT	218,647	73,619	21,357	7,191	10.24	2.97	1
APPLE VALLEY	TOT	69,274	47,125	5,937	4,039	11.67	1.47	1
LAKEVILLE	TOT	101,397	80,474	5,930	4,706	17.10	1.26	1
DISTRICT 9	TOT	665,115	42,256	53,040	3,370	12.54	15.74	1
STATE TOTAL		1,367,240	33,585	103,377	2,539	13.23	40.71	1

M.S.A.S UNIT PRICE STUDY

PAGE 65

SIDEWALK CONSTRUCTION - SPEC 2521

TOTALS		TOTAL COST	COST PER MILE	TOTAL QUANTITY	QUANTITY PER MILE	UNIT PRICE	LENGTH	RURAL/ URBAN
DISTRICT 1	TOT	59,406	24,051	3,798	1,538	15.64	2.47	1
DISTRICT 2	TOT	29,187	12,635	1,996	864	14.62	2.31	1
DISTRICT 3	TOT	49,031	23,801	4,262	2,069	11.50	2.06	1
DISTRICT 4	TOT	60,881	45,775	4,089	3,074	14.89	1.33	1
DISTRICT 5	TOT	250,838	28,152	19,683	2,209	12.74	8.91	1
DISTRICT 6	TOT	73,602	28,977	4,749	1,870	15.50	2.54	1
DISTRICT 7	TOT	148,061	37,015	9,963	2,491	14.86	4.00	1
DISTRICT 8	TOT	31,119	23,051	1,797	1,331	17.32	1.35	1
DISTRICT 9	TOT	665,115	42,256	53,040	3,370	12.54	15.74	1
STATE TOTAL		1,367,240	33,585	103,377	2,539	13.23	40.71	1



CITY OF DULUTH

DEPARTMENT OF PUBLIC WORKS
Engineering Division
211 City Hall • Duluth, Minnesota 55802-1191
218/723-3278

L.M. 4

April 2, 1986

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

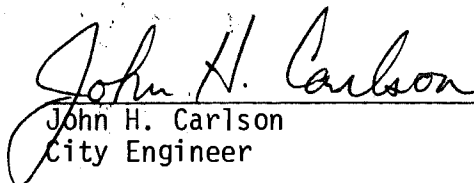
SUBJECT: DULUTH AERIAL BRIDGE (STRUCTURE L6116)

In searching through the needs records for the Aerial Bridge, it has been brought to my attention that the Aerial Bridge has not been drawing any needs for construction or maintenance since 1965. Prior to 1965, the bridge did draw some construction needs because of a deficiency in width and structure.

The pre-1965 traffic projection of 12,000 ADT dictated the future construction of a four lane bridge. The traffic projection was then reduced to 6,000 in 1965, thus only requiring a two lane bridge. The bridge then went to a condition rating of "Presently Adequate". Since 1965 we have received zero dollars through needs or maintenance.

As you know, the City of Duluth let a construction contract on the Aerial Bridge in 1985 in the amount of \$4,616,348, excluding engineering costs. Of this amount, almost \$4,000,000 will come out of our MSA Construction Fund. My question is, "Should we have been receiving needs over the last 21 years and, if so, can we be reimbursed by adding that amount of MSA money spent on the project back into the bridge needs for the next 15 years, the same as for a non-existent bridge?" In retrospect, the bridge should have been drawing needs over the past 21 years to justify the expenditure of over \$5,000,000 on rehabilitation.

I would appreciate your opinion as to the above thoughts and if it is worth pursuing with the Screening Committee or Needs Subcommittee for future consideration at the Spring or Fall meeting.


John H. Carlson
City Engineer

as

xc: Roger Kurrle
Ed Leone
File

Let 12-13-84

S.A.P. 118-140-19

Fund 29 871,269.72

Urban SA 2,185,078.88

Urban - Bond 1,300,000.00

Local 260,000.00
\$ 4,616,348.60

1981 Traffic 6020

78 0 Needs

84 0 Needs

STATUS OF PROBLEM BOND ACCOUNTS
as of 5-1-86

<u>City</u>	<u>Date of Issue</u>	<u>Amount of Issue</u>	<u>Principal paid to date</u>	<u>Principal left to pay</u>	<u>Date of last prin. payment</u>	<u>Amt. used on SAPs</u>	<u>Remainder of prin.to be applied</u>	<u>Prin. paid - amt. used on SA projects</u>
Mankato	1-1-72	\$610,000	\$610,000	\$ -0-	10-82	\$606,378.69	\$ 3,621.31	\$ 3,621.31
Mendota Heights	6-1-65	\$175,000	\$175,000	\$ -0-	4-85	\$163,627.51	\$ 11,372.49	\$ 11,372.49
Minnetonka	8-1-77	\$750,000	\$750,000	\$ -0-	6-82	\$620,938.78	\$129,061.22	\$129,061.22
Mounds View	12-1-67	\$140,000	\$140,000	\$ -0-	11-82	\$133,094.46	\$ 6,905.54	\$ 6,905.54
Northfield	9-1-73	\$315,000	\$315,000	\$ -0-	1-83	\$257,418.00	\$ 57,582.00	\$ 57,582.00
Owatonna	8-1-76	\$120,000	\$120,000	\$ -0-	1-79	\$113,638.00	\$ 6,362.00	\$ 6,362.00
Woodbury	11-75	\$263,000	\$143,000	\$120,000	10-85	\$ 98,935.63	\$164,064.37	\$ 44,064.37
Redwood Falls	1982	\$215,000	\$110,000	\$105,000	1-86	\$ -0-	\$215,000.00	\$110,000.00

1986 MUNICIPAL SCREENING BOARD
UNENCUMBERED CONSTRUCTION FUNDS
SUMMARY OF THE FOURTEEN CITIES WHICH MAY EXCEED THE LIMITATIONS
OF THE SCREENING COMMITTEE DIRECTIVES

	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>Col. A</u> <u>Col. B</u>
<u>Municipality</u>	Amount available 5-1-86 not including 1986 Const. allotment	1986 Const. Allotment	Allowed Balance	Excess Balance	
Albert Lea	972,171	374,586	749,172 (2X)	222,999	2.60
Blaine	1,208,099	543,090	1,086,180 (2X)	121,919	2.22
Chanhassen	592,183	215,208	515,208 *	76,975	2.75
Chaska	534,936	206,279	506,279 *	28,657	2.59
Edina	2,037,550	886,356	1,772,712 (2X)	264,838	2.30
Fridley	1,167,757	397,365	794,730 (2X)	373,027	2.94
Golden Valley	1,202,340	579,173	1,158,346 (2X)	43,994	2.08
Hopkins	672,323	185,081	485,081 *	187,242	3.63
Maplewood	1,335,779	666,346	1,332,692 (2X)	3,087	2.00
New Brighton	995,146	272,831	572,831 *	442,315	3.65
New Ulm	688,231	292,047	592,047 *	96,184	2.36
So. St. Paul	882,550	269,038	569,038 *	313,512	3.28
Stillwater	793,454	283,643	583,643 *	209,811	2.80
West St. Paul	1,081,237	218,469	518,469 *	562,768	4.95

* Includes allowable \$300,000

May 23, 1986

(612)296-1662

In reply refer to:
Status of Construction Fund Balance

Dear

The present Screening Directives state that whenever a municipality exceeds \$300,000 or two times their annual construction allotment in their balance available as of June 30th of the current year, not including the current year's allotment. The Unencumbered Construction Fund Subcommittee will review and allow each city to explain the reason for the large balance.

Our records show that as of May 1, 1986 you have \$_____ available for construction, not including the 1986 allotment.

Your city must reduce the amount by \$_____ to a balance of \$_____ to avoid a possible adjustment recommendation by the Unencumbered Construction Fund Subcommittee.

Should you have any questions regarding your construction fund balance, contact Kenneth Straus at (612)296-1662.

Sincerely,

Gordon M. Fay, Director
Office of State Aid

1985 MUNICIPAL SCREENING BOARD DATA

Status of Municipal Traffic Counting

1. Seven County Metropolitan Traffic Area

Cities in the seven county metropolitan area count cooperatively with Mn/DOT. All cities, except Minneapolis and St. Paul will complete their counting program in 1985, Minneapolis and St. Paul will count over the 1985-86 Cycle. Beginning with this year, the outstate cities will be counted on a four-year cycle instead of the present six-year counting cycle.

2. Out State Municipalities

a. Municipalities that count traffic annually

Duluth

b. Traffic to be counted in 1985 by state forces

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

c. Traffic to be counted in 1986 by state forces

Alexandria	Willmar
Cloquet	Worthington

d. Traffic to counted in 1986 by individual municipalities

Rochester

e. Traffic to counted in 1987 by state forces

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

f. Traffic to be counted in 1988 by state forces

Austin	Detroit Lakes	International Falls	Montevideo
--------	---------------	---------------------	------------

CURRENT RESOLUTIONS
OF THE
MUNICIPAL SCREENING BOARD

OCTOBER 1985

BE IT RESOLVED:

ADMINISTRATION

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.

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.

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.

Appointment to Unencumbered 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 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.

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.

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.

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. 1965 (Revised June 1983)

That when a Municipal State Aid Street is constructed to State Aid standards with State Aid funds, said construction shall be considered to be 100 percent accomplishment of total needs with the exception of additional surfacing. 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 are permitted in subsequent needs.

The money needs for all streets and bridges constructed with State Aid funds with the exception of additional surfacing, shall be removed from the Needs Study until such time as a reconstruction project is awarded. At that time, a money needs adjustment shall be made by annually adding the total amount of the street or bridge cost that is eligible for State

Aid reimbursement for a 15-year period (except for preliminary engineering). This cost to exclude any federal or State Aid grants and to be effective on all reconstruction projects awarded after January 1, 1983.

Each city will be responsible for reporting their qualified reconstruction projects with the annual needs update, beginning December 31, 1983.

That in order to be consistent with the previous resolution, the Office of State of State Aid is instructed to remove all needs except additional surface for streets that have been improved with the use of State Aid funds.

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.

Construction Cut Off Date - 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.

COST

Construction Item Unit Prices - (Revised Annually)

Right of Way:			\$ 10,000.00 Mile
Grading:			\$ 3.00 Cu. Yd.
Base:	Class 4	Spec. #2211	\$ 4.50 Ton
	Class 5	Spec. #2212	\$ 5.25 Ton
	Bituminous	Spec. #2331	23.50 Ton
Surface:	Bituminous	Spec. #2331	\$ 23.50 Ton
	Bituminous	Spec. #2341	25.00 Ton
	Bituminous	Spec. #2361	35.50 Ton
Shoulders:			
	Gravel	Spec. #2221	\$ 4.25 Ton

Miscellaneous:

Storm Sewer Construction	0	Mile
Storm Sewer Adjustment	\$ 62,000.00	Mile
Traffic Signals	10,000.00	Mile
Street Lighting	2,000.00	Mile
Curb & Gutter	6.50	Lin. Ft.
Sidewalk	14.00	Sq. Yd.

Removal Items:

Curb & Gutter	\$ 1.50	Lin. Ft.
Sidewalk	3.50	Sq. Yd.
Concrete Pavement	3.75	Sq. Yd.
Tree Removal	90.00	Unit

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.

Storm Sewer

The money needs for all complete storm sewers shall be removed from the Needs Study until such time that a money needs adjustment shall be made by annually adding the amount of the project cost that is eligible for State Aid participation for a 15-year period. Storm sewer adjustment will continue to be included as a needs item. Each city will be responsible for reporting their qualifying storm sewer projects with their annual needs update, beginning December 31, 1984.

This adjustment will be phased over a 2-year period to temper the effect over the 1985-1986 apportionments.

Right of Way - Oct. 1965 (Revised June 1981)

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.

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.

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 1962)

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.

(Revised 1975)

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.

(Revised June 1979)

"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."

Construction Fund Balance - Oct. 1961 (Revised May 1975)

That for the determination of the 1962 Municipal State Aid Street Needs and all future Needs, that the amount of the unencumbered construction fund balance as of June 30th of the current year, not including the current year construction apportionment, shall be deducted from the 25-year total Needs of each individual municipality.

That annually the Finance Office shall review the encumbrances of each municipality and delete from the construction fund balance only those encumbrances that have been made for projects awarded the previous year.

(Revised Oct. 1981)

By January 1, 1983, each municipality 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.

(Revised Oct. 1981)

That, whenever a municipality exceeds \$300,000, or two times their annual construction allotment (whichever is greater) in the construction fund balance available as of June 30th of the current year, not including the current year's allotment, the Unencumbered Construction Fund Subcommittee will review and allow the city in question to explain the reason for the large balance. Each individual municipality will be evaluated by the Subcommittee and a recommendation shall be made to the Screening Board prior to making adjustment. The sub-committee's recommendations will be based on the guidelines that should an adjustment be necessary, twice the city's unencumbered construction fund balance, less the current year's construction allotment, will be deducted from the city's 25-year needs prior to the succeeding year's apportionment. 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 deduction previously defined.

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.	\$45.00 Sq. Ft.
Bridges 150 to 499 Ft.	\$51.00 Sq. Ft.
Bridges 500 & Over	\$50.00 Sq. Ft.
Bridge Widening	\$65.00 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 - 1	\$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)	\$65,000 Unit
Signals and Gates (Multiple Track - high	\$95,000 Unit
Signs Only & low speed)	\$ 300 Unit

SOILS

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.

Trunk Highway Turnback - Oct. 1967

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 \$1,500 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 \$1,500 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.

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 1967)

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.

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

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. This would be a one-year adjustment to the 25-year needs.

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

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 six years, or may elect to continue the present procedure of taking their own counts and preparing their own traffic maps at five year intervals.
3. Some deviations from the present five-year counting cycle shall be permitted during the interim period of conversion to counting by State forces in the outstate area.

HE 356 .M6 M53a

Municipal Screening Board
data