



City of Shoreview

**Street Rehabilitation and Reconstruction
Plan**

For Years 2022 - 2027

Prepared December 13, 2021

INTRODUCTION

Since 1985, the City of Shoreview has managed the construction and maintenance of its street system in accordance with the street renewal program. Various small adjustments have been made to the program, over time, to reflect changes in street maintenance, rehabilitation strategies, and best management practices as reflected in the city's pavement management program. These activities are reviewed annually by the city council during the development of the capital improvement program.

In 2005 the city determined the overall condition of paved streets was trending downward and would likely continue to deteriorate if limited to existing fund sources. At that time the city council authorized additional funding of \$2,500,000 in the form of city issue street rehabilitation bonds, to finance street improvement projects. An additional \$2,500,000 of city bonds was issued in 2013 and \$3,000,000 in 2018 to finance additional street rehabilitation projects. Although the projects have helped the condition of streets in certain neighborhoods, there are many sections of roadways in the city where the overall condition is continuing to decline. It has been determined that additional funding is required to address this trend. At this time it is recommended that the city implement additional funding for street rehabilitation projects.

DISCUSSION

The city is responsible for approximately 100-miles of roadways, including additions from Ramsey County turn backs. Approximately 80-miles are classified as local, residential roads with the remaining 20-miles classified as municipal state aid (MSA) roads.

The city receives an annual allocation of the state gas tax distribution specifically for qualifying improvements related to the MSA system. The dedicated funding mechanisms for collector street improvement and/or rehabilitation projects are typically programmed and implemented independent of the residential street projects. Due to the age of the city's MSA system, the annual allocation amounts are not keeping pace with the reconstruction/rehabilitation needs of the city's MSA system.

Non-collector streets are by default local roads and all improvements, rehabilitation, and reconstruction of these streets is funded through the city's street renewal fund. Funds available for street renewal, which include the tax levy and interest earnings on the minimum fund balance, have averaged approximately \$1,040,000 over the last 5-years.

The majority of the street renewal funds available during that time were spent on reconstruction projects. Additional funding of \$3,000,000, in the form of city issue bonds, was authorized by the city council in 2018 for street rehabilitation projects that were completed in 2018 and 2019.

Shoreview manages the maintenance and construction of its local street infrastructure in accordance with the adopted street renewal policy, included for reference with this report. It was created in 1985 and most recently amended in 1996. The street renewal fund has paid over \$21,000,000 for pavement replacement and rehabilitation in Shoreview, excluding street rehabilitation bonding and MSA funds, since its adoption. The intent of the program as stated in the policy is "to create a permanent program to manage, finance, and implement the reconstruction or rehabilitation of the streets within the City of Shoreview".

The public works department manages a pavement management program (PMP) that tracks pavement condition data for all the street segments in the city. The PMP groups streets into three classifications: 1) those which benefit from continued preventative maintenance including crack filling and patching; 2) those which are appropriate to rehabilitate by full depth reclamation with emulsion; and 3) those which should be totally reconstructed prior to performing any minor maintenance. The classification of streets is based upon their pavement condition index (PCI), which is a score on a scale of 1 to 100 with 100 representing a brand new pavement. The average PCI of all the streets in the city over time is a good indicator of how well we are keeping up with the natural deterioration of the pavements.

The initial emphasis of the street renewal policy and resulting pavement management program was to tackle the streets that were in the worst condition and required complete reconstruction first. The policy was amended in 1996 to allow for certain minor pavement rehabilitation efforts such as crack filling, patching, and seal coating to

be paid for from the street renewal fund. In recent years the city has experienced maintenance and structural issues associated with the seal coating that was placed on the street surface. Due to these issues the city suspended the use of seal coating as a maintenance strategy in 2018. Minor rehabilitation efforts such as crack filling and patching have had a measureable positive impact on the condition of city streets and will continue to be used.

In 2001 the city council began authorizing changes in street reconstruction/rehabilitation priorities that recognized the use of rehabilitation strategies. Since 2001 the City has used strategies including mill and overlays, full depth reclamation (FDR), and FDR w/emulsion as part of street improvement projects. Based on performance, FDR w/emulsion has become the preferred rehabilitation strategy for the city.

In 2006 the city council identified neighborhood areas within the city that had poor road surfaces and other infrastructure needs that required total reconstruction. The council made a commitment to bring the road surface and utility infrastructure in these neighborhoods to current city standards and since 2007 one neighborhood project has been completed each year and the last neighborhood area that was identified for reconstruction was completed in October of 2021. The majority of the street renewal funds available from 2007 to 2021 were used to fund the reconstruction projects. Given the identified reconstruction projects have been completed, the majority of the street renewal funds starting in 2024 will be available for rehabilitation projects.

A majority of the streets in Shoreview were constructed in the 1970's and 80's and are nearing the end of life cycle, requiring pavement rehabilitation for a large portion of the city's road infrastructure. If not addressed in the near future these roads will require total reconstruction, which is approximately double the cost when compared to FDR w/emulsion street rehabilitation strategy. Given the available resources, the use of pavement rehabilitation strategies is a viable approach to addressing the deteriorating pavement conditions system-wide.

The rehabilitation needs reflected in the 2022 – 2027 capital improvement plan and pavement management program total \$10,745,000. Approximately \$3,486,000 of those costs is associated with

collector streets or Ramsey County roadways and would be covered by MSA funds. The remaining is for local streets with \$4,709,000 of funding required from the street renewal fund and an additional \$2,550,000 of funding from city bonds.

PROPERTY TAX IMPACT

The city issued \$2,500,000 in bonds in 2006 for pavement rehabilitation projects completed in 2006 and 2007 and payment of the bonds will be completed in 2021. It is expected that the annual payment for the proposed bonding will be approximately the same as the annual payment for the 2006 bond issuance and an increase in property taxes will not be required to fund the planned \$2,550,000 street improvement bonds.


RECOMMENDATIONS

Analysis of our pavement management data indicates that the funding mechanisms currently available cannot keep pace with the pavement degradation that is predicted to occur in the future. The street rehabilitation and reconstruction plan for years 2022 – 2027 is comprised of this report, a summary of estimated costs by year and financing sources, a listing of street segments, and maps of rehabilitation and reconstruction segments.

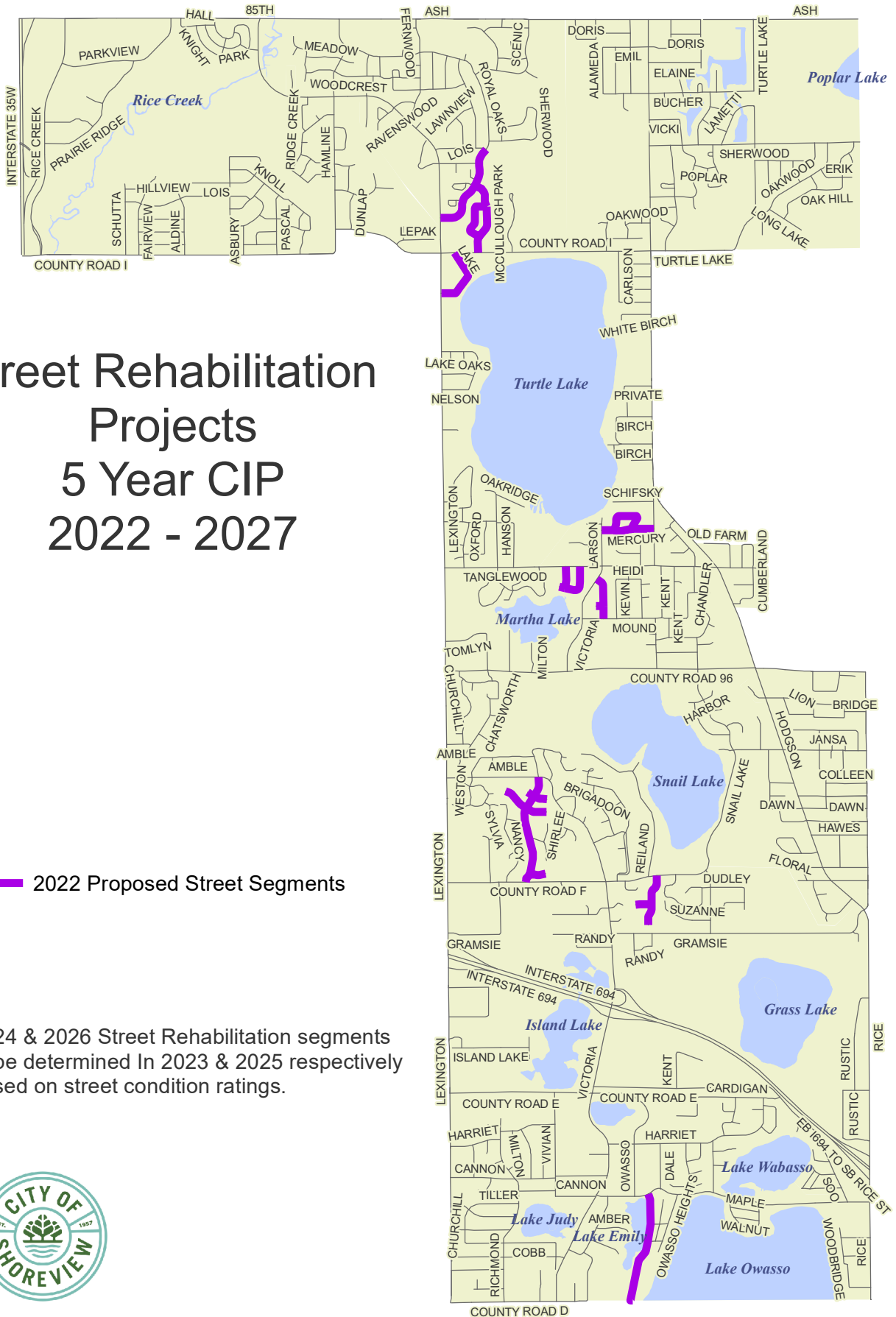
This street rehabilitation and reconstruction plan reflects a program that addresses immediate rehabilitation (full-depth reclamation w/emulsion) needs of \$2.55-million in the year 2022 by the use of street improvement bonds and the rehabilitation of additional streets in 2024 and 2026 with resources available in the city's street renewal fund. Additional street reconstruction is scheduled to occur in 2025, to be funded through MSA funds. The plan also includes the city's participation in Ramsey County reconstruction projects scheduled in years 2022 and 2023, to be funded by MSA funds.

The city's effort in minor maintenance/rehabilitation, which includes crack filling and patching has been largely successful in recent years and will continue to play an important role in maintaining the quality of Shoreview's streets. At this time the available resources and priorities for these activities appear appropriate; the annual public works budget assumes continuation of these activities for the foreseeable future.

Street Rehabilitation Projects 5 Year CIP 2022 - 2027

 2022 Proposed Street Segments

2024 & 2026 Street Rehabilitation segments to be determined In 2023 & 2025 respectively based on street condition ratings.



Street Reconstruction Projects 5 Year CIP 2022 - 2027

Organization, Project Year

- █ City, 2025
- County, 2022
- County, 2023



City of Shoreview
Street Rehabilitation and Reconstruction Plan - 2022 to 2027
Summary of Estimated Costs

Description	2022	2023	2024	2025	2026	2027	Total
RESOURCES							
Bonding							
Street Improvement Bonds	\$ 2,550,000						\$ 2,550,000
Special Assessment Bonds	\$ 166,000	\$ 217,250		\$ 32,000			\$ 415,250
Water Revenue Bonds	\$ 700,000	\$ 1,020,000		\$ 40,000			\$ 1,760,000
Sewer Revenue Bonds	\$ 125,000	\$ 815,000		\$ 24,000			\$ 964,000
Surface Water Revenue Bonds	\$ 200,000		\$ 200,000		\$ 220,000		\$ 620,000
Internal Sources							
Street Renewal Fund			\$ 2,286,000		\$ 2,423,000		\$ 4,709,000
MSA Fund	\$ 310,000	\$ 432,750		\$ 2,744,000			\$ 3,486,750
Street Lighting		\$ 50,000					\$ 50,000
Community Investment		\$ 150,000					\$ 150,000
External Sources							
Ramsey County				\$ 450,000			\$ 450,000
Total Resources	\$ 4,051,000	\$ 2,685,000	\$ 2,486,000	\$ 3,290,000	\$ 2,643,000	\$ -	\$ 15,155,000
OUTLAYS							
Rehabilitation Projects							
Rehabilitation 2022							
Street	\$ 2,550,000						\$ 2,550,000
Storm sewer	\$ 200,000						\$ 200,000
Rehabilitation 2024							
Street			\$ 2,286,000				\$ 2,286,000
Storm sewer			\$ 200,000				\$ 200,000
Rehabilitation 2026							
Street					\$ 2,423,000		\$ 2,423,000
Storm sewer					\$ 220,000		\$ 220,000
Reconstruction Projects							
Lexington Avenue - 2022							
Street	\$ 175,000						\$ 175,000
Water system	\$ 700,000						\$ 700,000
Sanitary sewer	\$ 125,000						\$ 125,000
Storm sewer							\$ -
Traffic signal	\$ 301,000						\$ 301,000
Hodgson Road - 2023							
Street		\$ 250,000					250000
Water system		\$ 1,000,000					\$ 1,000,000
Sanitary sewer		\$ 800,000					\$ 800,000
Storm sewer		\$ 350,000					\$ 350,000
Street lighting		\$ 50,000					\$ 50,000
Trail		\$ 150,000					\$ 150,000
Hodgson Road/County J - 2023							
Water system		\$ 20,000					\$ 20,000
Sanitary sewer		\$ 15,000					\$ 15,000
Trail		\$ 50,000					\$ 50,000
Hamline Avenue - 2025							
Street				\$ 1,905,000			\$ 1,905,000
Water system				\$ 40,000			\$ 40,000
Sanitary sewer				\$ 30,000			\$ 30,000
Storm sewer				\$ 700,000			\$ 700,000
Street Lighting				\$ 165,000			\$ 165,000
Trail				\$ 450,000			\$ 450,000
Total Outlays	\$ 4,051,000	\$ 2,685,000	\$ 2,486,000	\$ 3,290,000	\$ 2,643,000	\$ -	\$ 15,155,000

See attached list of segments for each project listed

City of Shoreview

Street Rehabilitation and Reconstruction Plan - 2022 to 2027

Listing of Street Segments

Year	Project Name	Street Name	Segment	
			From	To
2022	Street Rehabilitation			
	MSA Segments	Mound Ave	Larson Rd	Lorinda Dr
		West Owasso Blvd	Arbogast St	City of Roseville border
		Royal Oaks Drive	Lexington Ave	Sherwood Road
	Local Segments	Anderson Ln	Tanglewood Dr	Avon St
		Avon St	Tanglewood Dr	Anderson Ln
		Chatsworth St	County Rd I	Royal Oaks Dr
		Colleen Ave	Nancy Pl	W Cul-de-sac
		Colleen Ave	Nancy Pl	E Cul-de-sac
		Dawn Ave	Nancy Pl	W Cul-de-sac
		Dawn Ave	Nancy Pl	E Cul-de-sac
		Evergreen Pl	Snail Lake Blvd	Cul-de-sac
		Evergreen Cir	Evergreen Pl	Cul-de-sac
		Lake Ave	Lexington Ave	County Rd I
		Larson Rd	Mound Ave	Victoria St
		Larson Ct	Larson Rd	Cul-de-sac
		Maple St	Mercury Dr	Woodlane Dr
		Marth Lake Ct	Avon St	Cul-de-sac
		Maywood St	WoodlaneDr	Mercury Dr
		Mercury Dr	Larson Rd	Hodgson Connection
		Nancy Pl	County Rd F	Victoria St
		Nancy Cir	Nancy Pl	Cul-de-sac
		Park Place Dr	Chatsworth St	Chatsworth St
		Woodlane Dr	Maple St	Maywood St
2022	Lexington Ave Reconstruction	Lexington Ave	1694	County Road E
2023	Hodgson Rd (Highway 49) Reconstruction	Hodgson Rd (Hwy 49)	Highway 96	Gramsie Rd
2024	Street Rehabilitation	Street segments to be determined in 2023		
2025	Hamline Ave Reconstruction	Hamline Ave	County Rd I	Lexington Ave
2026	Street Rehabilitation	Street segments to be determined in 2025		

**CITY OF SHOREVIEW
POLICY FOR STREET RENEWAL
AMENDED OCTOBER 21, 1996**

I. INTENT

It is the intent and purpose of this policy to maintain a permanent program to manage, finance and implement the reconstruction or rehabilitation of the streets within the City of Shoreview. This policy is intended to allow the City to adequately plan for the major capital costs that will ultimately occur as the City's existing streets age and deteriorate. It is also the intent of this policy to create a financing and payment system that will be fair and equitable to all property owners within the City during the future years as it becomes necessary to reconstruct or rehabilitate the City's street system.

II. ELIGIBLE PROJECTS

Street improvement project eligible under this policy consists of improvements to existing paved public streets within the City, which are in public use and which are maintained by the City. Unimproved, unmaintained public rights-of-way are not eligible. Street improvements to Ramsey County roadways or State highways located within the City, which are performed as a joint City/County or City/State project, under the terms of an agreement which obligates the City to participate in the cost of the improvement, are also eligible projects for this policy.

No street improvement project shall be initiated under this policy until all underground utilities that are or will be located within the roadway area have been inspected and determined to be adequate, or have been repaired or rehabilitated to a condition that will provide a projected useful life of the utility in excess of the anticipated useful life of the new or rehabilitated roadway. In addition, all future publicly-owned underground utility systems that will be required for the ultimate development and service of the project area must be installed prior to the implementation of street improvements under this policy.

The rehabilitation, replacement, or installation of new sanitary sewer, water systems or storm drainage systems, which are required to satisfy this policy, shall not be considered as an element of the street improvement program. Such underground utility improvements, which are required in advance or at the time of the street improvement project, shall be implemented by the City under the prevailing policies and regulations for such utility improvements, and the costs involved in such utility improvements shall not be included as a cost of the street improvement project. Minor modifications to utility systems, which are required to facilitate the new street, such as manhole, catchbasin, and valve adjustments, shall be considered as an element of the street project.

The City shall perform a detailed inventory of all City streets that are eligible for improvement under this policy, and maintain such information in an automated Pavement Management Program (PMP). The PMP shall measure and document the condition of all City streets, taking into account such factors as surface texture and wear, the extent of cracking, the roughness, adequacy of drainage and such other factors that will assist in the evaluation of the roadway. The data collected by the PMP shall be evaluated by the City Engineer and, based on that evaluation, the City shall prepare a comprehensive schedule and cost estimate for the anticipated street improvements. In addition, a Capital Improvement Program (CIP) shall be prepared which shall identify the estimated cost, sequence, and schedule in which projects should be implemented. The PMP shall be reviewed and updated every four years, and a new cost estimate, rating, and CIP shall be prepared with each update of the PMP.

III. DESIGN STANDARDS

All City streets, except those streets on the Municipal State Aid Street System (MSA) shall be designed to a uniform performance standard. The basic standards shall be a 32-foot width measured from face of curb, a pavement and base section adequate for a 7-ton loading based upon the characteristics of the underlying subgrade soils, and it shall include concrete curb and gutter. In areas where platted right-of-ways and/or existing land uses make the consideration of 32-foot-wide streets impractical, the City shall analyze the feasibility of narrower streets. Such analysis shall include emergency service needs, existing topography, access issues, cost, and other factors deemed appropriate. The specific design details, specifications and material standards used for a street improvement project shall generally conform to the City's ordinances and procedures, applicable at the time the project is implemented.

To the maximum extent possible, the existing streets and in-place materials shall be used or left in place. Sealcoating, crack-filling and pavement overlay strategies will be used to rehabilitate roadways when deemed cost-effective through analysis of the City's Pavement Management Program. Existing concrete curb shall be left in place if its condition is adequate for the anticipated life of the new or rehabilitated pavement. In-place pavement and aggregate base materials shall be recycled and reused when it is determined that it is the most cost-effective method.

Design standards for City streets that are on the MSA system shall be as required by the MSA regulations. Design standards for Ramsey County or Mn/DOT roadways shall be determined by each respective agency.

IV. PAYMENT AND FINANCIAL PROGRAM

It is the intent of this policy that the City, as a whole, is primarily responsible for the payment of the street replacement and rehabilitation program. It is also the intent of this policy to identify the specific benefits that are created by the street improvements to the

adjacent properties, specifically the enhancement of property values as a result of the adjacent street improvements.

The financial program shall consist of the following elements:

- A. The City shall designate, to the maximum extent possible, all of its available MSA mileage allocation, with the objective of securing the maximum amount of MSA funds for use in conjunction with the Street Renewal Program.
- B. The City will maintain a permanent Street Renewal Fund from which the majority of the cost of the street renewal program shall be paid. The Street Renewal Fund shall be reviewed periodically, and adjustments to the policy shall be made where necessary to assume the adequacy of the fund.
- C. The City shall levy special assessments on adjacent benefiting properties when the street improvement project includes the installation of concrete curb and gutter in locations where concrete curb and gutter did not exist prior to the improvement.

The cost to be assessed to abutting properties shall be a portion of the cost to bring the street up to a modern standard, being approximately equal to the cost of new concrete curb and gutter, including a proportionate share of all project Engineering and Administrative costs of the improvement. The assessment rate shall be computed on a per-lot unit basis, with a lot unit being defined as a platted single-family residential lot or equivalent which, according to current Shoreview code, cannot be further subdivided for R-1 detached residential. A lot unit dimension may be set as the average width based on detached residential/R-1 lots within the improvement area.

In computing the assessable units, consideration shall be given to properties that can be further subdivided into lot units. All properties other than single family residential (R-1 detached residential) such as parks, attached and detached residential, high-density residential, churches, schools, offices, commercial and industrial properties shall be superficially subdivided to determine the assessable lot units or part thereof. To reflect the number of increased traffic generation by commercial, industrial, and high-density residential properties, a factor of 2 will be applied to determine the rate of assessment for properties of these types.

Benefits from street renewal improvements shall be considered to extend a minimum of 130 feet each side of the street right-of-way. A half-unit width shall be considered on corner lots where both streets are not currently being improved. Lots fronting on or immediately adjacent to more than one improved, public street shall not be doubly assessed.

If a street renewal project is requested to be constructed to a greater width and/or thickness than the standard by the abutting property owners, then the excess cost above that of the standard reconstruction cost shall be fully assessed to those properties.

If a property has been assessed on a lot unit basis for a public improvement, and subsequently a property division is made creating additional lot units, then a supplemental charge shall be made to the property at the same rate which applied under the original assessment.

The assessment process shall be carried out in accordance with Minnesota Statutes Chapter 429. The assessment rate shall be on a per-lot unit basis and shall be calculated and processed in accordance with the current City Street Renewal Program and Unit Assessment Policy.

No special assessments shall be levied in situations where there is existing concrete curb and gutter.

V. IMPLEMENTATION PROCEDURES

- A. Consideration of a street for improvement under this policy shall be initiated by any of the following:
1. Petition by the adjacent property owners.
 2. Recommendation by the City staff based upon the Capital Improvement Program (CIP) and/or the Pavement Management Program (PMP).
 3. Request by Ramsey County and/or Mn/DOT for City participation in a joint improvement.
 4. Initiation by City Council.
- B. If the City Council determines that it is desirable to consider the project, and engineering feasibility study shall be prepared. The study shall examine the need for the project, its relative priority to other streets that are in need of improvement, the extent of utility repairs and improvements required in advance of the street improvement, and the cost and financial considerations. If the proposed project includes special assessments, all subsequent work and activities shall be performed in accordance with the applicable provisions of the MSA regulations, current City policy,

and Minnesota Statutes Chapter 429.

- C. Following the Public Hearing, the Council will either order the work or reject the project.

Adopted by the City of Shoreview on the 21st day of October, 1996.

Mayor James Chalners
City Manager Troy Schwann