

# **City of Maplewood**

Ramsey County, Minnesota

## **2017 – 2021 Capital Improvement Plan**



# Maplewood

Adopted December 12, 2016

**Prepared by the Department of Finance**

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SECTION I  
INTRODUCTION



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**CITY OF MAPLEWOOD, MINNESOTA**  
**PRINCIPAL CITY OFFICIALS**

NOVEMBER 2016

**CITY COUNCIL**

NORA SLAWIK, MAYOR  
Term Expires 12-31-2017

KATHLEEN JUENEMANN, COUNCILMEMBER  
Term Expires 12-31-2017

MARYLEE ABRAMS, COUNCILMEMBER  
Term Expires 12-31-2017

BRYAN SMITH, COUNCILMEMBER  
Term Expires 01-04-2020

TOU XIONG, COUNCILMEMBER  
Term Expires 01-04-2020

**CITY MANAGERIAL STAFF**

<b>Officer</b>	<b>Position</b>	<b>Date Appointed</b>
Melinda Coleman	City Manager	February 6, 2015
Mike Funk	Assistant City Manager/HR Director	February 23, 2015
DuWayne Konewko	Director of Environmental & Economic Development	May 2, 2016
Ellen Paulseth	Finance Director	May 2, 2016
DuWayne Konewko	Director of Parks & Recreation	January 1, 2011
Mychal Fowlds	Director of Information Technology	February 6, 2006
Karen Haag	Director of Citizen Services	August 5, 1996
Steve Lukin	Fire Chief	March 17, 2000
Michael Thompson	Director of Public Works	June 4, 2012
Paul Schnell	Police Chief	July 29, 2013

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December 12, 2016

Honorable Mayor and Council Members:

## **Introduction**

The 2017 – 2021 Proposed Capital Improvement Plan (CIP) for the City of Maplewood is submitted herewith. The City Manager, department heads and staff members have worked diligently to produce a document that is practical, substantive and insightful.

## **Capital Improvement Plan Goals**

- **Acknowledge and Communicate Public Infrastructure Priorities and Dynamics;**
- **Ensure Appropriate Responses to Changing Infrastructure Needs and Demands;**
- **Develop a Financial Assessment of Capital Resources Available to Meet Future Capital Project Planning Needs;**
- **Institute a Strategic Vision Predicated on Maintaining High Quality Infrastructure Capable of Meeting the Needs of Our Citizens for Today and Tomorrow.**

The purpose of the City's CIP is to identify, prioritize and address community needs through careful long-term capital planning and balanced public investment in supporting physical infrastructure. To ensure that this commitment is both meaningful and achievable, appropriate capital improvement factors were given significant consideration in developing a CIP that addresses community priorities over the next five (5) years. The CIP will also provide a planning foundation for future needs assessments to ensure the City is appropriately responding to the critical infrastructure needs necessary for sustainable future growth. The CIP represents a beginning in terms of producing a comprehensive planning response to address changing capital needs by developing a project schedule that will lead to timely and cost-effective project completions.

## **Discussion**

The 2017 – 2021 CIP has been prepared as a strategic planning tool to assist the City Council in identifying proposed capital improvement projects over the next five years. With the inclusion of preliminary financing sources, and appropriate background information citing needs and projected cost estimates, this document will provide the Council with the information to begin the process for planning improvements that meet the City's physical infrastructure needs. Consequently, the CIP serves as a flexible guide to properly identify the critical components of the City's infrastructure, yet maintain flexibility in determining project timeframes, project scope and possible funding sources. The 2017-2021 CIP continues the emphasis of judiciously managing the City's limited resources by prudently planning for known and/or anticipated future capital expenditures.

A critical step in the plan adoption process is the collaborative nature of plan review that involves the leadership of the City Council, the input of appointed commissions and staff, and comment from the community. Consequently, the strategic value of this plan lies in the acknowledgement of future needs by the governing body and the effective communication of those needs to the general public during project development stages. Likewise, the availability and preliminary designation of fiscal resources to serve both current and future needs is critical to the achievement of plan outcomes that meet with Council approval. For major infrastructure improvements, feasibility studies are performed and affected constituencies are notified to formally disseminate and receive public feedback on proposed project plans. This process culminates with the City Council considering all relevant information and making a final decision on the proposed capital improvements.

The public process that supports the advancement of these projects from inception to completion is engendered in the CIP project development and authorization schedule. Formalizing the steps in the CIP project advancement process serves a number of purposes and ensures that the Council and public are kept informed regarding project purposes and desired outcomes, estimated project costs, funding sources, progress and final status. It should be emphasized that projects will require approval in various stages of project development by the City Council in accordance with approved policies.

The objectives of the 2017 – 2021 CIP are to present a comprehensive capital improvement program that communicates efforts:

- To ensure that community priorities are reflected in the capital investment plans of each City department;
- To provide a consolidated financial picture of anticipated expenditures and outline recommended funding strategies to underwrite anticipated capital improvements;
- To document and communicate capital improvement processes for City projects that will ensure consistency, an appreciation of the costs and benefits of proposed capital investments, and raise the level of public understanding regarding the City's public improvement processes;
- To provide information on the fiscal impacts of capital investment plans on total City finances; and
- To effectively plan for public improvements that support community needs in the areas of private development infrastructure, transportation, public safety, parks and recreation, utilities, and commercial/industrial growth through fiscally responsible economic development initiatives.

Accordingly, this document attempts to recognize known or perceived capital improvement needs, but as with any plan recognizes that social, economic and political considerations will by necessity determine final project outcomes. The major categories of expenditures that are identified within the CIP include, but are not limited to: 1) Public Facilities; 2) Street and Utility Construction; Maintenance and Reconstruction; 3) Construction, Maintenance and Upgrades of Parks, Playgrounds and Trails; 4) Private Development Infrastructure and Redevelopment; and ) Capital Equipment and Vehicles.

The City Council, consequently, accepts this document with the provision that capital improvement planning is subject to the dynamics of community growth and political leadership and acknowledges that other unanticipated needs may take precedence over planned projects.

## **Projects**

Major projects in the 2017 – 2021 CIP include:

### ***Equipment & Facilities***

- Facility Maintenance and Upgrades
- Fire Station Rehabilitation
- Fire Truck Replacements
- Ambulance Replacement
- Fleet Replacements
- Technology Upgrades
- Police Body Cameras and Video Storage
- Police Records Management System
- Election Equipment
- Lift Station Upgrades
- Regional Police Firearms Training Range

### ***Street Improvements***

- Farrell/Ferndale Area Street Improvements
- Dennis/McClelland Area Street Improvements
- Ferndale/Ivy Area Street Improvements
- Pond/Dorland Area Street Improvements
- East Shore Drive Area Street Improvements
- Hillwood Crestview Area Pavement
- Mailand/Crestview Forest Area Pavement
- Schaller Area Pavement
- Londin/Highpoint Area Pavement
- Southcrest/Ferndale Area Pavement
- Sterling Street Bridge Replacement
- Rice Street Project (County is lead agency)
- White Bear Ave/I694 Interchange Project (County is lead agency)

### ***Parks***

- Nature Center Upgrades
- Master Plan Park Maintenance
- Community Center Improvements
- Open Space Improvements
- Park Improvements
- Emerald Ash Borer Removal and Planting

### ***Economic Development***

- Gladstone Area Redevelopment
- Commercial Property Redevelopment

## **Recommendation**

The 2017 – 2021 CIP is the product of collaborative planning efforts by City staff and City consultants, City commissions, and the City Council. Projects have been introduced based on anticipated future growth trends articulated in the City's Comprehensive Plan and engineered improvements in the established areas of the community, and capital deficiencies or infrastructure issues brought to the City's attention through a variety of sources.

Capital expenditures identified within the CIP are the best estimates available, and once the CIP is adopted, will be reviewed and confirmed through individual feasibility reports. We are appreciative of the commitment, good judgement and expertise that each department has contributed to the capital improvement planning process. We recommend adoption of the 2017 – 2021 Capital Improvement Plan to ensure that the City's infrastructure, facility and equipment needs will be met.

*Melinda Coleman*

Melinda Coleman  
City Manager



## **CIP Public Improvement Project Authorization Schedule**

The following process is a guideline for authorizing public improvement projects. The process is controlled by Minnesota statutes and community factors. It is, therefore, subject to change. It should be viewed as a guide to assist the City Council and public in understanding the public improvement process used by City staff. City Council action will facilitate each step in the process. As a result, the process time frame is a significant factor affecting the ability of City staff to properly manage and complete approved Council ordered projects within budget and in a timely manner.

### **1. Council approval of annual CIP projects and City Council resolution ordering preparation of feasibility study will authorize the following:**

- a. Staff and/or consultant preparation of project feasibility studies;
- b. Staff preparation of detailed financial review of estimated project costs and funding sources;
- c. Neighborhood meeting may be held prior to feasibility study, subject to need and type of project.

**Time Frame: June – July**

### **2. Presentation of feasibility study:**

- a. Feasibility study components:
  - i. Review of project scope, preliminary engineering design elements and construction costs;
  - ii. Estimated total project costs, including engineering, administrative, legal and fiscal expenses;
  - iii. Project financial plan/fiscal implications;
  - iv. Preliminary assessment roll, if any, for the public hearing.
- b. City Council will consider acceptance of feasibility study, and adopt a resolution “Accepting Feasibility Study and Setting Date of Public Hearing on the Project.” Adoption of the resolution initiates the following:
  - i. Notices are mailed to affected residents, per statutory requirements, no less than ten days before public hearing;
  - ii. Public hearing notice is published. Two publications, one week apart, with the second publication no less than three days before the hearing.
  - iii. Staff and/or consultants prepare project plans and specifications.

**Time Frame: September – November**

### **3. Neighborhood meeting:**

- a. City staff will hold neighborhood project meetings, when appropriate, to review and present project feasibility studies, answer questions and meet with affected property owners. These meetings will include a question and answer component designed specifically to bring awareness to the property owner, obtain citizen input and produce an understanding of the purpose behind the proposed public improvement.

**Time Frame: Following the City Council approval to prepare the feasibility study, but prior to the public hearing.**

**4. City Council holds a public hearing, when appropriate, for the following purposes:**

- a. Presentation of project;
- b. Presentation of preliminary special assessment rolls and financing implications;
- c. To hear affected resident input;
- d. City Council determines whether to order the public improvement.
- e. A City Council resolution is drafted "Ordering the Project and Authorizing Preparation of Plans and Specifications." The City Council may order the improvement after the public hearing is closed or at a subsequent Council meeting within 6 months of the public hearing date. By statutory requirement, the City Council resolution ordering the project must be approved on a 4/5 Council vote if it is a project with special assessments. If the City Council rejects the project as presented, a Council vote should determine the final status of the project.

**Time Frame: November – January**

**5. Plans and specifications are presented to City Council for approval:**

- a. A City Council resolution is drafted authorizing the following:
  - i. Accepting and approving project plans and specifications;
  - ii. Authorizing the advertisement for project bids. Bids are developed and an invitation to bid is processed. Bid opening date is no less than 3 weeks after publication;
  - iii. Authorizing the preparation of assessment roll;
  - iv. Authorizing staff to pursue an appropriate funding mechanism to underwrite project costs.

**Time Frame: February – March**

**6. Assessment roll presented to City Council for approval:**

- a. A City Council resolution is drafted authorizing the following:
  - i. Approval of the preliminary assessment roll;
  - ii. Ordering assessment hearing.

**Time Frame: February – March**

**7. City Council acceptance of project bids, award of contracts, and assessment public hearing:**

- a. Affected property owners are officially notified, per Minnesota Statutes, no less than two weeks prior to special assessment hearing;
- b. Public notice is published no less than two weeks prior to the special assessment hearing, per Minnesota Statutes;
- c. Staff presents the assessment roll and City Council approves the final assessment roll.

- d. All assessment appeals and requested deferrals received prior to the close of the assessment public hearing will be reviewed by staff and brought back to Council with recommendations at a subsequent meeting;
- e. A City Council resolution is drafted “Accepting Project Bids and Awarding Contracts,”
- f. Project and construction work begins.

**Time Frame: March – May**

**8. City Council considers assessment appeals and requested deferrals and approval of revised assessment roll:**

- a. Council consideration of assessment appeals and requested deferrals filed prior to close of the assessment public hearing;
- b. A City Council resolution “Adopting Revised Special Assessment Roll” is considered and adopted;
- c. All actions meet Minnesota Statutes Chapter 429 legal requirements.

**Time Frame: March – May**

**9. Project completion is demonstrated by:**

- a. Council acceptance of the project;
- b. Final presentation and review of project costs vs. project budget.

**Time Frame: Upon completion of the project**

# Capital Improvement Financing

## Introduction:

Implementing capital improvements requires the utilization of sound, economical financing methods. The City of Maplewood has several financing mechanisms available, ranging from cash reserves to special-purpose funds to borrowing through the issuance of municipal bonds. The financing plan for each improvement is based on the policies of the jurisdictions participating in the project and legal requirements. The final selection and scheduling of proposed capital improvements is based on the ability of the City to secure an appropriate financing plan.

The total cost for each project includes construction costs, administrative costs and interest. Several funding sources may be used for a given project. The financial viability of each of the projects in the 2017 – 2021 CIP was analyzed against the following available financing mechanisms:

## Bonds and Notes:

**Capital Equipment Notes** – these notes are backed by the full faith and credit of the City and are subject to the City’s legal debt limitation. The notes can be used to purchase public safety equipment, ambulance and other medical equipment, road construction and maintenance equipment, and other capital equipment having an expected useful life at least as long as the term of the notes. The notes usually mature in five years, but can be issued for terms of up to ten years.

**Capital Improvement Bonds** – these General Obligation bonds are backed by the full faith and credit of the City and are subject to the City’s debt limit. They are issued to finance infrastructure and facility improvement projects in the City’s Capital Improvement Plan. Due to a statutory requirement, the bonds must be approved by a three-fifths vote of the City Council. The statute also limits the total amount of principal and interest due in any year on all CIP bonds issued by the City to not exceed .16% of the estimated market value of all property in the City. CIP bonds are also subject to a reverse referendum requirement.

**General Obligation Bonds** – These bonds are backed by the full faith and credit of the City and are all, or partly, supported by tax levies. Bonds that are more than 80% supported by tax levies require voter approval prior to issuance.

**General Obligation Improvement Bonds** – these bonds are similar to General Obligation Bonds except they do not require voter approval for issuance because the bonds include only the portion of the public improvement project that is not assessed to property owners. At least 20% of the project cost must be assessed to issue these bonds.

**Municipal State Aid Bonds** - these bonds are issued to finance improvements to municipal state-aid streets. Under state law, future allotments of state street aid are pledged to pay the principal and interest on the bonds. The bonds are also backed by the full faith and credit of the city.

**Special Assessment Bonds** - these bonds, backed by the full faith and credit of the City, are payable from special assessment charges made to property owners who benefit from public improvements. Under state law, special assessment bonds can be issued without voter approval provided that at least 20% of the improvement cost has been assessed.

**Tax Abatement Bonds** – these bonds can be issued to finance public infrastructure, public facilities including parks and recreational facilities, as well as development and redevelopment projects. The benefited project or infrastructure does not need to be on or adjacent to the parcel for which taxes are being abated. The maximum principal amount of tax abatement bonds may not exceed the estimated sum of the abatements for the property for the years authorized. These bonds are excluded from the calculation of the net debt limit.

**Tax Increment Bonds** – these bonds can be issued for housing, economic development, construction of public facilities or infrastructure and redevelopment of blighted areas. The bonds can be revenue bonds or general obligation and are not subject to referendum approval. The bonds are not subject to the City's legal debt limitation.

**City Funds:**

**Ambulance Service Fund** –this fund accounts for customer service charges that are used to finance emergency medical services.

**Capital Improvement Projects Fund** – this fund was established to finance major capital outlay expenditures, through a property tax levy, that cannot be easily financed by alternative revenue sources. It is referred to as the CIP Fund.

**Economic Development Authority Fund** – this fund was established to finance activities of the Maplewood Area Economic Development Authority.

**Environmental Utility Fund** – this fund was established to finance maintenance and improvements to the storm water utility system. Revenues for the fund are generated by a utility charge for surface water runoff.

**Fire Truck Replacement Fund** – this fund was established to finance purchases of fire apparatus. Property taxes are levied annually to fund the purchases.

**Fleet Management Fund** – this fund accounts for operating expenses of public works vehicles and major equipment. These operating expenses, including depreciation, are used as a basis to establish rental rates for departments using the vehicles. These procedures result in a cash reserve for capital replacement.

**General Building Replacement Fund** – this fund was established to provide a funding mechanism for the replacement and/or rehabilitation of City buildings. Property taxes are levied annually for this fund.

**General Fund** – this fund accounts for all financial resources except those required to be accounted for in another fund. The fund accounts for the majority of the City's operating budget.

**Information Technology Fund** – accounts for the maintenance, repair, and operation of the city's computer hardware and software.

**North St. Paul WAC Fund** - this fund accounts for revenue from water connection charges and a water surcharge that is paid by the owners of property that receive water from the City of North St. Paul. These revenues are used to finance water system costs that cannot be assessed.

**Park Development Fund** – this fund accounts for the receipt and disbursement of park availability charges PAC. These charges are levied against all new buildings constructed and are paid when the building permit is issued. PAC revenues on residential buildings can only be spent on park developments within the same neighborhood. Commercial PAC revenues can be spent on any park development.

**Police Department Squad/Equipment Replacement Fund** – this fund is being established to finance squad and major equipment expenditures related to the Police Department. Property taxes are levied annually for this fund.

**Police Services Fund** – this fund accounts for money that is legally restricted for police services. Most of the revenues are from the sale of forfeited property.

**Redevelopment Fund** – this fund accounts for activities related to redevelopment and housing rehabilitation and replacement.

**Sewer Fund** – this fund accounts for customer sanitary sewer service charges that are used to finance the sanitary sewer system operating expenses.

**St. Paul Water Fund** – this fund accounts for charges collected by the St. Paul Regional Water Services on behalf of the City of Maplewood.

**St. Paul Water Availability Charge Fund** – this fund accounts for revenue from water connection charges and a water surcharge that is paid by the owners of property that receive water from St. Paul Regional Water Services. These revenues are used to finance water system costs that cannot be assessed.

**Street Light Utility Fund** – this fund accounts for franchise taxes established through a franchise agreement with electricity providers. Customers pay a tax with their electric bills, which is provided to the City for the use on street light, power system and traffic control systems.

**Street User Revitalization Fund** – this fund accounts for franchise taxes established through a franchise agreement with gas providers. Customers pay a tax with their gas bills, which is provided to the City. The City uses the fees to fund street projects.

**Tree Preservation Fund** – developers who are unable to comply with city policies on tree preservation may be allowed to deposit funds for furtherance of city tree goals in other parts of the city.

**Other Agencies:**

**Little Canada** – When roads on the border between Maplewood and Little Canada are improved, the two governments jointly finance the cost of the improvement.

**MnDOT** – a portion of public works improvement costs on State-Aid roads are paid by the Minnesota Department of Transportation.

**North St. Paul** – when roads on the border between Maplewood and North St. Paul are improved, the two governments jointly finance the cost of the improvement.

**Oakdale** – when roads on the border between Maplewood and Oakdale are improved, the two governments jointly finance the cost of the improvement.

**Ramsey County** – when county roads within the city are improved, the cost of the improvements is jointly financed by the two governments.

**RWMWD** – a portion of public works improvement costs that are paid by the Ramsey Washington Metro Watershed District.

**State Aid** – refers to money received from the state for street construction projects. State aid allotments for street construction are based on two factors: population and fiscal need. Fiscal need is determined by the estimated costs of construction and maintenance of the city's state aid streets over 25 years.

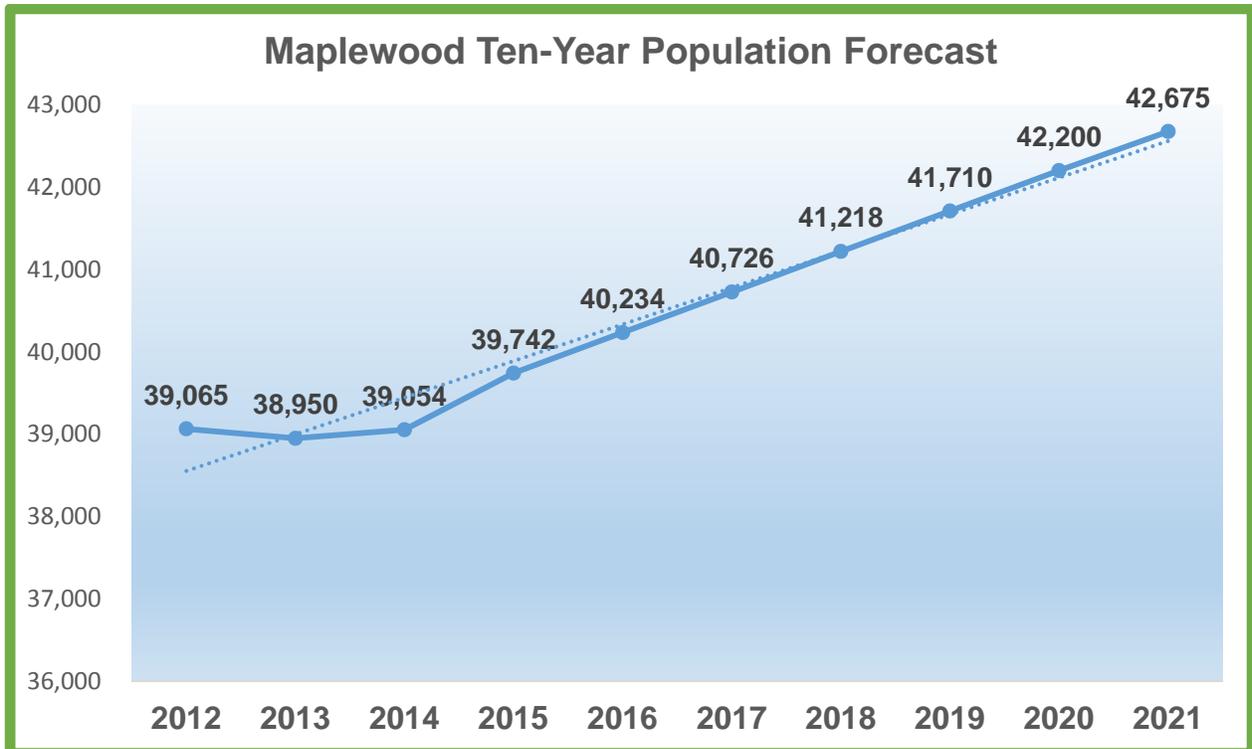
**Other Sources of Revenue:**

**Sale of Property** – the portion of the costs of a project or improvement that are paid for with the proceeds of the sale of other City assets.

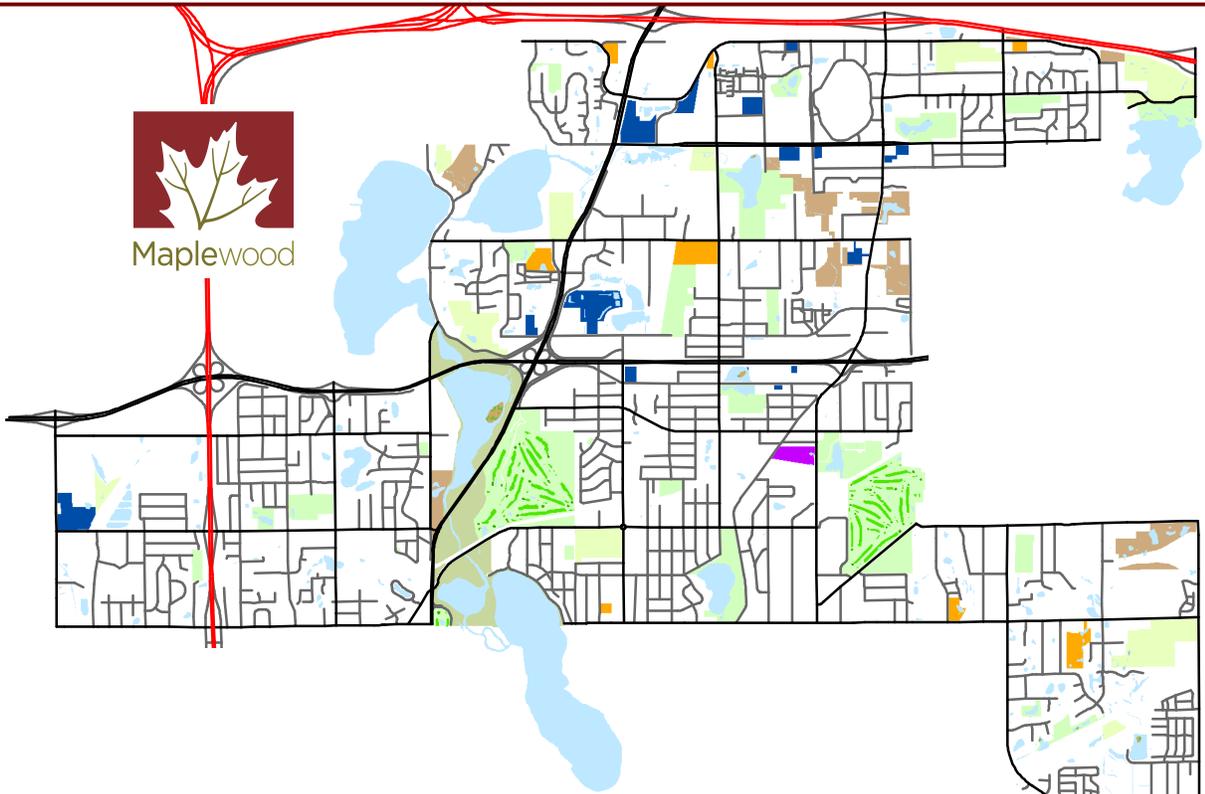
**Grants** – Grants and contributions are occasionally received from other sources, usually state or federal agencies. The City Council approves the receipt of grants and contributions.

## Maplewood Population and Housing Statistics

<b>YEAR</b>	<b>ESTIMATED POPULATION</b>	<b>POPULATION GAIN (LOSS)</b>	<b>NEW DWELLING UNITS</b>	<b>OCCUPIED HOUSEHOLD UNITS</b>
2008	36,717	54	41	14,890
2009	37,755	1,038	20	15,094
2010	38,018	263	16	14,882
2011	38,374	356	16	15,033
2012	39,065	691	20	15,168
2013	38,950	(115)	23	15,289
2014	39,054	104	25	15,243
2015	39,742	688	82	15,325
2016	40,234	492	335	15,660
2017	40,726	492	335	15,995
2018	41,218	492	335	16,330
2019	41,710	492	335	16,665
2020	42,200	490	335	17,000
2021	42,675	475	330	17,330

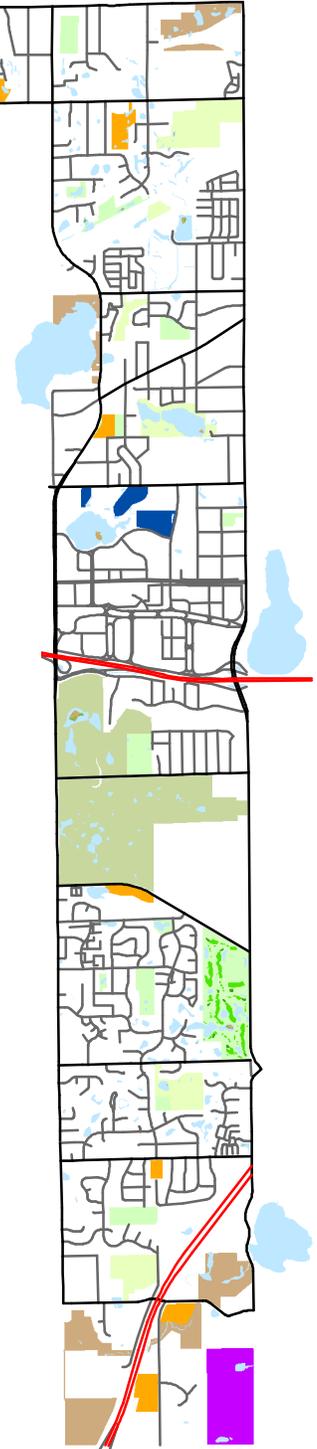


Sources: Metropolitan Council and Maplewood Staff



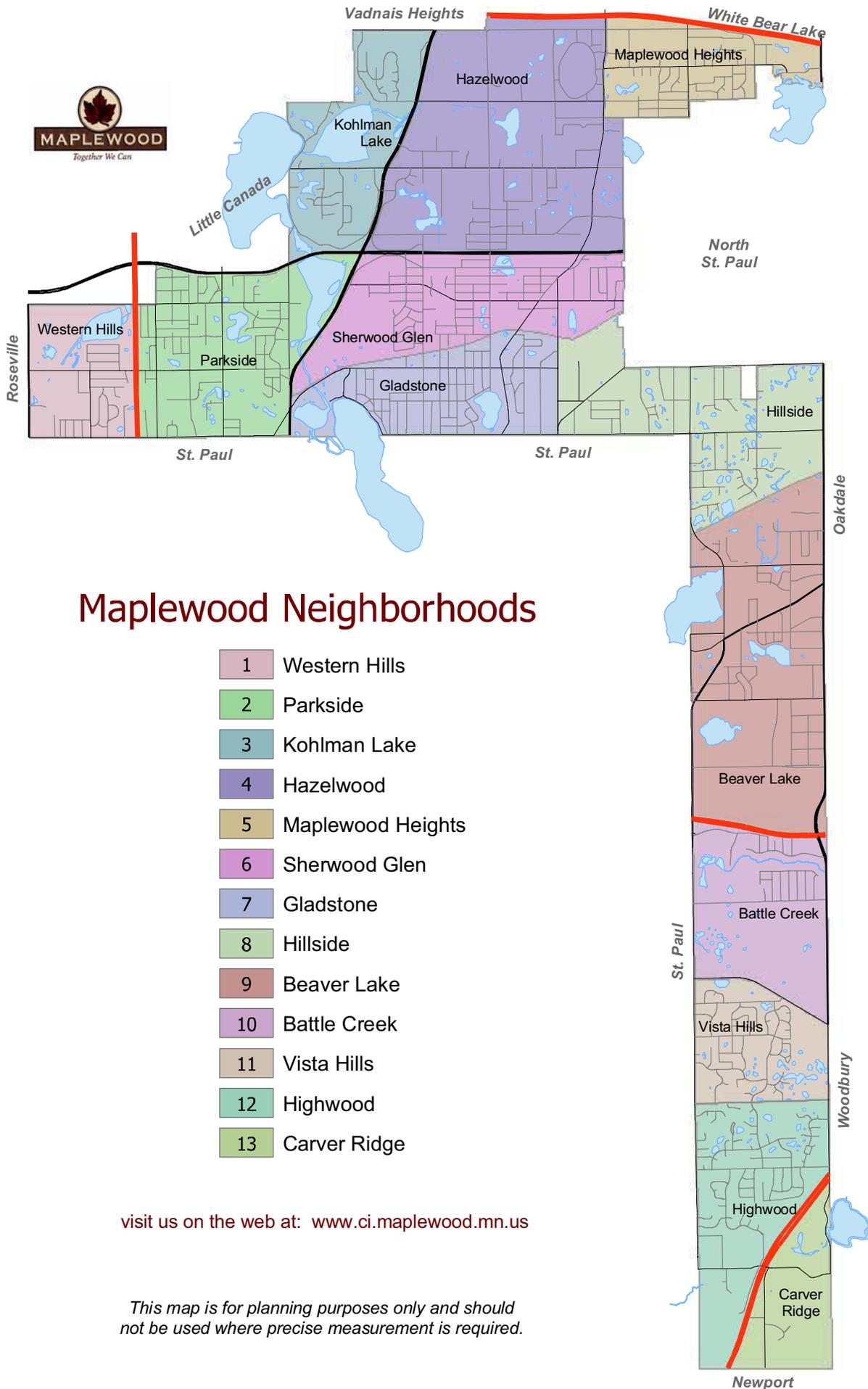
## Undeveloped Land in Maplewood

-  Commercial Property
-  Residential Property
-  Mixed Use Property



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visit us on the web at: [www.ci.maplewood.mn.us](http://www.ci.maplewood.mn.us)

*This map is for planning purposes only and should not be used where precise measurement is required.*

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SECTION II  
CAPITAL IMPROVEMENT PLAN



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## Highlights of the Capital Improvement Plan

Maplewood's Capital Improvement Plan for 2017 - 2021 contains a total of \$66,769,620 in improvements, rehabilitation, and equipment. Many items are routine in nature and others represent significant investments in the community. These betterments are designed to enhance the quality of life and well-being of Maplewood residents.

**Major highlights of the 2017 – 2021 CIP are as follows:**

### **Pond/Dorland Area Improvements - \$2,320,000**

The Pond/Dorland Area streets will be fully reconstructed in 2017, including replacement of road pavement, installation of concrete curb and gutter, expansion of storm water facilities, sanitary sewer and water main repairs, storm water quality improvements, and pedestrian improvements. The streets in the north portion have a PCI rating of 23. The southern portion, which consists of Boxwood Avenue, Dorland Road, Overlook Circle and Heights Avenue has a PCI rating of 41. The project area has 1.12 miles of street, with an average PCI rating of 34/100.



### **Farrell/Ferndale Area Street Improvements - \$7,590,000**

The Farrell/Ferndale Area streets, located east of 3M and south of Minnehaha Avenue, will be fully reconstructed in 2018. The project will include the replacement of the road pavement, installation of concrete curb and gutter, expansion of storm water facilities, sanitary sewer and water main repairs, and pedestrian improvements. The following streets are included in the project: Margaret Ave, 5th Ave, Fremont Ave, Farrell St, Ferndale St, Conway Service Dr, Mayhill Rd and 7th St. The project includes 2.0 miles of street, with an average PCI rating of 30/100.



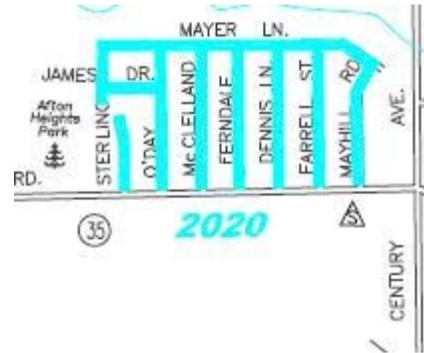
### **Ferndale/Ivy Area Street Improvements - \$3,580,000**

The Ferndale/Ivy Area streets, located north of Maryland Avenue and west of Century Avenue will be fully reconstructed in 2019 including the replacement of the road pavement, installation of concrete curb and gutter, expansion of storm water facilities, sanitary sewer and water main repairs, and pedestrian improvements. Streets in the project area include Dennis Street, Farrell Street, Ferndale Street, Hawthorne Avenue, Ivy Avenue and Mayhill Road. A regional drainage/hydraulic study will be completed prior to the feasibility study in 2017. Identified flood remediation work will be incorporated into the street improvement project. The project includes a total of 1.2 miles of street, with an average PCI rating of 43/100.



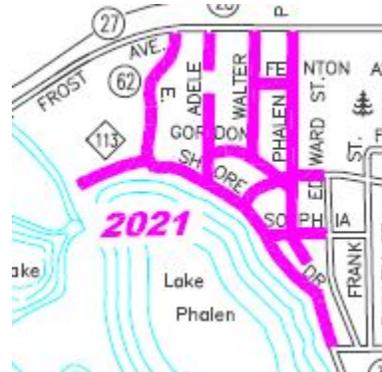
**Dennis/McClelland Area Street Improvements - \$7,060,000**

The Dennis/McClelland Area streets will be fully reconstructed in 2020, including replacement of road pavement, installation of curb and gutter, expansion of storm water facilities, sanitary sewer and water main repairs, and pedestrian improvements. The following streets are included in the project: Sterling St, James Drive, McClelland St, Ferndale St, Dennis Ln, O'Day St, Mayer Ln, Farrell St, and Mayhill Rd. Storm water treatment methods will be studied in 2018 for the area near Battle Creek. The project includes 2.1 miles of streets, with an average PCI rating of 31/100.



**East Shore Drive Area Street Improvements - \$4,820,000**

The East Shore Drive Area streets, lying north of Lake Phalen are proposed to be fully reconstructed in 2021. The project will include the replacement of the road pavement, installation of concrete curb and gutter, expansion of storm water facilities, sanitary sewer repairs, water main repairs and pedestrian improvements. The following streets are included in the project area: Adele Street, Gordon Avenue, Ripley Avenue, Sophia Avenue, Walter Street, Fenton Avenue, and Phalen Place. This project has 2.05 miles of street, with an average PCI rating of 39/100.



**Gladstone Area Redevelopment - \$4,750,000**

Specific properties in the Gladstone area will be identified for redevelopment, contingent on available funding. The City may facilitate the acquisition and redevelopment of the properties in accordance with the approved Gladstone Master Plan and the City's Comprehensive Plan. Street, landscape and roadway improvements have been completed and plans are underway for public improvements beginning in 2020.

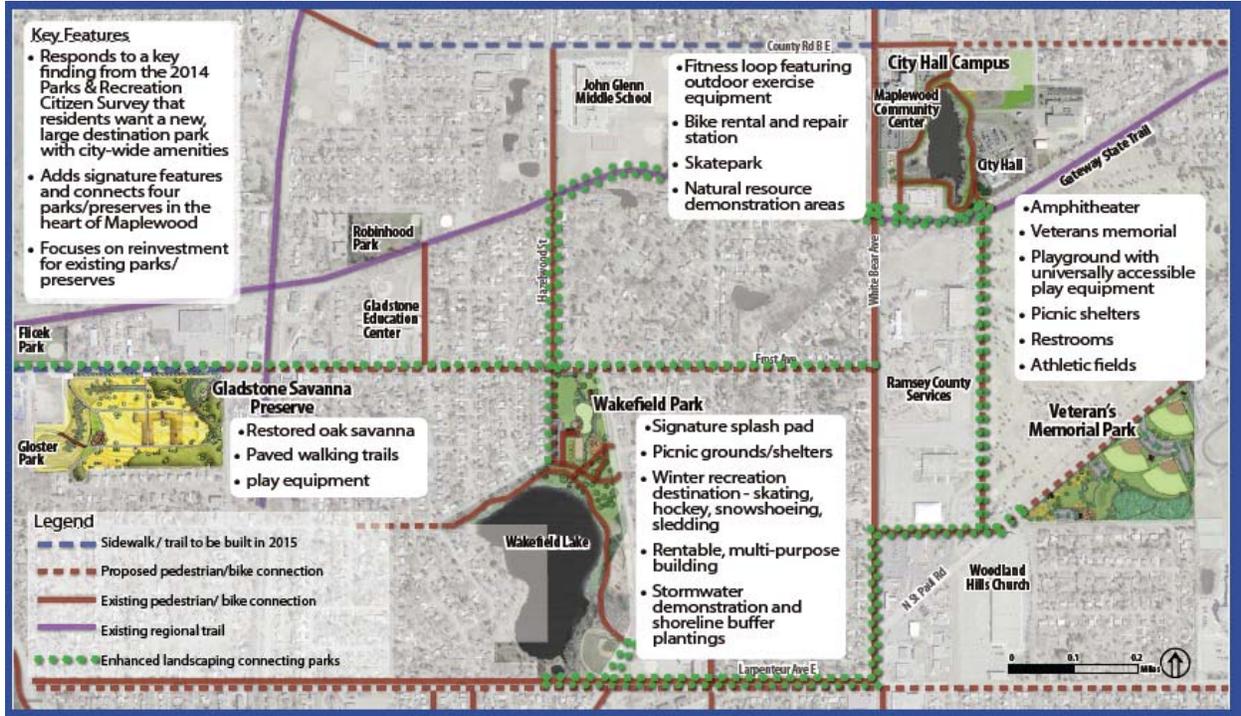
**Gladstone Improvements Phase III - \$3,400,000**

The third phase of Gladstone includes the section of Frost Avenue between English Street and White Bear Avenue. The project includes new pavement storm water initiatives and pedestrian improvements. The Wakefield Lake drainage area is an impaired water body and a top priority of the Watershed District. The timing of this project depends on available grants and partnership opportunities. The project includes 1.0 miles of street, with an average PCI rating of 50/100.



**Park Maintenance and Reinvestment - \$3,000,000**

The City of Maplewood adopted a Parks System Master Plan, giving specific priorities to improvements in the parks system. As part of this process, \$7,000,000 in maintenance and improvements were identified as high priority and essential to the future health of the parks system. These improvements will help fulfill the community’s goals of "Take Care of What We Have". The projects included in this CIP are: Wakefield Building Replacement, Meeting Rooms and Parking (2017); Sherwood Park Replacement, Hazelwood Building Replacement, Hazelwood Playground Replacement, and Hazelwood Field Improvements (2018). Future projects will be decided at a later date.



**Rehabilitation of Gladstone and Hazelwood Fire Stations - \$4,300,000**

The City will remodel Gladstone Fire Station #2 and Hazelwood Fire Station #3 to improve energy efficiencies and provide additional storage and sleeping quarters. In 2011, the city council approved a restructuring of the fire department, resulting in a reduction in the number of fire stations from five to three. In order to better serve the community, one new station was built in the middle of the city's southern leg. The remaining stations will be remodeled at their current locations to meet fire prevention and protection needs into the future.



## Five-Year Capital Improvement Plan Summary

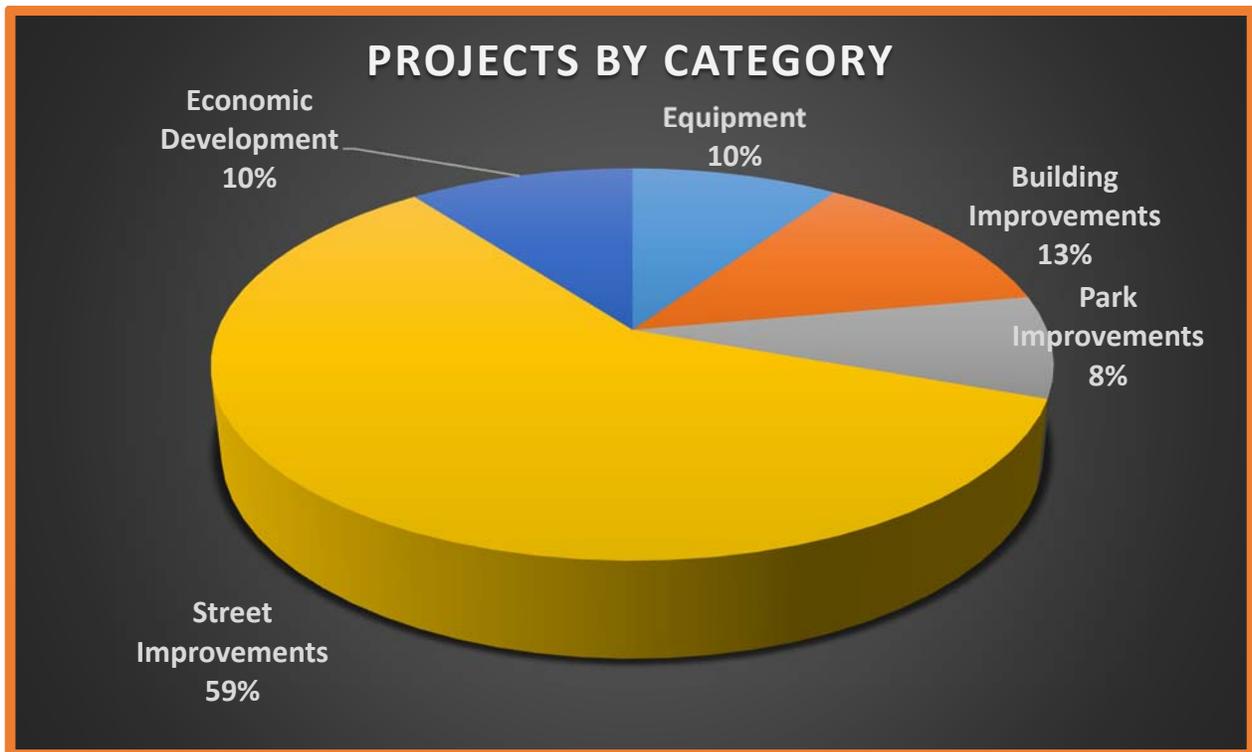
### Categories of Expenditures

Street construction is the largest expenditure category in the five-year CIP. All streets in the CIP have a Pavement Condition Index (PCI) of 50 or below. All but one street in the plan is rated below 43, which involves total reconstruction of the street. It is the goal of the City to maintain the streets in adequate condition, to avoid a total reconstruction scenario. However, the City is catching up on deferred maintenance from prior years.

Building improvements include maintenance and mechanical updates to municipal facilities and the Maplewood Community Center. Although the YMCA is operating the community center, the City is responsible for a large portion of the capital improvements. The equipment category includes public works equipment, fire apparatus, squad cars, city vehicles, technology equipment, and lift station equipment.

### Summary of CIP Projects by Category

Category	2017	2018	2019	2020	2021	Total
<b>Buildings</b>	1,485,000	5,335,000	1,060,000	400,000	200,000	8,480,000
<b>Equipment</b>	1,669,120	976,480	1,152,200	896,100	1,621,720	6,315,620
<b>Parks</b>	1,660,000	685,000	1,500,000	250,000	1,500,000	5,595,000
<b>Redevelopment</b>	650,000	2,080,000	3,400,000	80,000	650,000	6,860,000
<b>Streets</b>	4,060,000	8,860,000	8,279,000	9,090,000	9,230,000	39,519,000
<b>TOTAL</b>	<b>9,524,120</b>	<b>17,936,480</b>	<b>15,391,200</b>	<b>10,716,100</b>	<b>13,201,720</b>	<b>66,769,620</b>



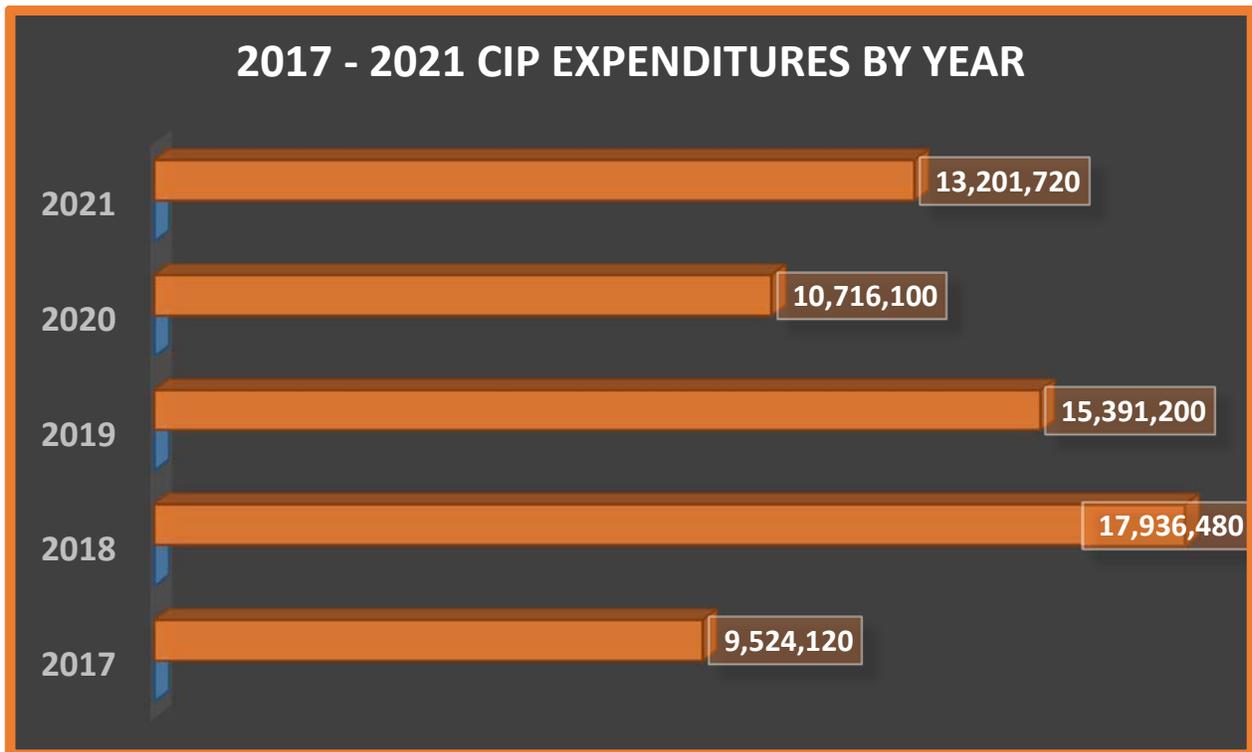
### **Timing of Projects and Expenditures**

The projects and equipment in the five-year CIP have been staged appropriately to align with the affordability and debt parameters set by the City Council. Many projects are being financed with non-property tax revenue sources, such as grants, state aid, and special assessments. Therefore, a large amount in a given year does not necessarily equate to an increase in property taxes. Through long-term financial planning, the City strives to minimize impact on local property taxes.

Many projects are contingent on availability of outside funding sources, including some economic development opportunities and cooperative road improvement projects, and will be prioritized as necessary. Each project has a financing plan. A review of funding sources is important in the context of total expenditures.

The total amount of capital expenditures included in the five-year plan is \$66,769,620. All projects and expenditures are subject to approval and annual appropriation by the City Council, as well as City purchasing policies, capital expenditure policies, City ordinances, and State law.

### **Summary of CIP Expenditures by Year**



## **Funding Sources**

A variety of funding sources will be utilized to fund the projects and expenditures. It is estimated that nearly 47% of the CIP will be financed with debt. General Obligation Bonds will be issued to fund the large street and facility projects.

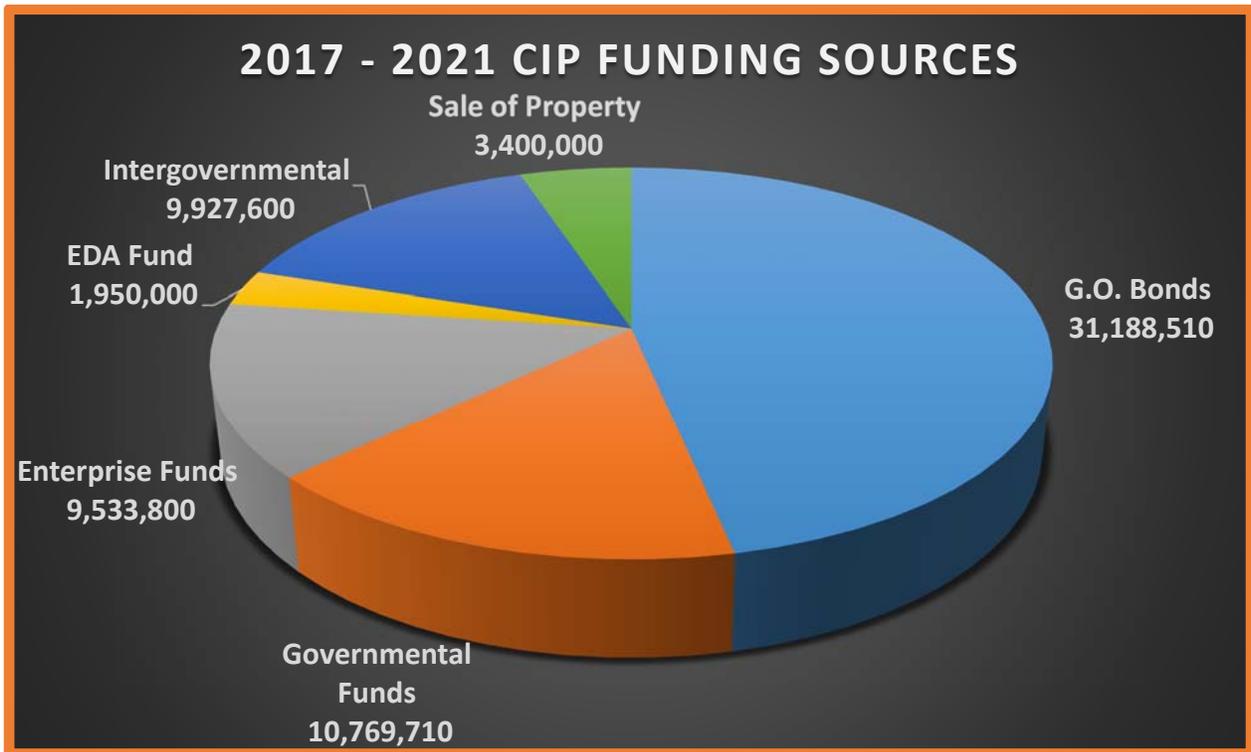
Intergovernmental revenue includes state, federal, and local government grants, and will fund an estimated 15% of the projects included in the CIP.

Existing fund balances in the enterprise funds will finance over 14% of the projects in total. These funds are primarily utility funds, including water, sewer, and environmental funds, and will provide funding for the respective utility component of major street improvement projects.

Governmental funds include capital project and special revenue type funds. Capital project funds contain money that has been set aside for a capital expenditure, such as the purchase of fire trucks and squad cars and pavement overlays. Special revenue funds also account for special revenue streams, such as water surcharges, that accumulate for a specific purpose. Existing fund balances in these funds will finance approximately 16% of the CIP expenditures.

Other revenue sources include the sale of capital assets. The City often trades in old equipment or sells it at auction. The proceeds are utilized to purchase new equipment.

### **Summary of CIP Funding Sources**



## Property Tax Impact

General Obligation Bonds will be issued to finance major improvements included in the five-year CIP. The annual debt payments will be serviced through property tax levies in the appropriate year. Annual property tax levies will be required to fund a majority of the equipment over the five year period. An analysis of future property tax levies was undertaken in the CIP process. Estimated property tax levies for new CIP debt and CIP expenditures are shown below:

### Planned Tax Levies for CIP Expenditures

	2017	2018	2019	2020	2021	Total
<b>Debt Service Principal Payments</b>	-	260,000	810,000	1,320,000	1,670,000	<b>4,060,000</b>
<b>Capital Improvement Projects:</b>						
Building Replacement	-	50,000	50,000	50,000	50,000	<b>200,000</b>
Fire Equipment	-	60,000	60,000	60,000	60,000	<b>240,000</b>
Fleet Management	369,000	312,000	355,000	400,000	356,000	<b>1,792,000</b>
IT	50,000	50,000	50,000	50,000	50,000	<b>250,000</b>
Police Equipment	150,000	150,000	150,000	150,000	150,000	<b>750,000</b>
CIP Fund	125,000	227,000	227,000	227,000	76,800	<b>882,800</b>
Maplewood Community Center	500,000	500,000	500,000	200,000	200,000	<b>200,000</b>
Redevelopment Fund	-	25,000	25,000	25,000	25,000	<b>25,000</b>
<b>TOTAL CIP TAX LEVY</b>	<b>1,194,000</b>	<b>1,634,000</b>	<b>2,227,000</b>	<b>2,482,000</b>	<b>2,637,800</b>	<b>8,399,800</b>

The City maintains a ten-year long term financial management plan. Projected CIP expenditures are incorporated into the plan. Various assumptions are utilized to project the property tax impact of current financial decisions for the ten-year period. For instance, the City estimates the growth in the tax base and makes conservative assumptions about inflation and interest rates on potential new debt. In our analysis, we have assumed that home values will continue to increase moderately. Tax rates will trend downward; however, property taxes will rise at a modest rate due to inflation in the value of homes.

### Estimated Impact on City Property Taxes

	2017	2018	2019	2020	2021	5-Year Impact
<b>Estimated City Tax Rate</b>	47.209%	45.990%	45.534%	46.518%	46.564%	<b>-1.366%</b>
<b>Estimated Increase (Decrease) City Tax Rate</b>	-2.68%	-2.58%	-0.99%	2.16%	0.10%	
<b>Estimated City Taxes on Average Home</b>	\$873	\$901	\$931	\$959	\$986	<b>\$113</b>
<b>Estimated City Tax Increase (Decrease) on Average Home</b>	\$28	\$28	\$30	\$28	\$27	
<b>Estimated Increase (Decrease) City Taxes</b>	3.28%	3.15%	3.34%	3.06%	2.81%	<b>12.94%</b>

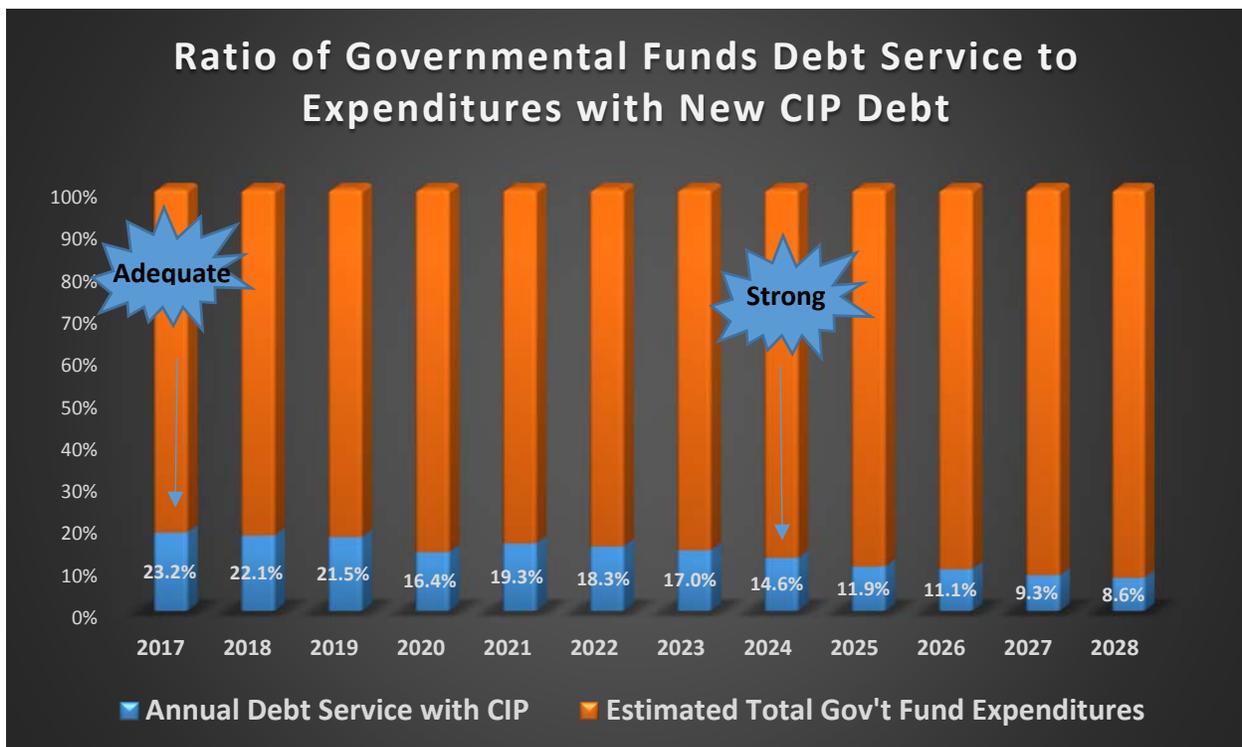
## Debt Analysis

During the preparation of the Capital Improvement Plan, the City's present and future debt capacity was evaluated to ensure that the financing plan is sustainable and meets all legal requirements. Our analysis includes a projection of future debt transactions, population changes, tax base growth, debt ratios, and a ten-year cash flow analysis of the utility funds. The analysis was done with the City's bond rating in mind.

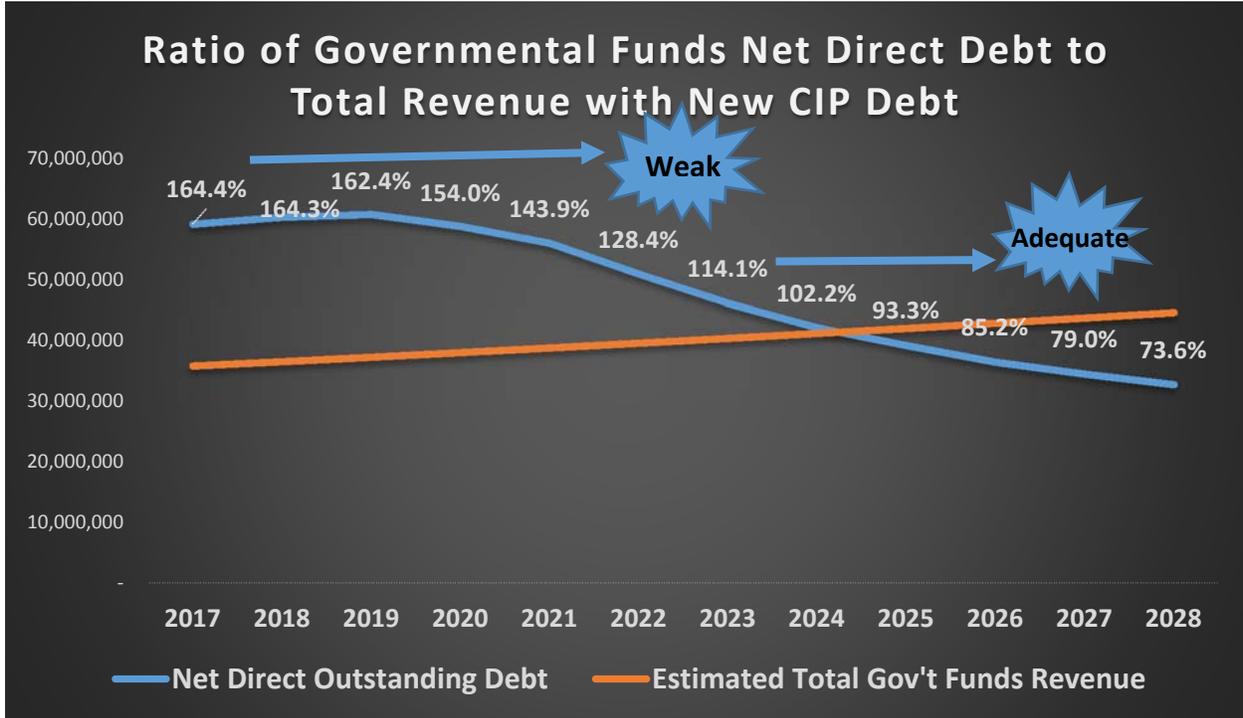
### Bond Rating

The City's AA+ bond rating from Standard & Poor's Investor Services is based on local and regional economic factors, demographics, debt structure, management performance, and financial condition. The bond rating is the most important factor in obtaining a favorable interest rate. Standard & Poor's utilizes two quantitative measures for analyzing the City's debt burden. They are: 1) total governmental funds debt service as a percent of expenditures; and 2) net direct governmental funds debt as a percentage of total revenue. The City strives to achieve an "Adequate" or better rating from the rating agency on both measures. As a result of our analysis, we believe the projected debt ratios related to the CIP will not adversely impact Maplewood's bond rating.

Utilizing Standard & Poor's ratio #1, the following chart illustrates the impact of the 2017-2021 CIP debt on the "Adequate" Standard & Poor's rating. The analysis contains assumptions about the level of future expenditures and reflects additional debt related to the CIP:



The City has a “Weak” rating on Standard & Poor’s ratio #2, however, this factor is not weighted heavily enough to impact the City’s bond rating, given the City’s healthy overall financial picture. The City is working on restructuring its debt policy to reach the goal of an “Adequate” rating sooner. The following chart illustrates the impact of the new CIP debt on ratio #2, using inflationary assumptions about future total revenues:



Since 2010, Maplewood has received either an “Aa1” rating from Moody’s Investors Service or an “AA+” rating from Standard and Poor’s Investor Rating Service. Prior to that, the City maintained an “Aa2” rating with Moody’s Investors Service, which is comparable to a rating of “AA+” from Standard and Poor’s. Moody’s cited continued growth and diversification of the City’s economy, the strength and long-term stability of the tax base, and well maintained finances as rationale for the rating upgrade.

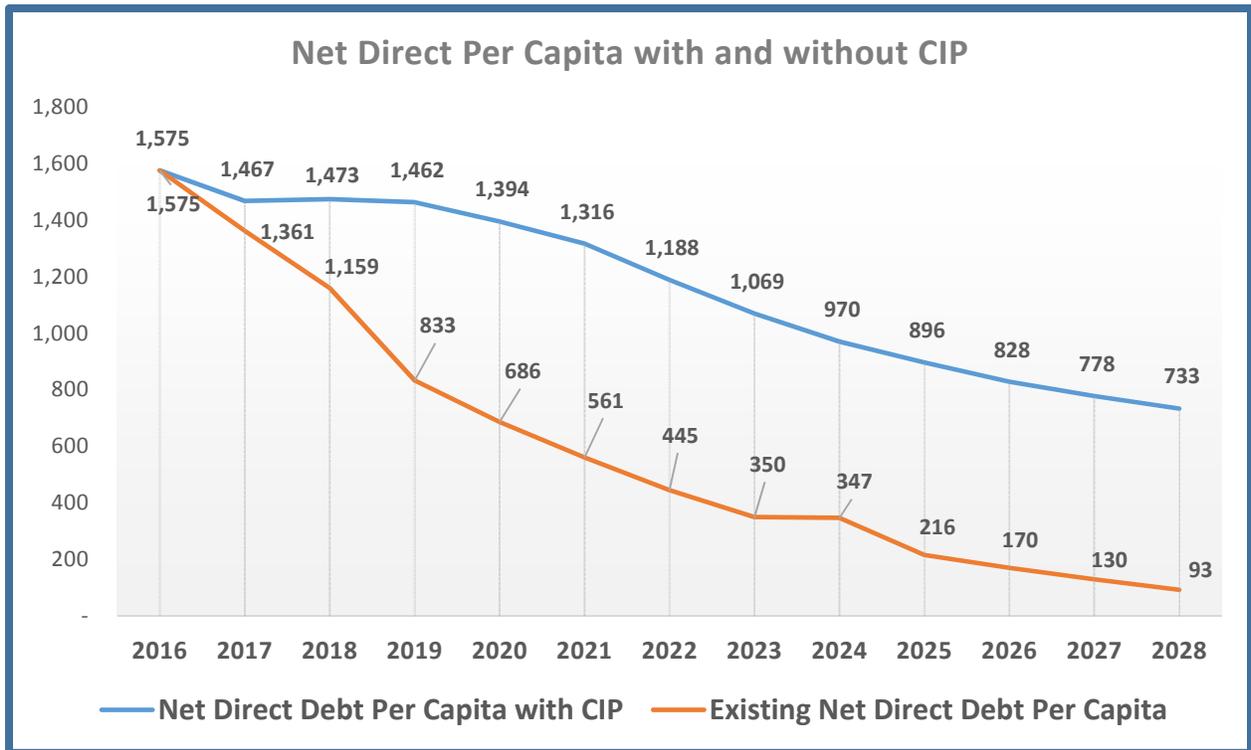
### Debt Capacity

The City utilizes additional measures to compare relative debt burdens, including the amount of debt per capita and the ratio of debt to tax base. The 2017-2021 CIP will require the issuance of \$31,192,000 in additional debt to finance the projects and expenditures. The debt will be serviced with tax levies, special assessments, municipal state aid, tax increment, and tax abatement levies. The City analyzed the additional proposed debt in the context of these additional measures.

The City’s outstanding debt burden will continue to decrease over the five-year CIP period, due to rapid amortization of existing debt principal. The City’s projected debt profile, including the projected new CIP debt, for the next five years is shown below:

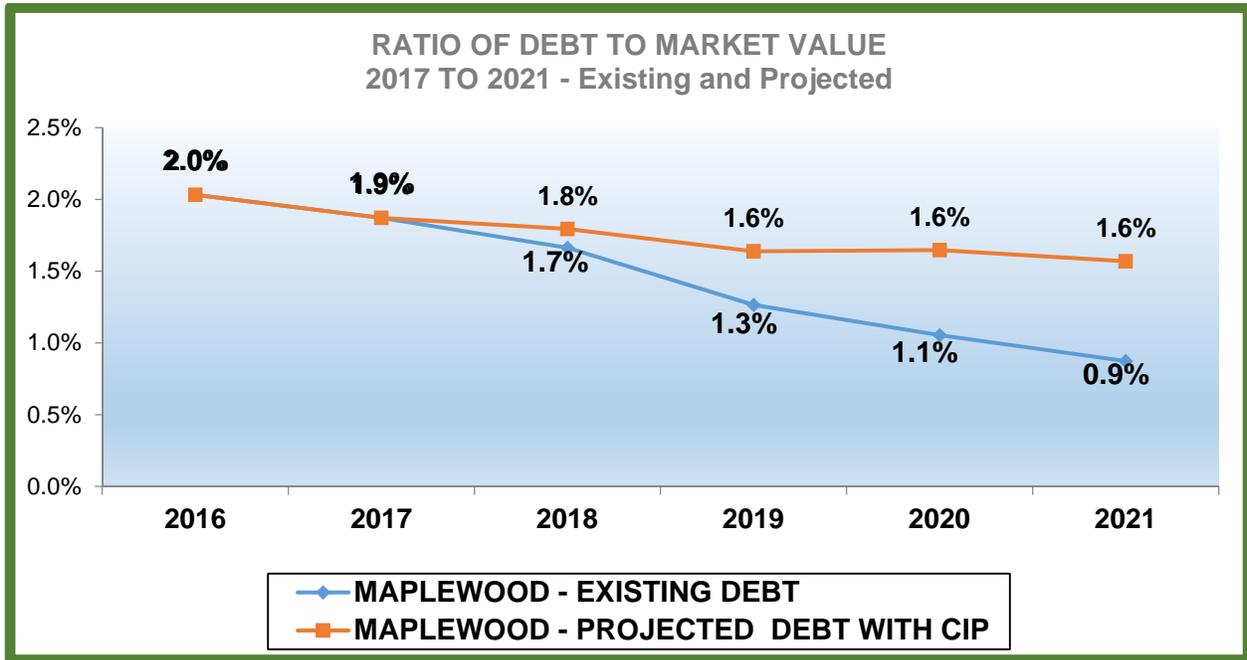
DEBT TRANSACTIONS					
CURRENT YEAR AND NEXT FIVE YEARS					
Year	New Debt Issued	Debt Paid	Debt Outstanding	Less Escrow Funds	Net Debt Outstanding
2015	Balance Forward		70,269,631	-	70,269,631
2016	9,540,000	(11,186,091)	68,623,540	(6,035,000)	62,588,540
2017	4,265,000	(10,167,820)	62,720,720	(3,545,000)	59,175,720
2018	8,843,000	(11,234,230)	60,329,490	-	60,329,490
2019	8,230,000	(7,751,290)	60,808,200	-	60,808,200
2020	5,265,000	(7,238,030)	58,835,170	-	58,835,170
2021	4,589,000	(7,339,350)	56,084,820	-	56,084,820

Population projections were provided by the Metropolitan Council and City staff and were utilized to project the Net Direct Debt per Capita. Maplewood’s estimated population in 2016 was 39,742. The estimated population in 2021, the end of the five-year CIP period, is 42,622. The population growth over this period represents a 7.2% increase over the 2016 population. Net Direct Debt includes outstanding debt, net of funds held in escrow for refunding outstanding principal on the call date of the issue. The City monitors the amount of debt per capita as an indicator of financial health. The impact of the 2017 – 2021 CIP on the debt per capita is shown below:



The City has not established specific parameters for debt per capita; however, the City strives to reach a level of net debt that is at or below \$1,200 per capita.

The City monitors the ratio of debt to the estimated market value of the City’s tax base. Future market values are projected based on assumptions about inflation, the current housing market and new construction. The following chart illustrates the ratio.



### Legal Debt Limitation

Minnesota Statutes limit the City’s outstanding net debt to 3.0% of the estimated market value of taxable property in the City. However, there are many exceptions. Most of the City’s debt is not subject to the limitation. The difference between the statutory debt limit and the debt subject to the legal debt limitation is referred to as the legal debt margin. The table below shows Maplewood’s legal debt margin for the years 2017-2021.

Projection of Legal Debt Margin For Existing City Debt					
Fiscal Year	December 31				
	2017	2018	2019	2020	2021
<b>Projected market value</b>	3,689,835,600	3,800,530,668	3,914,546,588	4,031,982,986	4,152,942,475
<b>Statutory debt limit</b>					
3% of market value	110,695,068	114,015,920	117,436,398	120,959,490	124,588,274
<b>Amount of debt applicable to debt limit:</b>					
Equipment 2012A	195,000	130,000	65,000	-	-
CIP 2013A	3,195,000	2,975,000	2,750,000	2,520,000	2,290,000
Refunding 2013B	995,000	750,000	500,000	255,000	-
CIP & Equipment 2014A	3,065,000	2,895,000	2,725,000	2,550,000	2,365,000
CIP & Equipment 2015B	1,135,000	1,050,000	960,000	870,000	780,000
CIP & Equipment 2016A	1,760,000	1,590,000	1,410,000	1,230,000	1,040,000
<b>Total debt applicable</b>	<b>10,345,000</b>	<b>9,390,000</b>	<b>8,410,000</b>	<b>7,425,000</b>	<b>6,475,000</b>
<b>Legal debt margin</b>	<b>100,350,068</b>	<b>104,625,920</b>	<b>109,026,398</b>	<b>113,534,490</b>	<b>118,113,274</b>

## Impact on Operating Budget

Identifying potential costs associated with implementation of the proposed capital improvement projects is a critical aspect of long-term financial planning. Many of the projects included in the Capital Improvement Plan will have little or no impact on the operating budget. Each individual project page identifies budgetary impact by project, however, many are insignificant in the context of the operating budget.

Generally, equipment replacement items will have a positive impact on future operating budgets due to lower maintenance costs. There are no items new to the fleet included in the CIP. Likewise, building maintenance and upgrades will generally have a positive impact on the budget. Specifically, significant energy savings is associated with the fire department rehabilitation projects. Finally, street improvement projects result in substantial savings per mile in maintenance costs. Deferring maintenance on streets in need of improvement will most likely result in higher reconstruction costs in the long run.

The projects listed below will have a notable effect on future operating budgets. Specific projects include:

### **2017:**

#### **Police Body and Squad Video Systems**

The implementation of this new technology represents a sizeable commitment to ongoing maintenance of the system. Video storage and maintenance will add an additional \$105,000 to the annual budget. This is reflected in the CIP in future years.

#### **Software Replacements and Upgrades**

The replacement of Eden systems and upgrade to Laserfiche in 2017 will involve slightly higher annual maintenance fees. The move to more current technology is estimated to involve an additional annual commitment of under \$10,000.

### **2018:**

#### **Regional Police Firearms Training Range**

The construction of the jointly owned training range over the next five years will also involve a future commitment to the maintenance and upkeep of the facility. The ongoing costs have not yet been identified, as the City is currently still in the planning stages with several other East Metro communities.

#### **Pond Clean-Out Dredging Projects**

There is a compelling amount of deferred maintenance on the City's drainage ponds. A single pond can cost over \$100,000 to dredge and clean. The City currently plans to clean one pond every other year. The estimated amount must be built into the environmental utility budget every other year. The City hopes to expedite the pond cleaning projects in the future to one pond every year, as funding allows.

## Utility Funds Analysis

The City has Water, Sanitary Sewer, and Storm Water Utility Funds that help support CIP projects. The City utilizes a ten-year financial management plan to help schedule projects efficiently. An estimated five-year cash flow analysis on each utility fund is shown below:

**Environmental Utility Fund (EUF)** - The analysis for the EUF includes a 9% fee increase in 2017, and a 3% inflationary increase in fees thereafter. Despite these increases, the analysis projects liquidity problems in several years. If the City does not find other funding sources in those years, it may be necessary to issue bonds for this component of at least one of the larger projects. This fund finances storm water treatment improvements and provides educational resources.

<b>EUF Fund</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>
Utility Revenues	2,730,000	2,806,750	2,890,953	2,977,681	3,067,012
Operating Expenses	2,001,260	2,029,785	2,058,881	2,088,559	2,118,830
<b>Operating Profit (Loss)</b>	<b>728,740</b>	<b>776,965</b>	<b>832,072</b>	<b>889,123</b>	<b>948,182</b>
Less: Debt Service	(394,740)	(382,390)	(386,550)	(384,530)	(376,980)
Less: CIP Expenditures	(1,156,450)	(1,795,500)	(610,100)	(1,595,500)	(1,070,500)
<b>Change in Net Position</b>	<b>(822,450)</b>	<b>(1,400,925)</b>	<b>(164,578)</b>	<b>(1,090,907)</b>	<b>(499,298)</b>
<b>Beginning Cash Position</b>	<b>787,927</b>	<b>540,477</b>	<b>(285,448)</b>	<b>124,973</b>	<b>(390,934)</b>
Add: Depreciation	575,000	575,000	575,000	575,000	575,000
<b>Ending Cash Position</b>	<b>540,477</b>	<b>(285,448)</b>	<b>124,973</b>	<b>(390,934)</b>	<b>(315,232)</b>

**St. Paul Water Area Charge (WAC) Fund** – This fund finances improvements to the City’s water infrastructure, through a surcharge on water bills. The analysis assumes increases due to system expansion only. The St. Paul WAC Fund is well positioned to fund the CIP projects and meet its other obligations over the five-year period, as shown below:

<b>St. Paul WAC Fund</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>
Utility Revenues	442,000	464,200	477,404	488,612	490,824
Operating Expenses	7,500	7,650	7,803	7,959	8,118
<b>Operating Profit (Loss)</b>	<b>434,500</b>	<b>456,550</b>	<b>469,601</b>	<b>480,653</b>	<b>482,706</b>
Less: Debt Service	(39,670)	(44,620)	(44,090)	(43,430)	(42,670)
Less: CIP Expenditures	(241,210)	(319,100)	(127,200)	(303,900)	(277,100)
<b>Change in Net Position</b>	<b>153,620</b>	<b>92,830</b>	<b>298,311</b>	<b>133,323</b>	<b>162,936</b>
<b>Beginning Cash Position</b>	<b>1,148,418</b>	<b>1,302,038</b>	<b>1,394,868</b>	<b>1,693,179</b>	<b>1,826,502</b>
<b>Ending Cash Position</b>	<b>1,302,038</b>	<b>1,394,868</b>	<b>1,693,179</b>	<b>1,826,502</b>	<b>1,989,438</b>

**The Sanitary Sewer Fund** – The Sewer Fund provides the resources for sewer operations and capital improvements to the sewer system. It is funded with user charges, area charges, and connection fees. There are no increases in user charges planned for 2017, however, a 2% inflationary charge is included in the remaining later years. The Sewer Fund is healthy and can accommodate the planned CIP improvements.

<b>Sewer Fund</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>
Utility Revenues	5,054,000	5,154,280	5,256,566	5,360,897	5,467,315
Operating Expenses	4,864,120	4,955,369	5,046,576	5,139,608	5,234,500
<b>Operating Profit (Loss)</b>	<b>189,880</b>	<b>198,911</b>	<b>209,989</b>	<b>221,289</b>	<b>232,815</b>
Less: Debt Service	(249,590)	(350,480)	(237,120)	(136,020)	(132,450)
Less: CIP Expenditures	(377,990)	(669,100)	(326,800)	(508,900)	(516,100)
<b>Change in Net Position</b>	<b>(437,700)</b>	<b>(820,669)</b>	<b>(353,931)</b>	<b>(423,631)</b>	<b>(415,735)</b>
<b>Beginning Cash Position</b>	<b>4,605,131</b>	<b>4,560,601</b>	<b>4,134,932</b>	<b>4,176,001</b>	<b>4,147,370</b>
Add: Depreciation	393,170	395,000	395,000	395,000	395,000
<b>Ending Cash Position</b>	<b>4,560,601</b>	<b>4,134,932</b>	<b>4,176,001</b>	<b>4,147,370</b>	<b>4,126,635</b>

**Street Light Utility Fund** – This fund is used to finance street lighting improvements and repairs. It derives revenue from an electric franchise fee of \$1.25 per household. There are no projects planned for the five-year CIP because the fund currently has a negative cash flow. The City Council is considering an increase in the amount of the franchise fee for 2018. The fund will have a positive balance by 2020 without the increase:

<b>Street Light Utility Fund</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>
Utility Revenues	478,000	480,000	480,000	480,000	484,000
Operating Expenses	220,680	225,094	229,595	234,187	238,871
<b>Operating Profit (Loss)</b>	<b>257,320</b>	<b>254,906</b>	<b>250,405</b>	<b>245,813</b>	<b>245,129</b>
Less: Debt Service	-	-	-	-	-
Less: CIP Expenditures	-	-	-	-	-
<b>Change in Net Position</b>	<b>257,320</b>	<b>254,906</b>	<b>250,405</b>	<b>245,813</b>	<b>245,129</b>
<b>Beginning Cash Position</b>	<b>(1,004,705)</b>	<b>(747,385)</b>	<b>(492,479)</b>	<b>(242,074)</b>	<b>3,739</b>
<b>Ending Cash Position</b>	<b>(747,385)</b>	<b>(492,479)</b>	<b>(242,074)</b>	<b>3,739</b>	<b>248,867</b>

**Street Improvement Fund** – this fund finances street improvements that are not paid for through the special assessment process. It is funded through a gas franchise fee in the amount of \$2.50 per household, which provides about \$480,000 in revenue per year. The City uses these funds for street overlay projects. An analysis is not included because all projects are subject to available revenues. The funds are typically depleted on an annual basis.

# City of Maplewood, Minnesota

## Capital Improvement Plan

2017 thru 2021

### PROJECTS BY YEAR

Project Name	Department	Project #	Priority	Project Cost
<b>2017</b>				
Replacement of EMS Heart Monitors	Ambulance	FD17.030	2	78,000
Park Maintenance Building Updates	Building Maintenance	MT17.01	3	140,000
Emergency Lighting and Exits Signs	Building Maintenance	MT17.02	3	210,000
Nature Center Facility Updates	Building Maintenance	MT17.03	3	220,000
City Hall Facility Updates	Building Maintenance	MT17.04	3	415,000
Commercial Property Redevelopment	EEDD	CD09.01	3	650,000
Replacement of Fire Truck	Fire Department	FD03-020	2	630,000
Replacement of Police & Fire 800 MHZ Radios	Fire Department	FD15.010	1	76,800
Election Equipment	IT	IT12.010	1	45,000
Eden System replacement	IT	IT15.020	2	65,000
Laserfiche Update	IT	IT15.030	1	25,000
Park Upgrades to Existing Parks	Parks and Recreation	PM07.010	3	100,000
Gladstone Savanna Improvements	Parks and Recreation	PM08.050	3	60,000
Open Space Improvements	Parks and Recreation	PM08.060	3	150,000
Wakefield Park	Parks and Recreation	PM15.430	3	50,000
Park Maintenance and Re-Investment	Parks and Recreation	PM16.001	3	1,000,000
Fish Creek Open Space	Parks and Recreation	PM16.005	3	300,000
MCC Building Improvements	Parks and Recreation	PM17.02	3	500,000
Police Department Body/Squad Video/EW Systems	Police Department	PD14.040	2	178,000
Squad Replacement	Police Department	PD15.010	1	152,320
Records Management System	Police Department	PD15.020	2	30,000
Lift Station Upgrade Program	Public Works	PW03.21	2	20,000
Two 12,000 lb Capacity Trailers	Public Works	PW06.01	3	18,000
Three-Wheel Truckster	Public Works	PW06.06	3	15,000
1-Ton Truck	Public Works	PW07.03	3	72,000
One 1/2-Ton Pickup	Public Works	PW12.04	3	22,000
Street Sweeper	Public Works	PW13.04	3	190,000
1/2-Ton Pickup Trucks	Public Works	PW16.01	3	52,000
Farrell/Ferndale Area Street Improvements	Street Department	PW09.08	1	100,000
Sterling Street Bridge Replacement	Street Department	PW12.02	1	100,000
Ferndale/Ivy Area Street Improvements	Street Department	PW15.11	1	100,000
Hillwood/Crestview Area Pavement	Street Department	PW16.09	1	1,380,000
Londin/Highpoint Area Pavement	Street Department	PW16.12	1	60,000
Pond/Dorland Area Street Improvements	Street Department	PW16.13	1	2,320,000
<b>Total for 2017</b>				9,524,120
<b>2018</b>				
Ambulance Replacement	Ambulance	FD09.020	2	224,400
Replacement of EMS Heart Monitors	Ambulance	FD17.030	2	52,000
1902 Building Mechanical Updates	Building Maintenance	MT17.05	3	360,000
Housing Replacement Program	EEDD	CD02.01	3	80,000
Gladstone Area Redevelopment	EEDD	CD15.01	3	2,000,000
Rehabilitation of Fire Station	Fire Department	FD10.011	2	2,300,000
Rehabilitation of Fire Station	Fire Department	FD10.012	2	2,000,000

<b>Project Name</b>	<b>Department</b>	<b>Project #</b>	<b>Priority</b>	<b>Project Cost</b>
Replacement of Police & Fire 800 MHZ Radios	Fire Department	FD15.010	1	76,800
Park Upgrades to Existing Parks	Parks and Recreation	PM07.010	3	100,000
Harvest Park	Parks and Recreation	PM14.020	3	50,000
EAB Ash Removal and Planting	Parks and Recreation	PM15.020	3	150,000
Maplewood Nature Center Master Plan	Parks and Recreation	PM16.003	3	75,000
Maplewood Nature Center Land Acquisition	Parks and Recreation	PM16.004	3	160,000
Fish Creek Open Space	Parks and Recreation	PM16.005	3	150,000
MCC Building Improvements	Parks and Recreation	PM17.02	3	500,000
Police Department Body/Squad Video/EW Systems	Police Department	PD14.040	2	105,920
Squad Replacement	Police Department	PD15.010	1	155,360
Records Management System	Police Department	PD15.020	2	30,000
Regional Police Firearms Training Range	Police Department	PD15.060	3	175,000
Lift Station Upgrade Program	Public Works	PW03.21	2	20,000
Single-Axle Plow Truck	Public Works	PW13.03	2	205,000
Pond Clean Out/Dredging Projects	Public Works	PW14.01	3	100,000
One 1/2-Ton Truck	Public Works	PW15.03	3	22,000
Wood Chipper	Public Works	PW15.05	3	55,000
Asphalt Hot Box	Public Works	PW16.04	3	30,000
Farrell/Ferndale Area Street Improvements	Street Department	PW09.08	1	7,490,000
Dennis/McClelland Area Street Improvements	Street Department	PW09.10	1	100,000
Ferndale/Ivy Area Street Improvements	Street Department	PW15.11	1	100,000
Mailand/Crestview Forest Area Pavement	Street Department	PW16.10	1	60,000
London/Highpoint Area Pavement	Street Department	PW16.12	1	1,010,000

**Total for 2018** 17,936,480

**2019**

1902 Building Roof	Building Maintenance	MT17.06	3	410,000
Commercial Property Redevelopment	EEDD	CD09.01	3	650,000
Gladstone Area Redevelopment	EEDD	CD15.01	3	2,750,000
Replacement of Police & Fire 800 MHZ Radios	Fire Department	FD15.010	1	76,800
Replacement of Rehab/Air Truck	Fire Department	FD16.010	2	306,000
Eden System replacement	IT	IT15.020	2	100,000
Council Chambers Remodel	IT	IT17.010	3	50,000
Park Upgrades to Existing Parks	Parks and Recreation	PM07.010	3	100,000
Open Space Improvements	Parks and Recreation	PM08.060	3	150,000
EAB Ash Removal and Planting	Parks and Recreation	PM15.020	3	150,000
Park Maintenance and Re-Investment	Parks and Recreation	PM16.001	3	1,000,000
Maplewood Nature Center Land Acquisition	Parks and Recreation	PM16.004	3	100,000
MCC Building Improvements	Parks and Recreation	PM17.02	3	500,000
Police Department Body/Squad Video/EW Systems	Police Department	PD14.040	2	105,920
Squad Replacement	Police Department	PD15.010	1	158,480
Records Management System	Police Department	PD15.020	2	30,000
Regional Police Firearms Training Range	Police Department	PD15.060	3	100,000
Lift Station Upgrade Program	Public Works	PW03.21	2	20,000
Single-Axle Plow Truck	Public Works	PW15.01	2	205,000
ToolCat Work Machine	Public Works	PW16.03	3	45,000
Three Tilt-Deck Trailers	Public Works	PW16.05	3	30,000
Tractor/Utility Machine	Public Works	PW17.01	3	75,000
Dennis/McClelland Area Street Improvements	Street Department	PW09.10	1	100,000
Sterling Street Bridge Replacement	Street Department	PW12.02	1	1,300,000
Ferndale/Ivy Area Street Improvements	Street Department	PW15.11	1	3,380,000
Rice Street	Street Department	PW16.06	2	2,239,000
Mailand/Crestview Forest Area Pavement	Street Department	PW16.10	1	1,200,000
Schaller Area Pavement	Street Department	PW16.11	1	60,000

**Total for 2019** 15,391,200

<b>Project Name</b>	<b>Department</b>	<b>Project #</b>	<b>Priority</b>	<b>Project Cost</b>
<b>2020</b>				
Municipal Facility Upgrades	Building Maintenance	MT16.01	3	100,000
Housing Replacement Program	EEDD	CD02.01	3	80,000
Replacement of Police & Fire 800 MHZ Radios	Fire Department	FD15.010	1	76,800
Server Storage	IT	IT16.010	2	60,000
Council Chambers Remodel	IT	IT17.010	3	200,000
Park Upgrades to Existing Parks	Parks and Recreation	PM07.010	3	100,000
EAB Ash Removal and Planting	Parks and Recreation	PM15.020	3	150,000
Police Department Body/Squad Video/EW Systems	Police Department	PD14.040	2	105,920
Squad Replacement	Police Department	PD15.010	1	203,380
Records Management System	Police Department	PD15.020	2	30,000
Regional Police Firearms Training Range	Police Department	PD15.060	3	100,000
Lift Station Upgrade Program	Public Works	PW03.21	2	20,000
Pond Clean Out/Dredging Projects	Public Works	PW14.01	3	100,000
Water Tanker	Public Works	PW15.02	2	110,000
Street Sweeper	Public Works	PW16.02	3	200,000
16' Park Mower	Public Works	PW17.02	3	90,000
Dennis/McClelland Area Street Improvements	Street Department	PW09.10	1	6,860,000
White Bear Ave / I694 Interchange Project	Street Department	PW15.08	2	500,000
Schaller Area Pavement	Street Department	PW16.11	1	1,370,000
Southcrest/Ferndale Area Pavement	Street Department	PW17.06	1	60,000
Gladstone Improvements Phase 3	Street Department	PW17.07	1	100,000
East Shore Drive Area Street Improvements	Street Department	PW17.08	1	100,000
<b>Total for 2020</b>				10,716,100
<b>2021</b>				
Ambulance Replacement	Ambulance	FD17.010	2	240,000
Municipal Facility Upgrades	Building Maintenance	MT16.01	3	100,000
Commercial Property Redevelopment	EEDD	CD09.01	3	650,000
Replacement of Police & Fire 800 MHZ Radios	Fire Department	FD15.010	1	76,800
Replacement of Fire Truck	Fire Department	FD17.020	2	610,000
Park Upgrades to Existing Parks	Parks and Recreation	PM07.010	3	100,000
Open Space Improvements	Parks and Recreation	PM08.060	3	150,000
Veteran's Memorial Park	Parks and Recreation	PM11.020	3	250,000
Park Maintenance and Re-Investment	Parks and Recreation	PM16.001	3	1,000,000
Police Department Body/Squad Video/EW Systems	Police Department	PD14.040	2	105,920
Squad Replacement	Police Department	PD15.010	1	183,000
Records Management System	Police Department	PD15.020	2	30,000
Regional Police Firearms Training Range	Police Department	PD15.060	3	100,000
Lift Station Upgrade Program	Public Works	PW03.21	2	20,000
1 1/2-Ton Utility Truck	Public Works	PW17.03	3	90,000
Single-Axle Plow Truck	Public Works	PW17.04	2	210,000
Asphalt Paver	Public Works	PW17.05	2	56,000
Southcrest/Ferndale Area Pavement	Street Department	PW17.06	1	1,210,000
Gladstone Improvements Phase 3	Street Department	PW17.07	1	3,300,000
East Shore Drive Area Street Improvements	Street Department	PW17.08	1	4,720,000
<b>Total for 2021</b>				13,201,720
<b>GRAND TOTAL</b>				66,769,620

City of Maplewood, Minnesota

*Capital Improvement Plan*

2017 thru 2021

**PROJECTS BY DEPARTMENT**

Department	Project#	Priority	2017	2018	2019	2020	2021	Total
<b>Ambulance</b>								
Ambulance Replacement	FD09.020	2		224,400				224,400
Ambulance Replacement	FD17.010	2					240,000	240,000
Replacement of EMS Heart Monitors	FD17.030	2	78,000	52,000				130,000
<b>Ambulance Total</b>			<b>78,000</b>	<b>276,400</b>			<b>240,000</b>	<b>594,400</b>
<b>Building Maintenance</b>								
Municipal Facility Upgrades	MT16.01	3				100,000	100,000	200,000
Park Maintenance Building Updates	MT17.01	3	140,000					140,000
Emergency Lighting and Exits Signs	MT17.02	3	210,000					210,000
Nature Center Facility Updates	MT17.03	3	220,000					220,000
City Hall Facility Updates	MT17.04	3	415,000					415,000
1902 Building Mechanical Updates	MT17.05	3		360,000				360,000
1902 Building Roof	MT17.06	3			410,000			410,000
<b>Building Maintenance Total</b>			<b>985,000</b>	<b>360,000</b>	<b>410,000</b>	<b>100,000</b>	<b>100,000</b>	<b>1,955,000</b>
<b>EEDD</b>								
Housing Replacement Program	CD02.01	3		80,000		80,000		160,000
Commercial Property Redevelopment	CD09.01	3	650,000		650,000		650,000	1,950,000
Gladstone Area Redevelopment	CD15.01	3		2,000,000	2,750,000			4,750,000
<b>EEDD Total</b>			<b>650,000</b>	<b>2,080,000</b>	<b>3,400,000</b>	<b>80,000</b>	<b>650,000</b>	<b>6,860,000</b>
<b>Fire Department</b>								
Replacement of Fire Truck	FD03-020	2	630,000					630,000
Rehabilitation of Fire Station	FD10.011	2		2,300,000				2,300,000
Rehabilitation of Fire Station	FD10.012	2		2,000,000				2,000,000
Replacement of Police & Fire 800 MHZ Radios	FD15.010	1	76,800	76,800	76,800	76,800	76,800	384,000
Replacement of Rehab/Air Truck	FD16.010	2			306,000			306,000
Replacement of Fire Truck	FD17.020	2					610,000	610,000
<b>Fire Department Total</b>			<b>706,800</b>	<b>4,376,800</b>	<b>382,800</b>	<b>76,800</b>	<b>686,800</b>	<b>6,230,000</b>
<b>IT</b>								
Election Equipment	IT12.010	1	45,000					45,000
Eden System replacement	IT15.020	2	65,000		100,000			165,000
Laserfiche Update	IT15.030	1	25,000					25,000
Server Storage	IT16.010	2				60,000		60,000
Council Chambers Remodel	IT17.010	3			50,000	200,000		250,000
<b>IT Total</b>			<b>135,000</b>		<b>150,000</b>	<b>260,000</b>		<b>545,000</b>
<b>Parks and Recreation</b>								
Park Upgrades to Existing Parks	PM07.010	3	100,000	100,000	100,000	100,000	100,000	500,000
Gladstone Savanna Improvements	PM08.050	3	60,000					60,000

Department	Project#	Priority	2017	2018	2019	2020	2021	Total
Open Space Improvements	PM08.060	3	150,000		150,000		150,000	450,000
Veteran's Memorial Park	PM11.020	3					250,000	250,000
Harvest Park	PM14.020	3		50,000				50,000
EAB Ash Removal and Planting	PM15.020	3		150,000	150,000	150,000		450,000
Wakefield Park	PM15.430	3	50,000					50,000
Park Maintenance and Re-Investment	PM16.001	3	1,000,000		1,000,000		1,000,000	3,000,000
Maplewood Nature Center Master Plan	PM16.003	3		75,000				75,000
Maplewood Nature Center Land Acquisition	PM16.004	3		160,000	100,000			260,000
Fish Creek Open Space	PM16.005	3	300,000	150,000				450,000
MCC Building Improvements	PM17.02	3	500,000	500,000	500,000			1,500,000
<b>Parks and Recreation Total</b>			<b>2,160,000</b>	<b>1,185,000</b>	<b>2,000,000</b>	<b>250,000</b>	<b>1,500,000</b>	<b>7,095,000</b>

<b>Police Department</b>								
Police Department Body/Squad Video/EW Systems	PD14.040	2	178,000	105,920	105,920	105,920	105,920	601,680
Squad Replacement	PD15.010	1	152,320	155,360	158,480	203,380	183,000	852,540
Records Management System	PD15.020	2	30,000	30,000	30,000	30,000	30,000	150,000
Regional Police Firearms Training Range	PD15.060	3		175,000	100,000	100,000	100,000	475,000
<b>Police Department Total</b>			<b>360,320</b>	<b>466,280</b>	<b>394,400</b>	<b>439,300</b>	<b>418,920</b>	<b>2,079,220</b>

<b>Public Works</b>								
Lift Station Upgrade Program	PW03.21	2	20,000	20,000	20,000	20,000	20,000	100,000
Two 12,000 lb Capacity Trailers	PW06.01	3	18,000					18,000
Three-Wheel Truckster	PW06.06	3	15,000					15,000
1-Ton Truck	PW07.03	3	72,000					72,000
One 1/2-Ton Pickup	PW12.04	3	22,000					22,000
Single-Axle Plow Truck	PW13.03	2		205,000				205,000
Street Sweeper	PW13.04	3	190,000					190,000
Pond Clean Out/Dredging Projects	PW14.01	3		100,000		100,000		200,000
Single-Axle Plow Truck	PW15.01	2			205,000			205,000
Water Tanker	PW15.02	2				110,000		110,000
One 1/2-Ton Truck	PW15.03	3		22,000				22,000
Wood Chipper	PW15.05	3		55,000				55,000
1/2-Ton Pickup Trucks	PW16.01	3	52,000					52,000
Street Sweeper	PW16.02	3				200,000		200,000
ToolCat Work Machine	PW16.03	3			45,000			45,000
Asphalt Hot Box	PW16.04	3		30,000				30,000
Three Tilt-Deck Trailers	PW16.05	3			30,000			30,000
Tractor/Utility Machine	PW17.01	3			75,000			75,000
16' Park Mower	PW17.02	3				90,000		90,000
1 1/2-Ton Utility Truck	PW17.03	3					90,000	90,000
Single-Axle Plow Truck	PW17.04	2					210,000	210,000
Asphalt Paver	PW17.05	2					56,000	56,000
<b>Public Works Total</b>			<b>389,000</b>	<b>432,000</b>	<b>375,000</b>	<b>520,000</b>	<b>376,000</b>	<b>2,092,000</b>

<b>Street Department</b>								
Farrell/Ferndale Area Street Improvements	PW09.08	1	100,000	7,490,000				7,590,000
Dennis/McClelland Area Street Improvements	PW09.10	1		100,000	100,000	6,860,000		7,060,000
Sterling Street Bridge Replacement	PW12.02	1	100,000		1,300,000			1,400,000
White Bear Ave / I694 Interchange Project	PW15.08	2				500,000		500,000
Ferndale/Ivy Area Street Improvements	PW15.11	1	100,000	100,000	3,380,000			3,580,000
Rice Street	PW16.06	2			2,239,000			2,239,000
Hillwood/Crestview Area Pavement	PW16.09	1	1,380,000					1,380,000
Mailand/Crestview Forest Area Pavement	PW16.10	1		60,000	1,200,000			1,260,000
Schaller Area Pavement	PW16.11	1			60,000	1,370,000		1,430,000

<b>Department</b>	<b>Project#</b>	<b>Priority</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>Total</b>
Londin/Highpoint Area Pavement	<i>PW16.12</i>	1	60,000	1,010,000				<i>1,070,000</i>
Pond/Dorland Area Street Improvements	<i>PW16.13</i>	1	2,320,000					<i>2,320,000</i>
Southcrest/Ferndale Area Pavement	<i>PW17.06</i>	1				60,000	1,210,000	<i>1,270,000</i>
Gladstone Improvements Phase 3	<i>PW17.07</i>	1				100,000	3,300,000	<i>3,400,000</i>
East Shore Drive Area Street Improvements	<i>PW17.08</i>	1				100,000	4,720,000	<i>4,820,000</i>
<b>Street Department Total</b>			<b>4,060,000</b>	<b>8,760,000</b>	<b>8,279,000</b>	<b>8,990,000</b>	<b>9,230,000</b>	<b>39,319,000</b>
<b>GRAND TOTAL</b>			<b>9,524,120</b>	<b>17,936,480</b>	<b>15,391,200</b>	<b>10,716,100</b>	<b>13,201,720</b>	<b>66,769,620</b>

City of Maplewood, Minnesota

Capital Improvement Plan

2017 thru 2021

**PROJECTS BY CATEGORY**

Category	Project#	Priority	2017	2018	2019	2020	2021	Total
<b>Buildings</b>								
Rehabilitation of Fire Station	FD10.011	2		2,300,000				2,300,000
Rehabilitation of Fire Station	FD10.012	2		2,000,000				2,000,000
Council Chambers Remodel	IT17.010	3			50,000	200,000		250,000
Municipal Facility Upgrades	MT16.01	3				100,000	100,000	200,000
Park Maintenance Building Updates	MT17.01	3	140,000					140,000
Emergency Lighting and Exits Signs	MT17.02	3	210,000					210,000
Nature Center Facility Updates	MT17.03	3	220,000					220,000
City Hall Facility Updates	MT17.04	3	415,000					415,000
1902 Building Mechanical Updates	MT17.05	3		360,000				360,000
1902 Building Roof	MT17.06	3			410,000			410,000
Regional Police Firearms Training Range	PD15.060	3		175,000	100,000	100,000	100,000	475,000
MCC Building Improvements	PM17.02	3	500,000	500,000	500,000			1,500,000
<b>Buildings Total</b>			<b>1,485,000</b>	<b>5,335,000</b>	<b>1,060,000</b>	<b>400,000</b>	<b>200,000</b>	<b>8,480,000</b>
<b>Equipment</b>								
Replacement of Fire Truck	FD03-020	2	630,000					630,000
Ambulance Replacement	FD09.020	2		224,400				224,400
Replacement of Police & Fire 800 MHZ Radios	FD15.010	1	76,800	76,800	76,800	76,800	76,800	384,000
Replacement of Rehab/Air Truck	FD16.010	2			306,000			306,000
Ambulance Replacement	FD17.010	2					240,000	240,000
Replacement of Fire Truck	FD17.020	2					610,000	610,000
Replacement of EMS Heart Monitors	FD17.030	2	78,000	52,000				130,000
Police Department Body/Squad Video/EW Systems	PD14.040	2	178,000	105,920	105,920	105,920	105,920	601,680
Records Management System	PD15.020	2	30,000	30,000	30,000	30,000	30,000	150,000
<b>Equipment Total</b>			<b>992,800</b>	<b>489,120</b>	<b>518,720</b>	<b>212,720</b>	<b>1,062,720</b>	<b>3,276,080</b>
<b>Equipment: Computers</b>								
Election Equipment	IT12.010	1	45,000					45,000
Eden System replacement	IT15.020	2	65,000		100,000			165,000
Laserfiche Update	IT15.030	1	25,000					25,000
Server Storage	IT16.010	2				60,000		60,000
<b>Equipment: Computers Total</b>			<b>135,000</b>		<b>100,000</b>	<b>60,000</b>		<b>295,000</b>
<b>Equipment: PW Equip</b>								
Two 12,000 lb Capacity Trailers	PW06.01	3	18,000					18,000
Three-Wheel Truckster	PW06.06	3	15,000					15,000
Street Sweeper	PW13.04	3	190,000					190,000
Water Tanker	PW15.02	2				110,000		110,000
Wood Chipper	PW15.05	3		55,000				55,000
Street Sweeper	PW16.02	3				200,000		200,000
ToolCat Work Machine	PW16.03	3			45,000			45,000
Asphalt Hot Box	PW16.04	3		30,000				30,000
Three Tilt-Deck Trailers	PW16.05	3			30,000			30,000

Category	Project#	Priority	2017	2018	2019	2020	2021	Total
Tractor/Utility Machine	PW17.01	3			75,000			75,000
16' Park Mower	PW17.02	3				90,000		90,000
Asphalt Paver	PW17.05	2					56,000	56,000
<b>Equipment: PW Equip Total</b>			<b>223,000</b>	<b>85,000</b>	<b>150,000</b>	<b>400,000</b>	<b>56,000</b>	<b>914,000</b>
<b>Park Improvements</b>								
Park Upgrades to Existing Parks	PM07.010	3	100,000	100,000	100,000	100,000	100,000	500,000
Gladstone Savanna Improvements	PM08.050	3	60,000					60,000
Open Space Improvements	PM08.060	3	150,000		150,000		150,000	450,000
Veteran's Memorial Park	PM11.020	3					250,000	250,000
Harvest Park	PM14.020	3		50,000				50,000
EAB Ash Removal and Planting	PM15.020	3		150,000	150,000	150,000		450,000
Wakefield Park	PM15.430	3	50,000					50,000
Park Maintenance and Re-Investment	PM16.001	3	1,000,000		1,000,000		1,000,000	3,000,000
Maplewood Nature Center Master Plan	PM16.003	3		75,000				75,000
Maplewood Nature Center Land Acquisition	PM16.004	3		160,000	100,000			260,000
Fish Creek Open Space	PM16.005	3	300,000	150,000				450,000
<b>Park Improvements Total</b>			<b>1,660,000</b>	<b>685,000</b>	<b>1,500,000</b>	<b>250,000</b>	<b>1,500,000</b>	<b>5,595,000</b>
<b>Redevelopment</b>								
Housing Replacement Program	CD02.01	3		80,000		80,000		160,000
Commercial Property Redevelopment	CD09.01	3	650,000		650,000		650,000	1,950,000
Gladstone Area Redevelopment	CD15.01	3		2,000,000	2,750,000			4,750,000
<b>Redevelopment Total</b>			<b>650,000</b>	<b>2,080,000</b>	<b>3,400,000</b>	<b>80,000</b>	<b>650,000</b>	<b>6,860,000</b>
<b>Street Construction</b>								
Farrell/Ferndale Area Street Improvements	PW09.08	1	100,000	7,490,000				7,590,000
Dennis/McClelland Area Street Improvements	PW09.10	1		100,000	100,000	6,860,000		7,060,000
Sterling Street Bridge Replacement	PW12.02	1	100,000		1,300,000			1,400,000
White Bear Ave / I694 Interchange Project	PW15.08	2				500,000		500,000
Ferndale/Ivy Area Street Improvements	PW15.11	1	100,000	100,000	3,380,000			3,580,000
Rice Street	PW16.06	2			2,239,000			2,239,000
Hillwood/Crestview Area Pavement	PW16.09	1	1,380,000					1,380,000
Mailand/Crestview Forest Area Pavement	PW16.10	1		60,000	1,200,000			1,260,000
Schaller Area Pavement	PW16.11	1			60,000	1,370,000		1,430,000
Londin/Highpoint Area Pavement	PW16.12	1	60,000	1,010,000				1,070,000
Pond/Dorland Area Street Improvements	PW16.13	1	2,320,000					2,320,000
Southcrest/Ferndale Area Pavement	PW17.06	1				60,000	1,210,000	1,270,000
Gladstone Improvements Phase 3	PW17.07	1				100,000	3,300,000	3,400,000
East Shore Drive Area Street Improvements	PW17.08	1				100,000	4,720,000	4,820,000
<b>Street Construction Total</b>			<b>4,060,000</b>	<b>8,760,000</b>	<b>8,279,000</b>	<b>8,990,000</b>	<b>9,230,000</b>	<b>39,319,000</b>
<b>Utilities</b>								
Lift Station Upgrade Program	PW03.21	2	20,000	20,000	20,000	20,000	20,000	100,000
Pond Clean Out/Dredging Projects	PW14.01	3		100,000		100,000		200,000
<b>Utilities Total</b>			<b>20,000</b>	<b>120,000</b>	<b>20,000</b>	<b>120,000</b>	<b>20,000</b>	<b>300,000</b>
<b>Vehicles</b>								
Squad Replacement	PD15.010	1	152,320	155,360	158,480	203,380	183,000	852,540
1-Ton Truck	PW07.03	3	72,000					72,000
One 1/2-Ton Pickup	PW12.04	3	22,000					22,000
Single-Axle Plow Truck	PW13.03	2		205,000				205,000
Single-Axle Plow Truck	PW15.01	2			205,000			205,000

<b>Category</b>	<b>Project#</b>	<b>Priority</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>Total</b>
One 1/2-Ton Truck	PW15.03	3		22,000				22,000
1/2-Ton Pickup Trucks	PW16.01	3	52,000					52,000
1 1/2-Ton Utility Truck	PW17.03	3					90,000	90,000
Single-Axle Plow Truck	PW17.04	2					210,000	210,000
<b>Vehicles Total</b>			<b>298,320</b>	<b>382,360</b>	<b>363,480</b>	<b>203,380</b>	<b>483,000</b>	<b>1,730,540</b>
<b>GRAND TOTAL</b>			<b>9,524,120</b>	<b>17,936,480</b>	<b>15,391,200</b>	<b>10,716,100</b>	<b>13,201,720</b>	<b>66,769,620</b>

City of Maplewood, Minnesota

Capital Improvement Plan

2017 thru 2021

**PROJECTS BY FUNDING SOURCE**

Source	Project#	Priority	2017	2018	2019	2020	2021	Total
<b>Ambulance Fund</b>								
Ambulance Replacement	FD09.020	2		224,400				224,400
Ambulance Replacement	FD17.010	2					240,000	240,000
Replacement of EMS Heart Monitors	FD17.030	2	78,000	52,000				130,000
<b>Ambulance Fund Total</b>			<b>78,000</b>	<b>276,400</b>			<b>240,000</b>	<b>594,400</b>
<b>Bonds GO CIP</b>								
Rehabilitation of Fire Station	FD10.011	2		300,000				300,000
Rehabilitation of Fire Station	FD10.012	2		600,000				600,000
Council Chambers Remodel	IT17.010	3			50,000	200,000		250,000
1902 Building Mechanical Updates	MT17.05	3		360,000				360,000
1902 Building Roof	MT17.06	3			410,000			410,000
Regional Police Firearms Training Range	PD15.060	3		175,000	100,000	100,000	100,000	475,000
<b>Bonds GO CIP Total</b>				<b>1,435,000</b>	<b>560,000</b>	<b>300,000</b>	<b>100,000</b>	<b>2,395,000</b>
<b>Bonds GO Improvement</b>								
Farrell/Ferndale Area Street Improvements	PW09.08	1	100,000	3,383,800				3,483,800
Dennis/McClelland Area Street Improvements	PW09.10	1			100,000	2,960,500		3,060,500
Ferndale/Ivy Area Street Improvements	PW15.11	1		100,000	1,836,880			1,936,880
Pond/Dorland Area Street Improvements	PW16.13	1	800,825					800,825
East Shore Drive Area Street Improvements	PW17.08	1				100,000	2,167,500	2,267,500
<b>Bonds GO Improvement Total</b>			<b>900,825</b>	<b>3,483,800</b>	<b>1,936,880</b>	<b>3,060,500</b>	<b>2,167,500</b>	<b>11,549,505</b>
<b>Bonds GO Special Assessment</b>								
Farrell/Ferndale Area Street Improvements	PW09.08	1		828,200				828,200
Dennis/McClelland Area Street Improvements	PW09.10	1				1,010,500		1,010,500
Ferndale/Ivy Area Street Improvements	PW15.11	1			568,220			568,220
Hillwood/Crestview Area Pavement	PW16.09	1	789,222					789,222
Mailand/Crestview Forest Area Pavement	PW16.10	1			699,660			699,660
Schaller Area Pavement	PW16.11	1				793,500		793,500
Londin/Highpoint Area Pavement	PW16.12	1		494,868				494,868
Pond/Dorland Area Street Improvements	PW16.13	1	653,975					653,975
Southcrest/Ferndale Area Pavement	PW17.06	1					637,560	637,560
East Shore Drive Area Street Improvements	PW17.08	1					583,300	583,300
<b>Bonds GO Special Assessment Total</b>			<b>1,443,197</b>	<b>1,323,068</b>	<b>1,267,880</b>	<b>1,804,000</b>	<b>1,220,860</b>	<b>7,059,005</b>
<b>Bonds MSA</b>								
Sterling Street Bridge Replacement	PW12.02	1	100,000		115,000			215,000

Source	Project#	Priority	2017	2018	2019	2020	2021	Total
<b>Bonds MSA Total</b>			100,000		115,000			215,000
<b>Bonds Tax Abatement</b>								
Nature Center Facility Updates	MT17.03	3	220,000					220,000
Park Upgrades to Existing Parks	PM07.010	3	100,000	100,000	100,000	100,000	100,000	500,000
Park Maintenance and Re-Investment	PM16.001	3	1,000,000		1,000,000		1,000,000	3,000,000
MCC Building Improvements	PM17.02	3	500,000	500,000	500,000			1,500,000
<b>Bonds Tax Abatement Total</b>			1,820,000	600,000	1,600,000	100,000	1,100,000	5,220,000
<b>Bonds Tax Increment</b>								
Gladstone Area Redevelopment	CD15.01	3		2,000,000	2,750,000			4,750,000
<b>Bonds Tax Increment Total</b>				2,000,000	2,750,000			4,750,000
<b>Building Replacement Fund</b>								
Municipal Facility Upgrades	MT16.01	3				100,000	100,000	200,000
<b>Building Replacement Fund Total</b>						100,000	100,000	200,000
<b>CIP Fund</b>								
Replacement of Police & Fire 800 MHZ Radios	FD15.010	1	76,800	76,800	76,800	76,800	76,800	384,000
Election Equipment	IT12.010	1	45,000					45,000
Park Maintenance Building Updates	MT17.01	3	140,000					140,000
Emergency Lighting and Exits Signs	MT17.02	3	210,000					210,000
City Hall Facility Updates	MT17.04	3	415,000					415,000
EAB Ash Removal and Planting	PM15.020	3		150,000	150,000	150,000		450,000
<b>CIP Fund Total</b>			886,800	226,800	226,800	226,800	76,800	1,644,000
<b>City of St. Paul Water Dept</b>								
Farrell/Ferndale Area Street Improvements	PW09.08	1		848,000				848,000
Dennis/McClelland Area Street Improvements	PW09.10	1				778,000		778,000
Ferndale/Ivy Area Street Improvements	PW15.11	1			89,400			89,400
Pond/Dorland Area Street Improvements	PW16.13	1	258,000					258,000
East Shore Drive Area Street Improvements	PW17.08	1					285,200	285,200
<b>City of St. Paul Water Dept Total</b>			258,000	848,000	89,400	778,000	285,200	2,258,600
<b>EDA Fund</b>								
Commercial Property Redevelopment	CD09.01	3	650,000		650,000		650,000	1,950,000
<b>EDA Fund Total</b>			650,000		650,000		650,000	1,950,000
<b>Environmental Utility Fund</b>								
Gladstone Savanna Improvements	PM08.050	3	10,000					10,000
Farrell/Ferndale Area Street Improvements	PW09.08	1		1,546,000				1,546,000
Dennis/McClelland Area Street Improvements	PW09.10	1		100,000		1,424,000		1,524,000
Pond Clean Out/Dredging Projects	PW14.01	3		100,000		100,000		200,000
Ferndale/Ivy Area Street Improvements	PW15.11	1	100,000		547,100			647,100
Hillwood/Crestview Area Pavement	PW16.09	1	72,000					72,000

Source	Project#	Priority	2017	2018	2019	2020	2021	Total
Mailand/Crestview Forest Area Pavement	PW16.10	1			63,000			63,000
Schaller Area Pavement	PW16.11	1				71,500		71,500
Londin/Highpoint Area Pavement	PW16.12	1		53,500				53,500
Pond/Dorland Area Street Improvements	PW16.13	1	371,000					371,000
Southcrest/Ferndale Area Pavement	PW17.06	1					63,500	63,500
East Shore Drive Area Street Improvements	PW17.08	1					1,007,000	1,007,000

**Environmental Utility Fund Total**

553,000	1,799,500	610,100	1,595,500	1,070,500	5,628,600
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**Fire Equipment Fund**

Replacement of Fire Truck	FD03-020	2	630,000					630,000
Replacement of Rehab/Air Truck	FD16.010	2			306,000			306,000
Replacement of Fire Truck	FD17.020	2					610,000	610,000

**Fire Equipment Fund Total**

630,000		306,000		610,000	1,546,000
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**Fleet Management Fund**

Two 12,000 lb Capacity Trailers	PW06.01	3	18,000					18,000
Three-Wheel Truckster	PW06.06	3	15,000					15,000
1-Ton Truck	PW07.03	3	72,000					72,000
One 1/2-Ton Pickup	PW12.04	3	22,000					22,000
Single-Axle Plow Truck	PW13.03	2		205,000				205,000
Street Sweeper	PW13.04	3	190,000					190,000
Single-Axle Plow Truck	PW15.01	2			205,000			205,000
Water Tanker	PW15.02	2				110,000		110,000
One 1/2-Ton Truck	PW15.03	3		22,000				22,000
Wood Chipper	PW15.05	3		55,000				55,000
1/2-Ton Pickup Trucks	PW16.01	3	52,000					52,000
Street Sweeper	PW16.02	3				200,000		200,000
ToolCat Work Machine	PW16.03	3			45,000			45,000
Asphalt Hot Box	PW16.04	3		30,000				30,000
Three Tilt-Deck Trailers	PW16.05	3			30,000			30,000
Tractor/Utility Machine	PW17.01	3			75,000			75,000
16' Park Mower	PW17.02	3				90,000		90,000
1 1/2-Ton Utility Truck	PW17.03	3					90,000	90,000
Single-Axle Plow Truck	PW17.04	2					210,000	210,000
Asphalt Paver	PW17.05	2					56,000	56,000

**Fleet Management Fund Total**

369,000	312,000	355,000	400,000	356,000	1,792,000
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**Gas Franchise Fee**

Hillwood/Crestview Area Pavement	PW16.09	1	432,378					432,378
Mailand/Crestview Forest Area Pavement	PW16.10	1		60,000	361,740			421,740
Schaller Area Pavement	PW16.11	1			60,000	419,200		479,200
Londin/Highpoint Area Pavement	PW16.12	1	60,000	397,432				457,432
Southcrest/Ferndale Area Pavement	PW17.06	1				60,000	432,740	492,740

**Gas Franchise Fee Total**

492,378	457,432	421,740	479,200	432,740	2,283,490
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**IT Fund**

Eden System replacement	IT15.020	2	65,000		100,000			165,000
Laserfiche Update	IT15.030	1	25,000					25,000
Server Storage	IT16.010	2				60,000		60,000

Source	Project#	Priority	2017	2018	2019	2020	2021	Total
<b>IT Fund Total</b>			90,000		100,000	60,000		250,000
<b>Park Improvement Fund</b>								
Open Space Improvements	PM08.060	3	150,000		150,000		150,000	450,000
Veteran's Memorial Park	PM11.020	3					250,000	250,000
Harvest Park	PM14.020	3		50,000				50,000
Wakefield Park	PM15.430	3	25,000					25,000
Maplewood Nature Center Master Plan	PM16.003	3		75,000				75,000
Maplewood Nature Center Land Acquisition	PM16.004	3		160,000	100,000			260,000
Fish Creek Open Space	PM16.005	3	150,000	25,000				175,000
<b>Park Improvement Fund Total</b>			325,000	310,000	250,000		400,000	1,285,000
<b>Police Equipment Fund</b>								
Police Department Body/Squad Video/EW Systems	PD14.040	2	178,000	105,920	105,920	105,920	105,920	601,680
Squad Replacement	PD15.010	1	114,240	116,520	118,860	121,230	183,000	653,850
Records Management System	PD15.020	2	30,000	30,000	30,000	30,000	30,000	150,000
<b>Police Equipment Fund Total</b>			322,240	252,440	254,780	257,150	318,920	1,405,530
<b>Police Services Fund</b>								
Squad Replacement	PD15.010	1	38,080	38,840	39,620	82,150		198,690
<b>Police Services Fund Total</b>			38,080	38,840	39,620	82,150		198,690
<b>Proceeds from Sale Property</b>								
Rehabilitation of Fire Station	FD10.011	2		2,000,000				2,000,000
Rehabilitation of Fire Station	FD10.012	2		1,400,000				1,400,000
<b>Proceeds from Sale Property Total</b>				3,400,000				3,400,000
<b>Ramsey County</b>								
Fish Creek Open Space	PM16.005	3	150,000	100,000				250,000
<b>Ramsey County Total</b>			150,000	100,000				250,000
<b>Redevelopment Fund</b>								
Housing Replacement Program	CD02.01	3		80,000		80,000		160,000
<b>Redevelopment Fund Total</b>				80,000		80,000		160,000
<b>Sanitary Sewer Fund</b>								
Lift Station Upgrade Program	PW03.21	2	20,000	20,000	20,000	20,000	20,000	100,000
Farrell/Ferndale Area Street Improvements	PW09.08	1		597,000				597,000
Dennis/McClelland Area Street Improvements	PW09.10	1				426,000		426,000
Ferndale/Ivy Area Street Improvements	PW15.11	1			249,000			249,000
Hillwood/Crestview Area Pavement	PW16.09	1	43,200					43,200
Mailand/Crestview Forest Area Pavement	PW16.10	1			37,800			37,800
Schaller Area Pavement	PW16.11	1				42,900		42,900
Londin/Highpoint Area Pavement	PW16.12	1		32,100				32,100
Pond/Dorland Area Street Improvements	PW16.13	1	168,100					168,100

Source	Project#	Priority	2017	2018	2019	2020	2021	Total
Southcrest/Ferndale Area Pavement	PW17.06	1					38,100	38,100
East Shore Drive Area Street Improvements	PW17.08	1					438,000	438,000
<b>Sanitary Sewer Fund Total</b>			<b>231,300</b>	<b>649,100</b>	<b>306,800</b>	<b>488,900</b>	<b>496,100</b>	<b>2,172,200</b>
<b>State Grants</b>								
Gladstone Savanna Improvements	PM08.050	3	45,000					45,000
Fish Creek Open Space	PM16.005	3		25,000				25,000
Sterling Street Bridge Replacement	PW12.02	1			1,185,000			1,185,000
White Bear Ave / I694 Interchange Project	PW15.08	2				500,000		500,000
Rice Street	PW16.06	2			2,239,000			2,239,000
Gladstone Improvements Phase 3	PW17.07	1				100,000	3,300,000	3,400,000
<b>State Grants Total</b>			<b>45,000</b>	<b>25,000</b>	<b>3,424,000</b>	<b>600,000</b>	<b>3,300,000</b>	<b>7,394,000</b>
<b>Tree Preservation Fund</b>								
Gladstone Savanna Improvements	PM08.050	3	5,000					5,000
<b>Tree Preservation Fund Total</b>			<b>5,000</b>					<b>5,000</b>
<b>Water - WAC Fund</b>								
Farrell/Ferndale Area Street Improvements	PW09.08	1		287,000				287,000
Dennis/McClelland Area Street Improvements	PW09.10	1				261,000		261,000
Ferndale/Ivy Area Street Improvements	PW15.11	1			89,400			89,400
Hillwood/Crestview Area Pavement	PW16.09	1	43,200					43,200
Mailand/Crestview Forest Area Pavement	PW16.10	1			37,800			37,800
Schaller Area Pavement	PW16.11	1				42,900		42,900
Londin/Highpoint Area Pavement	PW16.12	1		32,100				32,100
Pond/Dorland Area Street Improvements	PW16.13	1	68,100					68,100
Southcrest/Ferndale Area Pavement	PW17.06	1					38,100	38,100
East Shore Drive Area Street Improvements	PW17.08	1					239,000	239,000
<b>Water - WAC Fund Total</b>			<b>111,300</b>	<b>319,100</b>	<b>127,200</b>	<b>303,900</b>	<b>277,100</b>	<b>1,138,600</b>
<b>Watershed District</b>								
Wakefield Park	PM15.430	3	25,000					25,000
<b>Watershed District Total</b>			<b>25,000</b>					<b>25,000</b>
<b>GRAND TOTAL</b>			<b>9,524,120</b>	<b>17,936,480</b>	<b>15,391,200</b>	<b>10,716,100</b>	<b>13,201,720</b>	<b>66,769,620</b>

SECTION III  
PROJECT DETAILS



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# Ambulance Service



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**Capital Improvement Plan**  
**City of Maplewood, Minnesota**

2017 *thru* 2021

**Project #** FD17.010  
**Project Name** Ambulance Replacement



**Type** Equipment  
**Useful Life** 15 years  
**Category** Equipment  
**Department** Ambulance  
**Contact** Fire Chief  
**Priority** 2 Very Important

**Description** **Total Project Cost:** \$240,000  
 Modular ALS Ambulance

**Justification**

Replacement of a 2014 Ford Road Rescue ambulance. At the time this ambulance is replaced, it will have approximately 200,000 miles on it. The repair and maintenance costs of this ambulance will become significant over the next few years.

Currently we have one of our ambulances down for some type of repair weekly. We are also very concerned that due to the age and the condition of these vehicles, we could develop a breakdown causing a delay in our response time or when transporting a patient to a hospital.

Now that we are operating out of three fire stations, we no longer have the need for six ambulances to be in service. We have revised our ambulance fleet program from six ambulances down to four. This will have a positive impact on the ambulances service fund.

Our plan is to utilize three ambulances and one spare. Replacement schedule would be one ambulance every two to three years.

<b>Expenditures</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>Total</b>
Equip/Vehicles/Furnishings					240,000	240,000
<b>Total</b>					240,000	240,000

<b>Funding Sources</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>Total</b>
Ambulance Fund					240,000	240,000
<b>Total</b>					240,000	240,000

**Budget Impact/Other**

We anticipate lower maintenance and operating costs, due to the efficiencies achieved with newer equipment.

**Capital Improvement Plan**  
**City of Maplewood, Minnesota**

2017 *thru* 2021

**Project #** FD17.030  
**Project Name** Replacement of EMS Heart Monitors

**Type** Equipment  
**Useful Life** 10 years  
**Category** Equipment  
**Department** Ambulance  
**Contact** Fire Chief  
**Priority** 2 Very Important



**Description**

**Total Project Cost:** \$130,000

Philips Heart Monitors

**Justification**

The replacement of the five heart monitors are needed due to their age and poor condition. The heart monitors, at the time of their replacement, will be six and seven years old. We also need to upgrade the technology that is now available in the monitors. The new technology will also give our paramedics the ability to better treat the patient's needs in the field. With this new diagnostic capability, it will improve the real time data needed during treatment. Currently, we have applied for an AG grant to obtain the five monitors in 2016. If we are unable to obtain this grant, this request in the CIP for 2017 and 2018 will be needed.

<b>Expenditures</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>Total</b>
Equip/Vehicles/Furnishings	78,000	52,000				130,000
<b>Total</b>	<b>78,000</b>	<b>52,000</b>				<b>130,000</b>

<b>Funding Sources</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>Total</b>
Ambulance Fund	78,000	52,000				130,000
<b>Total</b>	<b>78,000</b>	<b>52,000</b>				<b>130,000</b>

**Budget Impact/Other**

Only the cost of the units. We do not expect any additional budget impact.

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# Building Maintenance



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**Capital Improvement Plan**  
**City of Maplewood, Minnesota**

2017 *thru* 2021

**Project #** MT17.01  
**Project Name** Park Maintenance Building Updates



**Type** Improvement                      **Department** Building Maintenance  
**Useful Life** 20 years                      **Contact** Public Works Director  
**Category** Buildings                      **Priority** 3 Important

**Description** **Total Project Cost:** \$140,000  
 The park maintenance building is in need of a variety of electrical, mechanical and building updates in 2017 as recommended in the Asset Management Study.

**Justification**  
 The park maintenance building is in need of updates or replacement for electrical, flooring, overhead doors, exhaust systems and switchgear. These improvements are warranted as these items are well beyond their useful life. (Recommended for action in 2016 per the Asset Management Study).

<b>Expenditures</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>Total</b>
Construction/Maintenance	140,000					140,000
<b>Total</b>	<b>140,000</b>					<b>140,000</b>

<b>Funding Sources</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>Total</b>
CIP Fund	140,000					140,000
<b>Total</b>	<b>140,000</b>					<b>140,000</b>

**Budget Impact/Other**  
 These improvements should have a positive impact on the budge due to increased efficiency of the mechanical systems and reduced maintenance.









**Capital Improvement Plan**  
**City of Maplewood, Minnesota**

2017 *thru* 2021

**Project #** MT17.06  
**Project Name** 1902 Building Roof



**Type** Improvement                      **Department** Building Maintenance  
**Useful Life** 20 years                      **Contact** Public Works Director  
**Category** Buildings                      **Priority** 3 Important

**Description** **Total Project Cost:** \$410,000  
 The roof system on the 1902 Building needs to be replaced in 2019 per the Asset Management Study.

**Justification**  
 The 1902 Building roofing (BUR) renewal is needed. Over the past 5 years about two dozen leaks have occurred and each is addressed but at a price. The roof system is beyond its useful life and needs replacement to protect the interior. (Recommended for action in 2018 per the Asset Management Study).

<b>Expenditures</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>Total</b>
Construction/Maintenance			410,000			410,000
<b>Total</b>			410,000			410,000

<b>Funding Sources</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>Total</b>
Bonds GO CIP			410,000			410,000
<b>Total</b>			410,000			410,000

**Budget Impact/Other**  
 The improvement should result in savings to the operating budget. The roof will require less maintenance and will be more energy efficient.

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# Environment and Economic Development Department



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# Fire Department



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**Capital Improvement Plan**  
**City of Maplewood, Minnesota**

2017 *thru* 2021

**Project #** FD03-020  
**Project Name** Replacement of Fire Truck

**Type** Equipment  
**Useful Life** 10 years  
**Category** Equipment  
**Department** Fire Department  
**Contact** Fire Chief  
**Priority** 2 Very Important



**Description** **Total Project Cost:** \$630,000  
 1500GPM Fire Truck

**Justification**  
 This truck will replace a 1997 fire truck which has significant rust issues as well as ongoing maintenance costs. The goal of our replacement program for fire trucks is to have all first line pumpers replaced every 20 years. Due to the downsizing from two fire trucks to one fire truck per station starting in 2017, this truck will need to be replaced one year earlier and will be build to accommodate rescue equipment and other specialty equipment that is currently being used on that vehicle. The new engine will have the additional space as well as have the capabilities of doing the function of both rescue and fire suppression.

<b>Expenditures</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>Total</b>
Equip/Vehicles/Furnishings	630,000					630,000
<b>Total</b>	<b>630,000</b>					<b>630,000</b>

<b>Funding Sources</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>Total</b>
Fire Equipment Fund	630,000					630,000
<b>Total</b>	<b>630,000</b>					<b>630,000</b>

**Budget Impact/Other**  
 There will be a positive impact on the operating budget due to lower maintenance costs.







**Capital Improvement Plan**  
**City of Maplewood, Minnesota**

2017 *thru* 2021

**Project #** FD16.010  
**Project Name** Replacement of Rehab/Air Truck



**Type** Equipment  
**Useful Life** 15 years  
**Category** Equipment  
**Department** Fire Department  
**Contact** Fire Chief  
**Priority** 2 Very Important

**Description** **Total Project Cost:** \$306,000  
 Rehab/Air Truck

**Justification**  
 This new rehab/air truck will replace the existing truck that was purchased in 1992 and will be 26 years old at the time of its replacement. This truck plays a major role within the Maplewood Fire Department. Its main function is to provide an area in which our firefighters can get out of the winter and summer elements when fighting a fire or performing other dangerous tasks. NFPA recommends that each firefighter must take a break after using an air pack for more than 45 minutes to either get warmed up or cooled off depending on the outside conditions. Blood pressures and carbon dioxide readings must be taken as well as providing fluids to keep the firefighters hydrated. Another major role that this truck performs is providing an air supply to refill air tanks at fires. Currently, we can fill over 60 bottles of air at a fire. Our goal for the new truck would be to have a constant air supply available. This truck also provides us with additional space to carry other supplies and equipment as it relates to both rehab and air supply functions and is also used in partnership with the Oakdale Fire Department. In turn, the Oakdale Fire Department provides a command vehicle to the Maplewood Fire Department. These two shared pieces of equipment not only provide a cost savings to both communities, they enhance our sharing of services.

<b>Expenditures</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>Total</b>
Equip/Vehicles/Furnishings			306,000			306,000
<b>Total</b>			306,000			306,000

<b>Funding Sources</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>Total</b>
Fire Equipment Fund			306,000			306,000
<b>Total</b>			306,000			306,000

**Budget Impact/Other**  
 There will be a positive impact on the operating budget due to lower maintenance costs.

**Capital Improvement Plan**  
**City of Maplewood, Minnesota**

2017 *thru* 2021

**Project #** FD17.020  
**Project Name** Replacement of Fire Truck

**Type** Equipment  
**Useful Life** 20 years  
**Category** Equipment  
**Department** Fire Department  
**Contact** Fire Chief  
**Priority** 2 Very Important



**Description** **Total Project Cost:** \$610,000  
 1500 GPM Fire Truck

**Justification**  
 This truck will replace a 2000 fire truck which has significant rust issues as well as ongoing maintenance costs. The goal of our replacement program for fire trucks is to have all fire line pumpers replaced every 20 years. The new engine will have the additional space as well as have the capabilities of doing the function of both rescue and fire suppression. It will also be foam capable. At the time of replacement, this truck will be 21 years old.

<b>Expenditures</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>Total</b>
Equip/Vehicles/Furnishings					610,000	610,000
<b>Total</b>	<hr/>				610,000	610,000

<b>Funding Sources</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>Total</b>
Fire Equipment Fund					610,000	610,000
<b>Total</b>	<hr/>				610,000	610,000

**Budget Impact/Other**  
 There will be a positive impact on the operating budget due to lower maintenance costs.

# Information Technology



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**Capital Improvement Plan**  
**City of Maplewood, Minnesota**

2017 *thru* 2021

**Project #** IT15.020  
**Project Name** Eden System replacement

**Type** Equipment  
**Useful Life** 20 years  
**Category** Equipment: Computers

**Department** IT  
**Contact** IT Director  
**Priority** 2 Very Important



**Description** **Total Project Cost: \$165,000**  
 Replacement of portions of Eden Systems software

**Justification**  
 Currently we are using the application Eden Systems by Tyler Technologies to manage a variety of items within various City departments. While Eden Systems is not going away any time soon, they are not actively improving the application either. In some departments we have a need to become more mobile while also bringing resources closer to our applications/customers. This item would be to replace some modules of Eden Systems with a new application that would provide us those capabilities. In 2017 we will look at more mobile based modules for employees in the field. 2019 would be upgrading any modules left with Eden Systems.

<b>Expenditures</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>Total</b>
Equip/Vehicles/Furnishings	65,000		100,000			165,000
<b>Total</b>	<b>65,000</b>		<b>100,000</b>			<b>165,000</b>

<b>Funding Sources</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>Total</b>
IT Fund	65,000		100,000			165,000
<b>Total</b>	<b>65,000</b>		<b>100,000</b>			<b>165,000</b>

**Budget Impact/Other**  
 The annual maintenance agreement may increase, depending on options chosen. Impact on the operating budget will most likely be less than \$5,000 annually.







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# Parks and Recreation



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**Capital Improvement Plan**  
**City of Maplewood, Minnesota**

2017 *thru* 2021

**Project #** PM16.003  
**Project Name** Maplewood Nature Center Master Plan



**Type** Improvement                      **Department** Parks and Recreation  
**Useful Life** 15 years                      **Contact** Park Director  
**Category** Park Improvements                      **Priority** 3 Important

**Description** **Total Project Cost:** \$75,000  
 Creation of the Maplewood Nature Center Master Plan

**Justification**  
 The Park System Master Plan identifies the need for a Master Plan to be completed for the Maplewood Nature Center. The first step in development of the Master Plan is to conduct a feasibility study to 1) evaluate short-term and long-term environmental and nature programming needs, 2) determine whether the existing Visitor Center and site meet those needs, 3) recommend a course of action (renovation, new center, or new site). The Master Plan would then develop concepts of the Visitor Center and site improvements, developments or redevelopment.

<b>Expenditures</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>Total</b>
Construction/Maintenance		75,000				75,000
<b>Total</b>		<b>75,000</b>				<b>75,000</b>

<b>Funding Sources</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>Total</b>
Park Improvement Fund		75,000				75,000
<b>Total</b>		<b>75,000</b>				<b>75,000</b>

**Budget Impact/Other**  
 Equipment and facilities will require maintenance and periodic upgrades. These costs will be identified and built into the operating budget upon completion.







# Police Department



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**Capital Improvement Plan**  
**City of Maplewood, Minnesota**

2017 *thru* 2021

**Project # PD14.040**  
**Project Name Police Department Body/Squad Video/EW Systems**



**Type** Equipment  
**Useful Life** 15 years  
**Category** Equipment  
**Department** Police Department  
**Contact** Police Captain  
**Priority** 2 Very Important

**Description** **Total Project Cost: \$626,855**  
 Body/In-Squad/Interview Room Cameras - Electronic Weapon System

**Justification**  
 The in-squad and interview room camera system was installed in 2009. In early 2016, due to equipment to equipment failure, in-squad camera systems were removed from all the department's marked squad cars. The three existing interview room cameras, which were supported by the in-squad camera system storage server remain operational, although the server is beyond end of life. For purposes of evidence collection, liability reduction, and aiding public trust, these systems are of critical importance. This proposal puts all the departments camera systems (body worn, in-squad, and interview rooms) on a single platform with cloud-based data storage. In addition, the request includes replacement of (60) Taser electronic incapacitation devices. This request includes all associated hardware, back-end operating system, and cloud-based data storage that is linked/associated with the department's records management system.

<b>Prior</b>	<b>Expenditures</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>Total</b>
25,175	Equip/Vehicles/Furnishings	178,000	105,920	105,920	105,920	105,920	601,680
<b>Total</b>	<b>Total</b>	<b>178,000</b>	<b>105,920</b>	<b>105,920</b>	<b>105,920</b>	<b>105,920</b>	<b>601,680</b>

<b>Prior</b>	<b>Funding Sources</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>Total</b>
25,175	Police Equipment Fund	178,000	105,920	105,920	105,920	105,920	601,680
<b>Total</b>	<b>Total</b>	<b>178,000</b>	<b>105,920</b>	<b>105,920</b>	<b>105,920</b>	<b>105,920</b>	<b>601,680</b>

**Budget Impact/Other**  
 Operating costs for storage and maintenance of the data are approximately \$105,000 and are incorporated into the five-year CIP.

**Capital Improvement Plan**  
**City of Maplewood, Minnesota**

2017 *thru* 2021

**Project # PD15.010**  
**Project Name Squad Replacement**

**Type** Equipment  
**Useful Life** 10 years  
**Category** Vehicles  
**Department** Police Department  
**Contact** Police Captain  
**Priority** 1 Critical



**Description** **Total Project Cost: \$1,223,390**  
 Marked patrol squad replacement

**Justification**  
 In recognition that effective policing efforts require high visibility and high mobility, the department needs to maintain and invest in fleet operations. As vehicles become more efficient and as we collect and evaluate data about the best fleet resources for specific types of police work, maintaining a current and operational fleet is critical. The current replacement plan is 5 marked squads annually at a fully burdened cost of \$36,600 each.

<b>Prior</b>	<b>Expenditures</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>Total</b>
370,850	Equip/Vehicles/Furnishings	152,320	155,360	158,480	203,380	183,000	852,540
<b>Total</b>	<b>Total</b>	152,320	155,360	158,480	203,380	183,000	852,540

<b>Prior</b>	<b>Funding Sources</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>Total</b>
370,850	Police Equipment Fund	114,240	116,520	118,860	121,230	183,000	653,850
<b>Total</b>	Police Services Fund	38,080	38,840	39,620	82,150		198,690
	<b>Total</b>	152,320	155,360	158,480	203,380	183,000	852,540

**Budget Impact/Other**  
 Adhering to the appropriate replacement schedule has a positive impact on the operating budget by minimizing maintenance costs and down time.

**Capital Improvement Plan**  
**City of Maplewood, Minnesota**

2017 *thru* 2021

**Project # PD15.020**  
**Project Name Records Management System**



**Type** Equipment  
**Useful Life** 15 years  
**Category** Equipment  
**Department** Police Department  
**Contact** Police Captain  
**Priority** 2 Very Important

**Description** **Total Project Cost: \$386,620**  
 Records Management System

**Justification**  
 In 2015, the police department purchased a new records management system (RMS) in collaboration with the Ramsey County Sheriff's Office and several other law enforcement agencies. The new system is integrated with the Ramsey County Emergency Communications Center CAD and mobile computing systems. The 2017 through 2021 amounts reflects the development of a replacement fund for RMS, which may ultimately come under a JPA, similar to the Ramsey County ECC.

<b>Prior</b>	<b>Expenditures</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>Total</b>
236,620	Equip/Vehicles/Furnishings	30,000	30,000	30,000	30,000	30,000	150,000
<b>Total</b>	<b>Total</b>	<b>30,000</b>	<b>30,000</b>	<b>30,000</b>	<b>30,000</b>	<b>30,000</b>	<b>150,000</b>

<b>Prior</b>	<b>Funding Sources</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>Total</b>
236,620	Police Equipment Fund	30,000	30,000	30,000	30,000	30,000	150,000
<b>Total</b>	<b>Total</b>	<b>30,000</b>	<b>30,000</b>	<b>30,000</b>	<b>30,000</b>	<b>30,000</b>	<b>150,000</b>

**Budget Impact/Other**  
 There will be no additional impact on the operating budget, other than the annual costs already identified in the CIP expenditures.



# Public Works Department



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**Capital Improvement Plan**  
**City of Maplewood, Minnesota**

2017 *thru* 2021

**Project #** PW06.06  
**Project Name** Three-Wheel Truckster

**Type** Equipment  
**Useful Life** 15 years  
**Category** Equipment: PW Equip

**Department** Public Works  
**Contact** Public Works Director  
**Priority** 3 Important



**Description** **Total Project Cost:** \$15,000

The 1991 Truckster, Unit 655, is due for replacement for continued use in athletic field painting and maintenance in 2017.

**Justification**

Replacement is scheduled for the 1991 three-wheel truckster. This piece of equipment is used primarily for painting athletic fields throughout the park system. Due to its age (25 years old) and high engine hours the machine is unreliable. The new painter will be equipped with new technology to make the operation more efficient and cost effective.

<b>Expenditures</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>Total</b>
Equip/Vehicles/Furnishings	15,000					15,000
<b>Total</b>	<b>15,000</b>					<b>15,000</b>

<b>Funding Sources</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>Total</b>
Fleet Management Fund	15,000					15,000
<b>Total</b>	<b>15,000</b>					<b>15,000</b>

**Budget Impact/Other**

There will be a positive impact on the operating budget due to lower maintenance costs.





**Capital Improvement Plan**  
**City of Maplewood, Minnesota**

2017 *thru* 2021

**Project #** PW13.03  
**Project Name** Single-Axle Plow Truck



**Type** Equipment  
**Useful Life** 15 years  
**Category** Vehicles  
**Department** Public Works  
**Contact** Public Works Director  
**Priority** 2 Very Important

**Description** **Total Project Cost:** \$205,000  
 The 2000 single-axle plow truck, Unit 538 is due for replacement in 2018.

**Justification**  
 The 2000 model year plow truck is due for replacement. This unit is one of eight single-axle trucks in the fleet. This truck is an intergral piece of equipment in the fleet for the street maintenance division. It is utilized year round. In summer, the truck is used for patching and paving streets. In winter, it is used every snow/ice event for treating and plowing city streets.

<b>Expenditures</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>Total</b>
Equip/Vehicles/Furnishings		205,000				205,000
<b>Total</b>		<b>205,000</b>				<b>205,000</b>

<b>Funding Sources</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>Total</b>
Fleet Management Fund		205,000				205,000
<b>Total</b>		<b>205,000</b>				<b>205,000</b>

**Budget Impact/Other**  
 An annual savings is realized over the next five years totaling \$42,750.00 of which \$37,750.00 would have been required for maintenance and \$5,000.00 lost on trade-in value.

<b>Budget Items</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>Total</b>
Maintenance	-6,550	-7,550	-8,550	-9,550	-10,550	-42,750
<b>Total</b>	<b>-6,550</b>	<b>-7,550</b>	<b>-8,550</b>	<b>-9,550</b>	<b>-10,550</b>	<b>-42,750</b>

**Capital Improvement Plan**  
**City of Maplewood, Minnesota**

2017 *thru* 2021

**Project #** PW13.04  
**Project Name** Street Sweeper



**Type** Equipment  
**Useful Life** 7 years  
**Category** Equipment: PW Equip  
**Department** Public Works  
**Contact** Public Works Director  
**Priority** 3 Important

**Description** **Total Project Cost:** \$190,000

The 2007 street sweeper, Unit 714, is due for replacement in 2017.

**Justification**

The 2007 street sweeper is scheduled for replacement because of its age and condition. Street sweepers are high wear machines and are scheduled for replacement on a seven to ten year basis. Owning and operating these pieces of equipment beyond this life span is not cost effective as the maintenance and repair costs increase dramatically and the trade-in value decreases.

<b>Expenditures</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>Total</b>
Equip/Vehicles/Furnishings	190,000					190,000
<b>Total</b>	<b>190,000</b>					<b>190,000</b>

<b>Funding Sources</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>Total</b>
Fleet Management Fund	190,000					190,000
<b>Total</b>	<b>190,000</b>					<b>190,000</b>

**Budget Impact/Other**

There will be a positive impact on the operating budget due to lower maintenance costs.



**Capital Improvement Plan**  
**City of Maplewood, Minnesota**

2017 *thru* 2021

**Project #** PW15.01  
**Project Name** Single-Axle Plow Truck



**Type** Equipment  
**Useful Life** 15 years  
**Category** Vehicles  
**Department** Public Works  
**Contact** Public Works Director  
**Priority** 2 Very Important

**Description** **Total Project Cost:** \$205,000  
 The 2003 single-axle plow truck, Unit 537, is due for replacement in 2019.

**Justification**  
 The 2003 model year single-axle truck is due for replacement. This unit is one of eight single-axle trucks in the fleet. This truck is an integral piece of equipment in the fleet for the street maintenance division. It is utilized year round. In summer, the truck is used for patching and paving streets. In winter, it is used every snow/ice event for treating and plowing city streets.

<b>Expenditures</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>Total</b>
Equip/Vehicles/Furnishings			205,000			205,000
<b>Total</b>			<b>205,000</b>			<b>205,000</b>

<b>Funding Sources</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>Total</b>
Fleet Management Fund			205,000			205,000
<b>Total</b>			<b>205,000</b>			<b>205,000</b>

**Budget Impact/Other**  
 There will be a positive impact on the operating budget due to lower maintenance costs.

**Capital Improvement Plan**  
**City of Maplewood, Minnesota**

2017 *thru* 2021

**Project #** PW15.02  
**Project Name** Water Tanker



**Type** Equipment  
**Useful Life** 20 years  
**Category** Equipment: PW Equip

**Department** Public Works  
**Contact** Public Works Director  
**Priority** 2 Very Important

**Description** **Total Project Cost:** \$110,000  
 The 1996 water tanker, Unit 543, is due for replacement in 2020.

**Justification**  
 The 1996 water tanker is in need of replacement due to age, high engine hours and heavy structural wear to the tanker's frame/body. Operating this unit is no longer cost effective. This tanker is utilized year round by all three divisions in Public Works. The street department uses the tanker to wash medians, the utility department uses it to flush sanitary sewer mains and the parks department uses it to flood ice rinks.

<b>Expenditures</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>Total</b>
Equip/Vehicles/Furnishings				110,000		110,000
<b>Total</b>				<b>110,000</b>		<b>110,000</b>

<b>Funding Sources</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>Total</b>
Fleet Management Fund				110,000		110,000
<b>Total</b>				<b>110,000</b>		<b>110,000</b>

**Budget Impact/Other**  
 There will be a positive impact on the operating budget due to lower maintenance costs.



**Capital Improvement Plan**  
**City of Maplewood, Minnesota**

2017 *thru* 2021

**Project #** PW15.05  
**Project Name** Wood Chipper



**Type** Equipment  
**Useful Life** 20 years  
**Category** Equipment: PW Equip  
**Department** Public Works  
**Contact** Public Works Director  
**Priority** 3 Important

**Description**

**Total Project Cost:** \$55,000

The 1997 wood chipper, Unit 705, is due for replacement in 2018.

**Justification**

Replacement is scheduled for the 1997 wood chipper. This piece of equipment is utilized by all divisions in Public Works. Because of its age and high engine hours the machine is unreliable and needs costly maintenance and repair. The new chipper will be equipped with new safety features and a Tier 4 compliance engine, making it better for the environment.

<b>Expenditures</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>Total</b>
Equip/Vehicles/Furnishings		55,000				55,000
<b>Total</b>		<b>55,000</b>				<b>55,000</b>

<b>Funding Sources</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>Total</b>
Fleet Management Fund		55,000				55,000
<b>Total</b>		<b>55,000</b>				<b>55,000</b>

**Budget Impact/Other**

There will be a positive impact on the operating budget due to lower maintenance costs.



**Capital Improvement Plan**  
**City of Maplewood, Minnesota**

2017 *thru* 2021

**Project #** PW16.02  
**Project Name** Street Sweeper



**Type** Equipment  
**Useful Life** 7 years  
**Category** Equipment: PW Equip  
**Department** Public Works  
**Contact** Public Works Director  
**Priority** 3 Important

**Description** **Total Project Cost:** \$200,000  
 The 2010 Elgin street sweeper, Unit 703, is due for replacement in 2020.

**Justification**  
 The 2010 street sweeper is scheduled for replacement because of its age and condition. Street sweepers are high wear machines and are scheduled for replacement on a seven to ten year basis. Owning and operating these pieces of equipment beyond this life span is not cost effective as the maintenance and repair costs increase dramatically and the trade-in value decreases.

<b>Expenditures</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>Total</b>
Equip/Vehicles/Furnishings				200,000		200,000
<b>Total</b>				<b>200,000</b>		<b>200,000</b>

<b>Funding Sources</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>Total</b>
Fleet Management Fund				200,000		200,000
<b>Total</b>				<b>200,000</b>		<b>200,000</b>

**Budget Impact/Other**  
 There will be a positive impact on the operating budget due to lower maintenance costs.

**Capital Improvement Plan**  
**City of Maplewood, Minnesota**

2017 *thru* 2021

**Project #** PW16.03  
**Project Name** ToolCat Work Machine



**Type** Equipment  
**Useful Life** 5 years  
**Category** Equipment: PW Equip  
**Department** Public Works  
**Contact** Public Works Director  
**Priority** 3 Important

**Description** **Total Project Cost:** \$45,000

The 2011 ToolCat 5610-F, Unit 732, is due for replacement in 2019.

**Justification**

Currently, the city operates two ToolCat Work Machines. Both ToolCats are utilized year round in all three divisions of Public Works and are the primary pieces of equipment for sidewalk snow removal. The 2011 ToolCat is in need of replacement due to high engine hours and use. The machine is continuously in need of repair which makes it unreliable and no longer cost effective to operate.

<b>Expenditures</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>Total</b>
Equip/Vehicles/Furnishings			45,000			45,000
<b>Total</b>			45,000			45,000

<b>Funding Sources</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>Total</b>
Fleet Management Fund			45,000			45,000
<b>Total</b>			45,000			45,000

**Budget Impact/Other**

There will be a positive impact on the operating budget due to lower maintenance costs.

**Capital Improvement Plan**  
**City of Maplewood, Minnesota**

2017 *thru* 2021

**Project #** PW16.04  
**Project Name** Asphalt Hot Box

**Type** Equipment  
**Useful Life** 20 years  
**Category** Equipment: PW Equip

**Department** Public Works  
**Contact** Public Works Director  
**Priority** 3 Important



**Description** **Total Project Cost:** \$30,000  
 The 2006 Hot Box for asphalt, Unit 729, is due for replacement in 2018.

**Justification**  
 The 2006 Hot Box is in need of replacement. This equipment is used to patch potholes throughout the city. It is an asset to the street department because it can keep hot mix warm in cooler temperatures. This allows for early spring patching when potholes are at the peak. This is a heavy use piece of equipment and should be replaced every 10 years.

<b>Expenditures</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>Total</b>
Equip/Vehicles/Furnishings		30,000				30,000
<b>Total</b>		<b>30,000</b>				<b>30,000</b>

<b>Funding Sources</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>Total</b>
Fleet Management Fund		30,000				30,000
<b>Total</b>		<b>30,000</b>				<b>30,000</b>

**Budget Impact/Other**  
 There will be a positive impact on the operating budget due to lower maintenance costs.

**Capital Improvement Plan**  
**City of Maplewood, Minnesota**

2017 *thru* 2021

**Project #** PW16.05  
**Project Name** Three Tilt-Deck Trailers

**Type** Equipment  
**Useful Life** 15 years  
**Category** Equipment: PW Equip

**Department** Public Works  
**Contact** Public Works Director  
**Priority** 3 Important



**Description** **Total Project Cost:** \$30,000  
 Three 2001 tilt-deck trailers, Units 718, 719 and 720, are due for replacement 2019.

**Justification**  
 Three 2001 trailers are in need of replacement. These trailers are utilized by all maintenance divisions in Public Works. Due to structural defects caused by years of use, the trailers will no longer pass the annual D.O.T. inspections and are unsafe for use.

<b>Expenditures</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>Total</b>
Equip/Vehicles/Furnishings			30,000			30,000
<b>Total</b>			<b>30,000</b>			<b>30,000</b>

<b>Funding Sources</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>Total</b>
Fleet Management Fund			30,000			30,000
<b>Total</b>			<b>30,000</b>			<b>30,000</b>

**Budget Impact/Other**  
 There will be a positive impact on the operating budget due to lower maintenance costs.

**Capital Improvement Plan**  
**City of Maplewood, Minnesota**

2017 *thru* 2021

**Project #** PW17.01  
**Project Name** Tractor/Utility Machine



**Type** Equipment  
**Useful Life** 15 years  
**Category** Equipment: PW Equip  
**Department** Public Works  
**Contact** Public Works Director  
**Priority** 3 Important

**Description** **Total Project Cost:** \$75,000  
 The 1987 maintenance tractor, Unit 712, is due for replacement in 2019.

**Justification**  
 The 1987 maintenance tractor is in need of replacement due to its age and needed engine repairs that exceed the value of the tractor. This unit will be replaced with a multi-purpose machine that can be utilized by all division in Public Works to perform functions such as snow removal on trails, sidewalks, parking lots and summer maintenance including trail mowing, boulevard mowing and miscellaneous construction work throughout the city.

<b>Expenditures</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>Total</b>
Equip/Vehicles/Furnishings			75,000			75,000
<b>Total</b>			<b>75,000</b>			<b>75,000</b>

<b>Funding Sources</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>Total</b>
Fleet Management Fund			75,000			75,000
<b>Total</b>			<b>75,000</b>			<b>75,000</b>

**Budget Impact/Other**  
 There will be a positive impact on the operating budget due to lower maintenance costs.

**Capital Improvement Plan**  
**City of Maplewood, Minnesota**

2017 *thru* 2021

**Project #** PW17.02  
**Project Name** 16' Park Mower



**Type** Equipment  
**Useful Life** 7 years  
**Category** Equipment: PW Equip

**Department** Public Works  
**Contact** Public Works Director  
**Priority** 3 Important

**Description** **Total Project Cost:** \$90,000  
 The 2007 Jacobsen mower, Unit 660, is due for replacement in 2020.

**Justification**  
 The 2007 mower is due for replacement. This is the largest mower in the park maintenance fleet. It cuts a 16 foot path and is utilized every day during the mowing season throughout the parks system. This machine has high engine hours and is showing heavy wear. It is inefficient and no longer cost effective to operate.

<b>Expenditures</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>Total</b>
Equip/Vehicles/Furnishings				90,000		90,000
<b>Total</b>				<b>90,000</b>		<b>90,000</b>

<b>Funding Sources</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>Total</b>
Fleet Management Fund				90,000		90,000
<b>Total</b>				<b>90,000</b>		<b>90,000</b>

**Budget Impact/Other**  
 There will be a positive impact on the operating budget due to lower maintenance costs.

**Capital Improvement Plan**  
**City of Maplewood, Minnesota**

2017 *thru* 2021

**Project #** PW17.03  
**Project Name** 1 1/2-Ton Utility Truck

**Type** Equipment  
**Useful Life** 12 years  
**Category** Vehicles

**Department** Public Works  
**Contact** Public Works Director  
**Priority** 3 Important



**Description** **Total Project Cost:** \$90,000  
 The 2009 1 1/2-ton utility truck, Unit 612, is due for replacement in 2021.

**Justification**  
 The 2009 1 1/2-ton utility truck is due for replacement. This is the primary truck used in the utility department. It is equipped with a crane for maintenance of the city's nine sanitary sewer lift stations. The truck has high miles and the crane system is becoming unreliable and is often out of service. Without this unit in service lift station pumps are unable to be maintained. This could result in costly sanitary sewer back-ups and overflows that could have an impact on residents and the environment.

<b>Expenditures</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>Total</b>
Equip/Vehicles/Furnishings					90,000	90,000
<b>Total</b>					90,000	90,000

<b>Funding Sources</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>Total</b>
Fleet Management Fund					90,000	90,000
<b>Total</b>					90,000	90,000

**Budget Impact/Other**  
 There will be a positive impact on the operating budget due to lower maintenance costs.

**Capital Improvement Plan**  
**City of Maplewood, Minnesota**

2017 *thru* 2021

**Project #** PW17.04  
**Project Name** Single-Axle Plow Truck



**Type** Equipment  
**Useful Life** 15 years  
**Category** Vehicles  
**Department** Public Works  
**Contact** Public Works Director  
**Priority** 2 Very Important

**Description** **Total Project Cost:** \$210,000  
 The 2005 single-axle plow truck, Unit 532, is due for replacement in 2021.

**Justification**  
 The 2005 model year single-axle plow truck is in need of replacement due to high miles and maintenance costs. This unit is one of eight single-axle trucks in the fleet. This truck is an intergral piece of equipment in the fleet for the street maintenance division. It is utilized year round. In summer, the truck is used for patching and paving streets. In winter, it is used every snow/ice event for treating and plowing city streets.

<b>Expenditures</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>Total</b>
Equip/Vehicles/Furnishings					210,000	210,000
<b>Total</b>					210,000	210,000

<b>Funding Sources</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>Total</b>
Fleet Management Fund					210,000	210,000
<b>Total</b>					210,000	210,000

**Budget Impact/Other**  
 There will be a positive impact on the operating budget due to lower maintenance costs.

**Capital Improvement Plan**  
**City of Maplewood, Minnesota**

2017 *thru* 2021

**Project #** PW17.05  
**Project Name** Asphalt Paver



**Type** Equipment  
**Useful Life** 20 years  
**Category** Equipment: PW Equip  
**Department** Public Works  
**Contact** Public Works Director  
**Priority** 2 Very Important

**Description**

**Total Project Cost:** \$56,000

The 2001 asphalt paver, Unit 725, is due for replacement in 2021.

**Justification**

The 2001 asphalt paving machine is in need of replacement. The paver is utilized by the street department to pave city streets, parking lots, park trails and other miscellaneous asphalt areas throughout the city campus and facilities. This machine has many high wear moving parts and hydraulic lines that become worn out over time and are not repairable.

<b>Expenditures</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>Total</b>
Equip/Vehicles/Furnishings					56,000	56,000
<b>Total</b>					56,000	56,000

<b>Funding Sources</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>Total</b>
Fleet Management Fund					56,000	56,000
<b>Total</b>					56,000	56,000

**Budget Impact/Other**

There will be a positive impact on the operating budget due to lower maintenance costs.

# Street Construction



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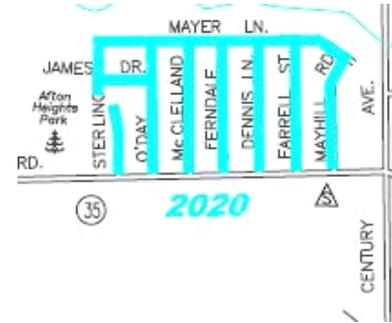


# Capital Improvement Plan

## City of Maplewood, Minnesota

2017 *thru* 2021

**Project #** PW09.10  
**Project Name** Dennis/McClelland Area Street Improvements



**Type** Improvement      **Department** Street Department  
**Useful Life** 20 years      **Contact** Public Works Director  
**Category** Street Construction      **Priority** 1 Critical

**Description** **Total Project Cost:** \$7,060,000

The Dennis/McClelland Area streets are proposed to be fully reconstructed in 2020. Full street reconstruction projects generally include the replacement of the road pavement, installation of concrete curb and gutter, expansion of stormwater facilities, sanitary sewer repairs, watermain repairs and pedestrian improvements.

**Justification**

These streets have continued to deteriorate and will require a full street reconstruction with the addition of concrete curb and gutter. The following streets are included in the improvements: Sterling St, James Dr, McClelland St, Ferndale St, Dennis Ln, O'Day St, Mayer Ln, Farrell St, and Mayhill Rd. Unique storm water treatment methods will be required in this area near Battle Creek along with installation of drainage infrastructure. The proposed project will also include pavement replacement, sidewalks and trails. Project includes \$30,000 for fog seal preventative maintenance treatment (area to be determined). In 2014, city crews were required to do an emergency repair to a portion of the storm sewer network that drains directly to Battle Creek. The stormwater runoff for this area all flows over land to Mayer Lane where the drainage enters into the storm sewer system. Mayer Lane sits approximately 35 feet above Battle Creek. Improving the storm sewer system in this area will be challenging due to the significant grade difference between the neighborhood and Battle Creek. Therefore, it is proposed to include \$100,000 in 2018 for a pre-study of potential drainage mitigation along Battle Creek.

2.1 miles of streets, Average PCI: 31/100

Expenditures	2017	2018	2019	2020	2021	Total
Construction/Maintenance		100,000	100,000	6,860,000		7,060,000
<b>Total</b>		<b>100,000</b>	<b>100,000</b>	<b>6,860,000</b>		<b>7,060,000</b>

Funding Sources	2017	2018	2019	2020	2021	Total
Bonds GO Improvement			100,000	2,960,500		3,060,500
Bonds GO Special Assessment				1,010,500		1,010,500
City of St. Paul Water Dept				778,000		778,000
Environmental Utility Fund		100,000		1,424,000		1,524,000
Sanitary Sewer Fund				426,000		426,000
Water - WAC Fund				261,000		261,000
<b>Total</b>		<b>100,000</b>	<b>100,000</b>	<b>6,860,000</b>		<b>7,060,000</b>

**Budget Impact/Other**

There will be a positive impact on the operating budget due to lower maintenance costs.

**Capital Improvement Plan**  
**City of Maplewood, Minnesota**

2017 *thru* 2021

**Project #** PW12.02  
**Project Name** Sterling Street Bridge Replacement

**Type** Improvement  
**Useful Life** 50 years  
**Category** Street Construction

**Department** Street Department  
**Contact** Public Works Director  
**Priority** 1 Critical



**Description** **Total Project Cost: \$1,400,000**

The Sterling Street Bridge is an existing timber bridge that crosses Fish Creek and is proposed to be replaced in 2019.

**Justification**

The bridge on Sterling Street in south Maplewood is in need of replacement in the coming years and programmed for a 2019 replacement in accordance with the council adopted bridge program. State Bridge Funds are expected to pay for a majority of the cost of the project once it qualifies for funding as a result of its condition.

<b>Expenditures</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>Total</b>
Construction/Maintenance	100,000		1,300,000			1,400,000
<b>Total</b>	<b>100,000</b>		<b>1,300,000</b>			<b>1,400,000</b>

<b>Funding Sources</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>Total</b>
Bonds MSA	100,000		115,000			215,000
State Grants			1,185,000			1,185,000
<b>Total</b>	<b>100,000</b>		<b>1,300,000</b>			<b>1,400,000</b>

**Budget Impact/Other**

There will be a positive impact on the operating budget due to lower maintenance costs.

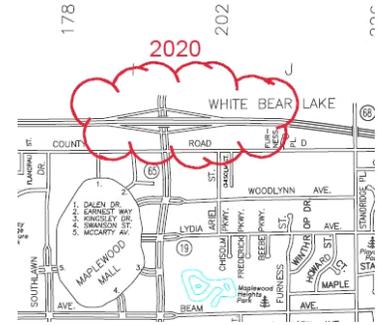
**Capital Improvement Plan**  
**City of Maplewood, Minnesota**

2017 *thru* 2021

**Project #** PW15.08  
**Project Name** White Bear Ave / I694 Interchange Project

**Type** Improvement  
**Useful Life** 50 years  
**Category** Street Construction

**Department** Street Department  
**Contact** Public Works Director  
**Priority** 2 Very Important



**Description**

**Total Project Cost:** \$500,000

The existing interchange, including the bridge and ramps, located at the intersection of I694 and White Bear Avenue are proposed to be replaced in 2020 by Ramsey County.

**Justification**

According to Ramsey County's TIP (Transportation Improvement Plan) the county is leading an interchange project at the intersection of White Bear Avenue and Interstate 694. This project is currently proposed to be constructed in 2020. The city's estimated share for these would be scheduled to be paid in the year the project is constructed. It should be noted that the date for this project is subject to change and this project serves as a place holder for the proposed project.

<b>Expenditures</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>Total</b>
Construction/Maintenance				500,000		500,000
<b>Total</b>				<b>500,000</b>		<b>500,000</b>

<b>Funding Sources</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>Total</b>
State Grants				500,000		500,000
<b>Total</b>				<b>500,000</b>		<b>500,000</b>

**Budget Impact/Other**

There will be a positive impact on the operating budget due to lower maintenance costs.

# Capital Improvement Plan

2017 thru 2021

## City of Maplewood, Minnesota

<b>Project #</b>	<b>PW15.11</b>
<b>Project Name</b>	<b>Ferndale/Ivy Area Street Improvements</b>



<b>Type</b>	Improvement	<b>Department</b>	Street Department
<b>Useful Life</b>	20 years	<b>Contact</b>	Public Works Director
<b>Category</b>	Street Construction	<b>Priority</b>	1 Critical

<b>Description</b>	<b>Total Project Cost: \$3,580,000</b>
The Ferndale/Ivy Area streets are proposed to be fully reconstructed in 2019. Full street reconstruction projects generally include the replacement of the road pavement, installation of concrete curb and gutter, expansion of stormwater facilities, sanitary sewer repairs, watermain repairs and pedestrian improvements.	

<b>Justification</b>
The streets north of Maryland Avenue and west of Century Avenue are in poor condition and in need of repair. The streets include Dennis Street, Farrell Street, Ferndale Street, Hawthorne Avenue, Ivy Avenue and Mayhill Road. These streets have curb and gutter which for most areas will remain. However, there are known areas with poor drainage and the curb and gutter will be removed and replaced. The existing pavement will be removed and replaced. The proposed project will also include sidewalks, trails and storm water quality features. The project includes \$30,000 for fog seal preventative maintenance treatment (area to be determined) and \$100,000 for sanitary sewer main lining (location to be determined). The \$100,000 in 2017 is for a regional drainage/hydraulic study to be completed prior to the feasibility study. In response to the July 2011 flood, the city identified 21 areas for flood remediation projects. Over the last five years, the city has completed 15 projects including the installation of a storm sewer force main used to prevent flooding around Edgerton Pond, a lift station to prevent flooding of homes near Knuckle Head Lake and has leveraged partnerships with Ramsey Washington Metro Watershed District and Ramsey County to help fund and complete several of the projects. The proposed regional study will evaluate 4 of the remaining 6 areas. Identified flood remediation work from this study will then be incorporated into the street improvement project to give a comprehensive approach to improvements needed in this specific area.
1.2 miles of street, Average PCI 43/100

<b>Expenditures</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>Total</b>
Construction/Maintenance	100,000	100,000	3,380,000			3,580,000
<b>Total</b>	<b>100,000</b>	<b>100,000</b>	<b>3,380,000</b>			<b>3,580,000</b>

<b>Funding Sources</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>Total</b>
Bonds GO Improvement		100,000	1,836,880			1,936,880
Bonds GO Special Assessment			568,220			568,220
City of St. Paul Water Dept			89,400			89,400
Environmental Utility Fund	100,000		547,100			647,100
Sanitary Sewer Fund			249,000			249,000
Water - WAC Fund			89,400			89,400
<b>Total</b>	<b>100,000</b>	<b>100,000</b>	<b>3,380,000</b>			<b>3,580,000</b>

<b>Budget Impact/Other</b>
There will be a positive impact on the operating budget due to lower maintenance costs.

**Capital Improvement Plan**  
**City of Maplewood, Minnesota**

2017 *thru* 2021

**Project #** PW16.06  
**Project Name** Rice Street

**Type** Improvement  
**Useful Life** 20 years  
**Category** Street Construction

**Department** Street Department  
**Contact** Public Works Director  
**Priority** 2 Very Important



**Description**

**Total Project Cost:** \$2,239,000

Ramsey County is proposing to fully reconstruct Rice Street between County Road B and Larpenteur Avenue in 2019. This will be a county led project. Full street reconstruction projects generally include the replacement of the road pavement, installation of concrete curb and gutter, expansion of stormwater facilities, sanitary sewer repairs, watermain repairs and pedestrian improvements.

**Justification**

According to Ramsey County's TIP (Transportation Improvement Plan) the county is leading a street reconstruction project on Rice Street from Larpenteur Avenue to County Road B. This project is currently proposed to be constructed in 2019. The city's estimated share for these would be scheduled to be paid in the year the project is constructed. It should be noted that the date for this project is subject to change and this project serves as a place holder for the proposed project.

<b>Expenditures</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>Total</b>
Construction/Maintenance			2,239,000			2,239,000
<b>Total</b>			<b>2,239,000</b>			<b>2,239,000</b>

<b>Funding Sources</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>Total</b>
State Grants			2,239,000			2,239,000
<b>Total</b>			<b>2,239,000</b>			<b>2,239,000</b>

**Budget Impact/Other**

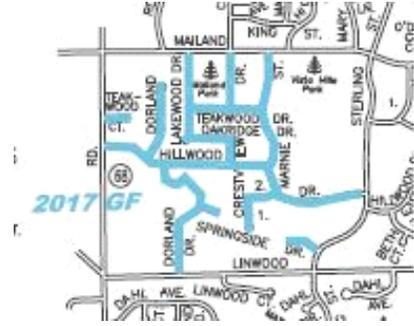
There will be a positive impact on the operating budget due to lower maintenance costs.

# Capital Improvement Plan

2017 thru 2021

## City of Maplewood, Minnesota

<b>Project #</b>	<b>PW16.09</b>
<b>Project Name</b>	<b>Hillwood/Crestview Area Pavement</b>



<b>Type</b>	Improvement	<b>Department</b>	Street Department
<b>Useful Life</b>	20 years	<b>Contact</b>	Public Works Director
<b>Category</b>	Street Construction	<b>Priority</b>	1 Critical

<b>Description</b>	<b>Total Project Cost: \$1,440,000</b>
The street pavement in the Hillwood/Crestview area is proposed to be rehabilitated in 2017 due to poor pavement condition. Typically, the street pavement is milled or reclaimed and new pavement is installed. This type of rehabilitation work is done in areas with concrete curb and gutter which have underground utilities in good condition.	

<b>Justification</b>
The streets lying north of Linwood Avenue and south of Mailand Road are in poor condition and in need of repair. The streets include Hillwood Drive, Teakwood Court, Dorland Road, Springside Drive, Oakridge Lane, Huntington Court, Marnie Street, Teakwood Drive, Crestview Drive, Oakridge Drive and Lakewood Drive. These streets have curb and gutter which will be maintained and the existing pavement is proposed to be reclaimed and replaced. The proposed project will be partially funded by the gas franchise fee.
2.3 miles of street, Average PCI 33/100

Prior	Expenditures	2017	2018	2019	2020	2021	Total
60,000	Construction/Maintenance	1,380,000					1,380,000
<b>Total</b>	<b>Total</b>	<b>1,380,000</b>					<b>1,380,000</b>

Prior	Funding Sources	2017	2018	2019	2020	2021	Total
60,000	Bonds GO Special Assessment	789,222					789,222
<b>Total</b>	Environmental Utility Fund	72,000					72,000
	Gas Franchise Fee	432,378					432,378
	Sanitary Sewer Fund	43,200					43,200
	Water - WAC Fund	43,200					43,200
	<b>Total</b>	<b>1,380,000</b>					<b>1,380,000</b>

<b>Budget Impact/Other</b>
Annual savings is realized over the next five years totaling \$120,000.00 as a result of re-establishing these street to new condition. Had the project been delayed the \$120,000.00 would only have been lost to a short-term approach to just keep the street serviceable; with a major capital investment still required in the future year.

Budget Items	2017	2018	2019	2020	2021	Total
Maintenance	-20,000	-22,000	-24,000	-26,000	-28,000	-120,000
<b>Total</b>	<b>-20,000</b>	<b>-22,000</b>	<b>-24,000</b>	<b>-26,000</b>	<b>-28,000</b>	<b>-120,000</b>

**Capital Improvement Plan**  
**City of Maplewood, Minnesota**

2017 *thru* 2021

**Project #** PW16.10  
**Project Name** Mailand/Crestview Forest Area Pavement

**Type** Improvement  
**Useful Life** 20 years  
**Category** Street Construction

**Department** Street Department  
**Contact** Public Works Director  
**Priority** 1 Critical



**Description** **Total Project Cost: \$1,260,000**

The street pavement in the Mailand/Crestview Forest area is proposed to be rehabilitated in 2019 due to poor pavement condition. Typically, the street pavement is milled or reclaimed and new pavement is installed. This type of rehabilitation work is done in areas with concrete curb and gutter which have underground utilities in good condition.

**Justification**

The streets lying north of Hillwood Drive and east of Highpoint Curve are in poor condition and in need of repair. The streets include Mailand Road, Deer Ridge Lane, Crestview Forest Drive, O'Day Street, O'Day Circle, Pond Avenue, O'Day Lane, Mary Lane and Mary Street. These streets have existing curb and gutter which will be maintained and the existing pavement is proposed to be reclaimed and replaced. The proposed project will be partially funded by the gas franchise fee.

2.06 miles of street, Average PCI 42/100

Expenditures	2017	2018	2019	2020	2021	Total
Construction/Maintenance		60,000	1,200,000			1,260,000
<b>Total</b>		<b>60,000</b>	<b>1,200,000</b>			<b>1,260,000</b>

Funding Sources	2017	2018	2019	2020	2021	Total
Bonds GO Special Assessment			699,660			699,660
Environmental Utility Fund			63,000			63,000
Gas Franchise Fee		60,000	361,740			421,740
Sanitary Sewer Fund			37,800			37,800
Water - WAC Fund			37,800			37,800
<b>Total</b>		<b>60,000</b>	<b>1,200,000</b>			<b>1,260,000</b>

**Budget Impact/Other**

There will be a positive impact on the operating budget due to lower maintenance costs.

**Capital Improvement Plan**  
**City of Maplewood, Minnesota**

2017 *thru* 2021

**Project #** PW16.11  
**Project Name** Schaller Area Pavement



**Type** Improvement  
**Useful Life** 20 years  
**Category** Street Construction

**Department** Street Department  
**Contact** Public Works Director  
**Priority** 1 Critical

**Description** **Total Project Cost: \$1,430,000**

The street pavement in the Schaller area is proposed to be rehabilitated in 2020 due to poor pavement condition. Typically, the street pavement is milled or reclaimed and new pavement is installed. This type of rehabilitation work is done in areas with concrete curb and gutter which have underground utilities in good condition.

**Justification**

The streets lying north of Highwood Avenue and south of Linwood Avenue are in poor condition and in need of repair. The streets include Valley View Avenue, Lakewood Court, Lakewood Drive, Marnie Circle, O'Day Street, Schaller Drive, Timber Avenue, Crestview Drive, Currie Court, Dahl Avenue, Dorland Road, Dahl Court, Phylis Court, Timber Trail and Linwood Court. These streets have existing curb and gutter which will be maintained and the existing pavement is proposed to be reclaimed and replaced. The proposed project will be partially funded by the gas franchise fee.

2.28 miles of street, Average PCI 38/100

<b>Expenditures</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>Total</b>
Construction/Maintenance			60,000	1,370,000		1,430,000
<b>Total</b>			<b>60,000</b>	<b>1,370,000</b>		<b>1,430,000</b>

<b>Funding Sources</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>Total</b>
Bonds GO Special Assessment				793,500		793,500
Environmental Utility Fund				71,500		71,500
Gas Franchise Fee			60,000	419,200		479,200
Sanitary Sewer Fund				42,900		42,900
Water - WAC Fund				42,900		42,900
<b>Total</b>			<b>60,000</b>	<b>1,370,000</b>		<b>1,430,000</b>

**Budget Impact/Other**

There will be a positive impact on the operating budget due to lower maintenance costs.

**Capital Improvement Plan**  
**City of Maplewood, Minnesota**

2017 *thru* 2021

**Project #** PW16.12  
**Project Name** Londin/Highpoint Area Pavement

**Type** Improvement  
**Useful Life** 20 years  
**Category** Street Construction

**Department** Street Department  
**Contact** Public Works Director  
**Priority** 1 Critical



**Description** **Total Project Cost: \$1,070,000**

The street pavement in the Londin/Highpoint area is proposed to be rehabilitated in 2018 due to poor pavement condition. Typically, the street pavement is milled or reclaimed and new pavement is installed. This type of rehabilitation work is done in areas with concrete curb and gutter which have underground utilities in good condition.

**Justification**

The streets lying north of Mailand Road and south of Londin Lane are in poor condition and in need of repair. The streets include Londin Lane, Crestview Drive, Highpoint Curve, King Avenue, Pond Avenue and Marine Street. These streets have existing curb and gutter which will be maintained and the existing pavement is proposed to be reclaimed and replaced. The proposed project will be partially funded by the gas franchise fee.

1.73 miles of street, Average PCI 40/100

<b>Expenditures</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>Total</b>
Construction/Maintenance	60,000	1,010,000				1,070,000
<b>Total</b>	<b>60,000</b>	<b>1,010,000</b>				<b>1,070,000</b>

<b>Funding Sources</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>Total</b>
Bonds GO Special Assessment		494,868				494,868
Environmental Utility Fund		53,500				53,500
Gas Franchise Fee	60,000	397,432				457,432
Sanitary Sewer Fund		32,100				32,100
Water - WAC Fund		32,100				32,100
<b>Total</b>	<b>60,000</b>	<b>1,010,000</b>				<b>1,070,000</b>

**Budget Impact/Other**

There will be a positive impact on the operating budget due to lower maintenance costs.

# Capital Improvement Plan

## City of Maplewood, Minnesota

2017 thru 2021

**Project #** PW16.13  
**Project Name** Pond/Dorland Area Street Improvements



**Type** Improvement  
**Useful Life** 20 years  
**Category** Street Construction  
**Department** Street Department  
**Contact** Public Works Director  
**Priority** 1 Critical

**Description** **Total Project Cost: \$2,400,000**  
 The Pond/Dorland Area streets are proposed to be fully reconstructed in 2017. Full street reconstruction projects generally include the replacement of the road pavement, installation of concrete curb and gutter, expansion of stormwater facilities, sanitary sewer repairs, watermain repairs and pedestrian improvements.

**Justification**  
 The streets in both the north and south portions of this proposed project are in poor condition and in need of repair. The north portions, which consists of Pond Avenue and Dorland Road, were originally proposed to be reconstructed as part of the 07-20 project. A feasibility study was completed prior to the project being delayed. At the time of the proposed 07-20 project these streets had a pavement condition index (PCI) of 41 out of 100. Today the streets in the north portion have a PCI rating of 23. The southern portion, which consists of Boxwood Avenue, Dorland Road, Overlook Circle and Heights Avenue has a PCI of 41. The water main beneath Pond Avenue and Dorland Road consists of cast iron pipe which is susceptible to breaks. The proposed project includes water main replacement, street reconstruction, stormwater quality improvements and pavement reclamation. Project includes \$30,000 for fog seal preventative maintenance treatment (area to be determined) and \$100,000 for sanitary sewer main lining (location to be determined).  
 1.12 miles of street, Average PCI 34/100

Prior	Expenditures	2017	2018	2019	2020	2021	Total
80,000	Construction/Maintenance	2,320,000					2,320,000
<b>Total</b>	<b>Total</b>	<b>2,320,000</b>					<b>2,320,000</b>

Prior	Funding Sources	2017	2018	2019	2020	2021	Total
80,000	Bonds GO Improvement	800,825					800,825
	Bonds GO Special	653,975					653,975
	Assessment						
	City of St. Paul Water Dept	258,000					258,000
	Environmental Utility Fund	371,000					371,000
	Sanitary Sewer Fund	168,100					168,100
	Water - WAC Fund	68,100					68,100
	<b>Total</b>	<b>2,320,000</b>					<b>2,320,000</b>

**Budget Impact/Other**  
 There will be a positive impact on the operating budget due to lower maintenance costs.

**Capital Improvement Plan**  
**City of Maplewood, Minnesota**

2017 *thru* 2021

**Project #** PW17.06  
**Project Name** Southcrest/Ferndale Area Pavement



**Type** Improvement  
**Useful Life** 20 years  
**Category** Street Construction  
**Department** Street Department  
**Contact** Public Works Director  
**Priority** 1 Critical

**Description** **Total Project Cost: \$1,270,000**  
 The street pavement in the Southcrest/Ferndale area is proposed to be rehabilitated in 2021 due to poor pavement condition. Typically, the street pavement is milled or reclaimed and new pavement is installed. This type of rehabilitation work is done in areas with concrete curb and gutter which have underground utilities in good condition.

**Justification**  
 The streets lying south of Highwood Avenue and east of Sterling Street are in poor condition and in need of repair. The streets include Valley View Avenue, Sterling Street, Southcrest Avenue, Dennis Street, McClelland Street, Ferndale Street, Nemitz Avenue, and O'Day Street. These streets have curb and gutter which will be maintained and the existing pavement is proposed to be reclaimed and replaced. The proposed project will be partially funded by the gas franchise fee.  
 2.04 miles of street, Average PCI 37/100

<b>Expenditures</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>Total</b>
Construction/Maintenance				60,000	1,210,000	1,270,000
<b>Total</b>				<b>60,000</b>	<b>1,210,000</b>	<b>1,270,000</b>

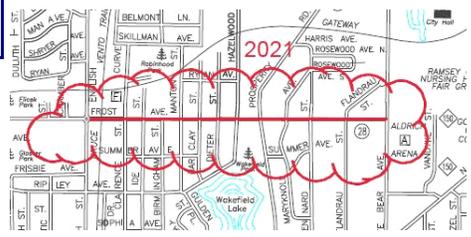
<b>Funding Sources</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>Total</b>
Bonds GO Special Assessment					637,560	637,560
Environmental Utility Fund					63,500	63,500
Gas Franchise Fee				60,000	432,740	492,740
Sanitary Sewer Fund					38,100	38,100
Water - WAC Fund					38,100	38,100
<b>Total</b>				<b>60,000</b>	<b>1,210,000</b>	<b>1,270,000</b>

**Budget Impact/Other**  
 There will be a positive impact on the operating budget due to lower maintenance costs.

**Capital Improvement Plan**  
**City of Maplewood, Minnesota**

2017 *thru* 2021

**Project #** PW17.07  
**Project Name** Gladstone Improvements Phase 3



**Type** Improvement  
**Useful Life** 20 years  
**Category** Street Construction

**Department** Street Department  
**Contact** Public Works Director  
**Priority** 1 Critical

**Description** **Total Project Cost: \$3,400,000**

The third phase of Gladstone is proposed to include the section of Frost Avenue lying between English Street and White Bear Avenue. The proposed improvements will include pavement replacement, new stormwater initiatives and pedestrian improvements.

**Justification**

This section of Frost Avenue is in poor condition and the pavement needs to be replaced. The road is a great candidate to be narrowed in order to improve stormwater runoff, provide pedestrian facilities and reduce life cycle costs. The project lies within the Wakefield Lake drainage area. Wakefield Lake is an impaired water body and a top priority of Ramsey Washington Metro Watershed District. The city is actively working with the watershed district to seek out grant opportunities. The timing and funding plan for this project depends on available grants and partnership opportunities.

1.0 miles of street, Average PCI 50/100

<b>Expenditures</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>Total</b>
Construction/Maintenance				100,000	3,300,000	3,400,000
<b>Total</b>				<b>100,000</b>	<b>3,300,000</b>	<b>3,400,000</b>

<b>Funding Sources</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>Total</b>
State Grants				100,000	3,300,000	3,400,000
<b>Total</b>				<b>100,000</b>	<b>3,300,000</b>	<b>3,400,000</b>

**Budget Impact/Other**

There will be a positive impact on the operating budget due to lower maintenance costs.

**Capital Improvement Plan**  
**City of Maplewood, Minnesota**

2017 *thru* 2021

**Project #** PW17.08  
**Project Name** East Shore Drive Area Street Improvements



**Type** Improvement  
**Useful Life** 20 years  
**Category** Street Construction  
**Department** Street Department  
**Contact** Public Works Director  
**Priority** 1 Critical

**Description** **Total Project Cost:** \$4,820,000  
 The East Shore Drive Area streets are proposed to be fully reconstructed in 2021. Full street reconstruction projects generally include the replacement of the road pavement, installation of concrete curb and gutter, expansion of stormwater facilities, sanitary sewer repairs, watermain repairs and pedestrian improvements.

**Justification**  
 The pavement condition of East Shore Drive and East Shore Court has deteriorated and is in need of replacement. Also, the following streets are in need of full reconstruction: Adele Street, Gordon Avenue, Ripley Avenue, Sophia Avenue, Walter Street, Fenton Avenue, and Phalen Place. This project lies directly north of Lake Phalen. The proposed project will include pavement replacement, watermain replacement on several of the above streets, concrete curb and gutter, sanitary sewer lining, and unique storm water treatment methods along with installation of drainage infrastructure. Project includes \$30,000 for fog seal preventative maintenance treatment (area to be determined).  
 2.05 miles of street, Average PCI: 39/100

<b>Expenditures</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>Total</b>
Construction/Maintenance				100,000	4,720,000	4,820,000
<b>Total</b>				<b>100,000</b>	<b>4,720,000</b>	<b>4,820,000</b>

<b>Funding Sources</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>Total</b>
Bonds GO Improvement				100,000	2,167,500	2,267,500
Bonds GO Special Assessment					583,300	583,300
City of St. Paul Water Dept					285,200	285,200
Environmental Utility Fund					1,007,000	1,007,000
Sanitary Sewer Fund					438,000	438,000
Water - WAC Fund					239,000	239,000
<b>Total</b>				<b>100,000</b>	<b>4,720,000</b>	<b>4,820,000</b>

**Budget Impact/Other**  
 There will be a positive impact on the operating budget due to lower maintenance costs.



*Prepared by:*

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