



CAPITAL IMPROVEMENT PROJECTS 2017- 2023



City of Mason Planning Commission

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Ed Reeser, Chairperson
John Sabbadin, Vice Chairperson
Seth Waxman, Secretary

Jon Droscha, Council Liaison
Anne Klein Barna
Jettie Feintuch

Lori Hagle
Mark Howe
Elizabeth Hude

City of Mason City Council

Received: 4.17.17

Russell Whipple, Mayor
Marlon Brown, Mayor Pro Tem

Jon Droscha
Elaine Ferris
Angela Madden

Rita Vogel
Mike Waltz

Prepared by:

Deborah Stuart, City Administrator

Ken Baker, Public Works Director
Deborah Cwierniewicz, City Clerk
David Haywood, Zoning/Development Director
Don Heck, City Engineer
Kerry Minshall, Fire Chief
Eric Smith, Finance Director/Treasurer
John Stressman, Chief of Police



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Introduction

A Capital Improvements Program (CIP) is a multi-year planning instrument used to identify needs and financing sources for public infrastructure improvements. The purpose of a CIP is to facilitate the orderly planning of infrastructure improvements; to maintain, preserve, and protect the community of Mason's existing infrastructure system; and to provide for the acquisition or scheduled replacement of equipment to ensure the efficient delivery of services to the community. The CIP is also utilized to ensure that capital improvements are fiscally sound and consistent with the goals and policies of the governing body and the residents of the community.

A comprehensive CIP is an essential tool for the planning and development of the social, physical, and economic wellbeing of the community. This process is a necessary step in an organized effort to strengthen the quality of public facilities and services; provide a framework for the realization of community goals and objectives; and provide a sound basis on which to build a healthy and vibrant community.

The CIP informs Mason residents and stakeholders on how the municipality plans to address significant capital needs over the next six years. The CIP provides visual representations of the community's needs including maps that detail the timing, sequence, and location of capital projects. The CIP can also influence growth because infrastructure can impact development patterns.

Some of the many benefits the CIP provides for the residents and stakeholders include:

- Optimize the uses of revenue
- Focus attention on community goals, needs, and capabilities
- Guide future growth and development
- Encourage efficient government
- Improve intergovernmental and regional cooperation
- Help maintain a sound and stable financial program
- Enhance opportunities for the participation in federal and/or state grant programs

The projects identified in the CIP represent the community's plan to serve residents and anticipate the needs of a dynamic community. Projects are guided by various development plans and policies established by the planning commission, governing body, and administration.

Plans and policies include:

- Master Land Use Plan
- Downtown Development Authority Plan
- Local Development Finance Authority TIF Plan
- Administrative Policies
- Five-Year Recreation Plan

Definition of a Capital Improvement

The CIP allows for responsible and thoughtful planning of future major expenditures that are not necessarily financed or automatically included in the annual budgeting process. All capital projects that fit the description under the policy (see Page 6) should be part of this CIP.

Legal Basis of the Capital Improvements Program

The CIP has been authorized by the Michigan Planning Enabling Act (Public Act 33 of 2008). This mandate gives responsibility for preparing a CIP for local Planning Commission bodies, and reads as follows:

125.3865 Capital Improvements program of public structures and improvements/ preparation; basis. Sec. 65. (1) To further the desirable future development of the local unit of government under the master plan, a planning commission, after adoption of a master plan, shall annually prepare a capital improvements program of public structures and improvements, unless the planning commission is exempted from this requirement by charter or otherwise. If the planning commission is exempted, the legislative body either shall prepare and adopt a capital improvements program, separate from or as a part of the annual budget, or shall delegate the preparation of the capital improvements program to the chief elected official or a nonelected administrative official, subject to final approval by the legislative body. The capital improvements program shall show those public structures and improvements, in the general order of their priority, that in the commission's judgment will be needed or desirable and can be undertaken within the ensuing 6-year period. The capital improvements program shall be based upon the requirements of the local unit of government for all types of public structures and improvements. Consequently, each agency or department of the local unit of government with authority for public structures or improvements shall upon request furnish the planning commission with lists, plans, and estimates of time and cost of those public structures and improvements.

Planning and Benefits of the Capital Improvements Program

The CIP is, first and foremost, a planning tool and is dynamic. Each year all projects included within the CIP are reviewed, a call for new projects is made, and adjustments are made to existing projects arising from changes in the amount of funding required, conditions, or time line. A new year of programming is also added each year to replace the year funded in the annual operating budget. With thoughtful foresight and review as a result of a CIP, the many outstanding capital projects that Mason is faced with implementing every year can be viewed as one package, rather than as small, fragmented groups or lists, with no unified sense of focus and direction.

When capital improvements begin with careful planning and study, the City of Mason's chances for receiving state and federal grants are greatly enhanced. Some grants require the inclusion of a CIP with their application. Formulation of a CIP helps those involved to look at alternative funding mechanisms that might not have been considered before. Instead of relying on local revenue sources alone, the CIP allows the City to think more creatively to fulfill Master Plan for Land Use goals and policies. The CIP will continue to develop over time by adding features to gradually improve quality and sophistication. Greater attention shall be devoted to provide more detailed information about individual project requests, program planning, fiscal analysis, fiscal policies, and developing debt strategy. The CIP often avoids reactive planning, and instead replaces it with balanced growth initiatives.

Impact of Capital Budget on the Operating Budget

As new policies and programs are approved, both the operating and capital budgets are impacted. For example, an increase in service levels approved as part of the operating budget would have long-term effects on the Capital Improvements Program. Conversely, a restrictive change to the use of long-term debt would slow capital programs. Regardless of the difference between the operating and capital budgets, the two are interdependent.

Approval of the CIP by the Mason Planning Commission does not mean they grant final approval of all projects contained within the plan. Rather by approving the CIP, the Planning Commission acknowledges that these projects represent a reasonable interpretation of the upcoming needs for the community and that projects contained in the first year of the plan are suitable for inclusion in the upcoming budget.

The community of Mason strives to maximize resources by maintaining a balance between operating and capital budgets. A continuous relationship exists between the CIP and the annual budget. A direct link can be seen between the two documents, as there should be in a strategic planning environment.

Process

Mason Leadership Team: recommends projects from their area of expertise, reviews all projects, evaluates the prioritization of projects based on a criteria, considers funding options, and presents the recommendation to the Planning Commission.

- City Administrator
- City Clerk
- Finance Director/Treasurer
- Fire Chief
- Police Chief
- Public Works Director
- Zoning/Development Director

City Administrator: clarifies any issues, finalizes the ratings and approves the CIP draft. The City Administrator recommends the CIP draft at the Planning Commission workshop and presents the CIP at the Planning Commission public hearing.

Mason Planning Commission: reviews the Policy Group's recommendation, conducts workshops (if necessary), receives public input, conducts public hearings, adopts the plan, and requests the governing body to consider incorporating funding for the first year projects into the budget plan.

Mason City Council: is encouraged to use the CIP as a tool in the adoption of the annual budget process in accordance with the governing body goals and objectives.

Mason Residents: are encouraged to participate in plan development by working with various boards and commissions at the Planning Commission workshops, the Planning Commission public hearings, and at the governing body's budget workshops and public hearings. As always, communication is open between residents, governing body representatives, Planning Commission representatives, and staff



Policy

As used in the City of Mason Capital Improvements Program, a capital improvements project is defined as a major, nonrecurring expenditure that includes one or more of the following:

1. Any construction of a new facility (i.e., a public building, water/sanitary sewer mains, storm sewers, major/local roadways, recreational facilities), an addition to, or extension of, such a facility, provided the cost is \$5,000 or more and that the improvement will have a useful life of three years or more.
2. Any nonrecurring rehabilitation of all or part of a building, its grounds, a facility, or equipment, provided the cost is \$5,000 or more and the improvement will have a useful life of three years or more.
3. Any purchase or replacement of major equipment to support community programs provided the cost is \$5,000 or more and will be coded to a capital asset account.
4. Any planning, feasibility, engineering, or design study related to an individual capital improvements project or to a program that is implemented through individual capital improvements projects provided the cost is \$5,000 or more and will have a useful life of three years or more.
5. Any planning, feasibility, engineering, or design study costing \$10,000 or more that is not part of an individual capital improvements project or a program that is implemented through individual capital improvements projects.



Funding Overview

Capital improvements projects involve the outlay of substantial funds making numerous sources of funding necessary to provide financing over the life of the project. Most capital funding sources are earmarked for specific purposes and cannot be transferred from one capital program to another. The CIP has to be prepared with some projections as to the amount of money available. The following is a summary of the funding sources for projects included in the CIP:

Bonds

When the community of Mason sells bonds, purchasers are, in effect, lending the community money. The money is repaid, with interest, from taxes or fees over the years. The logic behind issuing bonds (or “floating a bond issue”) for capital projects is that the citizens who benefit from the capital improvements over a period of time should help the community pay for them.

General Obligation (G.O.) bonds: Perhaps the most flexible of all capital funding sources, G.O. bonds can be used for the design or construction of any capital project. These bonds are financed through property taxes. In financing through this method, the taxing power of the community is pledged to pay interest and principal to retire the debt. Voter approval is required if the community wants to increase the taxes that it levies and the amount is included in Mason’s state-imposed debt limits. To minimize the need for property tax increases, the community makes every effort to coordinate new bond issues with the retirement of previous bonds. G.O. bonds are authorized by a variety of state statutes.

- *Mason currently has one outstanding bond related to the infrastructure put in place on Temple Street. The bond has a remaining payment balance of \$265,000 with a final payment estimated in 11/2020.*
- *Mason also has one outstanding bond related to the City Hall/Police Station. The bond has a remaining payment balance of \$3,625,000 with a final payment estimated in 04/2040.*

Revenue bonds: Revenue bonds are sold for projects that produce revenues such as water and sewer system projects. Revenue bonds depend on user charges and other project-related income to cover their costs. Unlike G.O. bonds, Revenue bonds are not included in the community state-imposed debt limits because the full faith and credit of the community backs them. Revenue bonds are authorized by Public Act of 1933, the Revenue Bond Act. The City of Mason currently has no outstanding revenue bonds.

Building Authority

The Mason Building Authority was established for the purpose of acquiring, furnishing, equipping, owning, improving, enlarging, operating, and maintaining a building or buildings, automobile parking lots or structures, recreation facilities and the necessary site or sites therefore thereof, and the payment of the bond principal and interest for any related debt incurred. The Building Authority functions as a mechanism to facilitate the selling of bonds to finance public improvements.

- *Mason currently has one outstanding bond related to the Fire Station. The bond has a remaining payment balance of \$110,000 with a final payment estimated in 10/2018.*

Enterprise Fund (Water and Sewer Fund)

In enterprise financing, funds are accumulated in advance for capital requirements. Enterprise funds not only pay for capital improvements, but also for the day-to-day operations of community services and the debt payment on revenue bonds. The community can set levels for capital projects; however, increases in capital expenditures for water mains, for example, could result in increased rates. Enterprise fund dollars can only be used on projects related to that particular enterprise fund.

The revenues generated from the Mason's Water and Sewer system must be set aside and collected in accounts as designated by existing revenue bond ordinances. These revenues are pledged for the specific purposes and transferred in a manner specified by those ordinances.

The City of Mason charges for water service supplied by the system based on a rate schedule measured by water usage. These charges must be sufficient to provide adequate revenues for operations, maintenance, replacements, improvements, and debt retirement. The last utility rate study was completed in 2014, with an update planned in 2018.

- *Mason currently has one outstanding loan with the State of Michigan Drinking Water Revolving Fund (DWRP) related to the Water Treatment Plant. The loan has a remaining payment balance of \$4,953,674 with a final payment estimated in 04/2028.*

Federal and State Funds

The federal and state governments make funds available to communities through numerous grants and aid programs. Some funds are tied directly to a specific program. The community has discretion (within certain guidelines) over the expenditure of others. For the most part, the community has no direct control over the amount of money received under these programs.

Millages

The property tax is a millage that is one of the most important sources of community revenue. The property tax rate is stated in mills (one dollar per \$1,000 of valuation). This rate is applied to a property's net value, following the application of all exemptions and a 50% equalization ratio. Mason is authorized to utilize millages under Public Act 279 of 1909, the Home Rule Cities Act. The City of Mason's current millage rate is 13.25. Under the Headlee Amendment, the City of Mason City Council is authorized to raise the millage up to 18.485 without a vote of the people.

Special Assessments

Capital improvements that benefit particular properties, rather than the community as a whole, may be financed more equitably by special assessment, i.e., by those who directly benefit. Local improvements often financed by this method in Mason are sidewalk and drive approach improvements.

State Shared Revenue

The City of Mason receives its share of various taxes and fees from programs and requirements by the State of Michigan. This refers to both constitutional and statutory Revenue Sharing payments.

- The Constitutional portion consists of 15% of gross collections from the 4% sales tax distributed to cities, villages, and townships based on their population. The Legislature cannot reduce or increase this amount.
- The Statutory portion is distributed by a formula, set in Public Act 532 of 1998. The Act calls for 21.3% of the 4% sales tax collections to be distributed in accordance with the formula. The Legislature has the ability to reduce the statutory portion based on the State's priorities for the State's budget.

Tax Increment Financing (TIF)

TIF is a municipal financing tool that can be used to renovate or redevelop declining areas while improving their tax base. TIF applies the increase in various state and local taxes that results from a redevelopment project to pay for project-related public improvements.

- *For purposes of financing activities within the community of Mason's downtown district, the Downtown Development Authority adopted a 30-year TIF plan in 1984 (extended to expire in 2030) that generates roughly \$60,000 in revenue annually.*
- *For purposes of financing activities related to Mason's south industrial area, the Local Development Finance Authority Act adopted a 30- year TIF plan in 1989 (expires in 2019) that generates roughly \$300,000 in revenue annually.*

Weight and Gas Tax

Based on a formula set by the State of Michigan, the community of Mason receives a portion of the tax placed on motor fuel and highway usage in the state. The restrictions placed on the expenditure of these funds insure that they will be spent on transportation-related projects or operations and services. These are commonly called Act 51 funds.

- *Mason on average receives \$540,000 split between the Major and Local Street Funds.*



CAPITAL IMPROVEMENT PROJECTS 2017- 2023



Streets / Sidewalks/ Bridges

OVERVIEW

Transportation-related issues are a high priority for the City of Mason. The City of Mason contains both public and private roadways. Public roads are owned and operated by the Michigan Department of Transportation (MDOT), the Ingham County Road Commission, and the City of Mason. Private roads are owned and operated by private developments and homeowner groups. The City currently maintains 12.25 miles of major streets, 19.78 miles of local streets, 2.21 miles of cemetery drives, and 2.5 miles of non-motorized trail.

In order to define priorities for the local street and major road rehabilitation programs, the City has a formal asset management program that categorizes roads based on their Pavement Surface Evaluation and Rating (PASER) first. Table 1 illustrates PASER ratings for asphalt pavements.

Table 1. PASER RATING OVERVIEW

Rating	Visible Distress	General Treatment and Conditions
10 Good	None	New Construction
9 Good	None	Recent Overlay
8 Good	No longitudinal cracks except reflection of paving joints. Occasional transverse cracks, widely spaced (40' or greater). All cracks sealed or tight (open less than 1/4").	Recent sealcoat or new cold mix. Little or no maintenance required.
7 Fair	Very slight or no raveling, surface shows some traffic wear. Longitudinal cracks (open 1/4") due to reflection or paving joints. Transverse cracks (open 1/4") spaced 10' or more apart, little or slight crack raveling. No patching or very few patches in excellent condition.	First signs of aging. Maintain with routine crack filling.
6 Fair	Slight raveling (loss of fines) and traffic wear. Longitudinal cracks (open 1/4"– 1/2"), some spaced less than 10'. First sign of block cracking. Slight to moderate flushing or polishing. Occasional patching in good condition.	Shows signs of aging. Sound structural condition. Could extend life with sealcoat.
5 Fair	Moderate to severe raveling (loss of fine and coarse aggregate). Longitudinal and transverse cracks (open 1/2") show first signs of slight raveling and secondary cracks. First signs of longitudinal cracks near pavement edge. Block cracking up to 50% of surface. Extensive to severe flushing or polishing. Some patching or edge wedging in good condition.	Surface aging. Sound structural condition. Needs sealcoat or thin non-structural overlay (less than 2")
4 Poor	Severe surface raveling. Multiple longitudinal and transverse cracking with slight raveling. Longitudinal cracking in wheel path. Block cracking (over 50% of surface). Patching in fair condition. Slight rutting or distortions (1/2" deep or less)	Significant aging and first signs of need for strengthening. Would benefit from a structural overlay (2" or more).
3 Poor	Closely spaced longitudinal and transverse cracks often showing raveling and crack erosion. Severe block cracking. Some alligator cracking (less than 25% of surface). Patches in fair to poor condition. Moderate rutting or distortion (1" or 2" deep). Occasional potholes.	Needs patching and repair prior to major overlay. Milling and removal of deterioration extends the life of overlay.
2 Poor	Alligator cracking (over 25% of surface). Severe distortions (over 2" deep) Extensive patching in poor condition. Potholes.	Severe deterioration. Needs reconstruction with extensive base repair. Pulverization of old pavement is effective
1 Poor	Severe distress with extensive loss of surface integrity	Failed. Needs total reconstruction.

The lowest-rated roads in each of these categories would generally be addressed first. However, the last PASER evaluation was completed in 2013 so staff takes into account changes in conditions. The next evaluation is planned to occur in 2017.

Following the PASER evaluation, the City looks at underground utilities and considers whether the condition of those utilities would move a street project up in priority. This is followed by the impact to residents and how many property owners would be impacted positively due to the improvement.

Finally, the City considers the budget and how many streets can be completed within a year based on the resources available. Mason voters have approved that a minimum value of 4 mills must be used for road projects every year. Due to the construction season crossing fiscal years and unforeseen factors impacting the ability for a project to be completed, the City maintains a rolling summary to assure the City is meeting this requirement (see Table A). This allocation can be funded by numerous resources to meet this requirement.

The City's policy is to evaluate sidewalks on any road that is being improved and replace them as needed.

Once prioritized the road work will typically be completed in one of the three following ways:

- **Mill and Fill:** Consists of grinding the surface layer with a milling machine, hauling and disposing of the milled bituminous pavement. A new lift of hot mix asphalt (HMA) is laid over the milled surface. This treatment methodology can facilitate up to 10 years of additional service life without full reconstruction. This method of surface rehabilitation provides the greatest value in areas where the base layers of pavement do not have extensive cracking and utility repairs or replacements are not warranted. Sidewalks are evaluated and replaced as necessary.
- **Pulverize, Shape and Repave:** Consists of crushing the full depth of the existing pavement and intermixing the pulverized HMA with the aggregate base. This pulverized material is then graded and compacted to the original cross slope of the street. Any excess material is hauled off site. New HMA is placed upon this pulverized section in as many as three (3) lifts. This method provides the equivalent of a new street cross section without the added expenses of removing and replacing all of the concrete curb and gutter. In addition, the pulverized material can be temporarily stockpiled on the adjacent lane to facilitate any utility repairs or replacements. Sidewalks are evaluated and replaced as necessary.
- **Reconstruction:** Consists of the complete removal and replacement of all components of the street, including but not limited to concrete curb and gutter, existing pavement and gravel section. This method of construction is limited to areas too badly deteriorated to be improved using the Mill and Fill or Pulverize, Shape and Repave methods. After removal, the street is completely rebuilt by re-grading the base, placing new aggregate, pouring new concrete curb and gutters, and repaving the road. Often new drainage structures and storm sewer are installed as a reconstruction project. Typically, this method is reserved for circumstances such as a road widening or narrowing or the complete replacement or reconstruction of deep utilities such as a sanitary sewer interceptor. This is also the costliest, most time consuming and disruptive street construction.

Table 2. Road Appropriation Summary: 1997-2016

Fiscal Year	Required Appropriation	Actual Spent	Over/(Under)
96/97	507,106.00	803,717.10	296,611.10
97/98	503,411.00	1,134,462.84	631,051.84
98/99	521,918.00	862,454.56	340,536.56
99/00	558,522.00	477,509.15	(81,012.85)
00/01	629,313.00	858,359.18	229,046.18
01/02	666,271.00	1,658,096.87	991,825.87
02/03	764,684.00	454,414.70	(310,269.30)
03/04	792,587.00	888,647.89	96,060.89
04/05	828,705.00	976,705.77	148,000.77
05/06*	739,970.00	1,045,585.41	305,615.41
06/07	824,935.00	648,943.35	(175,991.65)
07/08	871,830.00	1,042,490.52	170,660.52
08/09	916,258.08	2,876,791.12	1,960,533.04
09/10	967,322.26	539,350.61	(427,971.65)
10/11	896,553.96	823,558.74	(72,995.22)
11/12**	871,232.00	3,573.02	(867,658.98)
12/13	860,205.00	68,164.78	(792,040.22)
13/14	869,376.00	1,477,869.35	608,493.35
14/15	853,096.00	480,704.23	(372,391.77)
15/16	864,892.00	1,509,285.83	644,393.83
16/17***	853,788.00	337,629.07	(516,158.93)
Totals	16,161,975.30	18,968,314.09	2,806,338.79

* Note: 5 Mill to 4 Mill Requirement

** Note: Street Construction Waived

*** Note: Partial Year

Proposed Project Year: 2017-18

Project Number: 2017-S1 N. Jefferson- Howell to Royce

Description: Mill and fill. The road was last worked on in 1990 and had a total reconstruction in that year. Sidewalks will be evaluated and replaced as necessary.

Justification: The road had a PASER rating of 4. Normal maintenance is no longer adequate. Eight homes will be directly impacted by this improvement. MDOT will fund 80%.

Project Number: 2017-S2 N. Jefferson- Columbia to Royce

Description: Mill and fill. The road was last worked on in 1990 and had a total reconstruction in that year. Sidewalks will be evaluated and replaced as necessary.

Justification: The road had a PASER rating of 4. Normal maintenance is no longer adequate. Thirty-four homes will be directly impacted by this improvement.

Project Number: 2017-S3 E. Elm- Jefferson to Steele

Description: Pulverize, shape and repave. The road was last worked on in 1996 and had a total reconstruction in that year. Sidewalks will be evaluated and replaced as necessary.

Justification: The road had a PASER rating of 4. Normal maintenance is no longer adequate. Forty homes will be directly impacted by this improvement.

Project Number: 2017-S4 Columbia Sidewalks- Goodman to Corbin

Description: Sidewalks will be placed on the South side of the Street to allow for pedestrian traffic to come from Goodman Street to Corbin Street.

Justification: This is a priority identified by the City Council due to the safety issue caused by having no existing sidewalks. Fifteen homes will be directly impacted by this improvement.

Proposed Project Year: 2018-19

Project Number: 2017-S5 Walnut- Columbia to North End

Description: Pulverize, shape and repave. The road was last worked on in 1989 and had a total reconstruction in that year. Sidewalks will be evaluated and replaced as necessary.

Justification: The road had a PASER rating of 3. Normal maintenance is no longer adequate. Eight homes will be directly impacted by this improvement.

Project Number: 2017-S6 South- Northbrook to West City Limits

Description: Pulverize, shape and repave. The road was last worked on in 1998 and had a total reconstruction in that year. The road is breaking down and is in poor shape requiring it to be patched every year. Sidewalks will be evaluated and replaced as necessary.

Justification: The road had a PASER rating of 3. Normal maintenance is no longer adequate. Three homes will be directly impacted by this improvement.

Project Number: 2017-S7 Avon- All

Description: Pulverize, shape and repave. The road was last worked on in 1980 and had a total reconstruction in that year. The top course is starting to break down and base is showing cracks through to base course. Sidewalks will be evaluated and replaced as necessary.

Justification: The road had a PASER rating of 4. Normal maintenance is no longer adequate. Four homes will be directly impacted by this improvement.

Project Number: 2017-S8 Northbrook- South to End

Description: Full reconstruction and narrowing of road. The road was last worked on in 1996 and was milled and refilled. The road is in poor condition and is in need of spot storm sewer repairs and narrowing. Sidewalks will be evaluated and replaced as necessary. Driveways will be extended to accommodate the road narrowing.

Justification: This is a priority brought forward by Council primarily as a traffic calming action to slow down traffic going into this subdivision. The road had a PASER rating of 4. Normal maintenance is no longer adequate. Eighteen homes will be directly impacted by this improvement.

Project Number: 2017-S9 S. Jefferson- Oak to Kipp

Description: Mill and fill. The road was last worked on in 1997 and had a total reconstruction in that year. Sidewalks will be evaluated and replaced as necessary.

Justification: The road had a PASER rating of 5. Normal maintenance is no longer adequate. 37 homes will be directly impacted by this improvement.

Project Number: 2017-S10 Sidewalk Program

Description: This program will evaluate 1/6 of the City's sidewalks annually, which will be included in our Special Assessments and bidding package for street work.

Justification: The current evaluation of sidewalks only occurs when a street is being worked on, which can result in 20 years before that sidewalk is evaluated again. Without a systematic review of the sidewalks, we are currently only allocating resources on a spot basis when the problem becomes a safety hazard. This program will allow us to address affected areas proactively and receive the cost savings of bidding it with a larger project.

Proposed Project Year: 2019-20

Project Number: 2017-S11 Kerns- Cedar to Howell

Description: Full reconstruction and adding of sidewalks. No reconstruction records could be found for this street. This street is in poor shape and does not have curb and gutter. The base of the road is failing and the ramps on either end are breaking down.

Justification: The road had a PASER rating of 1. Normal maintenance is no longer adequate. Eight businesses will be directly impacted by this improvement. MDOT will fund 60%.

Project Number: 2017-S12 W Elm- Henderson to Jefferson

Description: Pulverize, shape and repave. The road was last worked on in 1998 and had a total reconstruction in that year. Sidewalks will be evaluated and replaced as necessary.

Justification: The road had a PASER rating of 4. Normal maintenance is no longer adequate. Seven homes will be directly impacted by this improvement.

Project Number: 2017-S13 Park- Elm to Oak

Description: Pulverize, shape and repave. 1998 had total reconstruction in that year. Sidewalks will be evaluated and replaced as necessary.

Justification: The road had a PASER rating of 4. Normal maintenance is no longer adequate.

Proposed Project Year: 2020-21

Project Number: 2017-S14 Cherry- Rogers to End

Description: Mill and fill. The road was last worked on in 1997 and had a total reconstruction in that year. Sidewalks will be evaluated and replaced as necessary.

Justification: The road had a PASER rating of 5. Normal maintenance is no longer adequate. Thirty-two homes will be directly impacted by this improvement.

Project Number: 2017-S15 Barnes- Ash to Kipp

Description: Mill and fill. The road was last worked on in 1988 and had a total reconstruction in that year. Sidewalks will be evaluated and replaced as necessary.

Justification: The road had a PASER rating of 5. Normal maintenance is no longer adequate. Fifty-six homes will be directly impacted by this improvement.

Project Number: 2017-S16 Maple Street Bridge

Description: Bridge repair due to safety concerns. These repairs are only for the top of the bridge and further repairs will need to be done in the future.

Justification: Bridge was evaluated and the report shows that the concrete head walls have severe spalling and are in need of repair and hand rails on the bridge are not safe.

Proposed Project Year: 2021-22

Project Number: 2017-S17 Center- Walnut to Bush

Description: Mill and fill. Staff does not have any records indicating when the road was constructed. Sidewalks will be evaluated and replaced as necessary.

Justification: The road had a PASER rating of 5. Normal maintenance is no longer adequate. Eighteen homes will be directly impacted by this improvement.

Project Number: 2017-S18 Brookdale- Judy Ct to Willow

Description: Pulverize, shape and repave. The road was last worked on in 1997 and had a total reconstruction in that year. Sidewalks will be evaluated and replaced as necessary.

Justification: The road had a PASER rating of 5. Normal maintenance is no longer adequate. Sixteen homes will be directly impacted by this improvement.

Project Number: 2017-S19 Cherry- McRoberts to Henderson

Description: Pulverize, shape and repave. The road was last worked on in 1998 and had a total reconstruction in that year. Sidewalks will be evaluated and replaced as necessary.

Justification: The road had a PASER rating of 5. Normal maintenance is no longer adequate. Twenty-six homes will be directly impacted by this improvement.

Project Number: 2017-S20 Columbia– Orchard to Walnut

Description: Pulverize, shape and repave. The road was last worked on in 2009 and was a mill and fill. Sidewalks will be evaluated and replaced as necessary.

Justification: The road had a PASER rating of 4. Normal maintenance is no longer adequate. Thirteen homes will be directly impacted by this improvement.

Project Number: 2017-S21 Eaton Drive- Entire length

Description: Pulverize, shape and repave. The road was last worked on in 1979 and had a total reconstruction in that year. Sidewalks will be evaluated and replaced as necessary.

Justification: The road had a PASER rating of 4. Normal maintenance is no longer adequate. Twenty-four homes will be directly impacted by this improvement.

Project Number: 2017-S22 W Elm – McRoberts to Henderson

Description: Pulverize, shape and repave. The road was last worked on in 1998 and had a total reconstruction in that year. Sidewalks will be evaluated and replaced as necessary.

Justification: The road had a PASER rating of 4. Normal maintenance is no longer adequate. Twenty-five homes will be directly impacted by this improvement.

Proposed Project Year: 2022-23

Project Number: 2017-S23 Rayner- Randolph to Columbia

Description: Pulverize, shape and repave. The road was last worked on in 1996 and had a total reconstruction in that year. Sidewalks will be evaluated and replaced as necessary.

Justification: The road had a PASER rating of 3. Normal maintenance is no longer adequate. Eleven homes will be directly impacted by this improvement.

Project Number: 2017-S24 Eugenia- Northbrook to End

Description: Pulverize, shape and repave. The road was last worked on in 1996 and had a total reconstruction in that year. Sidewalks will be evaluated and replaced as necessary.

Justification: The road had a PASER rating of 5. Normal maintenance is no longer adequate. Fifty homes will be directly impacted by this improvement.

Project Number: 2017-S25 Hall Blvd- Ash to South

Description: Pulverize, shape and repave. The road was last worked on in 1980 and had a total reconstruction in that year. Sidewalks will be evaluated and replaced as necessary.

Justification: The road had a PASER rating of 4. Normal maintenance is no longer adequate. Twenty-seven homes will be directly impacted by this improvement.

Project Number: 2017-S26 Columbia- Park to Jefferson to South

Description: Pulverize, shape and repave. The road was last worked on in 1999 and had a total reconstruction in that year. Sidewalks will be evaluated and replaced as necessary.

Justification: The road had a PASER rating of 5. Normal maintenance is no longer adequate. Four homes will be directly impacted by this improvement.



Utilities: Sanitary Sewer, Storm, Water Distribution

OVERVIEW

Sanitary Sewer: The sewage collection and treatment system consists of a 1.5 Million Gallons per Day (MGD) activated sludge treatment plant, 32 miles of sewer line including interceptors, and five lift stations. The City, like most other communities in Michigan, operates under a National Pollutant Discharge Elimination System permit (NPDES) administered by the MDEQ. This permit establishes the allowable effluent levels to be discharged to the receiving waters, namely Sycamore Creek.

A study was completed by Wolverine Engineers to determine the best method of providing sewer service to areas on the undeveloped east side of Mason. The feasibility study has identified six districts, known as the Rayner Creek Utility Districts, which are served via a common lift station and force main. During 2005, as part of the Temple Street extension from M-36 to Kipp Road, the sewer and pump station were constructed to serve District 3 as this area develops.

Storm Water System: The State of Michigan Department of Environmental Quality regulates Municipal Separate Storm Sewer Systems (MS4). The goal of the MS4 program is to reduce the discharge of pollutants to surface waters of the State. The current gravity system consists of concrete drainage pipes ranging from 6 inches to 42 inches in diameter, along with corrugated metal pipes up to 72 inches in diameter. These pipes are connected to the street network through a series of catch basins. Eventual outflow is to one of the three creeks flowing through town - the Sycamore, Willow or Rayner - since the system is separated from the sanitary sewer system.

Maintenance of the storm water system is divided between the City and the Ingham County Drain Commission. The county has designated drains that flow through the City such as the Willow and Rayner Creek Drains.

Water: The City's water system consists of six wells, two 500,000 gallon elevated storage towers, 600 fire hydrants and one one-million gallon ground storage tank and approximately 45 miles of water main in various sizes (4" to 16"). The City has a centralized treatment facility; the water is pumped through raw water mains to the treatment plant to remove Radium 226 and 228 as well as iron.

The development of the proposed sanitary sewer and water projects is funded through the Water and Sewer Fund and is based upon system deficiencies and needed improvement to the treatment plant.

Proposed Project Year: 2017-18

Project Number: 2017-U1 E. Elm- Jefferson to Steele (Water/Sewer Improvements)

Description: Replace 4" main/values and hydrants on this street with new 6" main and valves.

Justification: The water main is 4" and is more than 75 years old. Installing new main will help with water quality and quantity for the area.

Project Number: 2017-U2 Boiler/ Heat Exchanger at POTW

Description: This boiler/heat exchanger is used to maintain a constant temperature within the digesters for the sludge digestion process at the plant. This constant temperature along with the raw sludge creates and maintains the microorganisms needed to digest the sludge.

Justification: The current boiler/heat exchanger has been repaired several times and needs to be replaced. This is a critical piece of equipment that needed to treat the Waste Water Treatment Plant's raw sludge. This boiler/heat exchanger has failed in the past and has caused a fire in the digester building. A fire can create a hazardous/explosive situation should it come in contact with the methane gas produced during the digestion process. A new energy-efficient boiler/heat exchanger would maintain a constant temperature in the digester and may allow the plant to utilize more of the methane gas it generates to fire the burners for the boiler. This could result in a reduction of natural gas usage.

Project Number: 2017-U3 Planning/Design WWTP Upgrades and DPW Facility

Description: Contract an engineering firm to plan and design a complete WWTP upgrade project and the planning and design of a new DPW facility.

Justification: Plans and designs are needed before the next phases of the WWTP upgrades can move forward. It is clear that the DPW facility will need to be relocated first due to the floodplain. Information obtained will allow us to submit a permit application to the DEQ for approval and plan appropriately for the financing of the project.

Project Number: 2017-U4 Main Building Roof Replacement POTW

Description: A flat roof covers the building that houses the offices and the laboratory at POTW.

Justification: This roof has been repaired several times. Each time this roof leaks it causes damage to the ceiling tiles. Expensive laboratory and gas chlorine safety equipment are put at risk due to these leaks

Project Number: 2017-U5 Well 8 Rebuild

Description: Well No. 8 needs to be pulled out, the column pipe evaluated and the well cleaned.

Justification: Well No. 8 was repaired in 2015 with most of the project's money used to put a liner in the well as it had collapsed in 2014. When the well was put back together, the remainder of the money left over was used to replace the pump and a few pieces of column pipe.

Project Number: 2017-U6 Abandon Monitoring Wells by Airport

Description: Abandon two monitoring wells by the Airport that were put in place in consideration of adding a well near the Airport.

Justification: The Airport is selling the property where these tests wells are located and have asked us to abandon them as part of our original agreement with the Airport to look for water on their site. The installation of a well at these locations is cost prohibitive and determined not to be feasible.

Project Number: 2017-U7 Replace Fire Hydrant by McDonalds

Description: Replace Fire Hydrant by McDonalds

Justification: This fire hydrant is an old Traverse City fire hydrant that is not made any more. It is over 10 feet deep and is currently broken. The reason it is so expensive to replace is because of the depth of the hydrant and the large equipment needed to work safely at that depth in the ground.

Project Number: 2017-U8 Replace PLC Controllers (3 wells over 3 years)

Description: SCADA Control Work- Upgrades on PLC, power supply and any control panel issues.

Justification: Control Wave Programmable Logic Computer boards are the originals installed in 2002. These PLCs are not available or repairable. The low voltage power supplies for the control panels are experiencing stability issues. There are control issues at all three sites. The upgrades to sites will allow staff to be more effective and efficient with system operations.

Proposed Project Year: 2018-19

Project Number: 2017-U9 Northbrook- South to End (Water/Sewer Improvements)

Description: Relocate storm sewer structures to allow for narrowing of the street.

Justification: Narrowing of the street will require the relocation of same storm structure and leads to allow for narrower road.

Project Number: 2017-U10 S. Jefferson- Oak- Kipp (Water/Sewer Improvements)

Description: Replace the old 10" main with new 12" water main. Replace old 8" clay sewer that is same age from Cherry to Oak.

Justification: The 10" water main is 1930 water main from Oak to South Street. Because of this, the valves do not isolate well during water main breaks. Sanitary sewer is very old and needs to be fixed while we are working in the road.

Project Number: 2017-U11 Turbine Aeration Blower at POTW

Description: Variable speed turbine blower used to supply oxygen to the activated sludge process.

Justification: The Hoffman Blowers currently in use supply oxygen to the activated sludge process. These blowers have become worn and less productive. During hot weather events these blowers do not supply enough oxygen to aeration tanks to maintain the desired dissolved oxygen levels needed to provide adequate ammonia removal. Ammonia removal is a critical process in treating wastewater and must be achieved to maintain compliance with the NPEDS permit. It has been estimated that the electrical cost savings on this variable speed turbine blower could show a payback to the City within five years.

Project Number: 2017-U12 300,000 Gallon Storage Tank Top Sealing

Description: This 300,000 gallon sludge storage tank is the older of the two storage tanks at the WWTP. This tank is used to hold digested sludge until it can be applied to the land as bio-solids.

Justification: The 300,000 gallon tank is receiving inflow from snow melt and rainwater through the cracks in the top of the tank. This inflow reduces the sludge storage capacity of the tank. This storage capacity, along with the other storage tank, is needed to store the digested sludge that accumulates throughout the year.

Project Number: 2017-U13 Well No. 7 Rebuild

Description: Kipp Road Well No. 7 Rebuild

Justification: History of this well indicates the need to rebuild this well every 5-6 years this well was last serviced in 2012. Pump efficiency testing will be another tool to use for indicating the need to rebuild this well. Well maintenance and replacement are critical to maintaining the water supply for our residents.

Project Number: 2017-U14 New DPW Facility

Description: A new facility will need to be built to allow for the POTW plant to be expanded and because the existing facility has not been maintained. This new facility will house all public works activities and equipment for the future needs of the City of Mason.

Justification: When the City upgrades the Waste Water Treatment Plant the DPW facilities will need to be relocated. This anticipated relocation provides the opportunity to consolidate all operations to a single point, including streets, water and sewer and parks and cemeteries. The conceptual DPW facility will put all facets of the City Physical Plant operations under one roof. This will aid in streamlining the operations, supervision and coordination of the DPW department.

It is expected that an iterative process to arrive at configuration based on space utilization and equipment movement will be necessary prior to the presentation of a final design. The greatest amount of space will likely be dedicated to housing all vehicles and equipment indoors. This will reduce stresses particularly in the winter months and could result in an increase in vehicle longevity and/or salvage values. In addition, greater controls of consumable items, such as vehicle parts and water fittings, will be gained through the elimination of multiple storage areas. As was the case with the recently constructed Water Treatment Plant, an understanding of future needs and expansion will be given to the overall

dimensions of the proposed DPW Building. The building will also include storage currently housed at Fire Station 2, so that property can be sold and provide for additional document storage needed for the City Hall facility.

Project Number: 2017-U15 Replace Two Fire Hydrants behind Mason Plaza

Description: Replace two fire hydrants behind Mason Plaza

Justification: These hydrants break easily and parts are difficult to source. It has also been determined by Fire Chief Minshall that the hydrants are too close to the building for safety during firefighting operations.

Project Number: 2017-U16 Cathodic Protection for Ground Storage Tank

Description: Cathodic protection for ground storage tank. Cathodic protection is when measures are taken to prevent or minimize electrolytic corrosion of metallic equipment and structures.

Justification: The Finish Water Ground Storage Tank at the water treatment plant was constructed in 2008. This tank is constructed of painted steel and is subject to stray voltage cathodic corrosion. A Cathodic Corrosion Inhibiting System was installed on this tank when new and is currently not operable. The manufacturer of this system is no longer in business and used a proprietor specific system. Other vendors have been engaged and do not have the ability to fix the current system. In FY 2015-16 a cathodic study was performed and the recommendation was to install an industry standard system.

Project Number: 2017-U17 High Service Pump #1 Rebuild

Description: Water Treatment Plant High Service Pump #1 Rebuild

Justification: The Water Treatment Plant has three high service pumps, two pumps were rebuilt in FY 2016-17. Chlorine has attacked the zinc impregnated in the brass impellers, causing "Zincification." The zinc replaced lead in the manufacture of the impellers mandated by the EPA lead in drinking water elimination program in the early 2000s. This issue was unforeseen when these pumps were originally spec'd for the Water Treatment Plant completed in 2008. The rapid drop in performance necessitated the emergency rebuild of pumps #2 and #3. Stainless steel impellers were spec'd in the rebuild of pumps #2 and #3. Pump #1 is demonstrating the same indications of "Zincification."

Project Number: 2017-U18 Replace Chlorine Analyzer for High Service Pump Room

Description: Replacement of Chlorine analyzer for Finnish Water 2018-2019

Justification: The Water Treatment Plant was originally spec'd with two Chlorine residual level analyzers. These analyzers are expensive to operate and require frequent maintenance. The Post Filter analyzer has been updated with another Brand/Process machine with more capabilities and less expense and maintenance. It is beneficial to replace this analyzer to save time in frequent maintenance and expense of monthly reagent replacement. Standardization of Brand/Process machines will save expense on service supplies and spare parts.

Proposed Project Year: 2019-20

Project Number: 2017-U19 Kerns- Cedar to Howell (Water/Sewer Improvements)

Description: New storm sewer and extend sanitary sewer to Cedar.

Justification: There are currently no storm sewer pipes on this street and the sanitary sewer only goes 3/4 of the way down the street. While we are putting in curb and gutter, it is the ideal time to address these issues.

Project Number: 2017-U20 W. Elm- Henderson to Jefferson (Water/Sewer Improvements)

Description: Replace 4" water main under the bridge to Park then up to Oak with new 8" main and valves.

Justification: The water main that went under this bridge was washed out in the 1970s and there is very poor fire flow. This will also improve water quality as the current main is 4".

Project Number: 2017-U21 Park- Elm to Oak (Water/Sewer Improvements)

Description: New 8" water main from the bottom of the hill at Elm and Oak. This is part of the W. Elm to Henderson Project.

Justification: This is part of the water main loop from W. Elm to Oak and will eliminate a dead end. This will increase fire flow to the west side of town.

Project Number: 2017-U22 Stop Gates for Aeration Discharge Piping

Description: Stop gates located at the entrance and at the outfall of the "bottle neck" piping that was installed in 2016 between the aeration tanks and the secondary clarifiers.

Justification: These gates would prevent this pipe from collecting unwanted flow during normal operations conditions and will reduce the amount of settleable solids forming in the pipe. These solids could build up in the pipe creating a restriction or a stoppage of flow. These gates would be opened when needed during high flow conditions.

Project Number: 2017-U23 Well No. 6 Rebuild

Description: Franklin Farm Well No. 6 Rebuild

Justification: History of this well indicates the need to rebuild this well every 5-6 years and this well was last serviced in 2015. Pump efficiency testing will be another tool to use for indicating the need to rebuild this well. Well maintenance and replacement are critical to maintaining the water supply for our residents.

Project Number: 2017-U24 Study of Sewer Flow on Mason Street

Description: Study of Sewer flow on Mason Street

Justification: This sewer is running over 80% full most of the time and the City needs to plan for the future of this line. The City will have to either upsize this line or put a second line in to relieve some flow off this line. This line takes the flow from Cedar Street and could be a limiting factor for future growth on Cedar Street.

Project Number: 2017-U25 Gutters for Water Treatment Plant

Description: Rain gutters for entire Water Treatment Plant

Justification: The Water Treatment Plant was constructed in 2008. In an effort to control construction costs, the rain gutters on the plant were reduced to installation over the doors. Water management for the administration portion of the Water Treatment Plant is essential to keep the foundation and sidewalk of the building stable. The process end of the Water treatment Plant is in need of rainwater management to keep the asphalt around the plant from excessive wear and tear.

Project Number: 2017-U26 New Well at Franklin Farms

Description: New Well at Franklin Farms Site. The proposal is to drill a small-bore deep well at the Franklin site and case off the bore past the zone of collapse. A submersible pump would be installed to pull water from the lower formation. If approved, the original vertical turbine pump of Well No. 6 would be reengineered and install a more economical submersible pump during the well rebuild scheduled for this year. This would be similar to the setup of Wells No. 9 and No. 10. This will save considerable funds as opposed to building a new well site. The configuration will likely yield more water from this site than current production.

Justification. The likelihood of the City of Mason utilizing Well No. 3 at the north tower site is unlikely. It will be too expensive to install a water main to pump to the Water Plant or install treatment on site onsite. To keep this well on standby status is also expensive. Monthly and quarterly testing is a draw on resources that will bear no fruit.

The well bore for the Franklin well is compromised. There is screen in the bottom of this well to stabilize the bore from collapse. The bore is also not aligned with the screen so total well cleaning is not possible. The production has fallen off from the original level to approximately 30%. An additional well at the Franklin Well No. 6 site is being requested.

Proposed Project Year: 2020-21

Project Number: 2017-U27 Cherry- Rogers to End (Water/Sewer Improvements)

Description: Sewer main replacement and manhole replacement.

Justification: The sanitary sewer was constructed in 1940 and needs to be replaced. It has clay tile and inflow problems. The sanitary manholes are brick and in poor shape, requiring replacement.

Project Number: 2017-U28 Barnes- Ash to Kipp (Water/Sewer Improvements)

Description: New water main and valves to replace existing 4" and dual mains

Justification: This is an old water main from the early 1900s from Ash to Bond. Upsizing to 8" water mains and eliminating places where dual mains exist will help with firefighting ability and water quality. It will also allow staff to isolate for water main breaks.

Project Number: 2017-U29 Generators for ISD and Curtis Street Lift Station

Description: Install standby generators for ISD and Curtis Street lift stations

Justification: Staff gets called out to these locations multiple times a year for power related problems. This requires them to have a bypass pump or set up portable generators for as long as three days at a time for power outages.

Proposed Project Year: 2021-22

Project Number: 2017-U30 Second Phase WWTP Upgrades

Description: Construction of up to three primary clarification tanks. Each tank will have the capacity of treating one MGD while providing a two-hour detention time.

Justification: These upgrades are the second step in the process required to help the City get out of a consent order from the DEQ to deal with sanitary sewer overflows.

Proposed Project Year: 2022-23

Project Number: 2017-U31 Third and Final Phases of WWTP Upgrades

Description: Construct a new aeration tank adjacent to the existing aeration tanks. The existing aeration tanks will be reconstructed to allow for the proper hydraulic grade for the next treatment process. The construction of a new blower building with new blowers will be installed. The construction of a new secondary clarifier and the reconstruction of the existing secondary clarifiers will accommodate the revised hydraulic grade. These tanks will actually become the final clarification tanks of the treatment process. The abandoned primary tanks will be removed. A new ultraviolet disinfection system will be installed, and the existing gas chlorination system will be removed.

Justification: These upgrades are the final step in the process required to help the City get out of a consent order from the DEQ to deal with sanitary sewer overflows.



Motor Vehicle Pool

Table 3. City of Mason Vehicle Report 2.2017

1=Poor condition, 5= Good condition

#	Dept	Year	Make	Model	Condition	Problems	Replace
5	Police	2008	Chevrolet	Impala	1	Need new rear wheel bearing, thermostat, tires	17/18
6	DPW	2016	Ford	Explorer	5	No problems found	22/23
11	Water	2008	Chevrolet	3/4 ton w plow	4	Worn seat, dents in body	17/18
12	DPW	2016	Ford	F150	5	No problems found	25/26
13	DPW	2008	Ford	F150	4	Ripped seat, some rust in body	19/20
14	DPW	2016	Ford	F150	5	No problems found	26/27
15	Water	2016	Ford	F150	5	No problems found	24/25
16	Police	2008	Chevrolet	Pick Up	5	No problems found	20/21
17	POTW	2006	Chevrolet	Pick Up	4	No problems found	18/19
18	Parks	2010	GMC	Pick Up	2.5	Body damage various, ripped seat, ignition switch malfunctioning	21/22
19	DPW	2007	Ford	Dump Truck-450	4	Ripped seat, plow cutting edge to be replaced, rust spots on the box, tailgate to be replaced	22/23
21	DPW	2012	Ford	3/4 ton w plow	5	Dent in right rear bumper	21/22
22	DPW	2014	Ford	F150	4	Dents in body, cracked door mirror	23/24
23	DPW	2014	International	Dump Truck	5	No problems found	29/30
24	DPW	1993	Ford	Dump Truck	2.5	Rust on box, drive tires 30%, underbelly moldboard cracking, lift cylinder leaking hydraulic fluid	18/19
25	DPW	1999	GMC	Dump Truck	2	Instrument panel broken, belly plow to be replaced	20/21
26	DPW	1997	Ford	Utility Vactor	3	Debris box rusty, tires at 30%	26/27
27	DPW	2015	Cat	Front End Loader	5	Lease. No Problems	18/19
28	DPW	2002	Freightliner	Dump Truck	4	Box tarp/arm to be replaced, Hydraulic control block needs to be repaired/replaced	24/25

Table 3- Continued. City of Mason Vehicle Report 2.2017

#	Dept	Year	Make	Model	Condition	Problems	Replace
29	DPW	2000	Deere	Skid steer	3	No problems found	17/18
30	DPW	1999	Cat	Back hoe	4	Needs new front tires	23/24
31	DPW	2014	Ford	3/4 ton w plow	5	No problems found	23/24
32	DPW	2002	Dodge	Bucket Lift Truck	4	Instrument panel broken, parking brake cable needs to be repaired	27/28
33	DPW	2014	Johnston	Street sweeper	5	No problems found	30/31
39	Parks	2009	Kawasaki	Mule	1	Front bumper cover broken, tires at 25%	17/18
40	DPW	2006	Chevrolet	Pick Up	3	Ripped seat, passenger door out of alignment	17/18
83	Police	2010	Ford	Crown Victoria	4	Tires about 50%	17/18
84	Police	2014	Ford	Interceptor	4	Front Valance damaged	18/19
85	Police	2015	Ford	Interceptor	4	No problems found	19/20
86	Police	2015	Ford	Interceptor	5	No problems found	20/21
801	Fire	2013	Ford	Expedition	5	No problems found	24/25
802	Fire	2001	Ford	Expedition	3	Body rusting badly, leaks oil	19/20
810	Fire	1993	Dodge	Ram	2.5	Floor boards rotting out, exhaust system in bad shape	18/19



Parks, Cemetery and Forestry

OVERVIEW

The City of Mason operates Mason’s only cemetery, Maple Grove Cemetery, located in the central portion of the City within the northern sector. Established in 1844, it comprises approximately 38 acres with additional acreage available for expansion. Sycamore Creek flows along the eastern edge of the property which is important to the development of the Hayhoe Riverwalk Trail throughout the City. Approximately 50 burials are performed on average per year. The older portion of the cemetery has been listed on the National Register of Historic Places.

The City of Mason owns and operates eight municipal parks within the City limits totaling 92.74 acres and includes a wide variety of seasonal recreation activities.

Table 4- City of Mason Inventory of City Parks

Property	Park Type*	Service Area**	Acres	Description/Facilities
Laylin Park	NP	CQ	7.2	Two stocked fishing ponds w/fishing docks, catch/release, picnic shelter, restrooms, picnic tables, grills, playground equipment
Lee Austin Park	NP	N	0.9	Sycamore Creek/Hayhoe Riverwalk Trail, picnic tables, grill, workout equipment
Hayes Park	CP	VS	9.22	Lighted softball field, basketball court, two tennis courts, sledding hill, playground equipment, shelter, restrooms, picnic tables, grills
Bond Park	NP/SU	N	5.3	Lighted softball field, skateboard park, roller hockey rink, drinking fountain, restrooms, Rayner Creek
Griffin Park	NP	N	0.65	Historical markings, landscape plantings, picnic table, gazebo
Bicentennial Park	SU	VS	2.27	Pink school house, serves as one of Mason Historical Society museums
Maple Grove Park	NRA	CQ	5.2	Undeveloped property, Sycamore Creek, used for nature walking
Rayner Park	CP	EC	62	Playground, one large soccer playing field, one small soccer practice field, basketball court, one baseball field, picnic shelter, picnic tables, grills, nature area
Hayhoe Riverwalk Trail	PT	VS	2.5 miles	Nature walk/trail heads

*Park types: NP(Neighborhood Park), CP(Community Park), NRA(Natural Resource Area), SU(Special Land Use), PP(Private Park), PT (Park Trail)

**Service area: N(Neighborhood), CQ(City Quadrant), VS(Village/Surrounding Townships), EC(Entire County)

Proposed Project Year: 2017-18

Project Number: 2017-P1 Roof on Cemetery Pole Barn

Description: Replacement of roof on cemetery pole barn.

Justification: Shingles are pulling off and covered with moss. There are currently two layers on the roof. The City stores equipment in this facility that is at risk if it is not maintained. Even with the development of the DPW facility, burial items would remain at this facility.

Project Number: 2017-P2 Mausoleum and Stone Wall Repairs

Description: Mausoleum and Stone Wall Repairs

Justification: The mausoleum building and stone wall are deteriorating to a point that the repairs to them has become a priority. Water is leaking into the building and breaking down the concrete that is holding the stone work in place. The wall has the same problem as the building. As water gets into the foundations and in between the stones, the wall and building will break down to a point of not being able to fix them. The proposed repairs will repair the mortar in the joints of the wall and building. The roof will also be fixed in this budget to extend the life of this historical landmark for the City of Mason.

Project Number: 2017-P3 Usage Evaluation/ Parks Facility Design/ Incorporate into Rec Plan

Description: Usage Evaluation/ Parks Facility Design/ Incorporate into Rec Plan

Justification: These parks have been neglected without a long-term strategy for investment. Staff recommends a taskforce be created to develop priorities for the parks and determine the level of evaluation needed. It could be effective design of parks or a usage strategy. The end result will be used as a guide to plan for the future use and strategic assets to be managed in all the City parks. City staff want to have a plan in place to make the best decisions when planning for capital projects and planning for future growth in the City parks.

Project Number: 2017-P4 Bond Park Immediate Needs

Description: Replacement of drinking fountains

Justification: The drinking fountains are currently not working and we receive numerous complaints about the lack of water at this park.

Project Number: 2017-P5 Hayes Park Immediate Needs

Description: Roof on bathroom building and seal coat north and south parking lots.

Justification: The bathroom roof is not leaking currently, but is anticipated to start within the next year. This is also two of the last City owned parking lots that have not recently been sealed.

Project Number: 2017-P6 Rayner Park Immediate Needs

Description: Roof on storage –building at back of park, pave all parking spaces, parking blocks, walkway to stage, replace drinking fountains and water lines.

Justification: The roof on the storage building is in need of immediate attention and paving of existing parking areas has not been addressed, causing additional maintenance costs. The drinking fountains currently are not operational and need to be replaced along with the water lines supplying them. This is a common complaint by residents. There currently is no walk to the stage making access difficult

Project Number: 2017-P8 Laylin Park Improvements

Description: Two new bridges, new gazebo and park entrance off east entrance.

Justification: All the above listed projects and items are in clear need of repair and or replacement. While the bridges are an immediate need, it doesn't make sense to repair them and dredge at a later date, as that will impact their location. City staff is aware that a more detailed evaluation will likely show additional investment is needed to best utilize the space within this park.

Project Number: 2017-P9 Laylin Park Pond Dredging

Description: The ponds are the responsibility of the City and have needed to be dredged for years.

Justification: The ponds are a constant concern in the summer from residents surrounding the park and visitors to the park. The odor is the largest complaint and it is impacting our residents enjoying this resource.

Proposed Project Year: 2019-20

Project Number: 2017-P10 Bond Park Improvements

Description: Restroom enhancements (doors and dividers replaced), remove skating rink and replace with basketball/pickleball/pickle ball/tennis, pave from south side of parking lot to restrooms, new siding on two buildings/replace door on storage building/add outdoor lighting, new backstop for ball field.

Justification: All the above listed projects and items are in clear need of repair and or replacement. City staff is aware that a more detailed evaluation will likely show additional investment is needed to best utilize the space within this park.

Project Number: 2017-P11 Hayes Park Improvements

Description: Roof on bathroom/warming house, add restroom on south side of park, new backstop for ballfield, seal parking lots, replace picnic tables with more durable/low maintenance type, new basketball and tennis courts, new lighting for winter sledding on hill and within parking lot.

Justification: All the above listed projects and items are in clear need of repair and or replacement. City staff is aware that a more detailed evaluation will likely show additional investment is needed to best utilize the space within this park.

Proposed Project Year: 2020-21

Project Number: 2017-P12 Rayner Park Improvements

Description: New toilets/sinks or replace restroom for winter use 10-60K, aeration system for ponds, replace picnic tables with more durable/low maintenance type, paved back road and define parking that meets the Fairgrounds agreement, so the lawn is not damaged.

Justification: All the above listed projects and items are in clear need of repair and or replacement. City staff is aware that a more detailed evaluation will likely show additional investment is needed to best utilize the space within this park.

Project Number: 2017-P13 Rayner Park Pond Dredging

Description: The ponds in Rayner Park are controlled by the Ingham County Drain office and are in need of being dredged.

Justification: The drain office will have to be commissioned to have these ponds dredged out from the City of Mason. After being commissioned to clean out the ponds a study will have to be done to find out what can be done with the silt that comes out of the ponds and then a true cost can be planned for the future.

Proposed Project Year: 2021-22

Project Number: 2017-P14 Griffin Park Improvements

Description: Pave parking lot and parking lot lighting.

Justification: All the above listed projects and items are in clear need of repair and or replacement. City staff is aware that a more detailed evaluation will likely show additional investment is needed to best utilize the space within this park.



Building, Property and Equipment

OVERVIEW

Administrative Services and City Hall: The current City Hall was built in 2010 and houses the following Departments: Administration, Assessing, Finance, Police and Zoning and Development.

The Council Chambers and Community Room is located on the main floor of City Hall. This is a multi-purpose room that can be divided into two meeting rooms by tract walls, facilitating more than one event at a time. It is primarily used for City Council meetings, various other board and commission meetings, election precincts for all elections, as well as the Mason Area Seniors Club. This room is used by a variety of groups and residents for various functions.

Fire Services: The Mason Fire Department operates out of two stations. Station 1 (12,403 square feet) was built in 1998 and is located at 221 West Ash Street adjacent to City Hall. The building houses the administrative offices as well as most of the firefighting equipment. Station 2 is located at 615 Curtis Street and was built in 1976. The 1800 square foot building currently houses the Ingham County Hazardous Materials truck, trailer and equipment as well as other reserve firefighting equipment. The City plans to relocate the items in Station 2 to the new DPW facility and sell the property to reduce maintenance costs.

Department staffing consists of a full-time Chief, a paid on-call Assistant Chief, Captain, two Lieutenants and 34 Engineer, Firefighter and/or Trainees for a total of 39 members. The fire service area includes the City of Mason, Aurelius Township and Vevay Township, and a portion of Alaiedon Township for a total of 85 square miles serving a population of approximately 16,000 residents.

Police Services: The Mason Police Department, a full-time, full-service law enforcement agency, is conveniently located on the first floor of the new Mason City Hall at 201 West Ash Street. The Department staff is comprised of the Chief of Police, two patrol sergeants, one detective corporal, nine police patrol officers, one code enforcement officer, and three clerical support members responsible for all staff support services.

Library: The Mason Library at 145 West Ash is owned by the City of Mason and operated by the Capital Area District Library as part of its 13-branch library system serving 13 communities and 23 municipalities. The building was commissioned by Mr. Albert Hall and constructed in 1938 as a memorial to his wife, Ada. Through the years it has undergone two expansions/renovations bringing the total area used to 6,424 square feet on three floors. A major renovation of the Mason Library was completed in 2012, which included upgraded equipment, interior remodeling, updated furnishings, roof repairs, partial window replacement, storm sewer upgrade and landscaping.

Proposed Project Year: 2017-18

Project Number: 2017-B1 Library: Facility Evaluation

Description: Facilities and architectural evaluation to identify necessary improvements to bring the library facility up to present day demands and code compliant.

Justification: A facilities and architectural study was conducted in 2002 to identify the necessary improvements to bring the library up to present-day demands, including expanding the space available for a growing collection, a far larger more efficient and flexible children's area, technology, correction of code requirements, including barrier-free improvements. It is clear that today's demands are very different than those of years past. Although the space needs are not similar, the building functionality is still in great need of improvement, including code compliance issues, barrier free access, and building systems (plumbing, electrical, mechanical). Rather than addressing each one of these issues in a piecemeal approach over several years, it is desirable to study the entire functionality of the building in year one to determine an approach that optimizes both functionality and cost savings. The cost of the 2002 study was approximately \$14,500. The scope of the study was larger than what is needed today, therefore the anticipated cost would be less for a similar study with a reduced scope.

Project Number: 2017-B2 Election Equipment

Description: Four tabulators will be required for the City of Mason to accommodate each precinct and one absent voter counting board. The tabulators will have updated technology assuring accurate counting of votes by our citizens.

Justification: These tabulators and associated equipment are mandated equipment by the State of Michigan. This assures the equipment is consistent across jurisdictions. Each county will be required to be on the same system to assure jurisdictions are reporting using the same equipment for the overall results of the election.

Project Number: 2017-B3 In-Car Recording System/Portable Radios

Description: Replace four in-car digital recording systems. To support the in-car systems, current body cameras and interview/interrogation room cameras, the department will purchase a server from L3 to manage increased data storage and easier extrapolation. This includes four replacement backseat patrol cameras and collision sensors. Portable radio units: Five per year over three years.

Justification: Risk reduction, quality control and transparency are critical to 21st century policing, especially with the national fixation on vilifying police conduct in every phase of operations. The digital record of a police department is the best record of an officer's conduct, activities and is used for evidentiary purposes. It serves as an invaluable tool in risk management practices and assuring compliance with department standards.

The in-car digital recorders are outdated and no longer supported by the manufacturer. The current cameras were purchased second-hand from another agency who updated their technology two years ago. Thus, the upgraded server is needed to increase the data capacity and extrapolation from the in-car systems, the 11 body cameras assigned to individual personnel and three interview/interrogation recording systems inside the police facility.

The portable radio units are part of the aging Ingham County radio system which is currently expected to be replaced in about five years. The portable units are no longer manufactured and the shelf supply of replacement parts is limited resulting in other law enforcement agencies replacing the current 7000ip's with XG-25p's. These are the only portable radios available that are operationally compatible with the Ingham County network.

Proposed Project Year: 2019-20

Project Number: 2017-B4 City Hall: Outdoor Lighting Conversion to LED

Description: Convert 29 exterior light fixtures to LED, including exterior building sconces (12), canopy can lights (10), and parking pole lights (7).

Justification: LED fixtures require less staff time for bulb replacement and use a fraction of the energy. This will make staff more efficient and save on utility costs.

Project Number: 2017-B5 Library Improvements- Phase I

Description: Tuck pointing is needed in many areas of the building exterior, particularly the chimney, near doors and windows, and foundation. Replace 27 exterior windows. Relocate basement bathrooms to first floor garage to make them ADA compliant. Install hot water circulation pump to all facility sink faucets.

Justification: Exterior brickwork is preventive maintenance. There are 27 original exterior windows that remain in the building. These windows are single pane, steel frame and are rusting in many places and very energy inefficient. The current bathrooms are located in the basement and are inaccessible to persons with disabilities. Hot water supplied to bathrooms and sink faucets is supplied by a single hot water heater in the basement. Due to the age of the pipes, lack of insulation, and distance the water must travel, there is effectively no hot water at any sink in the building, including bathrooms, and is not sanitary.

Project Number: 2017-B6 Fire Engine 809

Description: Engine 809 is a 1990 Grumman built on an HME chassis. It currently responds as our first out pumper in the townships and for mutual aid and second out in the city. As it is a pre-1991 apparatus, NFPA recommends that it be put in reserve or replaced.

Justification: NFPA (National Fire Protection Association) 1911 Inspection, Maintenance, Testing, and Retirement of In-Service Automotive Fire Apparatus recommends that fire apparatus manufactured prior to 1991 but less than 25 years old be placed in reserve status and any pre-1991 apparatus replaced.

Proposed Project Year: 2019-20

Project Number: 2017-B8 City Hall: Parking Lot Repairs

Description: Parking lot additional curb, curb and asphalt repair

Justification: Over time parking lot surfaces and curb shrink and expand with changing weather systems. The parking lot asphalt surface at City Hall is showing signs of settling and cracking. Crack sealing has been performed for the past few years. However, there are a few areas that are beginning to crumble to the point where sealing will no longer provide the required fix. Also, there are several curbs with significant chunks broken out.

Project Number: 2017-B9 Library Improvements - Phase II

Description: Install new central air conditioning system and a fire alarm system. Install ADA automatic door and push button. Remove/replace ceiling tiles in magazine room and book rooms. Create hallway doorway pass-through from magazine room to front desk.

Justification: A new central air system has been requested by CADL to help preserve the collections in the building as well as to keep employees and patrons comfortable. The library facility currently does not have a fire alarm system. Fire alarm systems are a standard early warning system for institutional facilities. The library facility currently does not have an automatic ADA door anywhere in the facility. Library staff has reported that the facility is very difficult to access by persons with disabilities, particularly those in wheelchairs. An ideal location for an automatic door, with push button, is at the top of the ADA ramp. Adding this feature would greatly enhance the accessibility of the library facility. Much of the library facility has older fiberboard ceiling tiles that are sagging, stained or damaged. Replacing the material with drywall, new tile or other would greatly enhance the appearance of the facility. Currently patrons moving from the magazine room to the front desk must maneuver through the employee area behind the front desk. Library staff has requested that the City explore the possibility of extending the magazine room hallway through the wall to circumvent the employee area.

Project Number: 2017-B10 Fire Station 1- Furnace/AC, Office Area and Training Room

Description: Replacement of furnaces and air conditioners. Fire Station 1 has two furnaces and air conditioners - one for the basement training room and the other for the office areas.

Justification: The furnaces are original to the station in 1998 and will likely need replacing in the near future.

Project Number: 2017-B11 Fire Station 1- Commercial Washing Machine

Description: Replacement of Heavy Duty Commercial Washing Machine located within Fire Station 1

Justification: NFPA 1851: Standard on Selection, Care, and Maintenance of Structural Firefighting Protective Ensembles requires the regular cleaning and advanced cleaning of all turnout gear every six months or sooner depending on use to help prevent exposures to toxins and carcinogens. Our commercial washer was purchased in 1994 and should be considered for replacement.

Project Number: 2017-B12 IT- New Servers (windows and mail exchange)

Description: New Windows and Exchange Servers

Justification: The servers need to be upgraded on a five-year rotation to keep up with the technology changes and meet the needs of both the staff and citizens. Microsoft begins limiting updates to older servers as new versions are released

Proposed Project Year: 2020-21

Project Number: 2017-B13 IT- AV Room Technology Replacement

Description: Replace of failing AV and camera equipment by which meetings of City Council, boards, and commissions may be recorded, televised and streamed.

Justification: Staff continues to have challenges with the existing equipment due to the programs no longer being supported. We will need to upgrade the equipment in the near future to assure we continue to provide public viewing of our meetings through the website and the cable access channel.

Proposed Project Year: 2021-22

Project Number: 2017-B15 Rescue Boat and Motor

Description: Rescue Boat and Motor

Justification: The boat is used for ice and water rescues in lakes, ponds, or streams by the Fire Department. This equipment was initially purchased in reaction to a double drowning in Columbia Lakes that the Fire Department did not have the equipment to respond to. This was originally purchased by the Fire Association, but will need to be replaced in the near future.

Project Number: 2017-B16 Portable Radios

Description: Portable (26)/ Truck (10) Radios

Justification: The current radio system used by Ingham County is not going to be supported by the manufacturer after 2021. The 911 Advisory Committee is in the process of deciding on the replacement of the radios and system. Depending on the outcome of those discussions, we may have to either share in the purchase of updating our existing Fire and Police radios or purchase them all ourselves.

Proposed Project Year: 2022-23

Project Number: 2017-B17 Self-Contained Breathing Apparatus (SCBA) units

Description: Air Packs-SCBA 24 units are utilized by our Fire Department and are not dependent on a remote supply of air. When these are replaced the confined entry cart must also be compatible.

Justification: The Self Contained Breathing Apparatuses (SCBA) breathing set is not dependent on a remote supply and confined entry cart is currently in good working order sufficient at this time. SCBA packs are flow tested annually and repaired as necessary. The packs are seven years old and the cylinders have service life of 15 years from the manufacture date.

CAPITAL IMPROVEMENT PROGRAM SUMMARY

STREETS / SIDEWALKS / BRIDGES (S)

Project Number	Category	Project Name/Description	Funding Source	BUDGET	FORECAST		PROJECTIONS			Total Project Cost
				2017-18	2018-19	2019-20	2020-2021	2021-2022	2022-2023	
2017-S1	Streets/ Sidewalks	N. Jefferson- Howell to Royce	Major	\$ 296,131						\$ 296,131
2017-S2	Streets/ Sidewalks	N. Jefferson- Columbia to Royce	Major	\$ 251,761						\$ 251,761
2017-S3	Streets/ Sidewalks	E. Elm- Jefferson to Steele	Local	\$ 233,230						\$ 233,230
2017-S4	Sidewalks	Columbia Sidewalks (Doesn't count toward 4 mil)	General Fund	\$ 59,875						\$ 59,875
2017-S5	Streets/ Sidewalks	Walnut- Columbia to North End	Local		\$ 71,955					\$ 71,955
2017-S6	Streets/ Sidewalks	South- Northbrook to West City Limits	Local		\$ 73,573					\$ 73,573
2017-S7	Streets/ Sidewalks	Avon- All	Major		\$ 35,896					\$ 35,896
2017-S8	Streets/ Sidewalks	Northbrook- South to End	Local		\$ 291,206					\$ 291,206
2017-S9	Streets/ Sidewalks	S. Jefferson- Oak to Kipp	Local		\$ 376,333					\$ 376,333
2017-S10	Sidewalks	Sidewalk Program - 1/6th of City (Doesn't count toward 4 mil)	General Fund		\$ 20,000	\$ 20,000	\$ 20,000	\$ 20,000	\$ 20,000	\$ 100,000
2017-S11	Streets/ Sidewalks	Kerns- Cedar to Howell	Major			\$ 709,217				\$ 709,217
2017-S12	Streets/ Sidewalks	W. Elm- Henderson to Jefferson (Sewer/Water improvements)	Local			\$ 95,589				\$ 95,589
2017-S13	Streets/ Sidewalks	Park- Elm to Oak	Local			\$ 42,317				\$ 42,317
2017-S14	Streets/ Sidewalks	Cherry- Rogers to end	Local				\$ 90,874			\$ 90,874
2017-S15	Streets/ Sidewalks	Barnes- Ash to Kipp	Major				\$ 755,160			\$ 755,160
2017-S16	Bridge	Maple Street Bridge Repair	Local				\$ 20,000			\$ 20,000
2017-S17	Streets/ Sidewalks	Center- Walnut to Bush	Local					\$ 100,920		\$ 100,920
2017-S18	Streets/ Sidewalks	Brookdale- Judy to Willow	Local					\$ 84,100		\$ 84,100
2017-S19	Streets/ Sidewalks	Cherry- McRoberts to Henderson	Local					\$ 218,660		\$ 218,660
2017-S20	Streets/ Sidewalks	Columbia- Orchard to Walnut	Major					\$ 58,870		\$ 58,870
2017-S21	Streets/ Sidewalks	Eaton- All	Local					\$ 168,200		\$ 168,200
2017-S22	Streets/ Sidewalks	W Elm- McRoberts to Henderson	Local					\$ 210,250		\$ 210,250
2017-S23	Streets/ Sidewalks	Rayner- Randolph to Columbia	Local						\$ 53,430	\$ 53,430
2017-S24	Streets/ Sidewalks	Eugenia- Northbrook to South	Local						\$ 316,680	\$ 316,680
2017-S25	Streets/ Sidewalks	Hall Blvd- Ash to South	Local						\$ 422,240	\$ 422,240
2017-S26	Streets/ Sidewalks	Columbia- Park to Jefferson	Major						\$ 75,690	\$ 75,690
Roads Total				\$ 840,996	\$ 868,963	\$ 867,122	\$ 886,034	\$ 861,000	\$ 888,040	\$ 5,212,155

UTILITIES- SANITARY SEWER AND WATER DISTRIBUTION (U)

Project Number	Category	Project Name/Description	Funding Source	BUDGET	FORECAST		PROJECTIONS			Total Project Cost
				2017-18	2018-19	2019-20	2020-2021	2021-2022	2022-2023	
2017-U1	Streets/Sidewalks	E. Elm- Jefferson to Steel (Sewer/Water improvements)	Water/Sewer	\$ 321,308						\$ 321,308
2017-U2	POTW	Boiler/ Heat Exchange at POTW	Water/Sewer	\$ 350,000						\$ 350,000
2017-U3	POTW	Planning/Design WWTP (35,000) and DPW (40,000)	Water/Sewer/LDFA	\$ 75,000						\$ 75,000
2017-U4	POTW	Main Building Roof Replacement POTW	Water/Sewer	\$ 65,000						\$ 65,000
2017-U5	DPW	Well 8 Rebuild	Water/Sewer	\$ 40,000						\$ 40,000
2017-U6	DPW	Abandon 2 Monitoring Wells by Airport	Water/Sewer	\$ 30,000						\$ 30,000
2017-U7	DPW	Replace Fire Hydrant by McDonalds	Water/Sewer	\$ 13,000						\$ 13,000
2017-U8	DPW	Replace Controllers (3 wells over 3 years)	water/sewer	\$ 8,000	\$ 8,000	\$ 8,000				\$ 24,000
2017-U9	Streets/ Sidewalks	Northbrook- South Street to End (Sewer/Water improvements)	Water/Sewer		\$ 5,568					\$ 5,568
2017-U10	Streets/ Sidewalks	S. Jefferson- Oak to Kipp	Local		\$ 239,540					\$ 239,540
2017-U11	POTW	Turbine Aeration Blower at POTW	Water/Sewer		\$ 260,000					\$ 260,000
2017-U12	POTW	300,000 Gallon Storage Tank Top Sealing	Water/Sewer		\$ 12,000					\$ 12,000
2017-U13	DPW	Well 7 Rebuild	Water/Sewer		\$ 40,000					\$ 40,000
2017-U14	DPW	New DPW Facility	Water/Sewer		\$ 4,000,000					\$ 4,000,000
2017-U15	DPW	Replace 2 Fire Hydrants behind Family Farm and Home	Water/Sewer		\$ 25,000					\$ 25,000
2017-U16	DPW	Cathodic protection for ground storage tank	Water/Sewer		\$ 22,000					\$ 22,000
2017-U17	DPW	High Service Pump 1 Rebuild	Water/Sewer		\$ 14,000					\$ 14,000
2017-U18	DPW	Replace Chlorine Analyzer for HS Pump Room	Water/Sewer		\$ 10,000					\$ 10,000
2017-U19	Streets/ Sidewalks	Kerns- Cedar to Howell	Major			\$ 96,461				\$ 96,461
2017-U20	Streets/ Sidewalks	W. Elm- Henderson to Jefferson (Sewer/Water improvements)	Local			\$ 170,520				\$ 170,520
2017-U21	Streets/ Sidewalks	Park- Elm to Oak	Local			\$ 33,802				\$ 33,802
2017-U22	POTW	Stop Gates for Aeration Discharge Piping	Water/Sewer			\$ 10,000				\$ 10,000
2017-U23	DPW	Well 6 Rebuild	Water/Sewer			\$ 40,000				\$ 40,000
2017-U24	DPW	Study of Sewer Flow on Mason Street	Water/Sewer			\$ 12,000				\$ 12,000
2017-U25	DPW	Gutters for Water Plant	Water/Sewer			\$ 5,000				\$ 5,000
2017-U26	DPW	New Well Franklin Farms	Water/Sewer			\$ 400,000				\$ 400,000
2017-U27	Streets/ Sidewalks	Cherry- Rogers to end (Sewer/Water improvements)	Water/Sewer				\$ 165,022			\$ 165,022
2017-U28	Streets/ Sidewalks	Barnes- Ash to Kipp (Sewer/Water improvements)	Water/Sewer				\$ 546,360			\$ 546,360
2017-U29	DPW	Generators for ISD and Curtis Street lift stations	Water/Sewer				\$ 30,000			\$ 30,000
2017-U30	POTW	Second Phase WWTP Upgrades	Water/Sewer/LDFA					\$ 3,000,000		\$ 3,000,000
2017-U31	POTW	Third and Final Phases WWTP Upgrades	Water/Sewer						\$ 8,000,000	\$ 8,000,000
Water/Sewer Total				\$ 902,308	\$ 4,636,108	\$ 775,783	\$ 741,382	\$ 3,000,000	\$ 8,000,000	\$ 18,055,581

MOTOR VEHICLE POOL (MVP)

Project Number	Category	Project Name/Description	Funding Source	BUDGET	FORECAST		PROJECTIONS			Total Project Cost
				2017-18	2018-19	2019-20	2020-2021	2021-2022	2022-2023	
2017-MVP1	Equipment- DPW	1/2 Ton Truck(40)	General Fund	\$ 24,000						\$ 24,000
2017-MVP2	Equipment- DPW	Mowers (69)	General Fund	\$ 11,000						\$ 11,000
2017-MVP3	Equipment- DPW	Police Cars (5 & 83)	General Fund	\$ 68,000						\$ 68,000
2017-MVP4	Equipment- DPW	3/4 Ton Pick ups (11)	General Fund	\$ 35,000						\$ 35,000
2017-MVP5	Equipment- DPW	Large Items (39)	General Fund	\$ 60,000						\$ 60,000
2017-MVP1	Equipment- DPW	1/2 Ton Truck (17)	General Fund		\$ 24,000					\$ 24,000
2017-MVP2	Equipment- DPW	Mowers (78)	General Fund		\$ 11,000					\$ 11,000
2017-MVP3	Equipment- DPW	Police Cars (84)	General Fund		\$ 34,000					\$ 34,000
2017-MVP5	Equipment- DPW	Large Items (810)	General Fund		\$ 75,000					\$ 75,000
2017-MVP6	Equipment- DPW	Dump/Plow Trucks (24)	General Fund		\$ 150,000					\$ 150,000
2017-MVP1	Equipment- DPW	1/2 Ton Truck (13)	General Fund			\$ 24,000				\$ 24,000
2017-MVP2	Equipment- DPW	Mowers (74)	General Fund			\$ 11,000				\$ 11,000
2017-MVP3	Equipment- DPW	Police Cars (85)	General Fund			\$ 34,000				\$ 34,000
2017-MVP5	Equipment- DPW	Large Items (802)	General Fund			\$ 60,000				\$ 60,000
2017-MVP1	Equipment- DPW	1/2 Ton Truck (16)	General Fund				\$ 24,000			\$ 24,000
2017-MVP2	Equipment- DPW	Mowers (77)	General Fund				\$ 11,000			\$ 11,000
2017-MVP3	Equipment- DPW	Police Cars (85)	General Fund				\$ 34,000			\$ 34,000
2017-MVP5	Equipment- DPW	Large Items (90)	General Fund				\$ 40,000			\$ 40,000
2017-MVP6	Equipment- DPW	Dump/Plow Trucks (25)	General Fund				\$ 150,000			\$ 150,000
2017-MVP1	Equipment- DPW	1/2 Ton Truck (18)	General Fund					\$ 24,000		\$ 24,000
2017-MVP2	Equipment- DPW	Mowers (66)	General Fund					\$ 11,000		\$ 11,000
2017-MVP3	Equipment- DPW	Police Cars (86)	General Fund					\$ 34,000		\$ 34,000
2017-MVP4	Equipment- DPW	3/4 Ton Pick ups (21)	General Fund					\$ 35,000		\$ 35,000
2017-MVP5	Equipment- DPW	Large Items (59)	General Fund					\$ 12,000		\$ 12,000
2017-MVP1	Equipment- DPW	1/2 Ton Truck (6)	General Fund						\$ 24,000	\$ 24,000
2017-MVP2	Equipment- DPW	Mowers (69)	General Fund						\$ 11,000	\$ 11,000
2017-MVP3	Equipment- DPW	Police Cars (83)	General Fund						\$ 34,000	\$ 34,000
2017-MVP4	Equipment- DPW	3/4 Ton Pick ups (19)	General Fund						\$ 35,000	\$ 35,000
2017-MVP5	Equipment- DPW	Large Items (37)	General Fund						\$ 10,000	\$ 10,000
Motor Vehicle Pool				\$ 198,000	\$ 294,000	\$ 129,000	\$ 259,000	\$ 116,000	\$ 114,000	\$ 198,000

PARKS/ CEMETERY/ FORESTRY (P)

Project Number	Category	Project Name/Description	Funding Source	BUDGET	FORECAST		PROJECTIONS			Total Project Cost
				2017-18	2018-19	2019-20	2020-2021	2021-2022	2022-2023	
2017-P1	Cemetery	Roof on Cemetery Pole Barn	General Fund	\$ 5,000						\$ 5,000
2017-P2	Cemetery	Mausoleum and Stone Wall Repairs	General Fund	\$ 70,000						\$ 70,000
2017-P3	All	Usage Evaluation/ Parks Facility Design/ Incorporate into Rec Plan	General Fund	\$ 15,000						\$ 15,000
2017-P4	Bond	Bond Park Immediate Needs	Rayner Bond	\$ 4,000						\$ 4,000
2017-P5	Hayes	Hayes Park Immediate Needs	Rayner Bond	\$ 9,500						\$ 9,500
2017-P7	Rayner	Rayner Immediate Needs	Rayner Bond	\$ 19,000						\$ 19,000
2017-P8	Laylin	Laylin Park Improvements	Rayner Bond	\$ 86,000						\$ 86,000
2017-P9	Laylin	Laylin Park Dredging Ponds	Rayner Bond	\$ 120,000						\$ 120,000
2017-P10	Bond	Bond Park Improvements	Rayner Bond			\$ 30,000				\$ 30,000
2017-P11	Hayes	Hayes Park Improvements	Rayner Bond			\$ 75,000				\$ 75,000
2017-P12	Rayner	Rayner Park Improvements	General Fund				\$ 30,000			\$ 30,000
2017-P13	Rayner	Rayner Park Dredging Ponds (1 each year)	General Fund				\$ 80,000	\$ 80,000		\$ 160,000
2017-P14	Griffin	Griffin Park Improvements	General Fund					\$ 5,000		\$ 5,000
Equipment Total				\$ 328,500	\$ -	\$ 105,000	\$ 110,000	\$ 85,000	\$ -	\$ 628,500

BUILDING, PROPERTY, EQUIPMENT (B)

Project Number	Category	Project Name/Description	Funding Source	BUDGET	FORECAST		PROJECTIONS			Total Project Cost
				2017-18	2018-19	2019-20	2020-2021	2021-2022	2022-2023	
2017-B1	Building- Library	Library- Facility Evaluation	General Fund	\$ 15,000						\$ 15,000
2017-B2	Equipment- Clerk	Election Equipment	General Fund	\$ 10,000						\$ 10,000
2017-B3	Equipment- Fire/Police	In-Car Recording System/Portable Radios	General Fund	\$ 42,021	\$ 7,500	\$ 7,500				\$ 57,021
2017-B4	Building- City Hall	City Hall- Outdoor Lighting Conversion to LED	General Fund		\$ 8,500				A	\$ 8,500
2017-B5	Building- Library	Library Improvements- Phase I	General Fund		\$ 107,000					\$ 107,000
2017-B6	Equipment- Fire	Fire Engine 809	General Fund		\$ 500,000					\$ 500,000
2017-B7	Building- City Hall	City Hall- Parking Lot Repairs	General Fund			\$ 15,000				\$ 15,000
2017-B9	Building- Library	Library Improvements- Phase II	General Fund			\$ 67,000				\$ 67,000
2017-B10	Building- Fire	Fire Station 1- Furnace/AC, Office Area and Training Room	General Fund			\$ 20,000				\$ 20,000
2017-B11	Equipment- Fire	Fire Station 1- Commercial Washing Machine	General Fund			\$ 5,000				\$ 5,000
2017-B12	Equipment- IT	IT- New Servers (windows and mail exchange)	General Fund			\$ 20,000				\$ 20,000
2017-B13	Equipment- IT	IT- AV Room Technology Replacement	General Fund			\$ 50,000				\$ 50,000
2017-B15	Equipment- Fire	Rescue Boat and Motor	General Fund					\$ 10,000		\$ 10,000
2017-B16	Equipment- Fire	Portable Radios	General Fund					\$ 108,000		\$ 108,000
2017-B18	Equipment- Fire	Self-Contained Breathing Apparatus (SCBA) units	General Fund						\$ 192,000	\$ 192,000
Build/Prop/Equip Total				\$ 67,021	\$ 623,000	\$ 184,500	\$ -	\$ 118,000	\$ 192,000	\$ 1,184,521

Introduced: Waxman
Seconded: Sabbadin

**CITY OF MASON
PLANNING COMMISSION RESOLUTION NO. 2017-01**

**A RESOLUTION APPROVING THE CAPITAL IMPROVEMENTS PLAN FOR THE
FISCAL YEARS 2017-2023**

April 11, 2017

WHEREAS, the Capital Improvements Plan is a result of significant review and consideration by the City of Mason administrative staff, Planning Commission and City Council of the numerous capital project requests from City department heads for the next six fiscal-year periods; and,

WHEREAS, prioritization of projects listed in the plan is based on the overall benefit to the community, especially when improving public health, safety and welfare, and so that the most-needed projects will be accomplished first and scarce financial resources are allocated appropriately; and,

WHEREAS, the Capital Improvements Plan is consistent with the Capital Improvements Programming component of the Master Plan; and,

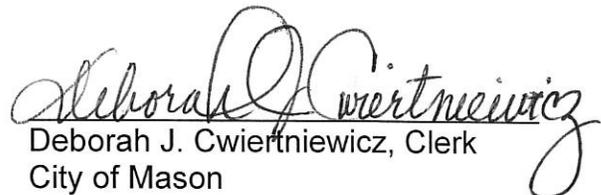
NOW THEREFORE BE IT RESOLVED, that the City of Mason Planning Commission does hereby approve the Capital Improvements Plan for fiscal years 2017 – 2023.

Yes (8) Barna, Droscha, Feintuch, Hagle, Hude, Reeser, Sabbadin, Waxman

No (0)

Absent (1) Howe

CLERK'S CERTIFICATION: I hereby certify that the foregoing is a true and accurate copy of a resolution adopted by the Planning Commission at its regular meeting held Tuesday, April 11, 2017, the original of which is part of the Planning Commission minutes.


Deborah J. Cwierniewicz, Clerk
City of Mason
Ingham County, Michigan