FY 2019-2024 Capital Improvement Plan
## Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overview</td>
<td>4</td>
</tr>
<tr>
<td>Capital Improvement Plan Introduction</td>
<td>4</td>
</tr>
<tr>
<td>Capital Projects Summary</td>
<td>5</td>
</tr>
<tr>
<td>General Government Capital Projects Summary</td>
<td>6</td>
</tr>
<tr>
<td>Water &amp; Sewer Capital Projects Summary</td>
<td>32</td>
</tr>
<tr>
<td>Streets Capital Projects Summary</td>
<td>18</td>
</tr>
<tr>
<td>Municipal Buildings Capital Projects Summary</td>
<td>23</td>
</tr>
<tr>
<td>Water &amp; Sewer Capital Projects Summary</td>
<td>32</td>
</tr>
<tr>
<td>Municipal Marina Capital Projects Summary</td>
<td>44</td>
</tr>
<tr>
<td>Marina Capital Projects</td>
<td>45</td>
</tr>
</tbody>
</table>

### General Government Capital Projects Summary

- **Project Title:** Accounting Software
  - Page: 7

- **Project Title:** Police Department Handguns
  - Page: 8

- **Project Title:** File Server & Software
  - Page: 9

- **Project Title:** Ladder 651 Replacement
  - Page: 10

### Parks Capital Projects Summary

- **Project Title:** Morton Park Improvements
  - Page: 12

- **Project Title:** Park Amenities
  - Page: 13

- **Project Title:** First Street Beach Picnic Shelter Area Improvements
  - Page: 14

- **Project Title:** Fifth Avenue Beach Parking Improvements
  - Page: 15

- **Project Title:** Playground Equipment
  - Page: 16

- **Project Title:** First Street Beach Outdoor Stage
  - Page: 17

### Streets Capital Projects Summary

- **Project Title:** Streets Crack Sealing
  - Page: 19

- **Project Title:** FY 2019 Transportation Improvement Plan
  - Page: 20

- **Project Title:** FY 2020 Transportation Improvement Plan
  - Page: 21

- **Project Title:** FY 2021 Transportation Improvement Plan
  - Page: 22

### Municipal Buildings Capital Projects Summary

- **Project Title:** Energy Efficiency Improvements
  - Page: 24

- **Project Title:** Fire Station Floors
  - Page: 25

- **Project Title:** Police Department Squad Room Floor
  - Page: 26

- **Project Title:** City Garage Electrical Service
  - Page: 27

- **Project Title:** Fire Station Tuckpointing and Restoration
  - Page: 28

- **Project Title:** Fire Station Doors and Windows
  - Page: 29

- **Project Title:** Fire Station Structural Repairs
  - Page: 30

- **Project Title:** Ramsdell Theatre Chimney Preservation
  - Page: 31

### Water & Sewer Capital Projects Summary

- **Project Title:** Sewer Infiltration & Inflow Suppression
  - Page: 33

- **Project Title:** Arthur Street Pump Station Upgrades
  - Page: 34

- **Project Title:** Water Well #10 Generator
  - Page: 35

- **Project Title:** Well #9 Chemical Feed Addition
  - Page: 36

- **Project Title:** Equalization Basin and Closure of CSO #18
  - Page: 37

- **Project Title:** FY 2020 Utility Portion of Streets - Jackson VanBuren Watermain Loop
  - Page: 38

- **Project Title:** Well #10 Chemical Feed Building
  - Page: 39

- **Project Title:** Industrial Water Tank Recoating
  - Page: 40

- **Project Title:** M-55 Bridge Utility Replacement
  - Page: 41

- **Project Title:** FY 2022 Utility Portion of Streets – Quincy & Cleveland
  - Page: 42

- **Project Title:** Water Wellfield Replacement
  - Page: 43

### Municipal Marina Capital Projects Summary

- **Project Title:** Water Wellfield Replacement
  - Page: 44

- **Project Title:** Marina Capital Projects
  - Page: 45
Project Title: Dock Upgrades & Replacement ................................................................. 45
Boat Launch Capital Projects Summary ........................................................................ 46
  Boat Ramps Capital Projects ....................................................................................... 47
    Project Title: First Street Boat Launch Auto Attendant Replacement ....................... 47
    Project Title: Ninth Street Boat Launch Renovations ............................................... 48
    Project Title: Accessibility for Paddlers ..................................................................... 49
Motor Pool Capital Projects Summary ........................................................................... 50
  Motor Pool Projects .................................................................................................... 51
    Project Title: FY 2019 Motor Pool Purchases ......................................................... 51
Overview

Capital Improvement Plan Introduction

The City of Manistee FY 2019-2024 Capital Improvement Plan (CIP) is presented on the following pages. The CIP is a rolling six-year plan for capital improvements throughout the City. The plan presents capital needs of the City and is in alignment with the goals and priorities set forth in the Strategic Plan. The CIP ensures that the City is forward-looking and proactive in identifying areas of needed capital investment.

Current year items identified in the CIP are incorporated in the proposed budget. The outlying years serve as an important planning tool, identifying areas that will need resources in the future. Since the plan is forward-looking, it is subject to available funding, changing priorities and unanticipated events. Since years 2-6 are a planning tool only, Council approval of this plan does not have the effect of appropriating money for these projects; nor does it imply funding will be available.

For the purpose of this plan, a capital expenditure is any project that costs in excess of $5,000, has an estimated useful life greater than one year and is either new, an addition, a replacement or significant improvement (as opposed to a repair). This includes a wide array of items, ranging from vehicles to equipment to infrastructure items to physical structures. Street resurfacing projects would typically not be capitalized, but are listed here for transparency. Each project identified has a project justification statement. This project statement consists of the following parts:

Project Title: This indicates the name of the project.

Department: Which department or operating area is the capital improvement related to.

Year: Which fiscal year is the project expected to be started. When a project spans multiple years, this will be indicated in the text of the statement.

Estimated Project Cost: Total estimated project cost, even if it will be financed over time.

Project Description: A brief description of what the project or expenditure is.

Project Justification\Case Statement: An explanation of why the project or expenditure is important and why it should be funded.

Impact on Operating Expenses: An estimate of how this project or expenditure impacts City operating expenses.

Funding Source & Financing Method: An indication where funds will come from to pay for the project or expenditure and how it may be financed.

Funding Notes: This is an elaboration on the funding source or financing method.
Overview

Capital Projects Summary

The total estimated cost of all capital projects in the six-year plan is $29,363,200 and is summarized in the following figures.

**Capital Projects by Type**

<table>
<thead>
<tr>
<th>Project Type</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water &amp; Sewer</td>
<td>$21,060,000</td>
</tr>
<tr>
<td>Streets</td>
<td>$4,632,700</td>
</tr>
<tr>
<td>Motor Pool</td>
<td>$1,540,000</td>
</tr>
<tr>
<td>General Government</td>
<td>$963,000</td>
</tr>
<tr>
<td>Buildings</td>
<td>$465,000</td>
</tr>
<tr>
<td>Boat Launch</td>
<td>$340,000</td>
</tr>
<tr>
<td>Parks</td>
<td>$262,500</td>
</tr>
<tr>
<td>Marina</td>
<td>$100,000</td>
</tr>
</tbody>
</table>

**Total** $29,363,200

**Capital Projects by Year**

<table>
<thead>
<tr>
<th>Year</th>
<th>Capital Projects</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY 2019</td>
<td>$4,554,700</td>
</tr>
<tr>
<td>FY 2020</td>
<td>$13,660,500</td>
</tr>
<tr>
<td>FY 2021</td>
<td>$7,399,500</td>
</tr>
<tr>
<td>FY 2022</td>
<td>$1,827,000</td>
</tr>
<tr>
<td>FY 2023</td>
<td>$599,500</td>
</tr>
<tr>
<td>FY 2024</td>
<td>$1,322,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>$29,363,200</td>
</tr>
</tbody>
</table>
General government capital projects are those that are general in nature and impact the whole City operations, or those that relate to General Fund activities. The total estimated cost of all general government capital projects in the six-year plan is summarized below.

<table>
<thead>
<tr>
<th>General Government</th>
<th>Year 1 FY 2019</th>
<th>Year 2 FY 2020</th>
<th>Year 3 FY 2021</th>
<th>Year 4 FY 2022</th>
<th>Year 5 FY 2023</th>
<th>Year 6 FY 2024</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Finance/Accounting Software</td>
<td>$31,500</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$31,500</td>
</tr>
<tr>
<td>Police Department Handguns</td>
<td>$8,500</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$8,500</td>
</tr>
<tr>
<td>File Server &amp; Software</td>
<td>$11,000</td>
<td>$11,000</td>
<td>$12,000</td>
<td></td>
<td></td>
<td></td>
<td>$23,000</td>
</tr>
<tr>
<td>Replace Fire Ladder Truck</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$900,000</td>
</tr>
<tr>
<td>Total</td>
<td>$40,000</td>
<td>$11,000</td>
<td>$12,000</td>
<td></td>
<td></td>
<td></td>
<td>$963,000</td>
</tr>
</tbody>
</table>
General Government Capital Projects

**Project Title:** Accounting Software

**Department:** Finance

**Year:** FY 2017 2018 2019

**Estimated Project Cost:** $93,500, FY 2019: $31,500

**Project Description:** Replacement of current financial management/accounting software with the BS&A financial management suite. Software has been procured and is operational. The last payment is scheduled this year.

**Project Justification/Case Statement:** The City previously used Tyler Technology fund balance accounting software. The software was functional but not up to current performance standards. Over the past several years, the company had been less active in keeping their product current and updating their software with new features and functionality. Support was spotty. It is time to replace the product with something that is more robust and offers greater features both internally and externally. The City already owns BS&A software for tax, assessing and permits and it integrates seamlessly with their financial management software.

**Impact on Operating Expenses:** The annual software maintenance costs are similar to the current system. There will be huge productivity gains by moving to a more flexible platform.

**Funding Source:**

- Capital Improvement
- General
- Water & Sewer Utility
- Major/Local Street Fund
- Marina
- Boat Ramp
- Grant

**Funding Notes:** The City has received a quote which will allow it to be paid for over three fiscal years. The software will be paid for as follows:

<table>
<thead>
<tr>
<th></th>
<th>FY 2017</th>
<th>FY 2018</th>
<th>FY 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>General</td>
<td>$10,000</td>
<td>$10,000</td>
<td>$10,000</td>
</tr>
<tr>
<td>Cap Imp</td>
<td>$5,000</td>
<td>$25,000</td>
<td>$15,500</td>
</tr>
<tr>
<td>Water &amp; Sewer</td>
<td>$6,000</td>
<td>$6,000</td>
<td>$6,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$21,000</strong></td>
<td><strong>$41,000</strong></td>
<td><strong>$31,500</strong></td>
</tr>
</tbody>
</table>
Project Title: Police Department Handguns

Department: Police

Year: FY 2019

Estimated Project Cost: $8,500

Project Description: For 20 years (since 1998) the Manistee City Police has been using the same 1st generation Sig Sauer P229 .40 caliber pistols. Currently, they have been rebuilt three times. This proposal is to replace the current duty pistols to the modern 4th generation Glock 19 9mm pistols as the duty standard. These new standard pistol models have the Glock Night Sights, 5lbs trigger, three magazines, & Streamlight TLR-1 light. Also included in this project is the cost of replacement magazine holders, duty holsters, and training/duty ammunition (6,000 rds. and 1,000 rds.).

Project Justification\Case Statement: The current worn duty handguns are in need of replacement.

Impact on Operating Expenses: Officers will have to be trained and transition to new firearms. Should be easily completed during familiarization training.

Funding Source:  
- Capital Improvement
- General
- Water & Sewer Utility
- Major\Local Street Fund
- Marina
- Boat Ramp
- Grant

Financing Method:  
- Cash
- Cash Installment
- Bank Installment Purchase
- Bond Issue
- Internal Loan

Funding Notes: The department will work with competitive vendors for the best pricing.
General Government Capital Projects

Project Title: File Server & Software

**Department:** Finance

**Year:** FY 2020 & 2022 (replace second server)

**Estimated Project Cost:** $11,000 & $12,000

**Project Description:** The City intends to replace its servers as they reach the end of their useful lives. Servers need to be replaced about every 5 years. The new server will be more powerful and have the latest software and technology.

**Project Justification/Case Statement:** It is a best practice to keep our file servers current with technology to enhance efficiency and productivity. These file servers are critical to City operations, and if it were to fail, would effectively shut down City Hall and other City operations.

**Impact on Operating Expenses:** The new servers should reduce the amount of time spent maintaining the server.

**Funding Source:**
- [x] Capital Improvement Fund
- [] Water & Sewer Utility
- [] Marina
- [] Boat Ramp
- [] Grant
- [x] General Fund

**Financing Method:**
- [x] Cash
- [] Cash Installment
- [] Bank Installment Purchase
- [] Bond Issue
- [] Internal Loan

**Funding Notes:** This item will be procured thru our vendor of record.
Project Title: Ladder 651 Replacement

Department: Fire\EMS

Year: FY 2024

Estimated Project Cost: $900,000

Project Description: Replace aging ladder truck

Project Justification\Case Statement: The existing ladder truck, purchased in 1997, is starting to show its age. Over the past few years, problems with the hydraulic system have caused the truck to be out of service for periods of time. Recently, the truck was sent back to the vendor, and they believe that they have finally solved this problem. If it is fixed properly, that should delay the need for replacement for a few years. As the truck ages, the cost of repairs is increasing. Prior to making a replacement decision, the City should look for collaborative opportunities.

Impact on Operating Expenses: A new truck would likely decrease maintenance expenses and should otherwise have minimal impact on operating expenses.

Funding Source:

- Capital Improvement
- General
- Water & Sewer Utility
- Major\Local Street Fund
- Marina
- Boat Ramp
- Grant

Financing Method:

- Cash
- Cash Installment
- Bank Installment Purchase
- Bond Issue
- Internal Loan

Funding Notes: The last purchase was made thru issuing an unlimited tax general obligation bond. The bond was paid for by an increased millage, approved by the voters, over 10 years. A replacement truck would have to be paid for in a similar manner. Without new revenues, it is not feasible to replace the truck.
Parks Capital Projects Summary

Parks capital projects are those that are directly related to improvements in the City’s extensive park system. The total estimated cost of all general government capital projects in the six year plan is summarized below.

<table>
<thead>
<tr>
<th>Parks</th>
<th>FY 2019</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Year 4</th>
<th>Year 5</th>
<th>Year 6</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Morton Park Improvements</td>
<td>$24,000</td>
<td>$16,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$40,000</td>
</tr>
<tr>
<td>Park Amenities</td>
<td>$7,500</td>
<td>$7,500</td>
<td>$7,500</td>
<td>$7,500</td>
<td>$7,500</td>
<td>$7,500</td>
<td>$37,500</td>
</tr>
<tr>
<td>First Street Beach Improvements</td>
<td>$25,000</td>
<td>$25,000</td>
<td>$25,000</td>
<td>$25,000</td>
<td></td>
<td></td>
<td>$75,000</td>
</tr>
<tr>
<td>Fifth Avenue Beach Improvements</td>
<td>$25,000</td>
<td>$25,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$75,000</td>
</tr>
<tr>
<td>Playground Equipment</td>
<td></td>
<td>$17,500</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$17,500</td>
</tr>
<tr>
<td>First Street Beach Outdoor Stage</td>
<td>$TBD</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$35,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>$ -</td>
<td>$56,500</td>
<td>$73,500</td>
<td>$75,000</td>
<td>$32,500</td>
<td>$25,000</td>
<td>$262,500</td>
</tr>
</tbody>
</table>

The community has undertaken an extensive process to develop Beach Conceptual plans for the City beach areas. This ambitious project was to design a plan to have world class beaches. Of course, world class beaches carry a world class price tag. As funds allow, components of the plans will be implemented.
Project Title: Morton Park Improvements

Department: Parks

Year: FY 2020 & 2021

Estimated Project Cost: $40,000

Project Description: Addition of age appropriate playground structures, parking lot, fenced dog run and picnic areas.

Project Justification/Case Statement: The City Parks Commission began looking for locations to add a dog run within the City Parks. This effort eventually led to Morton Park and concepts for improving the park.

Impact on Operating Expenses: The Parks Commission reached out to Morton Salt Company on the conceptual project. Morton has expressed interest in providing in-kind labor and contracting services and is considering acquiring equipment. The park improvements would be implemented only as outside funding sources are identified. The impact of future maintenance would include replacing mulch and equipment items as the equipment ages.

Funding Source: Capital Improvement, General

Financing Method: Cash

Funding Notes: It is hoped Morton Salt will fund most if not all of the improvements.
Project Title: Park Amenities

Department: Parks

Year: FY 2020 - 2024

Estimated Project Cost: $7,500 per year

Project Description: Replacement or addition of benches, picnic tables, grills and bike racks.

Project Justification/Case Statement: Many of the parks in the City need to have benches, picnic tables, grills and bike racks replaced or added in order to enhance the usefulness of the park.

Impact on Operating Expenses: Operating expenses will not be impacted.

Funding Source:
- Capital Improvement
- General
- Water & Sewer Utility
- Major\Local Street Fund
- Marina
- Boat Ramp
- Grant

Financing Method:
- Cash
- Cash Installment
- Bank Installment Purchase
- Bond Issue
- Internal Loan

Funding Notes:
Project Title: First Street Beach Picnic Shelter Area Improvements

Department: Parks

Year: FY 2021 – FY 2023

Estimated Project Cost: $25,000 each year, as funds allow

Project Description: With the planting of dune grass to stabilize drifting sand, the City can improve the picnic shelter area by addressing parking, removing excess sand, remove dead trees, strategic pouring of sidewalks, renovating structures, planting of grass, installation of new picnic grills, and installation of sprinkling systems. This funding will only start the process.

Project Justification/Case Statement: The City of Manistee has completed a Beach Conceptual Plan. The primary goal is to improve both the aesthetics and use of the picnic shelter area by placement of strategic sidewalks and planting of grass. Due to the sandy conditions, it will be imperative for the area to have a sprinkling system.

Impact on Operating Expenses: This grassy area will require more mowing and annual edging of the sidewalks, but should reduce the number of staff hours used to remove sand. The increased use and aesthetic improvement will be worth the potential increase in staff maintenance.

Funding Source: Capital Improvement, General, Water & Sewer Utility, Major/Local Street Fund, Marina, Boat Ramp, Grant

Financing Method: Cash, Cash Installment, Bank Installment Purchase, Bond Issue, Internal Loan

Funding Notes: Staff will research funding opportunities over the next few years. Some grant funds may be available, but would need to be the right fit. We will also look at partnering with other local units of government and/or the County.
Project Title: Fifth Avenue Beach Parking Improvements

Department: Parks

Year: FY 2020-2023

Estimated Project Cost: $75,000

Project Description: Improve and cleanup parking area along Lake Michigan.

Project Justification\Case Statement: Sand migration is a constant issue along our Lake Michigan Beaches. This project proposes to install a wall barrier along the parking lot at Fifth Ave. Beach, which will define the limits of parking and assist in reducing sand migration. Additional wall segments would be added at the east side of the parking lot and along the lower parking along Lakeshore Drive. The parking lot would be straightened with new pavement and restriped to increase parking capacity.

Impact on Operating Expenses: Time devoted to cleaning up sand migration will reduce as the parking lot border and the walls reduce sand migration and collect sand at specific areas.

Funding Source:
- ☑ Capital Improvement
- ☑ General
- ☑ Water & Sewer Utility
- ☑ Major\Local Street Fund
- ☑ Marina
- ☑ Boat Ramp
- ☑ Grant

Financing Method:
- ☑ Cash
- ☑ Cash Installment
- ☑ Bank Installment Purchase
- ☑ Bond Issue
- ☑ Internal Loan

Funding Notes: This item will have to be worked into the budget over a number of years and\or secure grant funding.
Project Title: Playground Equipment

Department: Parks

Year: FY 2022 & FY 2024

Estimated Project Cost: $17,500 each year

Project Description: Replace or upgrade playground equipment in our Parks, as funds allow.

Project Justification/Case Statement: Some City playground equipment could stand to be upgraded. Although this funding level will not buy much playground equipment, it will help address some needs.

Impact on Operating Expenses: Operating expenses should be similar to the cost of maintaining existing equipment.

Funding Source:
- Capital Improvement
- General
- Water & Sewer Utility
- Major/Local Street Fund
- Marina
- Boat Ramp
- Grant

Financing Method:
- Cash
- Cash Installment
- Bank Installment Purchase
- Bond Issue
- Internal Loan

Funding Notes: This item will have to be worked into the budget over a number of years and/or secure grant funding.
Project Title: First Street Beach Outdoor Stage

Department: Parks

Year: TBD

Estimated Project Cost: TBD

Project Description: Construction of a permanent stage structure within Douglas Park/First St. Beach.

Project Justification/Case Statement: The Parks Conceptual Plan identified an outdoor stage after public and student input. The concept was to have a place for summer concerts, dances and large events such as the Forest Festival. Support to explore the concept was recently endorsed by the Shoreline Concert Series, Parks Commission & City Council.

Impact on Operating Expenses: This project will increase maintenance costs. Fees for large events could help offset these increased costs.

Funding Source:
- Capital Improvement
- General
- Water & Sewer Utility
- Major\Local Street Fund
- Marina
- Boat Ramp
- Grant

Financing Method:
- Cash
- Cash Installment
- Bank Installment Purchase
- Bond Issue
- Internal Loan

Funding Notes: A leadership team has worked over the past year to develop conceptual plans, budget cost estimates and funding opportunities. The information will be presented in 2018.
Streets capital projects are those that are directly related to improvements in the City’s street network. The total estimated cost of all street projects in the five year Transportation Improvement Plan is summarized below.

<table>
<thead>
<tr>
<th>Streets</th>
<th>Year 1 FY 2019</th>
<th>Year 2 FY 2020</th>
<th>Year 3 FY 2021</th>
<th>Year 4 FY 2022</th>
<th>Year 5 FY 2023</th>
<th>Year 6 FY 2024</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crack Seal</td>
<td>$22,000</td>
<td>$22,000</td>
<td>$22,000</td>
<td>$22,000</td>
<td>$22,000</td>
<td>$22,000</td>
<td>$132,000</td>
</tr>
<tr>
<td>TIP Year 1</td>
<td>$1,907,700</td>
<td>$1,907,700</td>
<td>$1,041,000</td>
<td>$1,041,000</td>
<td>$699,000</td>
<td>$853,000</td>
<td>$4,632,700</td>
</tr>
<tr>
<td>TIP Year 2</td>
<td>$1,041,000</td>
<td>$699,000</td>
<td>$853,000</td>
<td>$853,000</td>
<td>$853,000</td>
<td>$853,000</td>
<td>$853,000</td>
</tr>
<tr>
<td>TIP Year 3</td>
<td>$1,063,000</td>
<td>$721,000</td>
<td>$875,000</td>
<td>$22,000</td>
<td>$22,000</td>
<td>$22,000</td>
<td>$4,632,700</td>
</tr>
</tbody>
</table>

The City has adopted a state-approved Street Asset Management Plan. It updates this plan every five years and uses the asset management principles established in the plan to assist in creating a rolling Transportation Improvement Plan. The Asset Management Plan represents a “best practice” and has been recognized by the State of Michigan as a model. Implementation will help stretch the City’s scarce street dollars.

Additional discussion regarding Streets and the TIP can be found in the FY 2018 budget.
Project Title: Streets Crack Sealing

Department: DPW

Year: FY 2019 – FY 2024, ongoing

Estimated Project Cost: $22,000 per year

Project Description: Crack sealing various streets as indicated by the Street Asset Management Plan. The goal is to do eligible streets to the limit of the budget as identified by PASER ratings and visual inspection.

Project Justification\Case Statement: Crack sealing is a cost-effective way of preserving and extending the life of our streets. It seals water out and prevents heaving and additional cracking.

Impact on Operating Expenses: Crack sealing will delay the need to reconstruct streets, making our street resources go farther.

Funding Source:
- [ ] Capital Improvement
- [ ] General
- [ ] Water & Sewer Utility
- [x] Major\Local Street Fund
- [ ] Marina
- [ ] Boat Ramp
- [ ] Grant

Financing Method:
- [x] Cash
- [ ] Cash Installment
- [ ] Bank Installment Purchase
- [ ] Bond Issue
- [ ] Internal Loan

Funding Notes: The City has determined the most cost-effective delivery is to annually rent the crack sealing machine, purchase the materials and operate it with DPW staff.
FY 2019 – 2024 Capital Improvement Plan

Streets Capital Projects

Project Title: FY 2019 Transportation Improvement Plan

Department:  DPW
Year:  FY 2019
Estimated Project Cost:  $1,907,700

Project Description:  Reconstruct and heavy rehabilitation on various streets as identified in the TIP. Approximately 7,704 feet of streets will be addressed.

Project Justification\Case Statement:  Maintaining and funding a TIP is a high priority for Council and has been incorporated into the proposed budget.

Impact on Operating Expenses:  Should improve PASER ratings and reduce street maintenance needs.

Funding Source:

- Capital Improvement
- General
- Water & Sewer Utility
- Major\Local Street Fund
- Marina
- Boat Ramp
- Grant

Financing Method:

- Cash
- Cash Installment
- Bank Installment Purchase
- Bond Issue
- Internal Loan
- Other

Funding Notes:  Major St. work is dependent upon receiving an MDOT Small Urban grant.

<table>
<thead>
<tr>
<th>Type</th>
<th>Reconstruct</th>
<th>12th St</th>
<th>US-31</th>
<th>Maple</th>
<th>12th St</th>
<th>US-31</th>
<th>Maple</th>
</tr>
</thead>
<tbody>
<tr>
<td>Major</td>
<td>Reconstruct</td>
<td>Ramsdell</td>
<td>Ramsdell</td>
<td>Ramsdell</td>
<td>2,424</td>
<td>849,100</td>
<td></td>
</tr>
<tr>
<td>Local</td>
<td>Heavy Rehab</td>
<td>Ramsdell</td>
<td>5th St</td>
<td>7th St</td>
<td>800</td>
<td>326,000</td>
<td></td>
</tr>
<tr>
<td>Local</td>
<td>Heavy Rehab</td>
<td>7th</td>
<td>Ramsdell</td>
<td>High</td>
<td>1,050</td>
<td>438,000</td>
<td></td>
</tr>
<tr>
<td>Local</td>
<td>Heavy Rehab</td>
<td>Center</td>
<td>9th</td>
<td>11th</td>
<td>670</td>
<td>50,600</td>
<td></td>
</tr>
<tr>
<td>Local</td>
<td>Heavy Rehab</td>
<td>10th</td>
<td>Dead End</td>
<td>Davis</td>
<td>900</td>
<td>60,600</td>
<td></td>
</tr>
<tr>
<td>Local</td>
<td>Heavy Rehab</td>
<td>11th</td>
<td>Center</td>
<td>Davis</td>
<td>430</td>
<td>33,100</td>
<td></td>
</tr>
<tr>
<td>Local</td>
<td>Heavy Rehab</td>
<td>High</td>
<td>8th</td>
<td>12th</td>
<td>1,310</td>
<td>99,300</td>
<td></td>
</tr>
<tr>
<td>Major</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>FY 2019 Total</td>
<td>7,704</td>
<td>1,907,700</td>
</tr>
</tbody>
</table>
Streets Capital Projects

Project Title: FY 2020 Transportation Improvement Plan

Department: DPW

Year: FY 2020

Estimated Project Cost: $1,041,000

Project Description: Reconstruction on various streets as identified in the TIP. Approximately 3,180 feet of streets will be addressed.

Project Justification/Case Statement: Maintaining and funding a TIP is a high priority for Council and has been incorporated into the proposed budget.

Impact on Operating Expenses: Should improve PASER ratings and reduce street maintenance needs.

Funding Source:

- Capital Improvement
- General
- Water & Sewer Utility
- Major\Local Street Fund
- Marina
- Boat Ramp
- Grant

Financing Method:

- Cash
- Cash Installment
- Bank Installment Purchase
- Bond Issue
- Internal Loan
- Other

Funding Notes: Major St. work is dependent upon receiving an MDOT Category F grant.

<table>
<thead>
<tr>
<th>Major</th>
<th>Reconstruct</th>
<th>Engelmann</th>
<th>6th St</th>
<th>8th St</th>
<th>900</th>
<th>387,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reconstruct</td>
<td>Engelmann</td>
<td>8th St</td>
<td>Kosciusko</td>
<td>350</td>
<td>169,000</td>
<td></td>
</tr>
<tr>
<td>Local</td>
<td>Reconstruct</td>
<td>Jackson</td>
<td>Cleveland</td>
<td>980</td>
<td>246,000</td>
<td></td>
</tr>
<tr>
<td>Vanburen</td>
<td>US-31</td>
<td>Washington</td>
<td>Jackson</td>
<td>950</td>
<td>239,000</td>
<td></td>
</tr>
</tbody>
</table>

FY 2020 Total 3,180 1,041,000
Project Title: FY 2021 Transportation Improvement Plan

Department: DPW

Year: FY 2021

Estimated Project Cost: $699,000

Project Description: Street reconstruction and heavy rehabilitation on various streets as identified in the TIP. Approximately 2,810 feet of streets will be addressed.

Project Justification/Case Statement: Maintaining and funding a TIP is a high priority for Council and has been incorporated into the proposed budget.

Impact on Operating Expenses: Should improve PASER ratings and reduce street maintenance needs.

Funding Source:  
- Capital Improvement
- General
- Water & Sewer Utility
- Major\Local Street Fund
- Marina
- Boat Ramp
- Grant

Financing Method:  
- Cash
- Cash Installment
- Bank Installment Purchase
- Bond Issue
- Internal Loan
- Other

Funding Notes:

<table>
<thead>
<tr>
<th>Project</th>
<th>Street Location</th>
<th>Length</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Major Crush &amp; Shape</td>
<td>12th St Oak</td>
<td>1,500</td>
<td>375,000</td>
</tr>
<tr>
<td>Local Reconstruct</td>
<td>Quincy Washington Cleveland</td>
<td>993</td>
<td>387,000</td>
</tr>
<tr>
<td>Local Reconstruct</td>
<td>Cleveland Monroe Quincy</td>
<td>317</td>
<td>91,000</td>
</tr>
</tbody>
</table>

FY 2022 Total: 2,810 $853,000
Municipal buildings capital projects are those that are directly related to improvements in the City’s publicly owned buildings. The total estimated cost of all building capital projects in the six year plan is summarized below.

<table>
<thead>
<tr>
<th>Municipal Buildings</th>
<th>Year 1 FY 2019</th>
<th>Year 2 FY 2020</th>
<th>Year 3 FY 2021</th>
<th>Year 4 FY 2022</th>
<th>Year 5 FY 2023</th>
<th>Year 6 FY 2024</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy Efficiency Improvements</td>
<td>$</td>
<td>$</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$</td>
</tr>
<tr>
<td>Fire Station Floors</td>
<td>$</td>
<td>$</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>7,000</td>
</tr>
<tr>
<td>Police Squad Room Floor</td>
<td>$</td>
<td>$</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>8,000</td>
</tr>
<tr>
<td>City Garage Electrical Service</td>
<td>$</td>
<td>$</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>70,000</td>
</tr>
<tr>
<td>City Garage Electric Gate</td>
<td>$</td>
<td>$</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fire Station Tuckpointing &amp; Restoration</td>
<td>$</td>
<td>$</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>250,000</td>
</tr>
<tr>
<td>Fire Station Doors &amp; Windows</td>
<td>$</td>
<td>$</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>25,000</td>
</tr>
<tr>
<td>Fire Station Structural Repairs</td>
<td>$</td>
<td>$</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>75,000</td>
</tr>
<tr>
<td>Ramsdell Chimney Rehab</td>
<td></td>
<td>$</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>30,000</td>
</tr>
<tr>
<td>Total</td>
<td>$</td>
<td>$</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>465,000</td>
</tr>
</tbody>
</table>

The City is finalizing a Building Asset Management Plan that will further assist in identifying capital projects and preventative maintenance for City buildings which will then be used to help prepare the capital improvement plan. This plan will represent a “best practice” and will stretch the City’s limited maintenance dollars.
Project Title: Energy Efficiency Improvements

Department: Municipal Buildings

Year: TBD

Estimated Project Cost: $ TBD

Project Description: Implementing energy efficiency projects on City buildings.

Project Justification/Case Statement: The City had several of its buildings evaluated by the State of Michigan energy office a number of years ago. They issued a report detailing different areas that the City could save energy in a cost-effective manner. Examples include installing programmable thermostats, replacing incandescent lights, etc. Some of the recommendations have been completed. As opportunities or rebates arise, the City will determine if the project is worthwhile.

Impact on Operating Expenses: Operating costs should be reduced because of energy savings.

Funding Source:  
- ☑ Capital Improvement  
- ☑ General  
- ☑ Water & Sewer Utility  
- ☑ Major\Local Street Fund  
- ☑ Marina  
- ☑ Boat Ramp  
- ☑ Grant

Financing Method:  
- ☑ Cash  
- ☑ Cash Installment  
- ☑ Bank Installment Purchase  
- ☑ Bond Issue  
- ☑ Internal Loan  
- ☑ Other

Funding Notes: Rebates from Consumers energy can help bring down the cost of projects.
Project Title: Fire Station Floors

**Department:** Municipal Buildings

**Year:** FY 2020

**Estimated Project Cost:** $7,000

**Project Description:** Restore the floors in the day room and adjacent to Medic 5 parking spot.

**Project Justification/Case Statement:** The hardwood floors are showing significant wear and tear from normal use. They need to be evaluated and restored to a condition that can stand up to the harsh conditions of the fire station day to day operations. Refinishing by a professional using a commercial grade sealer and stain would go a long way toward maintaining these floors.

**Impact on Operating Expenses:** none

**Funding Source:**
- [x] Capital Improvement
- General
- Water & Sewer Utility
- Major\Local Street Fund
- Marina
- Boat Ramp
- Grant

**Financing Method:**
- [x] Cash
- [ ] Cash Installment
- [ ] Bank Installment Purchase
- [ ] Bond Issue
- [ ] Internal Loan

**Funding Notes:** Assumes the current hardwood can be restored and not replaced.
Project Title: Police Department Squad Room Floor

Department: Municipal Buildings

Year: FY 2020

Estimated Project Cost: $ 8,000

Project Description: Replace the flooring in the squad room with more durable material.

Project Justification\Case Statement: The vinyl flooring in the squad room is worn out and needs to be replaced soon. It should be replaced with a commercial grade surface that can stand up to the wear and tear this room gets daily. Ice, snow, salt, and dirt make this a difficult place to keep clean. Vinyl is not the right material for this surface.

Impact on Operating Expenses: Would reduce the need for stripping and waxing.

Funding Source: Capital Improvement

Financing Method: Cash

Funding Notes: Again, there is no estimate for this project, just a best guess. The vinyl floor gets waxed twice a year however it is in poor shape within 24 hours. There is no season that is good on this vinyl floor. A commercial heavy duty surface needs to be applied that can take years of abuse.
Municipal Buildings Capital Projects

Project Title: City Garage Electrical Service

Department: Municipal Buildings

Year: FY 2021

Estimated Project Cost: $70,000

Project Description: The Public Works Building was constructed in the early 1970s and is approaching 50 years of age. The electrical service is an outdated type of 3 phase power. Consumers Energy has requested to change the service at their cost.

Project Justification/Case Statement: The current service panel and breaker system are no longer constructed. Our Electrician of Record indicates that component failures will become more likely and replacement parts may take weeks to source from national inventories. The upgrade would include replacing the service from Consumers, a new panel, breakers and internal transformers. The emergency generator would be replaced, upsized and relocated outside of the building. The current generator would be repurposed to the chemical feed building at Water well #10.

Impact on Operating Expenses: A new service would reduce maintenance and repair expenses.

Funding Source:

- [x] Capital Improvement
- [x] General
- [x] Water & Sewer Utility
- [ ] Major/Local Street Fund
- [ ] Marina
- [ ] Boat Ramp
- [ ] Grant

Financing Method:

- [x] Cash
- [ ] Cash Installment
- [x] Bank Installment Purchase
- [ ] Bond Issue
- [ ] Internal Loan

Funding Notes:
Project Title: Fire Station Tuckpointing and Restoration

**Department:** Municipal Buildings

**Year:** FY 2023

**Estimated Project Cost:** $250,000

**Project Description:** The exterior of the building will be cleaned and mortar joints will be repointed using approved methods for the preservation of historic buildings. Repair of other exterior areas as needed.

**Project Justification\Case Statement:** This historic firehouse is in need of repairs and maintenance in order to preserve it and keep it functional. Areas of mortar are deteriorating and paint is peeling due to moisture.

**Impact on Operating Expenses:** Should reduce maintenance costs in the future.

**Funding Source:**
- [x] Capital Improvement
- [ ] General
- [ ] Water & Sewer Utility
- [ ] Major\Local Street Fund
- [ ] Marina
- [ ] Boat Ramp
- [ ] Grant

**Financing Method:**
- [x] Cash
- [ ] Cash Installment
- [x] Bank Installment Purchase
- [ ] Bond Issue
- [ ] Internal Loan

**Funding Notes:** This cost estimate is not based on any professional assessment. The building has been looked at by engineers and is in need of cosmetic and structural repairs, however current funding prohibits it. Funding options will be explored, but money may have to be set aside over a number of years. Grants may also become available because this is an historic structure.
Municipal Buildings Capital Projects

Project Title: Fire Station Doors and Windows

Department: Municipal Buildings

Year: FY 2023

Estimated Project Cost: $25,000

Project Description: Repair or replace aging doors and windows at the historic fire station.

Project Justification/Case Statement: Many of the wooden doors and windows at the Fire Department are starting to rot away and need to be replaced. This includes the thresholds as well.

Impact on Operating Expenses: Should have minimal impact on operating expenses.

Funding Source:  
- Capital Improvement
- General
- Water & Sewer Utility
- Major/Local Street Fund
- Marina
- Boat Ramp
- Grant

Financing Method:  
- Cash
- Cash Installment
- Bank Installment Purchase
- Bond Issue
- Internal Loan

Funding Notes: This cost estimate is preliminary as the project has not been fully developed nor priced out by our engineer. This project can be completed in any year. It does however need to be coordinated as part of a scheme to maintain and operate the historic structure, especially considering there is other exterior work needed.
Project Title: Fire Station Structural Repairs

Department: Municipal Buildings

Year: FY 2023

Estimated Project Cost: $75,000

Project Description: North wall and stairway repairs

Project Justification/Case Statement: The North Wall of the fire department is pulling away from the stairwell. Currently there are places with a 2 inch gap between the steps and the wall. Structurally it needs to be repaired or replaced before a catastrophic failure happens.

Impact on Operating Expenses: No impact on operational costs.

Funding Source:
- [x] Capital Improvement
- [x] General
- [ ] Water & Sewer Utility
- [ ] Major\Local Street Fund
- [ ] Marina
- [ ] Boat Ramp
- [ ] Grant

Financing Method:
- [x] Cash
- [ ] Cash Installment
- [x] Bank Installment Purchase
- [ ] Bond Issue
- [ ] Internal Loan

Funding Notes: There are no engineering recommendations for this project or factual project estimates of costs. The number is a best guess estimate and could be higher or lower depending on what is located when the wall is exposed.
Project Title: Ramsdell Theatre Chimney Preservation

Department: Municipal Buildings

Year: FY 2024

Estimated Project Cost: $30,000

Project Description: Stabilizing and tuck pointing; or removing the top part, of the historic chimney on the Ramsdell Theatre.

Project Justification/Case Statement: The chimney was observed to be in very poor shape when the roof was replaced several years ago. At some point it will need to be stabilized to prevent it from falling apart or becoming a safety hazard.

Impact on Operating Expenses: None

Funding Source:
- Capital Improvement
- General
- Water & Sewer Utility
- Major\Local Street Fund
- Marina
- Boat Ramp
- Grant

Financing Method:
- Cash
- Cash Installment
- Bank Installment Purchase
- Bond Issue
- Internal Loan
- Other

Funding Notes: This cost estimate is preliminary as the project has not been fully developed nor priced out by our engineer.
The Water and Sewer Utility is by far the most capital intensive operation of the City as it has the most physical assets. The total estimated cost of all Water & Sewer capital projects in the six year plan is summarized below.

<table>
<thead>
<tr>
<th>Water &amp; Sewer</th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Year 4</th>
<th>Year 5</th>
<th>Year 6</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>FY 2019</td>
<td>FY 2020</td>
<td>FY 2021</td>
<td>FY 2022</td>
<td>FY 2023</td>
<td>FY 2024</td>
<td></td>
</tr>
<tr>
<td>Sewer Pilot I &amp; I Suppression</td>
<td>$365,000</td>
<td>$365,000</td>
<td>$365,000</td>
<td>$365,000</td>
<td>$365,000</td>
<td>$365,000</td>
<td>$365,000</td>
</tr>
<tr>
<td>Sewer I &amp; I Suppression</td>
<td>$880,000</td>
<td>$3,520,000</td>
<td>$125,000</td>
<td>$125,000</td>
<td>$125,000</td>
<td>$125,000</td>
<td>$4,400,000</td>
</tr>
<tr>
<td>Arthur St. Pump Station Upgrades</td>
<td>$125,000</td>
<td>$125,000</td>
<td>$125,000</td>
<td>$125,000</td>
<td>$125,000</td>
<td>$125,000</td>
<td>$125,000</td>
</tr>
<tr>
<td>Well 10 Generator</td>
<td>$100,000</td>
<td>$100,000</td>
<td>$100,000</td>
<td>$100,000</td>
<td>$100,000</td>
<td>$100,000</td>
<td>$100,000</td>
</tr>
<tr>
<td>Well 9 Chemical Feed Addition</td>
<td>$45,000</td>
<td>$45,000</td>
<td>$45,000</td>
<td>$45,000</td>
<td>$45,000</td>
<td>$45,000</td>
<td>$45,000</td>
</tr>
<tr>
<td>Equalization Basin/CSO #18</td>
<td>$1,000,000</td>
<td>$8,000,000</td>
<td>$6,000,000</td>
<td>$6,000,000</td>
<td>$6,000,000</td>
<td>$6,000,000</td>
<td>$15,000,000</td>
</tr>
<tr>
<td>Well 10 Chemical Feed Addition</td>
<td>$45,000</td>
<td>$45,000</td>
<td>$45,000</td>
<td>$45,000</td>
<td>$45,000</td>
<td>$45,000</td>
<td>$45,000</td>
</tr>
<tr>
<td>Industrial Tower Recoat</td>
<td>$130,000</td>
<td>$130,000</td>
<td>$130,000</td>
<td>$130,000</td>
<td>$130,000</td>
<td>$130,000</td>
<td>$130,000</td>
</tr>
<tr>
<td>M-55 Bridge Water &amp; Sewer Mains</td>
<td>$2,245,000</td>
<td>$12,095,000</td>
<td>$6,100,000</td>
<td>$445,000</td>
<td>$175,000</td>
<td>$-</td>
<td>$21,060,000</td>
</tr>
<tr>
<td>2020 Utility Portion of Streets</td>
<td>$450,000</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
<td>$450,000</td>
</tr>
<tr>
<td>2021 Utility Portion of Streets</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
</tr>
<tr>
<td>2022 Utility Portion of Streets</td>
<td>$400,000</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
<td>$400,000</td>
</tr>
<tr>
<td>New Wellfield</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
</tr>
<tr>
<td>Total</td>
<td>$2,245,000</td>
<td>$12,095,000</td>
<td>$6,100,000</td>
<td>$445,000</td>
<td>$175,000</td>
<td>$-</td>
<td>$21,060,000</td>
</tr>
</tbody>
</table>

The Water & Sewer Utility is an aging system that needs constant maintenance. In the past, it has been able to be proactive in addressing an aging system’s needs because of adequate revenues and steady rate increases. Recent mandatory sewer separation projects have required additional rate increases and taking on more debt. Expanding the customer base, containing costs and rate increases per the rate study will be needed to ensure continued success.

We are currently working with USDA Rural Development to finance the sewer I&I suppression and retention basin to allow the closure of CSO #18.
Project Title: Sewer Infiltration & Inflow Suppression

Department: Sewer

Year: FY 2018, 2019 & FY 2020

Estimated Project Cost: $5,900,000

Project Description: To address inflow and infiltration to the sanitary sewers.

Project Justification/Case Statement: The sanitary sewer evaluation study (SSES) and SAW grant will document where most remaining freshwater is entering the system. However, additional study needs to occur. The studies have recommended physical construction to reduce sources of inflow and infiltration. This will include closing off what inflow it can and lining a significant number of sewer mains. This work is needed to reduce the size and expense of the retention basin needed to close off the last CSO.

Impact on Operating Expenses: Should reduce operating cost during wet weather events as less flow is coming to the WWTP.

Funding Source:
- Capital Improvement Fund
- Water & Sewer Utility
- Marina
- Boat Ramp
- Grant

Financing Method:
- Cash
- Cash Installment
- Bank Installment Purchase
- Bond Issue
- Internal Loan

Funding Notes: The City will be pursuing USDA low interest loans for this project.
Project Title: Arthur Street Pump Station Upgrades

Department: WWTP

Year: FY 2020

Estimated Project Cost: $125,000

Project Description: Upgrade this pump station with a new pump, generator, flow meter and other maintenance items.

Project Justification/Case Statement: The development of the Joslin Cove Condominiums resulted in a permit condition from MDEQ that the pump station be reviewed and upgraded to meet current and future capacity. Last year the City Engineer completed a full station analysis and capacity study. The engineers recommend replacing one of the station’s pumps, installation of an emergency generator, installation of a flow meter and other maintenance items. The waste stream from the prison is conveyed through this pump station so keeping it in good working order is critical.

Impact on Operating Expenses: Increased fuel expense, depending on usage. Lower ongoing maintenance.

Funding Source:  
- [ ] Capital Improvement
- [ ] General
- [x] Water & Sewer Utility
- [ ] Major/Local Street Fund
- [ ] Marina
- [ ] Boat Ramp
- [ ] Grant

Financing Method:  
- [x] Cash
- [ ] Cash Installment
- [ ] Bank Installment Purchase
- [ ] Bond Issue
- [ ] Internal Loan

Funding Notes: There is a chance that this pump station upgrade can be fully or partially paid for by the developers of Joslin Cove thru the County Brownfield Redevelopment Authority, once the project restarts.
Project Title: Water Well #10 Generator

Department: Water & Sewer

Year: FY 2021

Estimated Project Cost: $100,000

Project Description: The Michigan Department of Environmental Quality requires public utility systems to create redundant power sources for critical equipment. Well #10 currently only operates with Consumers Energy power. In the event of an outage the well does not function.

Project Justification\Case Statement: The City water and sewer systems have strategically planned for power disruptions. We have portable generators to deploy and rotate where we can. Critical assets further from the City require permanent generators.

Impact on Operating Expenses: There will be a slight increase in cost to operate the generator and perform annual maintenance.

Funding Source: □ Capital Improvement  □ General  ✗ Water & Sewer Utility  □ Major\Local Street Fund  □ Marina  □ Boat Ramp  □ Grant

Financing Method: ✗ Cash  □ Cash Installment  □ Bank Installment Purchase  □ Bond Issue  □ Internal Loan

Funding Notes:
Water & Sewer Capital Projects

Project Title: Well # 9 Chemical Feed Addition

Department: Water

Year: FY 2022

Estimated Project Cost: $45,000

Project Description: Add building space to the well house to contain chemicals and chemical feed equipment.

Project Justification/Case Statement: At this time corrosive chemicals and chemical feed equipment are housed in the same building space as process controls and electrical equipment. Corrosive chemicals damage this equipment, shortening the life span of the components. Adding a new space will eliminate this problem and save money in the long term.

Impact on Operating Expenses: Operating costs will likely decrease due to less maintenance issues on electrical equipment and controls.

Funding Source: 
- [X] Water & Sewer Utility
- [ ] General
- [ ] Bond Issue
- [ ] Cash
- [ ] Cash Installment
- [ ] Bank Installment Purchase
- [ ] Grant
- [ ] Internal Loan

Financing Method: 
- [X] Capital Improvement
- [ ] General
- [ ] Bond Issue
- [ ] Bank Installment Purchase
- [ ] Internal Loan

Funding Notes:
Project Title: Equalization Basin and Closure of CSO #18

Department: WWTP

Year: FY 2019-FY2021

Estimated Project Cost: $15,000,000**

Project Description: Construction of a new equalization basin.

Project Justification/Case Statement: Though the City has separated all of its sewer systems, the WWTP continues to receive Inflow and Infiltration in higher volumes than can be treated. During spring thaws and year round rain events, the WWTP must restrict the incoming flows to its capacity limits. Combined sewage then fills the collection system. At times the collection system fills to a point where it is discharged to Manistee Lake in order to avoid basement flooding. Our current NPDES permit requires us to end those discharges by December 2020. Part of the solution is to construct tankage either above or below ground to temporarily store the combined sewage until the WWTP can treat it. The SAW grants and FY 2019 study and sewer lining will be crucial in helping size this facility appropriately.

Impact on Operating Expenses: This will increase operating expenses because the sewage will either need to be pumped in or out of the basin and there will be more assets to maintain. The additional expense will be partially offset by leveling out the flows to the WWTP, allowing it to operate more efficiently.

Funding Source:  
- Capital Improvement  
- General  
- Water & Sewer Utility  
- Major/Local Street Fund  
- Marina  
- Boat Ramp  
- Grant

Financing Method:  
- Cash  
- Cash Installment  
- Bank Installment Purchase  
- Bond Issue  
- Internal Loan  
- Other

Funding Notes: The City will be pursuing USDA low interest loans for this project.

**The ultimate cost of this facility is not known at this point. $15,000,000 represents an estimate only.
Water & Sewer Capital Projects

Project Title: FY 2020 Utility Portion of Streets - Jackson VanBuren Watermain Loop

Department: Water & Sewer

Year: FY 2020

Estimated Project Cost: $450,000

Project Description: The 2013 Water General Plan identified areas within the water system that have undersized mains, dead ends and low pressure areas. Jackson and VanBuren currently meet all three criteria and the Olson Lumber Yard has been deemed one of the highest fire loading locations in the City by the Fire Department.

Project Justification/Case Statement: Construction of new 8” mains along Jackson, VanBuren and Jefferson will improve water quality, fire suppression, eliminate dead ends and remove houses and businesses from the annual run water list. The Streets will be reconstructed with the project.

Impact on Operating Expenses: There will be a decrease in operational expenses with the construction of new infrastructure.

Funding Source:
- [ ] Capital Improvement
- [ ] General
- [x] Water & Sewer Utility
- [ ] Major\Local Street Fund
- [ ] Marina
- [ ] Boat Ramp
- [ ] Grant

Funding Notes:

Financing Method:
- [x] Cash
- [ ] Cash Installment
- [ ] Bank Installment Purchase
- [ ] Bond Issue
- [ ] Internal Loan
Project Title: Well #10 Chemical Feed Building

**Department:** Water

**Year:** FY 2023

**Estimated Project Cost:** $45,000

**Project Description:** Add building space to the well house to contain chemicals and chemical feed equipment.

**Project Justification/Case Statement:** At this time corrosive chemicals and chemical feed equipment are housed in the same building space as process controls and electrical equipment. Corrosive chemicals damage this equipment, shortening the life span of the components. Adding a new space will eliminate this problem and save money in the long term.

**Impact on Operating Expenses:** Operating costs will likely decrease due to less maintenance issues on electrical equipment and controls.

**Funding Source:**
- Capital Improvement
- General
- Water & Sewer Utility
- Major/Local Street Fund
- Marina
- Boat Ramp
- Grant

**Financing Method:**
- Cash
- Cash Installment
- Bank Installment Purchase
- Bond Issue
- Internal Loan

**Funding Notes:**
Project Title: Industrial Water Tank Recoating

Department: Water & Sewer

Year: FY 2023

Estimated Project Cost: $130,000

Project Description: The City water tanks are inspected every seven years per Michigan Department of Environmental Quality guidelines. The most recent inspection of the Industrial Water Tank was completed in 2016. The inspection report recommends an exterior high pressure cleaning and paint overcoat within 3-4 years.

Project Justification\Case Statement: Regular inspection, cleaning and overcoating the paint system is the most economic process for preserving this critical asset. This project should extend the life of the current paint system by another 10 years, giving the original paint system a 25 year lifespan.

Impact on Operating Expenses: There should be no change in operating expenses as a result of this project.

Funding Source:

- [ ] Capital Improvement
- [ ] General
- [x] Water & Sewer Utility
- [ ] Major\Local Street Fund
- [ ] Marina
- [ ] Boat Ramp
- [ ] Grant

Financing Method:

- [x] Cash
- [ ] Cash Installment
- [ ] Bank Installment Purchase
- [ ] Bond Issue
- [ ] Internal Loan

Funding Notes:
Project Title: M-55 Bridge Utility Replacement

Department: Water & Sewer

Year: FY 2020

Estimated Project Cost: $ TBD

Project Description: The Michigan Department of Transportation notified the City in late December that they needed to complete an emergency replacement of the M55 Bridge over the Manistee River. The substructure concrete has a condition known as ASR or Alkaline Silica Reaction. The City has both a Water main and Sewer main attached to the bridge superstructure. The City will be responsible to temporarily or permanently relocate the utilities to facilitate the bridge reconstruction in 2020. At this time MDOT is in the planning stages of the project. Once the project scope and sequencing has been determined, the City and its Engineers will evaluate the options for relocation of the utilities and the cost to do so.

Project Justification\Case Statement: This will be required because of MDOT needing to replace the bridge.

Impact on Operating Expenses: There should be no change in operating expenses as a result of this project.

Funding Source:
- [ ] Capital Improvement
- [ ] General
- [X] Water & Sewer Utility
- [ ] Major\Local Street Fund
- [ ] Marina
- [ ] Boat Ramp
- [X] Grant

Financing Method:
- [X] Cash
- [ ] Cash Installment
- [ ] Bank Installment Purchase
- [X] Bond Issue
- [ ] Internal Loan

Funding Notes:
Project Title: FY 2022 Utility Portion of Streets – Quincy & Cleveland

**Department:** Water & Sewer

**Year:** FY 2022

**Estimated Project Cost:** $400,000

**Project Description:** The water and sewer rate study plotted out a financial plan whereby we begin funding our depreciation in a few years. As bond debt begins to drop off, we can cash fund repairs and replacements of old, failing or undersized water and sewer mains. This work will be conducted in coordination with the Transportation Improvement Plan.

**Project Justification\Case Statement:** Replacing mains that need it but we could not afford to do in the past simply makes good sense and will increase the reliability of our system, as well as improving water quality.

**Impact on Operating Expenses:** Should reduce maintenance expense.

**Funding Source:**
- [ ] Capital Improvement
- [ ] General
- [x] Water & Sewer Utility
- [ ] Major\Local Street Fund
- [ ] Marina
- [ ] Boat Ramp
- [ ] Grant

**Financing Method:**
- [x] Cash
- [ ] Cash Installment
- [ ] Bank Installment Purchase
- [ ] Bond Issue
- [ ] Internal Loan

**Funding Notes:**
Project Title: Water Wellfield Replacement

Department: Water & Sewer

Year: TBD

Estimated Project Cost: TBD

Project Description: The 2013 Water General Plan noted the current wells located along Hadsell Street are approaching their anticipated functional lifespan. Well #7 has been out of service since 1998 and is being permanently plugged. Although the City has efficiently operated, maintained and regularly upgraded wells #6, 8 and 9, the Michigan Department of Environmental Quality has required the City to begin looking for opportunities to relocate and/or replace wells #6, 8 and 9.

Project Justification/Case Statement: Wells #6 and 7 were constructed in 1965. Wells #8 and 9 were constructed in 1976. The typical design life for a municipal water well is 50 years. The City has previously and will continue in the future to identify sites for new well construction.

Impact on Operating Expenses: There should be no change in operating expenses as a result of this project.

Funding Source:

- Capital Improvement
- General
- Water & Sewer Utility
- Major/Local Street Fund
- Marina
- Boat Ramp
- Grant

Financing Method:

- Cash
- Cash Installment
- Bank Installment Purchase
- Bond Issue
- Internal Loan

Funding Notes:
Municipal Marina Capital Projects Summary

Municipal Marina capital projects are those that are related to the City’s marina operations. The total estimated cost of all marina capital projects in the six year plan is summarized below.

<table>
<thead>
<tr>
<th>Municipal Marina</th>
<th>Year 1 FY 2019</th>
<th>Year 2 FY 2020</th>
<th>Year 3 FY 2021</th>
<th>Year 4 FY 2022</th>
<th>Year 5 FY 2023</th>
<th>Year 6 FY 2024</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dock Upgrades &amp; Replacement</td>
<td>$ -</td>
<td>$ 20,000</td>
<td>$ 20,000</td>
<td>$ 20,000</td>
<td>$ 20,000</td>
<td>$ 20,000</td>
<td>$ 100,000</td>
</tr>
<tr>
<td>Total</td>
<td>$ -</td>
<td>$ 20,000</td>
<td>$ 20,000</td>
<td>$ 20,000</td>
<td>$ 20,000</td>
<td>$ 20,000</td>
<td>$100,000</td>
</tr>
</tbody>
</table>

Having completed several capital projects over the past few years, including the replacement of the Marina building, has put the Marina in good shape physically. However, depending on water levels, it may be necessary to lower or raise the docks in the future to effectively and conveniently accommodate boats. In addition, our large 70’ docks are in need of replacement. This will be explored over the coming years; however, the Marina has significant financial constraints.
Marina Capital Projects

Project Title: Dock Upgrades & Replacement

Department: Marina

Year: FY 2020 to start

Estimated Project Cost: $20,000 each year

Project Description: The large 70’ docks have deteriorated and need to be replaced. Docks may need to be raised or lowered.

Project Justification\Case Statement: The Marina needs to have sturdy, accessible, convenient docks to continue attracting boaters. Depending on water levels, some docks may become practically unusable.

Impact on Operating Expenses: Operating costs will decrease as there will be less frequent repairs needed.

Funding Source: Funding Notes: This project will likely not proceed without grant funding.

Financial Method:

- Cash
- Cash Installment
- Bank Installment Purchase
- Bond Issue
- Internal Loan
Boat Launch capital projects are those that are related to the City’s three boat launches. The total estimated cost of all Boat Launch capital projects in the five year plan is summarized below.

<table>
<thead>
<tr>
<th>Boat Launch</th>
<th>Year 1 FY 2019</th>
<th>Year 2 FY 2020</th>
<th>Year 3 FY 2021</th>
<th>Year 4 FY 2022</th>
<th>Year 5 FY 2023</th>
<th>Year 6 FY 2024</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Auto-Attendant</td>
<td>$ -</td>
<td>$ 15,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$ 15,000</td>
</tr>
<tr>
<td>9th St Launch</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$ 325,000</td>
</tr>
<tr>
<td>Accessibility for Paddlers</td>
<td>TBD</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$ 325,000</td>
</tr>
<tr>
<td>Total</td>
<td>$ -</td>
<td>$ -</td>
<td>$ 15,000</td>
<td>$ -</td>
<td>$ -</td>
<td>$ 325,000</td>
<td>$340,000</td>
</tr>
</tbody>
</table>
Project Title: First Street Boat Launch Auto Attendant Replacement

Department: Boat Launch

Year: FY 2021

Estimated Project Cost: $15,000

Project Description: The existing boat launch auto attendant is reaching the end of its useful life. In addition, it may not be able to be economically upgraded to the required credit card chip and pin technology. When it is replaced, it should have greater functionality, perhaps dispensing a sticker and also having better reporting and monitoring capability. A replacement machine will have to be researched thoroughly.

Project Justification\Case Statement: The auto-attendant has saved thousands of dollars in labor costs since installation and is vital to the boat launch operation.

Impact on Operating Expenses: Operating costs should be flat.

Funding Source: 

- Capital Improvement
- General
- Water & Sewer Utility
- Major\Local Street Fund
- Marina
- Boat Ramp
- Grant

Financing Method:

- Cash
- Cash Installment
- Bank Installment Purchase
- Bond Issue
- Internal Loan

Funding Notes: The boat launch should have ample reserves to replace the auto-attendant.
**Project Title: Ninth Street Boat Launch Renovations**

**Department:** Boat Launch

**Year:** FY 2024 or later

**Estimated Project Cost:** $325,000

**Project Description:** Renovation of the Ninth St. Boat launch including paving parking lot, replacing dock and skid pier(s), landscaping and adding a simple restroom. The timing is dependent on securing easements and availability of grant funding.

**Project Justification/Case Statement:** The Ninth St. launch is an important, but underutilized launch. This project would make it much more user friendly and would give the City three excellent boat launches. The City will need to clean up the ownership of the property on which the launch is located in order for the project to move forward.

**Impact on Operating Expenses:** Operating costs will increase as there is more to maintain.

**Funding Source:**
- [x] Capital Improvement
- [ ] General
- [ ] Water & Sewer Utility
- [ ] Major/Local Street Fund
- [ ] Marina
- [x] Boat Ramp
- [ ] Grant

**Financing Method:**
- [x] Cash
- [ ] Cash Installment
- [x] Bank Installment Purchase
- [ ] Bond Issue
- [x] Internal Loan

**Funding Notes:** The site has been included on the "Explore the Shores" list of candidate sites. The project will likely be funded with a mix of grants, including the GLFT and Waterways. Likely local match will be $80,000. If grants are not received, the project will have to be postponed.
**Project Title: Accessibility for Paddlers**

**Department:** Boat Launch

**Year:** TBD

**Estimated Project Cost:** TBD

**Project Description:** Update Launch Sites to include Universally Accessible Kayak Launch

**Project Justification/Case Statement:** The County is working on a County Wide Recreation Plan that includes Blue Trails for paddlers. The addition of launch sites in the City of Manistee that provide paddlers of all abilities a safe way to launch and land smoothly will make Manistee a premier destination for paddle enthusiasts.

**Impact on Operating Expenses:** Operating expenses should be similar to maintaining existing launch facilities.

**Funding Source:**
- [ ] Capital Improvement
- [ ] General
- [ ] Water & Sewer Utility
- [ ] Major/Local Street Fund
- [ ] Marina
- [x] Boat Ramp
- [ ] Grant

**Financing Method:**
- [x] Cash
- [ ] Cash Installment
- [ ] Bank Installment Purchase
- [ ] Bond Issue
- [ ] Internal Loan

**Funding Notes:**
Motor Pool capital projects are those that are related to the City’s extensive fleet of vehicles and equipment. The total estimated cost of all Motor Pool capital projects in the six year plan is summarized below.

<table>
<thead>
<tr>
<th>Motor Pool</th>
<th>Year 1 FY 2019</th>
<th>Year 2 FY 2020</th>
<th>Year 3 FY 2021</th>
<th>Year 4 FY 2022</th>
<th>Year 5 FY 2023</th>
<th>Year 6 FY 2024</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Police Interceptor Utility</td>
<td>$48,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$48,000</td>
</tr>
<tr>
<td>Skid Steer</td>
<td>$65,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$65,000</td>
</tr>
<tr>
<td>Loader</td>
<td>$185,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$185,000</td>
</tr>
<tr>
<td>Pickup (F-250)</td>
<td>$30,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$30,000</td>
</tr>
<tr>
<td>Mower</td>
<td>$12,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$12,000</td>
</tr>
<tr>
<td>Year 2 FY 2019 Estimate</td>
<td>$400,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$400,000</td>
</tr>
<tr>
<td>Year 3 FY 2020 Estimate</td>
<td></td>
<td>$400,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$400,000</td>
</tr>
<tr>
<td>Year 4 FY 2021 Estimate</td>
<td></td>
<td></td>
<td>$400,000</td>
<td></td>
<td></td>
<td></td>
<td>$400,000</td>
</tr>
<tr>
<td>Total</td>
<td>$340,000</td>
<td>$400,000</td>
<td>$400,000</td>
<td>$400,000</td>
<td></td>
<td></td>
<td>$1,540,000</td>
</tr>
</tbody>
</table>

Motor Pool purchases and resulting cash flows fluctuate considerably based on an ongoing evaluation of the vehicles and equipment and the current cash reserves and interest rate environment. Administration is continually updating the motor pool forecasting model so it can better plan and project future needs. Keep in mind that the estimated value of equipment purchases does not necessarily equal the budgeted amount, as some equipment is financed over time.
Motor Pool Projects

Project Title: FY 2019 Motor Pool Purchases

**Department:** Motor Pool  
**Year:** FY 2019  
**Estimated Project Cost:** $340,000

**Project Description:** Scheduled motor pool purchases of:

1. Police Car    $48,000  
2. Skid Steer Loader   $65,000  
3. Front End Loader   $185,000  
4. Pickup (3/4 Ton)   $30,000  
5. Mower     $12,000

**Project Justification\Case Statement:** The Motor Pool maintains a multi-year plan for replacement of its vehicles and equipment. This plan is based on estimates of useful life of the asset. However, each piece of equipment is continually evaluated to determine when it actually needs replacement. The equipment listed here were deemed the items that made the most sense, and would provide the most benefit to the organization, if they were replaced or acquired.

**Impact on Operating Expenses:** Operating costs will likely decrease as maintenance costs should decline.

**Funding Source:**  
- Capital Improvement  
- General  
- Water & Sewer Utility  
- Major\Local Street Fund  
- Marina  
- Boat Ramp  
- Motor Pool  
- Grant

**Financing Method:**  
- Cash  
- Cash Installment  
- Bank Installment Purchase  
- Bond Issue  
- Internal Loan

**Funding Notes:**