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# Communitywide Capital Improvement Plan (CCIP) 2022-2031





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#### **Overview and Summary:**

The purpose of the Communitywide Capital Improvement Plan (CCIP) is to provide a concise, yet complete, project plan for critical public infrastructure repairs within the Village of Lawton across all assets. The goal is to allow the Village to make effective decisions about what projects to proceed with, when to implement them, and how they will be funded. Village owned assets incorporated in the CCIP include the following:

- Roads
- Water Infrastructure
- Sanitary Sewer Infrastructure
- Storm Sewer Infrastructure
- Parks and Recreation
- Village Facilities and Equipment

The CCIP involves analysis of previous Capital Improvement Plans (CIPs) for individual assets, the Village's budget and utility rates, and potential funding opportunities to prioritize and determine the scope and timing of projects. It serves as a guide for future construction / development projects in the most cost-efficient manner. The CCIP is a 10-year plan and shall be used as a tool for Village employees and council to align expectations and understand infrastructure needs and their respective financial burden from years 2022 to 2031. Though the CCIP is a long-term plan, it is encouraged to be reviewed annually to be revised based on ever changing circumstances and opportunities.

The CCIP will act as a valuable tool to for planning and managing the Village's wants and needs to facilitate growth. The analysis displays the costs of the Village's upcoming infrastructure projects and potential funding solutions. It encourages discussion of the direction of the Village and how to implement the Village's needs, wants, and objectives. It is crucial to maintain and improve the community's public infrastructure for the health and safety of the residents, businesses, and future development. Furthermore, it's extremely important to understand the cost of future infrastructure projects, how these can be funded, the gap in funding needed, and the priority / need of the project itself.

The projects have been put into one of the three groups below to exhibit importance and assist in prioritizing:

- Absolute: Projects required to keep the public systems functioning or to conform with regulations and / or law.
- 2. *Need*: Projects necessary to maintain the asset cost effectively.
- 3. Want: Projects that would be good to do as a proactive measure. Investments into the community.

Below are some key points in our findings and analysis:

- The Village has a total of approximately 487 water services to be replaced by the end of 2041.
  - At an estimated average cost of \$6,300 per service replacement, total cost is just over 3 million dollars over the next 20 years.
    - Priority: Absolute
- The Village has approximately 8,300 feet of four (4) inch water main that should be upsized prior to service replacements.
  - Priority: Need
- A sewer lining project (both sanitary and storm) is proposed and will address many projects identified on previous CIPs.
  - Economy to scale with sewer lining. Combine all lining into one larger project.
  - Sewer lining will lessen inflow and infiltration (I & I) so the Village does not treat groundwater getting into the sanitary sewer system.
  - Priority: Need



- Local road projects have been selected based on available funds, road condition, and possibility to bundle with other assets' needs.
  - Three local road projects have been selected for reconstruction and include replacing the 4-inch water main and water services.
    - Project locations are Washington Street, Bitely Street, and 4<sup>th</sup> Street.
- Major road projects have been selected based on available funds, potential grants / funding opportunities, road condition, and possibility to bundle with other assets' needs.
  - Water service replacements and any recommended storm / sanitary sewer improvements at the project location are bundled with major road projects.
- Michigan Department of Transportation (MDOT) M-40 Streetscape Project (2023)
  - This transformative project involves roadway improvements, streetscape, water main replacement, sanitary sewer replacement, and storm improvements on M-40 thru the heart of Downtown Lawton.
  - The following are the estimated cost incurred by the Village:
    - Streetscaping, misc. roadway improvements, and storm sewer = \$1.4m
    - Water main and services = \$540,000
    - Sanitary sewer = \$40,000

#### Action:

The key to success is funding and implementing the projects identified. Annually, the Village should evaluate the projects planned for the upcoming years, prioritize them, and determine a funding mechanism and execution strategy.

The Village has taken proactive steps with the implementation of the new water and sewer rates to provide funding of the upcoming water and sewer system needs. The water and sewer projects shown in the CIP Summary List (Appendix 5) should be fully funded by the enterprise funds of the given system. In addition, the major and local road projects identified in the Transportation Asset Management Plan (TAMP) (Appendix 2) are able to be funded with the current revenues in the respective funds.

Though many of the bundled projects identified are planned to be funded through enterprise funds or current revenues, the Village should constantly be aware of available grant opportunities. Any grant funding allows for the Village's dollar to be stretched further, and in turn, more projects can be completed. See the "Funding Options" section below for some current opportunities.

The Village Manager and the Council are doing a phenomenal job at identifying the Village's goals, taking major steps to improve the community, being proactive, and getting things done. It is extremely encouraging to see community leaders with a forward thinking mindset.

#### Analysis:

When analyzing the Village's infrastructure conditions and needs, multiple resources and approaches were utilized. The resources include:

- Storm and Wastewater Asset Management and CIP Reports Completed in 2019 (SAW).
  - Provide a comprehensive evaluation of both the sanitary sewer and storm sewer infrastructure.
  - Includes CIPs for both the sanitary sewer system and storm sewer system.
- Water Asset Management Plan (WAMP) Completed in 2017



- Evaluates the water system needs and recommended infrastructure improvements.
- Includes CIP for the water system.
- The Michigan Department of Environmental, Great Lakes, and Energy (EGLE) Guidance.
  - Includes documents providing information on the Lead Copper Rule (LCR) and the Distribution System Materials Inventories (DSMI).
  - The Lead Copper Rule requires water supplies to replace all lead service lines, both public and private, and all galvanized services connected or previously connected to a lead gooseneck.
    - Service replacements to be complete by the end of 2041.
  - The DSMI involves water supplies to characterize and document system materials, including service line material on both public and private property.
    - DSMI to be complete by January 1<sup>st</sup>, 2025.
- Water Reliability Study Completed in 2021.
  - Provides a detailed summary / report of the water system's components and capacity.
- The Village of Lawton's 2021/2022 Budget and Utility Rates.
  - The Budget and Utility Rates show the revenues and expenditures for public assets and help determine available funds and potential shortcomings for projects.
- Pavement Surface Evaluation and Rating (PASER) data to evaluate road conditions.
- Village of Lawton: 5-Year Parks & Recreation Master Plan

The above references have been utilized to analyze individual projects for specific assets and combine them based on various factors to create larger bundled projects.

#### Individual Projects:

Individual projects refer to projects listed in the CIPs for the various assets (e.g., SAW Reports and WAMP). The individual projects focus on one (1) asset. Completing these as stand-alone projects may be illogical and less economically friendly. For example, there are projects identified in the SAW Report that involve replacing 20 feet of pipe or lining 120 feet of pipe. If the Village were to complete a project containing such little scope, the unit cost will be inflated due to mobilization and other typical project cost. Therefore, we analyzed the project types, location, and criticality to bundle individual projects together.

The project cost estimates have been adjusted to reflect 2021 costs. The Village should escalate project budgets 3% per year, or as deemed necessary, during the implementation process.

The "CCIP Total Project List" (Appendix 3) document includes all the individual projects across all assets. Many of the Individual Projects have been bundled to create a larger project across multiple assets. The "CCIP Total Project List" displays which projects have been bundled and the remaining individual projects.

#### Bundled Projects:

Bundled Projects refer to individual projects that have been combined to create a larger "Bundled Project". Detailed estimates have been created for the Bundled Projects and the cost have been separated per asset and/or fund source (see Appendix 4 for detailed cost estimates). Bundled projects may involve a combination of water improvements, sanitary and/or storm sewer improvements, and roadway improvements.

There are benefits to bundling projects together and tackling multiple assets within a single project. Bundling projects is the most cost-effective way to maintain and improve the Village assets. The cost savings include engineering fees, traffic control, mobilization, and economy to scale regarding unit prices. In addition, the members of the community will appreciate projects being complete in an efficient manner and not having



multiple projects in the same location within a short time frame. Lastly, with bundling projects, there is a broader range of funding options and more potential sources of funding to be utilized.

The focus of the CCIP is how to implement and fund the bundled projects. The remaining individual projects are still recommended to be completed and should be included in future road projects or as the Village sees fit.

#### **Conclusion:**

#### Water:

The water infrastructure demands were the main driver on selecting the scope and timing of bundled projects. Water service replacements are an 'absolute' regarding priority and it is crucial to keep on track to meet the State's requirements. In addition, the Village has approximately 8,300 feet of four (4) inch water main which should be upsized prior the water service replacements to conform with current standards and increase fire flow.

A large upcoming financial burden relates to water service replacements, which was a significant factor in prioritizing and bundling projects. The Village has 487 water services (per the most recent Water Reliability Study), and it is assumed all the services require replacement. With an average estimated cost per service replacement of \$6,300, the total estimated cost over the next 20 years is just over 3 million dollars.

#### Sewer:

Both the sanitary sewer and storm sewer systems, overall, are in good condition. Many of the projects identified in the SAW Reports relate to minor replacement projects where a small portion of the sewer has failed, root cutting, and lining segments of sewer where roots or leaks were discovered. Also, the following sanitary sewer extension project has been identified:

• Extend sanitary sewer north along M-40 to 66<sup>th</sup> Street (Village limits).

The individual sewer lining projects has been bundled to create a one large sewer lining project. The project includes all the sewer lining depicted in the SAW Reports within the CCIP time frame for both sanitary and storm infrastructure. Prior to sewer lining, root cutting shall take place.

It is recommended that the minor sanitary and storm sewer replacements identified in the SAW Reports shall be completed at the time the roadway at the sewer replacement location gets improved.

#### <u>Roads:</u>

When determining both local and major road projects the following factors were considered:

- Condition of roadway
- Cost of selected roadway improvement
- Water main replacement needs
- Amount of water services along roadway segment
- Average daily traffic

The Village of Lawton's road network consists of a total length of 16.16 miles split between Major Streets (6.44 miles) and Local Streets (9.72 miles). Included in the mileage is 3.14 miles of Federal Aid eligible roads for which the Village can receive federal funds towards improvements. No roads under the jurisdiction of the Village are listed on the National Highway System. To understand the current condition and future needs of



the roads within Lawton, the Van Buren County Road Commission gathered PASER data in 2018 which assign a value of 1-10 to each road segment based on visible distress. The results are as follows:

- Poor Condition (rating 1 4): 72.01%
- Fair Condition (rating 5 7): 23.65%
- Good Condition (rating 8-10): 0.00%
- Unrated: 4.35%
- Major Streets Average Rating: 3.75
  - Local Streets Average Rating: 2.60
    - The condition difference between Major and Local is expected due to the limited funds available for local streets.

PASER ratings are not only useful for efficiently capturing current road surface conditions, but they also help determine the appropriate maintenance needs of a roadway. Roads in poor condition have begun to lose pavement structure, which requires a structural repair such a mill and overlay or full reconstruction. A fair condition rating indicates a pavement has begun to exhibit minor, non-structural, distresses and can often be addressed by treatments such as a chip seal, fog seal, or a thin overlay to extend the life of road. Any road with a rating of good is considered 'like new' with minimal maintenance required. Though, crack sealing can be applied to address defects early in the pavements life and delay further deterioration. Utilizing the PASER rating information will select projects which maximize road conditions within the Village's allocated funding.

With the water infrastructure demands and the roadway improvements determined, individual projects were selected to be bundled with one another, creating a larger, more comprehensive project. The road projects selected include improvements to multiple assets such as water service replacements, water main replacements, and sanitary and storm sewer improvements.

#### Other:

The Village of Lawton has recently completed a Parks and Recreation Plan for fiscal years 2021 – 2025. The Plan identifies current issues and identifies future demands based on the communities needs and values. The intent of the Plan is to develop recreational opportunities, parks, and trail systems which provide safe facilities for non-motorized transportation. The Plan discusses and reviews the current parks facilities the Village has to offer. In addition, it identifies the following goals and an action plan for the Village to focus on:

- Goals:
  - Take advantage of economic development opportunities presented by downtown and commercial development.
  - Provide and expand non-motorized trails and bicycle routes for recreation and transportation use.
  - Provide multi-generational recreational opportunities / quality leisure time activities with consideration for activities which improve health and fitness for all ages.
  - Create and promote community awareness of Lawton recreational opportunities.

Refer to the "Village of Lawton 5 Year Parks & Recreation Master Plan" for additional information. See page 27 of the Master Plan for the proposed Action Plan.

#### **Funding Options:**

Potential funding opportunities include but are not limited to:

#### Roadways:

Major and Local Streets Funds.



- MDOT Transportation Economic Development Fund (TEDF) Category B Grant Villages and Small Cities
  - Maximum Grant of \$250,000 with a 50% minimum local match.
  - Any road construction work is eligible (other than regular maintenance).
  - May apply for funding in consecutive years.
  - Encourage applications on roadways that are ineligible for federal aid.
  - Encourage combining other infrastructure work.
- MDOT TEDF Category A Grant Economic Development Road Projects
  - Transportation improvement must relate to an immediate economic development project. A transportation need such as capacity, condition, safety, or accessibility must exist.
  - o 80% grant funded with 20% local match.
- MDOT TEDF Category D Grant Secondary All-Season Roads
  - The project must be essential to the creation of an all-season road system and must be eligible for federal aid.
  - 80% grant funded with 20% local match.
- MDOT TEDF Category F Grant Urban Areas in Rural Counties
  - Coordinated with the secondary all-season road system (Category D) or provides all-season routes within the Village.
  - o 80% grant funded with 20% local match. Maximum grant award of \$375,000.
- Small Urban Group Lawton & Paw Paw
  - Maximum of \$385,000 with 20% minimum local match.
  - Even Years
  - Village of Lawton, Village of Paw Paw, and Van Buran Road Commission alternate years for projects.
    - Next upcoming project for the Village of Lawton is 2024.
    - Roads must be on the federal-aid highway system.
    - Theoretically, every six (6) years Lawton will receive funding.
  - Any road construction work is eligible (other than regular maintenance).
- Congestion Mitigation and Air Quality Improvement Program (CMAQ)
  - Federal program required thru the Clean Air Act in areas that do not meet the National Ambient Air Quality Standards (NAAQS).
  - Eligible projects included carpools, traffic signal optimization, roundabouts, new bike lanes, etc.
  - Up to 80% Federal / State funded.
- Safe Routes to School (SRTS)
  - Eligible projects include sidewalk improvements, bicycle facilities, traffic diversion improvements, pedestrian crossing improvements, etc. Only eligible for K-8 students.
  - 80% grant funded with 20% local match.

#### Water / Sanitary Sewer:

- Enterprise Funds: Water and sewer rates.
  - USDA Loan: Long term, low interest loan. Limited grants.
    - Can be used to implement large water / sewer project.
    - Does not cover work on private property (private side of water service replacements).
    - Typically, little to no design engineering required to secure funding.
- Drinking Water State Revolving Fund (DWSRF): Long term, low interest loan. Limited forgiveness.
  - Can be used to implement large water / sewer project.
  - Does cover work on private property (private side of water service replacements).
  - Typically, design engineering required to secure funding (approximately 50% complete).
- Drinking Water Asset Management (DWAM) Grant (Currently all funds exhausted)
  - Grant intended to assist water suppliers Lead and Copper Rule compliance.



#### Other:

- American Recovery Plan Act (ARPA):
  - Related to Covid-19 response
  - Eligible projects are fairly broad included investments in water, sewer, or broadband infrastructure. In addition, to respond to the Covid-19 public health emergency or its negative economic impacts.
  - Lawton received approximately \$180,000 in ARPA funds. Van Buren County is also receiving a total of approximately \$14.5 million in ARPA Funds. The county is taking applications to fund eligible projects within the County.
- Michigan Economic Development Corporation (MEDC) Programs. Visit <u>https://www.miplace.org/programs/</u> for additional information on the following programs.
  - State Community Development Block Grant (CDBG)
    - Eligible activities include acquisition of property, rehabilitation of structures, construction of public facilities and improvements, energy conservation / renewable energy resources, etc.
  - Revitalization and Placemaking (RAP) Program. Utilizes ARPA dollars to repurpose vacant or underutilized historic buildings.
  - Match on Main. Supports eligible small businesses.
  - Michigan Community Revitalization Program.
  - Public Spaces Community Places (PSCP). Projects that activate public space within a traditional downtown area.
- Hazardous Mitigation Grant Program (through FEMA)
  - Intended to reduce risk and the potential impact of future disasters by rebuilding in a better, stronger and safer way.
  - Eligible projects include structural retrofits to make a building more resistant to natural disasters, retrofits to utilities or other infrastructure to enhance resistance to natural hazards, drainage improvements to reduce flooding, etc.

Parks and Recreation:

#### MDOT Transportation Alternatives Program (TAP):

The MDOT TAP is a competitive grant program aimed towards projects such as shared use paths, pedestrian and bicycle safety improvements, and preservation of historic facilities. Each year, there is approximately \$24.5 million federal dollars available. Of the annual amount available, approximately \$17.6 million is distributed through a competitive grant process and would be a logical source of funds to pursue for this project. The remaining amount only applies to urban areas with populations greater than 200,000.

Eligible applicants for the TAP grant funding include county road commissions, cities, villages, regional transportation authorities, state and federal natural resource or public land agencies, nonprofits responsible for the administration of local transportation safety programs, and tribal governments.

The MDOT TAP funding is extremely competitive and the program prioritizes funding for projects that demonstrate a competitive concept and a high likelihood of constructability. There is no maximum for grant request. Though, there is a 20% required match commitment. Over-match at 50% or more is expected for large TAP projects with a portion of the match from the applicant. Other grant sources are encouraged to avoid reliance TAP funding alone.



Complete applications can be submitted and accepted year-round. To be awarded a TAP grant, it is very important to have a complete and well detailed application. This involves the following factors:

- Financial Factors: Overmatch increases competitiveness.
- Project Cost Estimate: Itemized cost estimates to develop accurate budget.
- Property Ownership: The property is required to be in control by applicant agency.
- Public Input: Outreach, understanding, and support from the public.
- Include in Planning Documents: Updated masterplans/recreational plans.
- Engineering Cost: TAP fund does not cover any engineering related cost.
- Environmental Effects: NEPA review process along with threatened & endangered species review.
- Site and Design Considerations: Feasibility of project and conforming to federal and state design standards.
- Timeline: TAP application review process typically takes six to nine months. Construction does not typically begin until one or two years after funding commitment is issued.
- Required Maintenance: Maintenance plan with schedule, budget, funding, and responsible parties.

TAP funding has been acquired for the upcoming MDOT Streetscape project in 2023.

#### Michigan Natural Resources Trust Fund (MNRTF):

The MNRTF grant allocates State funds to projects that support the protection of natural resources and outdoor recreation and is administered by the Michigan Department of Natural Resources (MDNR). The maximum grant amount of \$300,000, for a single project. A minimum local match of 25% is also required to receive MNRTF.

Most of the same factors required for the MDOT TAP application apply for the MNRTF grant as well. The application process is competitive and the more detailed and transparent the project is, the greater probability of receiving a grant. The grant applications are due in April and approved in December/January for release of fund spending in spring. Typically, the grant is awarded and designed for the first year and construction in the following year.

#### Recreation Passport Grant through the Michigan Department of Natural Resources (MDNR):

The Recreation Passport Grant is intended to provide funding to local units of government for the development of public recreation facilities which includes renovation and constructing new. The program requires a 25% match from the applicant. Applications are due on April 1<sup>st</sup> each year with a grant award notification expected to occur in December. The grant has a minimum and maximum amount of \$7,500 and \$150,000 respectively.

#### Private Donors

Private donors may be the missing link to getting this project complete. There already has been success on the IN-MI River Valley Trail thus far with private donors. The local match for construction of the first phase in Niles Charter Township was paid for completely with small grants and private donors. Recognition of donors can be done in various ways: signage, plaques, benches.

It is recommended that a single municipality or an entity such as West Michigan Trails and Greenways Coalition act as the fiduciary to hold and track the donations until it is time to spend.



#### Endowments/Trust Funds

It is one thing to raise enough money to build a trail, but thought should be given to future maintenance of the trail to preserve it for future users. Currently, the federal and state grant programs do not grant funding for maintenance of existing projects but only new projects.

The purpose of an endowment or trust fund is to provide a source for to pay for future maintenance projects. Typically, Kalamazoo County Parks raises twice as much as the estimated construction to put into an endowment. An example of a maintenance fundraiser page: <u>https://yvcf.org/trails/</u>.

Endowment funds "...can be set up to aid funding for acquisition, construction or maintenance, and can be administered by a non-profit group or local commission. Funds can be contributed to a trust fund from government sources, private grants and gifts. One contributor to the [Rails to Trails Conservancy] Listserv notes that transparency is important with a trust fund, stating, 'If you do set up a dedicated endowment for land management, I would recommend keeping the endowment's books open to the public and [providing] members and donors with annual financial reports for the endowment." (Rails-to-Trails, Financing & Funding)



## **Appendix 1: Existing Capital Improvement Plans**

## **CAPITAL IMPROVEMENT PLAN**

### **Summary of Storm Capital Improvement Projects**

### Village of Lawton

Year	Project Name	Estimated Cost
2020	1st Street, West of Hamilton Street	\$3,000
2020	3rd Street, East of Franklin Street	\$3,000
2020	3rd Street, East of Railroad Street	\$3,000
2020	Fremont Street, South of 2nd Street	\$3,000
2020	Nursery Street, North of 4th Street	\$4,000
2020	South of Railroad Tracks, North of Union Street	\$58,000
2020	South of Railroad Tracks, West of Main Street	\$11,000
2020	Union Street, West of Main Street	\$1,000
2021	1st Street at Railroad Street	\$5,000
2021	Walker Street from Welch Foods	\$51,000
2021	Walker Street, South of White Oak Street	\$55,000
2022	2nd Street at Hamilton Street	\$10,000
2022	2nd Street, East of Fremont Street	\$11,000
2022	2nd Street, East of Hamilton Street	\$8,000
2022	2nd Street, East of Nursery Street	\$7,000
2022	Railroad Street, North of 2nd Street	\$14,000
2022	South Side of 2nd Street, West of Nursery Street	\$8,000
2023	4th Street West of West Street swGM-137	\$29,000
2023	Walker North of 4th Street swGM-149	\$47,000
2023	Walker South of Union swGM-151	\$20,000
2024	4th Street East of Walker - swGM-139	\$36,000
2024	4th Street, West of West Street	\$19,000
2024	Fremont Street, South of 3rd Street	\$6,000
2024	Nursery Street, North of 3rd Street	\$18,000
2024	swGM-138 4th Street East of Walker Street	\$20,000
2024	Walker Street East Side Across Union Street	\$12,000
2025	Root Cutting - 5yr Cycle	\$25,000
2030	Root Cutting - 5yr Cycle	\$25,000
2035	Root Cutting - 5yr Cycle	\$25,000

### Total Estimated Project Cost for 20 Year Storm CIP = \$ 537,000



## **CAPITAL IMPROVEMENT PLAN**

### **Summary of Sanitary Capital Improvement Projects**

### Village of Lawton

	Year	Project Name	Estimated Cost
	2020	Bitely Main to Railroad	\$3,000
	2020	Portable Generator for Lift Station	\$42,000
	2020	Replace Decanter Seals (2) at WWTF	\$36,000
	2021	New Roof over WWTF	\$17,000
	2023	North Main St South of White Oak	\$15,000
	2023	North Main St, South of RR Tracks	\$39,000
	2023	Orchard East of Main	\$22,000
	2023	Re route sewer from east on 2nd St down Main to Union	\$59,000
	2023	South Main St Between Durkee St and Morrill St	\$12,000
	2023	South Main St North of Orchard St	\$6,000
	2023	South Main St South of Morrill St	\$6,000
	2025	Replace Force Main from White Oak to Main	\$61,000
	2028	2nd St at Main St Intersection	\$7,000
	2028	2nd St, West of 29th St	\$8,000
	2028	Alley South of 2nd St	\$34,000
	2028	Bitely East of Hamilton	\$15,000
	2028	Bitely St Between Hamilton St and Liberty St	\$28,000
	2028	Bitely St Between Liberty St and Railroad St	\$20,000
	2028	Durkee St Between S Main St and Railroad St	\$20,000
	2028	Durkee St Between S Railroad St and Liberty St	\$21,000
	2028	East Bitely St, West of S Hamilton St	\$18,000
	2028	Fremont St, North of 4th St	\$10,000
	2028	Liberty St Between Durkee St and Bitely St	\$18,000
	2028	Lining N. Main South of White Oak	\$11,000
	2028	Lining S. Main Between Durkee and Morrill	\$16,000
	2028	Merchant St, North of 2nd St	\$11,000
	2028	North Main St north of the railroad tracks	\$11,000
	2028	North Main St, North of RR Tracks	\$25,000
	2028	Quincy St, South of 3rd St	\$10,000
	2028	South Main St Between 5th St and Bitely St	\$24,000
L	2033	1st St, East of Railroad St	\$24,000
	2033	1st St, West of Adams St	\$20,000
	2033	1st St, West of Franklin St	\$19,000
		Capital Improvement Project List Continued On Next Page	

## **CAPITAL IMPROVEMENT PLAN**

### Summary of Sanitary Capital Improvement Projects (cont.)

### Village of Lawton

Year	Project Name	Estimated Cost
2033	2nd St, West of Hamilton St	\$16,000
2033	3rd St, East of Franklin St	\$28,000
2033	3rd St, West of Adams St	\$20,000
2033	3rd St, West of Fremont St	\$16,000
2033	3rd St, West of Hamilton St	\$20,000
2033	4th St, West of Fremont St	\$20,000
2033	Adams St, South of 3rd St.	\$18,000
2038	Franklin St, 4th St to Washington St	\$19,000
2038	Franklin St, South of 1st St	\$19,000
2038	Hamilton St, South of 3rd St	\$17,000
2038	Harvey St, West of West St	\$9,000
2038	Nursery St Morrill to Durkee	\$3,000
2038	Nursery St, North of Washington St	\$8,000
2038	Railroad St, South of 4th St	\$25,000
2038	Railroad St, South of 5th St	\$15,000
2038	Union St, West of Walker St	\$28,000
2038	Washington S, East of Hamilton St	\$20,000
2038	Washington St, West of Adams St	\$20,000

#### Total Estimated Project Cost for Twenty Year Sanitary CIP = \$1,009,000



#### VILLAGE OF LAWTON – CAPITAL INPROVEMENTS PLAN

#### 2017

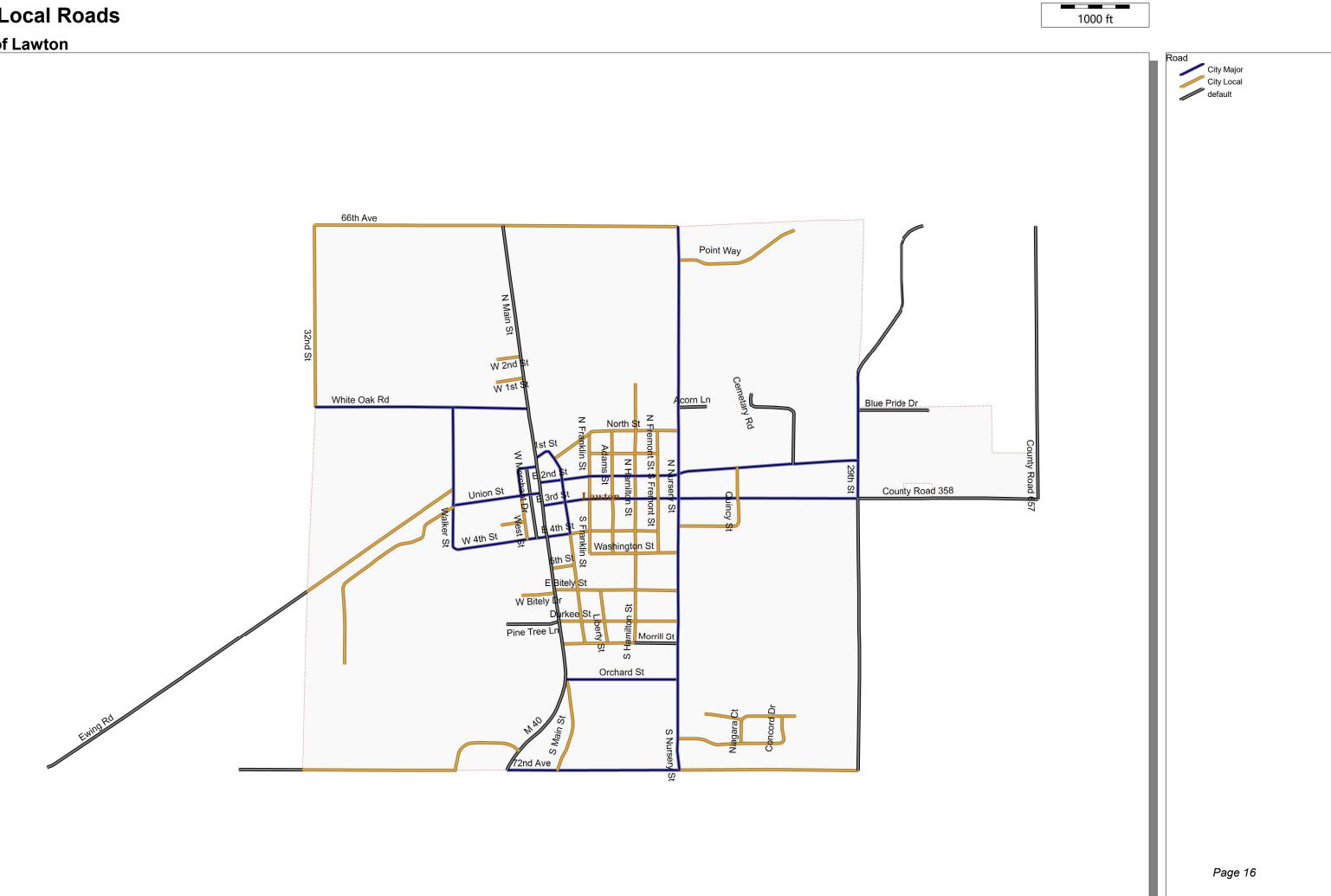
In 2010, the Village of Lawton took on a major upgrade to the Water System. This included up grading water main from 2" and 4" to 6" in the following places: From well houses to West Fourth Street, North Main Street, West First Street, North Nursery Street, Adams Street, Bitely Street, Liberty Street, West Bitely Street and North Hamilton Street The project also called for a new well and a new Water Tower located n North Main Street.With all of the construction 2010, replacing 4" water main will need to be up graded thought the following years.

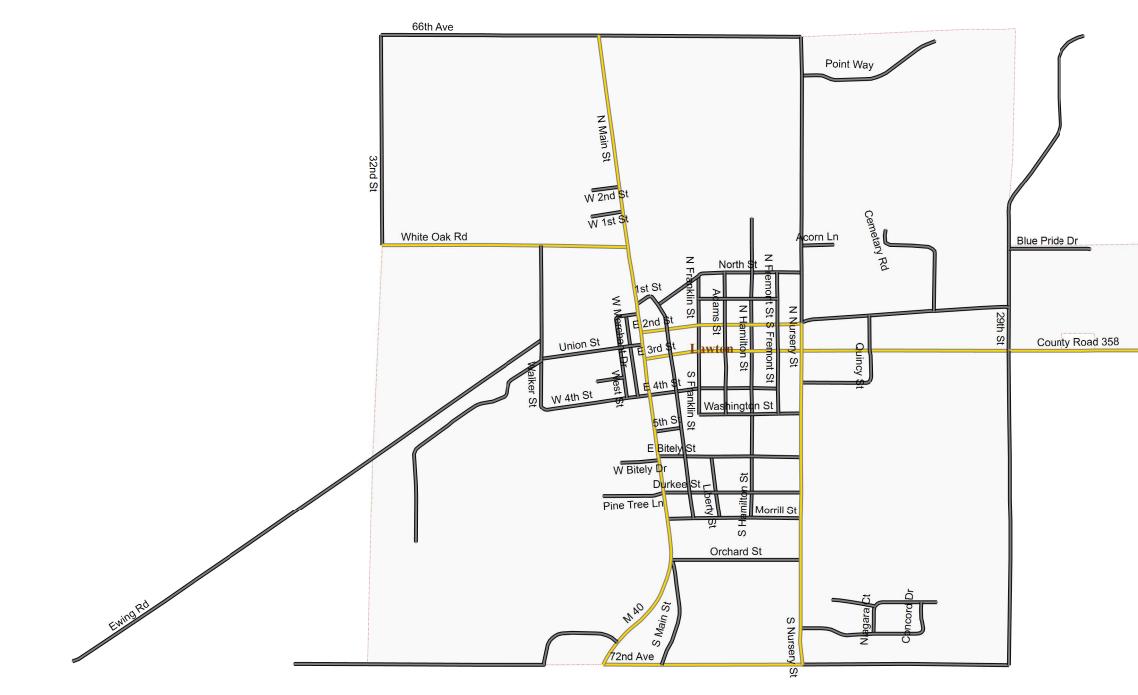
Capital Improvements Plan List ProjectsEstimated CostTimeframUmark #9 formationSource2018Well #4 Cleaning and Overhaul5,0002018Replace" Main on Second St.105,0002020Replace Hydrants on Main St50,0002021Replace Main on Franklin St.25,0002025Replace 4" Main on Washington St.75,0002025Replace 4" Main on Third St.30,0002025Replace 4" Main on Bitely St.60,0002030Replace 4" Main on Bitely St.60,0002030Replace 4" Main on S. Hamilton St.35,0002030Replace 4" Main on Hamilton St.40,0002030			
Well #9 fund			
Well #4 Cleaning and Overhaul	5,000	2018	
Replace" Main on Second St.	105,000	2020	
Replace Hydrants on Main St	50,000	2021	
Replace Main on Franklin St.	25,000	2025	
Replace 4" Main on Washington St.	75,000	2025	
Replace 4" Main on Third St.	30,000	2025	
Repaint Water Tower	60,000 Diron	2030	
Replace 4" Main on Bitely St.	60,000	2030	
Replace 4" Main on S. Hamilton St.	35,000	2030	
Replace 4" Main on Hamilton St.	40,000	2030	
(S. of Washington)	5		
Replace 4" Main on Fourth St.	75,000	2035	
Replace 4" Main on Fremont St.	130,000	2035	
Replace 4" Main on Union St.	60,000	2035	
Replace Water Meters	150,000	2040	

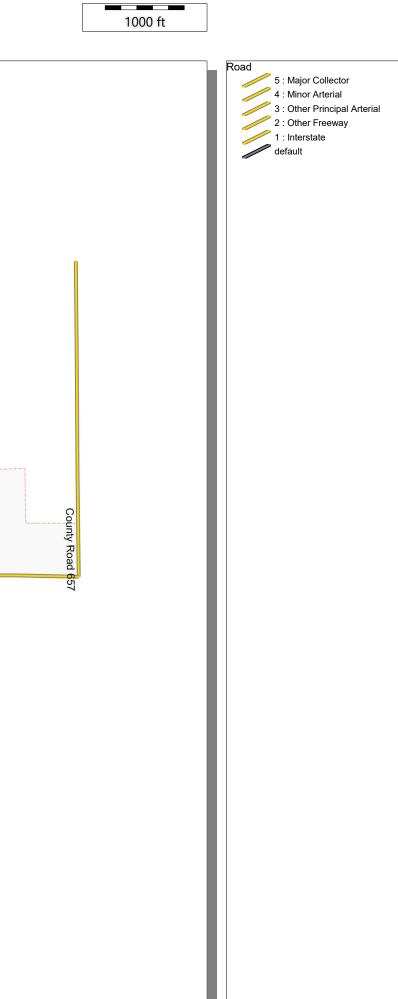
All project cast are to be funded by the water budget and/or may utilize financing for associated project improvements depending on the funding source and scope.



## **Appendix 2: Transportation Asset Management Plan**







## Asphalt PASER

	Asphalt 10	Asphalt 9	Asphalt 8
Good	New construction (<1 year old) No defects <u>Recent base improvement</u> <u>Possible Action:</u> <u>PPM</u>	Like new condition (>1 year old) No defects <u>Recent overlay with or without</u> <u>a crush and shape</u> Possible Action: PPM	<ul> <li>◆ Transverse cracks: &gt;40' apart Cracks: tight (hairline) or sealed Longitudinal cracks: few, on joints</li> <li><u>Recent seal coat or slurry seal (*see below)</u></li> <li><i>Possible Action:</i> Crack seal (PPM)</li> </ul>
	Asphalt 7	Asphalt 6	Asphalt 5
Fair	<ul> <li>◆ Transverse cracks: 10'-40' apart Cracks: open &lt; ¼" Crack erosion: none or little Surface raveling: none or little Patches: none or few in excellent condition</li> <li><u>First signs of wear</u></li> <li>Possible Action: Maintain with crack seal, fog seal</li> </ul>	<ul> <li>Transverse cracks: &lt; 10' apart</li> <li>Block cracking: 6'-10' Blocks (large, stable)</li> <li>Cracks open ¼" – ½"</li> <li>Surface raveling: slight</li> <li>Patches: few in good condition</li> <li>Polishing or flushing: slight, moderate</li> <li>Sound structural condition</li> <li>Possible Action:</li> <li>Maintain with sealcoat</li> </ul>	<ul> <li>Block cracking: 1' – 5' blocks</li> <li>Longitudinal cracks: first signs, at edge</li> <li>Secondary cracks: first signs</li> <li>Cracks open &gt;½"</li> <li>Surface raveling: moderate</li> <li>Patches/wedging: good condition</li> <li>Flushing &amp; polishing: extensive, severe</li> <li>Sound structural condition</li> <li>Possible Action:</li> <li>Maintain with sealcoat or thin overlay</li> </ul>
	Asphalt 4	Asphalt 3	Asphalt 2
Poor	<ul> <li>Block cracking: &lt;1' blocks</li> <li>Wheel-path cracking (longitudinal)</li> <li>Rutting: <sup>1</sup>/<sub>2</sub>" - 1" deep Transverse cracks: slight erosion Longitudinal cracks: slight erosion Surface raveling: severe Patches: fair condition</li> <li>First signs of structural weakening</li> <li>Possible Action: Structural overlay &gt;2" Underseal</li> </ul>	<ul> <li>Block cracking: severe (like alligator)</li> <li>Alligator cracking: initial, &lt; 25%</li> <li>Rutting: 1"- 2" deep Transverse cracks: extensive erosion Longitudinal cracks: extensive erosion Patches: fair/poor condition Potholes: occasional</li> <li>Possible Action: Structural overlay &gt; 2" Patching &amp; repair prior to an overlay Milling to extend overlay life</li> </ul>	<ul> <li>Alligator cracks: &gt; 25%</li> <li>Rutting or distortion: &gt;2" Cracks: closely spaced, with erosion Patches: extensive, in poor condition Potholes: frequent</li> <li>Possible Action: Reconstruction with base repair Crush and shape</li> <li>Asphalt 1</li> <li>Like PASER 2 but with visible base and: Surface integrity: lost Surface distress: extensive</li> <li>Possible Action: Reconstruction with base repair</li> </ul>

#### **General Rating Tips**

Rate surface distress, not ride quality. Be aware of cracks in the wheel path; they can be hard to see and do not affect the ride.

**Disregard the shoulder**. Rate only the driveable pavement, edge line to edge line.

**Do not ignore reflective cracks.** Rate by assessing the type of crack (e.g. transverse, longitudinal, alligator).

**Rate the current surface condition**. If construction is in progress (i.e., work is active) but you are driving on the old surface, rate the new surface. Some barrels by the roadside is *not* construction in progress.

**Rate the lane with the worst condition** when lanes have differing conditions. For variable surface types, rate the worst lane and select it as the *Surface Subtype*.

Rate what you see, not what distresses you think might happen in the future.

Rate roads with the same scrutiny regardless of their use, ownership, or functional class.

**Rutting** often has visual cues like plow scars. Get out and measure using a straight edge and tape measure. Use caution! Rutting measurement changes are detailed in the *TAMC Data Collection Training Manual*'s "Michigan-specific Asphalt Road Rating Guide" section, page 7.

**Composite Pavement** consists of a concrete pavement overlaid with asphalt; rate it based on the uppermost surface (e.g. asphalt); and note the *Surface Subtype* as composite. A repaired concrete pavement's highest rating is a 9. While it may have had concrete joint repairs, no other defects can be present and the condition is "like new". Note, this is *not* what the *Concrete PASER Manual* says.

**Sealcoat pavements** are sealcoat over gravel whereas sealcoat treatment is sealcoat applied over asphalt. See pages 6-7 of the TAMC Data Collection Manual for rating sealcoat pavements. \*With proactive sealcoat treatments, do not downgrade an asphalt PASER 9 or 10 (no defects) to an asphalt PASER 8 because of the treatment. Rate it based on the distresses that are visible (see *TAMC Data Collection Training Manual*'s "Proactive Sealcoat Treatments on Asphalt PASER 9" section, page 8).

## **Concrete PASER**

Denotes P	riority	Distress
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	Concrete 10	Concrete 9	Concrete 8
Good	New construction (< 1 year old) No defects <u>Recent reconstruction</u> <i>Possible Action:</i> <i>None</i>	<ul> <li>Like NEW (&gt; 1 year old)</li> <li>◆ Joint rehabilitation: recent, only if no other defects are present</li> <li>Map cracks: slight</li> <li>Pop outs: few</li> <li>Surface wear: light, in wheel path</li> <li><u>Recent concrete overlay</u></li> <li>Possible Action: None</li> </ul>	<ul> <li>Joint sealant: partial loss</li> <li>Joints: good condition</li> <li>Transverse cracks: none</li> <li>Meander cracks: isolated, well-sealed/tight</li> <li>Cracks: at manholes – isolated, well-sealed/tight</li> <li>Map cracks: minor</li> <li>Scaling: slight (first signs)</li> <li>Pop outs: minor</li> <li>Surface wear: light</li> <li>Possible Action:</li> <li>Little to no maintenance</li> </ul>
	Concrete 7	Concrete 6	Concrete 5
Fair	<ul> <li>Full-depth repairs: excellent condition</li> <li>Transverse cracks: isolated</li> <li>Joints: some open</li> <li>Cracks: at manholes – some</li> <li>Settlement/heaves: isolated</li> <li>Scaling: minor</li> <li>Pop outs: could be extensive but sound</li> <li>Possible Action: Seal open joints</li> <li>Spot repair surface defects</li> </ul>	<ul> <li>Transverse joints: open ¼"</li> <li>Longitudinal joints: open ¼"</li> <li>Transverse &amp; meander cracks: open ¼"</li> <li>Transverse &amp; meander cracks: open ¼"</li> <li>Cracks: at corners – several, well-sealed/tight</li> <li>Shallow reinforcement: cracking – first signs</li> <li>Scaling: &lt;25% surface</li> <li>Possible Action: Seal open joints and cracks Overlay surface raveling areas</li> </ul>	<ul> <li>Joint/crack spalling: first signs</li> <li>Joint/crack faulting: up to ¼"</li> <li>Cracks: at corners – multiple, w/ broken pieces</li> <li>Shallow reinforcement: spalling</li> <li>Scaling: 25% to 50% surface</li> <li>Polishing: 25% to 50% surface</li> <li><i>Possible Action:</i></li> <li>Some partial depth joint repairs or patching may be needed</li> </ul>
	Concrete 4	Concrete 3	Concrete 2
Poor	<ul> <li>Joint/crack spalling: open 1" on several slabs</li> <li>Joint/crack faulting: up to ½"</li> <li>Transverse or meander cracks: multiple</li> <li>Cracks: at corners – missing pieces or patches</li> <li>Pavement blowups</li> <li>Spalling: &gt;50% surface</li> <li>Map cracks: &gt;50 % surface</li> <li>Scaling: &gt;50% surface</li> <li>Polishing: &gt; 50% surface</li> <li>Possible Action: Some full depth repairs</li> <li>Asphalt overlay or extensive surface scaling</li> </ul>	<ul> <li>Joint, transverse, and meander cracks: open 1" on most slabs severely spalled</li> <li>Joint/crack faulting: up to 1"</li> <li>D-cracking: evident</li> <li>Patches: extensive, fair to poor condition</li> <li>Possible Action: Extensive full depth repairs Some full slab replacements</li> </ul>	Joints: failed Settlement/heaves: extensive, severe Spalling (of slab cracks): extensive, severe Patches: extensive, failed condition <i>Possible Action:</i> <i>Recycle or rebuild pavement</i> <b>Concrete 1</b> Pavement integrity: total loss Potholes: extensive <u>Restricted speeds</u> <i>Possible Action:</i> <i>Total reconstruction</i>

#### **Contact Information**

Roadsoft & LDC Technical Support: 906-487-2102

TAMC Coordinator: Roger Belknap, 517-230-8192 belknapr@michigan.gov

TAMC Website: michigan.gov/tamc



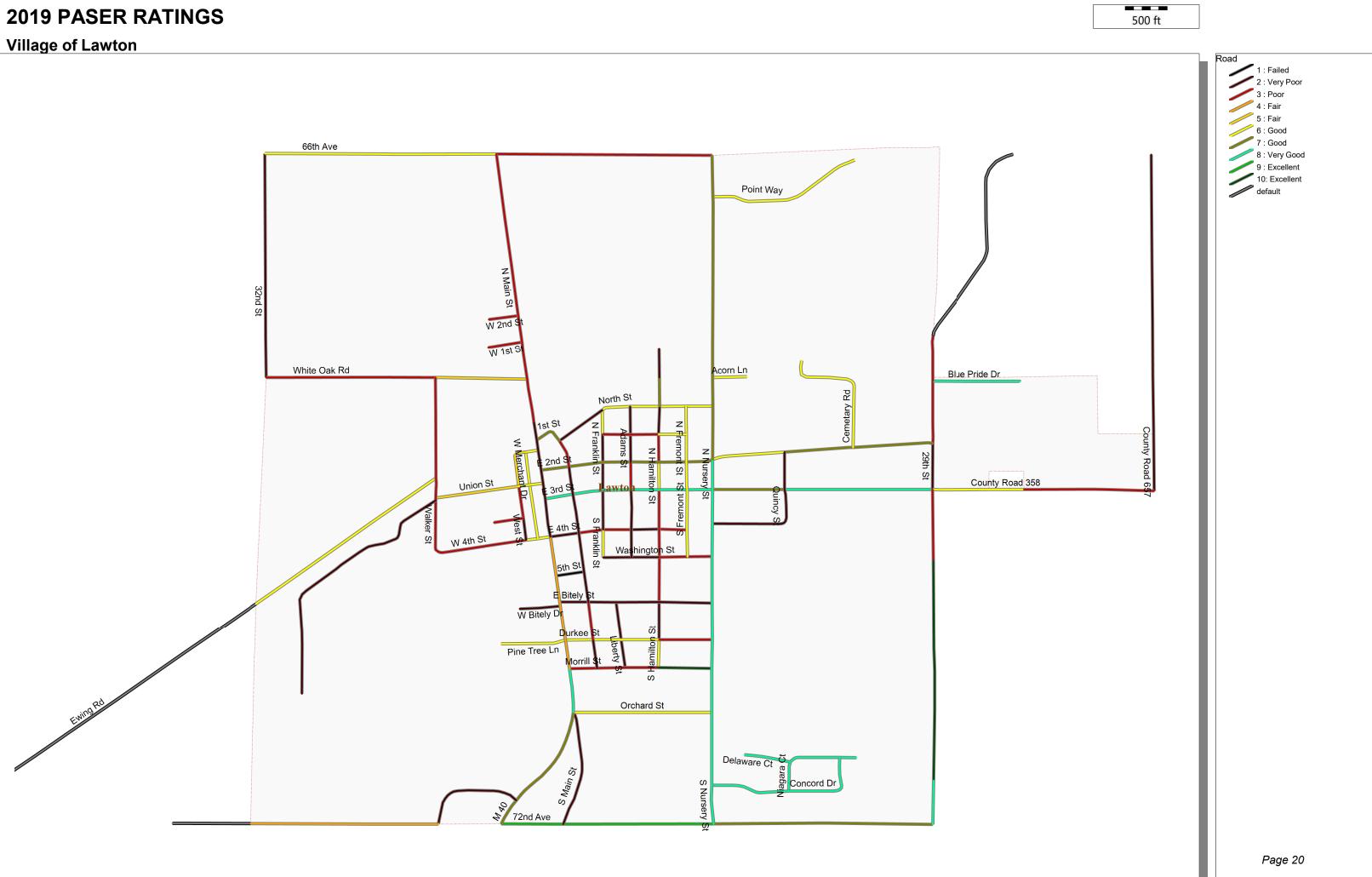
Michigan Transportation Asset Management Council



Framework Issues: 517-335-3741, ask for the TAMC Help Desk

PASER Data Submission via the CSS IRT Website https://milogintp.michigan.gov

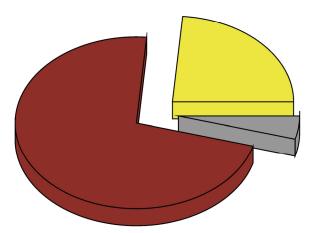
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## **Good/Fair/Poor Summary**

Mileage Type:Centerline milesRoad Class:All RoadsRoad Type:All RoadsOwnership:All Roads

Condition	<b>Centerline Miles</b>	Percentage	
Good (Rating 8+)	0.000	0.00%	
Fair (Rating 5-7)	3.853	23.65%	
Poor (Rating 1-4)	11.733	72.01%	
Unrated	0.708	4.35%	
Total Miles:	16.294		



Good (Rating 8+), 0.000 (0.0%) Fair (Rating 5-7), 3.853 (23.6%) Poor (Rating 1-4), 11.733 (72.0%) Unrated, 0.708 (4.3%)



#### Proposed Roadway Surface Treatments

Treatment	Category	Est. Cost/ Center Line Mile (\$)	Applicable PASER Rating	Final PASER Rating
Reconstruction	Reconstruction	1,300,000	1-3	10
3" Mill & Overlay	Rehabilitation	310,000	3-4	9
2" Overlay	Rehabilitation	230,000	5-6	9
Cape Seal	Preventative Maintenance	38,000	5-7	8
Crack Seal	Preventative Maintenance	3,000	7	8

#### **Definitions:**

*Preventative Maintenance*: Cost effective treatments performed to preserve existing roadways and slow future deterioration. Applied early in the service life of a road.

*Rehabilitation*: Improvements made on a roadway to restore surface conditions and increase service life. Generally applied near the mid-point of service life.

*Reconstruction:* Removal and replacement of the majority of the pavement structure. This includes improvement of the base or sub-base of a roadway.

#### Lawton (CityVillage)

Report Module: Planner Evaluation Today's Date: Wednesday, March 23, 2022

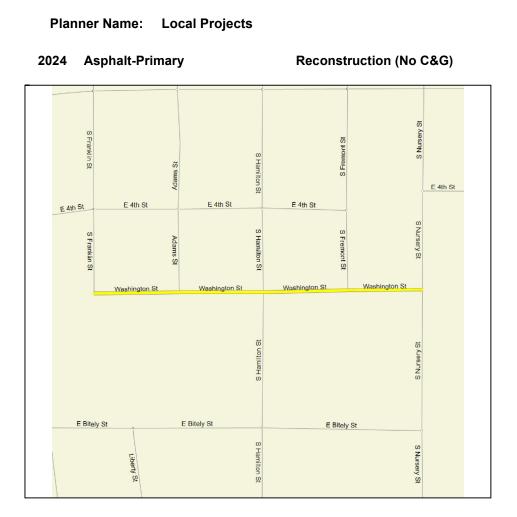
#### Local Projects

Last Modified: 3/22/2022 Percent Inflation: 2 Number of Years: 11 Strategy/Filter Name: CIP Local Strategy Filter: City Local Plan Memo:



Planner Name: Local Projects

Project	Key	PR Number	Road Name	From/To Desc	Bmp/Emp	Length	Lanes	Lane Length	Width	Surface Cost	
Project - 1		590201	S Hamilton St	North St	0.588	0.065	2	0.130	0.00	\$3,540	
				[Surface Segment Split]	0.653						
				Chip Seal+Fog Totals:		0.065		0.13		\$3,540	
				Asphalt-Primary Totals:		0.065		0.13		\$3,540	
				Year 2022 Totals:		0.065		0.13		\$3,540	



#### Planner Name: Local Projects

Project	Key	PR Number	Road Name	From/To Desc	Bmp/Emp	l enath	l anes	Lane Length	Width	Surface Cost	
			Washington St	Franklin	0.000	0.064	2	0.128		\$77,697	
				Adams St	0.064						
			Washington St	Adams St	0.064	0.062	2	0.124		\$75,269	
				S Hamilton St	0.126						
			Washington St	S Hamilton St	0.126	0.063	2	0.126		\$76,483	
				S Fremont St	0.189						
			Washington St	S Fremont St	0.189	0.055	2	0.110		\$66,771	
				Nursery	0.244						
			Red	construction (No C&G) Totals:		0.244		0.488		\$296,221	
				Asphalt-Primary Totals:		0.244		0.488		\$296,221	
				Year 2024 Totals:		0.244		0.488		\$296,221	

Planner Name: Local Projects 2025 Asphalt-Primary Chip Seal+Fog S Z g Orchard St S Nurser Niagara Ct Niagara Ct Delaware Ct õ gara Concord Dr Ë Concord Dr SNur Class Ś 72nd Ave 72nd Ave

Planner Name: Local Projects

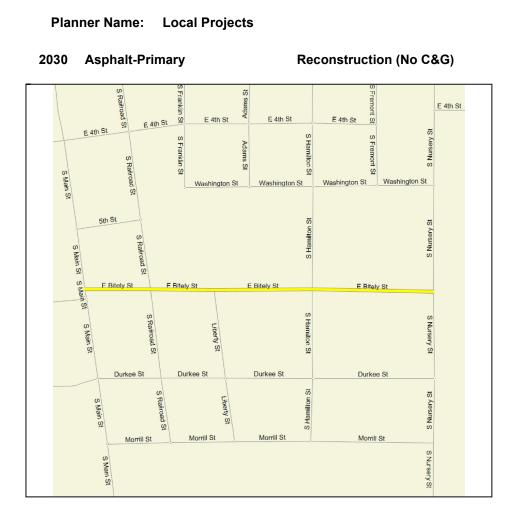
				Lane		
From/To Desc	Bmp/Emp	Length	Lanes	Length	Width	Surface Cost
Nursery	0.000	0.177	2	0.354	0.00	\$10,228
Niagara Ct	0.177					
Niagara Ct	0.177	0.188	2	0.376	0.00	\$10,864
Niagara Ct	0.365					
Chip Seal+Fog Totals:		0.365		0.73		\$21,092
Asphalt-Primary Totals:		0.365		0.73		\$21,092
Year 2025 Totals:		0.365		0.73		\$21,092
	Nursery Niagara Ct Niagara Ct Niagara Ct Chip Seal+Fog Totals: Asphalt-Primary Totals:	Nursery0.000Niagara Ct0.177Niagara Ct0.177Niagara Ct0.365Chip Seal+Fog Totals:Asphalt-Primary Totals:	Nursery0.0000.177Niagara Ct0.1770.188Niagara Ct0.3650.365Chip Seal+Fog Totals:0.365Asphalt-Primary Totals:0.365	Nursery         0.000         0.177         2           Niagara Ct         0.177         2           Niagara Ct         0.177         0.188         2           Niagara Ct         0.365         2           Chip Seal+Fog Totals:         0.365         0.365           Asphalt-Primary Totals:         0.365         1	From/To DescBmp/EmpLengthLanesLengthNursery0.0000.17720.354Niagara Ct0.1770.18820.376Niagara Ct0.3650.3650.73Chip Seal+Fog Totals:0.3650.73Asphalt-Primary Totals:0.3650.73	From/To DescBmp/EmpLengthLanesLengthWidthNursery0.0000.17720.3540.00Niagara Ct0.1770.18820.3760.00Niagara Ct0.3650.3650.000.1730.18820.376Chip Seal+Fog Totals:0.3650.3650.730.730.73

Planner Name: Local Projects

**Asphalt-Primary** Reconstruction (No C&G) 2026 N Hamilton N Fremont St N Franklin Adams St N Railroad St ŝ ŝ E 3rd St S Franklin St 5 nout õ Hamilton S Rail Vdams ល្អ 8 S E 4th St S Franklin Hamil ĝ S ŝ ŝ ŝ oad Washington St Washington St Washington St St 5th St ಹ ton S oad St

Planner Name: Local Projects

								Lane		
Project	Кеу	PR Number	Road Name	From/To Desc	Bmp/Emp	Length	Lanes	Length	Width	Surface Cost
		580102	W 4th St	Railroad	0.324	0.055	2	0.110	0.00	\$69,469
				S Franklin St	0.379					
			W 4th St	S Franklin St	0.379	0.062	2	0.124		\$78,310
				Adams St	0.441					
			W 4th St	Adams St	0.441	0.063	2	0.126		\$79,573
				S Hamilton St	0.504					
			W 4th St	S Hamilton St	0.504	0.062	2	0.124		\$78,310
				Fremont	0.566					
				Reconstruction (No C&G) Totals:		0.242		0.484		\$305,663
				Asphalt-Primary Totals:		0.242		0.484		\$305,663
				Year 2026 Totals:		0.242		0.484		\$305,663



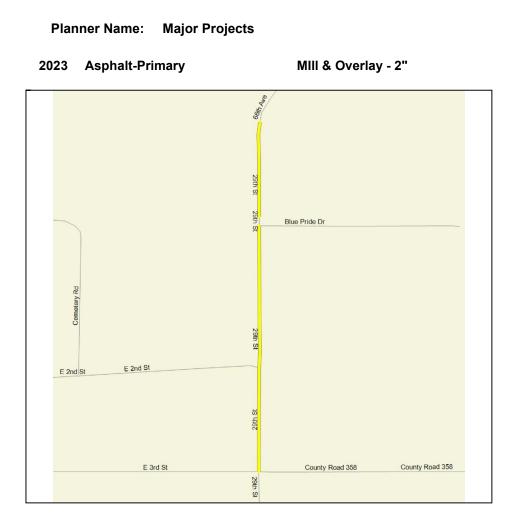
								Lane		
Project	Key	PR Number	Road Name	From/To Desc	Bmp/Emp	Length	Lanes	Length	Width	Surface Cost
		3800030	E Bitely St	Main	0.000	0.064	2	0.128	0.00	\$87,500
				S Railroad St	0.064					
		3800030	E Bitely St	S Railroad St	0.064	0.063	2	0.126	0.00	\$86,133
				Liberty St	0.127					
		3800030	E Bitely St	Liberty St	0.127	0.096	2	0.192	0.00	\$131,250
				S Hamilton St	0.223					
		3800030	E Bitely St	S Hamilton St	0.223	0.119	2	0.238	0.00	\$162,695
				Nursery	0.342					
				Reconstruction (No C&G) Totals:		0.342		0.684		\$467,578
				Asphalt-Primary Totals:		0.342		0.684		\$467,578
				Year 2030 Totals:		0.342		0.684		\$467,578
				Report Totals:		1.258		2.516		\$1,094,093

#### Lawton (CityVillage)

Report Module: Planner Evaluation Today's Date: Wednesday, March 23, 2022

#### **Major Projects**

Last Modified: 3/23/2022 Percent Inflation: 2 Number of Years: 11 Strategy/Filter Name: CIP Major Strategy Filter: City Major Plan Memo:



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Planner Name: Major Projects

								Lane		
Project	Key	PR Number	Road Name	From/To Desc	Bmp/Emp	Length	Lanes	Length	Width	Surface Cost
Project - 1		587909	29th St	County Road 358	0.753	0.103	2	0.206	20.00	\$29,422
				2nd	0.856					
		587909		2nd	0.856	0.140	2		20.00	\$39,991
				City/Twp Line	0.996					
		587909		2nd	1.005	0.094	2		20.00	\$26,851
				City/Twp Line	1.099					
				MIII & Overlay - 2" Totals:		0.337		0.674		\$96,265
				Asphalt-Primary Totals:		0.337		0.674		\$96,265
				Year 2023 Totals:		0.337		0.674		\$96,265



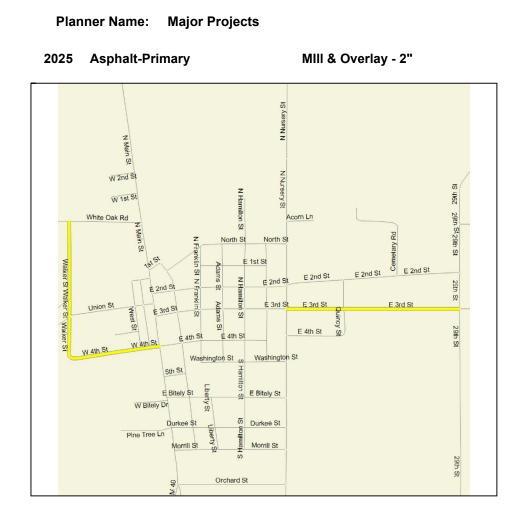
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Planner Name: Major Projects

Project Key	PR Number Ro	oad Name	From/To Desc	Bmp/Emp	Length	Lanes	Lane Length	Width	Surface Cost
		unty Road 358	Walker	4.949	0.207	3		22.00	\$90,469
			Main	5.156					
			MIII & Overlay - 2" Tot	als:	0.207		0.621		<b>\$90,469</b>
	2024	Asphalt-Pri	mary	Reconstruction	n (No C&	G)			
		32nd Sl	White Oak Rd		Walker St				

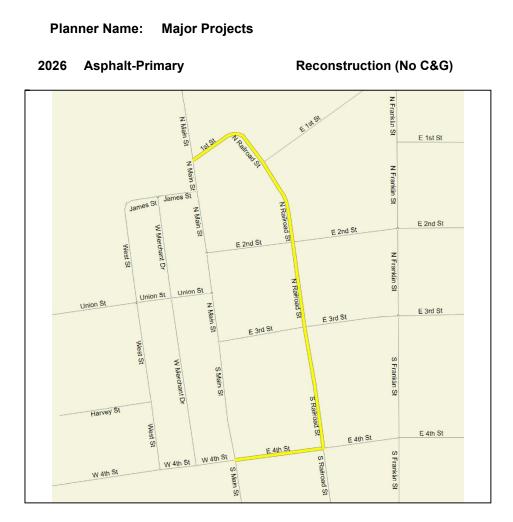
Planner Name: Major Projects

								Lane		
Project	Key	PR Number	Road Name	From/To Desc	Bmp/Emp	Length	Lanes	Length	Width	Surface Cost
		583108	County Road 358	32nd	4.569	0.380	2	0.760	22.00	\$461,328
				Walker	4.949					
			Red	construction (No C&G) Totals:		0.38		0.76		\$461,328
				Asphalt-Primary Totals:		0.587		1.381		\$551,797
				Year 2024 Totals:		0.587		1.381		\$551,797



Planner Name: Major Projects

roject	Key	PR Number	Road Name	From/To Desc	Bmp/Emp	Lenath	Lanes	Lane Length	Width	Surface Cost
			W 4th St	Walker	0.000	0.204	2	0.408	0.00	\$60,627
				West St	0.204					
		580102	W 4th St	West St	0.204	0.027	2	0.054	0.00	\$8,024
				W Merchant Dr	0.231					
		580102	W 4th St	W Merchant Dr	0.231	0.028	2	0.056	0.00	\$8,321
				E 4th St	0.259					
		580103	County Road 358	Nursery	0.377	0.163	2	0.326	0.00	\$48,442
				Quincy	0.540					
		580103	County Road 358	Quincy	0.540	0.331	2	0.662	0.00	\$98,371
				29th	0.871					
		580107	Walker St	4th	0.000	0.114	2	0.228	0.00	\$33,880
				Union St	0.114					
		580107	Walker St	[Surface Segment Split]	0.119	0.020	2	0.040	0.00	\$5,944
				Amtrak	0.139					
		580107	Walker St	Amtrak	0.139	0.025	2	0.050	0.00	\$7,430
				Ewing Rd	0.164					
		580107	Walker St	Ewing Rd	0.164	0.226	2	0.452	0.00	\$67,166
				White Oak	0.390					
				Mill & Overlay - 2" Totals:		1.138		2.276		\$338,205
				Asphalt-Primary Totals:		1.138		2.276		\$338,205
			Γ	Year 2025 Totals:		1.138		2.276		\$338,205



Planner Name: Major Projects

Project	Kev	PR Number	Road Name	From/To Desc	Bmp/Emp	Length	Lanes	Lane Length	Width	Surface Cost
	,		W 4th St	E 4th St	0.259	0.065	2	0.130		\$82,099
				Railroad	0.324					
		590108	S Railroad St	4th	0.307	0.089	2	0.178	0.00	\$112,413
				N Railroad St & E 3rd St	0.396					
		590108	S Railroad St	S Railroad St & E 3rd St	0.396	0.062	2	0.124	0.00	\$78,310
				E 2nd St	0.458					
		590108	S Railroad St	E 2nd St	0.458	0.063	2	0.126	0.00	\$79,573
				E 1st St	0.521					
		590108	S Railroad St	E 1st St	0.521	0.027	2	0.054	0.00	\$34,103
				1st	0.548					
		1885405	1st St	Main	0.000	0.038	2	0.076	0.00	\$47,997
				Railroad	0.038					
			Re	econstruction (No C&G) Totals:		0.344		0.688		\$434,496
				Asphalt-Primary Totals:		0.344		0.688		\$434,496
				Year 2026 Totals:		0.344		0.688		\$434,496

Planner Name: Major Projects **Asphalt-Primary** 2030 Reconstruction (No C&G) North St North St North St North St 7 S z S E 1st St E 1st St E 1st St ursery St N Main St N Main St Z z NNN E 2nd St S C. S E 2nd St 2 7 Z 5 S S S St E 3rd St E 3rd St E 3rd St E 3rd St 5 E 3rd St Main E 3rd St E 3rd St S S Nursery St in S Main S E 4th St St 5 E 4th St S W 4th St Z ŝ S Main St St Washington St Washington St Washington St Washington St S S Nursery St 5th St SMain Hai S 5

Planner Name: Major Projects

Project	Key PR Numbe	r Road Name	From/To Desc	Bmp/Emp	Longth	Lanaa	Lane Length	Width	Surface Cost	
Project	580103			0.000	0.063	2	0.126		\$86,133	
		,	N Railroad St	0.063					+	
	580103	County Road 358	N Railroad St	0.063	0.068	2	0.136	0.00	\$92,969	
			S Franklin St	0.131						
	580103	County Road 358	S Franklin St	0.131	0.063	2	0.126	0.00	\$86,133	
			Adams St	0.194						
	580103	County Road 358	Adams St	0.194	0.063	2	0.126	0.00	\$86,133	
			Hamilton	0.257						
	580103	County Road 358	Hamilton	0.257	0.063	2	0.126	0.00	\$86,133	
			N Fremont St & S Fremont St	0.320						
	580103	County Road 358	N Fremont St & S	0.320	0.057	2	0.114	0.00	\$77,930	
			Fremont St Nursery	0.377						
		Re	construction (No C&G) Totals:		0.377		0.754		\$515,429	
			Asphalt-Primary Totals:		0.377		0.754		\$515,429	
			Year 2030 Totals:		0.377		0.754		\$515,429	

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#### **Asphalt-Primary Reconstruction (No C&G)** 2031 N Main St North St North St North St N Fran EISTST klin St N Main St -E 1st St E 1st St E 1st St 15151 V z N Franklin James St St S Z Mair E 2nd St E 2nd St E 2nd St E 2nd St S E 2nd St S 5 Union St S 2 z E 3rd St E 3rd St E 3rd St Main St E 3rd St E 3rd St S W Merchant Dr S Franklin S Main õ ilton õ S ŝ road S E 4th St E 4th St E 4th St Ś E 4th St E 4th St

W 4th St

#### **Project Planner Detailed Projects By Year Report**

								Lane		
Project	Key	PR Number	Road Name	From/To Desc	Bmp/Emp	Length	Lanes	Length	Width	Surface Cost
		580105	E 2nd St	Main	0.000	0.063	2	0.126	0.00	\$87,855
				N Railroad St	0.063					
		580105	E 2nd St	N Railroad St	0.063	0.076	2	0.152	0.00	\$105,984
				N Franklin St	0.139					
		580105	E 2nd St	N Franklin St	0.139	0.063	2	0.126	0.00	\$87,855
				Adams St	0.202					
		580105	E 2nd St	Adams St	0.202	0.063	2	0.126	0.00	\$87,855
				N Hamilton St	0.265					
				Reconstruction (No C&G) Totals:		0.265		0.53		\$369,550
				Asphalt-Primary Totals:		0.265		0.53		\$369,550
				Year 2031 Totals:		0.265		0.53		\$369,550
				Report Totals:		3.048		6.303		\$2,305,742



## **Appendix 3: Total Project Lists**

#### **TOTAL PROJECT LIST - Sorted By Bundled Projects**

Below is a list of ALL proposed and/or desired projects across ALL Village owned assets from 2022 to 2031. The top section includes individual projects that have been bundled with other projects to create a larger project. These bundled projects are shown on the 'CIP Summary' sheet (Appendix 5). The projects highlighted light gray have been deemed a priority and are in the project plan for the given time frame. The remaining projects (unhighlighted) are still necessary. The remaining projects shall be considered at the time the given roadway is under construction or as the Village sees fit.

\*See Appendix 4 for detailed cost estimates of all bundled projects.

Individual Project Number	Bundled Project Number	Project Type	Project Name	Year	*Individual Project Cost
		Indiv	idual Projects Included in a Larger Bundled Project	t	
4015	1	Water	Morrill Street Water Looping	2027	
1002	2	Streets - Major	Walker Street - Mill & Fill	2025	
1003	2	Streets - Major	W 4th Street - Mill & Fill	2025	
1004	2	Streets - Major	E 3rd Street - Mill & Fill	2025	
3018	2	Storm	4th Street West of West Street swGM-137	2025	
3019	2	Storm	Walker North of 4th Street swGM-149	2025	
3020	2	Storm	Walker South of Union swGM-151	2025	
3021	2	Storm	4th Street East of Walker - swGM-139	2025	
3025	2	Storm	swGM-138 4th Street East of Walker Street	2025	
3026	2	Storm	Walker Street East Side Across Union Street	2025	
4013	2	Water	Walker, & W 4th St Water Services	2025	
1012	3	Streets - Local	Washington Street - Reconstruction	2024	
4004	3	Water	Replace 4" Main on Washington St.	2024	
1006	4	Streets - Major	E 3rd Street - Roadway Improvements	2030	
4005	4	Water	Replace 4" Main on 3rd St.	2030	
1014	5	Streets - Local	E 4th Street - Reconstruction	2026	
4009	5	Water	Replace 4" Main on 4th St.	2026	
1015	6	Streets - Local	E Bitely Street - Reconstruction	2030	
2001	6	Sanitary	Bitely Main to Railroad	2030	
4007	6	Water	Replace 4" Main on Bitely St.	2030	
1001	7	Streets - Major	White Oak Road - Rehabilitation (Small Urban)	2024	
4014	7	Water	White Oak Water Services	2024	



1009	8	Streets - Major	2nd Street - Reconstruction	2031
3012	8	Storm	2nd Street at Hamilton Street	2031
4002	8	Water	Replace 4" Main on 2nd St.	2031
2031	9	Sanitary	Extension to M-40 / 66th	2028
4012	9	Water	Extension to M-40 / 66th	2028
2013	10	Sanitary	2nd St at Main St Intersection	2025
2016	10	Sanitary	Bitely East of Hamilton	2025
2017	10	Sanitary	Bitely St Between Hamilton St and Liberty St	2025
2018	10	Sanitary	Bitely St Between Liberty St and Railroad St	2025
2019	10	Sanitary	Durkee St Between S Main St and Railroad St	2025
2020	10	Sanitary	Durkee St Between S Railroad St and Liberty St	2025
2021	10	Sanitary	East Bitely St, West of S Hamilton St	2025
2023	10	Sanitary	Liberty St Between Durkee St and Bitely St	2025
2024	10	Sanitary	Lining N. Main South of White Oak	2025
2025	10	Sanitary	Lining S. Main Between Durkee and Morrill	2025
2027	10	Sanitary	North Main St north of the railroad tracks	2025
2028	10	Sanitary	North Main St, North of RR Tracks	2025
2030	10	Sanitary	South Main St Between 5th St and Bitely St	2025
3001	10	Storm	1st Street, West of Hamilton Street	2025
3002	10	Storm	3rd Street, East of Franklin Street	2025
3003	10	Storm	3rd Street, East of Railroad Street	2025
3004	10	Storm	Fremont Street, South of 2nd Street	2025
3005	10	Storm	Nursery Street, North of 4th Street	2025
3007	10	Storm	South of Railroad Tracks, West of Main Street	2025
3008	10	Storm	Union Street, West of Main Street	2025
3022	10	Storm	4th Street, West of West Street	2025
3023	10	Storm	Fremont Street, South of 3rd Street	2025
3024	10	Storm	Nursery Street, North of 3rd Street	2025
1007	11	Streets - Major	E 4th Street - Reconstruction	2026
1008	11	Streets - Major	Railroad Street - Reconstruction	2026
3016	11	Storm	Railroad Street, North of 2nd Street	2026
1010	12	Streets - Major	MDOT M-40 - Road / Streetscape Improvements	2023
2008	12	Sanitary	Re route sewer from east on 2nd St (MDOT M-40 Project)	2023
3029	12	Storm	MDOT M-40 - Storm Sewer Improvements	2023
4011	12	Water	MDOT M-40 - Water Improvements	2023



		Remaining Individual Projects		
1005	Streets - Major	29th Street - Mill & Fill	2023	\$96,265
1011	Streets - Local	Hamilton Street - Chip Seal	2022	\$3,540
1013	Streets - Local	Concord Drive - Chip Seal	2025	\$21,092
2002	Sanitary	Portable Generator for Lift Station	2022	\$42,000
2003	Sanitary	Replace Decanter Seals (2) at WWTF	2022	\$36,000
2004	Sanitary	New Roof over WWTF	2022	\$17,000
2005	Sanitary	North Main St South of White Oak	2023	\$20,250
2006	Sanitary	North Main St, South of RR Tracks	2023	\$52,650
2007	Sanitary	Orchard East of Main	2023	\$29,700
2009	Sanitary	South Main St Between Durkee St and Morrill St	2023	\$16,200
2010	Sanitary	South Main St North of Orchard St	2023	\$8,100
2011	Sanitary	South Main St South of Morrill St	2023	\$8,100
2012	Sanitary	Replace Force Main from White Oak to Main	2025	\$82,350
2014	Sanitary	2nd St, West of 29th St	2028	\$10,800
2015	Sanitary	Alley South of 2nd St	2028	\$45,900
2022	Sanitary	Fremont St, North of 4th St	2028	\$13,500
2026	Sanitary	Merchant St, North of 2nd St	2028	\$14,850
2029	Sanitary	Quincy St, South of 3rd St	2028	\$13,500
3006	Storm	South of Railroad Tracks, North of Union Street	2022	\$78,300
3009	Storm	1st Street at Railroad Street	2022	\$6,750
3010	Storm	Walker Street from Welch Foods	2022	\$68,850
3011	Storm	Walker Street, South of White Oak Street	2022	\$74,250
3013	Storm	2nd Street, East of Fremont Street	2022	\$14,850
3014	Storm	2nd Street, East of Hamilton Street	2022	\$10,800
3015	Storm	2nd Street, East of Nursery Street	2022	\$9,450
3017	Storm	South Side of 2nd Street, West of Nursery Street	2022	\$10,800
3027	Storm	Root Cutting - 5 Yr Cycle	2025	\$27,000
3028	Storm	Root Cutting - 5 Yr Cycle	2030	\$27,000
4001	Water	Well #4 Cleaning and Overhaul	NA	\$13,000
4003	Water	Replace 4" Main on Franklin St.	NA	\$65,000
4006	Water	Repaint Water Tower	NA	\$114,000
4008	Water	Replace 4" Main on S. Hamilton St.	NA	\$142,500
4010	Water	Potholing Project	2022	\$130,400
4016	Water	Service Replacement Project 1	2025	\$189,000



4017	Water	Service Replacement Project 2	2027	\$189,000
4018	Water	Service Replacement Project 3	2029	\$189,000
4019	Water	Service Replacement Project 4	2030	\$189,000
5001	Facilities / Operation	Renovate Village Hall	NA	
5002	Facilities / Operation	Relocate DPW	NA	
6001	Parks	Recirculate Splash Pad	NA	
6002	Parks	Replace Kid's Dream Playground, Bathroom Upgrades	NA	
6003	Parks	Cemetery Expansion	NA	
6004	Parks	Develop Vineyard Square	NA	



### **TOTAL PROJECT LIST - Sorted By Asset**

Below is a list of ALL proposed and/or desired projects across ALL Village owned assets from 2022 to 2031 sorted by the given Asset. Projects with a 'Bundled Proejct Number' are individual projects that have been bundled with other projects to create a larger project. These bundled projects are shown on the 'CIP Summary' sheet (Appendix 5). The projects highlighted light gray have been deemed a priority and are in the project plan for the given time frame. The remaining projects (unhighlighted) are still necessary. The remaining projects shall be considered at the time the given roadway is under construction or as the Village sees fit.

Individual Project Number	Bundled Project Number	Project Type	Project Name	Year	*Individual Project Cost
1001	7	Streets - Major	White Oak Road - Rehabilitation (Small Urban)	2024	
1002	2	Streets - Major	Walker Street - Mill & Fill	2025	
1003	2	Streets - Major	W 4th Street - Mill & Fill	2025	
1004	2	Streets - Major	E 3rd Street - Mill & Fill	2025	
1005		Streets - Major	29th Street - Mill & Fill	2023	\$96,265
1006	4	Streets - Major	E 3rd Street - Roadway Improvements	2030	
1007	11	Streets - Major	E 4th Street - Reconstruction	2026	
1008	11	Streets - Major	Railroad Street - Reconstruction	2026	
1009	8	Streets - Major	2nd Street - Reconstruction	2031	
1010	12	Streets - Major	MDOT M-40 - Road / Streetscape Improvements	2023	
1011		Streets - Local	Hamilton Street - Chip Seal	2022	\$3,540
1012	3	Streets - Local	Washington Street - Reconstruction	2024	
1013		Streets - Local	Concord Drive - Chip Seal	2025	\$21,092
1014	5	Streets - Local	E 4th Street - Reconstruction	2026	
1015	6	Streets - Local	E Bitely Street - Reconstruction	2030	
2001	6	Sanitary	Bitely Main to Railroad	2030	
2002		Sanitary	Portable Generator for Lift Station	2022	\$42,000
2003		Sanitary	Replace Decanter Seals (2) at WWTF	2022	\$36,000
2004		Sanitary	New Roof over WWTF	2022	\$17,000
2005		Sanitary	North Main St South of White Oak	2023	\$20,250
2006		Sanitary	North Main St, South of RR Tracks	2023	\$52,650
2007		Sanitary	Orchard East of Main	2023	\$29,700
2008	12	Sanitary	Re route sewer from east on 2nd St (MDOT M-40 Project)	2023	
2009		Sanitary	South Main St Between Durkee St and Morrill St	2023	\$16,200

\*See Appendix 4 for detailed cost estimates of all bundled projects.



2010		Sanitary	South Main St North of Orchard St	2023	\$8,100
2011		Sanitary	South Main St South of Morrill St	2023	\$8,100
2012		Sanitary	Replace Force Main from White Oak to Main	2025	\$82,350
2013	10	Sanitary	2nd St at Main St Intersection	2025	
2014		Sanitary	2nd St, West of 29th St	2028	\$10,800
2015		Sanitary	Alley South of 2nd St	2028	\$45,900
2016	10	Sanitary	Bitely East of Hamilton	2025	
2017	10	Sanitary	Bitely St Between Hamilton St and Liberty St	2025	
2018	10	Sanitary	Bitely St Between Liberty St and Railroad St	2025	
2019	10	Sanitary	Durkee St Between S Main St and Railroad St	2025	
2020	10	Sanitary	Durkee St Between S Railroad St and Liberty St	2025	
2021	10	Sanitary	East Bitely St, West of S Hamilton St	2025	
2022		Sanitary	Fremont St, North of 4th St	2028	\$13,500
2023	10	Sanitary	Liberty St Between Durkee St and Bitely St	2025	
2024	10	Sanitary	Lining N. Main South of White Oak	2025	
2025	10	Sanitary	Lining S. Main Between Durkee and Morrill	2025	
2026		Sanitary	Merchant St, North of 2nd St	2028	\$14,850
2027	10	Sanitary	North Main St north of the railroad tracks	2025	
2028	10	Sanitary	North Main St, North of RR Tracks	2025	
2029		Sanitary	Quincy St, South of 3rd St	2028	\$13,500
2030	10	Sanitary	South Main St Between 5th St and Bitely St	2025	
2031	9	Sanitary	Extension to M-40 / 66th	2028	
3001	10	Storm	1st Street, West of Hamilton Street	2025	
3002	10	Storm	3rd Street, East of Franklin Street	2025	
3003	10	Storm	3rd Street, East of Railroad Street	2025	
3004	10	Storm	Fremont Street, South of 2nd Street	2025	
3005	10	Storm	Nursery Street, North of 4th Street	2025	
3006		Storm	South of Railroad Tracks, North of Union Street	2022	\$78,300
3007	10	Storm	South of Railroad Tracks, West of Main Street	2025	
3008	10	Storm	Union Street, West of Main Street	2025	
3009		Storm	1st Street at Railroad Street	2022	\$6,750
3010		Storm	Walker Street from Welch Foods	2022	\$68,850
3011		Storm	Walker Street, South of White Oak Street	2022	\$74,250
3012	8	Storm	2nd Street at Hamilton Street	2031	



3013		Storm	2nd Street, East of Fremont Street	2022	\$14,850
3014		Storm	2nd Street, East of Hamilton Street	2022	\$10,800
3015		Storm	2nd Street, East of Nursery Street	2022	\$9,450
3016	11	Storm	Railroad Street, North of 2nd Street	2026	
3017		Storm	South Side of 2nd Street, West of Nursery Street	2022	\$10,800
3018	2	Storm	4th Street West of West Street swGM-137	2025	
3019	2	Storm	Walker North of 4th Street swGM-149	2025	
3020	2	Storm	Walker South of Union swGM-151	2025	
3021	2	Storm	4th Street East of Walker - swGM-139	2025	
3022	10	Storm	4th Street, West of West Street	2025	
3023	10	Storm	Fremont Street, South of 3rd Street	2025	
3024	10	Storm	Nursery Street, North of 3rd Street	2025	
3025	2	Storm	swGM-138 4th Street East of Walker Street	2025	
3026	2	Storm	Walker Street East Side Across Union Street	2025	
3027		Storm	Root Cutting - 5 Yr Cycle	2025	\$27,000
3028		Storm	Root Cutting - 5 Yr Cycle	2030	\$27,000
3029	12	Storm	MDOT M-40 - Storm Sewer Improvements	2023	
4001		Water	Well #4 Cleaning and Overhaul	NA	\$13,000
4002	8	Water	Replace 4" Main on 2nd St.	2031	
4003		Water	Replace 4" Main on Franklin St.	NA	\$65,000
4004	3	Water	Replace 4" Main on Washington St.	2024	
4005	4	Water	Replace 4" Main on 3rd St.	2030	
4006		Water	Repaint Water Tower	NA	\$114,000
4007	6	Water	Replace 4" Main on Bitely St.	2030	
4008		Water	Replace 4" Main on S. Hamilton St.	NA	\$142,500
4009	5	Water	Replace 4" Main on 4th St.	2026	
4010		Water	Potholing Project	2022	\$130,400
4011	12	Water	MDOT M-40 - Water Improvements	2023	
4012	9	Water	Extension to M-40 / 66th	2028	
4013	2	Water	Walker, & W 4th St Water Services	2025	
4014	7	Water	White Oak Water Services	2024	
4015	1	Water	Morrill Street Water Looping	2027	
4016		Water	Service Replacement Project 1	2025	\$189,000
4017		Water	Service Replacement Project 2	2027	\$189,000



4018	Water	Service Replacement Project 3	2029	\$189,000
4019	Water	Service Replacement Project 4	2030	\$189,000
5001	Facilities / Operation	Renovate Village Hall	2023	\$48,000
5002	Facilities / Operation	Relocate DPW	2025	\$675,000
6001	Parks	Recirculate Splash Pad	2025	\$75,000
6002	Parks	Replace Kid's Dream Playground, Bathroom Upgrades	2024	\$500,000
6003	Parks	Cemetery Expansion	2025	\$200,000
6004	Parks	Develop Vineyard Square	2024	\$1,000,000



## **TOTAL PROJECT LIST - Sorted By Year**

Below is a list of ALL proposed and/or desired projects across ALL Village owned assets from 2022 to 2031 sorted by year. Projects with a 'Bundled Proejct Number' are individual projects that have been bundled with other projects to create a larger project. These bundled projects are shown on the 'CIP Summary' sheet (Appendix 5). The projects highlighted light gray have been deemed a priority and are in the project plan for the given time frame. The remaining projects (unhighlighted) are still necessary. The remaining projects shall be considered at the time the given roadway is under construction or as the Village sees fit.

\*See Appendix 4 for detailed cost estimates of all bundled projects.

Individual Project Number	Bundled Project Number	Project Type	Project Name	Year	*Individual Project Cost
1011		Streets - Local	Hamilton Street - Chip Seal	2022	\$3,540
2002		Sanitary	Portable Generator for Lift Station	2022	\$42,000
2003		Sanitary	Replace Decanter Seals (2) at WWTF	2022	\$36,000
2004		Sanitary	New Roof over WWTF	2022	\$17,000
3006		Storm	South of Railroad Tracks, North of Union Street	2022	\$78,300
3009		Storm	1st Street at Railroad Street	2022	\$6,750
3010		Storm	Walker Street from Welch Foods	2022	\$68,850
3011		Storm	Walker Street, South of White Oak Street	2022	\$74,250
3013		Storm	2nd Street, East of Fremont Street	2022	\$14,850
3014		Storm	2nd Street, East of Hamilton Street	2022	\$10,800
3015		Storm	2nd Street, East of Nursery Street	2022	\$9,450
3017		Storm	South Side of 2nd Street, West of Nursery Street	2022	\$10,800
4010		Water	Potholing Project	2022	\$130,400
1010	12	Streets - Major	MDOT M-40 - Road / Streetscape Improvements	2023	
2008	12	Sanitary	Re route sewer from east on 2nd St (MDOT M-40 Project)	2023	
3029	12	Storm	MDOT M-40 - Storm Sewer Improvements	2023	
4011	12	Water	MDOT M-40 - Water Improvements	2023	
1005		Streets - Major	29th Street - Mill & Fill	2023	\$96,265
2005		Sanitary	North Main St South of White Oak	2023	\$20,250
2006		Sanitary	North Main St, South of RR Tracks	2023	\$52,650
2007		Sanitary	Orchard East of Main	2023	\$29,700
2009		Sanitary	South Main St Between Durkee St and Morrill St	2023	\$16,200
2010		Sanitary	South Main St North of Orchard St	2023	\$8,100
2011		Sanitary	South Main St South of Morrill St	2023	\$8,100



1012	3	Streets - Local	Washington Street - Reconstruction	2024
4004	3	Water	Replace 4" Main on Washington St.	2024
1001	7	Streets - Major	White Oak Road - Rehabilitation (Small Urban)	2024
4014	7	Water	White Oak Water Services	2024
1002	2	Streets - Major	Walker Street - Mill & Fill	2025
1003	2	Streets - Major	W 4th Street - Mill & Fill	2025
1004	2	Streets - Major	E 3rd Street - Mill & Fill	2025
3018	2	Storm	4th Street West of West Street swGM-137	2025
3019	2	Storm	Walker North of 4th Street swGM-149	2025
3020	2	Storm	Walker South of Union swGM-151	2025
3021	2	Storm	4th Street East of Walker - swGM-139	2025
3025	2	Storm	swGM-138 4th Street East of Walker Street	2025
3026	2	Storm	Walker Street East Side Across Union Street	2025
4013	2	Water	Walker, & W 4th St Water Services	2025
2013	10	Sanitary	2nd St at Main St Intersection	2025
2016	10	Sanitary	Bitely East of Hamilton	2025
2017	10	Sanitary	Bitely St Between Hamilton St and Liberty St	2025
2018	10	Sanitary	Bitely St Between Liberty St and Railroad St	2025
2019	10	Sanitary	Durkee St Between S Main St and Railroad St	2025
2020	10	Sanitary	Durkee St Between S Railroad St and Liberty St	2025
2021	10	Sanitary	East Bitely St, West of S Hamilton St	2025
2023	10	Sanitary	Liberty St Between Durkee St and Bitely St	2025
2024	10	Sanitary	Lining N. Main South of White Oak	2025
2025	10	Sanitary	Lining S. Main Between Durkee and Morrill	2025
2027	10	Sanitary	North Main St north of the railroad tracks	2025
2028	10	Sanitary	North Main St, North of RR Tracks	2025
2030	10	Sanitary	South Main St Between 5th St and Bitely St	2025
3001	10	Storm	1st Street, West of Hamilton Street	2025
3002	10	Storm	3rd Street, East of Franklin Street	2025
3003	10	Storm	3rd Street, East of Railroad Street	2025
3004	10	Storm	Fremont Street, South of 2nd Street	2025
3005	10	Storm	Nursery Street, North of 4th Street	2025
3007	10	Storm	South of Railroad Tracks, West of Main Street	2025
3008	10	Storm	Union Street, West of Main Street	2025



3022	10	Storm	4th Street, West of West Street	2025	
3023	10	Storm	Fremont Street, South of 3rd Street	2025	
3024	10	Storm	Nursery Street, North of 3rd Street	2025	
1013		Streets - Local	Concord Drive - Chip Seal	2025	\$21,092
2012		Sanitary	Replace Force Main from White Oak to Main	2025	\$82,350
3027		Storm	Root Cutting - 5 Yr Cycle	2025	\$27,000
4016		Water	Service Replacement Project 1	2025	\$189,000
1014	5	Streets - Local	E 4th Street - Reconstruction	2026	
4009	5	Water	Replace 4" Main on 4th St.	2026	
1007	11	Streets - Major	E 4th Street - Reconstruction	2026	
1008	11	Streets - Major	Railroad Street - Reconstruction	2026	
3016	11	Storm	Railroad Street, North of 2nd Street	2026	
4015	1	Water	Morrill Street Water Looping	2027	
4017		Water	Service Replacement Project 2	2027	\$189,000
2031	9	Sanitary	Extension to M-40 / 66th	2028	
4012	9	Water	Extension to M-40 / 66th	2028	
2014		Sanitary	2nd St, West of 29th St	2028	\$10,800
2015		Sanitary	Alley South of 2nd St	2028	\$45,900
2022		Sanitary	Fremont St, North of 4th St	2028	\$13,500
2026		Sanitary	Merchant St, North of 2nd St	2028	\$14,850
2029		Sanitary	Quincy St, South of 3rd St	2028	\$13,500
4018		Water	Service Replacement Project 3	2029	\$189,000
1006	4	Streets - Major	E 3rd Street - Roadway Improvements	2030	
4005	4	Water	Replace 4" Main on 3rd St.	2030	
2001	6	Sanitary	Bitely Main to Railroad	2030	
1015	6	Streets - Local	E Bitely Street - Reconstruction	2030	
4007	6	Water	Replace 4" Main on Bitely St.	2030	
3028		Storm	Root Cutting - 5 Yr Cycle	2030	\$27,000
4019		Water	Service Replacement Project 4	2030	\$189,000
1009	8	Streets - Major	2nd Street - Reconstruction	2031	
3012	8	Storm	2nd Street at Hamilton Street	2031	
4002	8	Water	Replace 4" Main on 2nd St.	2031	
4001		Water	Well #4 Cleaning and Overhaul	NA	\$13,000
4003		Water	Replace 4" Main on Franklin St.	NA	\$65,000



4006	Water	Repaint Water Tower	NA	\$114,000
4008	Water	Replace 4" Main on S. Hamilton St.	NA	\$142,500
6001	Parks	Recirculate Splash Pad	NA	
6002	Parks	Replace Kid's Dream Playground, Bathroom Upgrades	NA	
6003	Parks	Cemetery Expansion	NA	
6004	Parks	Develop Vineyard Square	NA	
4007	Water	Repaint Water Tower	NA	\$114,000
4009	Water	Replace 4" Main on S. Hamilton St.	NA	\$142,500
5001	Facilities / Operation	Renovate Village Hall	2023	\$48,000
5002	Facilities / Operation	Relocate DPW	2025	\$675,000
6001	Parks	Recirculate Splash Pad	2025	\$75,000
6002	Parks	Replace Kid's Dream Playground, Bathroom Upgrades	2024	\$500,000
6003	Parks	Cemetery Expansion	2025	\$200,000
6004	Parks	Develop Vineyard Square	2024	\$1,000,000





## **Appendix 4: Detailed Cost Estimates**

Need

#### PROJECT #1: Morrill Street Water Looping

CLIENT: Village of Lawton

DATE: January 5, 2022

**Overview -** This project is necessary to loop the water main along Morrill Street between Hamilton Street and Liberty Street to increase water quality and redundancy.

**Water Looping -** This project includes approximately 420' of 6" water main to loop the water main between Hamilton and Liberty Street. It is assumed the water main will be placed along the south side of the roadway and involves removing 5 ft of pavement. Also included in this estimate is slope protection and traffic control.

#### **Priority (entire project):**

Morrill Street E	Extension Project		Year:	 2027
Quantity Unit	Item		Unit Price	Total
1 LS	General Items (Mob, Grading, Pavt Mrkgs, Signage, Etc.)	@	\$ 25,000	\$ 25,000
420 FT	Water Main, DI, 6 inch	@	85	35,700
2 EA	Gate Valve and Box, 6 inch	@	1,350	2,700
2 EA	Connect to Existing Main, 6 inch	@	3,000	6,000
260 SYD	Aggregate Base, 8 inch	@	20	5,200
260 SYD	HMA Surface, Rem	@	5	1,300
60 TON	HMA, LVSP	@	80	4,800
420 SYD	Restoration	@	3	1,260
1 LS	Traffic Control	@	5,000	5,000
50 CYD	Subgrade Undercutting, Type II	@	25	1,250
	Subtotal:		-	\$ 88,210
	Construction Contingency & Engineering:		40%	\$35,284
	Project Total:			\$123,500



PROJECT #2: Walker, W 4th, & E 3rd Street Project

CLIENT: Village of Lawton

DATE: March 24, 2022

**Overview** - The water service replacements are required per EGLE guidelines. The roadways are in poor / fair condition and are due for a mill and fill. There is a large amount of storm sewer improvements along the roadways that were identified in the SAW report. The storm sewer improvements will assist in extending the life of the roadway and ensuring proper drainage.

**Road Mill & Fill and Water Services -** This project involves a mill and fill of 2 inches and is located on Walker Street (from White Oak to 4th), W 4th Street (from Walker to Main), and E 3rd Street (from Nursery to 29th Street). In addition to the mill and fill, water services along the roadways shall be replaced and the roadway restored prior to the road improvements. Prior to the mill and fill, storm sewer along Walker and E 4th street is proposed. Also, included in this estimate is slope protection and traffic control.

Priority (Water Services): Priority (Storm Sewer): Priority (Roadway Mill and Fill):	Absolute Need Need		
Road Length (White Oak):	1040 FT		
Assumed Road Width (White Oak):	34 FT		
Road Length (Walker):	2050 FT		
Assumed Road Width (Walker):	22 FT		
Road Length (W 4th):	1350 FT		
Assumed Road Width (W 4th):	36 FT		
Road Length (E 3rd):	810 FT		
Assumed Road Width (E 3rd):	34 FT		
Assumed Water Service Pavt Removal Area:	5 SYD		
Assumed HMA Thickness (Restoration & Mill / Fill):	2 Inc	hes	
Water Service Replacements:	Year:	2025	
Quantity Unit Item	Unit Price	Total	
7 EA Water Serv, Long	@ \$ 2,250 \$	15,750	
24 EA Water Serv, Short	@ 2,000	48,000	
31 EA Water Serv, Private	@ 3,750	116,250	
160 SYD Aggregate Base, 8 inch	@ 20	3,200	
160 SYD HMA Surface, Rem	@ 5	800	
20 TON HMA, LVSP	@ 80	1,600	
400 SYD Restoration	@ 3	1,200	
Subtotal:	-	186,800	
Construction Contingency & Engineering:	15%	\$28,020	
Project Total:		\$214,900	

Roadway Mill & Fill:

1 LS General Items (Mob, Pavt Mrkgs, Signage, Etc.)

@ \$ 25,000 \$

25,000



# ENGINEER'S ESTIMATE

17400 SY	D Cold Milling HMA Surface	@	3	43,500
1920 TO	N HMA, LVSP	@	80	153,600
1 LS	S Traffic Control	@	30,000	30,000
	Subtotal:		-	252,100
	Construction Contingency & Engineering:		30%	\$75,630
	Project Total:			\$327,800
Additional St	form Sewer Improvements:			
1560 FT	Sewer, Rem	@	25 \$	39,000
730 F1	18" Storm Sewer	@	75	54,750
760 F1	24" Storm Sewer	@	85	64,600
70 F1	□ 30" Storm Sewer	<u>@</u>	95	6,650
1390 SY	D Aggregate Base, 8 inch	<u>@</u>	20	27,800
	D HMA Surface, Rem	<u>@</u>	5	6,950
230 TO	N HMA, LVSP	<u>@</u>	80	18,400
	Subtotal:		-	218,150
	Construction Contingency & Engineering:		30%	\$75,630
	Project Total:			\$293,800

Roadway Total: Contingency & Engineering Total:	470,250 179,280
Storm Sewer	218,150
Roadway	252,100
Water Total:	186,800
Watermain Total (Private):	116,250
Watermain Total (Public):	70,550



PROJECT #3: Washington Street Improvements Project

CLIENT: Village of Lawton

DATE: March 24, 2022

**Overview** - This project is on identified on the WAMP and involves up-sizing the current 4" water main to conform with current standards. The roadway is in poor condition and shall be reconstructed during the water main improvements.

**Road Reconstruction and Water Main -** This project is located on Washington Street from Franklin to Nursery. It includes approximately 1000' of water main replacement, water service replacement, sidewalk ramp replacement, and road reconstruction. Also, included in this estimate is slope protection and traffic control.

Priority (Water Improvements):	Need
Priority (Roadway Reconstruction):	Need

Total Roa	ad Ler	ngth:			1280	FT	
Assumed	d Road	d Width:	24 FT				
Assumed	d Tren	ch Width (for Pavt Removal):	5 FT				
Assumed	HMA	A Thickness:		4 Inches			ies
Water Im	prove	ements:		Year: 2			2024
Quantity	Unit	Item		Unit Price			Total
1000	FT	Water Main, DI, 6 inch	@	\$	85	\$	85,000
3	EA	Hydrant, Rem	@		550		1,650
3	EA	Hydrant, Valve and Box, 6 inch	@		4,250		12,750
3	ΕA	Gate Valve and Box, 6 inch	@		1,350		4,050
3	EA	Connect to Existing Main, 4 inch	@		2,500		7,500
1	EA	Connect to Existing Main, 6 inch	@		3,000		3,000
6	EA	Water Serv, Short	@		2,000		12,000
11	EA	Water Serv, Long	@		2,250		24,750
17	EA	Water Serv, Private	@		3,750		63,750
560	SYD	Aggregate Base, 8 inch	@		20		11,200
560	SYD	HMA Surface, Rem	@		5		2,800
130	TON	HMA, LVSP	@		80		10,400
560	SYD	Restoration	@		3		1,680
		Subtotal:			-		240,530
		Construction Contingency & Engineering:			30%		\$72,159
		Project Total:					\$312,700

Roadway Reconstruction:									
1 LS	General Items (Mob, Grading, Pavt Mrkgs, Signage, Etc.)	@	\$ 60,000	\$	60,000				
2860 S	D Aggregate Base, 8 inch	@	20		57,200				
2860 S	′D HMA Surface, Rem	@	5		14,300				
630 TC	ON HMA, LVSP	@	80		50,400				
9 E	A Sidewalk Ramp Replacement	@	950		8,550				



# ENGINEER'S ESTIMATE

720 SYD Restoration	@	3	2,160
1 LS Traffic Control	@	30,000	30,000
50 CYD Subgrade Undercutting, Type II	@	25	1,250
Subtotal:		-	223,860
Construction Contingency & Engineering:		30%	\$67,158
Project Total:			\$291,100

PROJECT TOTAL:	\$ 603,800
Contingency & Engineering Total:	139,317
Roadway Total:	223,860
Water Total:	240,530
Watermain Total (Private):	63,750
Watermain Total (Public):	176,780



PROJECT #4: 3rd Street Improvements Project

CLIENT: Village of Lawton

DATE: March 24, 2022

**Overview** - This water improvements are on identified on the WAMP and involves up-sizing the current 4" water main to conform with current standards. The roadway is in fair condition and will potentially be due for a reconstruction at the time of water main improvements.

**Road Mill & Fill and Water Main -** This project is located on 3rd Street from Main Street to Nursery Street. It includes approximately 320' of water main replacement (Main to Railroad), water service replacement, and road restoration. In addition, all road way will be reconstructed. Also, included in this estimate is slope protection and traffic control.

Priority (Water Improvements):	Need
Priority (Roadway Reconstruct):	Want

Road Le	ngth:		1940 FT				
Assumed	Assumed Road Width: 30 FT						
Assumed	d Tren	ch Width (for Pavt Removal):			7	FΤ	
Assumed	HMA	Thickness (Restoration & Mill / Fill):			4	Inch	ies
Water Im	prove	ements:		Ye	ar:		2030
Quantity	Unit	Item		Unit Price			Total
320	FT	Water Main, DI, 6 inch	@	\$	85	\$	27,200
1	EA	Gate Valve and Box, 6 inch	@		1,350		1,350
1	EA	Connect to Existing Main, 8 inch	@		3,250		3,250
1	EA	Connect to Existing Main, 12 inch	@		3,400		3,400
10	EA	Water Serv, Short	@		2,000		20,000
13	EA	Water Serv, Private	@		3,750		48,750
250	SYD	Aggregate Base, 8 inch	@		20		5,000
250	SYD	HMA Surface, Rem	@		5		1,250
60	TON	HMA, LVSP	@		80		4,800
180	SYD	Restoration	@		3		540
		Subtotal:			-		115,540
		Construction Contingency & Engineering:			30%		\$34,662
		Project Total:					\$150,300

Roadway Reco	onstruction:			
1 LS	General Items (Mob, Grading, Pavt Mrkgs, Signage, Etc.)	@	\$ 75,000	\$ 75,000
6220 SYD	Aggregate Base, 8 inch	@	20	124,400
6220 SYD	HMA Surface, Rem	@	5	31,100
1370 TON	HMA, LVSP	@	80	109,600
2160 SYD	Restoration	@	3	6,480
1 LS	Traffic Control	@	30,000	30,000
	Subtotal:		-	376,580



## ENGINEER'S ESTIMATE

Construction Contingency & Engineering:	30%	\$112,974
Project Total:		\$489,600

Watermain Total (Public):	66,790
Watermain Total (Private):	48,750
Water Total:	115,540
Roadway Total:	376,580
Contingency & Engineering Total:	147,636
PROJECT TOTAL:	\$ 639,900



PROJECT #5: 4th Street Improvements Project

CLIENT: Village of Lawton

DATE: March 24, 2022

**Overview** - This project is on identified on the WAMP and involves up-sizing the current 4" water main to conform with current standards. The roadway is in poor condition and shall be reconstructed during the water main improvements.

**Road Reconstruction and Water Main -** This project is located on 4th Street from Railroad Avenue to Fremont Street. It includes approximately 990' of water main replacement (Franklin to Fremont), water service replacement (entire length), sidewalk ramp replacement, and road reconstruction. Also, included in this estimate is slope protection and traffic control.

-		r Improvements): Iway Reconstruction):		Nee Nee			
Road Ler	ath (	Railroad Ave to Fremont):			1270	FT	
	•	d Width (Main St to Railroad Ave):				FT	
		ch Width (for Pavt Removal):				FT	
		A Thickness:			-	Inch	
Water Im				Yea		IIICI	2026
Quantity		Item		Unit Price			Total
<u>990</u>	FT	Water Main, DI, 6 inch	@	\$	85	\$	84,150
1	EA	Hydrant, Rem	@	Ŷ	550	Ŷ	550
1		Hydrant, Valve and Box, 6 inch	@		4,250		4,250
3		Gate Valve and Box, 6 inch	@		1,350		4,050
3		Connect to Existing Main, 4 inch	@		2,500		7,500
1		Connect to Existing Main, 6 inch	@		3,000		3,000
1		Connect to Existing Main, 8 inch	@		3,250		3,250
9		Water Serv, Short	@		2,000		18,000
13		Water Serv, Long	@		2,250		29,250
22		Water Serv, Private	@		3,750		82,500
550		Aggregate Base, 8 inch	@		20		11,000
		HMA Surface, Rem	@		5		2,750
130	TON	HMA, LVSP	@		80		10,400
		Restoration	@		3		1,650
		Subtotal:			-		262,300
		Construction Contingency & Engineering:			30%		\$78,690
		Project Total:					\$341,000

Roadway Reconstruction:								
1 LS General Items (Mob, Grading, Pavt Mrkgs, Signage, Etc.)	@	\$ 55,000	\$	55,000				
2840 SYD Aggregate Base, 8 inch	@	20		56,800				
2840 SYD HMA Surface, Rem	@	5		14,200				



# ENGINEER'S ESTIMATE

630 TON HMA, LVSP	@	80	50,400
26 EA Sidewalk Ramp Replacement	@	950	24,700
1 LS Traffic Control	@	30,000	30,000
50 CYD Subgrade Undercutting, Type II	@	25	1,250
Subtotal:		-	231,100
Construction Contingency & Engineering:		30%	\$69,330
Project Total:			\$300,500

Watermain Total (Public):	179,800
Watermain Total (Private):	82,500
Water Total:	262,300
Roadway Total:	231,100
Contingency & Engineering Total:	148,020
PROJECT TOTAL:	\$ 641,500



PROJECT #6: Bitely Street Improvements Project

CLIENT: Village of Lawton

DATE: March 24, 2022

**Overview** - This project is on identified on the WAMP and involves up-sizing the current 4" water main to conform with current standards. The roadway is in poor condition and shall be reconstructed during the water main improvements.

**Road Reconstruction and Water Main -** This project is located on Bitely Street from Main Street to Nursery Street. It includes approximately 830' of water main replacement, water service replacement, sidewalk ramp replacement, and road reconstruction. Also, included in this estimate is slope protection and traffic control.

Priority (Water Improvements): Priority (Roadway Reconstruction):	Need Need
Total Road Length:	1780 FT
Assumed Road Width:	24 FT
Assumed Trench Width (for Pavt Removal):	5 FT
Assumed HMA Thickness:	4 Inches
Water / Sewer Improvements:	<b>Year:</b> 2030
Quantity Unit Item	Unit Price Total
830 FT Water Main, DI, 6 inch	@ \$ 85 \$ 70,550
4 EA Gate Valve and Box, 6 inch	@ 1,350 5,400
1 EA Connect to Existing Main, 6 inch	@ 3,000 3,000
1 EA Connect to Existing Main, 12 inch	@ 3,400 3,400
11 EA Water Serv, Short	@ 2,000 22,000
13 EA Water Serv, Long	@ 2,250 29,250
24 EA Water Serv, Private	@ 3,750 90,000
20 FT 8" Sewer	@ 85 1,700
470 SYD Aggregate Base, 8 inch	@ 20 9,400
470 SYD HMA Surface, Rem	@ 5 2,350
110 TON HMA, LVSP	@ 80 8,800
470 SYD Restoration	@ 3 1,410
Subtotal:	- 247,260
Construction Contingency & Engineering:	30% \$74,178
Project Total:	\$321,500

Roadway Reco	onstruction:			
1 LS	General Items (Mob, Grading, Pavt Mrkgs, Signage, Etc.)	@	\$80,000	\$ 80,000
4280 SYD	Aggregate Base, 8 inch	@	20	85,600
4280 SYD	HMA Surface, Rem	@	5	21,400
950 TON	HMA, LVSP	@	80	76,000
9 EA	Sidewalk Ramp Replacement	@	950	8,550
1510 SYD	Restoration	@	3	4,530



1 LS Traffic Control	@	40,000	40,000
50 CYD Subgrade Undercutting, Type II	@	25	1,250
Subtotal:		-	317,330
Construction Contingency & Engineering:		30%	\$95,199
Project Total:			\$412,600

Sewer Total:	1,700
Watermain Total (Public):	155,560
Watermain Total (Private):	90,000
Water / Sewer Total:	247,260
Roadway Total:	317,330
Contingency & Engineering Total:	169,377
PROJECT TOTAL:	\$ 734,100



PROJECT #7: White Oak Improvements Project

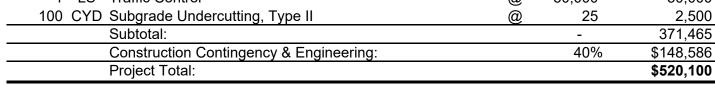
CLIENT: Village of Lawton

DATE: March 24, 2022

**Overview -** The water service replacements are required per EGLE guidelines. The roadway is in fair condition and will be due for a rehabilitation. The project will be implemented through the Paw Paw / Lawton Small Urban Group which receives Federal Funding.

**Road Rehabilitation and Water Improvements -** This project is located on White Oak Street from 32nd Street to Main St (M-40). The road rehabilitation consists of a mill and fill from Main St to Walker and crushing, shaping, and repaving the roadway from Walker to 32nd Street. In addition, the project includes water service replacements and minor water improvements. Included in this estimate is slope protection and traffic control.

Priority (Wate	or Services):		Absolute			
	dway Reconstruction):	Need				
Road Length (	Main St to Walker):		1070	FT		
Assumed Roa	· · · · · · · · · · · · · · · · · · ·		28	FT		
Assumed HM/	A Thickness:		2	Inch	es	
Road Length (	Village Limits to Walker):		2010	FT		
Assumed Roa	•		26	FT		
Assumed HM/	A Thickness:		4	Inch	es	
Water Related	I Items:		Year:		2024	
Quantity Unit	Item		Unit Price		Total	
8 EA	Water Serv, Short	@	2,000		16,000	
7 EA	Water Serv, Long	@	2,250		15,750	
15 EA	Water Serv, Private	@	3,750		56,250	
2 EA	Hydrant, Rem	@	550		1,100	
2 EA	Hydrant, Valve and Box, 6 inch	@	4,250		8,500	
170 SYD	Restoration	@	3		510	
	Subtotal:		-		98,110	
	Construction Contingency & Engineering:		10%		\$9,811	
	Project Total:				\$108,000	
Roadway Reh						
1 LS	General Items (Mob, Grading, Pavt Mrkgs, Misc Sewer, Etc	:.) @	\$ 120,000	\$	136,000	
	Aggregate Base, 8 inch	@	20		18,000	
	Cold Milling HMA Surface	@	3		8,325	
	HMA Base Crushing and Shaping	@	6		34,860	
	HMA, LVSP	@	80		132,000	
	Restoration	@	3		9,780	
1 LS	Traffic Control	@	30,000		30,000	
	Subarada Linderoutting Type II	0	25		2 500	





Total Federal Participating (\$,444,372 to Max. Funds)	\$450,664
Total Non-Participating (Water Cost & Engineering)	\$177,309
STP-Urban Amount	\$302,640
HIP / Covid	\$81,204
Local Match (min \$60,528 to max funds)	\$66,820
Total Non-Participating (Water Cost & Engineering	\$177,309
TOTAL PROJECT COST	\$627,972



PROJECT #8: 2nd Street Improvements Project

CLIENT: Village of Lawton

DATE: March 24, 2022

**Overview** - This project is on identified on the WAMP and involves up-sizing the current 4" water main to conform with current standards. The roadway is in fair condition but will be due for a reconstruction at this time during the water main improvements.

**Road Reconstruction and Water Main -** This project is located on 2nd Street from Main Street to Hamilton Street. It includes approximately 1350' of water main replacement (Main to Hamilton), water service replacement (entire length), sidewalk ramp replacement, minor storm sewer improvements, and road reconstruction. Also, included in this estimate is slope protection and traffic control.

Priority (Water Improvements):	Need
Priority (Roadway Reconstruction):	Need

Road Lei	ngth:			1350	) FT	
Assumed Road Width: 34 FT						
Assumed	d Tren	ch Width (for Pavt Removal):		8	3 FT	
Assumed	HMA	A Thickness:		2	l Inch	າes
Water / S	Sewer	Improvements:		Year:		2031
Quantity	Unit	Item		Unit Price		Total
1375	FT	Water Main, DI, 6 inch	@	\$ 85	\$	116,875
6	EA	Gate Valve and Box, 6 inch	@	1,350		8,100
3	EA	Connect to Existing Main, 6 inch	@	3,000		9,000
2	EA	Connect to Existing Main, 8 inch	@	3,250		6,500
2	EA	Connect to Existing Main, 12 inch	@	3,400		6,800
16	EA	Water Serv, Short	@	2,000		32,000
13	EA	Water Serv, Long	@	2,250		29,250
29	EA	Water Serv, Private	@	3,750		108,750
1	LS	Misc. Utility Re-route (San & Water Main)	@	20,000		20,000
1280	SYD	Aggregate Base, 8 inch	@	20		25,600
1280	SYD	HMA Surface, Rem	@	5		6,400
290	TON	HMA, LVSP	@	80		23,200
770	SYD	Restoration	@	3		2,310
		Subtotal:		-		394,785
		Construction Contingency & Engineering:		30%	)	\$118,436
		Project Total:				\$513,300

Roadway Reconstruction:								
1 LS	General Items (Mob, Grading, Pavt Mrkgs, Signage, Etc.)	@	\$ 50,000	\$	50,000			
3 EA	Dr Structure, 48 Inch dia	@	3,500		10,500			
60 FT	24" Storm Sewer	@	85		5,100			
3820 SYD	Aggregate Base, 8 inch	@	20		76,400			
3820 SYD	HMA Surface, Rem	@	5		19,100			



\$

895,000

850 TO	N HMA, LVSP	@	80	68,000
	A Sidewalk Ramp Replacement	@	950	33,250
1 LS	• •	@	30,000	30,000
50 CY	D Subgrade Undercutting, Type II	@	25	1,250
	Subtotal:		-	293,600
	Construction Contingency & Engineering:		30%	\$88,080
	Project Total:			\$381,700
	Sewer Total:			35,600
	Watermain Total (Public):			250,435
	Watermain Total (Private):			108,750
	Water / Sewer Total:			394,785
	Roadway Total:			293,600
	Contingency & Engineering Total:			206,516



**PROJECT TOTAL:** 

PROJECT #9: M-40 Sewer and Water Extension

OWNER: Village of Lawton

DATE: January 5, 2022

**Utility Extension** - Cost estimate to extend water and sewer along M-40 north of Lawton Drain. The project shall tie into the sewer at the W 2nd Street and M-40 intersection extending north approximately 1,850 ft to 66th Street (Village Limits). A Lift Station shall be constructed on the north side of the Drain with forcemain to be bored under the Drain and discharging to the existing manhole at the 2nd St and Main St intersection. Water main shall be bored underneath the Drain.

Priority (Water / Sewer Extension): Want						
Sewer an	nd Wa	ter Extension	•	Year:		2028
Quantity	Unit	Item		Unit Price		Total
1	LS	Mobilization	@	\$25,000.00		\$25,000.00
1	LS	Traffic Control	@	15,000.00		15,000.00
660	SYD	Pavt, Rem, Modified	@	13		8,250.00
1	EA	Lift Station	@	190,000		190,000.00
715	FT	Forcemain, 4 inch	@	45		32,175.00
1,150	FT	8" Sewer	@	85		97,750.00
10	EA	6" Wye	@	600		6,000.00
10		Sanitary Laterals	@	1,250		12,500.00
3	EA	San Structure, 48 inch dia	@	5,500		16,500.00
1	EA	Sanitary Manhole, Tap	@	950		950.00
1		Connect to Existing Main, 12 inch	@	3,400		3,400.00
1	EA	Water Main, 12 inch, Cap	@	1,750		1,750.00
205	FT	Directionally Drilled Water Main, 12 inch	@	210		43,050.00
1,160	FT	Water Main, DI, 12 inch	@	125		145,000.00
4	EA	Hydrant, Valve and Box, 6 inch	@	4,250		17,000.00
3		Gate Valve and Box, 12 inch	@	3,500		10,500.00
		Aggregate Base, 8 inch	@ @	20		13,200.00
		HMA, LVSP	@	80		12,000.00
970	SYD	Restoration	@	3		2,910.00
		Subtotal:		-		652,935
		Construction Contingency & Engineering:		30%		\$195,881
		Project Total:				\$848,900
					<u> </u>	
		Water Cost			\$	258,880
		Sewer Cost				394,055
		Engineering and Contingency Split Between Assets				97,950
		Total Water:			\$	356,830.00
		Total Sewer:				492,005.00



PROJECT #10: Root Cutting

CLIENT: Village of Lawton

DATE: October 28, 2021

Root Cu	tting						Year:	2025
Quantity	Unit	Item	System	Project Name from SAW	Project Number		Unit Price	Total
1	LS	Mobilization	N/A	N/A	N/A	@	10,000	10,000
310	FT	Root Cutting	Storm	1st Street, West of Hamilton Street	3001	@	5	1,550
275	FT	Root Cutting	Storm	3rd Street, East of Franklin Street	3002	@	5	1,375
300	FT	Root Cutting	Storm	3rd Street, East of Railroad Street	3003	@	5	1,500
275	FT	Root Cutting	Storm	Fremont Street, South of 2nd Street	3004	@	5	1,375
405	FT	Root Cutting	Storm	Nursery Street, North of 4th Street	3005	@	5	2,025
270	FT	Root Cutting	Storm	South of Railroad Tracks, West of Main Street	3007	@	5	1,350
85	FT	Root Cutting	Storm	Union Street, West of Main Street	3008	@	5	425
85	FT	Root Cutting	Storm	Fremont Street, South of 3rd Street	3023	@	5	425
300	FT	Root Cutting	Sanitary	Bitely Street, Main to Railroad	2001	@	5	1,500
300	FT	Root Cutting	Sanitary	2nd Street, West of 29th Street	2014	@	5	1,500
255	FT	Root Cutting	Sanitary	Alley South of 2nd Street	2015	@	5	1,275
310	FT	Root Cutting	Sanitary	Bitely East of Hamilton	2016	@	5	1,550
515	FT	Root Cutting	Sanitary	Bitely St Between Hamilton St and Liberty St	2017	@	5	2,575
335	FT	Root Cutting	Sanitary	Bitely St Between Liberty St and Railroad St	2018	@	5	1,675
350	FT	Root Cutting	Sanitary	Durkee St Between S Main St and Railroad St	2019	@	5	1,750
320	FT	Root Cutting	Sanitary	Durkee St Between S Railroad St and Liberty St	2020	@	5	1,600
310	FT	Root Cutting	Sanitary	East Bitely St, West of S Hamilton St	2021	@	5	1,550
370	FT	Root Cutting	Sanitary	Fremont Street, North of 4th Street	2022	@	5	1,850
300	FT	Root Cutting	Sanitary	Liberty St Between Durkee St and Bitely St	2023	@	5	1,500
140	FT	Root Cutting	Sanitary	Merchant Street, North of RR Tracks	2026	@	5	700
300	FT	Root Cutting	Sanitary	Quincy Street, South of 3rd Street	2029	@	5	1,500

**Root Cutting -** From the SAW Projects completed in 2019, segments of the storm sewer and sanitary sewer were identified for root cutting to increase their useful life and ensure the system functions properly.



Subtotal:	-	40,550
Construction Contingency & Engineering:	20%	\$8,110
 Project Total:		\$48,700
Total Sanitary Sewer:	\$	31,431
Total Storm Sewer:		17,269



#### PROJECT #10: Sewer Lining

CLIENT: Village of Lawton

October 28, 2021 DATE:

Sewer Lining Overview - From the SAW Projects completed in 2019, segments of both the sanitary and storm sewer were identified to be lined to increase their useful life and ensure the system functions properly. Sewer lining is a non-disruptive way to rehabilitate the pipes in the sewer system. Priority (entire project):

Need

Project:	Sewe	er Lining					Year:	2025
Quantity	Unit	Item	System	Project Name from SAW	Project Number		Unit Price	Total
1	LS	Mobilization	N/A	N/A	N/A	@	70,000	70,000
120	FΤ	10" Sewer Lining	Sanitary	2nd St at Main St Intersection	2013	@	70	8,400
310	FT	8" Sewer Lining	Sanitary	Bitely East of Hamilton	2016	@	60	18,600
515	FT	8" Sewer Lining	Sanitary	Bitely St Between Hamilton St and Liberty St	2017	@	60	30,900
335	FT	8" Sewer Lining	Sanitary	Bitely St Between Liberty St and Railroad St	2018	@	60	20,100
350	FΤ	8" Sewer Lining	Sanitary	Durkee St Between S Main St and Railroad St	2019	@	60	21,000
320	FT	8" Sewer Lining	Sanitary	Durkee St Between S Railroad St and Liberty St	2020	@	60	19,200
310	FT	8" Sewer Lining	Sanitary	East Bitely St, West of S Hamilton St	2021	@	60	18,600
300	FΤ	8" Sewer Lining	Sanitary	Liberty St Between Durkee St and Bitely St	2023	@	60	18,000
220	FΤ	8" Sewer Lining	Sanitary	Lining N. Main South of White Oak	2024	@	60	13,200
325	FΤ	8" Sewer Lining	Sanitary	Lining S. Main Between Durkee and Morrill	2025	@	60	19,500
215	FT	8" Sewer Lining	Sanitary	North Main St north of the railroad tracks	2027	@	60	12,900
155	FΤ	10" Sewer Lining	Sanitary	North Main St, North of RR Tracks	2028	@	70	10,850
325	FΤ	8" Sewer Lining	Sanitary	South Main St Between 5th St and Bitely St	2030	@	60	19,500
270	FT	12" Sewer Lining	Storm	4th Street, West of West Street	3022	@	80	21,600
85	FT	12" Sewer Lining	Storm	Freemont Street, South of 3rd Street	3023	@	80	6,800
285	FΤ	15" Sewer Lining	Storm	Nursery Street, North of 3rd Street	3024	@	100	28,500
		Subtotal:					-	357,650
		Construction Contingency	& Engineerin	ng:			30%	\$107,295
		Project Total:						\$465,000
		Total Sanitary Sewer:						\$ 372,641
		Total Storm Sewer:						92,359



PROJECT #11: Railroad & E 4th Street Improvements Project

CLIENT: Village of Lawton

DATE: March 24, 2022

**Overview** - The roadways are in poor condition and is due for a reconstruction. In addition, there is minor storm sewer replacement to be addressed during the road reconstruction that was identified in the SAW.

**Road Reconstruction -** This project is located on E 4th Street (from Main to Railroad) and on Railroad Street (from E 4th to 1st). The project involves a full roadway reconstruct, minor storm sewer improvements, traffic control, and restoration.

Priority (Storm Sewer): Priority (Roadway Reconstruction):	Need Need					
Road Length (E 4th):		300	FT			
Assumed Road Width (E 4th):		36				
Road Length (Railroad):		1275				
Assumed Road Width (Railroad):		32	FT			
Assumed HMA Thickness:		4	Inch	es		
Roadway Reconstruction:		Year:		2026		
1 LS General Items (Mob, Grading, Pavt Mrkgs, Signage, Etc.)	@	\$ 50,000	\$	50,000		
5740 SYD Aggregate Base, 8 inch	@	20		114,800		
5740 SYD HMA Surface, Rem	@	5		28,700		
1270 TON HMA, LVSP	@	80		101,600		
40 FT 15" Storm Sewer	@	65		2,600		
20 FT 36" Storm Sewer	@	105		2,100		
1 EA Dr Structure, 48 Inch dia	@	3,500		3,500		
1 LS Re-route Water and Misc Pipe	@	7,500		7,500		
1750 SYD Restoration	@	3		5,250		
1 LS Traffic Control	@	30,000		30,000		
100 CYD Subgrade Undercutting, Type II	@	25		2,500		
Subtotal:		-		348,550		
Construction Contingency & Engineering:		30%		\$104,565		
Project Total:				\$453,200		
Roadway				332,850		
Storm Sewer				15,700		
Roadway Total:				348,550		
Contingency & Engineering Total:				104,565		



PROJECT TOTAL:

453,200

\$

PROJECT #11:MDOT Streetscape Project - M-40CLIENT:Village of Lawton

DATE:

January 14, 2022

**MDOT Streetscape -** This project includes roadwork along M-40 from the northern Village limits to the souther Village limits. In addition, the project involves major roadway improvements, storm and sanitary sewer improvements, culvert replacement, watermain, and a streetscape thru the downtown corridor.

<b>MDOT Streets</b>	cape Project			Year:	2023						
Category / JN	Prop Work	Fu	nds Breakdo	wn	Total		CE Cost		Tota	al Project C	ost
JN 200641		Fed	State Local		Total	Fed	State	Local	Fed	State	Local
1	Road Work	93.54%	6.46%	0.00%	\$6,962,365	\$819,481	\$56,594	\$ -	\$7,332,077	\$506,363	\$0
I		\$6,512,596	\$449,769	\$ -	ψ0,302,303	ψ013,401	ψ00,004	ψ -	ψ1,002,011	ψ000,000	φU
2	Culvert Work	93.54%	6.46%	0.00%	\$530,860	\$62,483	\$4,315	\$ -	\$559,049	\$38,609	\$0
Z	Culvent Work	\$496,566	\$34,294	\$ -	\$550,000	ψ02,400	ψ+,515	ψ -	ψ009,0 <del>4</del> 9	ψ00,000	ΨΟ
3	Streetscape, Water	0.00%	0.00%	100.00%	\$1,376,363	\$ -	s -	\$173,188	\$0	\$0	\$1,549,552
5	main, Sanitary	\$-	\$-	\$1,376,363	ψ1,570,505	Ψ -	ψ -	φ175,100	ΨΟ	ΨΟ	ψ1, <b>0</b> <del>4</del> <i>5</i> , <b>5</b> 52
5	Shared Storm	81.85%	1.45%	16.70%	\$720,799	\$74,236	\$1,315	\$15,147	\$664,210	\$11,767	\$135,520
5	Shared Storm	\$589,974	\$10,452	\$120,373	φ120,199	ψ/ 4,200	ψ1,515	ψ10,147	ψ00 <del>4</del> ,210	φ11,707	φ133,320
200641 Total		\$7,599,136	\$494,514	\$1,496,737	\$9,590,387	\$956,201	\$62,225	\$188,335	\$8,555,337	\$556,739	\$1,685,072
JN 213171	Ped Safety	56.53%	0.00%	43.47%	\$432,173	\$30,873	\$-	\$23,740	\$275,180	\$0	\$211,606
511 213171	Improvements	\$244,307	\$0	\$187,865	φ432,173	φ30,073	φ -	φ23,740	ψ <i>21</i> 3, 100	ψΟ	φ211,000
TOTAL COST		\$7,843,443	\$494,514	\$1,684,602	\$10,022,559	\$987,073	\$62,225	\$212,075	\$8,830,516	\$556,739	\$1,896,677

Approx. Fund Allocations:											
Category / JN		Fund									
Category / Jiv	Other	Water	Sewer	Total							
3	1,049,552	400,000	100,000	\$1,549,552							
5	135,520			\$135,520							
JN 213171	211,606			\$211,606							
Total	1,396,677	400,000	100,000	\$1,896,677							

\*36 water services are included between Category 1 & 3. The cost shown does NOT include the cost to replace the private side of the water service.



#### PROJECT: Re-Occuring Water Service Replacements

CLIENT: Village of Lawton

DATE: March 24, 2022

**Water Service Replacements -** The projects below involve replacing lead water services with copper per State requirements. All lead service lines must be replaced per the State requirements by the end of 2040. Depending on where the water main is located, the service replacements will most likey require some road removal and replacement. In addition, based on roadway conditon, we have determined to either reconstruct the whole roadway, mill and fill the roadway, or, at a minimum, restore the road over the water services. Go here for more information on the Lead Copper Rule --> https://www.michigan.gov/egle/0,9429,7-135-3313\_3675\_3691-9677--,00.html

Summary	of Water Services									
Total Wa	ter Services	487								
Service F	Replacements per Year	25								
Assumed	Water Service Pavt Removal Area:		5	SY	D					
Assumed	HMA Thickness (Restoration):		4	Inc	hes					
Average	Service Cost:		\$ 6,000							
Average	Restoration Cost:		\$ 300							
Water Se	rvices:									
Year	Project	Services	Unit Price		Total					
2023	MDOT Streetscape Project	36	36 *N/A							
2024	Washington Street Improvements Project	17	17 *N/A							
2024	White Oak Improvements Project	15	*N/A							
2025	Walker, W 4th, & E 3rd Street Project	31	*N/A							
2025	Service Replacements Project 1**	25	\$6,300	\$	189,000					
2026	4th Street Improvements Project	22	*N/A							
2027	Service Replacements Project 2**	25	\$6,300	\$	189,000					
2029	Service Replacements Project 3**	25	\$6,300	\$	189,000					
2029	Service Replacements Project 4**	25	\$6,300	\$	189,000					
2030	3rd Street Improvements Project	13	*N/A							
2030	0 Bitely Street Improvements Project 24 *N/A									
2031	2nd Street Improvements Project	29	*N/A							
Total Cos	st from 2022 to 2041**:	487	6,300	\$	3,681,720					
Approxim	ate Cost Per Year**:	20	years		\$184,086					

\*Service replacement cost included in project cost. See project estimates for detailed cost breakdown. \*\*Cost includes 20% extra for contigency, engineering, etc.



PROJECT: Potholing Water Services for DSMI

CLIENT: Village of Lawton

DATE: October 28, 2021

**Potholing Water Services -** As a part of the Lead Copper Rule, the State is requiring each Water Supply to complete a Distribution System Materials Inventory (DSMI). The purpose is to characterize, record, and maintain a comprehensive inventory of service line materials on both public and private property. Due to lack of records, the exact materials of individual services are unknown. Many of the Village's services are likely lead, with potential 10% of the services being copper. Since the locations of the copper are unknown, the Village must pothole and verify the material of 20% of all water services. Go here for more information on the Lead Copper Rule --> https://www.michigan.gov/egle/0,9429,7-135-3313\_3675\_3691-9677--,00.html

Potholin	g Pro	oject	Y	ear:	2022		
Quantity	Unit	Item	U	Init Price	Total		
98	ΕA	Two Documented Attempts to Contact	@	45	4,410		
98	ΕA	Internal Inspection	@	40	3,920		
10	ΕA	Potholing Service Shutoffs Under Pavement	@	675	6,750		
88	ΕA	Potholing Service Shutoffs NOT Under Pavement	@	300	26,400		
98	ΕA	Potholing Service to Main Connections Under Pavement	@	600	58,800		
		Subtotal:		-	100,280		
		Construction Contingency & Engineering:		30%	\$30,084		
		Project Total:			\$130,400		





#### Appendix 5: Communitywide Capital Improvement Plan Summary

CIP Sur	nmary													EN	GINE	ER'S	Esti	MATE
Fund	Asset	Project Name	Total Cost	Private Cost	Public Cost	Year	Priority	Bundled Project Number	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
	Sewer	MDOT Streetscape Project	\$ 40,000			2023	Absolute	12		40,000								
	Sewer	Root Cutting	31,431			2025	Need	10				31,431						
Sewer	Sewer	Sewer Lining	372,641			2025	Need	10				372,641						
	Sewer	M-40 Sewer and Water Extension	492,005			2028	Want	9							492,005			
	Sewer	Bitely Street Improvements Project	1,700			2030	Need	6									1,700	
Total			937,777						-	40,000	-	404,072	-	-	492,005	-	1,700	
	Water	MDOT Streetscape Project	\$ 540,000	140,000	400,000	2023	Absolute	12		540,000								
	Water	Walker, W 4th, & E 3rd Street Project	214,900	116,250	98,650	2025	Absolute	2				214,900						
	Water	Washington Street Improvements Project	312,700	63,750	248,950	2024	Need	3			312,700							
	Water	3rd Street Improvements Project	150,300	48,750	101,550	2030	Need	4									150,300	
	Water	4th Street Improvements Project	341,000	82,500	258,500	2026	Need	5					341,000					
	Water	2nd Street Improvements Project	513,300	108,750	404,550	2031	Need	8										513,300
	Water	M-40 Sewer and Water Extension	356,830	-	356,830	2028	Want	9							356,830			
Water	Water	White Oak Improvements Project	108,000	56,250	51,750	2024	Absolute	7			108,000							
	Water	Bitely Street Improvements Project	319,800	90,000	229,800	2030	Need	6									319,800	
	Water	Morrill Street Water Looping	123,500		123,500	2027	Need	1						123,500				
	Water	Potholing Water Services for DSMI	130,400	-	130,400	2022	Absolute	N/A	130,400									
	Water	Service Replacement Project 1	189,000	93,750	95,250	2025	Absolute	N/A				189,000						
	Water	Service Replacement Project 2	189,000	93,750	95,250	2027	Absolute	N/A						189,000				
	Water	Service Replacement Project 3	189,000	93,750	95,250	2029	Absolute	N/A								189,000		
	Water	Service Replacement Project 4	189,000	93,750	95,250	2030	Absolute	N/A									189,000	
Total			3,866,730	1,081,250	2,785,480				130,400	540,000	420,700	403,900	341,000	312,500	356,830	189,000	659,100	513,300
	Roads	Washington Street Improvements Project	\$ 291,100			2024	Need	3			291,100							
Local	Roads	4th Street Improvements Project	300,500			2026	Need	5					300,500					
Streets	Roads	Bitely Street Improvements Project	412,600			2030	Need	6									412,600	
	Storm	Sewer Lining	92,359			2025	Need	10				92,359						
Total			1,096,559						-	-	291,100	92,359	300,500	-	-	-	412,600	-
	Roads	Walker, W 4th, & E 3rd Street Project	\$ 327,800			2025	Need	2				327,800						
	Storm	Walker, W 4th, & E 3rd Street Project	293,800			2025	Need	2				293,800						
	Storm	Root Cutting	\$ 17,269			2025	Need	10				17,269						
Major	Roads	3rd Street Improvements Project	489,600			2023	Want	4				17,203					489,600	
Streets		· · ·											407 500				409,000	
016613	Roads	Railroad & E 4th Street Improvements Project				2026	Need	11					437,500					
	Storm	Railroad & E 4th Street Improvements Project				2026	Need	11					15,700					
	Roads	White Oak Improvements Project	136,128			2024	Need	7			136,128							
	Roads / Storm	2nd Street Improvements Project	381,700			2031	Need	8										381,700
Total			2,099,497						-	-	136,128	638,869	453,200	-	-	-	489,600	381,700
Other	Roads / Storm / Streetscape	MDOT Streetscape Project	1,396,677			2023	Absolute	12		1,396,677								

#### Summary of Cost

Cannary				
Asset	Priority	Proposed Timing	Cost	Notes
Water	Absolute	2022-2031	2,319,300	Includes approx. 287 water service replacements, MDOT Streetscape, and Potholing F
Water	Absolute	2032-2041	1,260,000	Includes replacing the remaining water services.
Water	Need / Want	2022-2031	1,547,430	Involves replacing 4" water mains prior to completing water services, extending water r
Water	Need / Want	2032-2041	400,000	Involves replacing 4" water mains prior to completing water services.
Sewer	Absolute	2022-2031	40,000	MDOT Streetscape
Sewer	Need / Want	2022-2031	897,777	Includes sewer lining project, extending sewer north on M-40, and misc improvements



g Project.

r north on M-40, & WM looping.



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