

Village of Lindenhurst



2021 Capital Improvement Plan (CIP)

2021 Capital Improvement Plan



Introduction

The purpose of the Village's Capital Improvement Plan (CIP) is to establish a long range planning tool to provide for the investment in major community infrastructure improvements and the maintenance/repair/replacement of existing Village facilities and equipment.

The Village currently uses various capital funds for infrastructure and community improvements. These include:

- Community Capital Fund
- Water/Sewer Capital Fund
- Motor Fuel Tax Fund
- Public Works Vehicle Replacement Fund
- Police Squad Car Replacement Fund

More specifically, the Capital Improvement Plan will:

1. Identify existing major infrastructure and facilities.
2. Describe the CIP planning process.
3. Identify needed capital improvement projects over the next 20 years.
4. Provide a summary of current debt obligations.
5. Identify, categorize and describe potential future community improvement projects.
6. Make recommendations to maximize community improvement spending.

When planning for capital projects, the Village uses five primary objectives when evaluating the priority of projects:

1. Continuation of Maintenance and Replacement of Village Infrastructure to Address Essential Community Infrastructure Needs
2. Improvements to Technology to Increase Operational Efficiencies or Increase Data Driven Decision-Making
3. Enhances Quality of Life Elements and Improves Property Values
4. Improve Citizen Engagement in order to Establish Future Goal Setting and/or Comprehensive Planning
5. Enhance Public Safety

To reinforce the themes outlined in this memo, there will be corresponding numeration in the capital improvement projection.

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Planning Process

The planning process for the Capital Improvement Plan is a multi-step process and includes the following steps.

1. Annually, staff will prepare a draft CIP that includes revenue projections and proposed projects and costs.
2. The Draft CIP will be reviewed annually by the Village Board.
3. After this review, the Village Board will consider taking action as specified in the Recommendation section of the CIP.
4. Staff will prepare a final CIP to include any Village Board decisions/modifications.
5. Staff will begin preparation of capital projects to be included in the next budget year.

Existing Village Infrastructure, Facilities and Major Equipment

- Well water distribution system that includes 6 well houses, 9 wells, two water towers that hold 750,000 and 500,000 gallons, a 1,000,000 gallon reservoir, and 62 miles of watermain.
- Wastewater treatment system that includes, 11 lift stations, 65 miles of sanitary sewer lines and a waste water treatment facility that can treat 2.0 million gallons per day.
- 94.3 lane miles of streets and rights of way.
- 5,312 parkway trees.
- 134 Village-owned streetlights.
- 728 fire hydrants.
- Village Hall and Garage area
- Public Safety Building
 - Radio antenna
- Public Works Garage
 - Salt dome
 - Material storage area
 - Fuel station (limited use)
- Veteran's Memorial
- 8 police vehicles
- Public Works Vehicles & Major Equipment
 - 2 Public Works sport utility vehicles
 - 5 Public Works pick-up trucks
 - 2 – 2 yard dump trucks
 - 6 – 5 yard dump trucks
 - 1 – 10 yard dump truck
 - Backhoe, Jetter, Loader, Vector, Roller, Trash Pump
- 4 Lakes
 - Lake Potomac (14 acres)
 - Waterford (67 acres)
 - Linden (31 acres)
 - Springledge (5 acres)

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Project Types

Village capital improvement projects will be identified into the following areas:

- Road Improvements
- Storm water
- Water & Wastewater
- Bike Paths and Sidewalks
- Village facilities
- Vehicle replacement
- Miscellaneous

Some projects will require design and construction engineering services. Where possible, these costs will be listed separately.

Capital improvement projects can be listed as any of the following:

- **Engineering Design** –Involves the design of a project.
- **Major Equipment Replacement** – Occurs when a piece of equipment exceeds its useful life and needs to be replaced.
- **Capital Improvement or Expansion** – Any project that enhances or improves the community such as a new bike path, providing additional storm water capacity, or the addition of decorative street lights.
- **New Equipment** – The purchase of new equipment. These items (or systems/networks of items) are typically in excess of \$5,000.

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Community Capital

The Community Capital Fund typically funds storm water improvements, bike path and sidewalk improvements, municipal facility improvements, a portion of road improvements and other miscellaneous improvements as determined by the Village Board.

Regular Revenue & Expenses

Regular Revenue

- Transportation & Facilities Fee
- Cell Antenna Lease Fees
- Income Tax (10% of total)
- Sales Tax (10% of total)
- Public Facility Donation
- Video Gaming Revenues
- Interest
- General Operating Fund Transfer¹ \$TBD

Regular Expenses

- Road Program Design Engineering
- Pavement Patching
- Tree Replacement Program
- Sidewalk Repair and Replacement
- Stormwater Management Projects
- Computer Replacements
- Zeigler Sales Tax Rebate
- Misc. Equipment

¹ At the end of each fiscal year, any available dollars in excess of the General Fund Target balance are transferred into the Community Capital Fund.

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You may notice the color coding used in the capital improvement projections. Because of the nature of capital projects, I have highlighted projects based on their disposition. The color codes correspond as follows:

Peach	Long-Term Capital Projects and/or Part of an Agreement
Lavender	Previously Approved Projects Underway
Olive	Proposed Projects for Current Year
Salmon	Future Projects

“Peach” Projects

These projects we conduct annually or were agreed to in previous years. For example, engineering and the Village Board’s commitment to additional investment in road resurfacing is included in this section. Sidewalk replacement and pavement patching expenses are also listed here.

“Lavender” Projects

The projects in this section are ones previously committed to by the Village Board in previous budgets. Some of these costs will be adjusted based on future information. Moving forward, policy decisions may need to be made regarding the future of these projects. Often projects that are carried over from the previous fiscal year fall into this category. In 2022, one example includes the work to be completed on the Lindenhurst Drive Depressional Storage project.

“Olive” Projects

Olive projects represent those capital items recommended by the staff for expensing this year. These projects reflect some of the goals outlined earlier.

“Salmon” Projects

These projects are projects that should be considered for future year funding. Many costs are estimated at this time.

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Community Capital Fund FY 2021/2022 Programming

Est. Balance as of 4-30-2021	\$1,955,562
Regular Revenues	\$1,193,112
Operating Transfer (General Fund)	TBD
Available Funds	\$3,148,674

Peach Projects	Long-Term Projects/Previous Contractual Agreement
Road Program Design Engineering	\$25,000
Annual Pavement Patching	\$100,000
Sidewalk Replacement and Repairs	\$35,000
Stormwater Management Projects	\$100,000
Tree Replacement Program	\$15,000
Grand Avenue Village Contribution	\$330,000
Route 45 Village Contribution	\$13,000
Zeigler Sales Tax Rebate	\$110,000
Computer Replacements	\$12,000
Subtotal	\$740,000

Lavender Projects	Village Previously Approved Projects
Lindenhurst Drive Depressional Storage	\$30,000
Lakeshore to Hawthorne FAU Design Ph. II	\$15,000
Emerald Ridge Sidewalk Linkage	\$97,033
Sand Lake Rd. Crosswalk Beacons	\$35,000
Subtotal	\$177,033

Olive Projects	Proposed Projects for Upcoming Fiscal Year
Village Facility Roof Repairs	\$22,000
Security Fencing at Water Reservoir	\$35,000
Munn Road Retaining Wall Repair	\$8,000
Village Entry Sign Replacement	\$25,875
WWTF Service Road Replacement	\$35,000
PW & PD Facility HVAC Replacement	\$12,500
Lake Waterford Boat Launch Design	\$10,000
Grass Lake Road Underpass Local Match	\$33,454
Grand Avenue Streetscaping	\$150,000
Subtotal	\$331,829

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Salmon Projects		Future Projects
In-Squad Camera Replacement	FY 22-24	\$38,500
Village Entry Sign Replacement	FY 23	\$7,225
Community Survey	FY 23	\$11,000
Pavement Management Assessment	FY 23	\$30,000
PD Evidence Storage Security Upgrades	FY 23	\$100,000
Sand Lake Road Sidewalk Design Engineering	FY 23	\$176,000
Village Hall Parking Lot Resurfacing	FY 24	\$230,000
Lake Shore Drive. Reconstruction FAU Match	FY 25	\$175,000
US 45 from Rt. 173 to Rt. 132 Expansion	FY 25	\$101,269
<i>Subtotal</i>		<i>\$946,769</i>
Misc. Equipment/Projects	FY 22	\$15,000
Debt Service Expense	FY 22	\$0
<i>TOTAL FY 22 COMMUNITY CAPITAL EXPENSE</i>		<i>\$1,263,862</i>
YE FY22 COMMUNITY CAPITAL BALANCE		<i>\$2,013,035</i>

Project Descriptions

PEACH PROJECTS

Stormwater Management Projects *(Objective 1)*

Staff plans to continue our recent practice of addressing various stormwater and flooding challenges throughout the Village. In FY 22, we have included \$12,000 towards the design of a solution for the Valley Drive ditches and culverts to be addressed in FY 23. This expense also covers up to \$10,000 of 50/50 culvert replacement and \$78,000 in other various improvements.

Grand Avenue Pedestrian Path and Traffic Signal Local Cost Share *(Objectives 1 & 4)*

With the first phase of Grand Avenue reconstruction work complete, we now await to be invoiced the remaining costs associated with the project. A portion of those costs are those which the project has incurred and are disputed amongst the parties. Staff believes that amount to be around \$140,000, but the State has indicated that we will likely be billed for that in the following fiscal year. We have paid the majority of this project off in the ending fiscal year, but approximately \$330,000 remains in our contribution.

This amount also includes some costs for design work for the next phase of Grand Avenue construction (Munn Rd. to Deep Lake Rd.). We expect these design costs to be reimbursed by IDOT. Because we have not seen the final plans or contract for the western portion of the Grand Avenue Project (Munn Rd. to Deep Lake Rd.) we are only estimating what our portion of this work will be.

Route 45 Village Contribution *(Objective 1 & 4)*

Once the installation of the street lights at Haven Lane and Heritage Drive are completed, the largest expense of this account will be exhausted. The remaining lighting work and billing is expected to all occur within this fiscal year. The remaining \$13,000 that is programmed in FY 22 is for final expenses to be billed by the State.

Zeigler Economic Incentive Payment *(Objective 3)*

Per the Board approved revisions to the Economic Incentive Agreement between the Village and Zeigler Nissan, the Village has committed to ongoing rebates of 50% of sales tax generated by the project. This is estimated for FY 22 at \$110,000.

Computer Replacements *(Objective 2)*

Our staff has worked to eliminate the backlog of replacement computer equipment and peripheral devices over the past three years. We believe we have reduced that cost burden

which has allowed us to bring this cost down from what began at \$20,000 to \$12,000 annually.

LAVENDER PROJECTS

Lake Shore Drive Design Engineering *(Objectives 1 & 3)*

The Beck Road Reconstruction project improvements ended at Beck Road and Lake Shore Drive. Lake Shore Drive is also a FAU designated route making it eligible for 80% federal funding. Lake Shore Drive is in need of resurfacing, curb replacement, and completion of curb improvements in locations currently without. Because of our placement on the Lake County Council of Mayor's (LCCOM) federal funding contingency list, I have pushed out the greater costs for engineering services – right-of-way acquisition and construction engineering – to FY 25 and 26 respectively. The ongoing costs are conservative, but will account for ongoing reporting to the LCCOM.

Lindenhurst Drive Flood Mitigation Phase II *(Objectives 1 & 4)*

This project reached substantial completion in the Fall of 2020. Some adjustments are necessary to one of the pond's outfalls. The remaining work should remain well below the budgeted expense. Staff believes all work will be completed in FY 21.

Emerald Ridge Sidewalk Linkage *(Objective 3)*

With the completion of the Grand Avenue pedestrian underpass, several residents from the Emerald Ridge neighborhood have requested the Village explore options to provide a pedestrian connection to the Millennium Trail system. Currently, there are no pedestrian paths to connect the neighborhood to any of the area trails. In addition, a sidewalk linkage would provide pedestrian access from the future Grand Avenue pathways to the Forest Preserve's Millennium Trail system. This project was awarded in FY 21 at a cost of just over \$97,000.

Sand Lake Road Pedestrian Crosswalk Beacons *(Objective 1 & 4)*

The Village has fielded safety concerns regarding the pedestrian crossing at the intersection of Sand Lake Road and Country Place. Some pedestrians have been concerned about their ability to cross with the amount of traffic on Sand Lake Road. This is a popular intersection because of the amount of people living in this area and due to its location on the Millennium Trail. Public Works investigated the type of signage needed and worked with the County for a solution. What is recommended by Lake County DOT is a flashing beacon on top of a pedestrian crossing sign to be in compliance with uniform traffic code. The lights would be powered by a flashing light that would be triggered by people entering the crosswalk. The approximate cost of two signs, materials, and installation is \$25,000. This project was

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deferred as we analyzed revenues over the course of the year, but should be completed before year end. The Village will be incurring an additional \$10,000 in design and permitting-related costs through Lake County DOT.

Police Station Sally Port Door Replacement (Objective 1)

The Police Department has been facing increased maintenance and repair costs of their two Sally port doors over the past two budgets. The primary reason for the increased maintenance is that the doors are not built for an industrial-type use like a Sally port. The mechanics of the current doors are more analogous to a residential garage door which has led to quicker wear and tear on the equipment. The Police Department is proposing to replace the doors with something heavier that will reduce maintenance costs and be longer lasting.

OLIVE PROJECTS

Village Facility Roof Repairs (Objective 1)

Without exaggeration, almost all Village facility roofs are in need of major repair or replacement. Most of the roofing systems of Village Hall, the Police Department, and Public Works buildings are beyond their useful life. The Village Hall's roofing system is showing leaks, the Police Department has missing shingles, cupping, and gutter/soffit issues, and five buildings at Public Works need replacement of shingles and decking. It is my hope to include funding for each of these projects over three years, tackling a specific work area each year. The first year, we would begin with a section of Village Hall, year two would address the rest of Village Hall and Public Works with the Police Department being repaired in year three.

Security Fencing at Water Reservoir (Objectives 4 & 5)

With the newly constructed subdivision of Briargate, Public Works proposes the installation of a decorative aluminum fence. This fence should be similar in nature to the existing fence along the property of Ni Cristo Church. In order to keep an aesthetically pleasing view for the homes immediately adjacent to the Reservoir, we propose incorporating the fence into the existing brick wall with an appropriate setback for the installation of trees and shrubs by the developer. Based on the proposed Risk and Resilience Assessment, placing a fence around the Reservoir and Tower 2 will meet security obligations.

Munn Road Retaining Wall Repair (Objective 1)

The block retaining wall along the east side of Munn Road is in need of repair. There are four separate sections that the bricks will need to be removed and replaced in order to restore the structural integrity of the wall. It was believed originally that the spot repairs could be

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accomplished through replacement only; however, the depth of some sections extends below the anchoring point which will be required to be re-installed.

Village Entry Sign Replacement *(Objectives 1 & 3)*

Now that the Millburn Bypass and the east section of Grand Avenue are complete, we are prepared to replace the entryway signage that was removed prior to the commencement of those projects. We propose replacing all signs which were removed with the exceptions of the sign located at the intersection of Haven Lane and old US 45 and west Grand Avenue at Victory Drive. The Victory Drive signage will be reinstalled after the completion of the reconstruction of Grand Avenue (anticipated for FY 23). Staff also proposes to replace the entrance sign to the Police Department and add a new wall sign to the Police Department to match the wall sign on Village Hall.

LOCATION	SIGN	STONE PILLARS	MAYOR SIGN	DOUBLE OR SINGLE SIDED	SUBTOTAL
E/B Grand Avenue/Vista	4'X8', \$3,750	\$3,000	\$475	S/S	\$7,225
W/B Grand Avenue/LCFPD Ops	4'X8', \$3,750	\$3,000	\$475	S/S	\$7,225
Grass Lake Road/southbound Route 45	3'X5', \$1,800	\$3,000	\$475	S/S	\$5,275
Police Dept. (replacement)	4'X8', \$7,400	\$3,000	\$700	D/S	\$11,100
*Police Department Entryway (new)	3'X5', \$1,800	N/A	\$475	S/S	\$2,275
TOTAL					\$33,100

Public Works Service Road at Wastewater Treatment Facility *(Objective 1)*

The condition of the service road at the wastewater treatment facility is very poor due to many years of heavy loading and unloading. This service road is used to access the spoil pile, asphalt, and concrete for future disposal. The service road was originally designed with a road depth of 3 inches to support a smaller earth moving equipment when the drying beds were used for sludge processing in the early 1990's. Over the past 15 years, these drying beds have been repurposed to store construction debris until permanently removed from the site.

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Public Works is investigating the sub-terrain to gain an understanding of what drainage work may need to be completed. There is a preference to rebuild the road in concrete to increase the strength and lifespan of the roadway, but that figure may be cost prohibitive. An alternative may be to build an asphalt roadway to a depth of six inches.

PW & PD Facility HVAC Replacement *(Objective 1)*

Public Works has two AC units used to cool the Operations Building which are in need of replacement. These units are 21 years old with 1 unit not presently working causing the 2nd unit to be overworked. We propose to replace the 2 ½ Ton and the 3 ton units with the same unit. The Police Department has two garage heaters in the sally-port in need of replacement. These particular heaters are 22 years old. The two departments will work collaboratively to see if by bidding the work collectively, there are any savings on the two replacements.

Grand Avenue Streetscaping Design and Amenities *(Objectives 1 & 4)*

The Village's longstanding plan after the completion of the reconstruction of Grand Avenue was to follow back through the corridor with quality of life amenities such as benches, landscaping/planters, and other attractive elements to entice more visible interest and activity in the area. This cost may be used towards new streetscape plan options and physical elements in the next fiscal year.

SALMON PROJECTS

US 45 from Route 173 to Route 132 Expansion Contribution *(Objective 1)*

The Village's commitment to cost sharing with the State for the expansion of US 45 for sidewalks and other improvements is included in the outlying years in our CIP. IDOT's five-year road plan was released last year and did not include any work to be completed on this route through 2025. Barring any changes to that plan, the earliest the Village would be responsible for that payment would be early Spring 2025.

In-Squad Camera Replacement *(Objective 2 & 5)*

Our Watch Guard in-squad video cameras are in the fifth year of their warranty, which will expire in March 2021. While we could purchase a sixth year of warranty, it is more cost effective to budget for repairs than purchase the warranty. Our police officers have been pleased with our cameras and would like to continue their use. We expect that Watch Guard will release new video software in early 2021, and it is unknown if, or how long, the current video software will be supported. The Police Department is not suggesting to begin the replacement of cameras immediately, but to begin this process in FY 22. We recommend to replace these cameras as we replace the vehicles. Therefore, the cameras would follow the

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vehicle replacement schedule. This means we would purchase two cameras next year, and three in the following two years. All cameras would be replaced by FY 24.

Sand Lake Road Sidewalk Design Engineering *(Objective 1)*

The Village has been in discussion with Lake County DOT regarding extending sidewalk along Sand Lake Road. Lake County DOT's preference is to include the sidewalk addition when the road is ready for resurfacing or reconstruction in eight to ten years. If the Village agrees to that approach. A Phase 1 and Phase 2 study would be necessary for the sidewalk if we follow the County's schedule and seek Federal construction dollars. We have obtained a quote for the cost of the Phase 1 study and shared it with Lake County DOT.

Community Survey *(Objectives 3 & 5)*

The Fall of 2021 will mark three years since the completion of our first Village-wide survey where we asked the residents about their level of satisfaction with various Village services and initiatives. When originally proposed, we opted to complete the survey every three years. At the recommendation of the Finance Committee and Village Board, this project has been postponed to FY 23, post-pandemic. We will now seek to conduct the survey every four years.

Pavement Management Assessment *(Objectives 1, 2, & 3)*

In order to reassess the condition of our roadway, we would like to conduct an updated pavement management assessment for two reasons: 1) understand how our recent investment has improved our roadway system and 2) provide guidance on how to allocate funds before our next \$1M+ investment in our roadways.

Police Department Evidence Storage Security Upgrades *(Objective 5)*

In an on-going effort to improve efficiencies, staff identified some issues that needed to be addressed as it relates to evidence storage, security, and infrastructure. In accordance with the FY 2018/19 budget, staff better secured the evidence/property room by means of installing an electronic access control system. This system allows only certain staff (restricted access) into the evidence/property room and the system tracks key components such as: staff member, date, time, access allowed or denied, etc. Also in accordance with the FY 2018/19 budget, staff installed two (2) security cameras inside the evidence/property room. Staff feels that these two measures increased security of our evidence/property.

As you know, staff has now fully implemented the Barcoded Evidence Analysis Statistical Tracking, or BEAST evidence management program. The platform has increased our

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efficiencies, decreased the time it takes to log property, improved our chain of custody, and now allows for an integrated system with the Crime Lab.

As staff continues to plan for the future, additional needs have been identified relative to the infrastructure and additional security measures in the evidence/property room, to include: secondary security measures/restricted access inside the property room, floor level security, temporary secure storage equipment (pass-through lockers), air-handling equipment in processing areas, and proper ventilation as required by OSHA and EPA. During the upcoming year, staff will research and develop a cost analysis to determine the viability of the upgrades. An estimated cost has been provided.

PD Body-Worn Cameras (Objective 5)

In January 2021, a police reform bill was introduced to the Illinois General Assembly. If signed into law in its current state, the bill will mandate the use of body cameras by every officer, in all police departments in Illinois, with no money to pay for the cost. In December 2019, Commander Senica completed a staff study on the *Implementation of the Use of Body Worn Cameras in the Lindenhurst Police Department*. Equipment costs, storage costs, etc., have been included in this staff study. We will use this as the foundation of continued research and recommendations. During upcoming years, staff will research and develop a cost analysis to determine viability of purchasing body-worn cameras (quantity, storage, etc.).

Lake Shore Drive Reconstruction FAU Match (Objectives 1 & 4)

As was stated earlier, this project has been placed on the contingency list for construction which may fall outside of FY 25. In previous CIPs, the expense figures on this amount were much higher. However, the Rebuild Illinois grants from IDOT will cover the cost of the future 20% match for this project. The additional money has been left in this expense line for potential inflationary costs and construction contingencies.

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Water/Sewer Capital

The Water/Sewer Capital Fund typically funds water and wastewater improvements/replacements including watermains, lift stations, pump stations, etc.

Regular Revenue & Expenses

Revenue

W/S Tap on Fees \$144,825

Interest \$18,000

Expenses

Projects & Debt \$29,127

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Water & Sewer Capital FY 2021/2022 Programming

Estimated Balance as of 4-30-2021	\$108,237
Regular Revenues	\$162,825
Operating Transfer (Utility Fund)	
<i>Available Funds</i>	<i>\$271,062</i>

Debt Service Expense	FY 22	\$24,127
Misc. Equipment	FY 22	\$5,000
<i>TOTAL FY 22 WATER/SEWER CAPITAL EXPENSE</i>		<i>\$29,127</i>

END WATER/SEWER CAPITAL FUND BALANCE **\$157,934**

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Water & Sewer Capital Fund 5-Year Projection FY 21/22 - 25/26

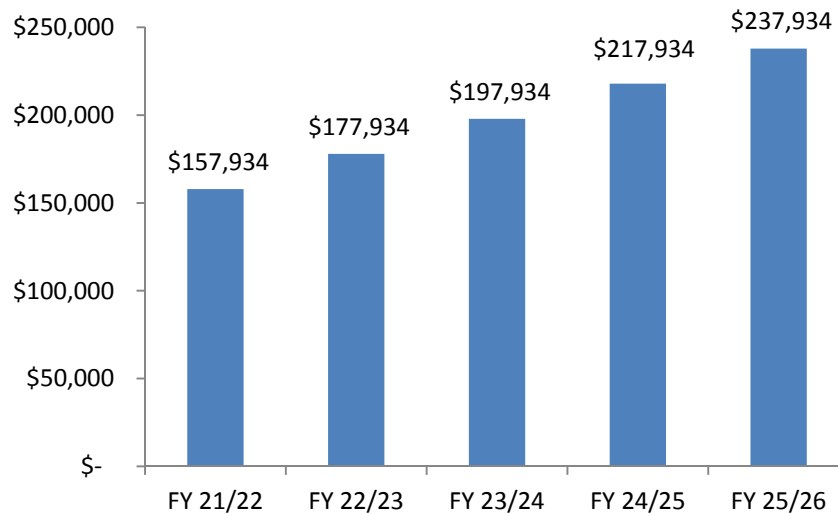
Estimated Balance 4-30-2021 \$ 108,237

	FY 21/22	FY 22/23	FY 23/24	FY 24/25	FY 25/26
Regular Revenue	\$ 162,825	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000
Transfer From Operating	\$ -	\$ -	\$ -	\$ -	\$ -
Total Revenues	\$ 162,825	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000

Expenses

Misc. Equipment	\$ 5,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000
Debt Obligations (SE Utilities Extension)	\$ 24,127	\$ -	\$ -	\$ -	\$ -
	\$ 29,127	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000

Available Dollars \$ 157,934 \$ 177,934 \$ 197,934 \$ 217,934 \$ 237,934



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LIFT STATION REPLACEMENT LIST

PUMP STATION INFORMATION

Pump Station No.	Location	Commission Year	Last Station Upgrade	Pump Qty.	Type of Controller	Pump Manufacturer & Model	Last Pump Replacement
1	1910 Elmwood Dr.	1969	1995	2	Consolidated Electric HMI Transducer w/backup float controls	8" Flygt Model No. NP-3153.095/2015	2015
2	227 Valley Dr.	1975	2002	2	PLTU/Transducer w/backup float controls	6" Flygt Model No. CP3153.091-0410	2012
3	2216 Rolling Ridge Ln.	1975	2002	2	PLTU/Transducer w/backup float controls	4" KJI HydroAire Model No. KSE-5-4T001	2008/2018
4	205 Hickory Dr.	1978	2002	2	PLTU/Transducer w/backup float controls	3" Flygt Model No. CP3085.092	2020
5	3155 Haven Ln.	1995	2005	3	PLC/Transducer w/backup float controls	6" Flygt Model No. 3301.185-1470013	1999/2014/2015
6	1136 E. Grand Ave		2017	2	PLC/Transducer w/backup float controls	Flygt 3153.095	2017
7	618 Crosswinds Ln.	1996	1996	2	Float Control Only	Hydromatic Model No. S4M1000M3-4 50' cable	1997/2014
8	680 N. Beck Rd.	1991	1991	2	Float Control Only	1 ¼" Barnes Model No. SGVF2032L	1991/2014
9	2595 Emerald Ln.	1991	1991	2	Float Control Only	3" Hydromatic Pump 1-S200M3-4 Pump 2-S4N300M3-4	2019/2021
10	2455 Emerald Ln.	1991	1991	2	Float Control Only	3" Hydromatic Pump 2-S200M3-4 Pump -1 S4N300M3-4	2019/2021
11	401 Woodland Trail Ln.	2005	2005	2	Float Control Only	2" Hydromatic Grinder HPGFX300CC 50' cable 1 ½" Grundfos Grinder SEG.A15.20.EX.2.1.603	2017

CH 01/21

Station Upgrade Recommendations – These recommendations should be incorporated into CMOM Plan & Long Term Funding

1. Replace pumps at lifts 4, 7, 8, 9, 10, and 11 every 10 – 12 years
2. Replace pumps at lifts 2 and 3 every 17 – 20 years
3. Replace pumps at lifts 1, 5 and 6 every 20-25 years
4. Replace starters and breakers every 5 years at lift no. 1, 5 and 6
5. Work with integrator to upgrade all operating systems at pump stations. This will eliminate the costs incurred from an engineering firm which isn't necessary for these upgrades.
6. When upgrading of lift nos. 1 and 5 you might want to think about upgrading to VFD controls on the pumps.
7. When performing upgrades on any station think about including adding new level transducer and floats.
8. Recommend new control cabinets for station nos. 8, 9, 10 when upgraded.

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ADJUSTED UPGRADE YEAR	PUMP STATION NO.	COMMENTS	ESTIMATED COST
2022	9	This station will need to be upgraded to 4 Hp pumps which will require larger starters, etc. Recommend using Flygt N-impellor pumps. Discount if performed with Lift Station no. 10. Work to replace current pumps began in 2018 and were fully exchanged in 2021. New replacement date can move to 2031.	\$40,000.00
2022	10	This station will need to be upgraded to 4 Hp pumps which will require larger starters, etc. Recommend using Flygt N-impellor pumps. Discount if performed with Lift Station no. 9. Work to replace current pumps began in 2018 and were fully exchanged in 2021. New replacement date can move to 2031.	\$40,000.00
2022	2	Proposal from Automatic Systems Co. Includes upgrading proprietary telemetry control system and incorporating into SCADA. Discount if performed with Lift Station no. 3.	\$35,000.00
2022	3	Proposal from Automatic Systems Co. Includes upgrading proprietary telemetry control system and incorporating into SCADA. Discount if performed with Lift Station no. 2.	\$35,000.00
2023	4	Proposal from Automatic Systems Co. Includes upgrading proprietary telemetry control system and incorporating into SCADA.	\$35,000.00
2024	5	This station already has a PLC so upgrading and incorporating into SCADA should be straight forward.	\$33,000.00
2025	1	Upgrade of controls	\$33,000.00
2026	8	This station will need to be upgraded to 4 Hp pumps which will require larger starters, etc. Recommend using Flygt N-impellor pumps. Control cabinet, pumps and guide rails	\$40,000.00
2027	7	This station will need to be upgraded to 4 Hp pumps which will require larger starters, etc. Recommend using Flygt N-impellor pumps.	\$40,000.00
2028	11	This station will need to be upgraded to 4 Hp pumps which will require larger starters, etc. Recommend using Flygt N-impellor pumps.	\$40,000.00

Total Estimated Investment \$371,000.00

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Vehicle Replacement Fund

The Vehicle Replacement Fund providing funds, through contributions from the Street Maintenance and Water/Sewer Operating Funds, for the replacement of Public Works vehicles and major equipment. Village forecasting provides a 20 year projection of the fund including replacement costs and frequency and annual dollars needed to fund the replacements. Below is a general overview of the 20 year projections. In 2018, staff is recommending combining the previous separated replacement funds into a single fund for all fleet. The resulting cash balance increase strengthens the position of the fund and reduces overall contributions.

Public Works

Regular Revenue & Expenses

Estimated Fund Beginning Balance		\$317,057
<i>Revenue</i>		
Fund Contributions -	Street Maintenance -	\$71,000
	Water/Sewer -	\$71,000
	Police Department -	\$71,000
<i>Expenses</i>		
Public Works Vehicle Replacements -	5 Ton Low-Profile at a cost of (x2)	\$259,784
Police Department Vehicle Replacements -	Upfitting of One Squad -	\$10,000
Projected Ending Fund Balance		\$238,624

2021 Capital Improvement Plan



Motor Fuel Tax Fund

The Motor Fuel Tax Fund provides revenue for various street maintenance activities including road salt, asphalt and road resurfacing. Road resurfacing is the largest expense in this fund. Revenue received cannot support a recommended 20-year road resurfacing program. The Road Resurfacing schedule. Currently, the 20-year road resurfacing program is under-funded by approximately \$10.5M. The Village completed a network-wide road assessment in 2018 with the purpose of reevaluating our current 20-year plan and how we budget for necessary improvements. The estimated investment needed in the roadways over the next six years are listed below.

Funding Scenario	Total Six Year Costs (2019-2024)	Remaining M&R Backlog (2024)	Total Six-Year Cost	Projected PCI (2024)
\$800K/2YR (Existing Funding Level)	\$2.4M	\$19.4M	\$21.8M	47
\$400K/YR (Existing Funding Level Spent Annually)	\$2.4M	\$19.2M	\$21.6M	47
Maintain Current Conditions (\$833K/YR)	\$5.0M	\$15.3M	\$20.3M	55
Increase Overall PCI to 60 (\$1.2M/YR)	\$7.2M	\$12.6M	\$19.8M	60
Backlog Elimination (\$2.7M/YR)	\$16.2M	\$0	\$16.2M	86
No Major M&R	\$0	\$22.3M	\$22.3M	40

The current road network has a Pavement Condition Index score of 55, which rates it overall in a “Poor” category. Using the information above, the current funding of the biennial program would only maintain the current score of the overall network. There would be no net improvement. The Village Board in 2019 made a commitment of greater investment in our road network by adopting a six-year funding strategy. (CE means Construction Year.)

Funding Source	CY 20	CY 21	CY 22	CY 23	CY 24	CY 25
MFT Funding	\$830,000		\$855,000		\$865,000	
Community Capital Contribution	\$525,000			\$525,000		
Garbage Fund Contribution	\$200,000		\$200,000		\$200,000	
Patching and Maintenance Funding	\$130,000	\$130,000	\$130,000	\$130,000	\$130,000	\$130,000
Total Investment	\$1,685,000	\$130,000	\$1,185,000	\$655,000	\$1,195,000	\$130,000

The total investment in our road network in this six-year window is \$4.98M. Under our old program the total funding would be \$3.93M. We can make an increased investment, in part,

2021 Capital Improvement Plan



due to the increased Motor Fuel Tax passed by the state in 2019. Fiscal Year 2022 will not be a resurfacing year in our biennial program.

Regular Revenue & Expenses

Revenue

Motor Fuel Tax	\$569,080
Special Allocation	\$11,000
Interest	\$18,789

Non-Capital Expenses

Asphalt Products	\$34,700
De-Icing Material	\$102,500
Snow Emergency	\$1,000

Summary

Projected FY 22 Beg. Fund Balance	\$800,848
Total Revenue Resurfacing (2022 – 2024)	\$3.17 Million
Projected Resurfacing Costs (Backlog Elimination)	\$14.4 Million
Available CIP Dollars (2022- 2024)	-\$10.43 Million

2021 Capital Improvement Plan



Municipal Debt Obligations

Below is a summary of debt payments in the FY 21/22 Budget and when they expire.

Title	Amount	Fund	Expires	Purpose
2010 IEPA	\$44,364	W/S Operating	2030/31	Grand Ave Phase II
2011 Sanitary District	\$125,000	W/S Operating	2032/33	WWTF Phase II
2016 IEPA 026	\$404,995	W/S Operating	2035/36	Lake Michigan Improvements
2016 IEPA 027	\$667,667	W/S Operating	2036/37	Lake Michigan Improvements
2016 Debt Cert	\$24,127	W/S Capital	2021/22	Southeast Utilities Extension