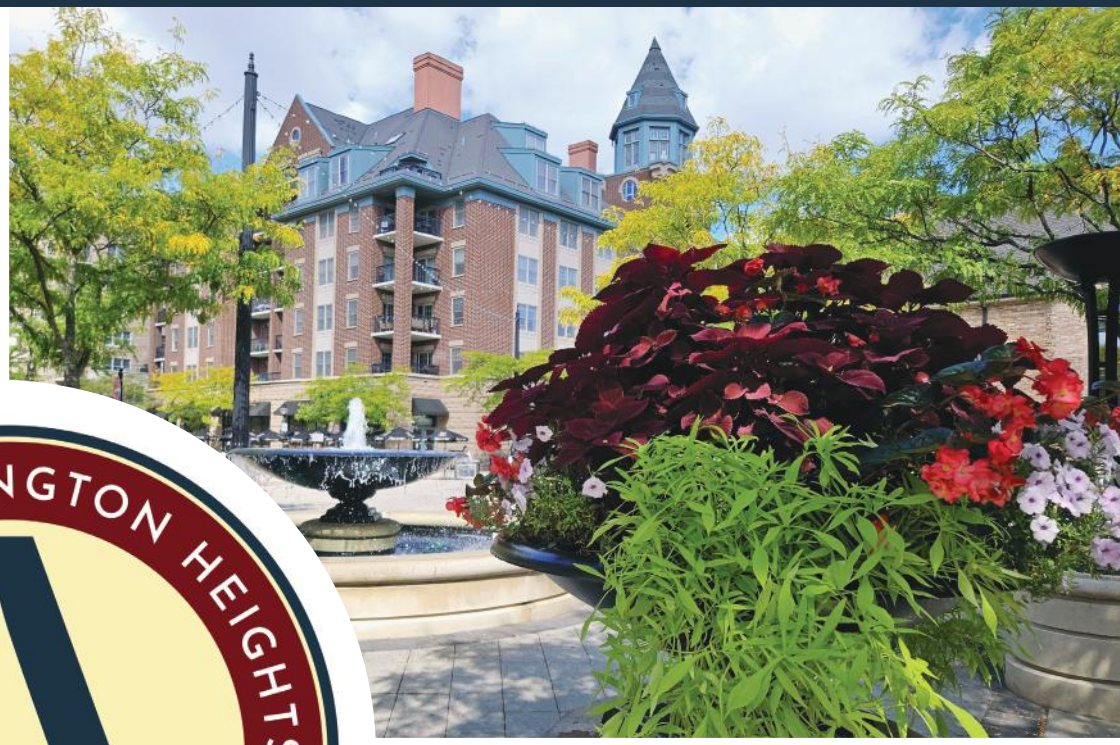












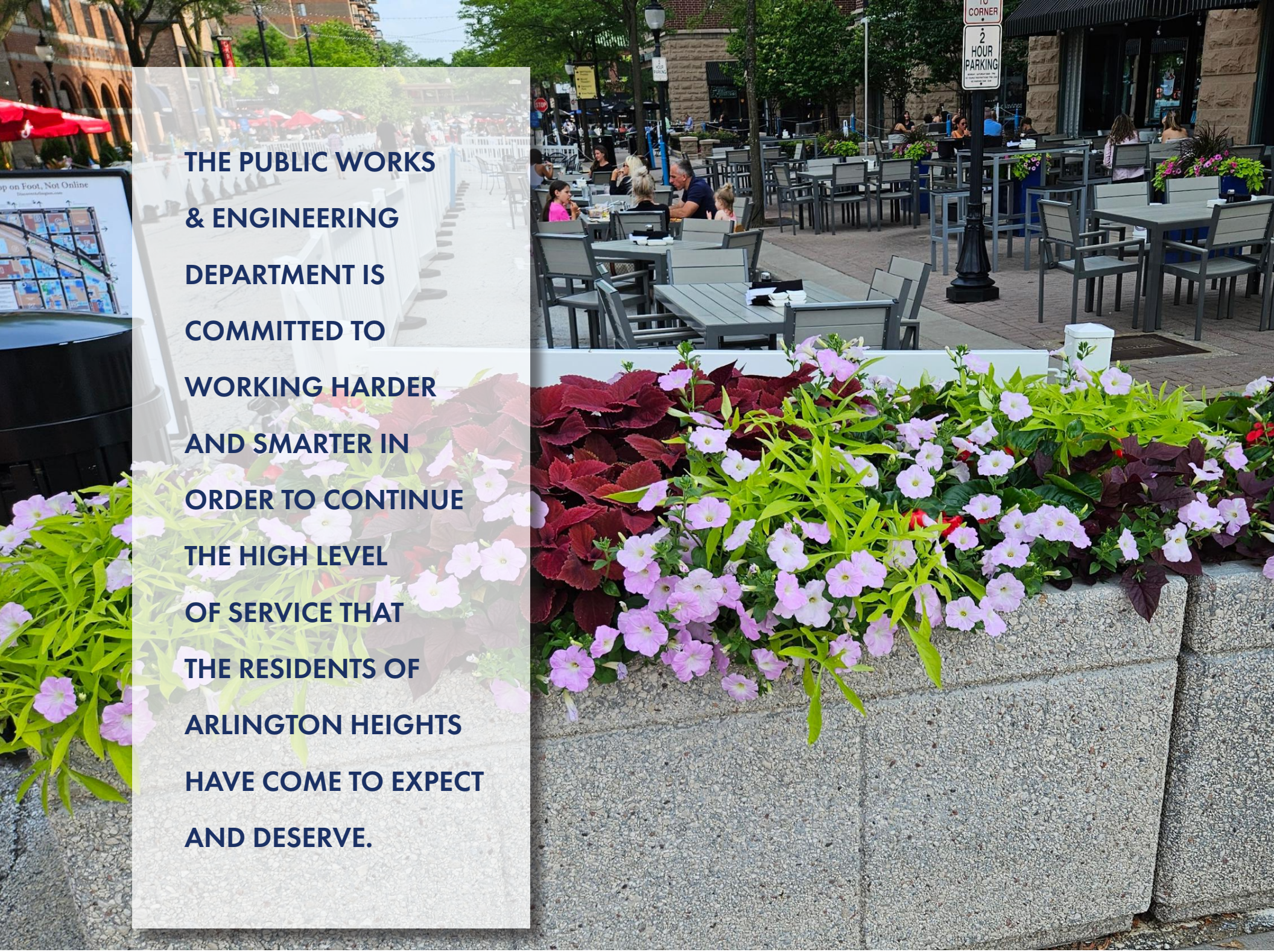


VILLAGE OF ARLINGTON HEIGHTS

PUBLIC WORKS & ENGINEERING DEPARTMENT

2024

ANNUAL REPORT



THE PUBLIC WORKS & ENGINEERING DEPARTMENT IS COMMITTED TO WORKING HARDER AND SMARTER IN ORDER TO CONTINUE THE HIGH LEVEL OF SERVICE THAT THE RESIDENTS OF ARLINGTON HEIGHTS HAVE COME TO EXPECT AND DESERVE.

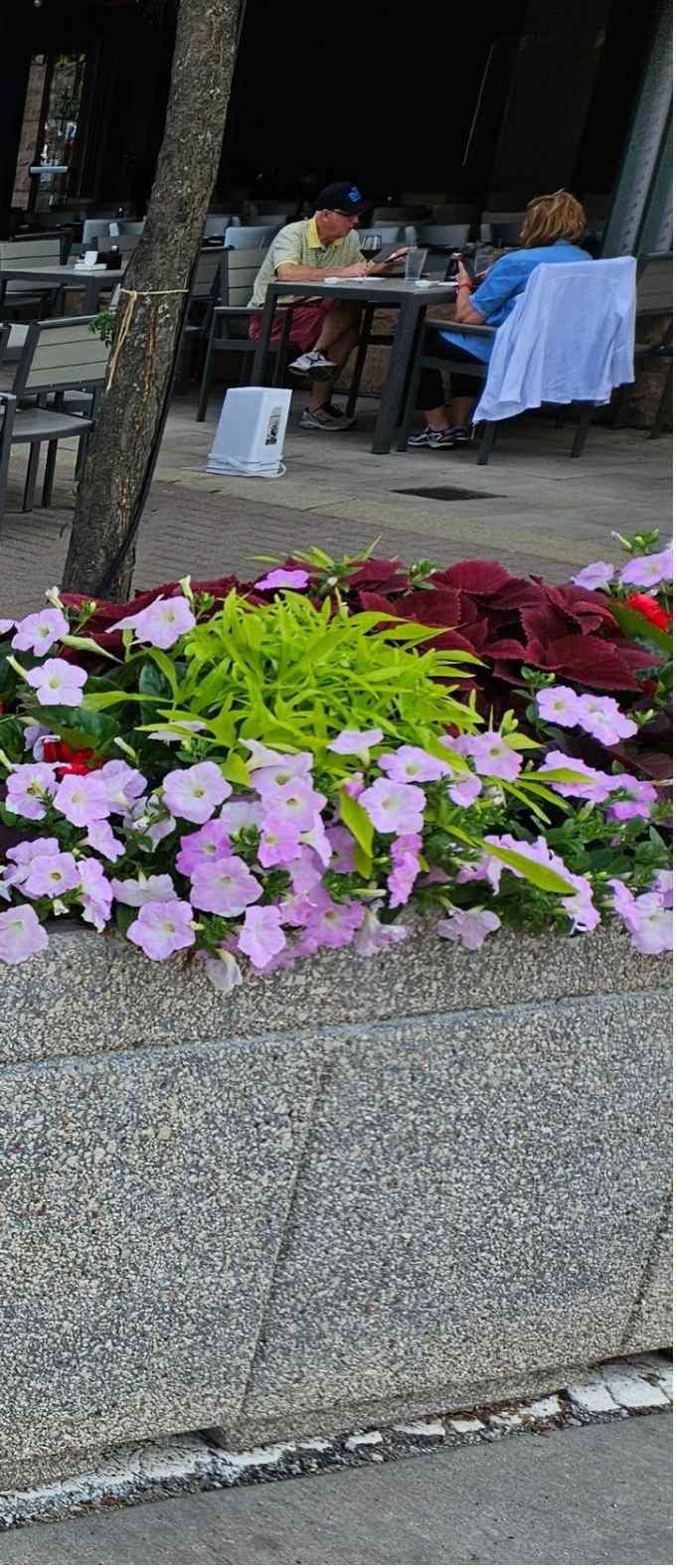


TABLE OF CONTENTS

DIRECTOR'S NOTE .....
DEPARTMENT OVERVIEW .....
FINANCIAL OVERVIEW .....
WORK ORDER SUMMARY .....
UTILITY PERMITS .....
RECOGNITIONS/AWARDS/GRANTS .....
HIGHLIGHT TOPICS .....
PUBLIC WORKS COMMITTEES .....
CERTIFICATION/TRAINING .....
TREEU PROGRAM .....
COMMUNITY OUTREACH .....
MAJOR EVENTS .....
MAJOR PROJECTS .....
EMERGENCY RESPONSE/WEATHER EVENTS .....
WINTER MAINTENANCE .....
2024 – ANNUAL PROJECTS/PROGRAMS .....
ANNUAL MAINTENANCE .....
BUILDING MAINTENANCE UNIT .....
ENGINEERING DIVISION .....
FLEET SERVICES .....
FORESTRY AND GROUNDS UNIT .....
SEWER UNIT .....
STREET UNIT .....
TRAFFIC UNIT .....
WATER DISTRIBUTION UNIT .....
WATER METERS UNIT .....
WATER PRODUCTION UNIT .....

DIRECTOR'S NOTE

The Village of Arlington Heights is proud to present this 2024 PUBLIC WORKS & ENGINEERING DEPARTMENT ANNUAL REPORT

With this year's picture, I wanted to focus on the dedicated staff serving the Village. PW&E is represented by 104 people that cover maintenance responsibilities of the Village of Arlington Heights 24/7. Although we are the third largest Department by size, we offer the largest eight-hour staffing by far. This resource is shared amongst all Village staff and can be seen working on projects for all Departments in all aspects of Village government.

As I proudly look at the image, I am amazed at the number of new faces. Forty new employees have been hired over the last four years. We find ourselves in the sweet-spot of longevity and experience, blended with energy and new ideas. We will focus our time in the next couple of years on staff development and succession planning as this trend is expected to continue.

As you read through this report, please note the people, projects, and programs that we provide to the community. Our staff can be seen on the streets, in the trenches, or in the schools impacting the next generation. We are proud of the work we do, proud of the community we serve, and dedicated to helping everyone possible.

Enjoy the report!

Cris Papierniak
Director of Public Works & Engineering



DEPARTMENT OVERVIEW

The responsibilities of the Public Works and Engineering Department include the design, maintenance, and repair of all Village infrastructure, properties and buildings, and equipment. The ten Operating Units within the Department are Building Maintenance, Engineering, Fleet Services, Forestry and Grounds, Sewer, Street, Traffic, Water Distribution, Water Meter Services, and Water Production. Total staffing includes 102 full-time employees, and three permanent part-time employees. During the summer months, an additional 15-17 seasonal employees, and three interns are hired to assist crews with outdoor maintenance activities. The following report sections summarize the 2024 activities of the ten Operating Units and the Administrative Staff supervising the Department.

PUBLIC WORKS & ENGINEERING DIRECTOR

ADMINISTRATIVE SUPPORT COORDINATOR	PUBLIC WORKS & ENGINEERING SERVICES COORDINATOR	PUBLIC WORKS & ENGINEERING ASSISTANT DIRECTOR	VILLAGE ENGINEER
ADMINISTRATIVE ASSISTANTS	MANAGEMENT ANALYST UTILITY TECHNICIAN ENGINEERING TECHNICIAN ENGINEERING DATA COORDINATOR ACCOUNT CLERK (PART-TIME)	MAINTENANCE SUPERINTENDENT BUILDING MAINTENANCE UNIT FLEET SERVICES UNIT FORESTRY & GROUNDS UNIT STREET UNIT UTILITIES SUPERINTENDENT SEWER UNIT TRAFFIC UNIT WATER METERS UNIT WATER DISTRIBUTION UNIT WATER PRODUCTION UNIT	SENIOR ENGINEER CIVIL ENGINEERS ENGINEERING INSPECTORS

FINANCIAL OVERVIEW

OPERATING BUDGET

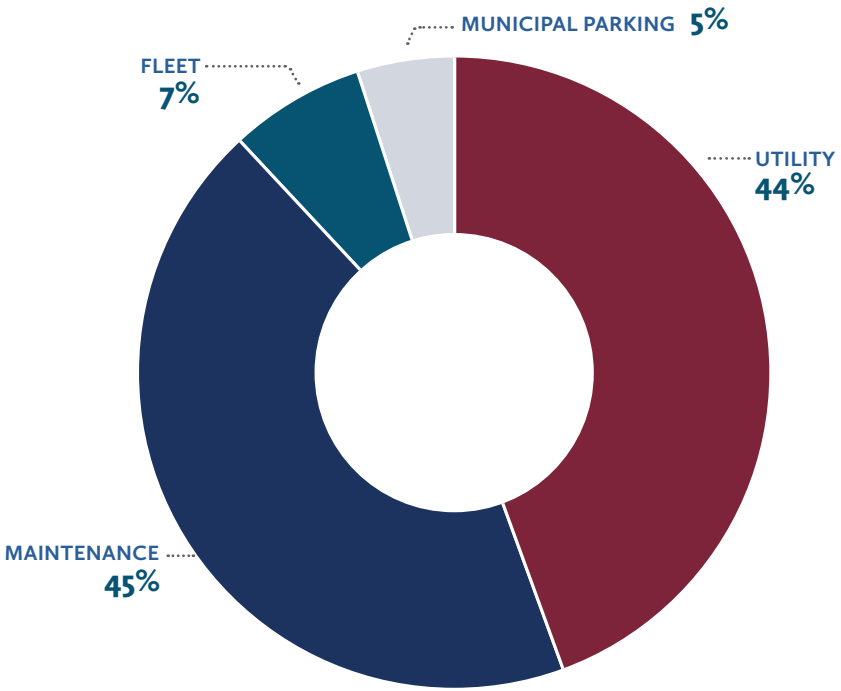
The Public Works and Engineering Department operates through numerous funds: Maintenance, Utility, Fleet, Capital, Storm, MFT, and Parking. The operating budget funds the day-to-day routine maintenance activities.

UTILITY. Operations of the water distribution, production and storage system, water meters, sanitary sewage collection systems and the storm water collection system.
Total budget for 2024 $17,431,836

MAINTENANCE. Responsible for all municipally-owned streets, sidewalks, trees, and landscaping, buildings and grounds, street lights, and traffic signals.
Total budget for 2024 $17,836,164

FLEET. An internal service fund for fleet operations. Provides maintenance and replacement schedules for vehicles and equipment within the Village Fleet.
Total budget for 2024 $2,615,400

MUNICIPAL PARKING. Responsible for the maintenance of four parking structures and 31 surface lots around the Downtown.
Total budget for 2024 $2,143,944



CAPITAL IMPROVEMENT PLAN BUDGET

The Capital Improvement Plan (CIP) accounts for capital acquisitions and construction projects of a significant nature, as well as the scheduled replacement of fixed assets.

MFT – ROAD RESURFACING, RECONSTRUCTION & TRAFFIC SIGNAL MAINTENANCE
Total budget for 2024 $5,049,730

STORM WATER CONTROLS *Total budget for 2024 $5,601,976*

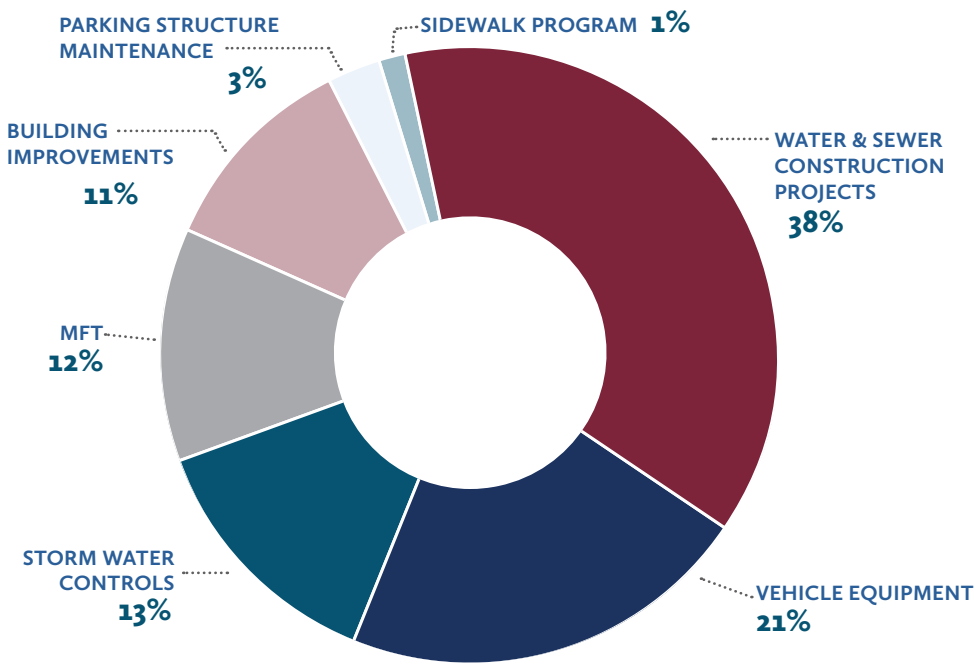
WATER & SEWER CONSTRUCTION PROJECTS *Total budget for 2024 $15,786,864*

VEHICLE EQUIPMENT *Total budget for 2024 $8,926,718*

BUILDING IMPROVEMENTS *Total budget for 2024 $4,514,577*

SIDEWALK PROGRAM *Total budget for 2024 $573,561*

PARKING STRUCTURE MAINTENANCE *Total budget for 2024 $1,085,996*



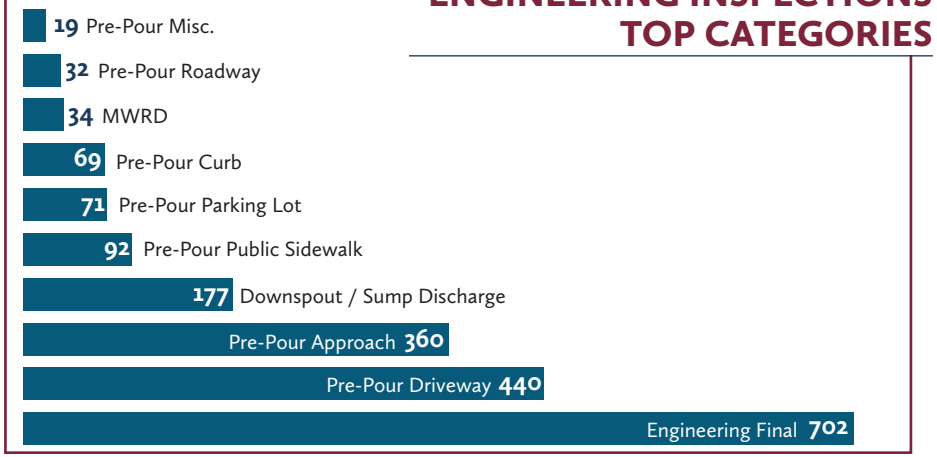
UTILITY PERMITS AND INSPECTIONS

Plan reviews are categorized to understand where resources are typically needed. This information can help the department strategize how better to serve our customers. Residential "parent record type" permits represented over 60% of the permit applications. Applications in this category include patios, additions, detached structures (garage, accessory buildings, sheds), and pools. For example, in the tables below, staff is able to use data to help understand the types of permits most requested. This enables our team to focus extra attention in the appropriate areas.

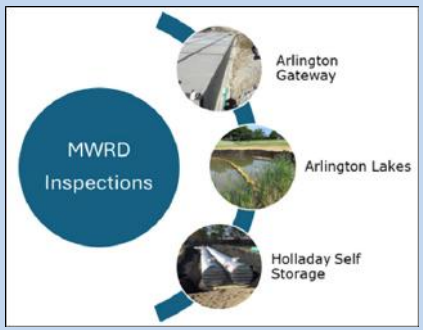
UTILITY PERMITS AND INSPECTIONS					
YEAR	2020	2021	2022	2023	2024
Plan Reviews	1,868	2,337	2,042	1,958	2,050
Inspections	1,746	2,319	2,278	1,683	2,827

**In 2024, the Village implemented a new Enterprise Permitting and Licensing software (EPL), as part of the holistic ERP system implementation. Engineering staff was a critical driver in the implementation and management of this new system. As such, the tracking of inspections has become more consistent and formalized, which is why the 2024 inspection numbers are somewhat higher than previous years.*

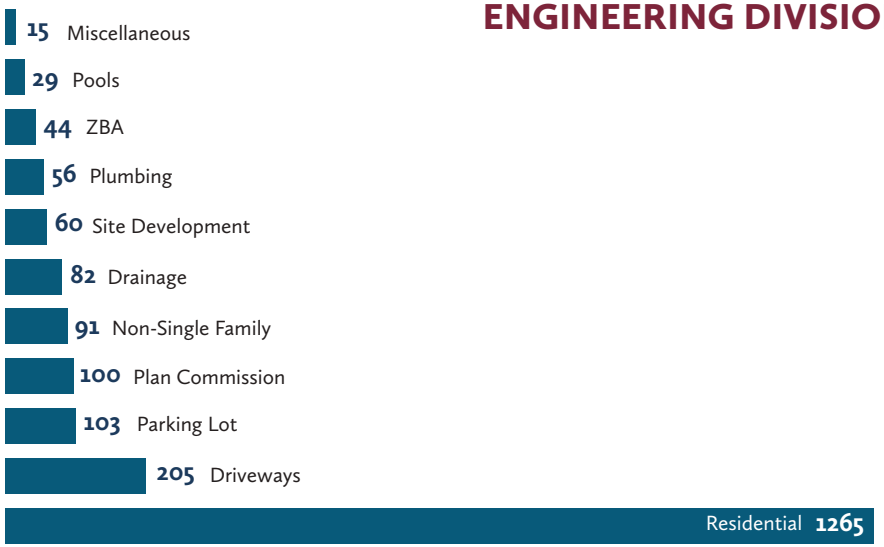
ENGINEERING INSPECTIONS TOP CATEGORIES



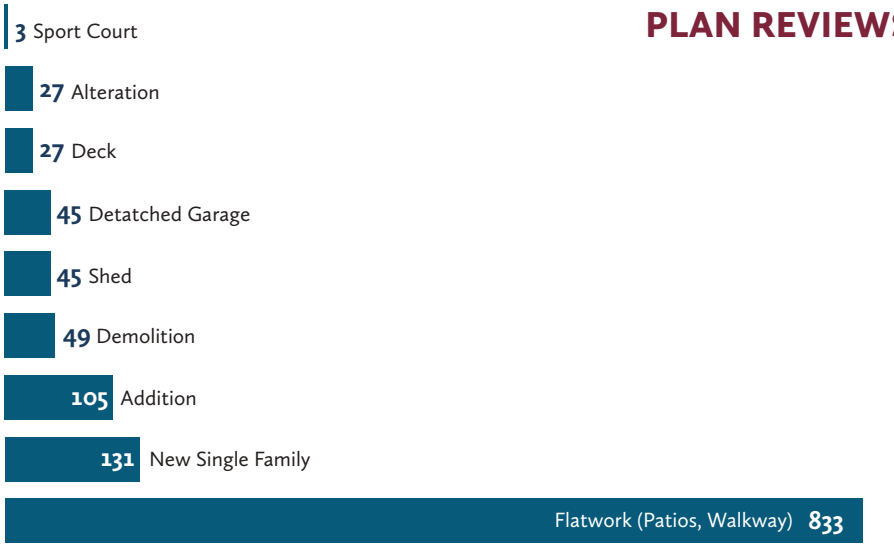
Staff serves as the department's primary liaisons for various outside agencies, such as; the Metropolitan Water Reclamation District (MWRD), the Illinois Department of Transportation (IDOT), and the Illinois Environmental Protection Agency (IEPA).



2024 PLAN REVIEWS ENGINEERING DIVISION



2024 RESIDENTIAL PLAN REVIEWS



UTILITY PERMITS AND INSPECTIONS

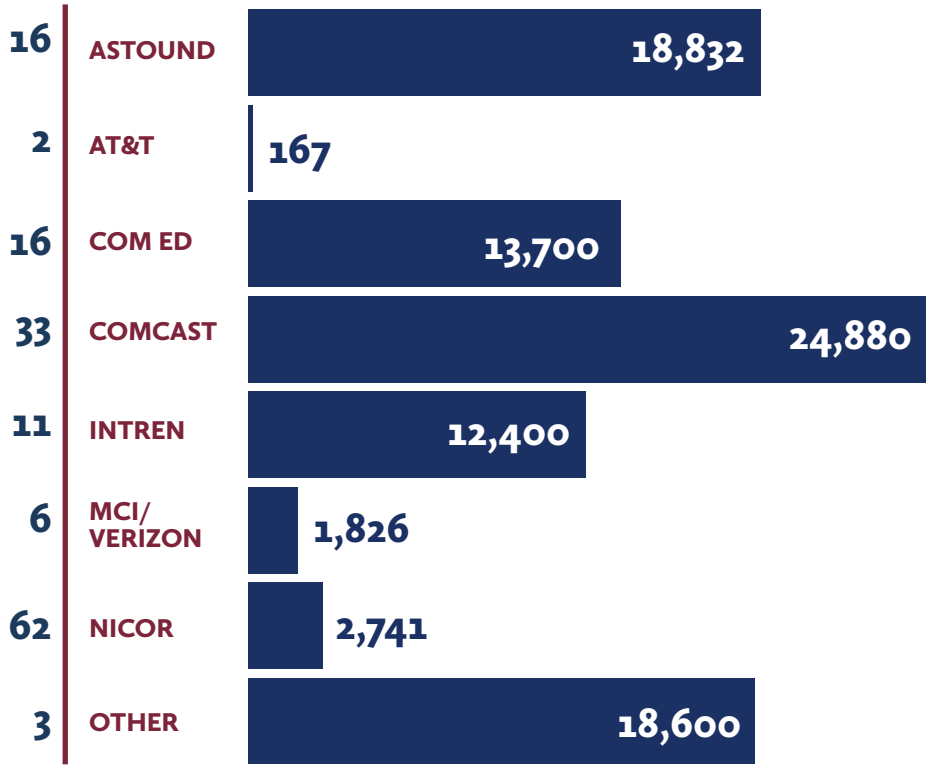
A total of **8,516** new "Service Requests" were recorded by the Front Office Personnel. The Work Requests are entered for follow-up with the appropriate Public Works Units.

A total of **6,785** invoices were processed.

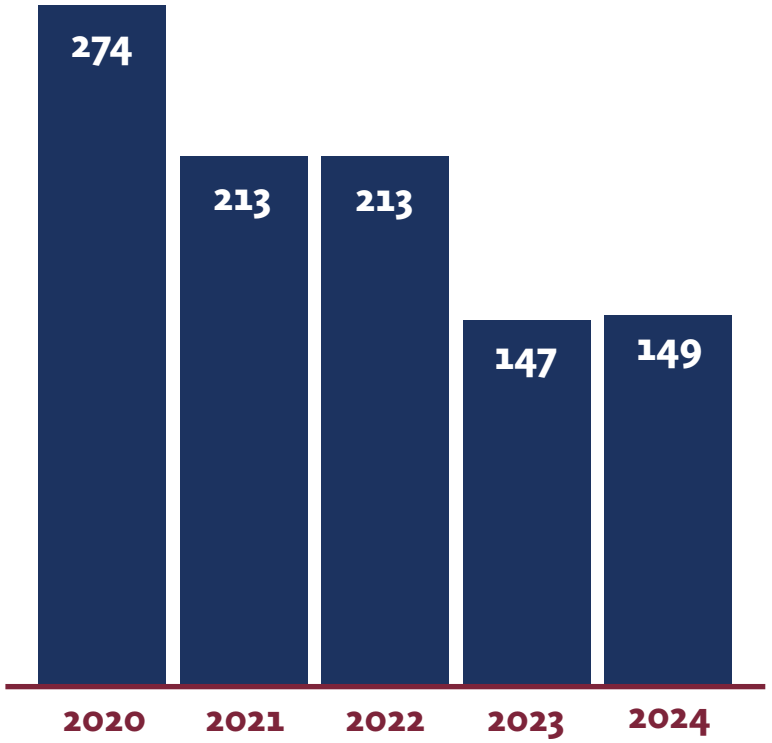
UTILITY PERMITS (JANUARY 1, 2024 TO DECEMBER 31, 2024)

The Public Works Services Coordinator and the Utility Technician review/approve Utility Permits and Utility Map requests for all utilities in the Village right-of-ways. Public Works Staff processes all underground/overhead facilities requests to be installed within the Village right-of-ways and also monitors the installation of these facilities and their restoration. In 2024, Public Works Staff processed 149 permits from 8 different utilities to install new underground facilities in the Village right-of-ways.

UTILITY PERMITS BY FOOTAGE INSTALLED



UTILITY PERMITS BY YEAR



RECOGNITIONS/AWARDS/GRANTS

TREE CITY USA

The Village of Arlington Heights has been named a Tree City USA in 2024. Arlington Heights has been a Tree City USA recipient since 1985. Our community takes pride in its urban forest and ensures that its future is preserved. Receiving the Tree City USA Award acknowledges the Department's dedication to the urban forest.

TREE GROWTH AWARD

Arlington Heights was awarded the Tree Growth Award for the 12th year. This award is designed to recognize specific environmental improvement and encourage higher levels of tree care in communities.

GOVERNMENT FLEET MAGAZINE - NOTABLE FLEET

Government Fleet magazine and the APWA have announced the 50 Leading Fleets for 2024. The awards program recognizes operations that are performing at a high level, particularly in fleet leadership, competitiveness and efficiency, planning for the future, and overcoming challenges. While the Village of Arlington Heights was not named among the 50 Leading Fleets, our accomplishments and efforts did warrant recognition as a "Notable Fleet."



APWA NATIONAL PROFESSIONAL MANAGER OF THE YEAR PUBLIC RIGHT-OF-WAY

The Professional Manager of the Year Award in Public Rights-of-Way recognizes outstanding achievements in the area of public rights-of-way management, within the public works field and to inspire excellence, leadership, and dedication to the public good. The award recognizes an APWA member whose primary responsibility is in public rights-of-way management, with a minimum of 10 years of applicable experience, employed in either the public or private sector, and who have made significant contributions to the advancement of public rights-of-way.

Award winners must show that they have made significant contributions to the advancement of public rights-of-way management through; outstanding leadership and vision; employment of new and innovative ideas and technology; implementation of effective methods; promotes the field of public rights-of-way management and supports the advancement of sustainable contributions in public works.

The entire Village of Arlington Heights along with the American Public Works Association is proud to have Steve Mullany represent the public works profession and association.

This award represents a career dedicated to something greater than self. Rather, a career dedicated to serving this community to the greatest extent possible.



RECOGNITIONS/AWARDS/GRANTS

Many of the projects taken on by the Public Works and Engineering Department are very costly, and many times, cannot be completed without funding assistance. As a result, our Staff is very aggressive in the pursuit of state, federal, and other program funding for capital projects and initiatives related to public infrastructure. Over the course of 2024, staff submitted grant applications and Congressional Spending applications and put the following secured funding commitments to use on major capital projects.

- Staff worked with an Engineering Consultant to complete design engineering and completed bidding for 2025 construction to utilize grants secured from the Illinois Department of Commerce and Economic Opportunity (DCEO) totaling $1,300,000 associated with the “Forrest Avenue Stormwater Improvements” project.
- Staff completed the Evergreen-Maude Storm Sewer Improvements project, utilizing grant funding received from the Illinois Department of Commerce and Economic Opportunity (DCEO) totaling $845,000.
- In 2024, the Village Board approved a design engineering contract to complete engineering needed to complete the Euclid Ave. Resurfacing project Cook County Department of Transportation and Highways (CCDOTH) pledged partnership with the Village by agreeing to fund $2,288,120 toward the “Euclid Avenue Resurfacing” project.
- In 2024, a Phase I engineering contract was approved by the Village Board after securing Community Project Funding through Congressman Quigley’s to study a multi-use path through the existing ComEd ROW
- Staff was able to complete the Rockwell Street Rehabilitation project, utilizing grant awards received from the Illinois Department of Commerce and Economic Opportunity (DCEO) in the amount of $207,240.
- The Village Board awarded a contract to an engineering firm to complete required engineering needed to complete the Windsor Road project, which will utilize $2,233,530 and $1,751,520 secured by staff in the previous year.
- Staff was able to secure grant funding from the Urban and Community Forestry (UCF) Inflation Reduction Act Grant to plant new trees in open tree planting locations within Arlington Heights. This grant was for $100,000.
- Staff was able to secure approximately $59,898 in funding through the ComEd Efficiency Program to assist with the replacement of existing Village-owned lighting systems to new, energy efficient LED fixtures.



Staff will continue seeking Federal, State, and Local grant opportunities as they arise to leverage Village funds toward vital infrastructure improvement projects.

DATA ANALYSIS



Pedestrian crossing enhancement at Clarendon Ave. and Douglas Ave.

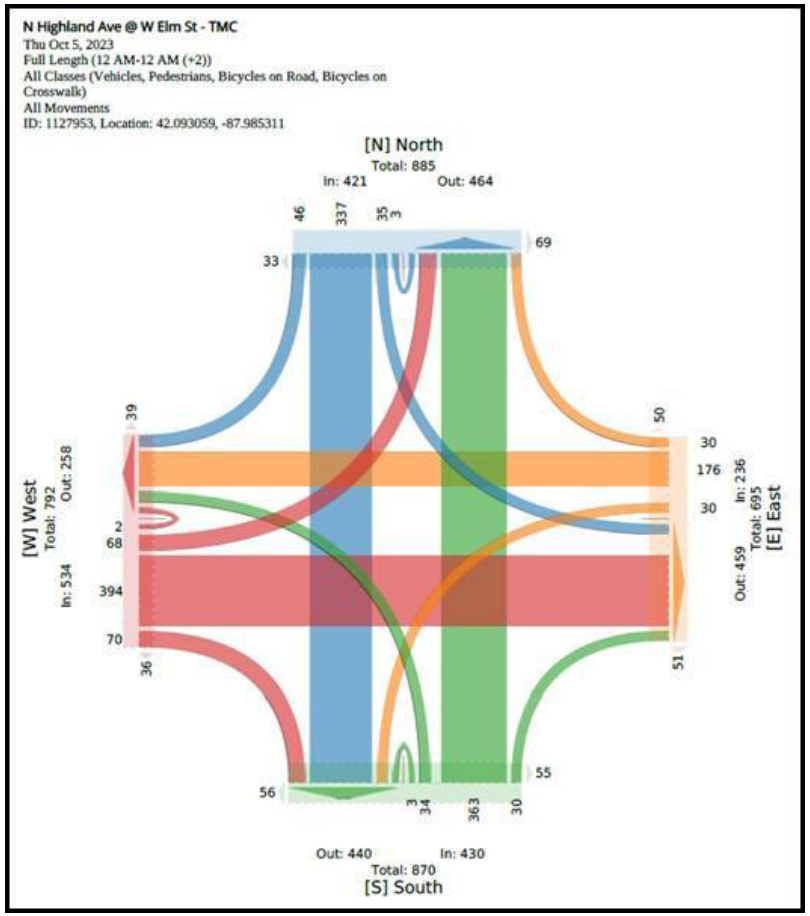
TRAFFIC STUDIES AND LINE OF SIGHT OBSTRUCTIONS

The Public Works and Engineering Department receive numerous requests throughout the year related to traffic management matters. In 2024, staff received 167 requests to evaluate traffic conditions throughout the community. Requests related to pedestrian crossing improvements, speed limits, parking limitations, signage requirements and other traffic related matters generate engineering studies, review of police accident records, site condition surveys and other various activities, based on the request made.

Engineering operations are also responsible for line-of-site obstructions, primarily caused by unmaintained vegetation at intersections. Staff enforces regulations that require residents and business owners maintain a clear line-of-sight to provide a safe environment for motorists and pedestrians. In 2024, staff processed 77 line-of-site obstruction requests.

HANA NEIGHBORHOOD SIGNAGE & TRAFFIC FLOW IMPROVEMENT PROJECT

Engineering staff had received numerous requests for signage and traffic flow improvements for various intersections within the Hana Neighborhood, which is generally located in the area East of Ridge Ave and south of Oakton St. To provide a holistic approach, staff reviewed crash data, conducted Miovision traffic counts, and evaluated the existing signage for the entire Hana Neighborhood. After evaluating this information for stop sign warrants, the Village recommended changes at 14 of the 62 intersections in the Hana Neighborhood, conducting a survey of the neighborhood for feedback. The final plan was implemented in August, 2024.



DATA ANALYSIS

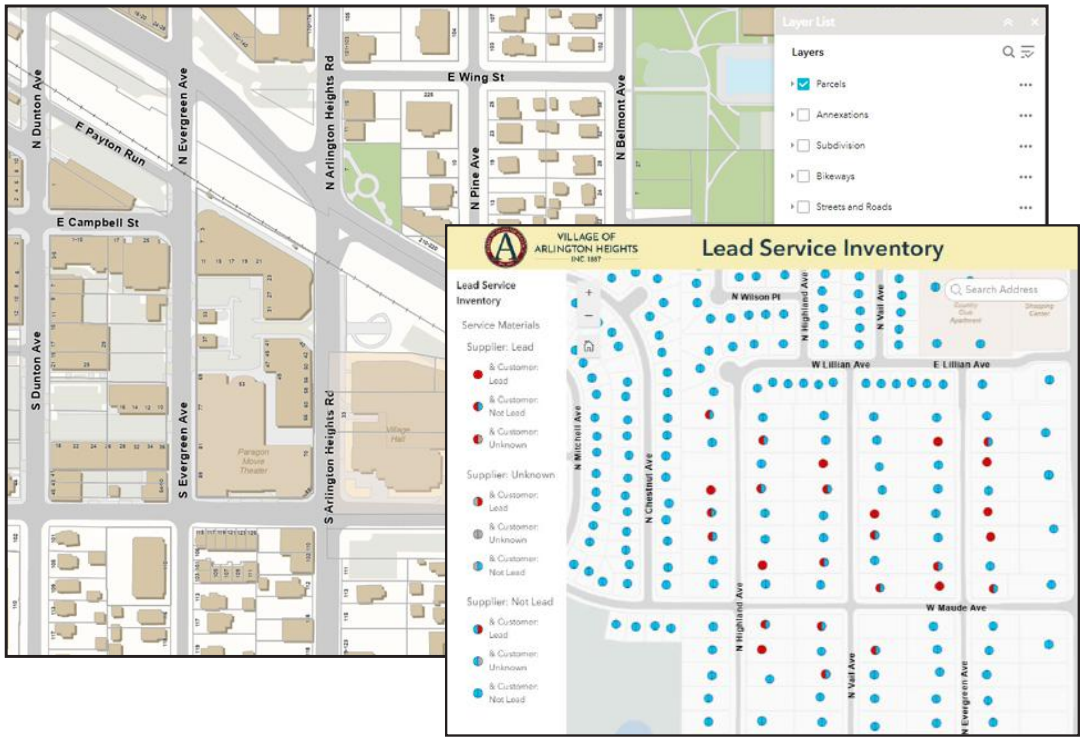
GIS

What is GIS, actually? GIS stands for geographic information systems and is a digital system that helps create, manage, and analyze data in the form of a map. Public Works data can be read in GIS to help show where things are – like fire hydrants, water valves, and other infrastructure throughout the town. GIS can also be used to store and represent descriptive information – like population demographics and other information. On the Village of Arlington Heights website, the Community Map Viewer is an interactive map that displays many of these layers to benefit the public. Now residents can learn about school district boundaries or waste collection days without having to make numerous phone calls or emails.

The Public Works and Engineering Department uses GIS on a daily basis from field work to office work. The technology is extremely beneficial to all of our employees because it allows them to see where underground utilities are located, property information, zoning details, and much more.

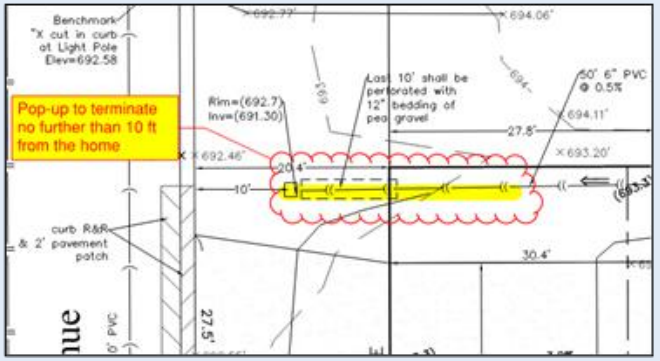
Many Public Works and Engineering employees utilize GIS in the field at work sites. Through various applications they can access data and maps via mobile phones and tablets to better visualize what they are working on. For example: When they are inspecting a water main break, they can open up a mapping application, find the specific water main that is leaking, and locate the nearest shut-off valves in the vicinity. The same workflow can be applied to other Public Works units too like Sewer, Water, and Traffic. At their fingertips, employees can view fire hydrant data, storm sewer catch basin data, and even traffic sign data. Entirely within GIS, employees can view the infrastructure they work with and the data associated with it.

Within GIS, the Public Works and Engineering Department is able to recreate data into informative maps that help display infrastructure to be upgraded in the Capital Improvement Program. Key projects such as water main replacement, lead service lines, and road reconstruction all utilize GIS tools at the inception to determine what parts of town will be prioritized. Specific maps that show density of water main breaks will help in replacing mains in prone areas. Other maps that show the road network by a scoring system will prompt roads with low scores getting reconstructed or resurfaced. Finally, as the lead service line replacement project begins, identifying properties where lead is suspected is critical so the Village can properly plan on replacing these services. These workflows are all extremely helpful because the department can logistically plan out specific projects years in advance. It's a great way to stay proactive in upgrading roads and utilities that are slowly degrading or do not meet certain standards.



Enterprise Permitting & Licensing

The Village migrated from the legacy HTE system that had been in place since the 1990's to the Enterprise Permitting & Licensing (EPL) platform in December, 2023, the 2024 metrics represent a full calendar year in the new system. The number of plan reviews in total remains consistent between HTE and EPL; however, the new EPL system allows for multiple types of inspections that are specific to the inspection that is needed, whereas the HTE system was very broad and was limited with its capabilities of tracking inspection types.



DATA ANALYSIS

PUBLIC WORKS WATER QUALITY LABORATORY

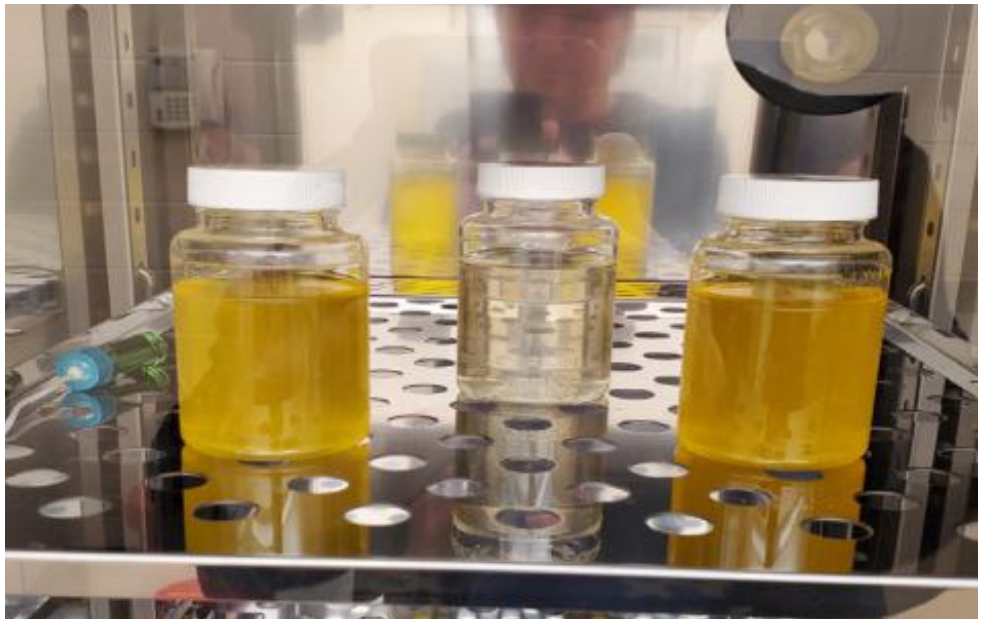
The Village of Arlington Heights maintains a State certified Illinois Environmental Protection Agency (IEPA) microbiology water quality laboratory. This component of the Village's water quality operation is very unique and one of the only facilities of its kind in the suburbs. This is an important and unique benefit for the Village for reasons, such as; cost-savings and increased service levels for Village water customers.

As a condition of the IEPA, the Village is required to issue a Water Boil Order in any affected area of a water main break, if the system pressure falls below the prescribed threshold. As a result, most communities have to work with outside testing companies that are usually not accessible for service during evenings, weekends, or holidays. As a result, most communities Water Boil Orders can last an extended period of time. By having this resource on-site, our trained and qualified Staff is able to perform the required testing to ensure the water quality is safe. The results are generally available, sometimes several days before most other communities would receive results, thus improving water service and reliability for Village water customers.

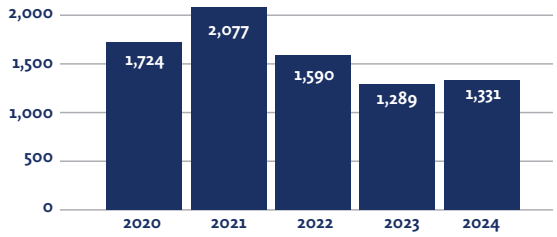
Secondly, in the Chicagoland area, water quality laboratories are generally located along the lake front or a significant distance from Arlington Heights. For example, the closest non-lakefront facility is approximately 45 minutes from the Village. This means that our staff time spends, at a minimum, four (4) hours (two trips required) of time delivering and picking up samples. This time savings allows staff to better allocate resources to other priorities.

Staff regularly performs required proficiency testing, cleaning, compliance, and bi-daily temperature monitoring of the laboratory equipment. Duties are carried out by three (3) IDPH certified analysts and one IDPH certified lab supervisor. In 2024, there were 110 water samples analyzed in the lab. This is a 61% increase from the samples collected in 2023, likely attributed to the (20%) increase in water main breaks last year.

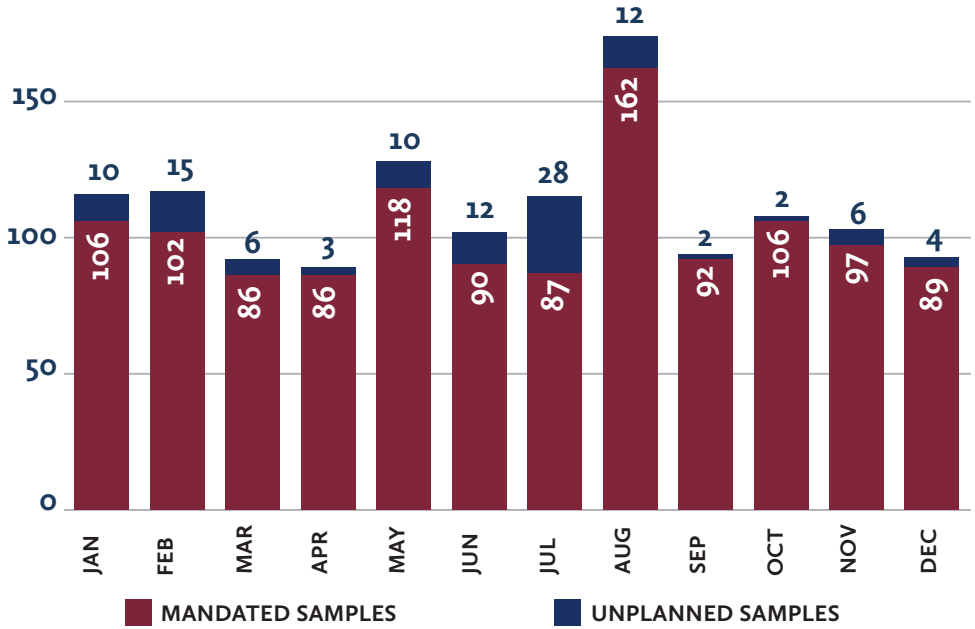
New IEPA regulations related to lead service lines will increase testing and sampling requirements in future years. Staff has been preparing to ensure these new requirements are followed.



WATER SAMPLES COLLECTED



2024 WATER QUALITY SAMPLING



DATA ANALYSIS

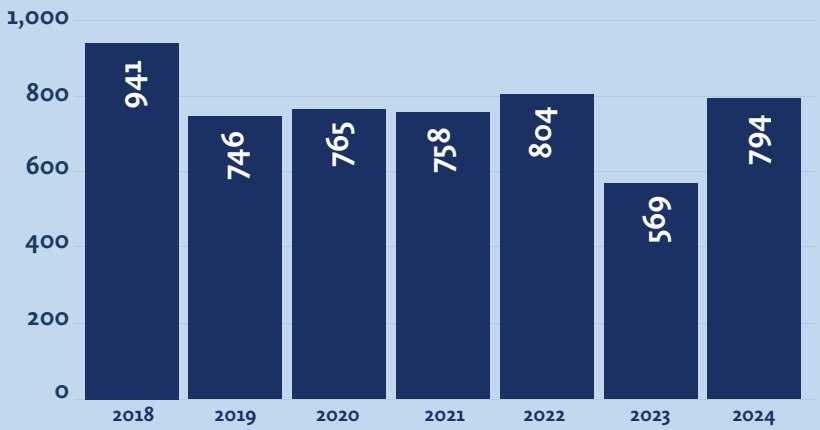
WATER SOURCE AND DELIVERY SYSTEM

Lake Michigan water is processed by the City of Evanston and delivered to the Village of Arlington Heights via the Northwest Water Commission. The Northwest Water Commission is a quasi-government agency formed to obtain and distribute Lake Michigan water to its member communities. The Northwest Water Commission was formed in 1957, and its current members are Arlington Heights, Buffalo Grove, Palatine and Wheeling.

Arlington Heights receives treated, finished water at four (4) locations. Each location has a ground level storage reservoir and pump station. The total water storage capacity in Arlington Heights is 29,000,000 gallons and the maximum pumping capacity is 31,000 gallons per minute. Water consumption in Arlington Heights averages between 6-11 million gallons per day. The historical peak usage day occurred on June 17, 1988, at 21.7 million gallons pumped in a 24-hour period.

Lake Michigan water has been the sole water source for Arlington Heights since 1985. The Village has maintained six deep wells for emergency backup purposes, but since 1985, the wells have not been utilized as a primary water source. The Village also maintains emergency interconnections with Buffalo Grove, Elk Grove, Rolling Meadows and Mount Prospect that can be used in the event of a disruption of water delivery from the Northwest Water Commission.

AFTER HOURS "DUTY CALLS"





DATA ANALYSIS

WATER STORAGE FACILITIES FOR ARLINGTON HEIGHTS:

4 6,000,000 gallon ground level storage tanks

3 1,000,000 gallon ground level storage tanks

2 1,000,000 gallon elevated storage tanks

Total of **9** tanks that can store up to **29,000,000** gallons

ANNUAL STATISTICS OF POTABLE WATER PUMPED IN 2024

Annual total number of gallons pumped in 2024: **2,746,247,700** gallons

(Total gallons pumped increased approximately **1%** from 2023)

Average number of gallons pumped daily: **7,523,900** gallons per 24-hour day

Average number of gallons pumped monthly:**228,850,930** gallons

2024 RAINFALL TOTALS

NORTH SIDE (Well 13) **36.66** inches

CENTRAL (Public Works) **35.59** inches

SOUTH SIDE (Lost Creek) **31.99** inches

Overall Average Annual Total **34.75** inches

Average rainfall total increased **9%** from 2023

The minimum monthly rainfall average was in February: **0.5** inches

The maximum monthly rainfall average was in July: **6.82** inches



COMMITTEES

SAFETY COMMITTEE

Steve Mullany
Management Representative

Committee Chair
Ross Vlieger *(Fleet)*

Anthony Hatfield (*Administration)*

Chris Urry *(Building Maintenance)*

Chuck Homuth *(Engineering)*

Mike Braunsreuter *(Forestry)*

Mike Matijevic *(Sewer)*

Zack Roddy *(Street)*

Tom Shawke *(Traffic)*

Eric Brown *(Water Distribution)*

Vee Trevino *(Water Meters)*

Sam Argiris *(Water Production)*

The PW&E Safety Committee is responsible for meeting regularly to ensure and encourage all employees to implement safe work habits and practices throughout the year, with everything we do. Additionally, the committee looks for new ways to implement safety practices, organizes an annual safety training day, and discusses safety matters related to our risk management.

This year several Committee members ended their time on the committee and several new members began on the committee. The group includes members from each of the Public Works and Engineering Units, giving a thorough representation of the Department and to bring new ideas and insight to the Committee.

The Committee continues its facility inspections by inspecting one Public Works and Engineering unit shop area each month. Initially, each unit was inspected by the entire committee to ensure all members knew the high priority areas required for inspection. The Village's risk management agency (IRMA) recommends that the entire facility be inspected monthly. The committee agreed that the best approach was to split up into groups of two to three members and divide the facility responsibilities, which allowed us to better manage the entire facility. This process has been successful, and the team has now added our remote annex facility to the inspection duties.

Safety Committee monthly Unit inspections have had a very positive impact for the Department, not only with employees, but also with recommended IRMA inspections. The most recent IRMA inspection that took place in 2022 was very positive and the









COMMITTEES

Public Works and Engineering facility's corrective items were minimal.

The importance of the Safety Committee cannot be overstated. Ensuring that all of our employees understand the importance of **Safety is Priority #1** in the Public Works and Engineering Department. Some of the accomplishments from 2024, include:

- Incorporation of the Annex area and facility with the other Public Works and Engineering inspection areas.
- In 2024, a new twist on Safety Day was included. Staff, from the Safety Committee, were charged with planning and presenting safety related content. This was a new challenge for the staff, but they did an outstanding job at educating the rest of the Public Works and Engineering staff on a variety of different topics.
- The team plans to build on those successes going into 2025, and is planning on bigger and better training sessions.
- Staff secured an IRMA grant that helped fund the purchase and installation of a 360-degree camera, that was installed on a large piece of equipment used primarily by the Sewer Unit. Staff will use this a case-study to determine if this technology should be implemented elsewhere in the fleet.
- The Safety Committee began working with administrative staff to identify National Incident Management Certification training needs, department wide. Staff has developed training and testing applications to assist staff in staying current.
- The Committee reviewed any outstanding projects from the year, and followed up with the necessary steps to complete the projects.

CDL TRAINING COMMITTEE

The State of Illinois requires all drivers of any single vehicle that has a gross weight of over 26,000 lbs. to hold a Commercial Driver's License (CDL). As many of the vehicles in the Village's fleet exceed this weight, almost all Public Works employees are required to hold a valid CDL. In an effort to ensure that our employees are fully competent and properly trained, the Department has employees who have volunteered to become subject matter experts in this area. These employees have committed themselves to making sure all the members of our team are trained, knowledgeable, and fully prepared to pass all state required testing.

The CDL Training Committee's commitment and strive for excellence supports the entire team's effort to be outstanding.



STAFF TRAINING AND DEVELOPMENT

PUBLIC WORKS AND ENGINEERING NEW EMPLOYEE ON-BOARDING

With over one-third (40) of the staff new in the last four years, and another 18 employees promoted into new positions, employee development is a critical focus. The Department continues initiatives intended to meet the needs of staff, including new employee meetings (twice/year) giving new employees an opportunity to discuss potential improvements, and new employee introduction days allowing new employees to meet the management team and learn from staff what is important to the Department. Staff continues the development of a cross-training program allowing employees to work in other areas of our operations to develop understanding, respect, empathy, and appreciation for each other's value to the department.

STAFF DEVELOPMENT

Over the next 10 years, it is estimated that another 25-30 employees will retire, with 18 of those employees currently serving in leadership roles in the Department. Staff will be focused on succession planning and employee growth and development strategies, intended to prepare internal employees for future opportunities to limit institutional knowledge loss and accelerate operational improvements. Although a future initiative the Department will pursue, actions have already begun to encourage employee growth and development, along with providing constructive and actionable feedback to continue to promote a culture that is built on valuing our employees.



STAFF TRAINING AND DEVELOPMENT

IPSI/MAPSI/ROAD SCHOLAR PROGRAMS

The Illinois Roads Scholar Program, IRSP, is designed to meet the training needs of frontline public works employees. This three-year (one week per year) program trains in most aspects of municipal road right-of-way work tasks and is non-sequential so that one may start the three-year cycle at any time. Program topics include plans sets/construction inspection, MUTCD, 10-Hour OSHA, self-care, team membership, chipper/chainsaw safety, pesticide training/testing, snow and ice operations, construction zone set up, trailer safety, pre-trip inspections, live electrical line safety, trenching/shoring, GIS/asset management, small tool safety, flagger training, and more!

The Illinois Public Service Institute, IPSI, is a three-year training program which provides instruction expressly designed for public service professionals. The course is divided into three one-week sessions (one week each year). The mission of IPSI is to promote and encourage professional development through education and training specifically designed for Public Works supervisors and managers. IPSI is an outstanding program that helps staff members achieve professional goals and enhance their effectiveness and efficiency on the job.

The Midwest Advanced Public Service Institute, MAPSI, is a partnership between the leaders of MPSI (Michigan Public Service Institute) and IPSI to extend the institute experience and continue providing high level training opportunities. This endeavor is in response to the demand for ongoing, continued leadership programs for MAPSI and IPSI graduates as well as Public Service Directors and Upper-Level Managers. The MAPSI conference provides thought-provoking instruction that focuses on leadership issues and challenges. Some example session topics are Thriving and Surviving, HR Do's and Don'ts, and Project Integrity.


IPSI


IPSI


MAPSI

CERTIFICATION/ TRAINING

ASBESTOS AWARENESS
BLOODBORNE PATHOGENS SAFETY
CDL LICENSE PROCEDURE, TEST AND PRE-TRIP INSTRUCTIONS
COMBUSTIBLE & FLAMMABLE LIQUIDS
COMPUTER SECURITY AWARENESS
CONFINED SPACE ENTRY
ACCIDENT INVESTIGATION & ROOT CAUSE ANALYSIS - IRMA
EYE SAFETY
FALL PROTECTION
FIRE EXTINGUISHER SAFETY
FIRE PREVENTION SAFETY
FLAGGER TRAINING AND CERTIFICATION
FORKLIFT SAFETY
HAND & POWER TOOL SAFETY
HAZARD COMMUNICATION
HEARING CONSERVATION
HOLDUP BUTTON VIDEO TUTORIAL
IMPLICIT BIAS/DEI WORKSHOP
LEAD AWARENESS
LOCK-OUT / TAG-OUT
MACHINE GUARDING
PERSONAL PROTECTIVE EQUIPMENT
PW 01: HAZMAT POLICY & HANDBOOK REFERENCE REVIEW
RESPIRATORY PROTECTION
SEXUAL HARASSMENT PREVENTION TRAINING - 2023
TAIL GATE TALK
TRENCHING & SHORING
WATER INDUSTRY CONFINED SPACE ENTRY
WATER INDUSTRY FALL PROTECTION
WATER INDUSTRY TRENCHING & SHORING

COMMUNITY OUTREACH/SPECIAL EVENTS

ARLINGTON ALFRESCO

In early spring each year, staff begins preparing for the soft opening of the Arlington Alfresco event. During the spring months, staff performs concrete repairs, asphalt repairs, landscaping and lighting maintenance, and cleans streets, trash receptacles, benches, and light standards. Additionally, staff works to have the Harmony Park area prepped and restored for the upcoming season.

The Alfresco setup requires over 250 sections of fencing installed with weights to protect against high winds, 50 water barriers and 12 concrete barriers installed to protect pedestrians from traffic, 150 delineators, and hundreds of feet of rope necessary to separate areas for each of the many businesses to safely participate in the event. Signage in and around the downtown district are also installed for a variety of reasons.

Staff continues to make improvements to enhance the entrance and exit areas of Alfresco to encourage visitors and a safe environment. Sixteen concrete planters at the entrances to Alfresco are planted with three rotations of annual flowers. Custom Alfresco covers were also purchased to place over water barriers to enhance the appearance of these critical safety measures.



COMMUNITY OUTREACH/SPECIAL EVENTS

MEMORIAL DAY PARADE - Public Works staff prepared and assembled a variety of floats, including the Fallen Heroes float for the parade. Numerous staff across all Units were on hand to manage, coordinate, and participate in the parade activities and presentation sound systems. Public Works staff installs "no parking" signage along the parade route and staging areas on the morning of the event and removes all signage at its conclusion.



COMMUNITY BIKE RIDE/SWING INTO SPRING - Staff members participated in the Community Bike Ride and also exhibited the log truck at the new event at North School Park as part of Swing into Spring on May 18. Attendees could pick up plastic hardhats and touch a giant log.

FARMER'S MARKET TOUCH-A-TRUCK – Each week a different Department operation was featured at the Farmer's Market. Units showcased equipment, vehicles, or demonstrations as well as handing out free items.



FOURTH OF JULY PARADE - Public Works staff prepared and assembled a variety of floats, including the Fallen Heroes float for the parade. Prior to the parade, Public Works staff installs signage along the parade route informing patrons that the placement of blankets and chairs in the parkway is prohibited until the evening before the event. Staff also installs no parking signage along the parade route and staging areas on the morning of the event and removes all signage at its conclusion. Numerous staff members across all Units were on hand to manage, coordinate, and participate in the parade activities and presentation sound systems. Public Works staff worked closely with the Police and Fire Departments to provide a safer and more aesthetically pleasing mechanism for road closures. The department staged several of the Village's 2.5-ton plow trucks along the parade route, providing physical barriers to protecting the parade and attendees.

NATIONAL NIGHT OUT –Staff answered questions, passed out giveaways, and exhibited equipment and interactive displays for the annual National Night Out.



COMMUNITY OUTREACH/SPECIAL EVENTS

SOUNDS OF SUMMER - The Sounds of Summer concert series setup consists of assembling fencing around the stage, VIP area setup, blocking off parking spots in the parking garage for band parking and mobile restrooms, providing coolers of refreshments to both the band and VIP area, hanging sponsor banners, and providing tables and chairs for the concert sponsors. Crews are responsible to setup sound and AV equipment to ensure all attendees enjoy the event.



HARMONY FEST - At the end of the Alfresco season, the annual Village Harmony Fest event occurs. The evening is filled with food from local businesses and live music, that brings a close to the summer-long Alfresco atmosphere. This event requires participation from the entire Public Works and Engineering Department. The team worked together to develop changes in the way the event is set-up that better accommodated the event's food tents and music stages. The all-hands 2 -day event has assignments such as trash cleanup, power and electrical troubleshooting, traffic control, and restroom maintenance. The PW&E team assures patrons at the Harmony Fest experience a clean, organized, and well-run event.

Final clean-up of the event was performed the morning of September 29, 2024. After roadways are opened, cleanup continues through the next several days with the collection of barricades, signs, and water barriers that are cleaned, consolidated, and moved off-site and stored in storage containers for the season.

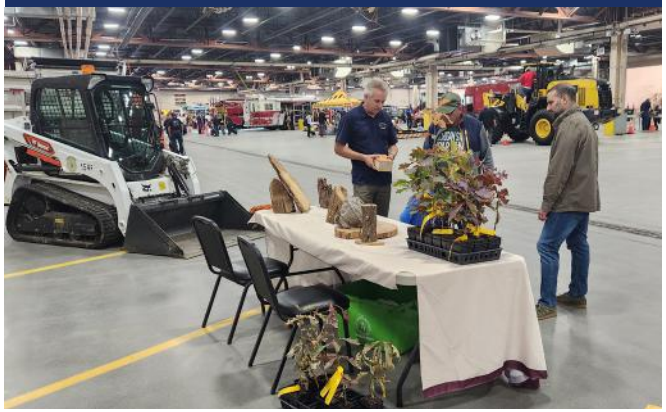




COMMUNITY OUTREACH/SPECIAL EVENTS



COMMUNITY OPEN HOUSE – In October, the Public Works and Engineering Department had the opportunity to showcase different pieces of equipment and vehicles, alongside the Fire and Police Departments, at the 2024 Community Open House. Staff assisted young residents into the equipment for photo opportunities and handed out small giveaway items. New interactive displays this year included a Lift-A-Log demonstration with the use of pulleys, as well as a kids' toy truck play area.





TREE LIGHTING CEREMONY – The holiday season culminates in the annual Tree Lighting Ceremony at North School Park. The event is a collaboration between the Village, Park District, and Special Events Committee. This is an "all-hands" event for the Traffic and Forestry Units, where all personnel assist with plugging in lights and decor, repairing damaged lighting, street closings, assisting with pedestrian traffic control, managing vendors at Harmony Park, cleaning up at the end of the night, and manning switches in order for all lights in the downtown to turn on simultaneously, when the mayor "flips" the ceremonial switch. Holiday décor is removed in January; the parkway trees remain lit until February.

TRUNK-OR-TREAT – The PW&E Department also hosted a table at the Park District's Trunk-or-Treat event. The staff passed candy to attendees.

AUTUMN HARVEST - Staff assisted the Arlington Heights Park District with the required setup for the Autumn Harvest event held annually. Additionally oak saplings were handed out in honor of OAKtober, Oak Awareness Month. Oak trees are vital to the local ecosystem and are host to the most native insects.





Throughout the 2024 holiday lighting season, the Public Works and Engineering Department and Health Department collected unwanted and discarded holiday lights for recycling. A total of 3,960 pounds of lights were collected. The **Holiday Light Recycling Program** is managed by Elgin Recycling.

COMMUNITY OUTREACH/SPECIAL EVENTS





SAINT PETER'S TOUCH-A-TRUCK – Numerous PW&E employees showcased a variety of equipment and vehicles at a small public event held at Saint Peter's Lutheran Church. Attendees could walk through a hollow log, sit in a front-end loader, or see how high an aerial bucket reaches. The event also featured the Police and Fire Departments, as well as other local vendors such as Groot and ComEd.



OLIVE SCHOOL EARTH DAY FAIR – Staff attended and provided a free sapling giveaway and informational booth.

EARTH DAY COMPOST GIVEAWAY– the Department hosted a drive-through event where residents could pick-up free compost and a pre-ordered compost bin. The PW&E staff participated in the event managed by the Health & Human Services Department. Volunteers from the Arlington Heights Garden Club also provided much needed assistance.



- In an effort to engage residents in locally focused capital projects, Staff provides opportunities to educate the community by hosting virtual evening meetings with residents to discuss their concerns and potential solutions.
- Staff regularly performs site visits with residential homeowners to discuss drainage issues, sewer backups, and other site and utility related issues and educates them on the Village's rules and regulations, while also collaborating on possible resolutions to their concerns.
- Staff hosted an informational booth at the **Garden Club's Unique Boutique**. Department Arborists answer questions, passed out informational brochures, and gave away free native burr oak saplings.
- Staff performed demonstrations on how to use equipment, including the log truck and gave away free tree saplings at St. Simon's Church **Pet Blessing and Earth Fest**.



COMMUNITY OUTREACH/SPECIAL EVENTS



Our Staff planted a Redbud tree at Rand Berkeley Park with students from Futabakai Japanese School to celebrate **ARBOR DAY** on April 26th. The school performed a celebration of the Cherry Blossom which blooms in the springtime.

TREE CITY USA - The Village was proud to celebrate its commitment to outstanding forestry stewardship by receiving its 38th consecutive award as a Tree City USA.





TREE-KEEPERS MULCHING EVENT – Staff Arborists assisted a group of six Tree-Keeper volunteers to mulch newly planted trees at South Middle School.



Utility staff gave several tours of the water system control center and other system components to school groups throughout the year.

COMMUNITY OUTREACH/SPECIAL EVENTS





SCHOOL DISTRICT 214 STUDENT APPRENTICESHIP PROGRAM

The Public Works and Engineering Department, in partnership with School District 214, and the Illinois Section American Water Works Association (ISAWWA) began the development of a program that provides interested high school seniors the opportunity to job shadow and learn to become a licensed Water Operator in Illinois. The "Water Operator in Training" apprenticeship is designed to mentor students to gain the necessary job skills and hours required to take the State Water Operator License exam and obtain their Class D water operator license after graduating high school. During this program, Arlington Heights Water Operators serve as instructors and mentors for participating students, guiding them through coursework, and overseeing on-site observation hours.

The District includes the following area High Schools: Buffalo Grove High School, Elk Grove High School, John Hersey High School, Prospect High School, Rolling Meadows High School, and Wheeling High School. While staff has participated in the Districts Career Discovery program in the past, the Water Operator in Training course is an entirely new program allowing students to develop the water operator skillset and earn dual college credit.

On January 24, 2024, the Department hosted an informational open house and tour for District 214 Career Advisors, to display the intricacies of water operations in the Village of Arlington Heights. District staff had the opportunity to tour the entire facility, with a focus on the water system operations, and its various components. Staff displayed essential operations including water sampling, station and pump maintenance, and the Village's SCADA System (Supervisory Control and Data Acquisition). The importance of water infrastructure management was highlighted on multiple occasions, as the career field has become more robust. However, the number of people aging out of the water industry workforce, has progressed at a much higher rate than people entering the field, resulting in high demand for these skills. As a result, the Arlington Heights Public Works and Engineering Department in cooperation with the local High School District are doing something about it!

After the High School District staff identify potential candidates interested in participating in the Water Operator in Training Program, Utility staff conduct interviews similar to those that they would experience when seeking employment. Following the interviews, PW&E Staff selects one student to participate as the water operator student apprentice.

The Village's first apprentice was Victor Tokarev, a resident of Buffalo Grove. He was selected Victor began working at PW&E in July of 2024 and continued working throughout the year for approximately 20 hours per week, outside of his normal school-work load. He was able to experience routine operations, such as daily station rounds, water sampling, meter installation and operation, as well as witness emergency operations related to all PW&E units.

PW&E Staff were very impressed with his willingness to learn, work ethic, and dedication to department achievements and gaining valuable knowledge. Victor worked 180 hours in total throughout the program year, and ended their apprenticeship in May 2025. Overall, the pilot program was considered a huge success and PW&E staff have already begun working with the District to continue the program in the future.

In fact, our staff have already worked with District staff to pursue an opportunity to implement a Fleet Maintenance Apprentice Program, slated to begin in 2025. This will allow two students to pursue this

COMMUNITY OUTREACH/SPECIAL EVENTS

SCHOOL DISTRICT 214 STUDENT APPRENTICESHIP PROGRAM (continued)

program in 2025, and our team is already looking at Building Maintenance, Traffic (electrical) Maintenance, and Forestry Operations as good candidates for these programs.

This program was pursued by Arlington Heights Public Works and Engineering Staff through initiatives pursued through the Illinois Section of the American Water Works Association (ISAWWA) and the American Public Works Associations (APWA) strategic priorities. The PW&E Department is committed to growing and developing its staff, and have begun to adjust to the reality of reductions in a labor-oriented workforce. However, we found that many High School graduates are not as excited about another four years of education as you might think. Instead, they are interested in learning a skill or trade that can put them on a successful career path, and no long-term school loan debts. This program directly aligned with the Department's values and commitment of promoting careers in Public Works and Engineering.

Our Team is always looking for new ways to engage and educate young people about how a career in Public Works and Engineering can provide a great opportunity to serve your community in a very tangible way. By providing these hands-on learning experiences, Staff is hopeful that this continued partnership with District 214 will evolve into new opportunities with High Schools and Community Colleges for students interested in a career in Public Works and Engineering not only in our own community, but throughout the industry.



School District 214 Career Fair

COMMUNITY OUTREACH/SPECIAL EVENTS

PUBLIC WORKS AND ENGINEERING "CONNECTING TO THE COMMUNITY"

Public Works and Engineering prioritizes staying out in front of the communication that most interests our residents and business owners. Our Department takes great pride in communicating our role and connecting with Village residents at events and partnering with local organizations, schools, and agencies.

WORLD OF WORK

The Public Works and Engineering Department hosted three World of Work events with students from Olive-Mary Stitt, Greenbrier, and Windsor Elementary Schools. In 2024, each Public Works Unit planned an interactive display or demonstration for the event. The Engineering Division demonstrated storm water control methods using a water table. Students simulated thunderstorms of different intensities to see how stormwater detention helps mitigate against downstream flooding. Students also received a swag bag filled with Public Works and Engineering Department promotional items and educational brochures.







TREE U PROGRAM







TREE UNIVERSITY, or TreeU, is a Public Works and Engineering program offering young students a chance to better understand and connect with their urban forest environment. Staff from the Forestry Unit started TreeU in 2016 as a way to engage young students in urban tree stewardship after the devastation caused by the invasive Emerald Ash Borer beetle. Arlington Heights has replanted nearly 10,000 new parkway trees since 2012. Staff developed the program to teach young school-aged kids the importance of trees and how to help care for them. Since the program's inception, staff have visited ten local schools and educated over 3,200 students.

During TreeU visits, classes are split into multiple small groups to discuss basic forestry operations, tree biology, and environmental issues. Students are also able to observe and learn about commonly used forestry equipment during live demonstrations. By providing information on these subjects and encouraging students to explore careers in environmentally related-fields, we hope to inspire younger generations to become stewards of the urban forest and the environment.

The mission statement of TreeU is "To be a positive community outreach that educates young students on the benefits of trees and the importance of proper tree care; a way to work with educators to focus on current forestry related topics that are relevant to their students' curriculum". We believe through these efforts we can make our community a better, greener, and more sustainable environment for future generations.

Our Forestry Team presented at eight TreeU events this year for approximately 500 students at three elementary schools and one early childhood center. Students ranged in age from early Preschool to second grade. Staff educated the students on basic tree biology, the benefits of trees, and demonstrated tree climbing techniques. Students were given tree saplings to take home and plant, to help grow their interest in the urban forest.

MAJOR PROJECTS

BEVERLY LANE RECONSTRUCTION PROJECT

The Beverly Lane Reconstruction and Widening Project, which extended from Rockwell Street to Fairview Street, has been successfully completed. This project involved significant roadway improvements, including widening the existing pavement, installing new curb and gutter, and replacing the existing Portland cement concrete pavement with a durable granular base course and full-depth hot-mix asphalt pavement. These upgrades greatly enhanced the roadway's structural integrity and functionality.

Additional work included the removal and replacement of driveways, relocation of streetlights, and the relocation of drainage structures to accommodate the new road alignment.

The water main replacement was another key aspect of the project. The outdated six-inch water main was replaced with a new eight-inch water main, and all lead service lines were upgraded to copper, providing improved water quality and reliability to the area.

Beverly Lane was part of a project that included the reconstruction of Rockwell Street and Ridge Avenue, with a total cost of $3,351,912. The Village was awarded a Department of Commerce & Economic Opportunity (DECO) grant in the amount of $260,000 specifically to support the completion of the Beverly Lane work. Additionally, another DECO grant of $207,240 was awarded for Rockwell Street. Throughout the construction process, every effort was made to minimize disruption to residents, and all disturbed areas were restored with topsoil and sod.

The project was completed within the public right-of-way, and all work was carried out in line with the Village's commitment to infrastructure improvement and sustainability. This significant investment will provide long-term benefits to the community by improving both the roadway and water infrastructure, ensuring a safer and more reliable environment for all residents and travelers.









MAJOR PROJECTS



WILKE ROAD RESURFACING & MULTI-USE PATH PROJECT

The Wilke Road Resurfacing & Multi-Use Path Project was initially outlined in the Village's 2017 Bicycle and Pedestrian Plan, with the aim of enhancing pedestrian accessibility and creating ADA-compliant pathways along Wilke Road. The project also includes resurfacing the existing roadway. It was developed in response to extensive community input and supports the Village's long-term transportation and infrastructure objectives.

Following a thorough design and planning phase, the project secured federal funding in 2020. The project was officially awarded to Builder's Paving, LLC, after the IDOT bid opening in January of 2024. The total contract amount for the project was $4,487,708 and was funded through a combination of federal grants and local Village funds.

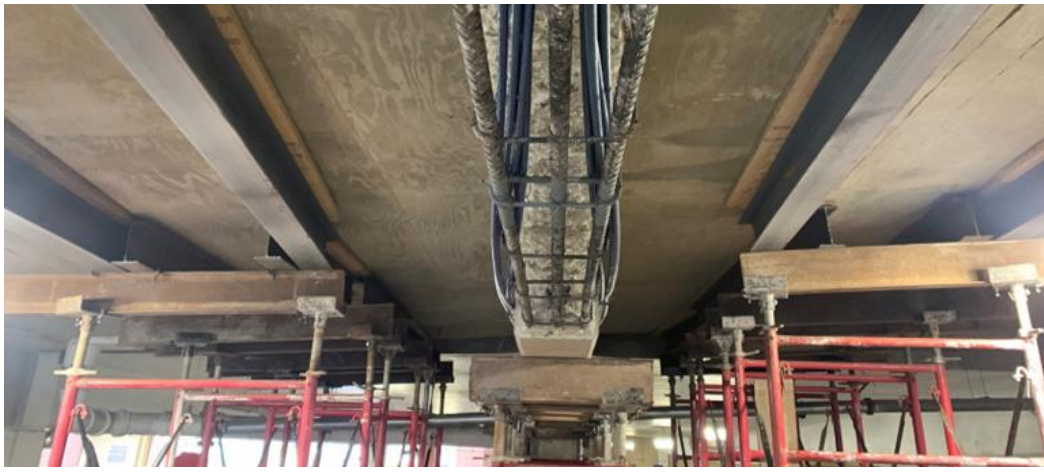
The project included hot-mix asphalt resurfacing and patching, the installation of a multi-use path along the east side of Wilke Road, pedestrian push buttons, ADA-compliant ramps, and five landscaped medians. To accommodate the new multi-use path, several trees were removed, but the majority were replanted upon completion. Additionally, landscaping was added between Northwest Highway (US-14) and Algonquin Road, with ongoing care for the newly planted trees. A portion of the multi-use path is adjacent to the Arlington Lakes Golf Course. The location and construction of the multi-use path and the new trees in the vicinity of the golf course were coordinated with the Arlington Heights Park District.

While final invoices have yet to be processed through IDOT, the project is estimated to be significantly under budget, with an expected savings of approximately $450,000.

PARKING GARAGE REHABILITATION MAINTENANCE PLAN PROJECT

This year was the first year of a ten-year rehabilitation maintenance plan to improve the parking garage's structure. The Village's structural consultant performed the inspections of all four of the Villages parking structures. Through a public bidding process, Village staffs secured a contractor to perform the necessary repairs, while PW&E staff provided notifications and closure of construction areas. This year's construction plans included concrete floor, beam, walls, and columns repairs. New door installation, crack and joint repairs, handrails, bollards, barrier cable repairs. Drain piping replacements, painting, traffic markings. During a beam inspection, an area was discovered with a post tension beam failure at Municipal garage. This required emergency shoring, and extensive repairs to fix the issue.





MAJOR PROJECTS

WATER TANK #17 DEMOLITION

During an evaluation of the two-million-gallon water storage tank at the Public Works Facility, it was determined that significant structural repairs were necessary. The estimated cost associated with the needed repairs exceeded $3,000,000. As a result of the evaluation, staff and engineering consultants determined that necessary repairs were cost prohibitive. Further analysis was completed and water supply evaluations for current and future water supply needs, average daily consumptions, and maximum daily consumptions were completed. Both the consulting engineers and Staff agreed that decommissioning the large tank was the most cost-effective path and would result in little to no impact on the Village's water supply system.

Part of the tank decommissioning required underground piping improvements necessary to redirect water to and from the appropriate remaining storage tanks. PW&E Staff collaborated with engineers to perform excavation and pavement patching work using in-house labor in order to reduce project costs.





MAJOR PROJECTS





EMERGENCY RESPONSE/WEATHER EVENTS

Why recognize PW&E professionals as FIRST RESPONDERS? While Police, Fire, and EMS are often the three most recognized first responders, Public Works Operations are also often silently there—providing vital support to emergency response partners, helping protect essential services, and restoring those services following an emergency situation.

The National Incident Management System (NIMS) is a program designed to provide a standard set of consistent practices to utilize in emergency response situations. As part of this program, the NIMS lists public works alongside police, fire, and public health in its documentation as a critical agency needed when responding in emergencies. Whether it is clearing debris after a major storm, clearing the roads during winter weather conditions, setting up protective barriers, or any other critical essential function, that public works is always there to ensure government operations return to normal as quickly as possible. Public works is the silent arm of public safety and are generally the first to arrive and the last to leave.

Arlington Heights Public Works and Engineering staff take great pride in responding to Village emergencies to ensure that critical infrastructure is available to the Community with minimal disruptions. It is not uncommon for people to think the worst when considering emergency response, like tornados and floods. However, while these are definitely Public Works Operations related responses, more common emergencies happen every day in Arlington Heights, such as; water main breaks, sewer backups, power outages, signal failures, localized flooding, windstorms (damage), etc. These are among hundreds of different issues that our Team responds to every day, and they are committed to limiting the inconveniences of these emergencies on our resident's day-to-day lives.

HERE ARE JUST SOME HIGHLIGHTS OF EMERGENCIES OUR TEAM RESPONDED TO IN 2024:

WINDSTORM EVENTS

On May 21st, scattered thunderstorms moved across parts of northwest Illinois during the evening of May 21st producing scattered wind damage. High winds developed across northern Illinois including Arlington Heights, during the evening of May 21st and continued into the early morning of May 22nd also producing wind damaged trees throughout the Village.

On August 27th, a severe thunderstorm impacted the northern part of the Village around 7pm. Public Works immediately received numerous calls reporting entire trees down blocking roads and driveways. Crews began clearing roads and prioritizing any complete blockages. The majority of the damage was received in the northern part of Arlington Heights Rd, north of Rand Road. After the storm, Public Works received over 200 storm related tree requests. Eleven parkway trees were catastrophically damaged and removed shortly after the storm.

On October 31st, Arlington Heights received sustained high winds that resulted in multiple instances of tree damage. Forestry crews worked with the Illinois Department of Transportation crews and the Arlington Heights Police Department to remove a large private spruce tree that was uprooting and about to fall onto North Arlington Heights Road.



EMERGENCY RESPONSE/WEATHER EVENTS



SNOW AND ICE EVENTS

Sidewalk Snow & Ice Control

The Snow and Ice Response Team responded to nine separate snow and ice events in 2024. Additionally, staff was able to increase road and sweeping maintenance efforts. As always, two trackless machines equipped with brooms cleared the 7-mile route of sidewalks in the downtown and adjacent to Village owned buildings. In the Downtown area and in school zones snow removal equipment, shovels, and snowblowers are used to clear pedestrian areas and areas hard to reach areas for larger snow removal equipment.



The Water Distribution Unit responded to and repaired **281** water main breaks and/or water service leaks.

UTILITY EVENTS

In the Water Distribution Unit, emergency response is, at times, a daily activity. In 2024, the Unit was tasked with responding to and repairing 281 water main breaks and/or water service leaks. Although these repairs are typically unscheduled or required during late night hours, weekends, or holidays, our crews can always be counted on to respond, regardless of the time of day or weather conditions.

The Sewer Unit responded to 24 total emergency sewer line blockages and one rainstorm event from residents throughout the community.



The Sewer Unit responded **24** total emergency sewer line blockages and one rainstorm events.

EMERGENCY RESPONSE/WEATHER EVENTS

INTERNAL EMERGENCY EVENTS

Our Team responds to Internal emergencies as well. This includes emergencies such as; power outages, broken water pipes, HVAC failures, and phone system outages. Some examples of emergencies handled by our team this past year, include:

- **THE BUILDING UNIT** did not run into significant emergencies in 2024, primarily as a result of proactive maintenance and planning. However, the team did institute a new Cold Watch program.
- **THE "COLD WATCH"** program is intended to proactively initiate and schedule maintenance staff to be on-site whenever temperatures drop below zero degrees. The program proved beneficial in its first year when our team prevented catastrophic damage at Fire Station 1. Staff was able to immediately repair a heating frequency drive, restoring heat and averting potential disaster. Additionally, while at Public Works, the team spotted and restored a faulty boiler, potentially saving the Village thousands of dollars in repair costs from frozen plumbing ruptures.
- **THE FLEET SERVICES UNIT** provides emergency vehicle repair services throughout the year at all different times of the day and night. Not only are they critical to our snow and ice operations, but they keep equipment up and running during emergency events such as windstorms, water main repairs and sewer backups. They also respond to after hour breakdowns when emergency repairs need to be made to Police and Fire equipment. As if that isn't enough, when everything is up and running perfectly, they assist with snow removal operations!



WINTER MAINTENANCE

The Street Unit team serves as the Department's lead for Snow and Ice Control Operations. They are also responsible for organizing the Department's Annual Snow Day training event, which is intended to refamiliarize winter maintenance Staff with their plow routes and equipment. Although the Street Unit is the primary unit for snow and ice control operations, the responsibility for these emergencies falls on the entire department. Each year, as part of the Snow and Ice Operations, Crew Chiefs and Foremen are tasked with helping strategize the Department's response to our winter emergency response activities.

The 2024 snow and salt season salt usage totaled 5,000 tons of salt used over the course of 9 separate snow and ice control events. The salt totals continue to improve in accuracy as new and improved equipment has been implemented. In an effort to reduce costly salt materials, a total of 33,257 gallons of liquid beet juice blend were used to anti-ice streets and pre-wet our road salt. The Load-Rite scale system has been key to accurate tracking of snow and ice activities. The snow fleet traveled a total of 31,222 miles during the 2024 season.

THE SNOW FIGHTING FLEET CONSISTS OF THE FOLLOWING VEHICLES:

21 – 2 ½-ton dump trucks

2 – 5-ton dump trucks

2 – 1-ton dump trucks

13 – pick-up trucks



5,000 tons of salt used

9 separate snow and ice control events

33,257 gallons of liquid beet juice blend used to anti-ice streets and pre-wet road salt

The snow fleet traveled a total of **31,222** miles during the 2024 season.





WINTER MAINTENANCE

The Arlington Heights Snow Fighting Team consists of two separate crews made up of up to 52 different team members responsible for clearing the 241 miles of Village streets, parking lots and parking garages. This enables teams to rotate responsibilities on 12-hour shifts to fight sustained snow events. Most of those miles require four to six passes to complete. A six -person mechanic crew is also necessary to provide emergency truck repairs. Snow storms that produce 3 plus inches of snow require an additional 10-member team for clearing over 300 Village cul-de-sacs of snow.

The Village is divided into 19 primary road zones and 3 specialty zones for snow and ice control. Each zone is assigned a driver from each of the three teams to cover 24/7 throughout the winter months. The third team drivers clear the 10 cul-de-sacs.

Each year, in late October/early November, the Street Unit hosts “Snow Day.” This is an event designed to refocus our team on important safety factors and driver knowledge on a variety of snow-fighting related topics. This helps to ensure our team is as prepared as possible for the upcoming season. In 2024, the Mayor, Village Manager, and several Trustees stopped by to remind our team of just how important their efforts are to the entire community. This support goes a long way to rallying the team, as the prospects of very long days and nights fighting snow and ice storms approach.

An important training component that occurs during Snow Day includes driver dry runs. Drivers travel their routes in their plow vehicles to identify any obstructions, such as; manholes, broken asphalt, tree limbs, signs, etc., which the department attempts to repair or address prior to the first snow. Other important training addressed last year included; pre and post trip vehicle inspections, proper snow plow installation, and MS-4 training, which reminds staff of the environmental impacts of salt on stormwater facilities.

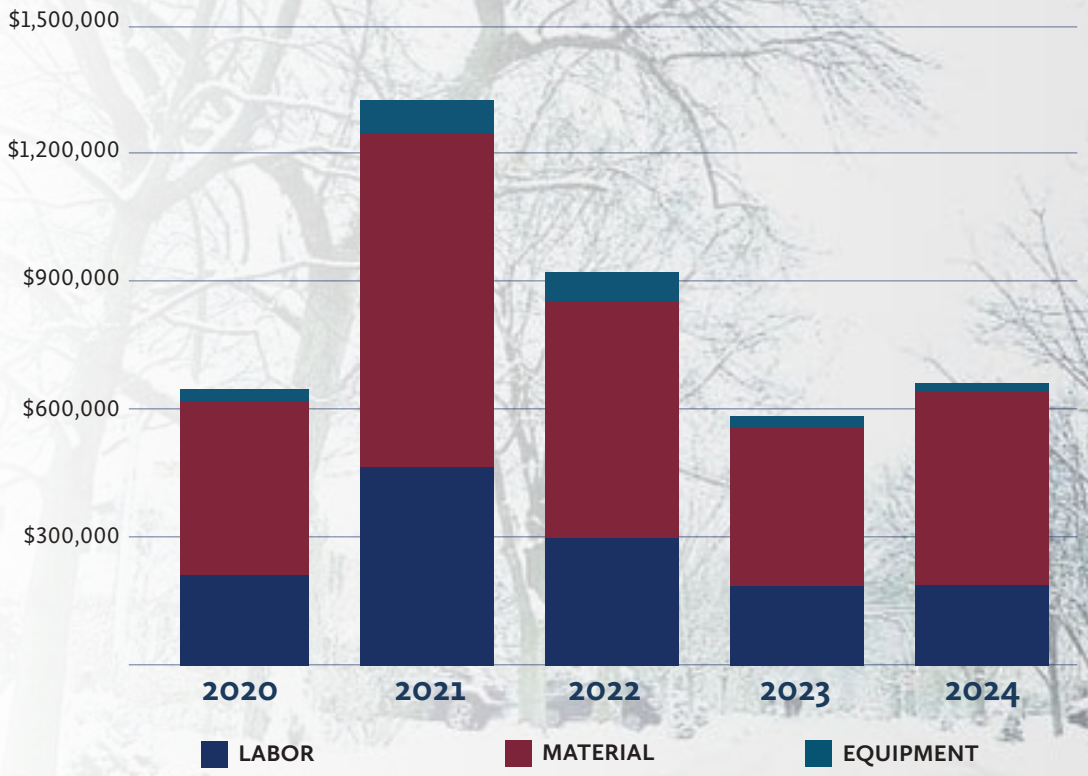
SIDEWALK SNOW OPERATIONS

A significant operation for the Department’s Snow and Ice Control operations includes the maintenance of select sidewalk areas within the Village. The Forestry Unit has the primary responsibility for this operation, which involves more than seven (7) miles of Village-maintained sidewalks, and when there is more than ten inches of snowfall, staff is responsible for an additional seventeen (17) miles of sidewalk. Snow removal operations includes ensuring that all walks are cleared for both morning and evening commuters. As a result of the mild 2024 snow season, the Village experienced a reduction in snow and ice control materials. Machines equipped with brooms, snow blowers, salt spreaders and hand shovels (for hard-to-reach areas) are all necessary tools used by staff when clearing and de-icing Village-maintained sidewalks.



WINTER MAINTENANCE

SNOW OPERATIONS

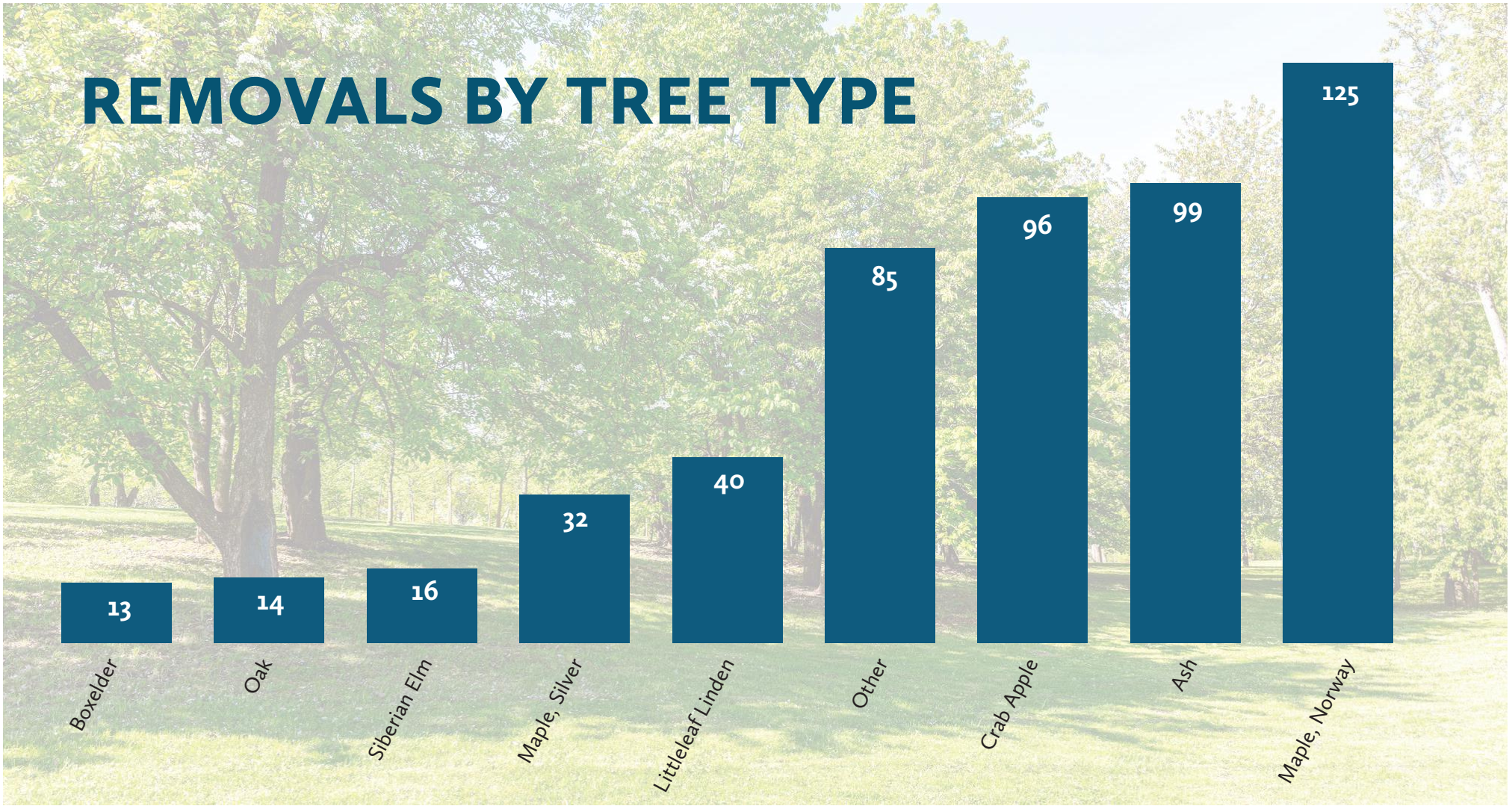


2024 ANNUAL PROJECTS/PROGRAMS

TREE PROGRAMS

DEAD TREE SURVEY (REMOVALS)

Each year, a Village-wide dead tree survey is completed for all parkway trees. Staff identified 557 parkway trees requiring removal in the next year. Of this total, Village crews plan to remove 364 of these trees with in-house crews. More than 17 percent of the trees marked for removal were diseased ash trees that had finally succumbed to the emerald ash borer, and 22 percent of the removals were declining Norway maple trees. This species is susceptible to many root issues such as girdling roots and surface compaction due to utility work. The Village will utilize its tree removal contractor to remove at least 81 trees that are adjacent to overhead utility lines, along busy roads, or other complicating factors.



2024 ANNUAL PROJECTS/PROGRAMS

TREE PLANTING

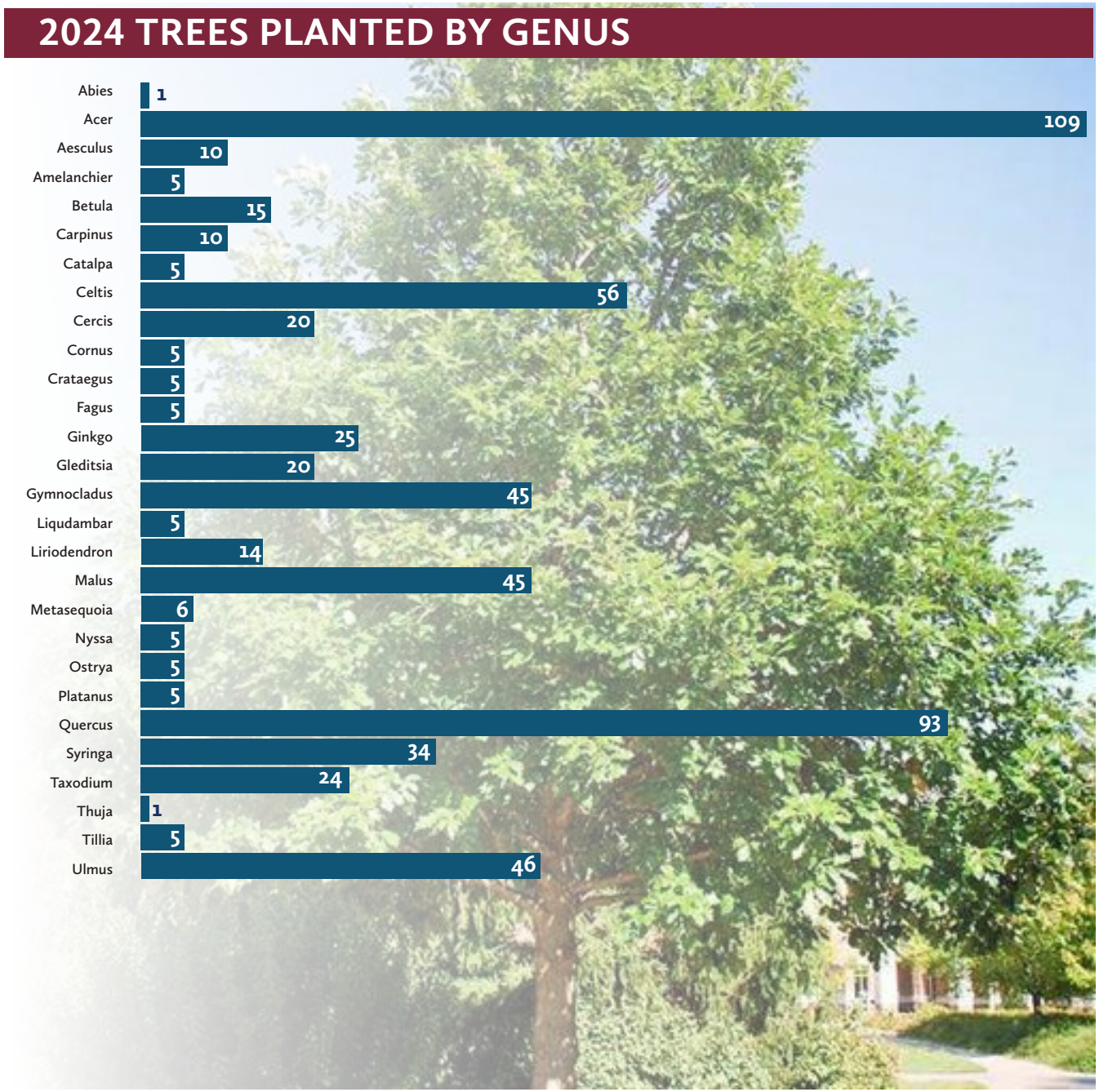
The Forestry Unit was again busy replanting hundreds of trees lost from a variety of reasons such as wind damage, sewer and/or utility excavation, car accidents, and other natural causes. Preparations for the spring planting season began in late winter with Staff contacting nurseries and the planting contractor to confirm orders and the timing of planting. During the spring planting season, Staff identified 307 new planting locations. Residents received a tree planting informational card outlining the tree planting process and instructions for how to care for a newly planted tree, which was followed up with a reminder after the tree was planted.

The Village's tree planting contractor started planting trees in late April and finished installing the 312 trees over the span of five days in April.

During the spring planting season trees were purchased from Wilson Nurseries, Spring Grove Nursery, Doty Nurseries, and Hinsdale Nursery. Many of the trees were ordered up to five years prior to the Village taking possession to ensure the Village had the quantity and quality of each tree needed.

Fall tree planting prep started with the same procedure as the spring planting season, marking planting locations, managing the tree inventory data and coordination with nurseries. Fall tree planting prep started in mid-September with 312 trees planted in October. At the conclusion of the 2024 planting season, a total of 624 parkway trees were installed within the Village. The Village continued to expand the community's urban forest diversity with different species with the hopes of eliminating widespread loss of canopy due to an outbreak of a virulent disease or insect pest. The graph shows the different types of trees (Genus) planted in 2024.

2024 TREES PLANTED BY GENUS



2024 ANNUAL PROJECTS/PROGRAMS

EDGE GRINDING – ASPHALT MILLING and PAVING PROGRAM

One of our most important maintenance activities is the Edge Grinding Program. This program provides improvements to the pavement edges where the asphalt meets the curb. These improvements allow rain runoff access to the flow line of the curb, rather than pooling in front of the curb causing further structural damage to the street edges where buses, garbage trucks, and other heavy vehicles can exacerbate roadway damage.

This program is normally completed in two (2) phases throughout the spring and summer months. We work as a team to comprehensively plan the best areas for this program and ensure efforts are maximized as part of the greater pavement maintenance program. Totals for the months of April and August were nearly square yards, which results in approximately 3,934 tons of asphalt placed.

PHASE 1: 18,790
PHASE 2: 16,000



MANHOLE REHABILITATION

Sanitary and storm sewer manholes require periodic maintenance over the useful lifespan of the structure. The longevity of the structure is related to the material of construction, effluent that flows through the structure, and the backfill material outside the structure. The oldest manholes are generally comprised of brick construction.

Manhole rehabilitation involves bypassing the flow, high pressure cleaning of the walls and floor, application of a grout or cementitious coating referred to as cementitious coating, and in some instances structurally enhanced epoxy coating. The rebuilding of the floor, or bench and trough, was performed as the situation required. All of this work was done without excavation, reducing the impact on neighborhoods.

The Village lined 210 vertical feet of existing sewer manholes. Sewer manholes were primarily made of common brick and block nearing their projected service life. Manhole lining allows the Village to lower the amount of intrusion and infiltration that comes with aging brick infrastructure without the costly point repair of replacement.



2024 ANNUAL PROJECTS/PROGRAMS

PAVEMENT MANAGEMENT

The Public Works and Engineering Department utilizes a scientific and unbiased approach to evaluate the conditions of all the Village-maintained roadways. The operation utilizes a truck mounted scanner that analyzes both surface and subsurface conditions. Following a full inventory of road conditions completed in 2023, the Village will begin a cycle of measuring road conditions every three years, to maximize maintenance efforts and improve roadway construction planning efforts for the entire roadway network.

A software solution allows Staff to run different modeling scenarios to assist in developing a multi-year program for street maintenance programs, including; crack sealing, edge grinding, surface treatment, resurfacing and reconstruction. This information enables Staff to better develop long-term capital plans that incorporate scheduled utility system improvements, neighborhood impacts, and other critical factors used to build a holistic program.



DOWNTOWN ADA COMPLIANCE

This multi-year program reflects the Village's efforts to upgrade the paver brick sidewalks in the downtown area, many of which were first installed in the 1980's. The new paver bricks have a hardened surface for longer wear and color retention. The paver brick sidewalks are now reconstructed to meet ever-evolving ADA accessibility standards, including the concrete sidewalks and curbs at street corners.

Staff identified the Downtown Train Station and the pedestrian crossings of the Union Pacific Railroad in the vicinity of the train station as the next phase of the Brick Paver Replacement Project. The Village sought Request for Proposals (RFP) in the spring, which ranged in price from $705,025.00 to $913,563.75, and were significantly over budget. Staff revised the contract documents and pursued a competitive bid process instead of a Request for Proposal. Bids were opened November 6, 2024, and the contract was awarded to a contractor on November 18, 2024, in the amount of $548,168.40. Construction is scheduled to begin in the spring 2025.

CONTRACTUAL REPAIR PROGRAMS

The Department is responsible for the management and oversight of many contractual programs that are intended to extend the useful life of the Village's infrastructure. Some of the more significant projects, include; sidewalk saw cutting, brick paver maintenance, roadway crack sealing, pavement treatments, asphalt patching, concrete repairs, pavement markings and various other maintenance related solutions.

In 2024 these projects covered over 1,000 separate locations, including:

- Concrete replacements (driveway aprons and concrete pavement patching). In 2024, 810 square yards of concrete was placed for these repairs.
- The Village has over 250 miles each of curb and gutter and sidewalks. In 2024, 706 linear feet of curb and gutter was replaced and 15,704 square feet of sidewalk was replaced.
- 1,730 sidewalk offsets were repaired through the sidewalk cutting program.
- In 2024, Public Works had 119,000 lbs. of crack sealing material placed on various roadways throughout the Village. In 2024, a new dustless system was implemented which reduces overall dust by 90%.
- Lastly, 311 square yards of brick walkway areas were improved.





2024 ANNUAL PROJECTS/PROGRAMS

STREET RECONSTRUCTION AND RESURFACING

By far, the Department's largest budget allocation is the two annual street programs. Both initiatives take significant planning and coordination between numerous stakeholders to develop a long-term program that takes into consideration factors, such as; scientific data, project geography, utility/other project coordination, neighborhood impacts, and maintenance efforts.

In addition to the two annual recurring street programs, the Village had two additional street projects in 2024. The four street projects had a combined construction cost of approximately $15 million and are summarized on the following page.



2024 Resurfacing Program – **8.2** miles

2024 MFT Reconstruction Program – **1.4** miles

Wilke Road Resurfacing & Multi-Use Path – **2.3** miles (80% Federal funding)

Beverly, Rockwell & Ridge Reconstruction – **0.87** miles (partially funded with DCEO grants: $260,000 and $207,240)

Sidewalk Removal & Replacement **93,100** Sq Ft

Curb Removal & Replacement – **18,064** Lin Ft

ADA Sidewalk Ramps – **76** each

Bituminous Surface Removal 3" **69,383** Sq Yd

Bituminous Surface Removal 2" **48,299** Sq Yd

2024 ANNUAL PROJECTS/PROGRAMS

2024 RESURFACING PROGRAM

The Resurfacing Program is the most significant and generally the last opportunity to incorporate pavement preservation as a method to extend the service life of Village streets. This program takes advantage of favorable roadway conditions and enhances them by milling off and replacing the top 2 to 3 inches of the asphalt surface to improve rideability. Select areas of poor performing curb and gutters and sidewalks are also addressed, with attention to ADA ramps at intersections. This work is also very beneficial in extending the life of the entire pavement cross section.

This year's Resurfacing Program improved 38 asphalt streets totaling 8.2 miles. The project also included improvements on four streets funded by a Community Development Block Grant (CDBG), the Wing Street municipal parking lot between Arlington Heights Road and Evergreen Avenue, the Senior Center back lot, and the Public Works parking lot. Construction began in the spring due to early project letting that leveraged early bid pricing and was completed in fall. The total cost of construction was $3,547,112.73, approximately $220,000 under budget. Below summarizes the public improvements:

2024 STREET RESURFACING PROGRAM

Street	Limits
Ashford Ln/Highland Ave	Walnut Ave to Whitehall Dr
Banbury Rd	Bristol Ln to Belmont Ave
Banbury Rd	Park St to Lincoln Ln
Beverly Ln	Oakton St to Dryden Ave
Burton Pl	Mayfair Rd.to Rockwell St
Chicago Ave	Palatine Frontage Rd.to Thomas St
Clarendon Ave	Douglas Ave to Beverly Ln
Clarendon Ct	Clarendon Ave to Cul-de-sac
Cypress St	Arlington Heights Rd. to Douglas Ave
Derbyshire Ln	Palatine Frontage Rd. to Oxford Ln
Douglas Ave	Thomas St to Oakton St
Fairview St	Pine Ave to Lincoln Ln
Grove St	Highland Ave to Arlington Heights Rd
Haddow Ave	Central Rd.to South End
Happfield Dr	Ridge Ave to Arlington Heights Rd
Hickory Ave	Olive St to Beverly Ln
Jules St	Hickory Ave to Dryden Ave
Kaspar Ave	Sigwalt St to Grove St
Knob Hill Dr	Valley Ln to Valley Ln

2024 STREET RESURFACING PROGRAM

Street	Limits
Lillian Ave	Chicago Ave to Verde Ave
Marion St	Douglas Ave to Dryden Ave
Maude Ave	Chicago Ave to Harvard Ave.
Mayfair Rd	Belmont Ave to Park St
Mayfair Rd	Park St to Beverly Ln
Milida Ct	Derbyshire Ln to East End
Oxford Ln	Brighton Pl to Derbyshire Ln
Pine Ave/Techny Rd.	Arlington Heights Rd. to North End
Ridge Rd	Pine Ave to Douglas Ave
Sunset Dr	Arlington Heights Rd. to Douglas Ave
Verde Ave	Palatine Frontage Rd. to Lillian Ave
Walnut Ave	North End to South End (LaSalle St)
Waverly Rd.	Pine Ave to Douglas Ave
Yale Ave	Lillian Ave to Lynnwood Ave
Yale Ct	Yale Ave to Cul-de-sac
Brighton Pl (CDBG)	Kensington Rd. to North End
Haven St (CDBG)	Douglas Ave to Belmont Ave
Haven St (CDBG)	Belmont Ave to Cul-de-sac
White Oak St (CDBG)	Belmont Ave to Arlington Heights Rd



2024 ANNUAL PROJECTS/PROGRAMS

WILKE ROAD RESURFACING & MULTI-USE PATH PROJECT

The Wilke Road Resurfacing & Multi-Use Path project was identified in the strategic priorities of of the Village's Bicycle and Pedestrian Plan. The project addresses various Village initiatives to create more pedestrian-friendly and ADA compliant pathways, including resurfacing of the existing roadway. Traffic signal improvements and landscape islands and were also incorporated into the design. In 2020, the Village applied for and received 80% federal funding to assist with the completion of the project. The project limits of the project are Wilke Road from Northwest Highway (US-14) to Algonquin Road (IL-62), 2.3 miles.

The project was substantially completed in 2024 with punch list items to be completed in the spring of 2025. The project is estimated to cost approximately $4.75 million. Below summarizes the public improvements.

- Sidewalk Removal & Replacement – 32,643 Sq Ft
- Curb Removal & Replacement – 18,045 Lin Ft
- ADA Sidewalk Ramps – 42 each
- Multi-Use Path – 28,000 Sq Ft

2024 MFT STREET RECONSTRUCTION PROGRAM

The Reconstruction Program replaces streets that have exceeded their useful life and can no longer be considered for any maintenance activities. The Reconstruction Program impacts residents more than resurfacing because it involves rebuilding the entire street. All of the roadway asphalt and concrete curb and gutters are removed. The roadway base (gravel) is regraded and recompacted, and any "soft" areas are excavated and replaced with new gravel. In addition, there is the potential for grade changes in the roadway. When this happens, residential driveways are completely removed and replaced from the sidewalk to the curb. This program requires significant design, planning, and coordination efforts to complete. The Engineering Staff works very hard to ensure that roadways scheduled for reconstruction are done in a fashion that minimizes impacts on residents and the motoring public as much as possible.

The 2024 MFT Street Reconstruction Program included 7 street segments totaling 1.4 miles. All streets required full reconstruction due to the existing base material failing, which no longer provides a sufficient structure to place an asphalt driving surface. The total cost of construction was $3,370,417.36 million. Below summarizes the public improvements:

- Sidewalk Removal & Replacement – 25,165 Sq Ft
- Curb Removal & Replacement – 14,281 Lin Ft
- ADA Sidewalk Ramps – 44 each
- Storm sewer – 102 Lin Ft
- Pavement area – 26,817 Sq Yds

The following is a list of all streets included in the 2024 MFT Street Reconstruction Program:

2024 MFT STREET RECONSTRUCTION PROGRAM

STREET	FROM	TO
Alexandria St	Verde Dr	Shenandoah Dr
Shenandoah Dr	Kennicott Dr	Alexandria St
Drury Ln	Crabtree Dr	Waverly Ln
Fernandez Ave	Victoria Ln	White Oak St
Fernandez Ct	Fernandez Ave	Cul-De-Sac
Noyes St	Fernandez Ave	Kaspar Ave
Victoria Ln	Kaspar Ave	210' W Highland Ave.

BEVERLY, ROCKWELL & RIDGE REHABILITATION/ RECONSTRUCTION PROJECT

The scope of work for the Beverly, Rockwell & Ridge project consisted of reconstruction of Beverly Lane and Ridge Ave, new storm sewer on Ridge Ave, water main replacement on Beverly Lane and Rockwell Street, combined sewer installation on Rockwell Street, and rehabilitation of Rockwell Street. The rehabilitation included pavement widening, new curb, and resurfacing the entire street. The project was funded with MFT funds and two DCEO grants. The following list includes the streets and limits of the project:

BEVERLY, ROCKWELL & RIDGE RECONSTRUCTION

STREET	FROM	TO
Beverly Ln	Rockwell St	Fairview St
Rockwell St	Arlington Heights Rd	Lincoln Ln
Ridge Ave	Euclid Ave	Elm Ln

The Beverly, Rockwell & Ridge project street segments totaled 0.87 miles with a total cost of construction of $3,282,838.50. Below summarizes the public improvements.

- Sidewalk Removal & Replacement – 16,630 Sq Ft
- Curb Removal & Replacement – 8,954 Lin Ft
- ADA Sidewalk Ramps – 11 each
- Storm sewer – 2,439 Lin Ft
- Reconstructed pavement area – 7,377 Sq Yds
- New Pavement area (Rehabilitation) – 5,978 Sq Yds

2024 ANNUAL PROJECTS/PROGRAMS

EVERGREEN - MAUDE DRAINAGE IMPROVEMENTS

The Evergreen – Maude Drainage Improvements was identified to alleviate flooding issues that impacted multiple properties. The Village received Grant funding of $445,000 and $400,000 for this project. The total cost of the project is $1,006,995.42 and was substantially complete in 2024. The Village has retained funding to address restoration items in the spring.

WATER MAIN REPLACEMENT

The Department evaluates and prioritizes water main replacement based on defect severity, occurrence intervals of failures, service reliability, and other related parameters.

The Village aims to replace 1% of its underground water pipes every year. This aligns with industry best practice for replacement programs.

The 2024 annual Watermain Replacement Program was awarded in Spring. The program included the:

- Replacement of over 10,000 lineal feet of water main
- Replacement of 38 fire hydrants

The following water main sections were replaced in 2024 as part of the Department 5-Year Capital Plan. A total of 10,000 feet of watermain was replaced in the following locations:

- N Evergreen Terrace Rosehill Drive
- Lilac Terrace
- Cherry Hill Drive
- Jonquil Terrace
- Orchard Lane
- Elmwood Circle
- N Birchwood Lane
- E Mulberry Lane

SEWER LINING

In 2024, the Village has focused their efforts on design engineering needed to improve approximately half of a mile of main sanitary transition line along Algonquin Road, from approximately Arlington Heights Road to the west and Busse Road (in Mount Prospect) to the east. This improvement will accommodate new area development and improve service to the entire area.

The Department focuses on system cleaning, televising, and inspecting the Village system as part of various annual programs. Performing these functions on portions of the sanitary system is a priority and enables reduced inflow and infiltration issues, which increase resident costs. Preventing inflow and infiltration is a Public Work and Engineering priority, because this reduces the volume of ground water in the sewer system during significant rain events. This program improves the Village's storm sewer more capacity and preventing backups on private property. In addition, sanitary sewer lining helps increases the life span of the existing infrastructure significantly.

LEAK DETECTION SURVEY

The Water Distribution Unit worked with a consulting engineer on the Village's first Village-wide Leak Detection Survey. Field crews surveyed approximately 1,510,080 linear feet of water main listening on water system valves and fire hydrants. Water main consists of cast iron or ductile iron pipe ranging in 4" to 24" sizes.

Once a possible leak has been detected, the leak is pinpointed to a specific location by using an acoustic device called a correlator. Water leaks create a distinctive noise as water leaves the pipe. The difference in sound frequencies can help determine a small leak from a large leak. The correlator can differentiate leak sounds from those of normal water flow in the water system.



89 leaks were detected, located, and repaired. Estimated leakage totals resolved water losses in excess of **560,440** gallons per day, due to this survey.

2024 ANNUAL PROJECTS/PROGRAMS

MAINTENANCE-MANDATED PROGRAMS

Administrative and Operational Staff collaborate on the following annual maintenance programs and systems, not including everyday infrastructure, maintenance and customer service responsibilities:

- Consumer Confidence Annual Drinking Water Report
- Contractual Tree Trimming Program
- Municipal Separated Storm Sewer System (MS4) Program & Yearly Reporting Requirements
- Tornado Warning Siren System
- Holiday Lights Program
- IEPA Water Sampling
- Snow & Ice Control Program (Roadway and Sidewalk)
- Tree Planting
- Street Sweeping Program
- Sign Maintenance Program
- Sidewalk Maintenance Program
- Contractual Fountain Maintenance Program
- Contractual Crack Sealing Program
- Friday Police Car Check Program
- Contractual Mowing & Weed Spraying Program
- Meter Reading Program
- Contractual Thermoplastic Replacement Program
- Leak Detection Program
- Generator Maintenance Program
- Sewer Televising Program
- Sewer Root Cutting Program
- Arlington Heights Train Stations
- Metropolis Theater
- Street Reconstruction
- Street Rehabilitation
- Roadway Surface Treatments
- Crack Sealing
- Roadway Mastic
- Neighborhood Sidewalk Improvements
- Bike Route Improvements
- Pedestrian Crossing Improvements
- Corridor Landscape Enhancements
- Overhead Sewer Program
- Storm Sewer Rehab/Replacement
- Manhole Rehabilitation
- Water Tank Painting
- Federally-Funded Road Programs
- Water Meter & AMR Replacement & Repair
- Roof Maintenance Program
- Watermain Replacement and Repair Program
- Sanitary and Sewer Slip Lining Programs
- Water System Security Enhancements



MS4 PERMIT

Under the 1987 Clean Water Act Amendments, the U.S. Environmental Protection Agency developed new regulations to address stormwater that might impact water quality. These new “Municipal Separate Storm Sewer System” (MS4) regulations were set up in two phases, dependent upon population, and are enforced by the USEPA. As part of the MS4 regulations, the Village is responsible for conducting and documenting public and contractor education, and compliance inspection and enforcement. The Village has developed a stormwater management program that includes public education, public involvement, pollution prevention/ good housekeeping for municipal operations, and more. The Village’s illicit discharge ordinance formalizes clean water practices and is key to the governance of the new MS4.

NPDES PERMIT

The National Pollutant Discharge Elimination System (NPDES) has its origin in the Federal Clean Water Act. The program requires permits for the discharge of treated municipal effluent, treated industrial effluent, and stormwater. The permits establish the conditions under which the discharge may occur and establish monitoring and reporting requirements. The Village maintains NPDES Permit Number ILM580006. This permit is for the combined sewer overflow connected to the Village’s Combined Sewer System. The overflow is located at the headwater of Weller Creek, near Central Road, within Mount Prospect. The Public Works and Engineering Department submits an annual report detailing the previous year’s operations and maintenance to our Combined Sewer System. In the event of an overflow into Weller Creek, the Metropolitan Water Reclamation District of Greater Chicago (MWRD) will respond and notify the proper governing agencies.

2024 ANNUAL PROJECTS/PROGRAMS



METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO (MWRD)

Private development occurring in the Village often requires permitting from outside agencies. This can include Illinois Department of Transportation, Cook County Department of Transportation and Highways, Illinois Environmental Protection Agency, and the Metropolitan Water Reclamation District of Greater Chicago (MWRD). The primary outside agency that requires permitting is the MWRD for detention & stormwater management facilities, sewer connections, and soil erosion and sediment control. The Village is required to certify all MWRD permit applications and sign off on all applications as the permittee. MWRD pre-construction meetings, MWRD inspections, and record drawings are coordinated with staff from the Engineering Division and the MWRD. In 2024, thirteen projects were closed out with the MWRD. As of December 2024, the MWRD had 12 open and active permit applications.

PARKING GARAGE IMPROVEMENTS

PARKING GARAGE REHABILITATION

A 10-year program of preventative maintenance in the Village's four parking structures is scheduled to start in 2025. All engineering and design work was completed in 2024, which will be followed by public bid and construction in spring 2025. The rehabilitation program aims to address structural concrete cracks, leaks, spalls, scaling, joint sealant deterioration, and waterproofing. These annual rehabilitation efforts at the parking garages ensure the long-term stability of the Village's parking infrastructure while minimizing costly emergency repairs down the road.

ELEVATOR MODERNIZATION

A multi-year program to upgrade and modernize our parking garage elevators has started. In 2021, Staff began the process on one of the four elevators in the Vail Parking Garage. In 2023, both elevators in the North Parking Garage were planned to be modernized. Unfortunately, due to supply chain issues, the Village had to push the North Parking Garage improvements to 2025. Both elevators at the North Garage were modernized and expected to return to service in April 2025.

Starting in the summer of 2025, three more elevators will be modernized at the Vail Street Parking garage, which will complete elevator updates to that structure.The multi-year program is expected to last until 2031.





BUILDING MAINTENANCE

BUILDING MAINTENANCE UNIT

This Unit has a permanent staffing level of six full-time employees. This Unit is responsible for the maintenance, management, and general conditioning of fourteen different municipal buildings. The staff is made up of valued skilled and semi-skilled staff as identified below.

Foreman (1)

The Building Maintenance Foreman II (1) supervises and manages the Building Maintenance Unit and all facility maintenance contracts. This position leads Unit activities related to; budget management, capital planning efforts, and employee development and engagement.

Maintenance Mechanic II (2)

The Maintenance Mechanic II (2) provides an in-house skilled labor force for the Village with carpentry, HVAC, and plumbing services. Highly skilled in-house labor force is critical to the smooth operation of Village facilities.

Maintenance Mechanic I (1)

The Maintenance Worker I (1), entry level position that provides skilled labor for in-house projects related to the Village with carpentry, HVAC, and plumbing services to minimize system downtime and ensure proper functioning facility systems.

Maintenance Worker I (2)

The Maintenance Worker I (2) is an entry-level position that assists with skilled labor tasks and is responsible for general building maintenance duties at Village-owned buildings.

Custodian (1)

The Custodian (1) performs general custodial, supply, and service requests at the Police Building, Fire Stations, Village Hall, Senior Center, Train Stations, and the Metropolis Performing Arts Center while providing a professional work environment at all facilities.

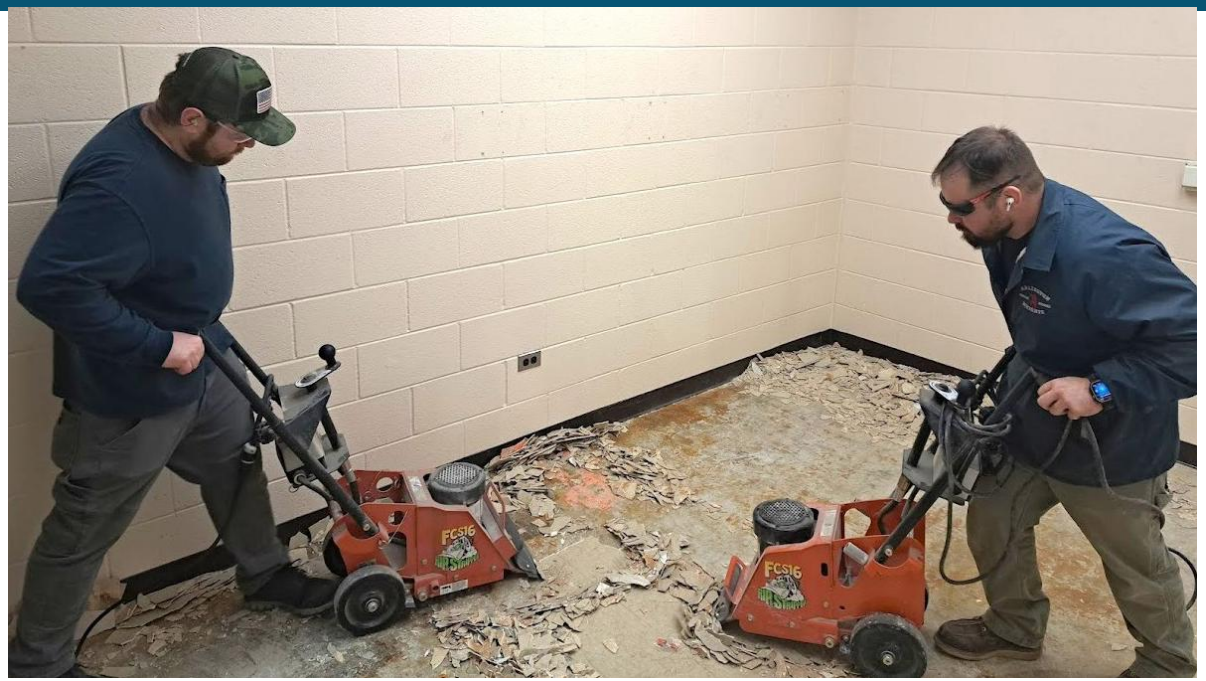


HISTORICAL FLOORING PROJECT

BUILDING MAINTENANCE UNIT COMPLETED IN 2024:

1,137 INTERNAL SERVICE REQUESTS

BUILDING MAINTENANCE



DUTIES & RESPONSIBILITIES

- The Building Maintenance Unit is responsible for the overall upkeep and maintenance of 28 Village-owned buildings with over 521,560 sq. ft. of building space. The Police Department and four Fire Stations are occupied 24 hours a day, 365 days a year.
- The in-house maintenance and repair of these facilities includes, but is not limited to electrical systems, HVAC, plumbing, general apparatus, and office equipment.
- Electrical systems consist of both electric motors and building electric. Electric motor maintenance includes the repair and replacement of single-phase and three-phase motors, motor starters, a variety of pump motors ranging from 1/6 HP to 15 HP in size, and the disconnect switches that power them. Building electrical systems include the maintenance/repair of low voltage switches, receptacles, electric door strikes, and trouble-shooting electrical distribution circuits.
- Heating Ventilation and Air Conditioning (HVAC) system maintenance includes the maintenance and repair of boiler, A/C control wiring, single and three-phase contactors, relays, and pneumatic-electric relays and sequencers.
- Plumbing system maintenance includes the maintenance and repair of plumbing waste and supply lines, plumbing fixtures and fixture controls, and water heater vessel inspection and repair.
- General apparatus and office equipment maintenance includes the cleaning, replacement and repair of lighting, ceiling tiles, cubicle partitions, desks, and chairs.
- Snow and Ice Control.

VILLAGE-OWNED BUILDINGS

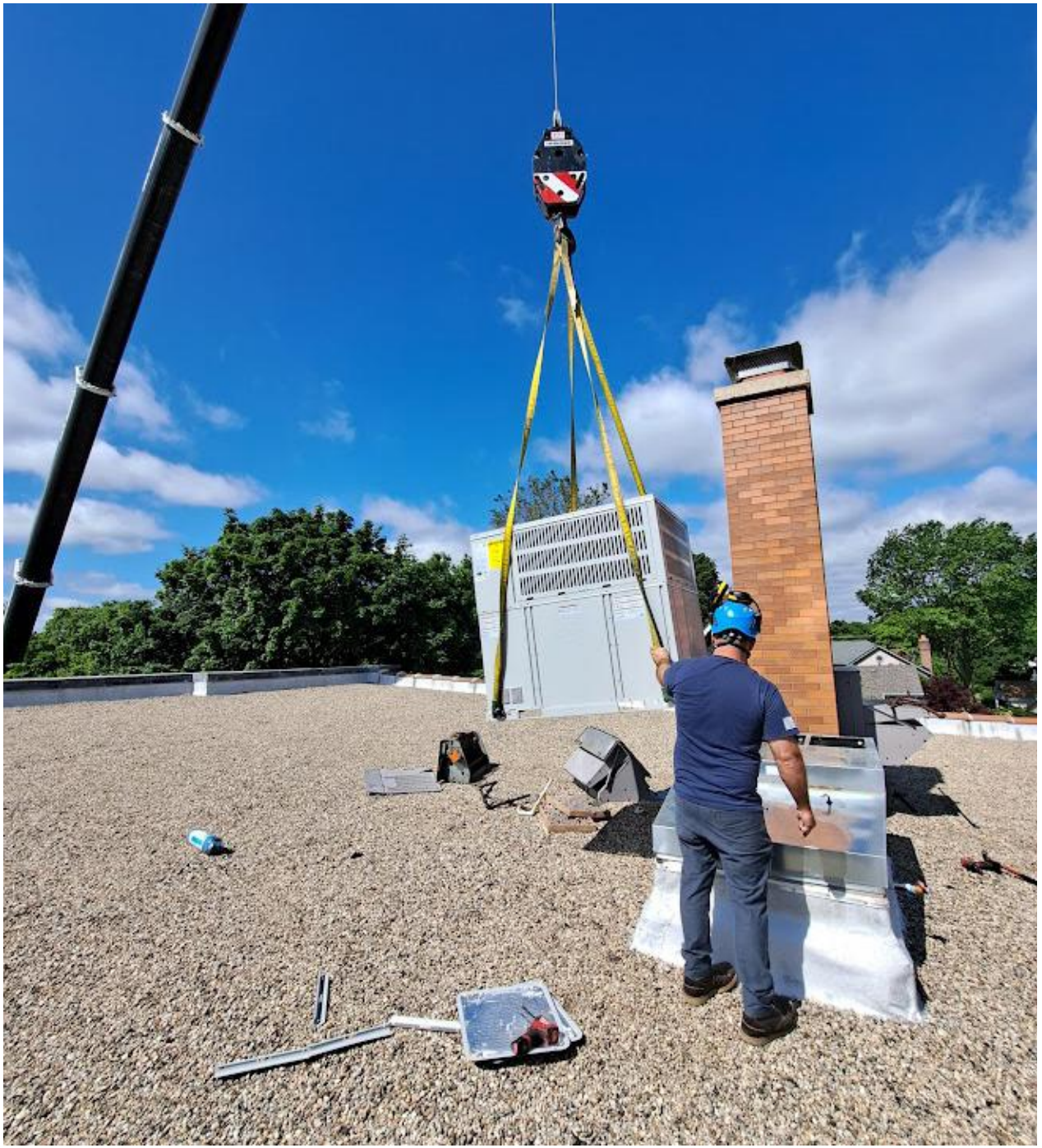
The Village-owned facilities and square footage maintained are listed in the following table. The Building Unit is responsible for the maintenance of these facilities, which is inclusive of 244 major and 66 minor pieces of HVAC equipment, not including plumbing, electrical, masonry, and other related responsibilities, including custodial services required to maintain the properties at operational capacities.



BUILDING MAINTENANCE

ASSIGNMENTS

- Staff works on rooftop units on Village facilities sometimes daily. The staff is well-trained and educated in HVAC, electrical distribution, mechanicals, and plumbing, which enable them to repair almost any issue.
- The custodian's key responsibility is to change spaces at the Senior Center and Village Hall to accommodate internal staff and village patrons for meetings, classes, and events. In addition to this, the custodians are tasked with handling the recycling waste generated daily.
- Staff also performs general cleaning tasks and schedules of the Village Hall, Police Department, Public Works, Senior Center, and the two Train Stations.
- The Building staff is responsible for distributing and stocking all janitorial paper products and cleaners used at these facilities and the additional Historical Society building and Metropolis Theater building.
- The Unit supervises the fire alarm and fire suppression systems in 14 facilities and certifies over 500 fire extinguishers.
- The staff oversees the maintenance, repair, and operation of 15 building elevators.
- The Unit supervises the maintenance and repair of over 70 overhead doors and all man, service, and entry doors with hardware at 28 facilities.
- The team services and repairs all HVAC equipment seasonal changeovers, preventative maintenance, and oversees contractual filter services at Village Hall, Police Department, Police Department Firing Range, Public Works, the Historical Society facilities, four Fire Stations, Senior Center, and the Downtown Train Station.
- Unit personnel oversees one custodial maintenance contract for (8) Village-owned buildings, one HVAC maintenance contract, and one elevator maintenance contract. These services have been privatized to relieve the workload of Unit personnel.
- Responsible to provide event and meeting set-ups for benefit fairs, health clinics, blood drives, and other special events, including Village Hall Holiday Luncheon, song and dance programs, and housing summits.



BUILDING MAINTENANCE

ACCOMPLISHMENTS

- Two new energy-efficient rooftop units were installed at the Pop Factory in the Historical Campus to maintain optimal cooling and artifact humidity control. These units utilize heat pumps that do not require gas, generate minimal noise, and enhance air quality. The staff successfully completed the installation, with support from Atlas Crane, to lift the units to the rooftop.
- The outdated cooling system in the Village Hall IT Server Room was fully replaced. The original units were oversized and unsuitable for modern computer equipment. The Building Maintenance team designed and installed a new split system with independent cycling wall-mount units and a room humidifier, saving the Village tens of thousands of dollars by keeping the project in-house.
- A significant masonry repair project was completed at the Senior Center's kiln room exterior. Broken bricks were replaced, decommissioned exhaust fans were removed, and cavities were sealed to preserve the building's structural integrity.
- Several small but impactful projects were completed on the Historical Campus, including the replacement of exterior doors and casings at the Pop Factory. Additionally, period-correct copper gutters were installed on the Muller and Coach House, and the eastern garage door of the Coach House was replaced.



- Six retaining walls at the downtown Metra stations were steam cleaned, tuckpointed, and sealed to enhance their durability and appearance.
- The Heritage Gallery's façade underwent a comprehensive masonry restoration, involving grinding out all masonry joints, followed by tuckpointing, washing, and sealing. Original 1800s bricks, salvaged from a previous chimney demolition, were used to replace cracked and worn bricks, preserving the historical character of the building.
- Building Maintenance efforts focused on the second-floor administrative areas at Fire Station 2 included properly insulating HVAC ductwork to prevent condensation leaks. Stained ceiling tiles were replaced, and office areas were refreshed with a coat of paint.
- The problematic ejector pumps in the Public Works Facility wash bay were removed, cleaned, replumbed, and reinstalled through a collaborative effort between the Building Maintenance and Sewer Units. These improvements significantly enhanced the system's functionality and efficiency.
- A restoration project at Fire Station 1 focused on preserving and enhancing the masonry components of the east and middle parapets, front and central towers, and the easternmost truck bay door. This work aimed to strengthen the building's structural integrity, prevent water intrusion, and ensure long-term durability.
- The Public Works Facility underwent a major roof replacement, covering sections no longer under warranty. A 30-year, no-dollar-limit watertight warranty backs the new roof. The project also included installing 65 fall protection anchor points, a new entry hatch, and multiple guardrails, significantly improving safety on the roof.
- The Heritage Gallery received a long-awaited flooring upgrade with a luxury vinyl tile (LVT) installation that mimics large plank oak wood flooring. This durable and easy-to-maintain flooring was chosen to withstand the high foot traffic from arts and crafts events and other activities, replacing the worn and stained carpeting.
- Six knee walls at Metra stations were fully restored, involving cleaning, grinding, tuckpointing, and sealing of masonry joints. This comprehensive restoration ensures lasting protection against the elements.
- Phase 1 of the Village Hall carpeting project has been completed, with modern, eco-friendly, and durable carpet tiles now installed in the common areas on the third floor. These new carpet tiles are highly stain-resistant, easy to replace, and simple to maintain. The next phase, set for Quarter 1 of FY 2025, will focus on replacing carpeting in the first-floor office areas, which most need an update.



ENGINEERING DIVISION

ENGINEERING DIVISION

This Division has a permanent staffing level of ten (10) full-time employees. They include:

Village Engineer (1)

Manages the Engineering staff and operations. Responsible for managing engineering budget and capital planning efforts, employee development and personnel duties, regulatory responsibilities and training.

Senior Civil Engineer (1)

Oversees Traffic Engineering and Private Development Units. Responsible for ADA Compliance, Plan Commission and permit reviews and inspections for Engineering, and implementing the Bicycle and Pedestrian Plan. Oversees the Public Development Unit, responsible for the design and contract management of major capital projects, including the Village's Street Reconstruction and Resurfacing Programs.

Civil Engineer I & II (3)

Responsible for implementing all roadway, drainage and other public capital projects, all traffic requests, analysis and reviews, all drainage service request analysis and reviews, and conducting permit reviews. Manage project consultants and administer grants.

Engineering Inspector (2)

Responsible for all Engineering-related private development permit plan reviews and permit inspections for private site improvements and privately constructed public infrastructure improvements.

Engineering Data Coordinator (1)

Responsible for collection of all Engineering data for traffic analysis, line of site and school zone assessments. Assists with database administration, utility requests and GIS data collection.

Engineering Technician (1)

Responsible for preparing CAD drawings for the Public Works and Engineering Department, including road construction, utility information, surveying and preparing plats, and backyard drainage documentation.

Administrative Assistant (1)

Responsible for all communications and Front Office tasks required for the Engineering Operation at Village Hall.



ENGINEERING DIVISION OVERVIEW

The Engineering Division has many responsibilities including; numerous major annual construction projects and programs, oversight of private development projects, plan reviews and inspections, permit and development coordination with applicants and other Village Departments, and service requests and code enforcement.

In 2024, staff managed over $15 million in major construction projects, including:

- 2024 Resurfacing Program
- 2024 Reconstruction Program (MFT funds)
- Beverly Rockwell Ridge Reconstruction & Rehabilitation (MFT & DCEO grant funding)
- Evergreen/Maude Drainage Improvements (DCEO grant funding)
- Wilke Road Resurfacing (80% federal Surface Transportation Program-Local funding)

Staff facilitated the evaluation of a pavement condition survey of the Village's 241 miles of streets. This data, along with other important holistic planning criteria is used to develop a multi-year program of needed street rehabilitation for respective annual construction, rehabilitation, and maintenance programs.

The team also manages the Downtown Paver Brick Program, which is a multi-year program intended to improve vehicular and pedestrian areas to comply with new regulations. The next phase of the program includes the Downtown Train Station, and the pedestrian crossings of the Union Pacific railroad tracks at Vail Ave, Evergreen Ave & Dunton Ave. The project was bid this year and is anticipated to begin in the spring, 2025.

ENGINEERING DIVISION

PLAN REVIEWS AND INSPECTIONS

The Engineering staff is tasked with many different responsibilities both within and outside the department. Staff serves as the department's primary liaisons for various outside agencies, such as; the Metropolitan Water Reclamation District (MWRD), the Illinois Department of Transportation (IDOT), and the Illinois Environmental Protection Agency (IEPA). Staff works closely with the Planning & Community Development Department to assist applicants and developers through a variety of different process. These include; Staff Development Committee review, Plan Commission applications for private development, Zoning Board of Appeals applications.

Staff also works with the Building and Life Safety Department to help developers and residents through building application and review processes. Following the issuance of permits, the Engineering Inspectors manage the progress of many projects with site inspections, and coordinating regularly with residents, builders, developers, the Building and Life Safety Department, and other regulatory agencies to ensure all requirements are met, while serving the best interests of the community.

SERVICE REQUESTS

The Engineering Team works with residents to resolve a variety of engineering related matters, including; drainage issues, sump pump issues, sidewalk and roadway issues, traffic related matters, and site obstruction issues.

BACKYARD DRAINAGE IMPROVEMENT PROGRAM – EVERGREEN MAUDE

The Backyard Drainage Improvement program constructs public storm sewer improvements to address areas of chronic flooding. Locations where flooding directly impacts homes and other structures are prioritized over nuisance flooding. Most cases that address backyard flooding require the homeowner to construct a connection on their property from the backyard to the new sewer. The 2024 program expanded the scope typically addressed with a backyard drainage program, warranting a separate project. The Evergreen Maude Storm Sewer Improvements were constructed in lieu of the annual program and was completed in 2024.

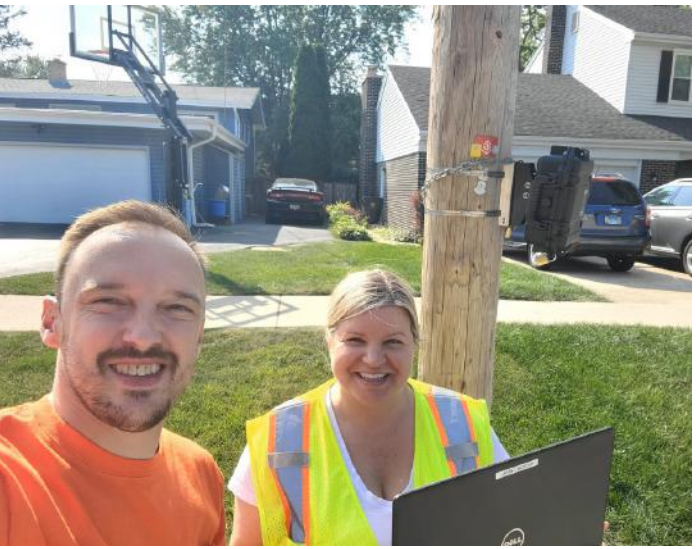
BICYCLE/PEDESTRIAN CROSSING IMPROVEMENTS

As a liaison to both the Northwest Municipal Conference Bike and Pedestrian Committee and the Village's Bicycle and Pedestrian Advisory Committee, the Engineering Staff advocates and provides insight for both regional and local bike and pedestrian initiatives to ensure the Village is aware of all potential funding opportunities and regional projects to leverage collaborative efforts that can improve this critical infrastructure.

The Wilke Road Resurfacing Project included the addition of a new multi-use path along the east side of Wilke Road, from Allison Court north to Sunset Meadows. This work was coordinated with the Arlington Heights Park District.



ENGINEERING DIVISION





GRANT FUNDING

The Public Works and Engineering Department aggressively pursues State, Federal, and other program funding for capital projects and initiatives related to public infrastructure from a variety of agency funding sources that are available, including the Illinois Department of Commerce and Economic Opportunity (DCEO), the Illinois Emergency Management Agency (IEMA), Surface Transportation Program funding administered by the Northwest Municipal Conference, the Transportation Alternatives Program administered through the Chicago Metropolitan Agency for Planning the Illinois Transportation Enhancement Program, the Metropolitan Water Reclamation District, the Illinois Department of Transportation Highway Safety Improvement Program. Funding assistance allows the Village to leverage Village funds toward vital infrastructure improvement projects. Examples of some of staff's efforts to secure funding are provided below.

- Staff continued working with the Illinois Department of Commerce and Economic Opportunity (DCEO) on grant applications for various public works projects, including the Evergreen-Maude Storm Sewer Improvements and the Rockwell Street Rehabilitation project, coordinated with Beverly Lane Rehabilitation, were completed in 2024. The Race Chicago Stormwater Improvements received $600,000 in a Community Project Funding FEMA grant through Congresswoman Jan Schakowsky. The contract was awarded in 2024, with construction scheduled for spring, 2025.
- The Forrest Ave Stormwater Improvements received two DCEO grants. The design was finalized in 2024, with construction and bidding scheduled for spring, 2025.
- The Village has partnered with the City of Rolling Meadows for the Weber Drive (Old Wilke Road Reconstruction) project and the Algonquin/New Wilke Intersection Improvements funded with STP-L federal funds. Both projects are tentatively scheduled for construction and bidding in spring, 2025.
- Staff continues to coordinate with the Cook County Department of Transportation and Highways (CCDOTH) and the City of Rolling Meads, as the project lead for the Euclid Avenue Resurfacing project that has secured over $2 million in STP-L funding. This project is scheduled for 2026 construction.
- Staff continued working on the Phase I study for the ComEd Right-of-Way multi-use path, resulting from funding received through the Community Project Funding through Congressman Quigley's office.
- Staff continued working on the Windsor Drive Resurfacing / Road Diet (STP-L, ITEP and TAP-L funding). Staff has received the Phase I Project Development approval from IDOT, and will proceed with Phase 2, construction is tentatively scheduled for 2027.
- The Village also has five resurfacing and reconstruction projects on the contingency list to potentially receive STP-L funding assistance for the 2023-2027 funding cycle: Hintz Road, Dryden Avenue, Thomas Street, Arthur Avenue, and Kennicott Avenue.



ENGINEERING DIVISION







FLEET SERVICES

FLEET SERVICES UNIT

The Fleet Services Unit maintains the Village's fleet of more than 320 vehicles and equipment used to provide services to the community. The Fleet Unit is made up of highly certified and qualified employees with a multitude of skills and ASE certifications.

This Unit has a permanent staffing level of nine full-time employees and one part-time employee. Their responsibilities include:

Foreman (1)

Responsible for supervision and operation of the Unit. This includes the repair and maintenance of all Village-owned vehicles and equipment, including the Public Safety fleet serving the Police and Fire Departments. The Unit also maintains nine Wheeling Township and Pace buses, the Arlington Heights Bookmobile, and the Village's vehicle and equipment Fuel Inventory System.

Lead Technician (1)

Responsible for technical support & daily workflow of activity in the maintenance shop.

Auto Technician (5)

Perform all heavy truck, emergency vehicle, light truck, passenger car and equipment maintenance and repair activities for Village-owned vehicles and equipment.

Storekeeper Supervisor (1)

Oversee inventory of all fleet maintenance parts and supplies. Processes billing for inventory and monitors service contracts.

Storekeeper (1)

Responsible for shipping and receiving, stocking all fleet maintenance parts and supplies for the Department. Commodities for other Village Departments are also channeled through the Fleet Service facility

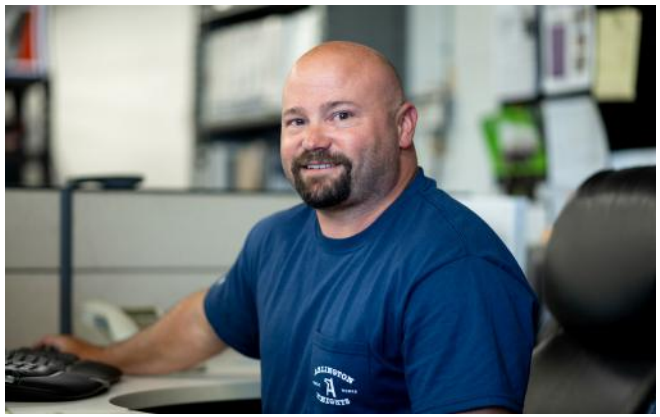
Store Clerk (.5)

Assists with pickup, delivery, shipping and receiving, and stocking all fleet maintenance parts and supplies for the Department.









FLEET SERVICES

RESPONSIBILITIES

- Responsible for the acquisition, fueling, maintenance, repair, and disposal of all vehicles and pieces of equipment in the Village fleet
- Responsible for the management of the Village's fuel storage and dispensing system located at the L.A. Hanson Center. The system includes three 12,000-gallon underground storage tanks (1 diesel and 2 unleaded gasoline), and the "Fuel Master Fuel Key System."
- The services provided by this Unit are recognized as an internal service fund and all services provided are charged back to the appropriate Departments.
- Our Team strives to maintain a professional relationship with vendors and suppliers and provide the highest level of service possible to our customers.
- We support all levels of leadership to accomplish the objectives of the Village of Arlington Heights.
- Our team conducts business in a collaborative manner and follows the Village's policies and procedures that govern our activities.
- We promote employee development and growth and support staff engagement with outside agencies and professional organizations.
- Develop and manage the budget in a cost-effective manner in terms of equipment and employee scheduling, outsourcing, purchasing, servicing, and repairs.
- Develop and manage short and long-term capital improvement purchases to ensure balanced and responsible expenditures.



FLEET SERVICES



ACCOMPLISHMENTS

- In order to avoid delays, other critical future purchases were evaluated and orders were placed for the vehicles with extended lead times, i.e., ambulance (36 months), Fire aerial truck (40 months), and snowplows (18 months) for Public Works.
- Fleet successfully recruited a new employee to fill an open position due to a retirement of a long-time employee. Staff worked closely with the Human Resources Department to select a highly qualified person from a great pool of candidates.
- During 2024, the Unit completed 1,079 repair orders with 2,239 jobs associated to those work orders for a total 7,468 hours charged back to Departmental customers. Productivity is measured by the number of hours that can be billed to repairs versus total hours available to work. Staff uses these productivity standards against labor hour charges based on actual time spent on repair operations. This measurement provides insight to the efficiency and effectiveness of the Fleet Services operation.

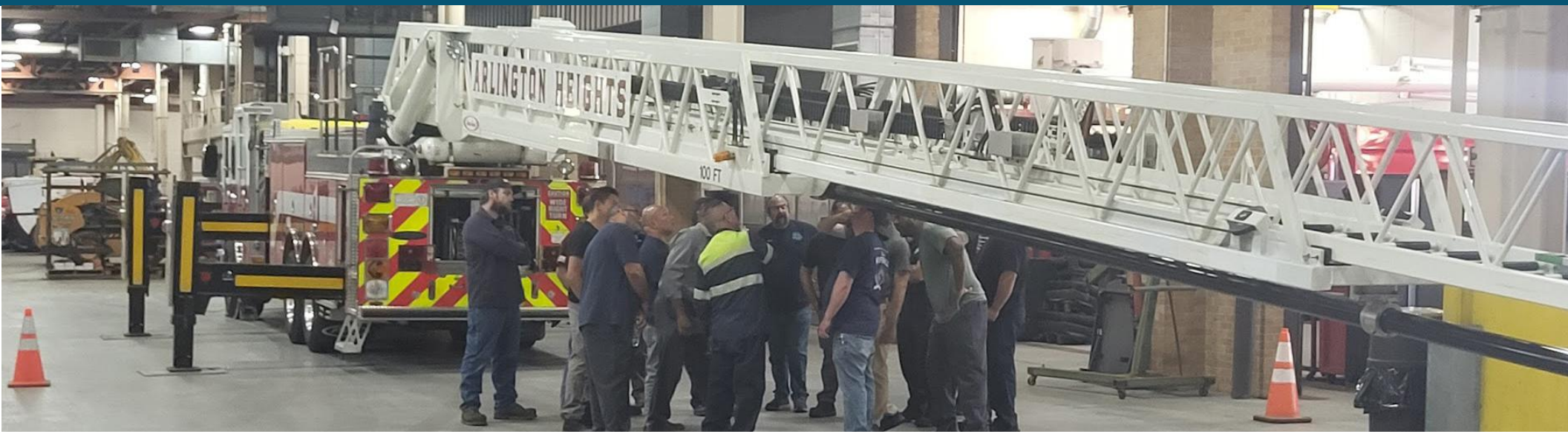
SPECIAL PROJECTS

- Changes to Chapter 13 of the Illinois Vehicle Code made January 1, 2019, established a new mandate requiring vehicles with a gross weight of more than 10,000 pounds to be inspected every six months and receive a Certificate of Safety. In 2024, 112 of these inspections were successfully completed on the required vehicles in the Village fleet. In 2023, the Fleet Service Unit became certified as a private test lane with the Illinois Department of Transportation allowing staff to perform required inspections in-house, resulting in significant time-savings and the ability to reallocate resources to other pressing needs.
- National Fire Protection Association (NFPA) 1914, Standard for Testing Fire Department Aerial Devices-1997, mandates annual testing. This helps to ensure the safety and dependability of these devices in emergency situations. Both Fire Department aerial rigs were recertified for 2024.
- For the reasons stated above, the Village also certifies thirteen (13) aerial devices utilized by the Public Works and Engineering Department. These units were all re-certified in 2024 as well.
- The vehicle lifting equipment and overhead crane used for the repair and maintenance of the fleet were also safety tested and certified. This is done annually for the safety of the staff and Village equipment.
- The annual Underground Storage Tank (UST) safety compliance testing required by the Office of the Illinois State Fire Marshall was successfully completed on the Village's fuel storage and dispensing devices.
- The Fleet Services Unit achieved a Blue Seal of Excellence recognition in 2024 and has done so every year since 2002. The National Institute for Automotive Service Excellence (ASE) is an independent non-profit organization that has worked to improve the quality of vehicle repair and service by testing and certifying automotive professionals. ASE administers this recognition, which requires at least 75% of technicians to be ASE certified with at least one technician certified in each area of service provided.

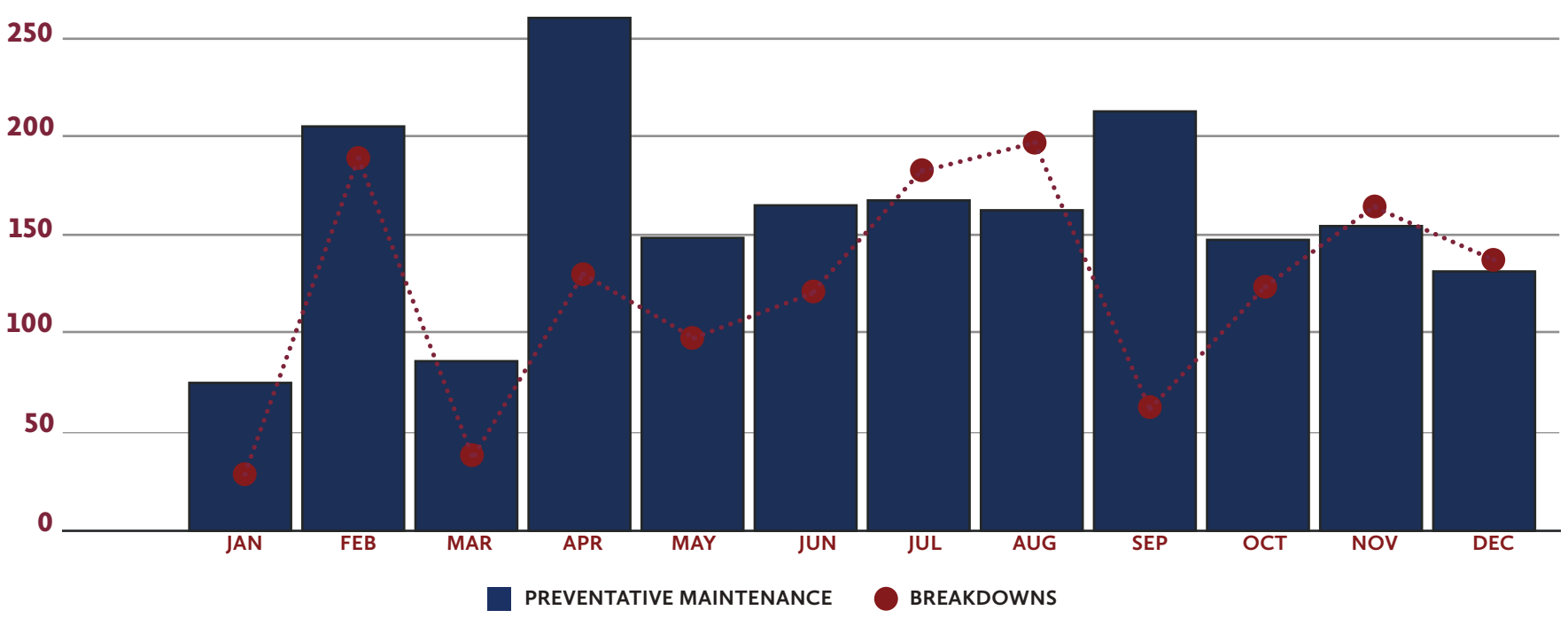
UNIT TRAINING

- Staff attended the annual Work Truck Show in Indianapolis to learn about the industry's latest products and technology.
- Staff responsible for maintaining fire equipment attended several sessions of Pierce Fire Apparatus factory training provided by our local Pierce dealer and hosted at the LA Hansen Public Works Facility.
- In an effort to promote employee development and growth, staff attended various training throughout the year, including attendance at the Midwest Advance Public Service Institute (MAPSI). MAPSI is an ongoing leadership training program that provides advanced instruction expressly designed for Public Service Upper-Level Managers, Administrators, Supervisors, and Leaders.

FLEET SERVICES



LABOR HOURS MONTH-TO-MONTH • PREVENTATIVE MAINTENANCE



FORESTRY AND GROUNDS UNIT

FORESTRY AND GROUNDS UNIT

This Unit has a permanent staffing level of nine full-time employees and one part-time intern. Their responsibilities include:

Village Forester (1)

Responsible for leadership and operation of the Forestry and Grounds Unit. Oversees all maintenance of an estimated 36,000 parkway trees and 110 acres of public owned property.

Crew Chief (1)

Responsible for supervision of Forestry and Grounds crews and contractors performing tree, landscape and lawn work.

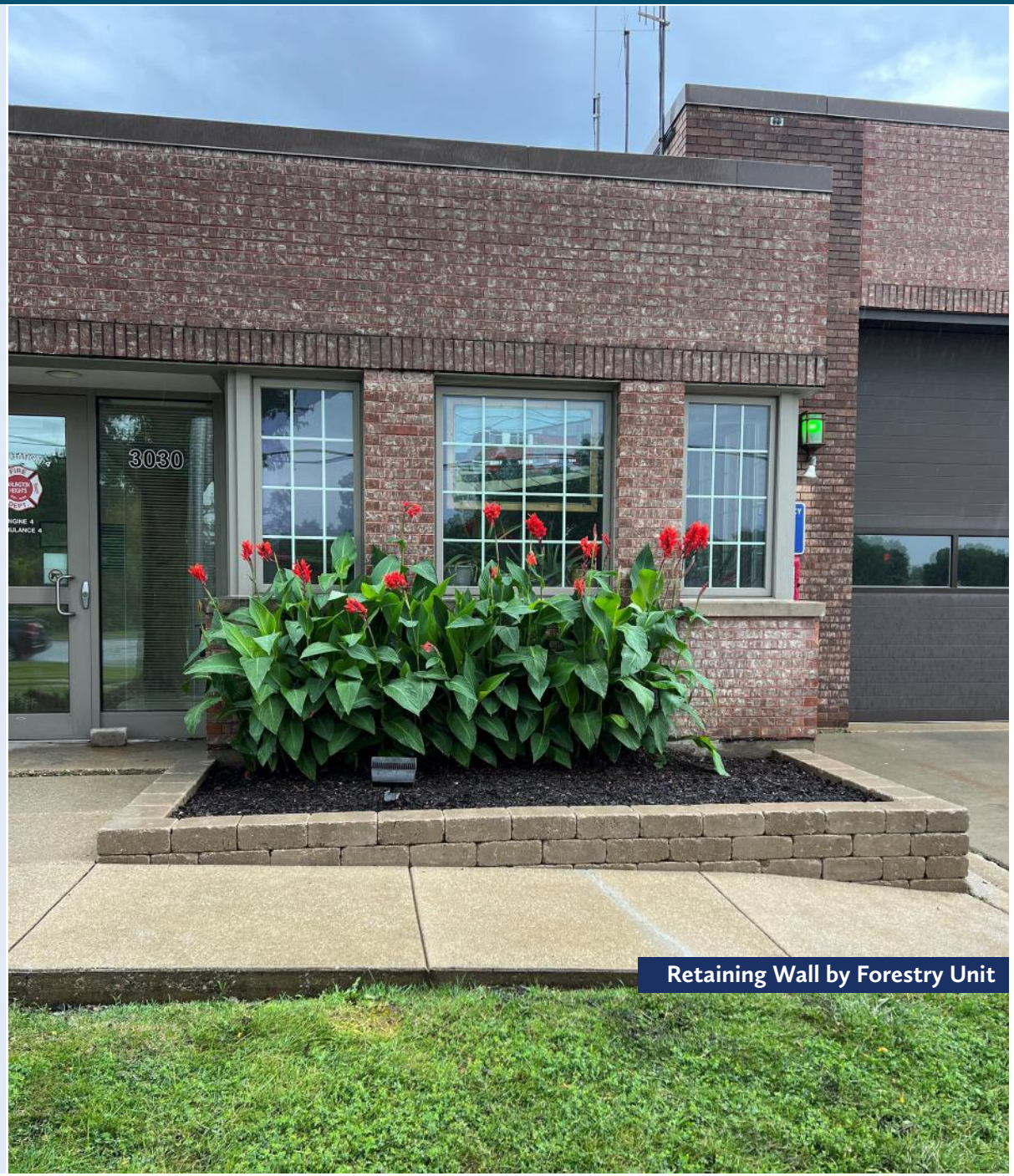
Maintenance Worker II (3)

Operate specialty equipment and perform tree and landscape related duties for all Village-owned trees and properties. The employees in this position have attained advanced skill levels in performing Forestry Unit tasks.

Maintenance Worker I (4)

Responsible for assiting with Forestry-related tasks.





Retaining Wall by Forestry Unit

FORESTRY AND GROUNDS UNIT

FORESTRY RESPONSIBILITIES

The Forestry and Grounds Unit performs the following general duties on the 36,000 Village-owned trees and maintains approximately 110 acres of public property:

- Respond to resident requests for parkway tree pruning, branch pickups, and broken and hanging branches.
- Perform annual Village-wide inspection to identify parkway trees requiring maintenance or removal.
- Collect tree data and update Village tree inventory.
- Perform parkway tree inspections to diagnose tree health issues and diseases.
- Manage contractual projects and programs for tree planting, tree pruning, tree removal, stump removal, irrigation, mowing and landscape maintenance of Village properties.
- Plant and maintain annual flowerbeds and urns at Village owned parks and buildings, including Alfresco dining perimeter.
- Maintain natural areas including Village-owned wet bottom retention basins and wetlands.
- Restore parkways damaged by tree removal or Village utility excavations.
- Manage and perform decorative boulevard banner installations at major intersections quarterly.





- Install and maintain downtown holiday décor, parkway tree lighting, and two holiday trees decorated for the annual holiday tree lighting ceremony.
- Perform and manage irrigation system repairs, operation, and maintenance.
- Install, maintain, and manage downtown inventory of decorative benches, bicycle racks, and trash/recycling receptacles.
- Assist with Department snow and ice control operations, with focus on sidewalk snow operations in Downtown District and at Village-owned properties.
- Participate in the coordination, set-up, and operation of special events such as Harmony Fest, Tree Lighting, National Night Out, and Trunk-or-Treat.
- Participate in Department initiatives related to community outreach through events, such as World of Work, Career Fairs, TreeU, Earth Day, and Arbor Day.
- Provide educational presentations to residents on topics such as tree health, invasive insects, and proper tree maintenance.

Parkway Trees Removed	726
Parkway Trees Planted	624
Parkway Restorations	1,195
Branch Pickups	1,802
Branch Cracked and Hanging	408
Tree Inspections	419



FORESTRY AND GROUNDS UNIT

URBAN FOREST ACTIVITIES

IN-HOUSE TREE PRUNING

The Unit completed nearly 633 service requests for parkway tree pruning in 2024. Service requests are received from residents whose parkway trees require attention before the next planned pruning cycle is due to occur. Parkway trees are fine pruned during trimming performed by Village staff, which is slightly different from contractual cycle pruning. During fine pruning, arborists removed all deadwood that is ¼ inch in diameter and larger compared to only ½ inch and larger completed as part of cycle pruning.

During the Rockwell Street widening project, Village staff trimmed 56 parkway trees in efforts to protect the trees and prevent any conflicts with construction activities.

CONTRACTUAL TREE PRUNING

A vital aspect of our goal to build a resilient urban forest is maintenance. Proper tree pruning ensures not only a trees' health but also protects the community from possible hazards. To this effort, the Staff worked closely with the Village's tree pruning contractor on their pruning practices. One of the major objectives of the contractual pruning program is selecting and training younger trees in order to establish a central leader, where possible. Aesthetics and proper site clearance are also taken into consideration during pruning to help eliminate any site obstructions. The extra effort spent properly pruning these younger trees help protect the Village's urban forest for future generations. The contractor was able to prune 5,911 trees this last year.





GROUNDS MAINTENANCE

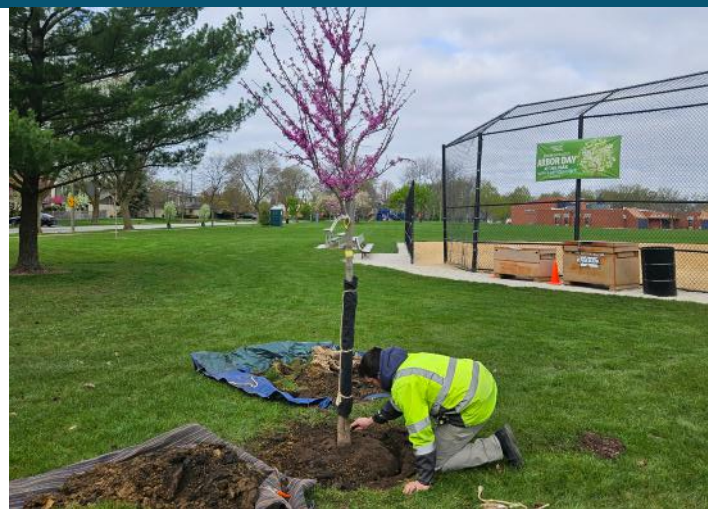
LANDSCAPING

- Annual tulip bulbs and hardy mums were planted at Friendship Park, Downtown Metra Station, Village Hall, Public Works, and Harmony Park. Annual flowers were also installed in the decorative urns, flowerpots, and sixteen different Alfresco planters.
- Harmony Park Fountain – Forestry staff, along with Streets Unit, worked with contractors to make repairs to the fountain. Leaks were found, resulting in the replacement of the plumbing from the fountain to the filter pit.
- Snowplow Damage Parkway Cleanup – Team members organized a weeklong taskforce for snowplow drivers to check their routes for any sod damage. Crews were instructed to pick up any lose sod and create a CityWorks service request to complete any further parkway restoration work. The taskforce generated 38 parkway restorations requests.
- Forestry crews rebuilt the retaining wall at Fire Station 4, in addition to replacing some plants and shrubs.
- Over-seeding and multiple fertilizer applications were performed to help thicken the grass at Harmony Park.

FORESTRY AND GROUNDS UNIT

GREEN INITIATIVES

- The Unit is responsible for overseeing the maintenance of numerous natural areas, including: a US Army Corps of Engineers delineated wetland, three wet-bottom retention basins, and the native prairie on West Northwest Highway. Staff continues its efforts to replace non-native landscaping and annual flower beds with more sustainable native, perennial plants.
- Staff participated in several Earth friendly programs such as, a Compost giveaway held at Public Works, Olive School Earth Fair, and Arbor Day.
- Forestry worked with a local group of volunteers called TreeKeepers, to mulch trees at South Middle School. Staff also assisted pruning efforts by another volunteer group named Openlands. Crews worked together to prune trees along Arlington Heights Road adjacent to Thomas Middle School.
- Staff designed new native, drought tolerant landscape plans for the south half of Parking Lot S & the municipal parking lot across from Fire Station #1. In preparation of new plantings, evergreen shrubs were removed, and the soil was prepared. The old shrubs caused issues for sidewalk snow removal and landscape maintenance due to their overgrown nature.



HOLIDAY DECORATIONS

One of the primary responsibilities of the Unit is the planning, maintenance, and installation of the holiday lights and décor in the downtown. This operation begins in September with crews removing and replacing the LED holiday lights in 240 parkway trees. There are over 2,700 sets of lights (99% LED) in the Downtown Business District, which are replaced every two years. Additionally, staff is responsible to install, LED decorations on the two raised pedestrian walkways, 55 artificial holiday wreaths, holiday themed figurines at Harmony Park, and 84 boulevard banners. New in 2024 were 2 large decorative LED light up snowflakes displayed at Clocktower Park with new electrical wiring assistance provided by the Traffic Unit.



In November, Public Works staff teamed up to install and decorate the holiday trees at Harmony Park and North School Park. The spruce trees are annually donated from residents' property to be used for the holiday season. This year, the Harmony Park tree was donated by a resident on South Gibbons Ave. The North School Park spruce tree was donated from North Kennicott.



FORESTRY AND GROUNDS UNIT

ACCOMPLISHMENTS & RECOGNITIONS

- Arlington Heights received its 39th designation as a Tree City USA and its 12th year receiving the Growth Award. The Tree City USA awards are then presented to Village officials at the annual Arbor Day celebration.
- The Village Forester was elected President of the Suburban Tree Consortium Board of Directors. The STC was created to maintain and improve the urban forest within the Chicago metropolitan region, thereby enhancing the quality of life for the region's residents, by fostering cooperation and communication at the municipal level; supporting cost-effective means of acquiring and installing trees; and offering technical assistance and information regarding municipal forestry.
- In 2023, Staff applied for $100,000 in grant funding from the Urban and Community Forestry (UCF) Inflation Reduction Act Grant to plant new trees in open tree planting locations within Arlington Heights. The United States Department of Agriculture (USDA) is providing funding for this grant, and the distribution of funding will be monitored and managed by their administrative partner, GreenLatinos, an environmental organization based out of Washington, D.C. Out of 842 communities that applied, the Village was one of only 18 communities selected in Illinois and California. With the funds provided by this grant, the Village will enhance its current forestry tree planting procedures by increasing the tree count within the community's urban forest, thereby fostering a more inclusive community based urban forestry program. In the fourth quarter of 2024 the Village planted 20 parkway trees and purchased new informational doorhangers through this grant. The Village was reimbursed $8,217 for the cost of these items.





SPECIAL PROJECTS

- The Village and Park District split the cost to rent a wood processing machine that recycles unground branches and logs into woodchips. The newly recycled woodchips, along with all of the other woodchips generated by forestry activities during the year, are double ground into landscape grade wood mulch. Both entities utilize the wood mulch in landscape beds and tree rings throughout the Village. The wood recycling program generated approximately 10,000 cubic yards of mulch, that stays within the Village.
- Hydrant Flushing Assistance – a member of the Unit assisted with the hydrant flushing operation for two weeks. Interdepartmental cooperation is critical during emergencies, and these high-demand programs.
- Crews removed 22 trees for the Lead Service Line Replacement Program that were interfering with the service connection to the water main.
- Staff rebuilt the paver block Fire Station 4 retaining wall. The old wall was crumbling due to age and salt usage.
- The Team encountered a number of problematic young Swamp White Oak trees exhibiting unusual damage and reached out to The Morton Arboretum for assistance. A staff entomologist came out to help diagnose the problem. After some research, it was determined to be caused by a 2 mm long x 1 mm wide Cynipid Gall Wasp. The adult wasp lays its eggs and overwinters in the bark of the trees. The wasp will create leaf galls, and the bark damage is caused by downy woodpeckers and squirrels pecking and digging to feed on the wasps.

FORESTRY AND GROUNDS UNIT

TRAINING & CONTINUING EDUCATION

- The Unit continued its regular monthly Tailgate Safety meetings. These meetings are based on the Tree Care Industry Association's safety manual. A specific topic is covered each meeting and presented through real-life examples, handouts, illustrations, and quizzes.
- Staff attended the Illinois Arborist Association annual conference to obtain required CEU's to maintain their Certified Arborist credentials and to stay current on industry practices and topics.
- All unit members attended the three-day iLandscape show to attend educational sessions on topics such as disease management, new available species, and pruning methods.
- One Certified Arborists attended the Iowa State University Shade Tree Short Course. This two-day conference includes presentations from some of the top experts in the industry.
- All arborists maintained their certifications as International Society of Arboriculture (ISA) certified arborists, with one employee preparing for the Certified Arborist Exam in 2024.
- Arlington Heights worked with the Illinois Arborist Association to host a Tree Risk Assessment Qualification (TRAQ) course. One of our Certified Arborists completed the course.



SEWER UNIT

SEWER UNIT

The Sewer Unit maintains the Village's Sanitary, Storm and Combined sewer systems. The Village has 2,700,000 linear feet of sewer that requires routine maintenance. This Unit has a permanent staffing level of twelve full-time employees. Their responsibilities include: cleaning, repairing and installing new sewer pipe and sewer structures to allow for proper storm and sanitary drainage.

Sewer Foreman (1)

Responsible for supervision and operation of the Unit activities and personnel. This Unit performs all maintenance and repair on the Village's storm, combined and sanitary sewer systems as well as detention and retention basins.

Crew Chief (1)

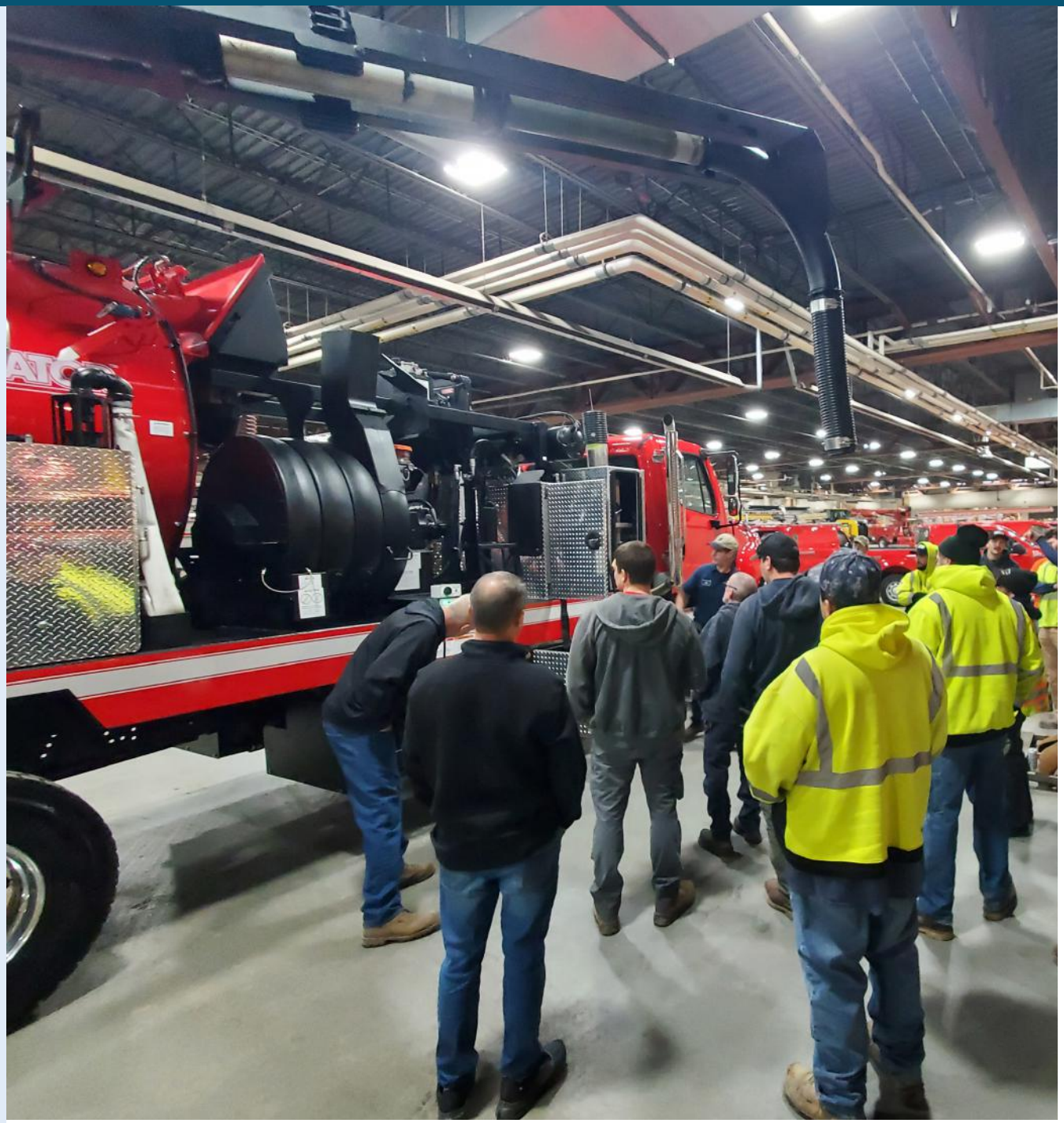
This individual supervises the activities of Sewer Unit work crews.

Maintenance Worker II (7)

Responsible for all necessary skilled equipment operation and sewer system related repairs and maintenance tasks.

Maintenance Worker I (3)

Responsible for assisting with maintenance related tasks.



SEWER UNIT





SEWER UNIT'S RESPONSIBILITIES INCLUDE:

- Clean and repair all Village-owned and operated storm sewer drainage structures
- Manage and implement maintenance programs for storm sewer, sanitary sewer, and combination sewer systems, such as; root cutting, televising, lining, and emergency response
- Responsible for managing capital projects related to improving sanitary and systems performance
- Responsible for updating and refining utility data in the Village GIS system
- Responsible to prepare and submit mandated Metropolitan Water Reclamation District reporting
- Clean and repair all Village sanitary sewer and combination sewer main line and manhole structures
- Manage consultant activities needed to collect data and reporting required to meet IEPA required permitting (MS-4) and (NPDES-2) submitted annually
- Maintain and manage programs to ensure proper function of the storm inlet(s) and outlet(s) at Lake Arlington
- Maintain and clean all Village associated storm water tributaries and creeks within the Village boundaries
- Perform scheduled and emergency utility locates
- Assist in the cleaning and maintenance of storm sewer and sanitary sewer lift stations
- Manage and organize material storage and activities at the Department Annex Yard
- Assist with the Snow and Ice Control operations
- Manage and maintain activities required for Village-owned detention and/or retention areas

SEWER UNIT

UNIT ACCOMPLISHMENTS:

SEWER MAIN FLUSHING/ROOT CUTTING

The Sewer Unit is responsible for the maintenance and repair of all Village-owned sewer systems; sanitary, combined and storm. Routine maintenance is essential to help ensure these systems are properly functioning. The most important function in helping to ensure these sewer mains are functioning properly is through routine sewer flushing and root cutting. Performing these activities ensures sewer mains are free from debris and obstructions lessen the potential sewer backups. These operations depend solely on the use of the Village Jetter/Ramjet trucks.

These trucks are outfitted with hoses and couplings for either root cutting motor/blade assemblies or simple flusher nozzles. The water pressure generated from the truck's onboard pressure pumps propels these assemblies down the sewer pipes to perform the cleanings. As these trucks are hydro-powered, operations in low temperatures present freezing risks. Running this equipment in below freezing conditions can have catastrophic consequences. Expensive valves and pumps are prone to damage if exposed to below freezing temperatures for extended periods of time. These trucks are only dispatched during these extreme temperatures if a sewer block is discovered.

At the beginning of each year, the Unit discusses and establishes annual goals and benchmarks we hope to achieve. Typically, competing priorities, Capital Projects, inter-departmental assistance, and emergency response can play a role in disrupting those goals, However, the team is proud of what was accomplished this past year. During 2024, the Sewer Unit completed both root cutting as well as flushing activities on both sanitary and storm sewer systems on the total linear footage listed at the right:



142,546 LF of Sanitary sewer main line cleaning

139,000 LF of Acoustic pipe inspection

19 Individual sewer manholes were epoxy coated for a combined 150 Vertical feet

50,800 LF of CCTV televising of sanitary and combined sewer main

131 total catch basin and manhole repairs



SEWER UNIT

SEWER MAIN REPAIR

In 2024, there were a total of 11 sanitary and storm main repairs performed.

CATCH BASIN/MANHOLE CLEANING AND REPAIR

Catch basin cleaning is an ongoing activity that is consistently performed by the Sewer Unit. As debris gathers in curb lines, it eventually makes its way into the thousands of catch basins that service the village. The sole purpose of these catch basins is to gather and prevent this debris from actually making its way into the storm sewer pipes. If debris does enter into these storm sewers, the likelihood for a storm sewer not draining properly increases. These efforts help to ensure proper drainage especially during times of heavy rainfall in the spring/summer/fall months, as well as snow/ice thaw events in the winter months.

Catch basin and manhole repairs are essential as these structures weaken/deteriorate over time. Sinkholes around structures can develop due to harsh winter freeze/thaw conditions, and is an indication that a structure is failing. Excessive infiltration from groundwater can increase deterioration and ultimately result in failure. By re-establishing structural integrity to each basin by performing these repairs, system service integrity is preserved.

SANITARY SEWER TELEVISING

Sewer televising is important in identifying problematic areas before resulting in an emergency. Whether finding unknown obstructions in a main sewer, or looking at the overall condition of a sewer pipe, the televising equipment is invaluable to managing a sewer utility. The camera provides the ability to identify areas where pipe sections are starting to show signs of deterioration, need for replacement, or offset pipe joints, which can impact sewer rates and service.

SL RAT ACOUSTIC SEWER PIPE INSPECTION

Acoustic pipe inspection allows the Villages staff to quickly and effectively rate a large number of sewer pipes within the village without having to spend

TRAINING

The Sewer Unit staff took part in multiple training courses during the year. These courses included trenching and shoring, confined space, and MS4 storm water discharge for snow day. Each year Sewer Unit employees are responsible for completing the target solutions training courses which cover P.P.E, jobsite hazards, chemicals etc. One member attended the Illinois Public Service Institute (IPSI) management course.



SEWER UNIT

EMERGENCY SEWER BACKUP RESPONSE

The Public Works and Engineering Department takes emergency response very seriously, which includes responses to issues related to flooding, sanitary sewer backups and overflows, and other sewer related issues. Each call is properly documented and thoroughly investigated. If a blockage is found in a Village sewer main, the obstruction is flushed or root cut to re-establish flow. If it is determined that the blockage is the responsibility of the property owner, Staff advises them of the need to have their sewer line serviced and provides as much support as possible.

STORM SEWER TELEVISING

Due to the number of drainage concerns the Department receives each year, the need to investigate situations by using televising technology is significant. Staff performs pole camera operations when the need to investigate catch basins arise, but when a full-depth investigation is not warranted. This involves utilizing a camera mounted on a fiberglass pole, and a small video recorder that is controlled via a cable by the operator. It is very useful, improves safety, and eliminates the need for a confined space entry.



ANNEX SITE MANAGEMENT

Members are primarily responsible for all Annex housekeeping and supply duties. The Annex is a Public Works auxiliary yard that allows for the storing, staging, and hauling of material during emergencies and other significant operations. The handling of excavation-generated spoils, wood chips, leaves, diseased trees, concrete and asphalt are all part of the required tasks. As debris is being loaded out, material is brought back to the Annex in the forms of sand, gravel, asphalt grindings and black dirt to be used for future Public Works operations. Village staff loaded out 560 tons of leaves alone this year. The Annex is also used for snow storage from the Downtown. At different times of the year, because of the amount of activity happening in the community, a member of our team is required to be on-site on a full-time basis.

LAKE ARLINGTON INLETS AND OUTLETS CLEANING

The inlets and outlet at Lake Arlington are monitored before and after rain/flooding events. Lake Arlington provides drainage capacity for the northern part of Arlington Heights. Therefore, it is essential that water drains appropriately via the inlets and flow out just as efficiently through the outlet. Debris that gathers at both inlets and outlets are regularly cleaned of large branches, brush, and general debris. Generally, inlets and outlet are cleaned twice a month when the potential for inclement weather is eminent and after an event.

DETENTION/RETENTION POND MAINTENANCE

Like Lake Arlington, the Village has numerous detention and retention basins throughout the community. Inspections are conducted throughout the year by utilizing the Department's asset management software, Cityworks. The Metropolitan Water Reclamation District (MSRD) requires that 10% of all facilities to be inspected every year, as part of the Village's operating permit.

UTILITY MAPPING

Our staff is regularly very involved in the constant updating and management of utility related information. We regularly work with the Department and Village Geographic Information Systems (GIS) Specialists to update inaccuracies and data related to recent improvements for projects performed throughout the year. Additionally, maintenance program data is recorded, including; the Sanitary Sewer Lining and Manhole Rehabilitation Programs. Data collection is essential to maintain the current infrastructure system, which help in Capital Planning and decision-making efforts.

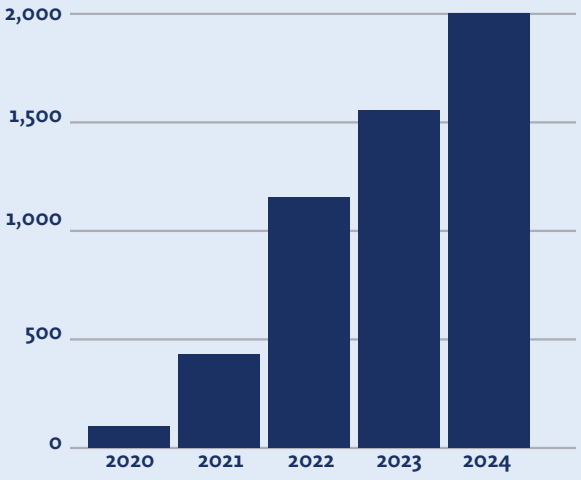


SEWER UNIT

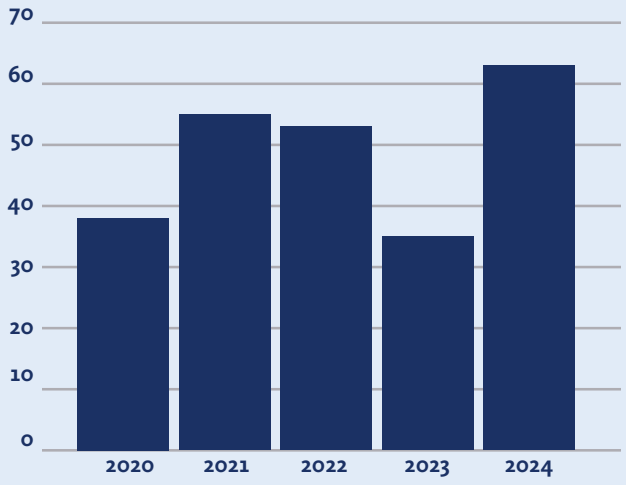


5-YEAR METRICS

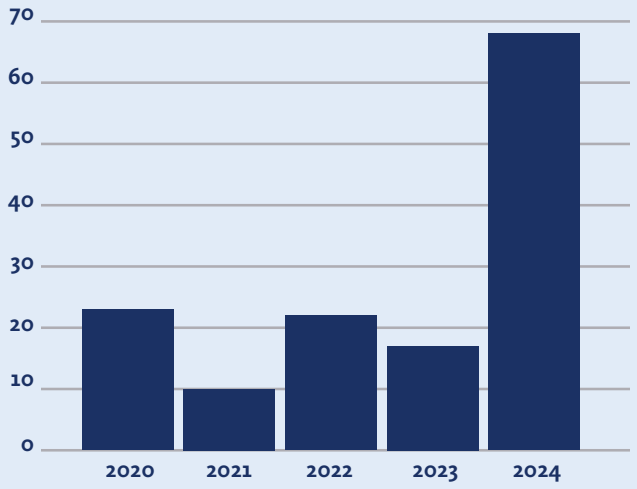
CATCH BASINS CLEANED



CATCH BASINS REPAIRED



MANHOLES REPAIRED



STREET UNIT

STREET UNIT

The Street Unit has a permanent staffing level of fifteen (15) full-time employees and are responsible for the maintenance of over 250 centerline miles of roadway. Their responsibilities also include:

Foreman (1)

Responsible for supervision and operation of all activities and employees within the Unit. Oversight of the Village's Street maintenance and snow and ice control operations and other activities associated with Village streets and rights-of-way.

Crew Chief (2)

Responsible for the daily supervision and oversight of all street maintenance personnel and activities.

Maintenance Worker II (9)

Operate construction equipment and perform asphalt, concrete, paver brick, street sweeping, snow plowing, and other street related maintenance duties. The employees in this position have attained advanced skill levels in performing Street Unit tasks.

Maintenance Worker I (3)

Responsible for assisting with maintenance related tasks.

STREET UNIT RESPONSIBILITIES INCLUDE:

- Responsible for annual street cleaning programs with sweeping equipment.
- Manage and implement in-house and contractual street maintenance programs, such as crack-sealing, Reclamite surface treatment, curb and gutter repair and replacement, and asphalt patching.
- Responsible for managing capital projects related to improving roadway and pedestrian systems from a maintenance standpoint.
- Manage and implement in-house and contractual sidewalk maintenance programs, such as grinding and sidewalk repair and replacement.
- Responsible for updating and refining street and sidewalk maintenance data for use in the Village GIS system
- Responsible for managing and performing snow and ice control operations for the entire department, including salt and liquid material management.
- Manage and monitor weather activities for department and Village related activities, including snow and ice events, special events, wind and rainstorms, and provide reporting on the same, as required.
- Maintain and manage maintenance activities related to the Village-owned parking garages, including daily cleaning and monitoring, snow removal, annual cleaning, and major capital project.
- Manage and staff all traffic control measures needed at all special events, including Alfresco, parades, Village-events, Harmony fest, etc.
- Assist in the cleaning and maintenance of various Public Works facilities.
- Assist in the management and organization of material storage and activities at the Department Annex Yard.



STREET UNIT

UNIT ACCOMPLISHMENTS:

Snow and Ice Control Operations

The 2024 snow season salt usage totaled 5,000 tons of salt, and 33,257 gallons of beet juice used over the course of 9 events in the 2024 calendar year. The data regularly collected to manage the Village's salt usage and tracking continued to improve in accuracy as new and improved equipment have been implemented and incorporated into our regular operations. The Load-Rite scale system has been key to accurate tracking.

The snow fleet traveled a total of 31,222 miles during the 2024 season. This information is critically important to our operation to manage costs related to fuel, vehicle depreciation, and other associated costs.

Due to irregular weather patterns over the 2024 winter season, staff was forced to refocus their efforts on street maintenance. Significant shifts in temperature resulted in greater than normal potholes throughout the Village roadway system. Additionally, due to the warmer winter temperatures, staff was able to continue street sweeping efforts well into December, which results in reduced debris into storm sewer systems. These hybrid efforts reduce the potential for storm sewer and combination sewer backups in the spring.

The Village is divided into 19 zones for snow and ice control. Each zone is assigned an A Team and B Team driver to cover responses 24 hours a day, 7 days a week throughout the winter months. C Team drivers clear the 10 different cul-de-sac zones containing over 300 cul-de-sacs in total.









STREET UNIT



ASPHALT AND PAVEMENT PRESERVATION PROGRAMS

The Streets Team was able to complete the full array of maintenance activities that make up the Unit's Pavement Maintenance Program during the 2024 season. Roadway maintenance is critically important to extending the life of this necessary component of the Village's infrastructure.

To correctly implement pavement management strategies, Administration, Operations, and Engineering work cooperatively to choreograph a variety of different maintenance methods throughout the Village's roadway network. Crack sealing, pavement rejuvenation, patching, edge grinding, and resurfacing are all methods the Village uses at different maintenance intervals to extend the roadways useful life for as long as possible.

RECLAMITE PAVEMENT PRESERVATION

All streets resurfaced and reconstructed are treated on one- and five-year cycles with Reclamite, which is a rejuvenating agent designed to extend the life of asphalt pavements by sealing the pavement from the elements. This pavement maintenance strategy has proven beneficial since the program's inception in 2017.

EDGE GRINDING

One of our most important maintenance activities is the Edge Grinding Program. This program provides improvements to the pavement edges where the asphalt meets the curb. These improvements allow rain runoff access to the flow line of the curb, rather than pooling in front of the curb causing further structural damage to the street edges where buses, garbage trucks, and other heavy vehicles can exacerbate roadway damage.

2024 EDGE GRINDING PROGRAM TOTALS

34,790 square yards,
which resulted in approximately
3,934 tons of asphalt placed.

This program is normally completed in two (2) phases throughout the spring and summer months. We work as a team to comprehensively plan the best areas for this program and ensure efforts are maximized as part of the greater pavement maintenance program. Totals for the months of April and August were nearly 34,790 square yards, which results in approximately 3,934 tons of asphalt placed.

ASPHALT PATCHING

The Street Unit performs hot and cold mix asphalt repairs throughout the year. During the winter months water main breaks and potholes are repaired using cold mix asphalt, as a temporary repair until warmer weather allows for a more permanent restoration. The freeze thaw cycle can have a significant impact on the number and severity of instances for both of these wintertime nuisances. The Public Works and Engineering Department has four heated cold mix asphalt outfitted vehicles available for these repairs. Post winter, Staff inspects all 19 plow zones throughout the Village, making every effort to address any open potholes before moving into summer operations.

During the summer months we focus on permanent asphalt repairs caused by wintertime water main breaks, storm sewer basin repairs and other needed roadway repairs.

STREET UNIT

STREET SWEEPING

Another important maintenance activity performed by the Street Unit is street sweeping, which utilizes three street sweepers that run (generally daily) from April 1st to November 30th, depending on the weather. A sweeper will average from 20 to 30 miles on a typical day. It takes on average 3.5 weeks to cycle through all of the 19 Village zones, depending on the time of year and sweeper availability.

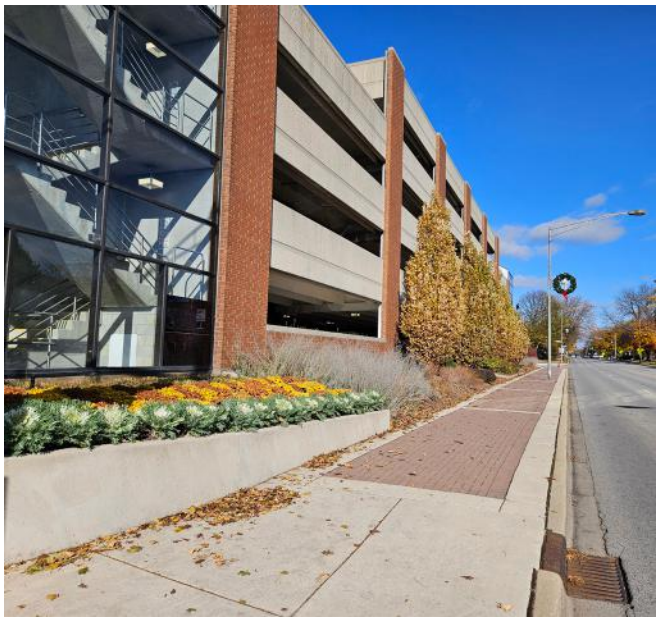
Although performed by the Street Unit personnel, this program is critical to protecting the Village's storm water facilities and storm sewer systems throughout the Village. By regularly cleaning Village streets of leaves and other debris, staff contains this material and keeps it out of storm water system, which helps protect against flooding issues. The Village's Leaf Sweeping Program operates during October and November and requires participation from other Public Works staff for leaf hauling operations. In 2024, the Street Unit swept 11,959 miles of Village roadway.

Street sweepers are also utilized to assist in clean-up operations with programs such as the Crack Sealing Program. Staff assists contractors performing maintenance and capital projects for the Village when necessary. Each winter, staff keeps one sweeper in service in the event of emergency situations, while the others are put away for the season.



PARKING GARAGE MAINTENANCE

Staff is responsible for the maintenance and upkeep of the Village's four (4) parking garages. The Village parking garages are washed down every spring and fall in order to facilitate a cleaner and more user-friendly environment for parking garage patrons. The spring parking garage wash down is also very important in removing residual salt deposits carried into the garage via vehicle traffic during the winter months, which helps to protect the integrity of the structures and increase their lifespan.





SPECIAL EVENTS

This Unit specifically has a significant role in providing support for many of the annual special events held by, and in conjunction with the Village, including; the Memorial Day parade, the Stampede Run, the Frontier Day Festival, the July 4th Parade, the Irish Fest, the Dryden School Block Party, residential block parties, and several Sounds of Summer concerts at Harmony Park. Some of the efforts and responsibilities include race set-up, barricade delivery, road closures, float preparation and driving, and post event cleanup.

CONTRACTUAL REPAIR PROGRAMS

Another responsibility of this Unit is the implementation and management of numerous contractual repair programs related to, sidewalk maintenance, asphalt maintenance, asphalt repair, brick maintenance and pedestrian facility maintenance.

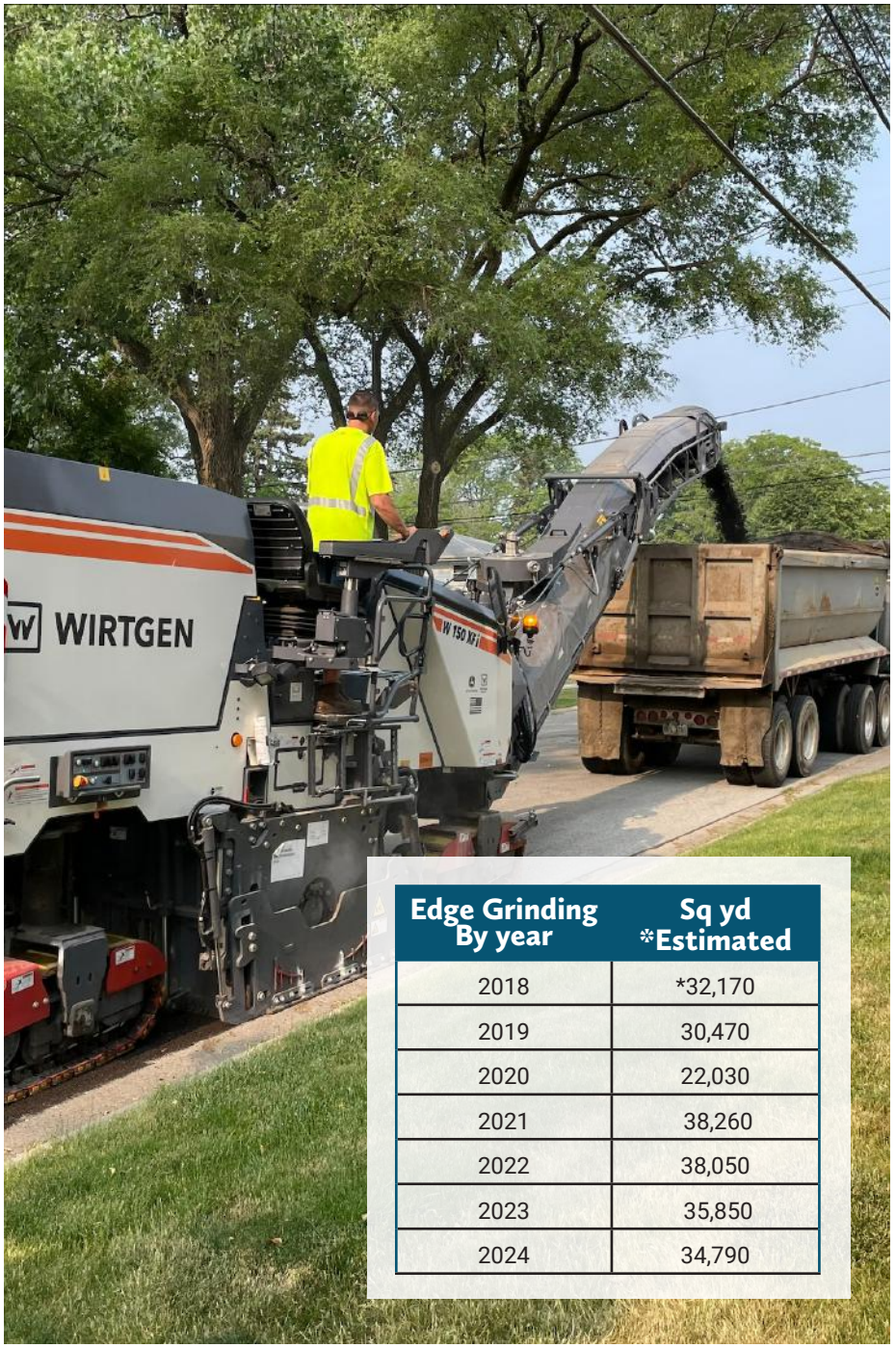
In 2024, these projects covered 1,000 plus separate locations that replaced the following:

- 2,790 yd² of concrete repairs
- 11,294 yd² of asphalt repairs
- 1,730 sidewalk offsets were addressed
- 119,000 lbs. of crack sealant were applied
- 16,000 lbs of mastic joint sealer applied
- 311 yd² of bricks were repaired or replaced

STREET UNIT



MILES TRAVELED DURING SNOW EVENTS 2024	
DATE OF EVENT	TOTAL (MILES)
1/6/2024	1,702
1/9/2024	6,183
1/11/2024	795
1/12/2024	9,505
1/19/2024	2,703
1/22/2024	6,424
3/22/2024	1,183
11/21/2024	862
12/20/2024	1,865
TOTAL EVENTS= 9	31,222 MILES



Edge Grinding By year	Sq yd *Estimated
2018	*32,170
2019	30,470
2020	22,030
2021	38,260
2022	38,050
2023	35,850
2024	34,790

STREET UNIT



TRAFFIC UNIT

TRAFFIC UNIT

The Traffic Unit maintains streetlights, traffic signalized intersections, traffic signs, pavement markings, solar powered disaster warning sirens, electrical systems in Municipal buildings, and fare boxes located in commuter parking facilities. This Unit has a permanent staffing level of seven full-time employees. Their responsibilities include:

Foreman (1)

Responsible for the supervision and operation of the Unit. This Unit maintains all Village-owned streetlights, street and traffic control signs, traffic signals, and building electrical systems.

Crew Chief (1)

Responsible for supervision of Traffic Unit work crews.

Electrician II (3)

Performs maintenance and repair tasks on Village's electrical systems including streetlights, traffic signals, building electric systems and all other Village electric systems.

Electrician I (1)

Under direct supervision, performs maintenance and repair tasks on Village's electrical systems including streetlights, traffic signals, building electric systems and all other Village electric systems.

Maintenance Worker II (1)

Fabricates, installs, and replaces Village traffic control signs, street signs, and pavement markings.

REPAIR / INSTALLATION TASKS & REQUEST RESPONSE

- Traffic signal maintenance
- Street light maintenance
- Electrical maintenance in 17 Village-owned buildings
- Warning siren maintenance
- Sign manufacturing
- Sign maintenance
- Pavement striping
- Holiday lighting
- Graffiti removal
- Special Events
- Utility Locate
- Snow and Ice Removal

In addition to the items listed below, this Unit is tasked with maintaining approximately four thousand (4,000) streetlights throughout the entire Village. This includes the lighting foundational systems, structural components, and all of the associated wiring systems. Fifteen (15) signalized intersections, seventeen (17) municipal buildings, and approximately thirteen thousand (13,000) regulatory roadway signs.

In 2024, crews installed:

4,000 streetlights

15 signalized intersections

17 municipal buildings

13,000 regulatory roadway signs



TRAFFIC UNIT

HIGHLIGHTS – TRAFFIC AND ELECTRICAL

- Traffic unit personnel installed conduit, and wiring to supply power for a new welder in Garage 3 at the Public Works facility.
- Traffic unit personnel upgraded all of the exterior lighting at the Arlington Park train depot. The lights were converted to Light Emitting Diode (LED) type fixtures which will run more efficiently and consume less power.
- Traffic unit personnel upgraded the lighting in the Emergency Operations Center (EOC) located in the basement at Fire Station # 2. Existing Fluorescent type fixtures were removed and replaced with Light Emitting Diode (LED) type fixtures. In addition to the lighting upgrades, personnel also relocated and installed additional 120-volt power feeds to service equipment needed during an emergency operation.
- Traffic unit personnel completed the 2024 portion of the LED streetlighting upgrade project. Staff installed two hundred sixty fixtures along arterial roadways and upgraded an additional seventy fixtures in the Scarsdale neighborhood.
- Traffic unit personnel completed the electrical set up for Harmony fest, and for the Taste of Arlington Heights. Staff provided power for stage sound and lighting, power for the nineteen restaurants in attendance, and tent lighting and power for the vendors.



- Traffic unit personnel installed new control stations for the liquid deicing pumping equipment located at the Public Works facility.
- Traffic unit personnel install twenty-seven new streetlight poles in 2024. Twenty-two were the result of the poles being damaged by vehicles.
- Traffic unit personnel completed repairs to several conduit systems servicing lighting, and HVAC equipment in the garage at the Public Works Facility. The conduits were damaged during the new roof installation at the facility. Screws had been run into the conduit systems damaging the conductors. New conduits were installed along with new wiring to bring the equipment back to functionality.
- Traffic unit personnel installed a new two-hundred-amp overhead service to Com Ed on the Mueller House at the Historical Museum site. The existing service was damaged by a fallen tree during a severe storm.
- Traffic unit personnel worked on lighting improvement projects at both the Senior Center, and Fire Station #2. Existing fluorescent light fixtures were replaced by LED type fixtures. Staff installed one-hundred sixty-four fixtures at the Senior Center, and one-hundred ninety- six fixtures at Fire Station # 2 in total.
- Traffic unit personnel completed a project in the plaza near the clocktower. New LED fixtures were installed on the light poles, and new power feeds were trenched to all of the new tree locations to service holiday decorations.
- Traffic unit personnel installed three additional Electric Vehicle (EV) charging stations at the Municipal parking garage to service village vehicles. New conduit, wiring, and control stations were installed.



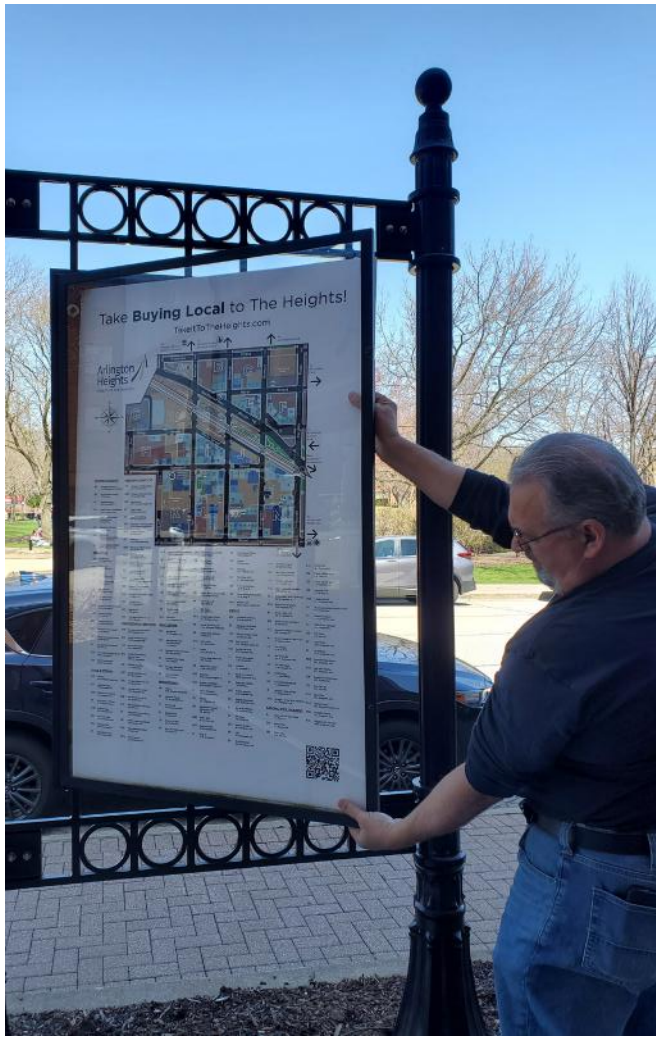
Conduit Repair

TRAFFIC UNIT



HIGHLIGHTS - SIGNAGE

- Sign Shop personnel completed a project with the Engineering department addressing speed limit ordinances throughout the village. New signs were fabricated and installed at various locations to ensure proper coverage, and existing signs were replaced with larger signs per the village traffic engineer.
- Staff installed approximately seventy-five signs pertaining to the Alfresco dining area downtown. These would include detour, curbside pickup, handicap, and general information signage at all entry points.
- Staff installed approximately three hundred fifteen signs in the neighborhood surrounding the Frontier Days Festival area. Signs included parking restriction, handicap parking, and one-way/ do not enter signage that established new traffic patterns around the fest. These signs were all removed at the conclusion of the fest.
- A new ordinance was passed regarding additional stop signs throughout the HANA neighborhood. Staff installed fifty stop signs at various locations. In addition to the stop signs, staff also installed warning flags and advanced warning signage to help motorists identify the need to stop at the effected intersections. Flags and warning signs were removed after three months.
- Personnel assisted the Street unit with the removal of broken mailbox posts from the ground that had been damaged during snow removal operations. The post puller on the sign truck made this task easier to accomplish. New mailboxes were then installed.
- Staff fabricated and installed construction informational signs at various locations including the water tank removal project at Public Works and the lot resurfacing project at the Egg Harbor parking lot.
- Sign shop personnel fabricated thirty “Work Zone” warning signs for the Street unit. These signs are used during the unit’s street grinding, and paving projects.
- Staff installed new pavement markings for the CDL driver test course layout at Melas Park. This course is used for practice, and for the driving skills final exam for employee’s testing for their CDL Class A license.

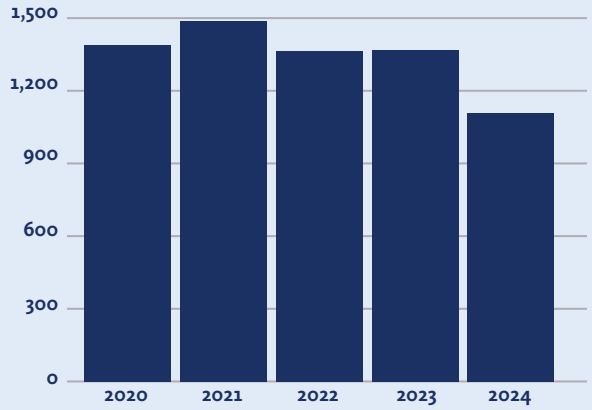


TRAFFIC UNIT

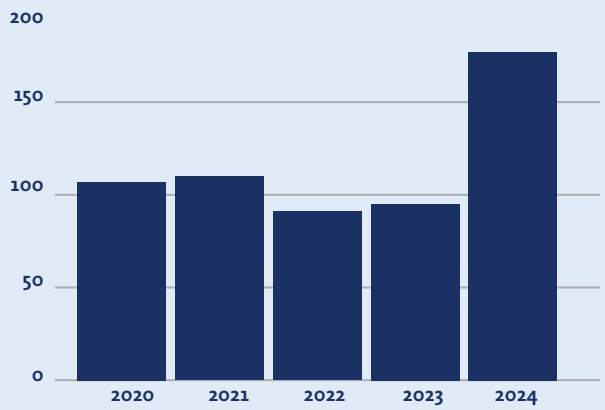
TRAINING & CONTINUING EDUCATION

- The Unit continue to hold weekly safety training meetings (tailgate talks) to discuss various safety related topics ranging from upcoming projects involving staff, to basic safety practices for all types of situations. The benefits of these meetings are that they identify potential hazards our staff may be faced with during a regular so that safe practices are always at the forefront.
- Employees in the Traffic Unit are electricians that regularly participate in continued education classes to maintain and hone their skills.
- Additionally, Staff regularly participates in continuing education in order to maintain International Municipal Signal Association (IMSA) certifications, which are required to work on traffic signals, roadway signs, and pavement markings.

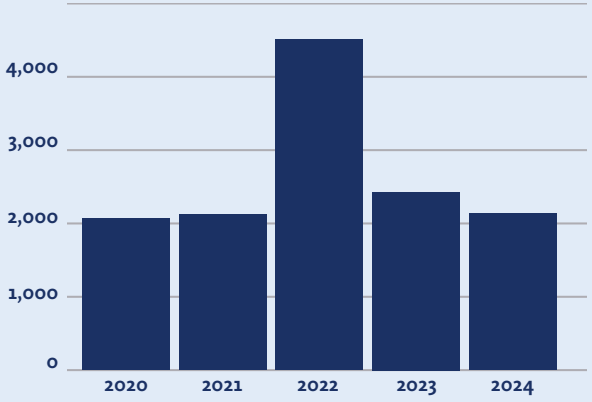
STREET LIGHT REPAIRS / INSTALLS



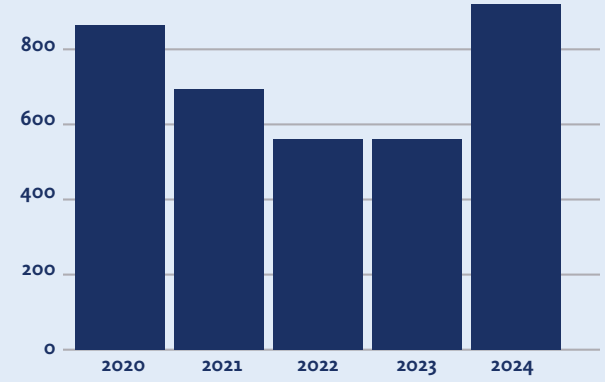
TRAFFIC SIGNAL REPAIRS



SIGN MAINTENANCE / REPAIRS



BUILDING ELECTRICAL REPAIRS







WATER DISTRIBUTION UNIT

WATER DISTRIBUTION UNIT

This Unit has a permanent staffing level of eleven (11) full-time employees outlined below, responsible for emergency response and maintenance of the Village's potable water distribution system.

Foreman (1)

Responsible for the supervision and operation of the Unit. This Unit performs all maintenance and repairs on the Village's potable water distribution system including water mains, fire hydrants, valves and vaults, buffalo boxes and other water system related appurtenances.

Crew Chiefs (2)

These individuals supervise the activities of work crews.

Maintenance Worker II (5)

Responsible for all required equipment operation and maintenance related tasks.

Maintenance Worker I (3)

Responsible for assisting with all maintenance related tasks.





WATER DISTRIBUTION UNIT ACTIVITIES INCLUDE:

- Water Main Repairs
- Main Water Valve Exercise, Repair, and Replacement
- Fire Hydrant Flushing, Repair, Replacement, and painting
- New Water Service Line Repair/Replacement
- Customer Water Shut Offs
- Water Billing Shut Offs
- Buffalo Box Repair/Replacement
- Water Utilities Locates
- Snow and Ice Removal
- Water Leak Detection
- Public Lead Service Line Replacements

The Water Distribution Unit is responsible for performing all required maintenance and repairs on Village-owned water mains (a total of 232 miles within the Village limits). The Unit is responsible for all residential water service taps to ensure a compliant connection to the Village's water system. They are also responsible for keeping an estimated 4,350 fire hydrants and 3,400 main line valves throughout the Village in working condition, through performing and managing annual maintenance programs.

Water main breaks are an inevitable challenge in maintaining an aging infrastructure Over the past year, the Village of Arlington Heights addressed a total of 280 water main breaks. Notably, 53 of these occurred between December 1 and December 31, driven largely by fluctuations in weather. Of these, 26 required after-hours emergency responses, highlighting the unpredictability and urgency of such incidents. Emergency response by the Water Distribution Unit has become a routine aspect of daily operations, showcasing the team's readiness and unwavering commitment to swiftly addressing and repairing breaks to ensure the continuous functionality and integrity of the water distribution system.

WATER DISTRIBUTION UNIT

UNIT ACCOMPLISHMENTS IN 2024

- The Water Distribution Unit responded to and repaired 280 water main breaks in 2024, with just approximately 35% of them being after hour emergency responses.
- Staff managed the annual leak detection contract that surveys the Village's water system and to locate water main leaks, hydrant leaks, and service leaks that are either hiding underground or to assist in pinpointing the locations of leaks that show up on the surface.
- Thirty-nine (39) new water services were installed for new construction projects throughout the Village.
- In April and early May, the unit completed the annual Fire Hydrant Flushing Program. Hydrant flushing is done to ensure fresh clean water in the system. At the same time, staff inspects each hydrant, both public and private, to verify they are in good working order. Hydrant flow test records are checked regularly by the ISO to help determine our fire department's class rating. These ratings are based on a 1 through 10 grading system, 1 being the best rating and 10 the least.
- Annually, the Village contracts a private company to paint fire hydrants. As part of their work, they strip all old paint by sand-blasting, prime, and then paint the hydrant. This method provides a better, more reliable result than the previous practice of utilizing seasonal employees, which resulted in paint build-up that affected hydrant operation.
- During hydrant flushing, thirty-seven (37) hydrants repairs were completed and three (3) were completely replaced. This season there was where eleven (11) water main break caused from hydrant flushing, which is a reflection on well-trained, cognizant staff efforts.
- During the flushing season, crews flush approximately 3,320 public hydrants and 850 private hydrants. The Water Unit manages this inter-department operation that takes about 10 days of crews working back-to-back 12-hour shifts.



WATER DISTRIBUTION UNIT



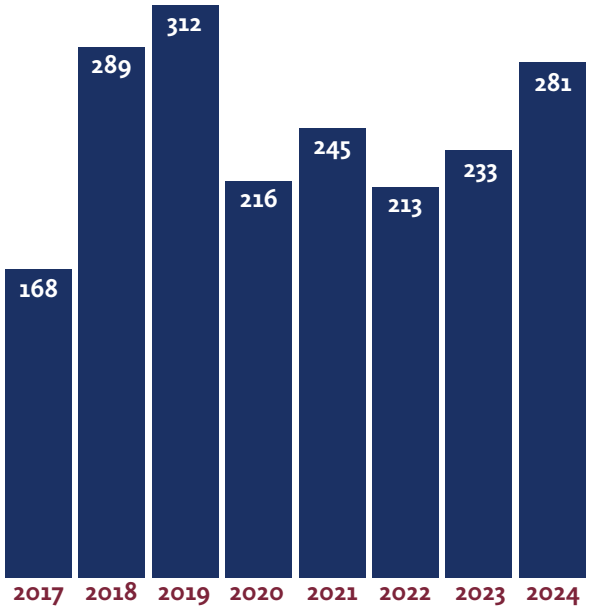
UNIT ACCOMPLISHMENTS IN 2024 (continued)

- Due to an increase in water main breaks on private property this past year. Staff assisted numerous contractors in shutting down and locating water mains and valves to allow repairs to be completed.
- This Unit responded to 141 emergency water service shut offs for both public and private repairs.
- Working with the Meter Unit and Finance Department, our team performed 140 Non-payment water shut-offs.
- Water Distribution Unit has been collaborating with the Water Meters and PMI to locate and repair b-boxes for the ongoing meter replacement program.
- In response to the Lead service replacement program mandated by the State, we began a program that sought to replace 100 water services. That goal was met and exceeded expectations, as the unit was able complete 133 service improvements in 2024.
- This year's water main replacement program consisted of 9890.2 feet of C909 (Molecularly oriented polyvinyl chloride) ranger, from 6", 8" and 10" in Diameter and 420 feet of 10" (high-density polyethylene). HTPE. C909 was chosen to extends the life span of the infrastructure, and reduce the number of repairs due to water main breaks.
- Staff collaborated with contractors to relocate the 10" water main on E. Rockwell St, from S. Belmont Ave. to S Burton Pl. This relocation was necessary to facilitate storm sewer improvements in the area. Staff were on-site to assist contractors with shutdowns and ensure smooth operations through the process.
- Our unit located and collected data related to b-boxes on Euclid Ave, from Northwest Hwy, to Waterman Ave. for the upcoming 2025 water main replacement program.
- The Staff met with the Village's consulting engineer to finalize water main installation plans for the 2025 Water Main Replacement Project, planned for Euclid Ave.
- This past year Water Distribution participated in a number of community outreach events including the 4th of July Parade, Touch A Truck, and the Village's Public Safety open house.

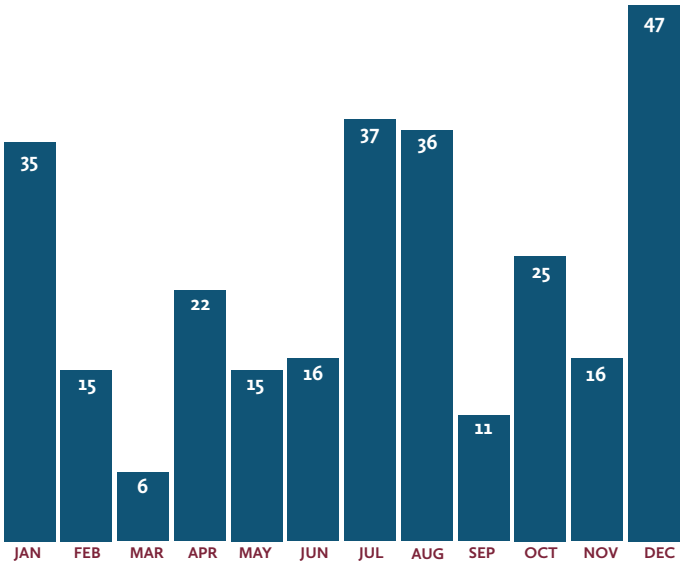
WATER DISTRIBUTION UNIT

WATER MAIN BREAKS BY YEAR





2024 WATER MAIN BREAKS BY MONTH







WATER METERS UNIT

WATER METERS UNIT

This Unit has a is responsible for the maintenance, management, repair, and replacement all Village water meters (approximately 22,000) and all backflow devices. This Unit has a permanent staffing level of three full-time employees and one part-time employee.

Water Service Supervisor (1)

Responsible for supervision and operation of the Unit including all potable water meter related maintenance and customer contact.

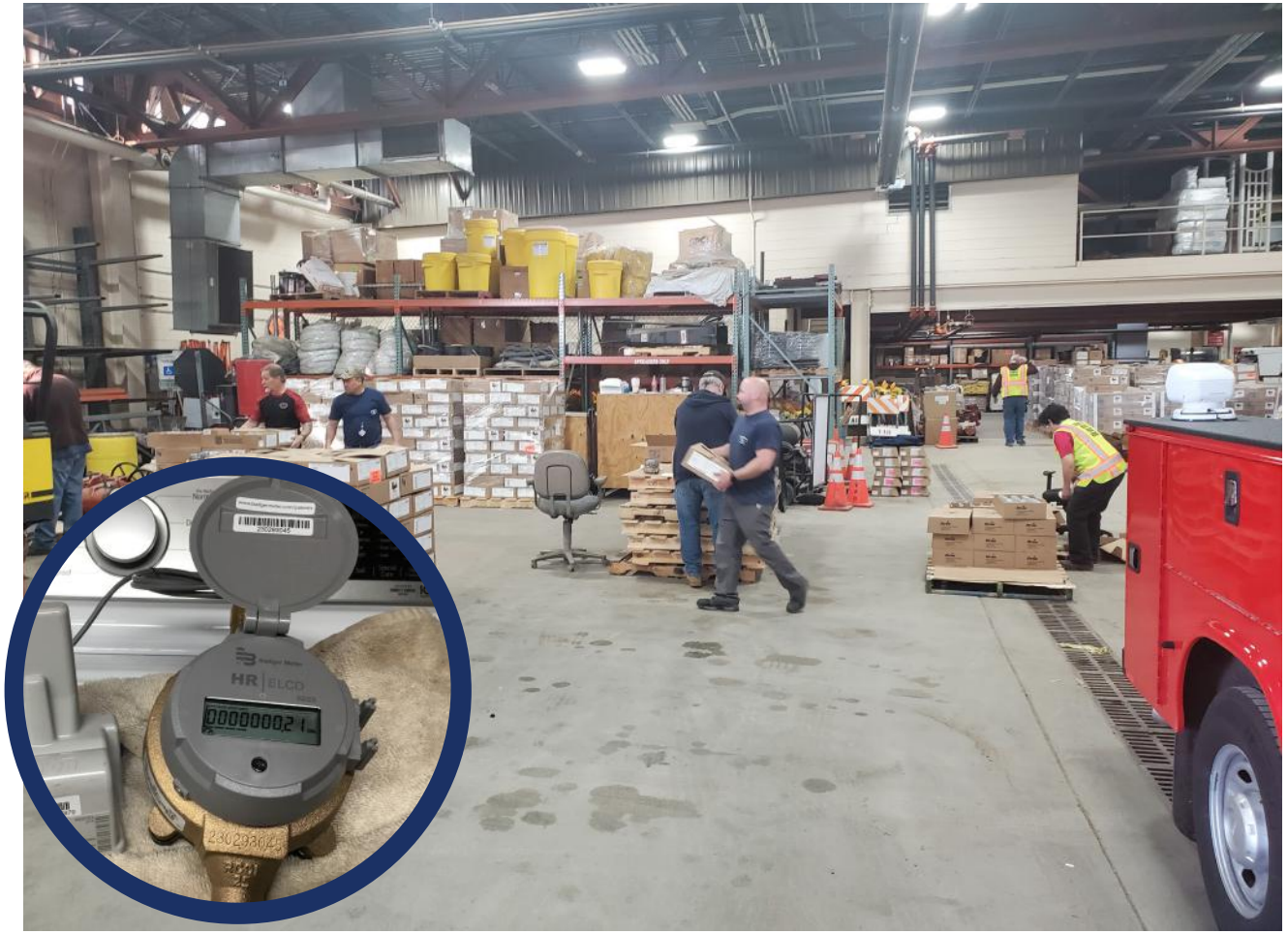
Water Meter Technicians (2)

Responsible for commercial reading and repair of residential and commercial water meters and related devices.

Part-Time Meter Reader (.5)

Responsible for reading water meters, refurbishing meters, and data entry.





WATER METER SERVICES ROLES AND RESPONSIBILITIES

The Water Meter Services Unit is responsible for maintaining and reading over 21,537 water meters every other month. The Unit obtains hundreds of final meter readings during the year, which happen as a result of real estate transactions and property sale closings.

This operation is one of the most “customer service focused” Units in the Department. They perform approximately 750 residential and commercial meter appointments every year for issues such as; high consumption, low consumption, final meter reads, vacant property inspections, frozen meters, rereads, and meter repairs.

The team is also valued members of the Public Works and Engineering Department Snow and Ice Control Operations.

WATER METERS UNIT

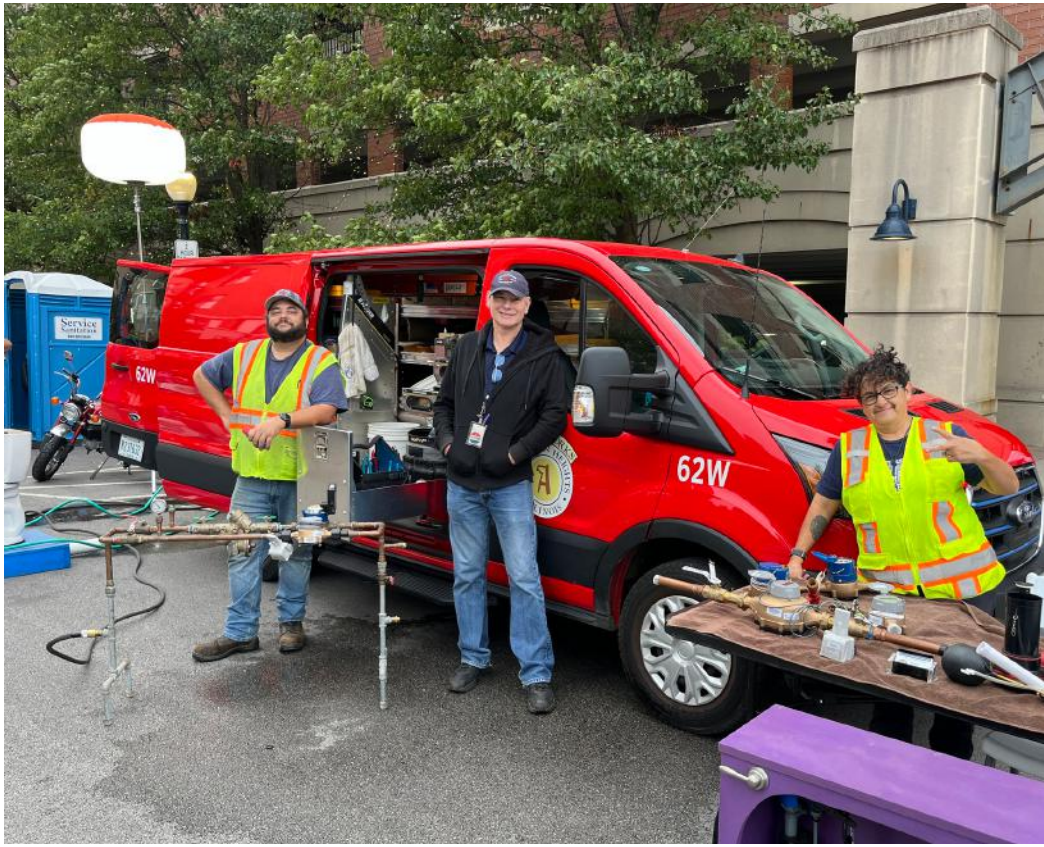
MAJOR PROJECTS AND ACCOMPLISHMENTS

COMMERCIAL METERS

The Village has a long-term program that has programmed replacing all Commercial meters over the course of the next decade, or so. These recent replacements have been challenging due to supply chain issues that delay orders significantly. These types of failing meters are always prioritized, followed by the oldest meters, because older meters tend to record usage at a less accurate rate. Accurate meter reading is important to all residents to ensure that the Village collects the appropriate fees necessary to pay for the water supply.

Staff has to give special attention to underground (pit) meters that are difficult to service and reside in hazardous environments. Many meter pits are filled or partially filled with ground water. Although meters and endpoint radios are sealed or “water tight” the wired connections are not. Underground meters need to be visually checked for wiring failures annually. the process of water meter field testing is performed by comparing a meter to a certified accurate meter. Water must be run through the tested meter and certified meter via a test valve to confirm accuracy. Village staff and contractors must be trained in confined space entry and be ever vigilant to safety hazards like corrosion on worn-out pipes and valves. Whenever the opportunity presents, staff tries to eliminate pit meters and upgrade to new electronic meters.





COMMUNITY OUTREACH

Meter staff appreciates the new collaborative approach taken by the Village of having numerous Village Departments represented at the Open House events. Participation in outreach efforts at Alfresco, the Public Service Open House, and other events and festivities has resulted in great customer feedback. This friendly interaction between Public Works and Engineering Operations and other Village Departments creates a positive experience and motivates staff to continue to upgrade displays and gives the team an opportunity to continue to educate the public about the what, why, and how of our roles.

Recently enhanced visual displays, have been combined with the Water Distribution exhibits to show the public the journey of water from the water main to the residential home. The leaking toilet display has become so popular that other municipalities have visited the Department to mimic the design for their own open house displays. Staff is always working on new ways to engage the public and educate them at the same time.

WATER METERS UNIT

RESIDENTIAL METER REPLACEMENT PROJECT

The Residential Meter Replacement Project is one of the single largest projects the Department has undertaken in several years. The project requires interaction with multiple departments, contractors, vendors, and impacts every single residential property in the Village. The project started as planned in March of 2024 with a small installation crew (contractor).

Staff coordinated the original replacement schedule to the Village billing cycles to ensure billing data, GIS data, and resident impacts were properly aligned. Soon after the project began, as a result of cooperative residents and the ambition of the contractor, the installers were outperforming the original schedule at an unanticipated pace.

While this was good news initially, we soon found that the contractor was outpacing the meter deliveries due to supply chain issues. This caused a shortage of meters that forced a pause in work during the end of the year. This was a welcomed delay for the Unit, because although the project was running smoothly, staff was running from emergency to emergency, addressing issues such as customer issues, broken valves, installation problems, emergency shut offs, repairs, and addressing existing, but non-compliant plumbing alterations. However, the most integrate and complex problems staff has been addressing is newly designed furnaces, water heaters, and other home mechanical equipment installed in such a way as to make access to the water meter nearly impossible. Fear not, our staff was up to the challenge and will continue to address these and other concern in the coming year. Staff is maintaining a list of these “unserviceable meters” and will address those slowly, over time.

Overall, the meter change out went very well over this past year, and after the end of year break to recharge, staff is focused on completing the project on time and under budget. This project will reassure the Village of accurate meter reading and allow staff to focus attention on long term meter issues that have been deferred due to other pressing priorities, including chronically vacant houses and suspected broken meters.

Once completed and the new system is up and running, Village water customers will have access to a user-friendly system that will allow them to track their water usage and avoid potential leaks that result in high bills, among other system benefits.

Newly purchased and installed meter relays water usage to ERT through a hard wire



Newly purchased and installed ERT attached to meter sends read wirelessly to any nearby ComEd electric meter



Existing ComEd meter captures water meter data and sends it wirelessly to Village data source

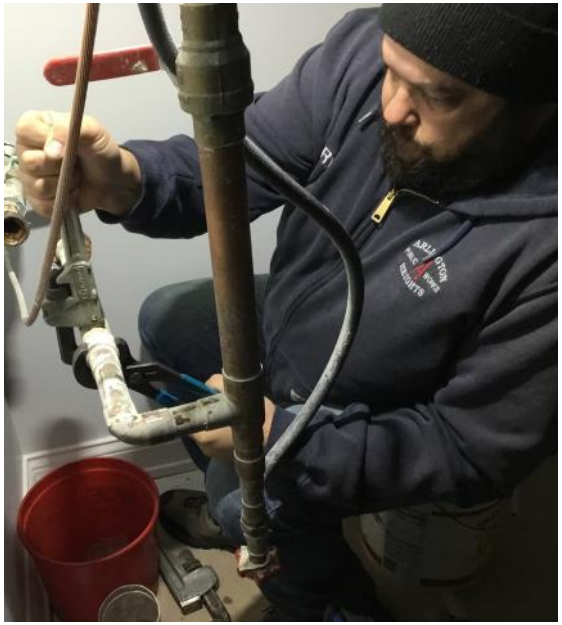


Data is reflected on Itron software interface and utilized for billing, reporting analysing, etc.



WATER METERS UNIT





METER SERVICES BY THE NUMBERS:

21,132 meter accounts

117,744 residential meter readings for water billing

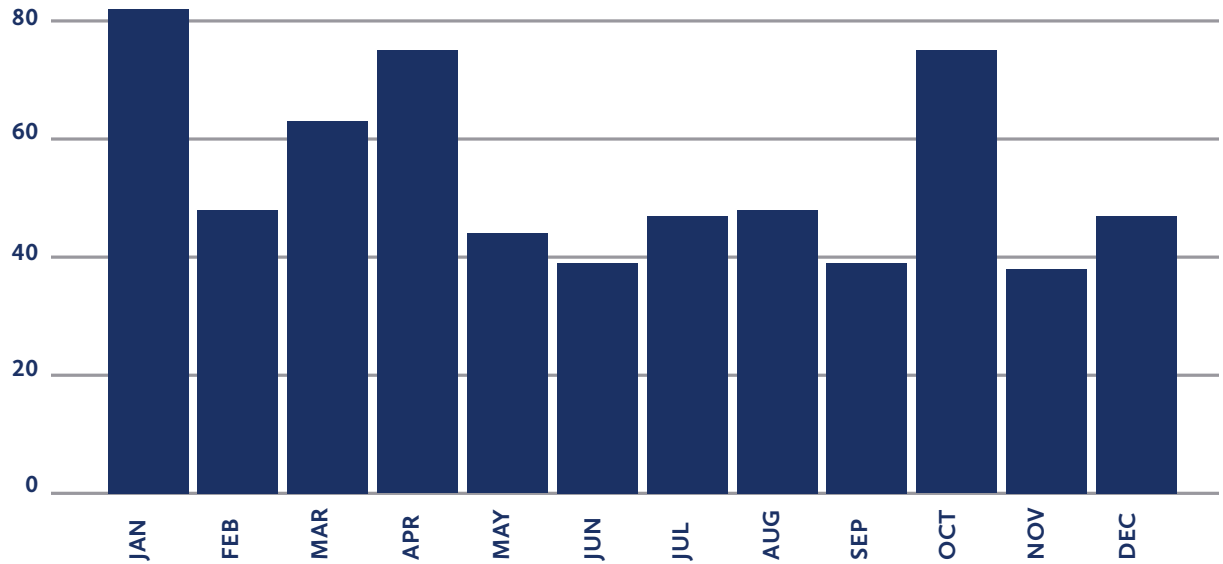
9,048 commercial meter readings for water billing

304 meters changed out

70 vacant homes monitored for changes and occupancy

75 addresses under some form of construction

WATER METER APPOINTMENTS BY MONTH





WATER PRODUCTION UNIT

WATER PRODUCTION UNIT

The Water Production Unit is responsible for the Capacity, Management, Operation, and Maintenance (CMOM), of all potable water sanitary and storm systems, including; backup water and power supply systems, with the exception of the underground distribution system. Additionally, staff is responsible for the Village's water quality testing and reporting, monitoring for low voltage, electronic needs (audio-visual) and Municipal phones for the Village. Water Production has a permanent staffing level of eight full-time employees.

Foreman (1)

Responsible for the supervision and operation of the Unit. This Unit responds to all daily after hour response calls and maintains; all Village-owned above ground potable water infrastructure, backup power supply systems, above ground storm and sanitary infrastructure, and building voice, audio, and video systems.

Pump Operators (6)

Respond to after hour emergency call-outs, performs maintenance and repairs on Village's water infrastructure systems including pumps, motors, generators, and performs water sampling and other mandated duties.

Electronics Technician (1)

Responsible for planning, repair, maintenance, and installation of systems and equipment related to phone, audio, and video components throughout the Village. Maintains and manages the programming needed for the SCADA system.

WATER PRODUCTION UNIT RESPONSIBILITIES

- Maintaining, monitoring, interpretation, and operation of the Supervisory, Control and Data Acquisition (SCADA) system.
- Water sampling and certified lab testing.
- Record keeping and submittal to meet Illinois Environmental Protection Agency (IEPA) reporting requirements.
- Monitoring and maintaining automatic chlorine dosage equipment.
- Pump and valve maintenance and repair.
- Daily monitoring, maintenance, and cleanup of twenty-one water, storm, and sewage pumping stations.
- Timely response to citizen inquiries regarding water quality.
- Maintenance, troubleshooting and weekly exercise of twenty-four emergency backup generators for Village facilities.
- First responders for Public Works "after-hours" emergency service requests.

Water Production Unit's Pump Operators are Illinois Environmental Protection Agency (IEPA) Certified Class "C" Water Operators. Water samples are collected weekly and in conjunction with IEPA ordered mandates throughout the Village and then analyzed at an Illinois Department of Public Health (IDPH) certified laboratory. Reports are then forwarded to the IEPA as required by law.



WATER PRODUCTION UNIT

ADDITIONAL RESPONSIBILITIES INCLUDE THE OPERATION AND MAINTENANCE OF THE FOLLOWING:



- The municipal telephone and voice mail systems including eight (8) phone systems, two (2) voice-mail systems and two (2) call accounting systems that support over 700 telephones and lines. These systems provide service for the Municipal Building, Police Building, Public Works complex, Senior Center, four (4) Fire Stations and three (3) parking garages.
- Audio/video, CATV, computer, surveillance camera, door access, alarm, master antenna, and other electronic systems throughout the Municipal Buildings.
- Twenty-four (24) emergency electrical generators at municipal buildings and pump stations. These standby generators range in size from 10,000 watts to 675,000 watts.
- The portable sound system that is used at public events such as the Holiday Tree Lighting ceremony, Holiday Happenings, Autumn Harvest Festival, Independence Day Parade, Memorial Day Ceremony, National Night Out and large public meetings. This sound system is housed and transported in its own 14-foot trailer and is large enough to handle events for several hundred people.
- Staff manages additional systems including CO detection systems, security systems, two-way radios, pagers and cell phones.
- Door access controls at Village Hall, Public Works and the Annex. Duties include installation of control panels and card readers, creation/issuance of keycards to employees, and weekly schedule programming/ backups of the systems.
- Responsibilities include the installation and maintenance of all low and high voltage electrical and electronic equipment at all utility-related facilities.

ACCOMPLISHMENTS INCLUDE:

Staff performs daily rounds of twenty-one potable water, sewer and storm water pumping stations, including chlorination systems to ensure proper operation of system equipment.

- Defective electric unit heaters and thermostats were replaced at various pump stations.
- Crews fixed or replace station heater at station 17, lost creek and evergreen garage.
- Crews replaced the plumbing in the pipe galleries, chlorine rooms and analyzer rooms at Stations 13 and 16.
- Defective submersible pumps were replaced at Lost Creek pumping station and repaired.
- The pond aeration pump was rebuilt at our Hasbrook storm water monitoring station.
- A motor and a motor/pump were replaced with models that are specifically rated to be used with variable frequency drives (VFDs). This continued the replacement program derived from the “Pump and Motor Study”.
- Air release valves, quarter-turn isolation valves and associated plumbing were removed, cleaned, and reinstalled on all thirteen potable water booster pumps. Air release valves and associated piping were replaced on two deep-well pumps and one storm water pump.
- Defective level transducers were replaced at Happ Farm pumping station.
- Crews upgraded controllers and monitoring equipment all through the villages water system.
- The Water Production team load banked generators this ensure that generators can operate when needed.
- The Water Production team rebuilt deep well sheds at stations 13 and 16.
- Crews re-piped deep well lines and upgraded valves at 4 Village Well Houses.



WATER PRODUCTION UNIT





ACCOMPLISHMENTS (CONTINUED)

- Crews fixed bollards for Vail Street Parking Garage.
- Crews fixed the emergency phones at all the Village's parking garages.
- Several members of the Water Production team are working to become fully certified in the operation of the water lab.
- Staff Replaced chlorine and pH sensors after the test results reported that they were out of tolerance.
- The chlorine tank tubing was replaced at all stations. This is maintenance activity performed annually as a safety precaution.
- Biennial preventative maintenance was performed on eighteen (18) emergency standby power generators, and battery replacements were performed on six (6) of the units.
- Team members completed troubleshooting and performed twenty-one (21) repairs on the generators for items such as: radiator, gas solenoid, fuel metering module, block heater, coolant level sensor, belts and hoses.
- Staff worked to replace several critical deep well valves that were not working properly at stations 11, 13, and 16.
- Staff also performed pressure washing of the water supply tanks located at the Public Works Facility.
- Water production worked to fix historian server migration and upgrade. This project was necessary as the previous historian (data collection) server had crashed.
- Crews worked on Public Works Training Room AV System upgrade to improve the ability for presenters to connect to audio/video equipment more easily. The new system allows for all types of device connection the new video equipment is slightly larger and added the sound from the screen presentations to be much better overall.
- Staff worked on the Senior Center AV System upgrade, enabling the team a chance to clear up many historical problems that had been plaguing Senior Center Staff for a long time. By installing a new AV cabinet, several problems were eliminated including; screeching noises from the overhead speakers, video problems, screen problems and microphone problems.
- Crews worked on Fire Station 2 EOC Phone System Upgrade requiring the replacement of an antiquated phone system in the emergency operations center, due to the age of the system, portions of which dated back to nearly 1997.

ADDITIONAL WATER PRODUCTION TASKS COMPLETED 2024

794 - Off Hour Service Calls (Duty Callouts)

141 - SCADA System Alarms, Maintenance, Upgrades, Programming

432 - Phone Systems Upgrades and Requests

314 - Audio and Video Upgrades and Repairs

131 - Water System Repairs

1,331 Water Samples Collected

74 - Emergency Generator Maintenance and Repairs



WATER PRODUCTION UNIT

In addition to the potable water supply, Water Production personnel maintain seven sanitary lift stations and six storm water pumping stations. All of these stations require removal of mud, stone and other debris that continually builds up in the bottom of the wet wells. Proper safety procedures are of utmost importance to ensure crews safety when shoveling and vacuuming out the debris from wet wells that range from twenty (20) to forty (40) feet below grade. This procedure occurs two to three times a year at each Station. Additional debris removal occurs occasionally when pump repairs or heavy rain conditions dictate the need. The removal of debris is accomplished with coordinated efforts between Water Production and Sewer Unit personnel and equipment.

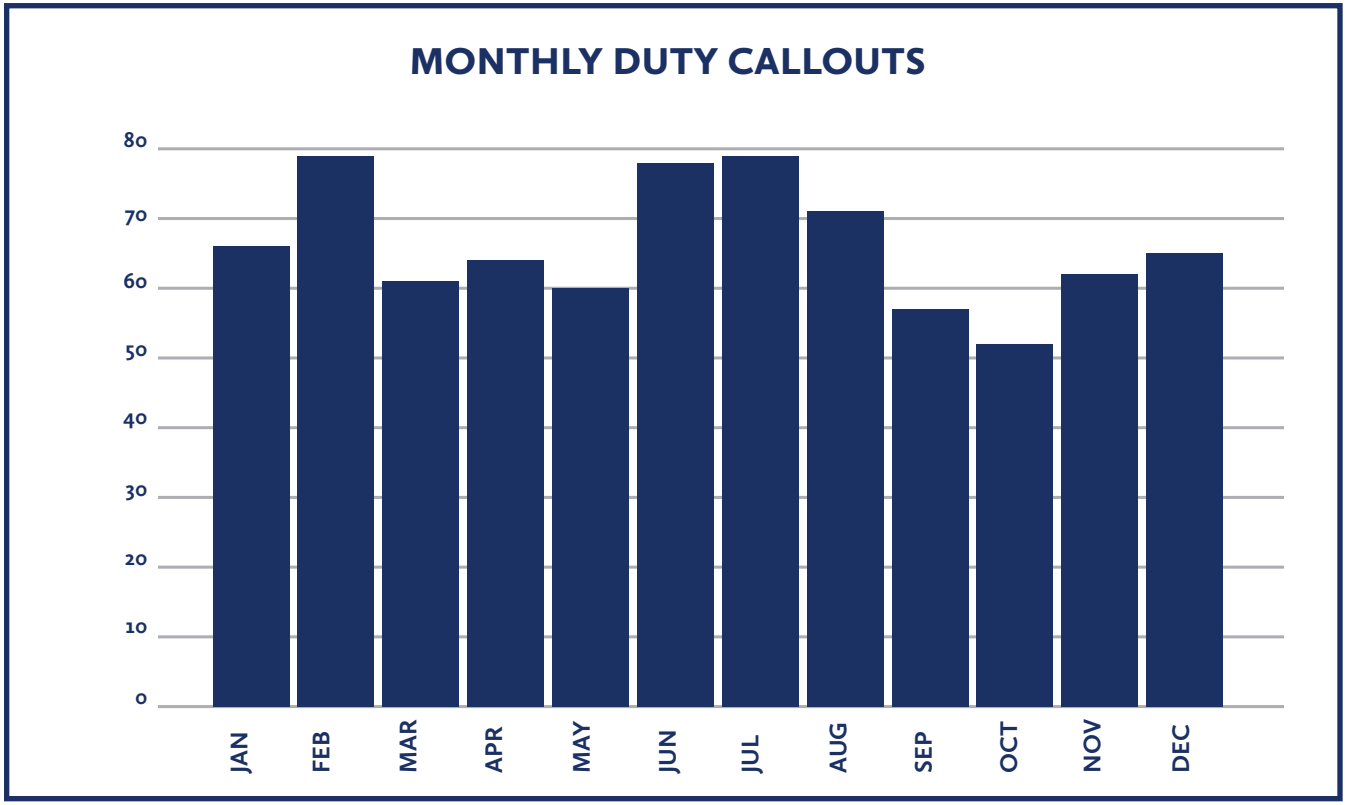
- Forty-eight pump failures were investigated and repaired at the Village's sanitary pumping stations.
- The Sewer Unit assisted our crews in the cleaning of twelve storm water and sanitary pumping station wet wells, including storm water inlets and wing walls.
- Two defective pumps were replaced at Greenwood storm pumping station.
- Crews replaced piping and valves at Lost creek lift station, that where corroding.
- Crews replaced an automatic transfer switch at Terramere sanitary lift station.



SPECIAL PROJECT

During an evaluation of the two-million-gallon tank located at the Public Works Facility, it was determined that significant structural repairs were need in an excess of three million dollars to rehabilitate it. Staff and Engineering consultants determined that the necessary repairs were cost prohibitive. Further analysis was completed and water supply evaluations for current and future water supply needs, average daily consumption, and maximum daily consumption were completed. Both staff and engineers agreed that decommissioning the large tank at a significantly reduced rate was the most cost-effective path and would result in little or no impact on the Villages water supply.

As part of the project crews completed valve upgrades at Station 17 Wellhouse and oversaw the re-piping of the Water Commission lines to the station. Station 17 west tank was decommissioned, while the station 17 south tank underwent rehabilitation, including repainting and the installation of a level transducer. The two-million-gallon tank was demolished and piping was re-routed to the two one-million-gallon tanks. Lastly, the final component of the project involved painting a one-million-gallon tank, also located at the Public Works Facility.





VILLAGE OF ARLINGTON HEIGHTS
PUBLIC WORKS & ENGINEERING
222 N. RIDGE AVENUE
ARLINGTON HEIGHTS IL 60005
847.368.5800
WWW.VAH.COM