



VILLAGE OF
ARLINGTON HEIGHTS
PUBLIC WORKS

ARLINGTON HEIGHTS

2019
ANNUAL
REPORT





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DIRECTOR'S NOTE



The Village of Arlington Heights is proud to present our 2019 Annual Report.

The Department had a record year in 2019, as far as capital spending was concerned. In addition to our normal routine maintenance responsibilities, the Department completed two major stormwater control projects, our first watermain lining project, and increased funding in both our street re-construction and re-surfacing programs.

The two stormwater control projects were the first projects funded by the "Stormwater Utility Fee" implemented in 2017. The first project was the Cypress Area Project, which included the installation of larger stormwater pipes, and the excavation of a dry bottom basin, at the Village-owned property located on Cypress Avenue, west of Arlington Heights Road. This project also included a watermain lining project in the same general area, followed up by the re-construction of the streets where large stormwater pipes were installed.

The second stormwater project was completed in the Downtown area, west of Arlington Heights Road, and south of Northwest Highway. This project included the installation of larger storm sewer pipes, relocation of some watermain, and patching of the disturbed pavement areas.

The Department continued to increase our Public Outreach in 2019, which included numerous public meetings for residents and businesses relating to our capital projects.

Our Administrative staff continues to provide a high level of phone support and dispatching. Field personnel maintain their superior customer service by representing our Department's core values of honesty, integrity, respect of others, empathy to the customer's perspective, and a commitment to doing what is right.

On behalf of the Department, we want to thank the residents and merchants in these areas for their patience during this necessary work. Both projects created a lot of dust and inconvenience, and as usual, our residents and merchants proved themselves to be practical with their expectations, in relation to the necessary disruptions this work caused.

As Director, I hope that the following summary of our 2019 activities is informative and reflective of the high quality of service we strive to provide.

*Scott Shirley, PE
Director of Public Works*





DEPARTMENT OVERVIEW

The responsibilities of the Public Works Department include the design, maintenance, and repair of all Village infrastructure, properties and equipment.

The ten (10) 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.

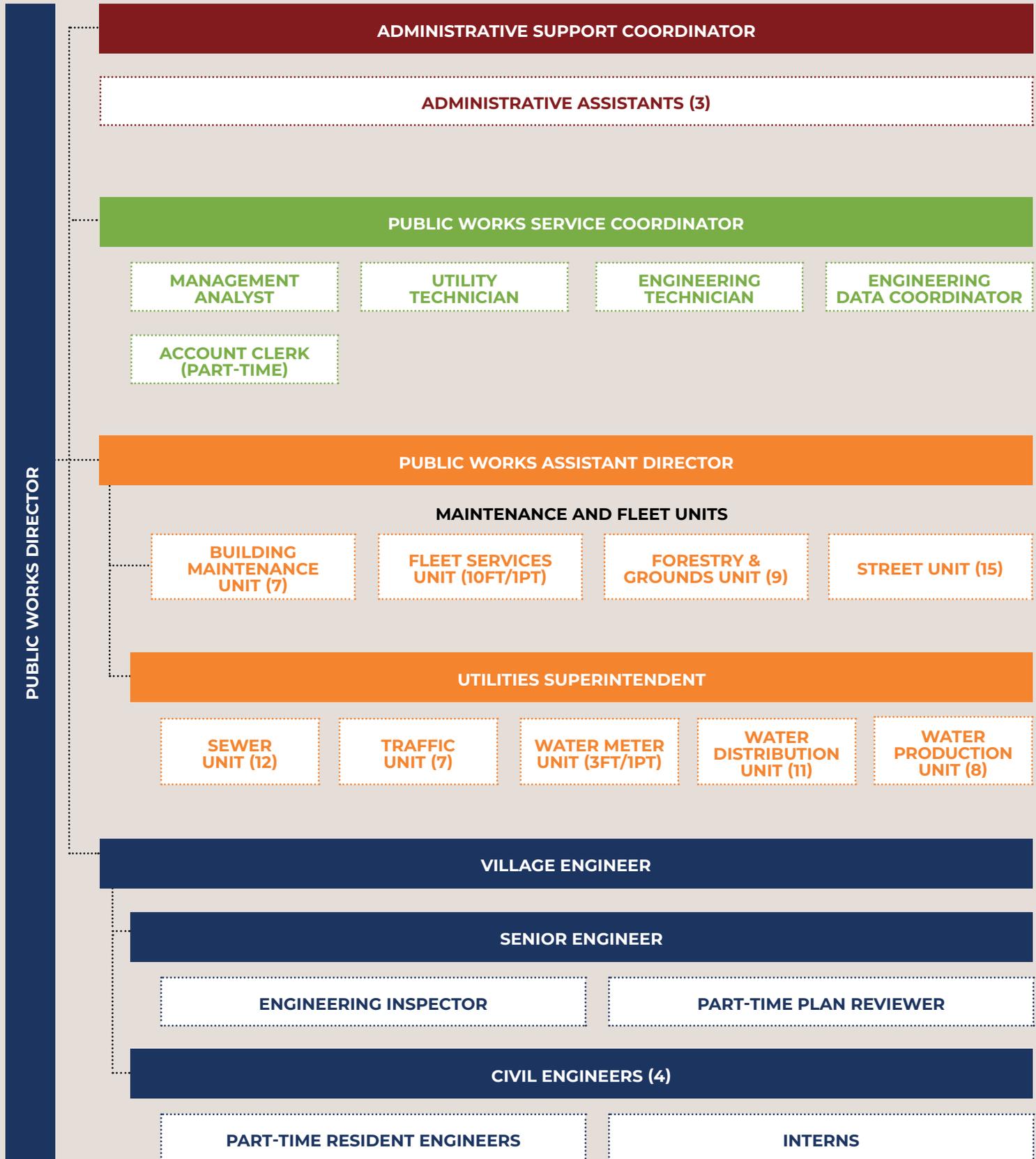
Total staffing includes one-hundred and one (101) full-time employees and three (3) permanent part-time employees.

During the summer months, an additional 15-17 seasonal employees, and three (3) interns are hired to assist crews with outdoor maintenance activities. The following report sections summarize the 2019 activities of the ten Operating Units and the Administrative Staff supervising the Department.



ADMINISTRATION

The Public Works Department is administered by a full-time staff of twenty (20) employees, one (1) part-time employee, and several seasonal employees.



FINANCIAL OVERVIEW

OPERATING BUDGET

The Public Works Department is funded by four separate cost centers: Maintenance, Utility, Fleet, and Parking. The operating budget funds the day-to-day routine maintenance activities.

MAINTENANCE

Responsible for all municipally owned streets, sidewalks, trees and landscaping, buildings and grounds, street lights, and traffic signals.

Total budget for 2019: \$14,973,000

FLEET

An internal service fund for fleet operations. Provides maintenance and replacement schedules for vehicles and equipment within the Village fleet.

Total budget for 2019: \$2,315,200

UTILITY

Operations of the water distribution, production and storage system, water meters, sanitary sewage, collection systems and the storm water collection system.

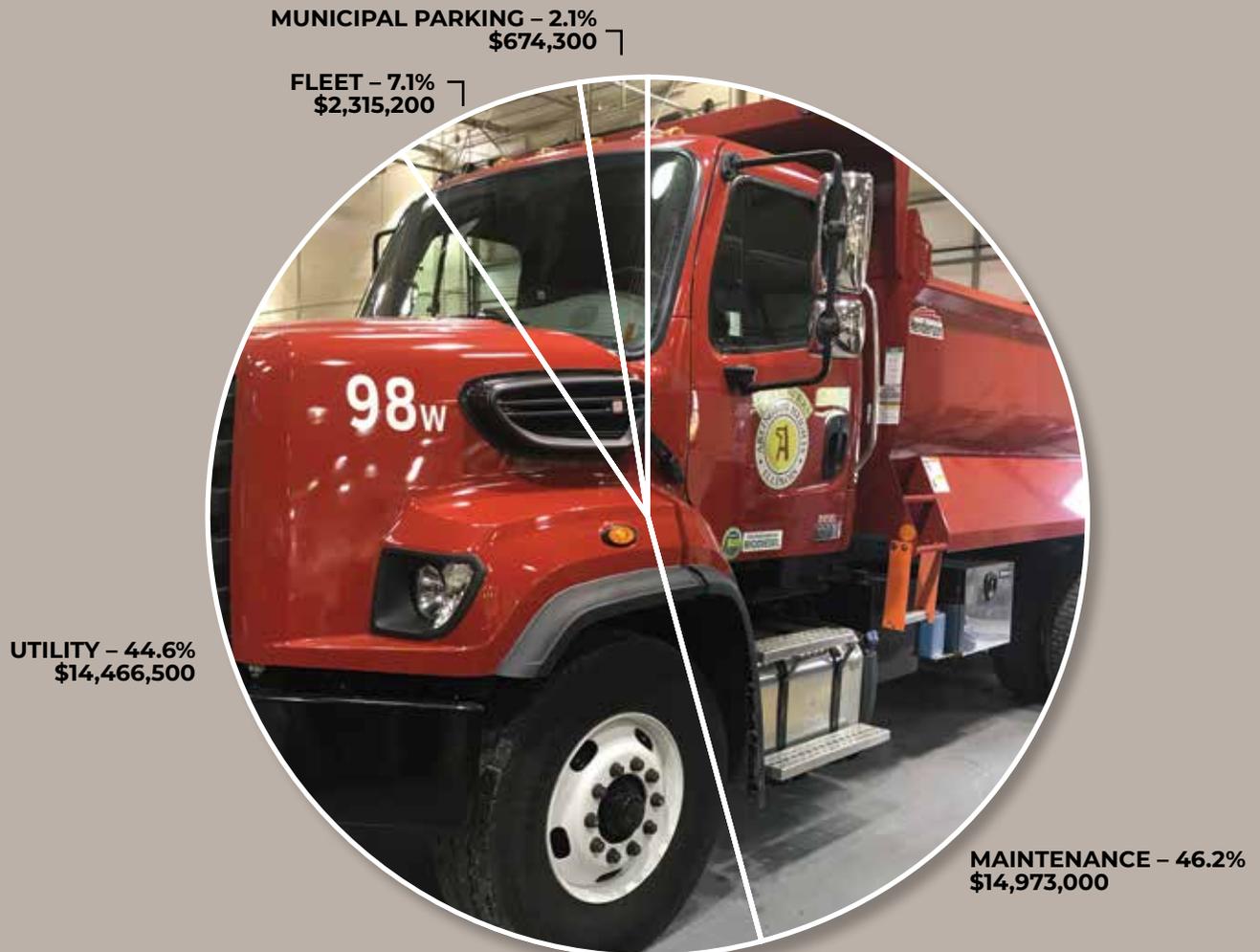
Total budget for 2019: \$14,466,500

MUNICIPAL PARKING

Responsible for the maintenance of four parking structures around the downtown.

Total budget for 2019: \$674,300

2019 OPERATING BUDGET



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.

PUBLIC WORKS DEPARTMENTAL EQUIPMENT

Total budget for 2019: \$331,500

BUILDING IMPROVEMENTS

Total budget for 2019: \$853,800

ROAD PROJECTS

Total budget for 2019: \$8,232,700

SIDEWALK PROGRAM

Total budget for 2019: \$385,000

STORM WATER CONTROLS

Total budget for 2019: \$5,785,000

WATER & SEWER CONSTRUCTION PROJECTS

Total budget for 2019: \$4,356,900

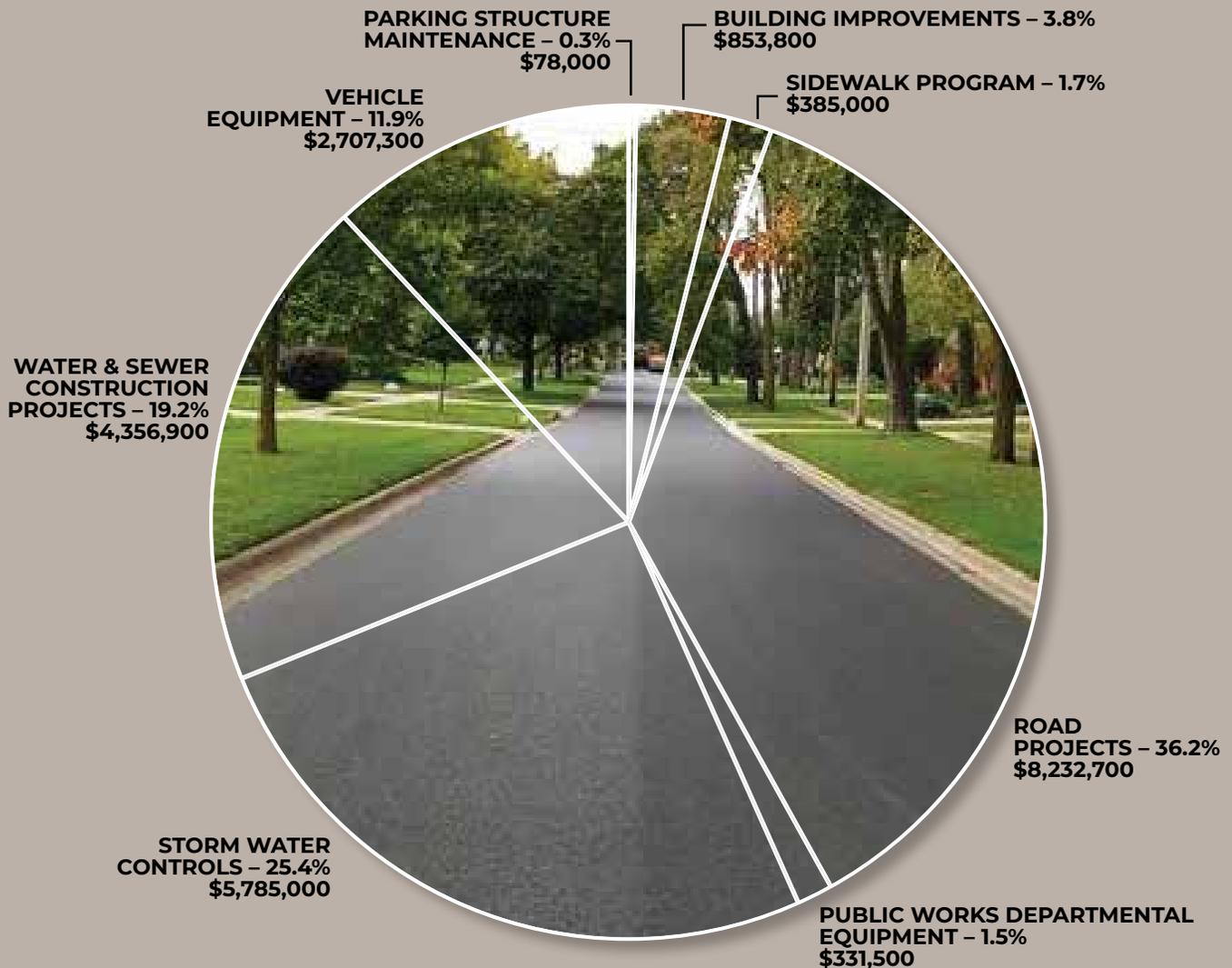
VEHICLE EQUIPMENT

Total budget for 2019: \$2,707,300

PARKING STRUCTURE MAINTENANCE

Total budget for 2019: \$78,000

2019 CAPITAL IMPROVEMENT PLAN BUDGET

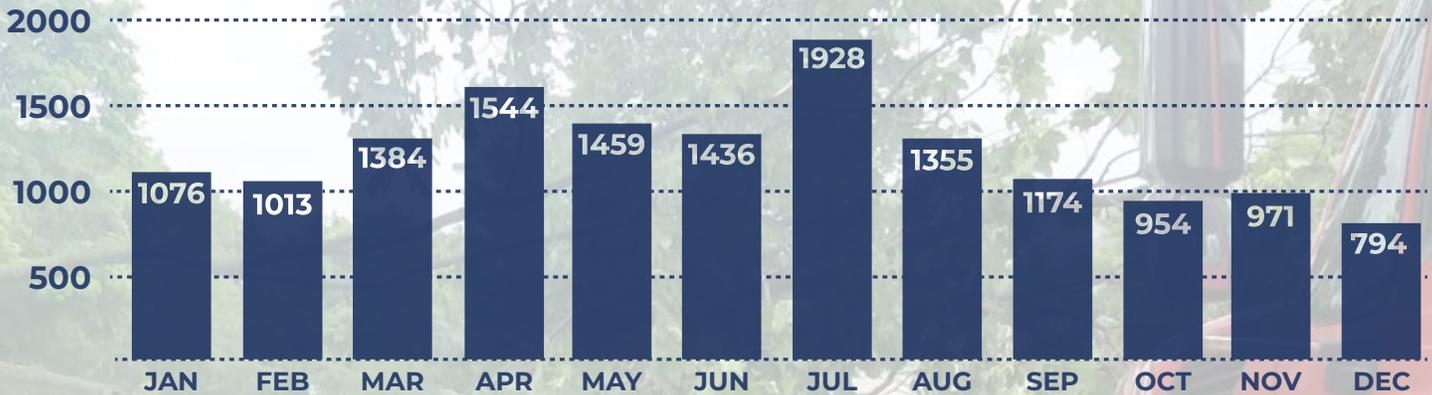


TOTAL OF **15,088** INCOMING CALLS WERE RECEIVED IN 2019 MONDAYS-FRIDAYS, BY PUBLIC WORKS FRONT OFFICE STAFF.

TOTAL OF **9,049** 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 **6,145** INVOICES WERE PROCESSED.

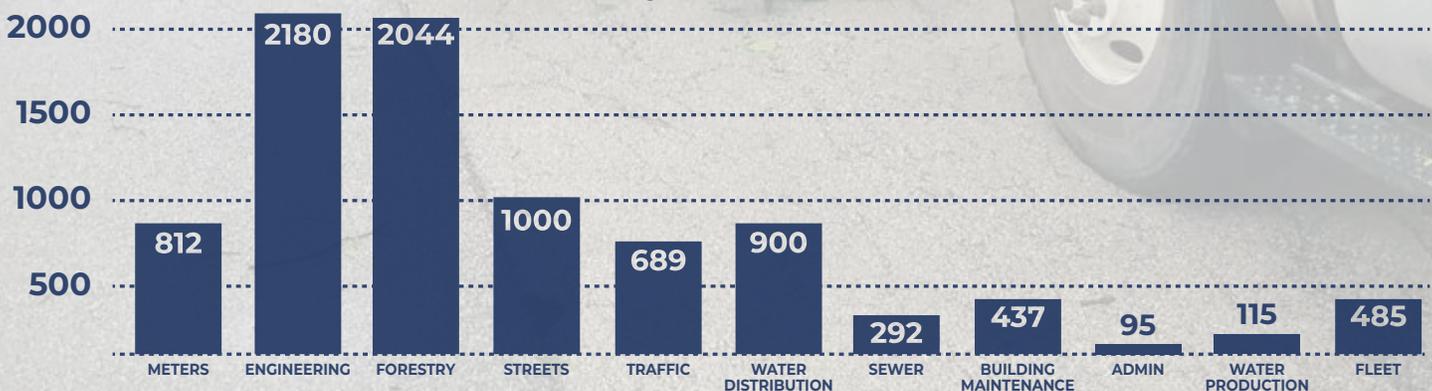
CALL VOLUME BY MONTH



TOP TEN SERVICE REQUESTS RECEIVED IN 2019



TOTAL SERVICE REQUESTS RECEIVED BY UNIT IN 2019



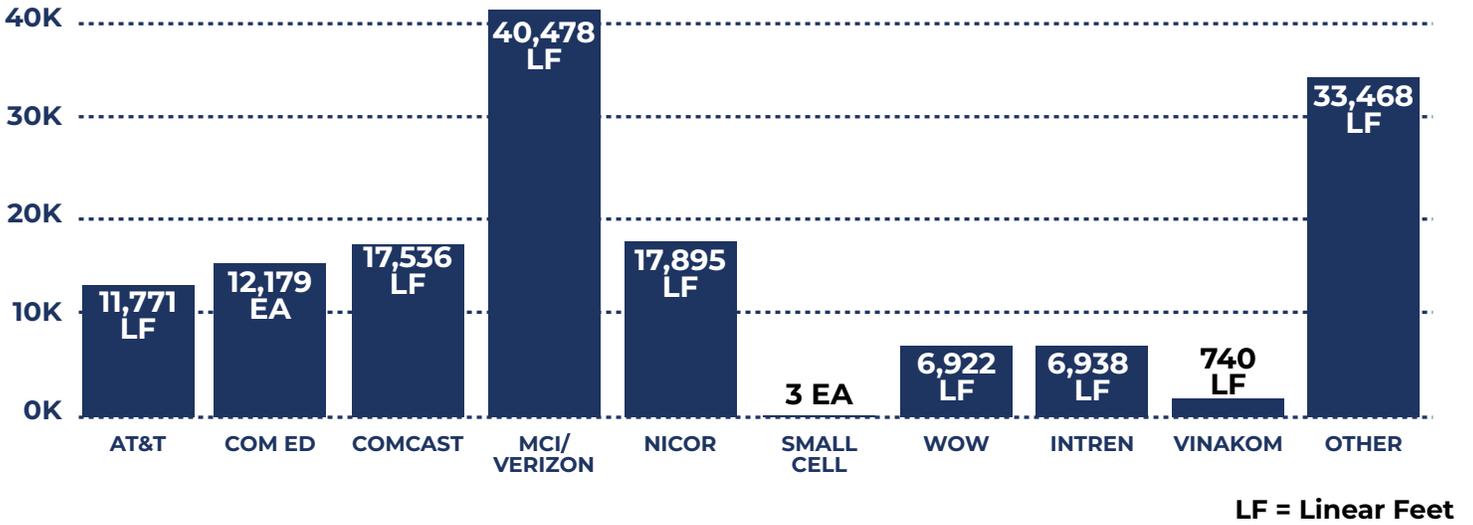
UTILITY PERMITS ISSUED

The Village 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. In 2019, Public Works staff processed 180 permits from nine different entities to install new underground/overhead facilities in the Right-of-Ways.

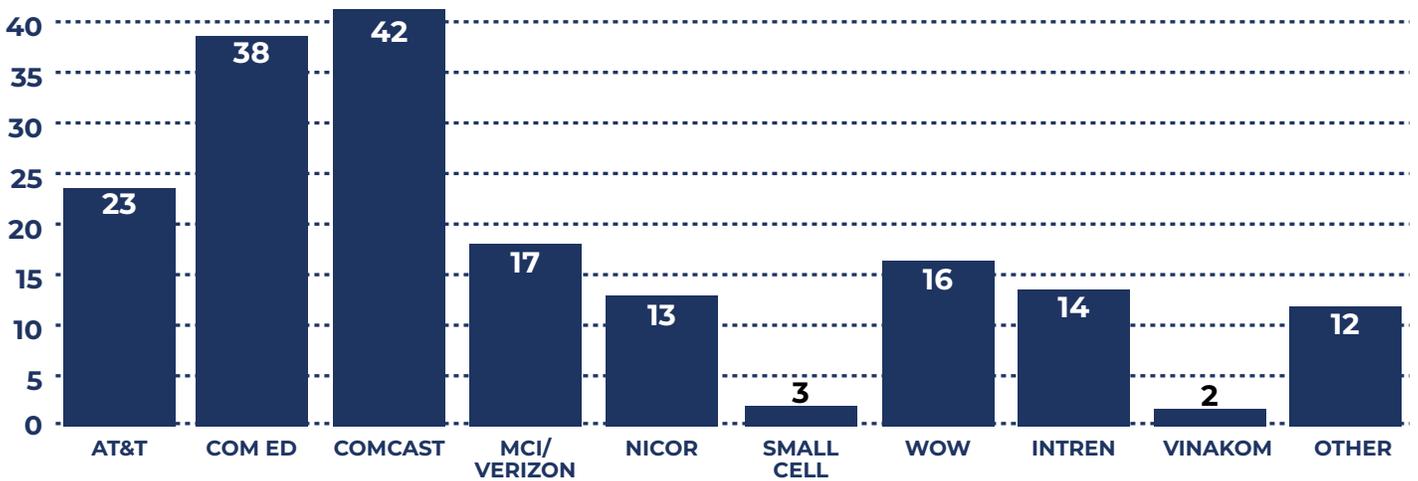
WORK ORDER SUMMARY

January 1, 2019 – December 31, 2019

UTILITY PERMITS



UTILITY PERMITS BY SERVICE PROVIDER





2019 – MAJOR EVENTS & PROJECTS

SNOWFALL – 2019 SPRING – FALL

If you felt like the summer of 2019 was one of the shortest, there might be a reason for that. During 2019, we had both, one of the latest snowfalls, as well as one of the earliest snowfall events on record for the Arlington Heights area.

LATE SEASON SNOW – APRIL 28TH

On April 28, 2019 the Village received nearly 2 inches of snowfall. It required a snow response from the Arlington Heights Snow Command to salt the 217 miles of Village streets. Certainly one of the latest snow events on record in our area.

EARLY SEASON SNOW – OCTOBER 30TH & 31ST

On October 30 and 31, 2019 the Village received 4.6 inches of snow. This event was the largest ever for Halloween here in the Chicago area. It required a snow response from the Arlington Heights Snow Command to plow and salt all 217 miles of Village streets. Historically, one of the earliest snow events ever recorded in our area.



MILES PLOWED IN 2019

VILLAGE TRUCKS
PLOWED AND OR
SALTED A TOTAL
OF **62,784**
MILES OF VILLAGE
STREETS DURING
THE SNOW
SEASONS OF 2019.



THOMAS TANK – WATER TANK MAINTENANCE

The painting of the elevated Thomas Tank included the abrasive blast to metal of the interior and exterior of the tank, modification of the ladder and walkway around the tank, and painting the interior and exterior of the tank. A water mixing system was installed as well to ensure the highest quality of water possible during low flow periods. The water tank was last painted in 1993. New coatings can be expected to last up to 25 years and help extend the life of the tank.

The rate of water tank recoating will increase over the next twenty years. Within ten years, most of the ten water tanks will have been repainted inside and out and retrofitted with modern cathodic protection systems (corrosion control). This will extend the lifespan of these tanks.



TREE PLANTING

The Forestry and Grounds Unit was once again busy replanting hundreds of trees lost from either EAB or other causes. Preparations for the spring planting season began in late January with staff making contact with the supplying nurseries and the Village’s planting contractor. Staff members edited and updated previous versions of informational door cards that detail the tree planting to homeowners.

Every homeowner receives the tree informational card at least twice; first during the planning of tree planting, and second when the tree is planted. If later inspections of the newly planted trees reveal inadequate care from the homeowner, a Forestry and Grounds Unit arborist will deliver an additional care card. A “How to Mulch” card is also given to homeowners who have improperly installed mulch around their trees.

Once all of the snow cover was gone crews started marking the 369 new planting locations. Crews also located and marked all water service lines at each planting site. After marking the planting site and water lines, Forestry and Grounds staff entered all necessary information into an Excel document that is used to inform the contractor what tree goes at each location.

The Village’s tree planting contractor started planting trees on May 3rd and finished installing the 369 trees on June 6th. During the spring planting season trees were purchased from Wilson Nurseries, Goodmark Nurseries, Spring Grove Nursery, and Breezy Hill 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 to replace the trees lost from EAB, wind and other natural causes.

Fall tree planting prep started in late September with the same procedure as the spring planting season, marking planting locations, entering all necessary information into an Excel document and making contact with supplying nurseries. The first of 317 trees were planted on November 4th and the last tree was planted on December 4th.

At the conclusion of the 2019 planting season, the Forestry and Grounds Unit installed a total of 686 parkway trees within the Village. Staff also worked on projecting how many trees would be potentially lost and replaced during the next five years, and then took those projections and placed a tentative order with the Village’s supplying nurseries that will guarantee the Village will have the quantity and quality of trees needed for the future.

The Forestry and Grounds staff continued building a more sustainable and diverse urban forest by adding additional species to the Village’s tree planting list bringing up the total to 136 different species of trees during the last 5 years.



DIVERSIFICATION OF THE URBAN FOREST TREE SPECIES PLANTED IN 2019

MAPLE	17.35%
HORSECHESTNUT	2.92%
RIVER BIRCH	2.19%
HORNBEAM	2.48%
SHAGBARK HICKORY	0.73%
CATALPA	2.48%
HACKBERRY	5.10%
REDBUD	1.02%
YELLOWWOOD	0.73%
CORNELIAN CHERRY	1.90%
TURKISH FILBERT	0.73%
HAWTHORN	0.87%
HARDY RUBBER	0.73%
BEECH	0.58%
GINKGO	2.19%
HONEYLOCUST	2.92%
KENTUCKY COFFEE	5.25%
LARCH	1.46%
SWEETGUM	2.92%
TULIP TREE	2.19%
OSAGE ORANGE	0.44%
CRABAPPLE	4.08%
DAWN REDWOOD	2.33%
BLACK TUPELO	0.73%
HOPHORNBEAM	0.73%
PERSIAN IRONWOOD	0.73%
CORKTREE	0.29%
LONDON PLANETREE	6.12%
PEAR	1.46%
OAK	4.23%
JAPANESE PAGODA	0.73%
JAPANESE LILAC	4.08%
BALD CYPRESS	5.39%
ARBORVITAE	2.19%
LINDEN	4.66%
ELM	5.10%

STORM WATER CONTROL PROJECTS

CYPRESS BASIN STORM WATER/ROAD/WATER MAIN LINING IMPROVEMENTS

The Stormwater improvements include the addition and replacement of large-diameter storm sewer pipes and the expansion of the detention basin in order to increase the Stormwater storage in the area to bring the storage to current standards.

The general description on limits of the Cypress Area Storm Sewer Improvements and Roadway Construction is delineated by South Arlington Heights Road, Ridge Avenue, Central Road and West Noyes Street.

The Roadway Improvements include the replacement of all curb, gutter and complete rebuild of the roads where storm water pipe was installed. Cypress Street was resurfaced from Dunton Avenue to South Arlington Heights Road as well. Sidewalks were replaced on an as needed basis.

The Water Main Lining Improvements included the rehabilitation of over 11,000 linear feet of water main located within the backyards of a portion of the Cypress Basin Area. The method of rehabilitation that was used was the lining of existing water mains. The area designated for rehabilitation was generally delineated by Magnolia Street, White Oak Street, Highland Avenue and Ridge Avenue. Another area is Cedar Street, White Oak Street, Evergreen Avenue and Highland Avenue.



DOWNTOWN SEWER PROJECT

In a summer packed with construction improvements, the headliner was the Downtown Sewer Project.

The installation of 4,800 feet of storm and combined sewers, ranging in diameter from 18" to 54" and buried up to 18 feet deep, will help alleviate flooding in the Downtown Business District and basement backups in the residential areas west of the downtown. Ancillary work included replacing existing lead residential water service lines with new copper service lines from the water main to the B-box.

The Village received a \$1.8 Million grant from the Metropolitan Water Reclamation District of Greater Chicago (MWRD) toward the \$3.8 million project, which was designed by Burns & McDonnell and constructed by Martam Construction, Inc.

Downtown special events continued successfully after close coordination with other downtown projects and constant communication with businesses and area residents. Construction also included the installation of a mid-block pedestrian crossing on Dunton Avenue between Sigwalt Street and Campbell Street. Light poles, pedestrian push buttons and flashing signs will be installed in the spring.



ANNUAL PROJECTS/PROGRAMS

PAVEMENT MANAGEMENT

In the fall of 2018, a new consultant was hired to scan and evaluate all of the Village's roadway conditions. The new consultant utilizes a roadway scanner that analyzes both surface and subsurface conditions. This process replaces our existing program of analyzing one-third of our roadway each year. The new analysis will provide a comprehensive snapshot of the Village's roadways. In addition to the condition analysis, the new program includes new pavement management software. The new PavePro software will allow the Department to run different modeling scenarios, and most importantly to establish multi-year programming. This new software also allows the department to plug in all of the current maintenance programs, including crack sealing, edge grinding, surface treatment, resurfacing, and reconstruction. The entire street network will be surveyed in 2019, giving the department a baseline database to ensure the accuracy of the program going forward.

STREET RECONSTRUCTION AND RESURFACING

The Department's largest budget allocation is for the two street rehabilitation programs. The Reconstruction Program replaces streets that cannot be resurfaced due to failure of the aggregate (stone) base.

This program rebuilds the entire street and replaces all of the concrete curb and gutter as well as most driveway aprons. The Resurfacing Program is the main preservation tool utilized to extend the service life of Village streets.

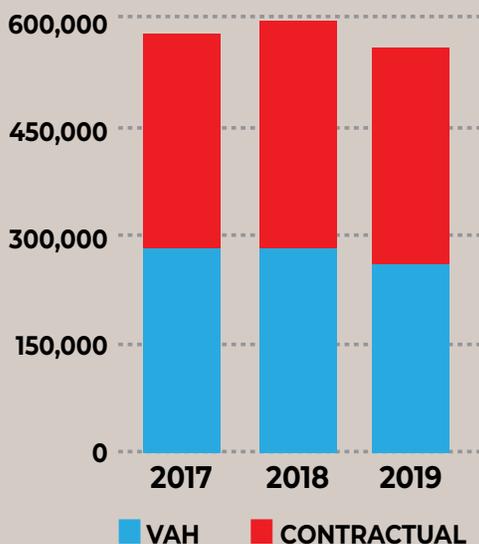
This program replaces 2 to 3 inches of the asphalt surface to improve rideability and extends the life of the entire pavement cross section.

EDGE GRINDING

During the summer, the Street Unit completes three phases of asphalt roadway edge grinding and resurfacing at various locations throughout the Village. The program was started in 2010 by Public Works as an intermediate maintenance step to help prolong the life of streets that were not going to be addressed by our street rehabilitation programs within the next two to five years. This program has been very successful and well-received by residents. The Street Unit rents a street-milling machine with an attached conveyor. The milling machine is used to remove deteriorated asphalt pavement on a list of streets that meet criteria qualifying them for this program. Streets that qualify are ones that were generally in good condition except where they were falling and break up near the curb and gutter. The milling machine effectively removes the failing areas of bad pavement. The Street Unit then uses a Village-owned paving machine to pave the milled locations with hot mix asphalt (HMA). Crews used a total of 4,325 tons of HMA in 2019.

The graph below shows the quantity of patching completed over the last three years. Three phases were developed to allow for adequate time between special events, parades, and other date-specific responsibilities. Timing of the phases varies from year to year, depending on the length of the site, and the proximity of the selected locations, which impacts mobilization time.

ASPHALT PATCHING (SF)





WATER MAIN REPLACEMENT

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

The water main project for 2019 included the rehabilitation of over 11,000 linear feet of water main located within the backyards of a portion of the Cypress Basin area. The method of rehabilitation that is specified will be lining of the existing water mains. The complexities of installing new water mains within the streets, and reconnection to existing service lines located within back yards necessitate the rehabilitation of the existing water main in place (currently located within backyard easements). The area designated for rehabilitation is generally delineated by Magnolia Street, White Oak Street, Highland Avenue, and Ridge Avenue. Another area is Cedar Street, White Oak Street, Evergreen Avenue, and Highland Avenue.

Our rate of water main replacement will increase over the next two years. Within two years, the rate of water main replacement will be 1% of all underground water pipes per year. This is the industry standard for iron pipe. The iron pipe's design has a one-hundred year average life span.

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.

The generally accepted form of non-invasive reconstruction manhole rehabilitation is lining. Manhole rehabilitation involves bypassing the flow, high pressure cleaning of the walls and floor, application of a grout 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.



SEWER LINING

In an ongoing effort to line sanitary sewers in lieu of full replacement, the 2019 lining program consisted of 12,500 linear feet of sanitary sewers being lined. Lining is the process in which an epoxy sealed fiberglass resin tube is pulled into an existing cleaned sewer line. The tube is then inflated and cured using steam and adheres to the inner wall of the hose pipe. The lining provides a thin structural pipe inside the old one, and without any excavation. The area was exclusively located within the Westgate subdivision. This improvement results in a collection system that minimizes the infiltration of rainwater into the collection system.

RETENTION/DETENTION POND MAINTENANCE

Detention ponds need occasional maintenance as storm sewer deposits sediment into the basin. In 2019, the Wilke II, Hickory Meadows and Highland and Palatine Frontage basins were maintained, regraded and seeded.

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, as well as compliance inspection and enforcement. The Village has developed a storm water management program that includes public education, public involvement, pollution prevention/ good housekeeping for municipal operations and more. The Village’s illicit discharge ordinance formalizes their 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 storm water. 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 head water of Weller Creek, near Central Road within Mount Prospect.

The Public Works 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.



MAINTENANCE

PARKING GARAGE REHABILITATION

The final phase of the 4-year program to rehabilitate the Village's four parking garages was completed in 2018. The work consisted of concrete repairs, pavement striping, door repairs and stairwell repairs at the Evergreen Underground Parking Garage. The three above-ground garages were addressed in 2015, 2016, and 2017. This work will allow Public Works staff to maintain these garages going forward through a maintenance initiative, which will require periodic capital expenditures, but should alleviate the need for major rehabilitation for the foreseeable future.

ARLINGTON HEIGHTS TRAIN STATIONS

The Public Works Department has an active role in the daily operation and maintenance of both the Arlington Park and Downtown Arlington Heights Train Stations. The Downtown train station is the busiest public building maintained by the Village. An estimated 1,500 people pass through the facility each day during its 12 hours of operation. This large volume of people and long operating hours present continuing challenges for the operation, maintenance, and safety to the public. Public Works staff ensures that both train stations are cleared, closed, and locked every evening after hours. In addition to nightly lockup, staff also networks closely with local, Metra, and Union Pacific Police Departments to coordinate the additional safety and security needs unique to the train stations. This process has been extremely successful in the continued mission of Public Works to make these extremely busy public buildings convenient, welcoming, and safe for all.

METROPOLIS THEATER

Public Works continues to take an active role in the operation and maintenance of the Metropolis Theater building. The Department Director serves on the Metropolis Condominium Board, which meets quarterly, and manages the oversight of the common elements of the building, along with the representatives of each ownership interest within the building. On a day-to-day basis, the Services Coordinator spends a significant amount of time checking the building, administering common tenant maintenance contracts for janitorial and HVAC services and trouble-shooting issues for the theater-controlled areas of the building. Ancillary services are performed by Sewer, Building Maintenance, and Traffic Unit Staff, as directed by the Services Coordinator.

MAINTENANCE PROGRAMS

Administrative and Operational Staff collaborate on the following 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 Program
- Leak Detection Program
- Generator Maintenance Program
- Sewer Televising Program
- Sewer Root Cutting Program
- Traffic Signal Maintenance Program
- Contractual Preventative HVAC Program
- Julie Locate Program
- Contractual Sprinkler Maintenance Program
- Tree Inventory Program
- Contractual Reduced Pressure Zone (RPZ) Program
- Special Event Program
- Parking Garage Maintenance Program
- Fuel System Program
- Vehicle Maintenance & Replacement Program
- CDL Drug Testing and Certification Program
- NPDES Permit Compliance (National Pollution Discharge Elimination System)
- Safety and Training Program
- Pace Bus System Maintenance Program
- Contractual Sanitary Sewer Slip Lining Programs
- Wetland Maintenance Program
- Parkway Mowing Program

CAPITAL IMPROVEMENT PROGRAMS

Administrative and technical staff collaborate on these annual programs:

- Street Reconstruction Program
- Street Resurfacing Program
- Paver Brick Sidewalk Program
- Backyard Drainage Program
- Stormwater Control Projects
- LED Street Light Upgrade
- Water Tank Painting
- Federally-Funded Road Programs
- Water Meter Replacement & Repair
- Contractual Roof Maintenance Program
- Watermain Replacement and Repair Program
- Contractual Sanitary, Sewer, and Slip Lining Programs





PUBLIC WORKS 2019 SAFETY DAY

April 10th, 2019 was our eighth annual Public Works “Safety Day”. The topics included; “Underground Gas Safety” presented by NICOR, and “Underground Utilities” presented by JULIE. We also had presentations given by some of our PW Safety Committee members. The topics included “Cell Phone Safety on the Job Site”, “Air Monitor Training” for the new style monitors we recently purchased, and other basic safety topics that some of the new employees need to know.

PW SAFETY COMMITTEE – HIGHLIGHTS

- The Safety Committee purchased new barricades and cones for the new safety enclosure. Staff also set up a work area for maintenance to be performed on damaged safety devices.
- New style hard hats were researched for the employees. Once the Safety Committee agreed on the necessary styles, the information was forwarded to Central Purchasing for their follow up.
- Members of the Safety Committee repaired eyewash stations that were not functioning properly.
- It was decided the Public Works Safety Committee will have all new members each year. A member from each PW Unit will participate on the Safety Committee, so that all Units are involved. This change will bring new ideas to the Safety Committee, and also encourage all employees to be more involved in safety.

CERTIFICATION/TRAINING

IRMA TRAINING

In January, all supervisors attended IRMA training to discuss “Key Elements for Effective Root Cause Analysis & Problem Solving”. The learning objectives of this class were to learn the steps used to identify the root cause of an incident or accident. It included how to understand to apply Root Cause Analysis and have your Accident Review Board utilize the information gained to prevent future incidents.

In March, an employee in the Fleet Unit attended an IRMA Welding Safety Training Class, which was held at the Village of Carol Stream Public Works. The class consisted of welding safety through an analysis of the work environment, welding related equipment, and the materials to be welded. The dangers unique to specific processes were discussed, as well as recommended safe work practices. This program included both classroom and hands-on skills practice.

In March, all employees that work with/near electric attended one of three Electrical Safety Classes held by IRMA. The program covered safety-related work practices including understanding and recognizing energized and de-energized parts, lockout and tagging, and minimum approach distances. The regulations for handling, inspecting, and utilizing electrical equipment was also covered.

In October, employees attended a class held by IRMA on Dealing with Difficult Personalities.

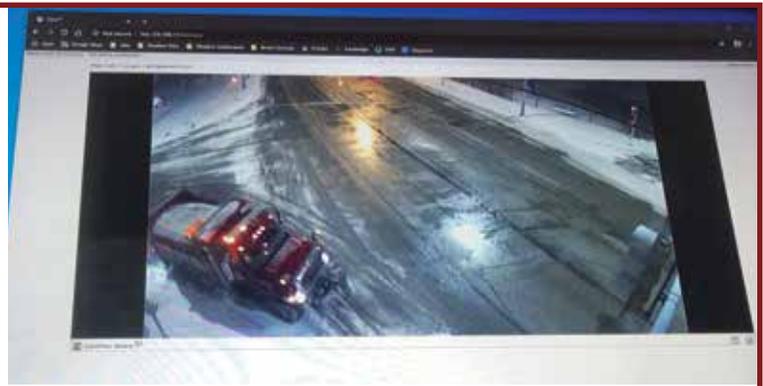
This seminar looked at the distinction between difficult behavior and difficult people. The training provided participants with strategies to respond effectively to challenging situations, with a focus on assertive communication.

TARGET SOLUTIONS ANNUAL TRAINING

In 2019, employees were assigned their annual online safety training classes. These online classes were mandatory, and needed to be completed by the end of 2019. The classes included Blood Borne Pathogens, Eye Protection, Fire Safety, Hazardous Communication, Lead Awareness, and Respiratory Protection.

TEMPORARY SUMMER HELP – SAFETY PROGRAM

In 2010, the Public Works Department created an enhanced Safety Training Program for summer temporary employees. The program is to ensure they understand the safety procedures, policies of the Department, and the work they would be performing. Each year, summer temporary employees receive Vehicle Backup training and a short driving course. They receive information on the proper use of personal protective equipment, and when it is required to be used. They are taught Village policies, which include policies on texting and conduct. This training has been extended to summer interns working in other Village Hall Departments.



PUBLIC WORKS “SNOW DAY”

Mayor Tom Hayes, several Village Trustees, Village Manager Randy Recklaus, and Director Scott Shirley made opening statements to the snow response group on October 9th, 2019, “Public Works Snow Day.”

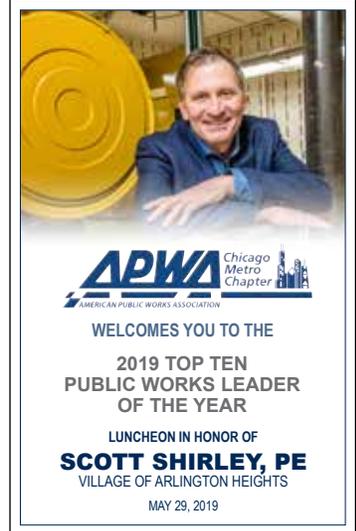
The “A” Team and “B” Team operators had their vehicles inspected by Fleet Services. They also drove their routes making notes of items that needed repair or maintenance performed such as raised manholes, low hanging branches, potholes, etc. This allows the opportunity to address any needed tasks before the snow season begins. It also presents an excellent opportunity for new drivers to experience their routes, and to receive advice from their partner driver.



DISTINCTIONS/AWARDS

APWA CHICAGO METRO CHAPTER 2019 TOP TEN PUBLIC WORKS LEADERS OF THE YEAR

Director Scott Shirley was named one of APWA's National 2019 TOP TEN PUBLIC WORKS LEADERS OF THE YEAR. The Top Ten Public Works Leaders of the Year program seeks to inspire excellence and dedication in public service by recognizing the outstanding career service achievements of individual public works professionals and officials, from both the public and private sectors. The primary focus of the award is on career service to the public works profession rather than on any one single event or project.



HEARTS OF GOLD AWARD

Public Works employees, Scott Bellanger and Mike Graves were honored for and received a "Hearts of Gold" Award in the "Heroic" category, at the "Hearts of Gold" dinner on Saturday, February 15th at the Rolling Green Country Club.

On April 19, 2019, Mike (an avid bass fisherman) and Scott, spent the day fishing at Bangs Lake in Wauconda, IL, in rough and cold early spring conditions. The two were called into action by a couple of people frantically signaling from shore. With no knowledge of what they were responding to, and only finger pointing gestures to guide them, they motored out to the middle of the lake. Miraculously they drove directly to an 11-year-old boy barely able to stay afloat in the choppy waters. The two were able to swiftly pull the drowning, hypothermic boy onto the boat by his sweatshirt. Upon rescuing the boy, he informed them of second boy who tragically had already gone under. The two covered him in their dry clothing while searching the lake for the second boy until paramedics arrived. Mike and Scott safely delivered him to the awaiting ambulance on shore, and then proceeded to take five Wauconda Fire Department divers back out onto the lake. Using the sonar the fishing boat was equipped with, Mike and Scott assisted the firemen with the ongoing rescue mission. The prompt and decisive actions of Mike and Scott, has given a young boy a second chance at life.

BACKHOE ROADEO WINNER

Dave Scanlon won the American Public Works Association Chicago Metropolitan Chapter First Annual Backhoe ROADEo in May of 2019. Dave's First Place finish locally awarded him the opportunity to compete in the APWA National Backhoe ROADEo held in Seattle, Washington in September of 2019 where he finished in the top 25 percent. Congratulations to Dave!





GREEN POWER PARTNERSHIP FOR A GREEN POWER COMMUNITY – SUSTAINABILITY

Public Works’ staff applied for the EPA’s “Green Power Partnership for a Green Power Community.” The Village was first awarded a Certificate of Partnership from EPA’s Green Power Partner Program in 2014, and received this distinction again in 2018 and 2019. The partnership encourages the use of renewable energy sources when purchasing energy from a third-party energy supplier. The Village of Arlington Heights currently purchases 5.2% of renewable energy for their facilities from Integrys Energy Services. The renewable component is produced from 100% wind-generation.

GOVERNMENT FLEET

GOVERNMENT FLEET MAGAZINE – 2019 NOTABLE FLEET

The Government Fleet Magazine Leading Fleet 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. In 2019, Arlington Heights was recognized as a Notable Fleet.

AUTOMOTIVE SAFETY EXCELLENCE (ASE) BLUE SEAL CERTIFICATION



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 a Blue Seal of Excellence Recognition Program. To receive this recognition, at least 75% of technicians must be ASE certified with at least one technician certified in each area of service that the Village provide. The Fleet Services Unit achieved this recognition in 2019 and has done so every year since 2002.

TOP 25 GREEN FLEETS

Arlington Heights recognition of the Top 25 Green Fleets by Heavy Duty Trucking Magazine:
<https://www.truckinginfo.com/343818/hdts-top-green-fleets-of-2019>



TREE CITY USA GROWTH AWARD

This is the 35th year that the Village of Arlington Heights has been named a Tree City USA. The Village also received the Tree City USA Growth Award for an eighth year. The Tree City USA awards are presented to Village officials at the annual Arbor Day celebration.





DRYDEN TreeU



WESTGATE TreeU

PUBLIC OUTREACH

TreeU – EDUCATIONAL URBAN FORESTRY PROGRAM

TreeU is a positive community outreach program that allows the Forestry Unit to educate our current and future residents on the benefits of trees, and the importance of proper tree care. TreeU partners with educators to focus on current forestry related topics that are relevant to their students' curriculum. The focal week of TreeU is the last week of April; beginning on Earth Day and extending through Arbor Day.

During the fourth year of the TreeU program, the Forestry Unit presented TreeU demonstrations at eleven events from April to September. Presentations were given to students at six elementary schools, ranging from Early Childhood to fifth grade. In total, over 800 students participated in the TreeU program this year.





KINDERGARTNERS FROM GREENBRIER SCHOOL SINGING A SONG TO CELEBRATE ARBOR DAY.

ARBOR DAY

On April 26th, Arbor Day was celebrated at Greenbrier Park, in conjunction with the Arlington Heights Park District and students from Greenbrier Elementary School. Afterwards, the children performed a skit about trees. Village and Park District officials then planted a tree with the assistance of the students. Continuing with the Village's emphasis on diversifying the urban forest, this year an osage orange tree was planted in Greenbrier Park. The Village partnered with the B2o Club, an Illinois biodiesel organization, to hand out over 100 native river birch and white cedar saplings to attendees. As a member of the B2o Club, The Village's fleet of vehicles run on a biodiesel blend of 20 percent or greater.



STUDENTS FROM THE OLIVE SCHOOL ECOLOGY CLUB HELPED PLANT NATIVE TREE SAPLINGS AT THEIR SCHOOL



5TH GRADE STUDENTS FROM OLIVE SCHOOL'S WORLD OF WORK PROGRAM VISITING THE PUBLIC WORKS DEPARTMENT



TOUCH-A-TRUCK EVENT



OLIVE EARTH FAIR



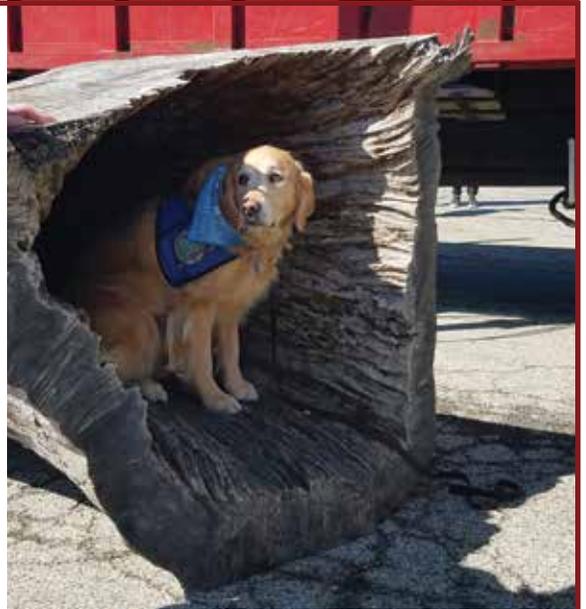
MEMORIAL DAY PARADE



NATIONAL NIGHT OUT



MANE EVENT



DOG IN A LOG



TRUNK OR TREAT



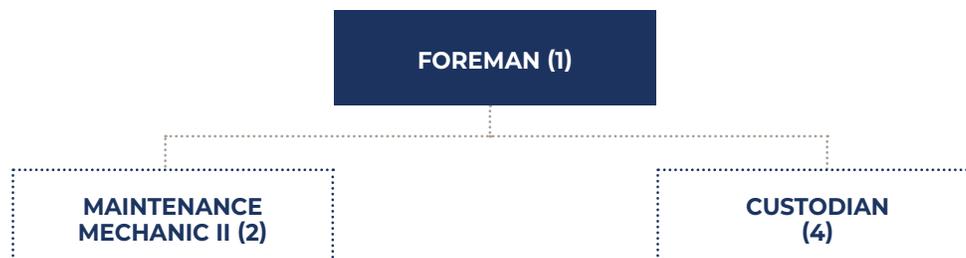
HOLIDAY TREE



WINTER FESTIVAL

BUILDING MAINTENANCE UNIT

The Building Maintenance Unit is responsible for the overall upkeep and maintenance of 27 Village-owned buildings with over 513,180 SF of building space. The Police Department and four Fire Stations are occupied 24 hours a day, 365 days a year. This Unit has a permanent staffing level of seven (7) full-time employees. They include:



BUILDING MAINTENANCE UNIT'S GENERAL DUTIES & RESPONSIBILITIES

- In-house maintenance and repair of Village-owned facilities includes, but is not limited to electrical systems, Heating Ventilation and Air Conditioning (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 troubleshooting electrical distribution circuits.
- 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.



HISTORICAL SOCIETY – COACH HOUSE



HISTORICAL SOCIETY – MÜLLER HOUSE

VILLAGE-OWNED BUILDINGS

VILLAGE HALL

33 S. Arlington Heights Rd.
88,000 SF

POLICE BUILDING

200 E. Sigwalt St.
45,000 SF

PUBLIC WORKS

222 N. Ridge Ave.
146,175 SF

FIRE STATION #1

300 E. Sigwalt St.
16,000 SF

FIRE STATION #2

1150 N. Arlington Heights Rd.
32,063 SF

FIRE STATION #3

2000 S. Arlington Heights Rd.
9,258 SF

FIRE STATION #4

3030 N. Arlington Heights Rd.
9,478 SF

HISTORICAL SOCIETY – POP FACTORY

110–112 W. Fremont St.
8,967 SF

HISTORICAL SOCIETY – COACH HOUSE

106 W. Fremont St.
3,016 SF

HISTORICAL SOCIETY – MÜLLER HOUSE

500 N. Vail Ave.
1,968 SF

HISTORICAL SOCIETY – BANTA HOUSE

514 N. Vail Ave.
2,312 SF

SENIOR CENTER

1801 W. Central Rd.
41,392 SF

DOWNTOWN TRAIN STATION

45 W. Northwest Hwy.
7,700 SF

ARLINGTON PARK TRAIN STATION

2121 W. Northwest Hwy.
1,820 SF

WELL NO. 9

2302 N. Arlington Heights Rd.
902 SF

WELL NO. 11

1200 E. Hintz Rd.
505 SF

WELL NO. 13

3702 N. Kennicott Ave.
1,504 SF

WELL NO. 16 (3 BUILDINGS)

1405 W. Kirchoff Rd.
3,972 SF

MOUNT PROSPECT LIFT STATION

1330 W. Central Rd.
Mount Prospect
700 SF

HAPPFIELD LIFT STATION

333 W. Happfield Dr.
200 SF

WELL 17 (2 BUILDINGS)

222 N. Ridge Ave.
3,724 SF

ANNEX

2101 E. Davis St.
3,724 SF

FIRE ACADEMY

3700 N. Kennicott Ave.
2,800 SF

METROPOLIS

111 W. Campbell St.
82,080 SF



HISTORICAL SOCIETY – BANTA HOUSE

BUILDING MAINTENANCE UNIT – 2019 ACCOMPLISHMENTS:

Public Works Accomplishments –

- Replaced east elevation overhead door.
- In Fleet Services, old floors in the staff lounge and hallways removed and replaced with new LVT flooring. All walls patched and painted with a fresh coat of paint.
- The Parts room in Fleet Services was renovated with new floors, wall and ceiling painting, parts counters replaced and a cage added to receive to secure deliveries.
- The CIP Roof Project for the Administration roof was completed. Additionally, some repairs on seams of the main garage roof address along with shingle repairs to salt dome roof.

Life Safety Accomplishments –

- All annual testing and certification of fire alarms, fire suppression, FM- 200 chemical systems, building and vehicle fire extinguishers, Parking Garage CO₂ systems, was completed. All deficiencies were promptly corrected.

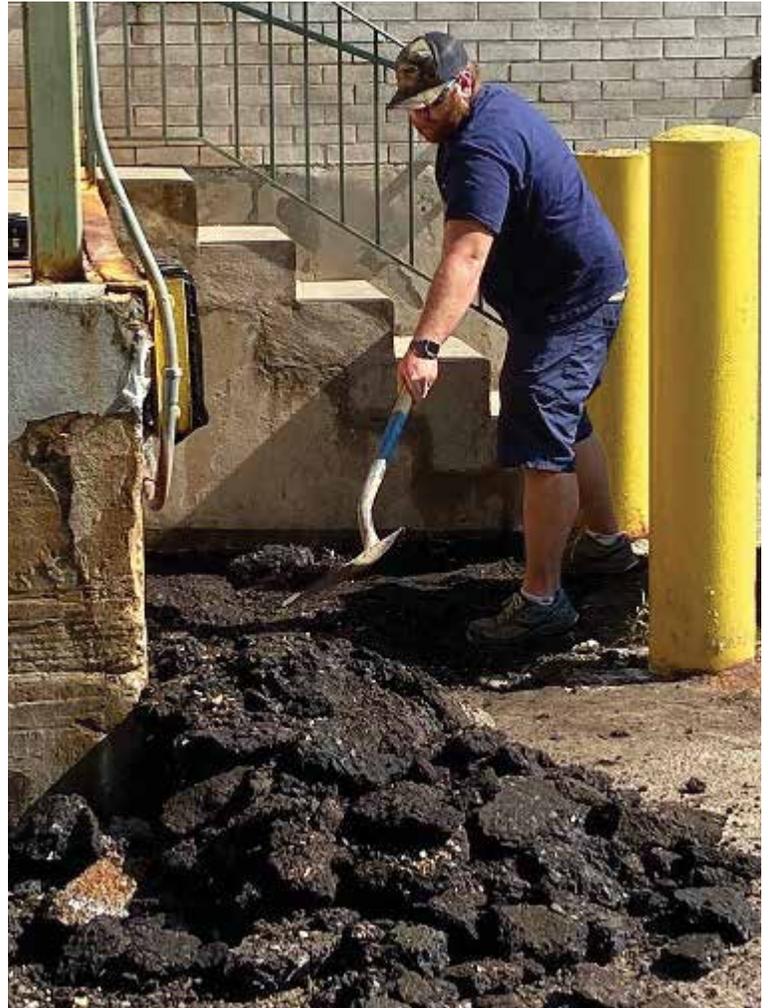
- The five-year obstruction inspection was performed to maintain fire code compliance on the fire suppression system at the Senior Center.
- The failed Dry Valve that supplies the dry fire suppression zone for the eaves of the downtown Train Station was replaced for the safety of the building and commuters.
- Evergreen Garage fire alarm panel was updated after numerous faults could not be corrected.
- Fire Station Three's fire alarm panel was replaced.
- All four Fire Stations, kitchen exhaust hoods inspected and cleaned of grease buildup.
- All dryer vent systems at Public Works, and Fire Stations inspected and cleaned.

Historical Campus Accomplishments –

- The Museum storm windows were removed, refurbished, and reinstalled.



POWER WASHING PATIO – FIRE STATION 1



SENIOR CENTER – LOADING DOCK REPAIRS

- The Muller House front entrance staircase was refurbished. The storm doors were also removed, refurbished and reinstalled by historical restoration-qualified carpenter.
- The Banta House balcony, copper ornamental decking was cleaned, joints checked and soldered to correct some leaks into the first-floor kitchen.

Elevator Accomplishments –

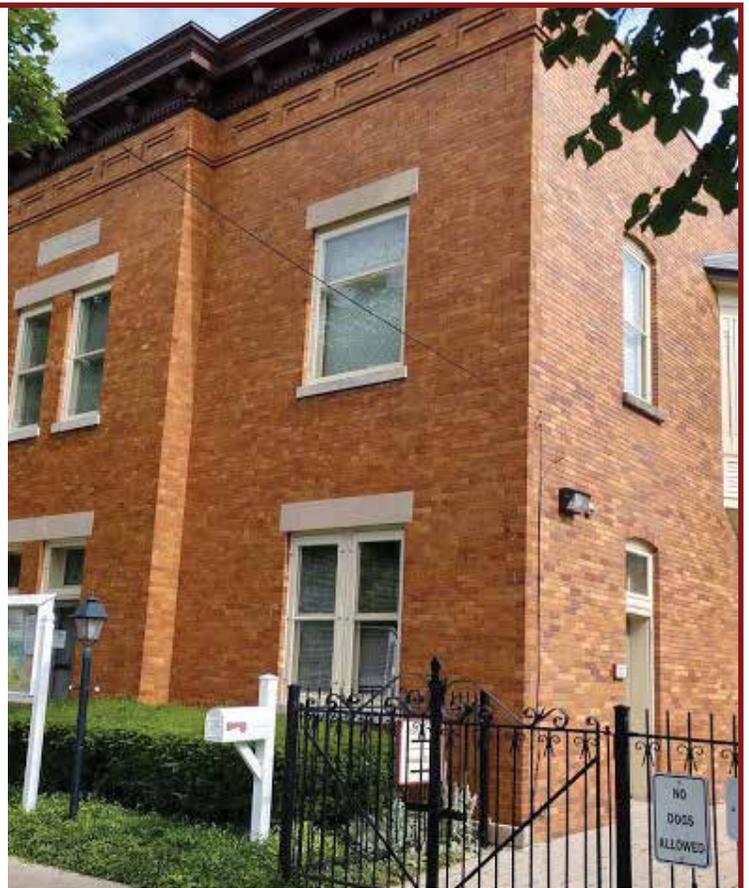
- All elevators passed annual pressure test and certification inspections with no major repairs needed.
- Vail Street Parking Garage elevator car # 2 experienced some down time needing a new soft start module and later a new selector switch replaced on the car top of unit. Car # 4 needed a door latch switch replaced which had been causing the car to stop in between floors on its way down only.

HVAC Accomplishments –

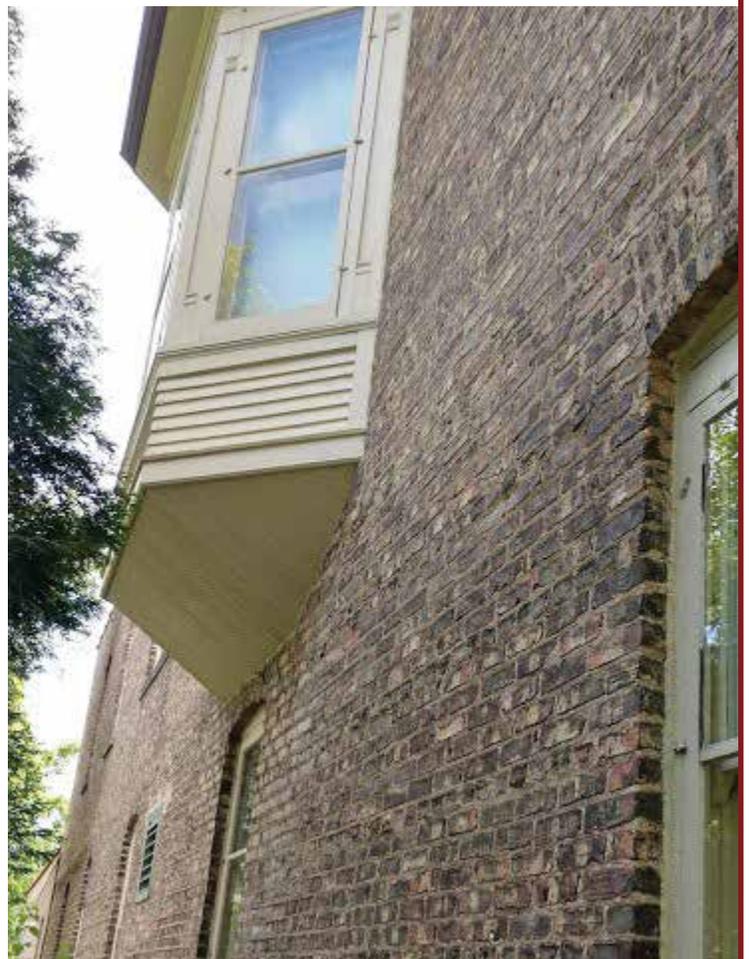
- Fire Station four boiler ignition and valve upgrades completed for compliance of deficiencies found during Fire Marshall Boiler inspection.
- Fire Station 2, three condenser fan motors replaced on roof top condensers.
- Village Hall and Public Works boilers opened up to inspect and repair burner and refractory components.
- Metropolis Theater new split system installed to cool the elevator equipment room.
- Historical Museum roof top unit main blower motor burned up replaced during summer cooling season.

Miscellaneous Accomplishments –

- Fire Station four LED light conversion completed throughout station.
- Twenty-seven potential trip hazards identified in flooring throughout the Senior Center were addressed and corrected using the flooring extras from the original installation.
- Municipal Parking Garage, stair tower, roof replacements completed.
- New Police Sub Station completed in basement of Fire Station 4.
- Parade floats assembled and towed in both Memorial Day and Fourth of July parades.
- Unit Personnel assisted with Special Events throughout the year including Senior Health and Fitness expo, Cancer Survival Brat Day, The Dan Hampton Senior Promotion Meet and Greet, Senior Variety Show, Village Hot Dog Day, Brats and Shots Day, Employee Appreciation Breakfast and Luncheon, Village Holiday Luncheon.



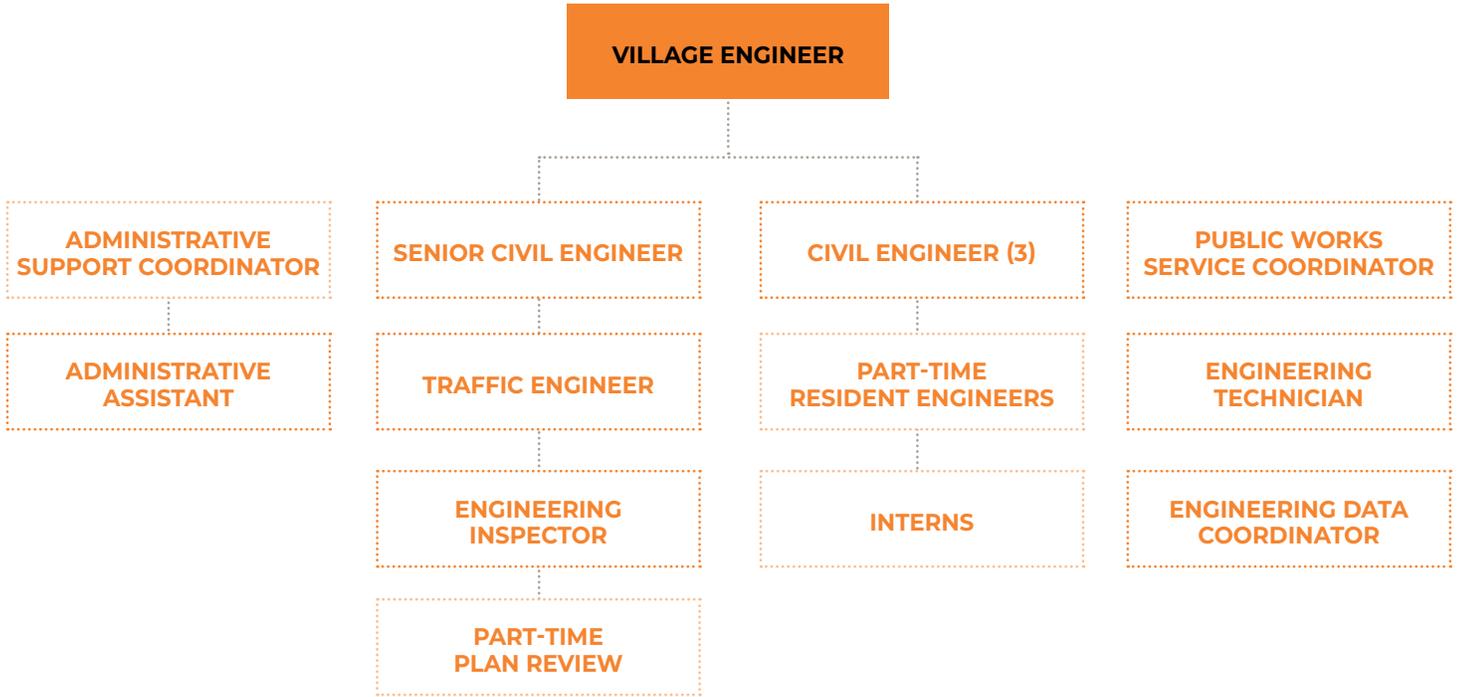
HISTORICAL SOCIETY – POP FACTORY



HISTORICAL SOCIETY – POP FACTORY

ENGINEERING DIVISION

The Engineering Division is responsible for planning, designing, and inspecting the construction of public improvements and the infrastructure of the Village. The Engineering Division also responds to citizens' inquiries, advises developers with respect to engineering requirements of the Village, keeps Village maps current, determines plan review and inspection fees and inspects private construction of public improvements to ensure that they meet Village requirements. Staffing consists of 10 full-time employees. During the summer months, an additional 5-6 seasonal employees and 2-3 consulting engineers are hired to assist with construction inspection, layout, documentation, and plan reviews.





2019 PLAN COMMISSION REVIEW TURNAROUND TIME

PLAN COMMISSION REVIEW TURNAROUND TIME* (WORKING DAYS)	# PLAN COMM. REVIEWS	% OF TOTAL
0-5 DAYS	24	57%
6-10 DAYS	17	41%
11-15 DAYS	1	2%
OVER 15 DAYS	0	0%
TOTAL PLAN COMMISSION REVIEWS	42	100%

TRAFFIC ENGINEERING

STOP SIGN REQUEST	34
SPEED	11
SCHOOL	2
PEDESTRIAN CROSSING	6
PARKING	16
STRIPING	2
SIGHT DISTANCE	35
OVERGROWN BUSHES BLOCKING SIDEWALK	11
SIGNS (GENERAL)	24
LIGHTING	2



KEY ACCOMPLISHMENTS 2019

- Continued to utilize the pavement management system's conclusions and recommendations to assist in the long-range planning and budgeting for maintenance of the Village's street infrastructure.
- Prepared plans, contract documents, and inspected the construction of the Street Reconstruction Program and the Street Resurfacing Program, both of which were within budget.
- Prepared plans, contract documents, and inspected the construction of the Backyard Drainage Improvements Program, which included a grant from the Illinois Department of Commerce and Economic Opportunity (DCEO).
- Successfully completed the construction of the Downtown Sewer Improvements Project, which included a \$1.8 Million grant from the Metropolitan Water Reclamation District of Greater Chicago (MWRD) and the installation of the Dunton Avenue mid-block pedestrian crossing.
- Enabled the obligation of over \$4 Million in grant funding through the Illinois Capital Bill by providing an extensive list of recommended infrastructure projects through the State legislature.
- Coordinated with the Illinois Department of Transportation (IDOT) on their many resurfacing projects within the Village, focusing on the Northwest Highway project and managing its impact with the other downtown construction projects.
- Completed the Downtown Brick Paver Sidewalk Replacement project, which concentrated on areas north of Northwest Highway.
- Conducted extensive public outreach and coordination with the various downtown construction projects and successfully managed communications with residents and businesses.
- Obtained the IDOT permit for the flashing pedestrian crossing signs at the intersection of Kirchhoff Road and Dwyer Avenue. Installation is to be completed by Village personnel in spring 2020.
- Completed plan revisions and permit submittals for the new multi-use path extension and signalized crossing upgrades at Lake-Cook Road and Wilke Road, including the procurement of grant funding through the Invest in Cook program through Cook County and the procurement of Federal Congestion Mitigation and Air Quality (CMAQ) funding through the Chicago Metropolitan Agency for Planning (CMAP).





RESURFACING



RECLAMITE - REJUVENATION



EDGE GRINDING



RESURFACING



RECONSTRUCTION

2019 STREET RECONSTRUCTION AND STREET REHABILITATION PROGRAM

A total of 2.23 miles of street segments were included in the 2019 Street Reconstruction and Street Rehabilitation program. The majority of the streets required a full street reconstruction, due to the existing base material failing, which no longer provided a sufficient structure, on which to place an asphalt driving surface. All reconstructed streets received improved subgrade when required, a stone subbase and full depth asphalt. Additional work included all new curb and gutter, new driveway aprons, ADA sidewalk improvements, and intermittent drainage structure repair. The overall construction cost for all fully reconstructed streets is approximately \$3.1 million.

The three streets located in the Scarsdale neighborhood were not fully reconstructed but extensive work was still completed. These streets received all new curb and gutter to improve drainage, all streets were widened to provide a minimum twelve foot driving lanes as required by Village code, and the existing concrete streets received an asphalt overlay. Additional work included relocated street lights, new driveway aprons, and drainage structure replacement. The overall construction cost for the rehabilitated streets was just over \$245,000.

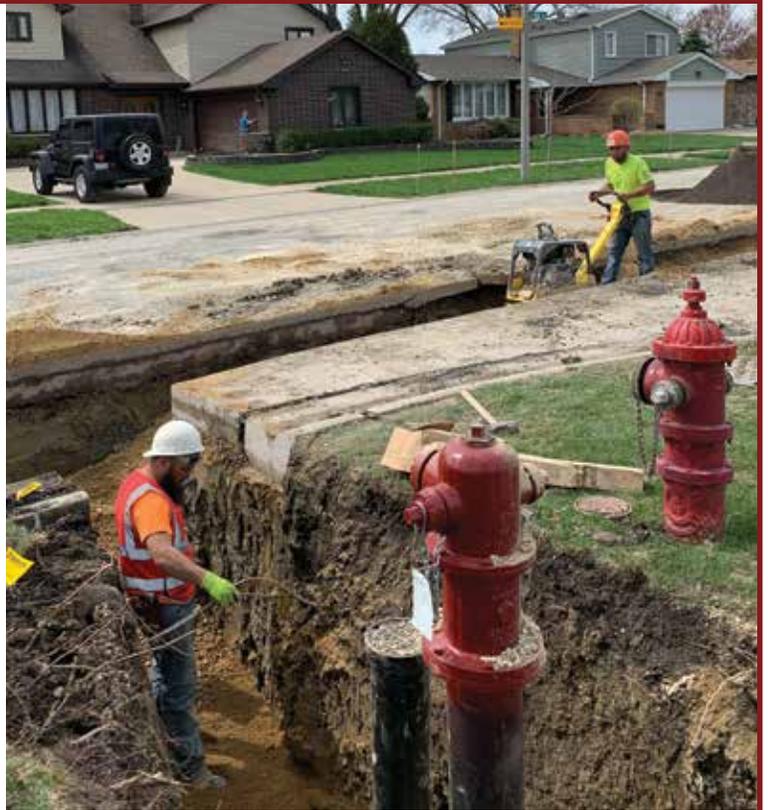
Yale Avenue residents received a brand new fully reconstructed street and new water main. Approximately 1300 linear feet of new water main was installed and all residents received new water service lines up to the Village right-of-way. The approximate cost for the new water main all associated work was approximately \$254,000.

Construction for the annual rehabilitation program began on Monday, April 8, 2019 and all work was substantially complete by August 14, 2019. Due to the high temperatures in August and September all restoration work took place in October and overall completion was October 24, 2019. The street sections rehabilitated are summarized in the table below:

STREET NAME	FROM	TO
CAMPUS DRIVE (INCLUDE COURT)	W SIDE RIDGE AVE	N SIDE UNIVERSITY DR
W CANTERBURY DRIVE (INCLUDE COURT)	N HIGHLAND AVE	W SUFFIELD DR
N HIGHLAND AVENUE	W SUFFIELD DR	W HINTZ RD
DAVIS STREET SOUTH	E SIDE S BRISTOL LN	W SIDE S BEVERLY LN
BEVERLY LANE	DAVIS ST	LYNDEN LN
FAIRVIEW STREET	16' E SIDE LINCOLN	W SIDE DRYDEN PL
W FRONTENAC STREET	N CHAMPLAIN ST	N KENNICOTT AVE
N HURON STREET (INCLUDE COURT)	N VERDE DR	N CHAMPLAIN ST
N RALEIGH STREET	W ROANOKE DR	N WILKE RD
E WAVERLY DRIVE	N WINDSOR DR	E CRABTREE DR
S YALE AVENUE	CUL-DE-SAC	WHITE OAK ST

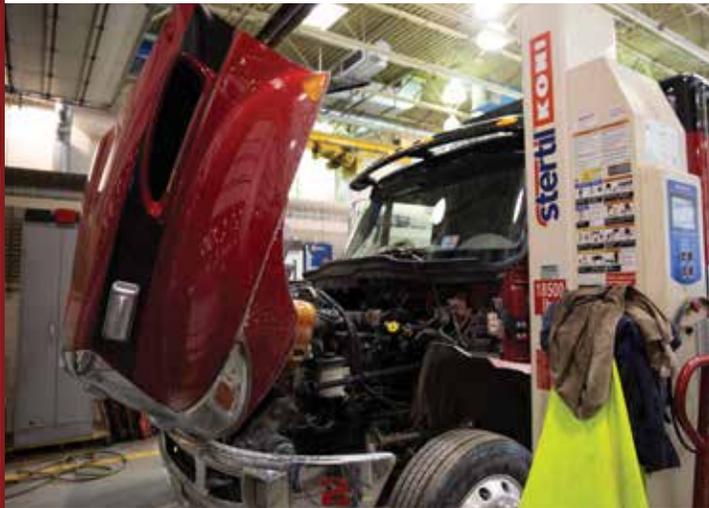
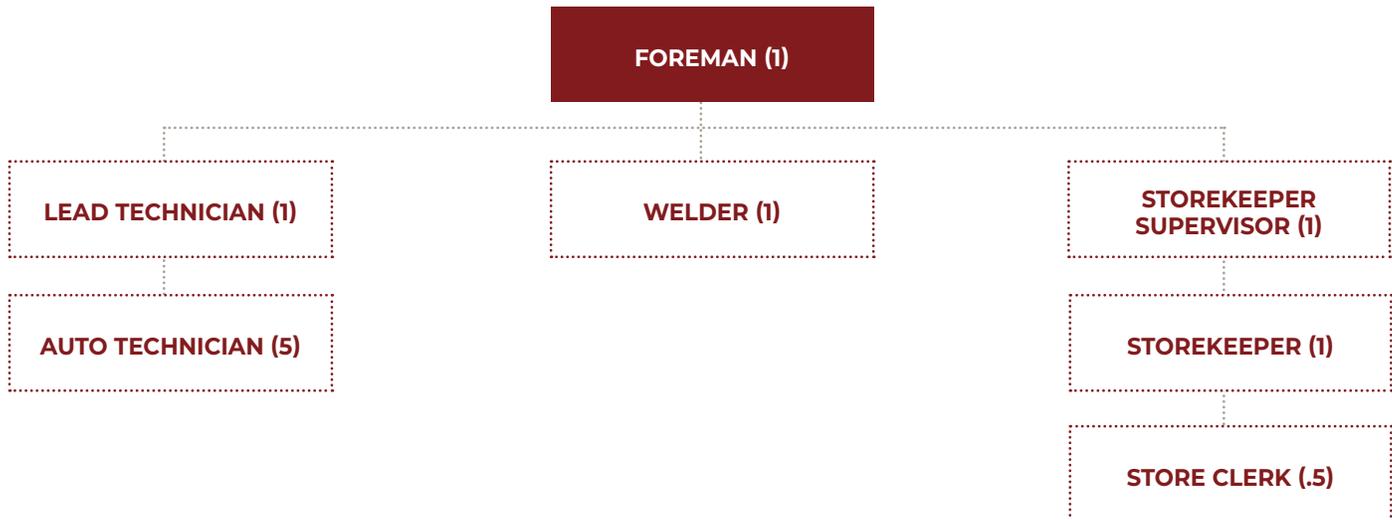
The Engineering Division will complete a final walk through in the spring and finalize all pay items with the contractors before closing out the project. The final construction cost is projected to be under \$3.37 million which is approximately 6% under the estimate. Savings were realized due to improved construction methods reducing the amount of restoration required, no special waste disposal was required, and half of Canterbury Drive had an existing stone base that was able to remain in place.





FLEET SERVICES UNIT

The Fleet Services Unit is responsible for the acquisition, fueling, maintenance, repair, and disposal of 327 vehicles and pieces of equipment in the Village fleet. The Fleet Services Unit also provides fuel, preventative maintenance and minor repair to ten buses operated by Wheeling Township and fuel to four other outside agencies. Fleet Services operates as an internal service fund and all services provided are charged back to the appropriate Departments. The Unit serves the residents of our community by partnering with our departmental customers who provide direct and indirect services to the Village of Arlington Heights.

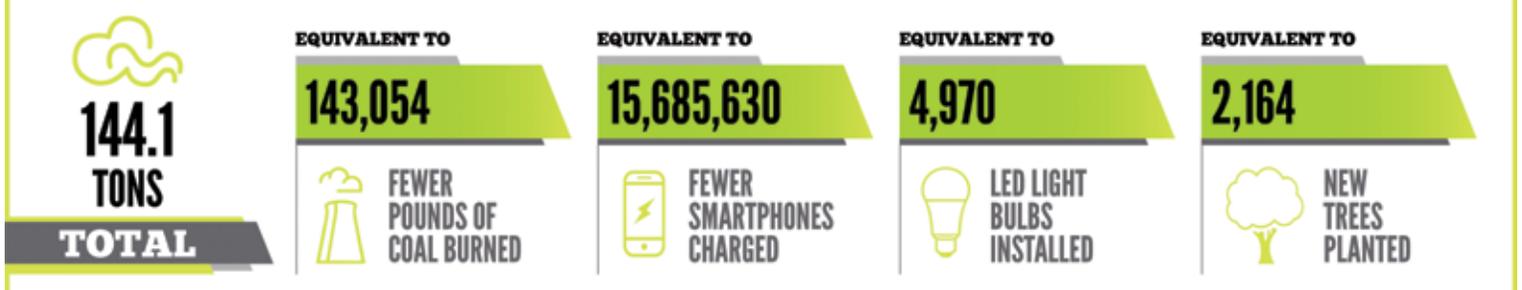


A major goal of the Village of Arlington Heights is the reduction of vehicle emissions and improved air quality. The Fleet Services Unit fully supports this initiative and participates in several programs dedicated to achieving this goal. We currently hold memberships in the following:



- Chicago Area Clean Cities
- Illinois Green Fleet
- Illinois Soybean Association B20 Club (in partnership with the American Lung Association)
- USEPA Pollution Prevention Program

CO₂ REDUCTIONS ANNUALLY IN THE VILLAGE OF ARLINGTON HEIGHTS THANKS TO B20 USE





TRAINING

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 a Blue Seal of Excellence Recognition Program. To receive this recognition, at least 75% of our technicians must be ASE certified with at least one technician certified in each area of service that we provide. The Fleet Services Unit achieved this recognition in 2019 and has done so every year since 2002.

FUEL SYSTEM

The Fleet Services Unit manages the Village 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*”.

Throughout 2019 several upgrades were installed to improve the operation of the system. The old manual line leak detectors were replaced with new pressurized line leak detectors as well as a new tank monitor. These upgrades were done to reduce the number of slow flow issues during cold weather.

TESTING AND INSPECTION

Changes were made January 1, 2019 to Chapter 13 of the Illinois Vehicle Code. It now requires vehicles with a gross weight of more than 10,000 pounds to be inspected every six months and obtain a Certificate of Safety. In 2019, 148 of these inspections were successfully completed on the required vehicles in the Village fleet.

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 of the Fire Department’s aerial rigs were re-certified for 2019.

For the reasons stated above, the Village also certifies 13 aerial devices utilized by the Public Works Department. These units were all re-certified in 2019 as well.

The vehicle lifting equipment and overhead crane used by Fleet Services in the repair and maintenance of the fleet were safety tested and certified. This is done annually for the safety of the Fleet Services staff and Village equipment.

**FLEET SERVICES UNIT
COMPLETED THE
FOLLOWING IN 2019:**

758

**FRIDAY POLICE
CAR CHECKS**

1,373

REPAIR ORDERS

3,041

JOB ORDERS



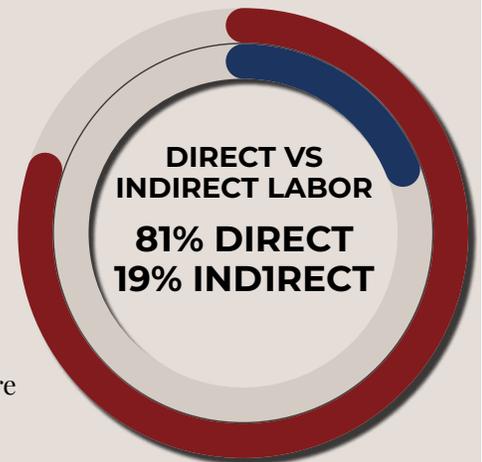
SERVICE / REPAIR

During 2019, the Fleet Services Unit completed 1,373 repair orders with 3041 jobs associated to those work orders for a total 9492 hours charged back to Departmental customers. Mechanics productivity is measured by the number of hours that can be billed to repairs versus total hours available to work. Mechanic productivity standards vary greatly throughout the Fleet Industry. Generally accepted ranges are 70% - 80% when labor hour charges are based on actual time spent on repair operations. Fleet Services mechanic productivity was 81% for 2019.

Fleet Services performs a check of the basic components of the Police Department's Patrol Division vehicles prior to the weekends, also known as "Friday Checks". These checks include fluids, tires, lights, etc. These inspections are performed to help ensure the vehicles remain in service during the weekend when Fleet Services staff is not present. In 2019, Fleet Services performed 758 Friday checks.

Occasionally, local shops that specialize in the repair of specialty equipment can outperform the Fleet Services Unit by repairing equipment in less time due to specialized training and repair tools that are necessary to complete the repair (i.e., body & paint repairs, front end alignments, etc.). In those cases, staff examines the feasibility of outsourcing those jobs. The private facility's distance from the Fleet Services shop and the time for staff to transport equipment to and from those facilities are both considered when evaluating outsourcing of repairs. During 2019, there were 352 jobs not completed by the Fleet Services staff. Of those, 173 were for the required safety inspections of fleet vehicles and aerial devices leaving 179 repairs not completed in-house and resulting in the Fleet Services Unit completing 95% of all repairs to Village vehicles and equipment.

One of the measures of a fleet is the mechanic to equipment ratio. By attaching a Vehicle Equivalency Unit (VEU) to each piece of equipment, this ratio can be calculated. The industry standard is 1 technician for every 90 -110 units. Fleet Services current ratio is 1:143, which exceeds the high end of the industry norm.



EQUIPMENT REPLACEMENT

The Fleet Services Unit is responsible for the purchase, receipt, and preparation of all vehicles for the Village. The following vehicles were replaced during the year as a part of the Vehicle Replacement Program:

QUANTITY	MODEL	DEPARTMENT
1	2020 Ford Police Interceptor Utility	Fire Department
1	2020 Ford Police Interceptor Utility	Public Works - Admin
1	2020 International Chipper truck	Public Works - Forestry Unit
4	2020 International 2 ½ ton plow trucks	Public Works - Street Unit
1	2020 International 5 ton plow truck	Public Works - Street Unit
1	2019 Komatsu WA320 wheel loader	Public Works - Street Unit
1	2019 Caterpillar asphalt roller	Public Works - Street Unit
1	2020 International 5 ton dump truck	Public Works - Water Distribution Unit
1	2020 Ford step van	Public Works - Water Distribution Unit
7	2019 Ford Police Interceptor Utility	Police Department - Patrol
2	2019 Harley Davidson FLHP motorcycle	Police Department - Patrol
2	2019 Chevy Tahoe SUV	Police Department - Patrol
2	2019 Ford Fusion	Police Department - Criminal Investigations
3	2019 Ram 1500 pickup	Police Department - Criminal Investigations
1	2019 Dodge Caravan	Police Department - Criminal Investigations
1	2019 Dodge Charger	Police Department - Criminal Investigations

Fleet Services will assess all vehicles and equipment scheduled for replacement to determine if replacement is warranted. Whenever possible, the useful life of the vehicle or equipment will be extended. A vehicle assessment scorecard has been developed to assist in this determination.

GovDeals.com is an on-line auction service for government entities to sell surplus items. Fleet sold several vehicles and equipment via GovDeals.com for \$71,832. This has been a valuable resource for disposal of surplus items allowing the Village to sell many items that, in the past, would have been disposed without compensation. To date, the Village has sold 330 items for \$928,397.



PARTS ROOM - BEFORE



PARTS ROOM - AFTER

FORESTRY & GROUNDS UNIT

VILLAGE
FORESTER (1)

CREW CHIEF (2)

MAINTENANCE
WORKER II (5)

MAINTENANCE
WORKER I (1)

FORESTRY
INTERNS (1)

Forestry & Grounds maintain parkway trees through pruning operations as well as removing trees that can no longer be sustained. They also oversee the planting of trees in parkways and municipal property, and the planting and maintenance of flowers located on Village-owned property such as Village buildings, Downtown, commuter parking areas and planted medians. The unit also manages contracts for tree trimming and removal, disease control, mowing and landscape maintenance.

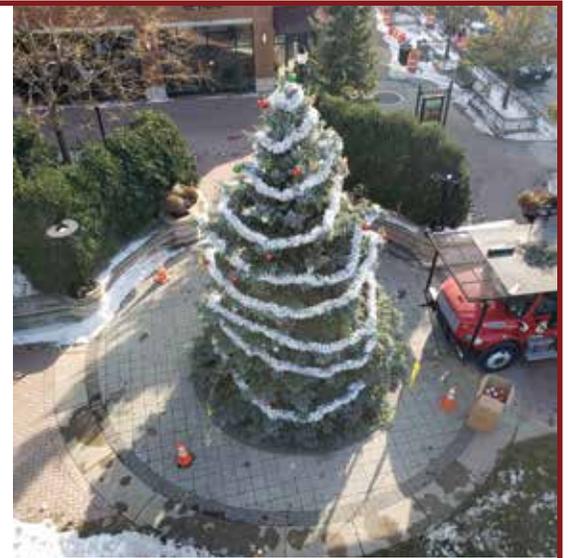


FORESTRY RESPONSIBILITIES

The Forestry and Grounds Unit performs the following general duties on the 36,000 Village-owned trees and maintains approximately 75 acres of public property:

- Prune Village-owned trees on Village parkways
- Pickup fallen branches from parkway trees
- Install rod and cable hardware into trees
- Collect tree data and update Village tree inventory
- Trim bushes
- Diagnose tree health issues and diseases
- Perform Emerald Ash Borer inspections and outreach to residents
- Inspect and oversee contractual projects and programs for tree planting, tree trimming, tree removal, stump removal, irrigation, mowing and maintenance of Village properties
- Plant and maintain flowerbeds and urns at Village owned parks and buildings
- Restore parkways damaged by tree removal or Village utility excavations
- Install and change decorative banners along major transportation corridors
- Install and maintain holiday lights
- Perform irrigation maintenance
- Remove and replace trees and bushes
- Install and maintain downtown decorative benches and garbage cans
- Assist with Village snow and ice control operations
- Perform sidewalk snow clearing in and around Village properties
- Assist with leaf collection on streets
- Assist with special events such as the Mane Event, Taste of Arlington, Tree Lighting, National Night Out, and Trunk-or-Treat
- Provide educational presentations to residents on topics such as tree health, invasive insects, and tree maintenance





HOLIDAY DECORATIONS

In January, Forestry and Grounds Unit personnel removed the North School and Harmony Park Holiday Tree. They also removed all holiday decorations from the DBD (Downtown Business District) catwalks. The DBD sidewalk trees remained lit until February 18th. In August, preparations began for the beginning of this year's holiday lighting program.

In fall, Forestry and Grounds Unit crews inspected and/or decorated 240 parkway trees located in the DBD for the holiday lighting season. There are over 2,700 sets of lights in the DBD with 99% of them being LED. Unit personnel prepared the LED wreaths, stockings and trees for installation on catwalks in the DBD. In 2019, 55 decorated wreaths were hung throughout the downtown on the decorative light poles. In November the Forestry and Grounds Unit, with the assistance of Traffic Unit personnel, installed and decorated the donated holiday trees at Harmony Park and North School Park. The Harmony Park tree was donated by a resident on South Walnut Avenue. The North School Park spruce tree was donated from South Dwyer Avenue.

Nine Forestry and Grounds Unit personnel assisted in the holiday lighting ceremony on the Friday after Thanksgiving. In November and December, 126 winter banners were installed throughout the Village. Throughout the 2019 holiday lighting season, the Public Works Department and Health Department collected unwanted and discarded holiday lights for recycling. A total of 1,960 pounds of lights were collected. The Holiday Light Recycling Program is managed through Elgin Recycling.



SIDEWALK SNOW PROGRAM

The Forester, along with two Crew Chiefs, is in charge of the second response team during snow and ice events. Additionally, the Forester manages the first response team when necessary. The Village Forester is also in charge of managing snow and ice control operations for more than seven miles of Village maintained sidewalks; and on occasion an additional seventeen miles of sidewalk when there is more than ten inches of snowfall.

Two Forestry staff members use Trackless machines equipped with brooms, snow blowers, and salt spreaders to clear and de-ice Village maintained sidewalks. One other staff member hand shovels any areas which the machinery cannot access.

ACCOMPLISHMENTS & RECOGNITIONS

- Eight Forestry and Grounds Unit personnel maintained their certifications as International Society of Arboriculture (ISA) certified arborists.
- All nine Forestry and Grounds Unit employees maintained their certifications as Illinois Department of Agriculture licensed pesticide operators and applicators.
- One of the Forestry and Grounds' Crew Chiefs continued to fulfill the role of Vice President of the Suburban Tree Consortium Board of Directors.
- Arlington Heights received its 35th year as a Tree City USA and 8th year of the Growth Award. The Tree City USA awards are then presented to Village officials at the annual Arbor Day celebration.



**IN 2019 THE FORESTRY AND
GROUNDS UNIT COMPLETED**

4,052

**TOTAL TREES PRUNED BY
CONTRACTOR**

811

**PARKWAY TREES
REMOVED**

686

**PARKWAY TREES
PLANTED**

758

**PARKWAY
RESTORATIONS**

491

BRANCH PICKUPS

512

**BRANCH CRACKED
AND HANGING**

501

TREE INSPECTIONS

TRAINING & CONTINUING EDUCATION

- The Forestry and Grounds Unit continued its weekly Tailgate Safety meetings. These meetings are based on the Tree Care Industry Association's safety manual. A specific topic is covered each week and presented through real-life examples, handouts, illustrations, and quizzes.
- Eight of the Forestry and Grounds Unit's certified arborists attended the Illinois Arborist Association annual conference in Tinley Park. Staff attended educational lectures and demonstrations on the latest arboriculture topics.
- Eight Forestry staff members attended the two-day long iLandscape Show and Training Seminars in Schaumburg.
- Two arborists attended day-long training followed by an exam to obtain their renewal for their Illinois Pesticide licenses.



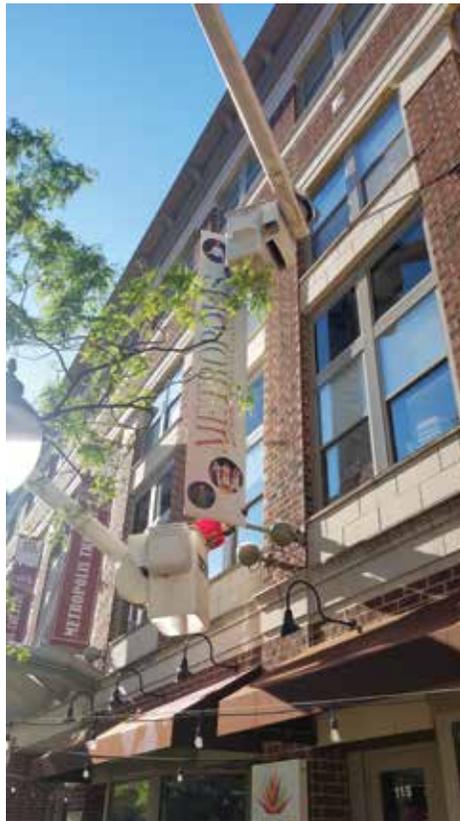
LANDSCAPING & GROUNDS

- Annual flowers such as tulip bulbs and hardy mums were planted at Friendship Park, Downtown Metra Station, Village Hall, Public Works, and Harmony Park.
- Forestry and Grounds staff members designed landscape plans at the Vail Parking Garage, Public Works, and an area along Northwest Highway that is prone to flooding. Perennial plants that require minimal maintenance and water needs were installed to replace the missing or overgrown existing landscapes.
- The third phase of the Northwest Highway Corridor Beautification project involved the creation of fifteen perennial beds and planting of 36 trees. This phase occurred along the stretch of Northwest Highway from Wilke Avenue to Euclid Avenue. The Arlington Heights Garden Club donated funds to install two additional perennial beds at the Davis Street Railroad crossing at Northwest Highway. The Forestry Unit then watered the new plants and trees throughout the summer and into fall.
- Two dying cherry trees were removed from the raised planters at the Downtown Metra Station. Because of the limited root space, the Forestry Unit decided to replace the trees with smaller perennial grasses.



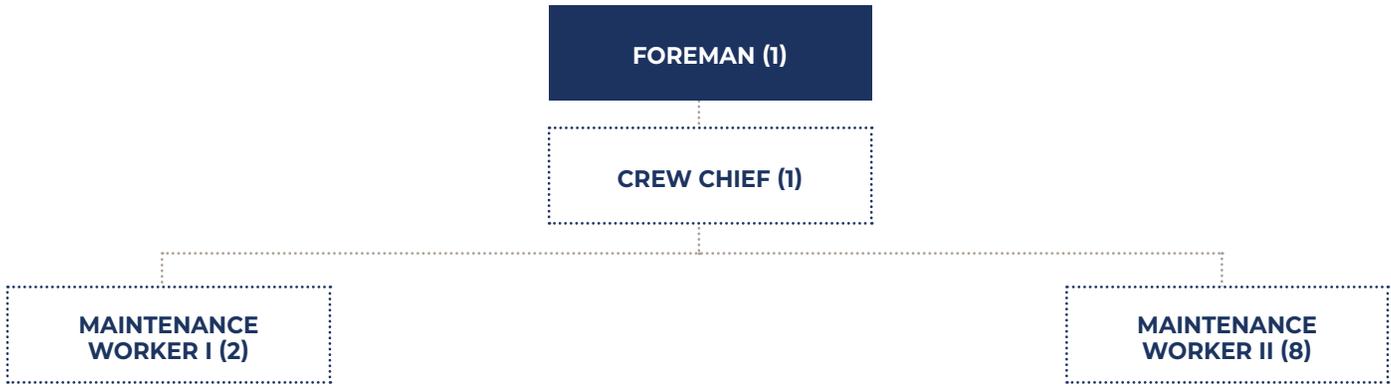
SPECIAL PROJECTS

- Forestry staff members attended several inter-agency meetings with the Arlington Heights Park District. The purpose of these meetings was to share issues, ideas, and resources together.
- Two certified arborists gave a presentation to the Arlington Heights Garden Club in October on the topic of “Going Green in Arlington Heights”. The hour long presentation delved into the numerous ways the Village has undertaken green initiatives to benefit the environment.
- A wood processor was rented to recycle tree planting and landscape spoils. The machine grinds up organic material and separates out any metal debris. The coarse woodchips are then sent through a smaller tub grinder machine to produce fine mulch. The Forestry Unit utilizes this mulch in all of its landscape beds. This process saves the Village money numerous ways. Public Works uses the small tub grinder in cooperation with the Arlington Heights Park District. Additionally, the Village no longer has to purchase mulch.
- The Forestry Unit utilized its aerial buckets to install new banners at the Metropolis Theater. These semi-permanent banners remain in place for several years.
- The Forestry and Sewer Units worked together this fall to plant 52 trees around the Cypress Detention Basin Project. This major project was tackled by Public Works to mitigate flooding in this area. Not only were these trees installed to aesthetically enhance the area, but also to alleviate the amount of water put into the sewer systems. The tree installation was coordinated with the completion of soil grading, sidewalk installation, as well as grass seeding.
- On June 30th, a line of severe thunderstorms rolled through portions of northern Illinois including Arlington Heights. Numerous wind gusts in excess of 60mph were received causing widespread tree damage in the Village. Initially fifteen trees were reported down, blocking sidewalks, roads, and driveways. At least two trees had to be removed from on top of cars. Forestry Unit crews spent two weeks cleaning up from the storm. Overall, residents called in ninety-two reports of downed trees, broken branches, or branches needing pickup.



SEWER UNIT

The Sewer Unit operates and maintains the storm, sanitary, and combined sewer mains, storm sewer detention basins, catch basins and manholes. They oversee sewer flushing, sewer televising, and root cutting operations, as well as cleaning catch basins. This Unit has a permanent staffing level of twelve (12) full-time employees.



SEWER UNIT'S RESPONSIBILITIES INCLUDE:

- Sewer main flushing
- Sewer main root cutting
- Sewer main repair
- Catch basin cleaning and repair
- Sewer utility locates
- Storm/sanitary lift station cleaning
- Sewer televising
- Emergency sewer backup response
- Rain Event/Flood response
- Water main break repair assistance
- Snow and Ice Control assistance
- Annex debris load out duties (asphalt, concrete, leaves, spoils, wood chips)
- Lake Arlington Inlet/Outlet cleaning
- Detention/Retention Pond Maintenance

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, which are high caliber pressure washers on wheels. 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. Since these trucks are hydro-powered, these trucks can only efficiently operate in temperatures above freezing. The risk in running these trucks in below freezing conditions can have catastrophic consequences. Expensive valves and pumps can be 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. Sewer Unit personnel perform these essential duties year-round as weather permits.



DURING 2019, THE SEWER UNIT PERFORMED BOTH ROOT CUTTING AS WELL AS FLUSHING ACTIVITIES ON BOTH SANITARY AND STORM SEWER SYSTEMS ON THE TOTAL LINEAR FOOTAGE LISTED BELOW:

TOTAL OF 41,470 LINEAR FEET OF SANITARY SEWER FLUSHING WAS COMPLETED.

TOTAL OF 249,269 LINEAR FEET OF SANITARY SEWER ROOT CUTTING WAS COMPLETED.

TOTAL OF 27,984 LINEAR FEET OF COMBINATION SEWER ROOT CUTTING WAS COMPLETED.

TOTAL OF 890 LINEAR FEET OF STORM SEWER FLUSHING WAS COMPLETED.

TOTAL OF 6,523 LINEAR FEET OF STORM SEWER ROOT CUTTING WAS COMPLETED.



SEWER MAIN REPAIR

In 2019, there were a total of 15 sanitary and storm sewer main repairs performed.

CATCH BASIN/MANHOLE CLEANING AND REPAIR

Catch basin cleaning is an ongoing activity that is performed regularly 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 is quite possible. The efforts put forth by performing these essential cleaning helps to ensure proper drainage especially during times of heavy rainfall in the spring/summer/fall months as well as snow/ice thaw events within the winter months.

- **A total of 335 catch basins were cleaned during the 2019 calendar year.**



Catch basin and manhole repairs are essential in ensuring their ability to perform their necessary functions. Materials built to construct these structures weaken/deteriorate over time so the need to perform repairs to keep them in top working condition is important. Sinkholes around them can develop during the spring/summer months due to previous harsh winter freeze/thaw conditions. This is an indication that a structure is failing and is in need of repair. Excessive infiltration and inflow from mere groundwater can become too commonplace, making these structures prone to increased deterioration and ultimately failure. By re-establishing structural integrity to each basin by performing the essential repairs, catch basin service lives are lengthened.

- **A total of 54 catch basins were repaired during the 2019 calendar year**
- **A total of 23 manholes were repaired during the 2019 calendar year**



UTILITY LOCATES

J.U.L.I.E generated locates are thoroughly investigated and processed by the sewer locator employee who determines the right course of action for everyone. Some locates do not warrant any action from a Sewer Unit standpoint, they are still calculated towards the overall total received.

- The total number of locates processed by the Sewer Unit for 2019 was 14,765

STORM/SANITARY LIFT STATION CLEANING

Sewer Unit crew members assist The Water Production Unit whenever the need for performing essential lift station cleaning duties are needed. It is always a joint effort between the two Public Works Units. The Sewer Unit provides the necessary equipment as well as the personnel to aid in the cleaning efforts as Water Production members oversee the entire operation. The following schedule below indicates the time-frame of when the sanitary as well as storm lift stations received their periodic cleanings.

EMERGENCY SEWER BACKUP RESPONSE

The Sewer Unit takes every call very seriously especially when it entails a sanitary sewer backup within a structure of any kind. Each call is properly documented as well as thoroughly investigated. If a block is present on the property owner's end, they are advised to have their service rodded to eliminate the blockage. If the blockage is caused by a Village main being blocked, either the obstruction is

flushed or root cut to re-establish flow. Sixty-eight sanitary sewer blocks were phoned into Public Works. Of the calls, four were legitimate where the Village main was actually blocked, the remaining calls were property owner issues.

SANITARY SEWER TELEVISIONING

Sewer televising is important in pinpointing problematic areas. Whether the flusher truck runs into an unknown obstruction in a main sewer, or looking at the overall condition of a sewer pipe, the televising equipment is invaluable. The camera gives us the ability to identify areas of concern where pipe sections are starting to show signs of deterioration, the need for replacement, offset pipe joints as well as overall pipe hygiene.

- A total of 19,848 linear feet of sanitary sewer was televised

STORM SEWER TELEVISIONING

In efforts to investigate problems in storm sewer portions around town, which seem to surface with every rain event inevitably, the need to investigate these problems by televising them is important. Although storm sewer lineal feet was not performed or recorded, the operation of "pole camming" catch basin leads to verify function or cleanliness was conducted when the need arose. This involves utilizing a camera mounted specifically on a fiberglass pole, which is then hooked, into a small video recorder that is controlled via a cable by the operator. It is very useful and eliminates the need for a confined space entry when taking a quick peek is all that is required.

RAIN EVENT/FLOOD RESPONSE

April 29th – May 1st approximately 1.85 inches of rainfall prompted Sewer Unit members to address street/yard flooding, as well as sewer backup calls. The Sewer Unit responded to 12 sewer backups, 4 yard flooding calls and 5 street flooding calls from residents. Of the 12 known backup calls, only one ended up being a Village blocked main, while the other two ended up being homeowner issues. The two know yard flooding calls were investigated, which were attributed to completely saturated ground, as well as poorly pitched yards preventing proper drainage. The 14 known street flooding calls were a result of debris-covered catch basin inlets preventing water to enter, which were cleaned to re-establish efficient drainage. Crew members also responded to several other catch basins that were in need of grate clearing on the way to these known locations.

ANNEX DEBRIS LOAD OUT DUTIES

Sewer Unit members consistently monitor and take care of all Annex housekeeping duties. The loading out of excavation-generated spoils, wood chips, leaves, diseased trees, concrete and asphalt are all part of the essential 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 projects. The Annex at different times of the year can be a full-time position for a Sewer Unit member, depending on what is being loaded out or brought in.

LAKE ARLINGTON INLETS AND OUTLETS CLEANING

The inlets and outlet at Lake Arlington are monitored very closely before and after rain/flooding events. Due to the nature of Lake Arlington providing drainage for the northern part of Arlington Heights, it is essential that the water can drain efficiently into the lake via the inlets and flow out just as efficiently through the outlet. The inlets and outlet are always cleaned in unison providing the proper drainage for the lake. Debris generally gathers up on both the northern and southern inlets in the forms of large branches, brush, and general debris. On average the inlets and outlet are cleaned a minimum of twice a month when the potential for inclement weather is evident and after an event.

DETENTION/RETENTION POND MAINTENANCE

Detention and Retention inspections were conducted throughout the year utilizing a new inspection form within Cityworks. These inspections are part of the 10% MWRD requirement per our MWRD permit.

UTILITY MAPPING

The Sewer Unit performs map updates for the various projects in which they are involved. In 2019, these included:

- **2019 Sanitary Sewer Lining Program**
- **2019 Manhole Rehabilitation Project**

Map work continues in providing updates to the current sewer system for improved accuracy. Field verifications and map edits are made to all current GIS maps as they arise.

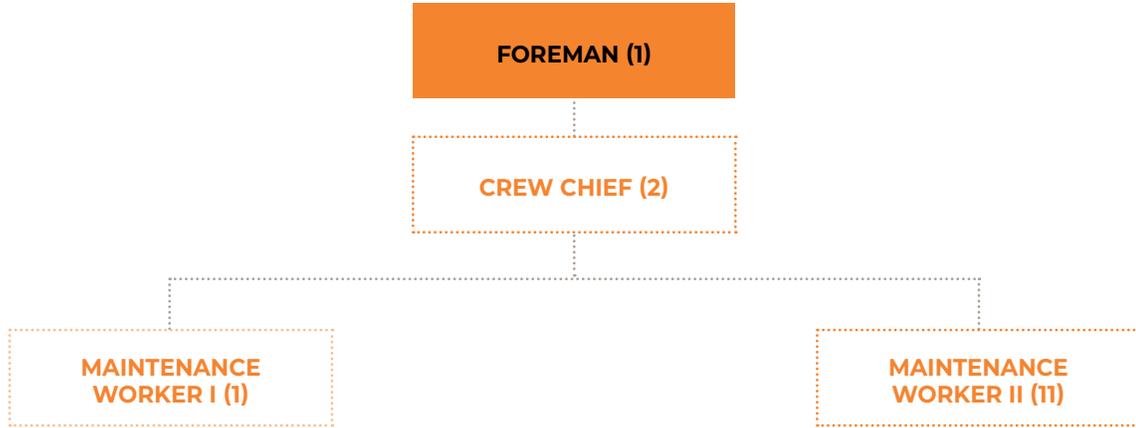


CYPRESS BASIN RESTORATION



STREET UNIT

The Street Unit is responsible for repair and maintenance of the Village's street network including street sweeping, snow plowing and ice control, as well as resurfacing and patching of streets and sidewalks. Street maintenance also includes three phases of edge grinding, where 6-8 foot wide edges of a street that are deteriorating are replaced with a new surface. This Unit has a permanent staffing level of fifteen (15) full-time employees.



STREET UNIT'S RESPONSIBILITIES INCLUDE:

- Snow and ice control operations including snow removal from Downtown streets, parking garage top decks and Village-owned parking lots
- Repair and replace mailboxes damaged by snowplowing operations
- Salt and liquid beet juice de-icer storage/application
- Portland cement concrete (PCC) repairs on streets, curb, sidewalks and driveways due to utility excavations
- Repairs and pavement failures
- Sidewalk grinding and patching sidewalk offsets to alleviate trip hazards
- Street sweeping and leaf sweeping program
- Street pavement maintenance (pothole patching) in winter
- Daily maintenance, sweeping and cleaning of the four Municipal parking garages and annual wash down
- Administer crack sealing and paver brick contracts
- Provide assistance for Promenade of Art, Unplugged Thursdays, Sounds of Summer, and other special events including Mane Event and Autumn Harvest
- Responsible for the delivery of barricades for street closures for block parties, parades, and running events
- Perform paver brick sidewalk repairs and maintenance
- Responsible for the removal of dead animals in the public Right-of-Way (R.O.W.)
- Assist other Public Works units during emergencies or heavy workload periods. Forestry Unit (Emerald Ash Borer), Water Distribution Unit (Hydrant Flushing), Sewer Unit (Flooding Events) and Fleet Maintenance (Snow/Ice truck preparation).



SNOW & ICE OPERATIONS

The Arlington Heights Snow Fighting Team consists of two crews of 26 members to clear the 241 miles of Village streets, parking lots and parking garages. Most of those miles require four to six passes to complete. A four-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 the 300 village cul-de-sacs of snow.

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 24/7 throughout the winter months.

The snow fighting fleet consist of the following.

- 20 – 2 ½ ton dump trucks
- 2 – 5 ton dump trucks
- 2 – 1 ton dump trucks
- 13 – pick-up trucks

SALT USAGE WAS DOWN IN 2019, WITH A TOTAL OF 5,382 TONS OF SALTED USED.

ASPHALT MILLING AND PAVING PROGRAM

In order to extend the life of Village streets the Milling and Paving 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.

Sometimes referred to as our Edge Grinding Operation. The projects are completed in 3 phases throughout the spring and summer months. Our 2019 totals for the months of April, June and August were nearly 40,000 linear feet.

- Phase 1: 13,600 linear feet 93,976 square feet
- Phase 2: 14,495 linear feet 100,160 square feet
- Phase 3: 11,587 linear feet 80,066 square feet

ASPHALT PATCHING

The Street Unit does both hot and cold mix asphalt repairs throughout the year. During the winter months main breaks and potholes are repaired using cold mix asphalt, a temporary fix until warmer weather. The freeze thaw cycle certainly effects the amount of instances for both of these winter time nuisances. We have four heated cold mix asphalt vehicles available for such repairs. During the summer months the unit focuses on permanent repairs of winter

time main breaks. Though a large portion of these repairs are completed by outside contractors, we try to do as many in house repairs as possible.

PARKING GARAGE MAINTENANCE

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 help to protect the integrity of the structures and increase their lifespan.

CONTRACTUAL REPAIR PROGRAMS

The Street Unit is responsible for the organization and overseeing of many contractual repair programs that cover main brakes, sidewalk saw cutting, various failing street repairs, street crack sealing as well as brick maintenance.

In 2019, these projects covered nearly 500 separate locations that replaced 37,000 ft² of concrete and 99,000 ft² of asphalt. Over 800 sidewalk offsets were cut, 168,000 lbs. of crack seal had been used and 1,100 ft² of bricks replaced.



STREET SWEEPING

The unit's three street sweepers run from April 1st to November 30th, which varies depending on the weather. A sweeper will average from 20 to 30 miles on a typical day. It takes approximately five to six weeks to cycle through all of the 19 Village zones.

The Street Leaf Sweeping Program runs during October and November, which requires staff assistance from other units in the Department. The Sewer and Water Distribution Units assisted by providing crew members to operate leaf-hauling trucks.

Street sweepers were also tasked with sweeping for a Village hired contractor as part of the 2019 Crack Sealing Program. Sweepers swept before the material was placed and again after the material had cured for a 24-hour period.

The street sweepers are stored during the winter months but we do keep one at the ready for emergency situations.

SPECIAL EVENTS

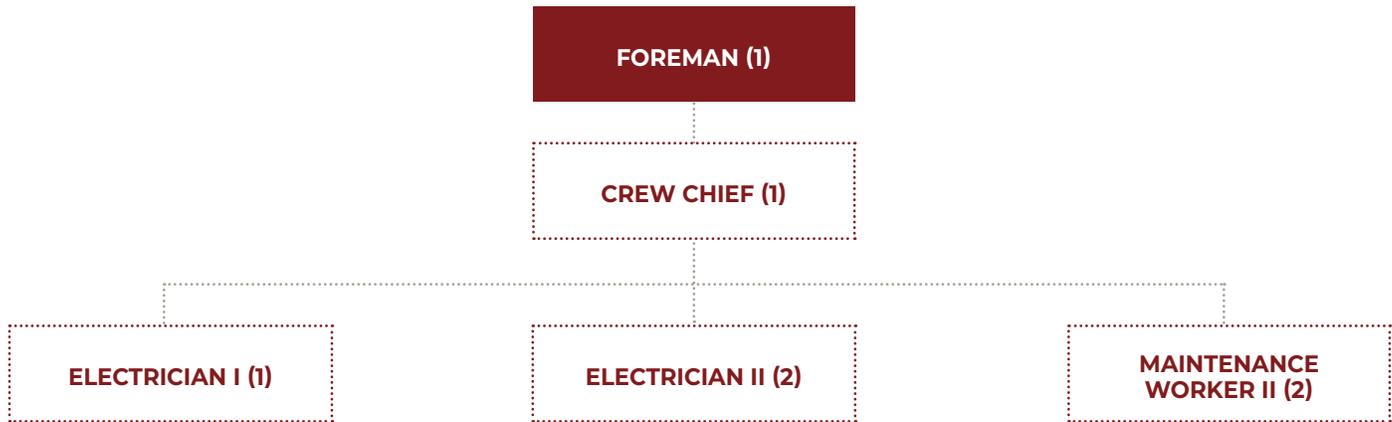
The Street Unit provided support to many of the annual special events; Promenade of Art, The Stampede Run, Frontier Day Festival, July 4th Parade, Mane Event, Taste of Arlington, Irish Fest, Dryden School Block Party and several Sounds of Summer concerts at Harmony Park. Some of the efforts and responsibilities included are race set-up, barricade delivery, road closures, float preparation and driving, and post event cleanup.

Street Unit members also worked and assisted with the annual Holiday Happenings event at Harmony Park in December. The event included a petting zoo, ice carver, food vendors, horse drawn carriage rides, a camel, guaranteed snow and Mr. and Mrs. Claus. Unit members also assisted in the annual "Santa Run," staff closed and opened roads for traffic control and safety, as well as cleanup of the event.



TRAFFIC UNIT

The Traffic Unit maintains street lights, traffic signalized intersections, traffic signs, pavement markings, solar powered disaster warning sirens and fare boxes located in commuter parking facilities. This Unit has a permanent staffing level of seven (7) full-time employees.



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 Locates

2019 ACCOMPLISHMENTS

- Completed a project in the store room of Garage 3 at the Public Works facility. Personnel removed all existing fluorescent light fixtures, and installed new light emitting diode (LED) type fixtures. The new configuration, and upgraded fixtures greatly improved the illumination of the inventory.
- The Traffic Unit installed a new two-hundred-amp electrical panel in the basement of the Metropolis building, associated conduit and wiring was installed to supply power for a new cooling system that was installed to regulate the temperature for the buildings elevator equipment.
- Provided electrical service for food vendors, stage sound and lighting for numerous special events that were sponsored by the Village, this would include the Promenade of Art, Mane Event, The Taste of Arlington Heights, Irish Fest, and the Sounds of Summer concert series.
- Completed the 2019 phase of the LED light conversion project in the Evergreen Municipal garage. Eighty fixtures were installed replacing the existing induction type fixtures. This project will be completed in 2020
- Completed the LED street light conversion phase for 2019. Personnel installed four hundred and five fixtures total this year focusing on the Surrey Ridge, Berkley Square, and Terramere neighborhoods. This program will pick up again in the spring of 2020.
- Installed conduit for new sensing equipment that was being installed into the fuel tanks at the Public Works facility, the conduit was installed from the main building to the fuel storage tanks located below grade.
- Installed a new pedestrian crossing signal system at the mid-block crossing on south Vail Avenue adjacent to the municipal parking garage.







- Installed a new street lighting cabinet at 1012 West Rand Road. Unit personnel poured a new concrete foundation to support the larger cabinet. In addition to the cabinet, Traffic personnel also installed a new service and riser to re-connect to Com Ed, the existing service pole had been damaged by a vehicle.
- Installed a new cabinet, power supply, and riser for a new RWIS system that was installed on the top deck of the Municipal Garage.
- Completed several repairs at Village Hall that were caused from a burst water pipe in the Planning Department. Several light fixtures had to be removed and replaced, and floor receptacles were replaced in the rooms directly beneath where the incident took place.
- Installed conduit to supply power, and operating controls for the overhead door system at the new Police Building.
- Repaired a fiber optic cable at the intersection of Arlington Heights Road and Thomas Street, this cable is used to co-ordinate the traffic signal timings along Arlington Heights Road.
- Staff inspected all of the punch list items regarding electrical issues at the new Police Building. Staff went through the building ensuring that each item was corrected prior to the Police taking occupancy.
- Provided a crane and operator to assist with the removal, and placement of the two Village holiday trees. In addition, staff installed illuminated holiday wreaths on the Village street light poles throughout the Downtown area.

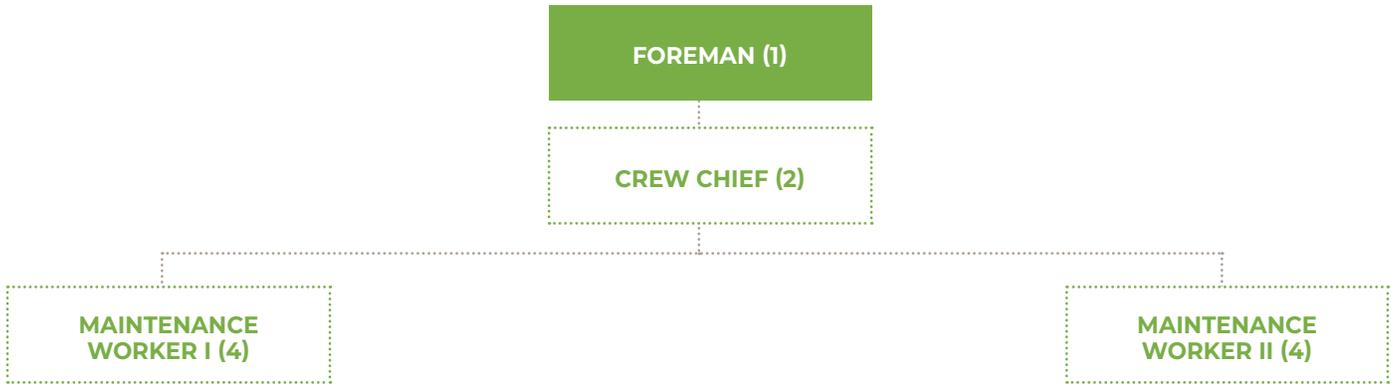
SIGN SHOP

- Striped and numbered the shooting stalls in the firing range at the new Police Building.
- Personnel fabricated and installed new “Cross Traffic Does Not Stop” signs at Village intersections that warrant them. These signs will be installed throughout the Village informing drivers that vehicular traffic is not being controlled in every direction at the approaching intersection.
- Fabricated and installed new Regulatory Parking Restriction signs on the 900 block of North Kaspar Avenue. A new ordinance was passed that required these signs to be installed.
- Removed restrictive signage along the ramp at the Municipal Parking Garage to create additional parking spaces.
- Replaced all “No Parking” signs along Arlington Heights Road, starting at Central Road, and extending north to Lake Cook Road.
- Fabricated and installed signs that restricted the public from entering the rear lot of the new Police Building.
- Installed four-hundred fifty-five signs in preparation for the Frontier Days Festival. Posts and signs were installed in the neighborhood around the festival grounds that will temporarily prohibit parking in designated areas, change traffic patterns by creating one-way streets, and provide designated handicap parking areas. The signs were installed prior to Frontier Days, and removed at its completion.
- Coordinated the new thermoplastic roadway markings that were applied throughout the village. Staff inventoried the existing condition of all of the pavement markings, generated maps, and worked with Superior Road Strippers throughout the installation process.
- Installed a new pay box at Municipal - Surface Lot T.
- Removed handicap symbols, and parking lines in the southeast corner on the ground level of the north Municipal Parking Garage. These spots were relocated to the southwest corner of the same level. New pavement markings and signs were installed to meet MUTCD compliancy.
- Fabricated and installed new signs in the Vail Avenue - Municipal Parking Garage. The new signs identify the different levels in the garage by using a color coordination system that was designed by the village parking committee.
- Installed new floor markings on the south side of Garage 3 at the Public Works facility, new markings were required after the completion of the floors resurfacing.

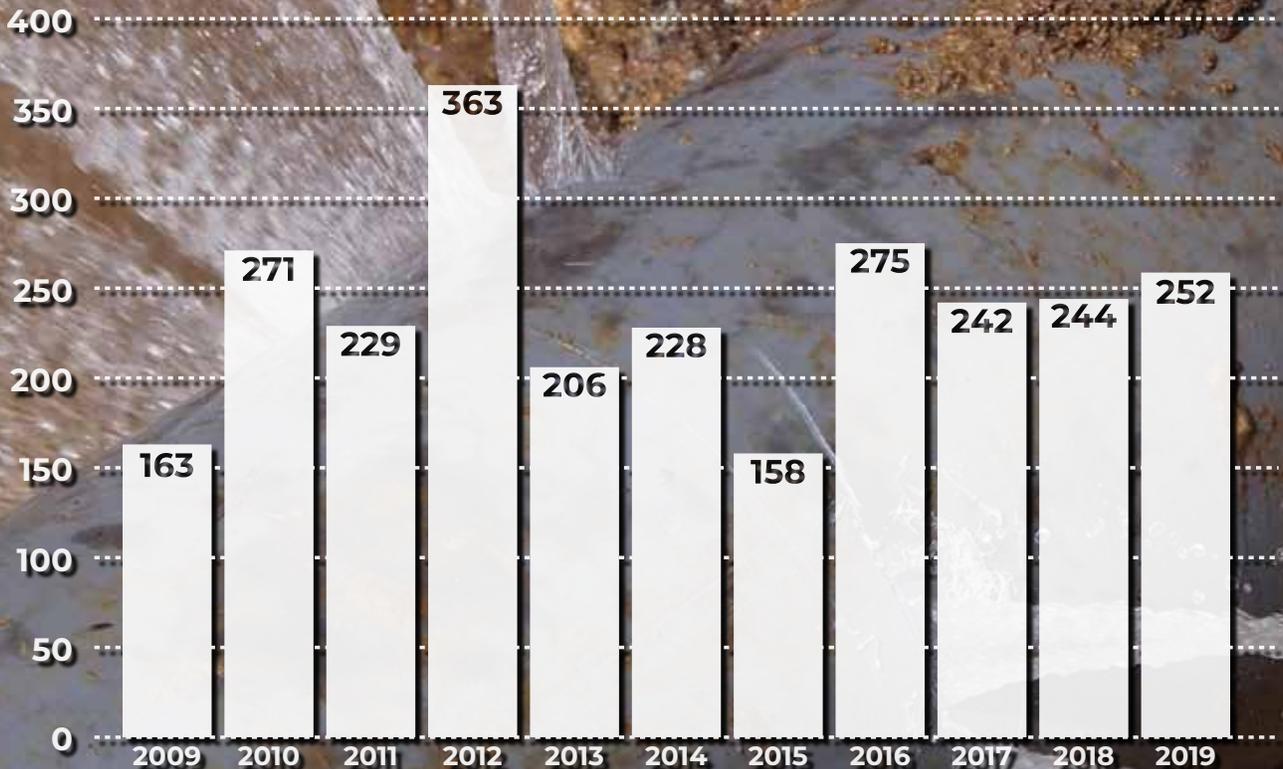


WATER DISTRIBUTION UNIT

The Water Distribution Unit maintains the Village's potable water distribution system, repairing breaks or leaks as they occur. They also provide assistance in snow and ice control operations and other emergencies. This Unit has a permanent staffing level of eleven (11) full-time employees.



WATER MAIN BREAKS (BY YEAR)





**WATER DISTRIBUTION UNIT
ACTIVITIES INCLUDE:**

- Water Main Repairs
- Fire hydrant repair/replacement
- Water Service line repair/replacement
- Water bill shutoffs
- Water valve exercising/repair and replacement
- Buffalo box repair/replacement
- Water utility locates

The Water Distribution Unit is responsible for performing all required maintenance and repairs on water mains (a total of 232 miles within the Village limits). The Unit is responsible for all new residential water taps ensuring a solid connection to the Village’s water system. The Water Distribution Unit is also responsible for keeping the estimated 4,350 fire hydrants and 3,400 main line valves throughout the Village in good working order, through periodic inspection and exercising programs.

UNIT ACCOMPLISHMENTS IN 2019

- The Water Distribution Unit repaired 252 water main breaks and repaired 16 water services.
- Crew members installed 50 water services for new construction or remodels
- Working alongside the water main contractors, crews installed 31 new fire hydrants and 7 surge suppressors to help prevent water main breaks due to water hammers.

- The “Fire Hydrant Flushing Program” is performed annually. It takes crews working around the clock for approximately 10 days to complete. Flushing is done to both clear the water main system of any debris, and to inspect each hydrant, both public and private, to ensure the hydrant is in good working order.
- During the Hydrant Flushing Program, crews flushed 3,318 public fire hydrants and 846 private hydrants and repaired 80 fire hydrants.
- Crew members installed a 16-inch E-Z valve to one of our water tanks at the Public Works facility. The E-Z valve is designed to insert a valve under pressure, so no water shut down is needed.
- Our Unit installed three 6-inch E-Z valves for the contractor that was lining our backyard water mains, on the south side of town.
- Crew members installed six new 6-inch valves for the contractor working on the storm water project at Cypress and Dunton.
- Our crews relocated the Cypress and Dunton garden plots to a South Goebbert Road location. This required our Unit installing 360 feet of 1-inch copper to service four-yard hydrants for the residents using the garden plots.
- There were three main water main projects this year. Martam Construction installed new storm sewers in the Downtown area, from Sigwalt to Campbell, and from Ridge to Dunton. This required the relocation of water mains and water services. During these service

interruptions, a precautionary boil order is issued, then the water is sampled, and then “all clears” are issued. This process is followed anytime a complete shutdown of the water main is necessary.

- During some water main breaks, it is necessary to replace water main. Two such breaks were at North Salem Avenue in the Sherwood sub-division and on East Apple Tree Lane. Both repairs required over 30 ft. of water main.

- Our crews worked with the contractor to replace the water main on South Yale Avenue from White Oak to the cul-de-sac.
- Crew members worked with the lining contractor Fer-Pal and assisted them with installations of new fire hydrants, main line valves and any new water services needed.
- Our Water Unit is one of the few units in the area that has its own leak detecting program. There

are two parts to this program: the survey phase, and the leak detecting phase. Surveying is done by listening on valves, hydrants or water services either manually or with the use of overnight loggers. If a leak is detected, the location is then listened on with microphones and the distance between the microphones and the size of the pipe is entered into the computer. The computer correlates the sound and pinpoints the leak, usually within a foot or two.

- While surveying this year, a water leak was discovered under the creek near Lake Arlington. This required the installation of new water main under the creek. Working with a contractor, our unit directionally bored a 12-inch water main. The product we used is called HDPE. This a flexible plastic made of thermoplastic HDPE.
- Crew members assisted the fire department at their training facility at Nichol Knoll. The exercise they were performing was extinguishing a propane gas fire. Neighboring fire departments took part in the training. They used a method called drafting. A 2000-gallon collapsible pool is filled and maintained from a fire hydrant. A fire engine pumper truck is then used to pump water from the pool to their fire hoses. This method is used by rural fire departments to help prevent water main breaks.
- Our Men’s Tapping Team competed in and won the State Championship, and went on to the National Championships held in Denver Colorado. This is our team’s 11th championship in twenty years of competing.
- Along with our day-to-day operations, the Water Unit assists other units: Streets with leaf pick up, Forestry with tree removals, stump grindings and the chipping of storm damage. The Sewer Unit with catch basin repairs, and the cleaning of storm drains during rain storms.



NEW VALVE INSTALLATION

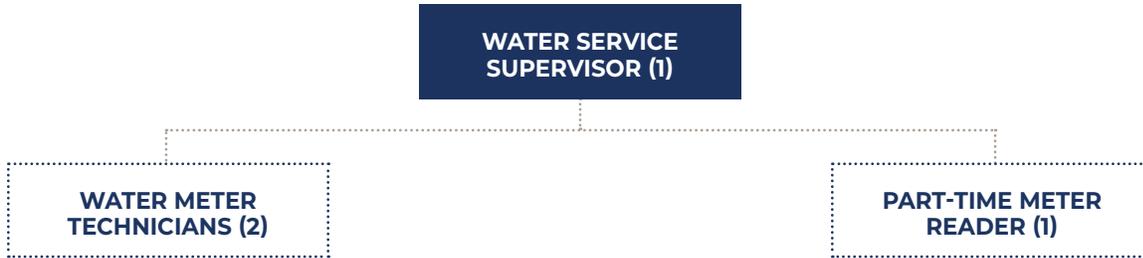
TAPPING TEAM COMPETITION

Both the Men's (Four Horsemen) and the Women's (Cranky Bits) teams won 1st place trophies at the State tapping competition at the Watercon Conference in Springfield, Illinois and that qualified both teams to go to the National Competition held in Denver, Colorado.



WATER METER UNIT

The Water Meter Unit repairs and maintains residential and commercial water meters. The unit also oversees Village-wide contracts for backflow preventer testing and larger commercial meter testing and repair. This Unit has a permanent staffing level of three (3) full-time employees and one (1) part-time employee.



BACKFLOW PROGRAM

Village-owned backflow device testing is running smoothly once again. The Village owns and maintains over 1500 backflow devices. Testing and repair of these devices is a balancing act of budgets and scheduling. Routine testing is scheduled around business hours that include restaurants, medical offices and the busy lives of residential customers. Backflow repairs are often planned weeks in advance to allow businesses time to schedule around water service interruptions. Privately owned backflow device tests are recorded in a database, and paper records are retained to comply with EPA requirements.

METER REPLACEMENTS

Meter replacements will increase as the new budget has been expanded in time to catch meters that are dropping off in accuracy. The replacement budget is mainly for commercial meter replacements. All of the residential meters were replaced between the years of 2004-2006. The commercial meters are on a maintenance and testing schedule but many of the larger meters were only retrofitted with AMR following the residential change out. That means a small portion of our commercial meters are as old as the 1970's and are no longer serviceable. The problem is not the meter design or quality but parts availability. The no lead NSF61 law eradicated many meter designs and halted production of most of our commercial compound meters. We are now testing the viability of electronic sonic meters as replacements. The cost of sonic meters is comparable to conventional meters. However, sonic meters have a lifespan of 15 years depending on serviceability and changing technology. The cost and lifespan need to be considered on a case-by-case basis.



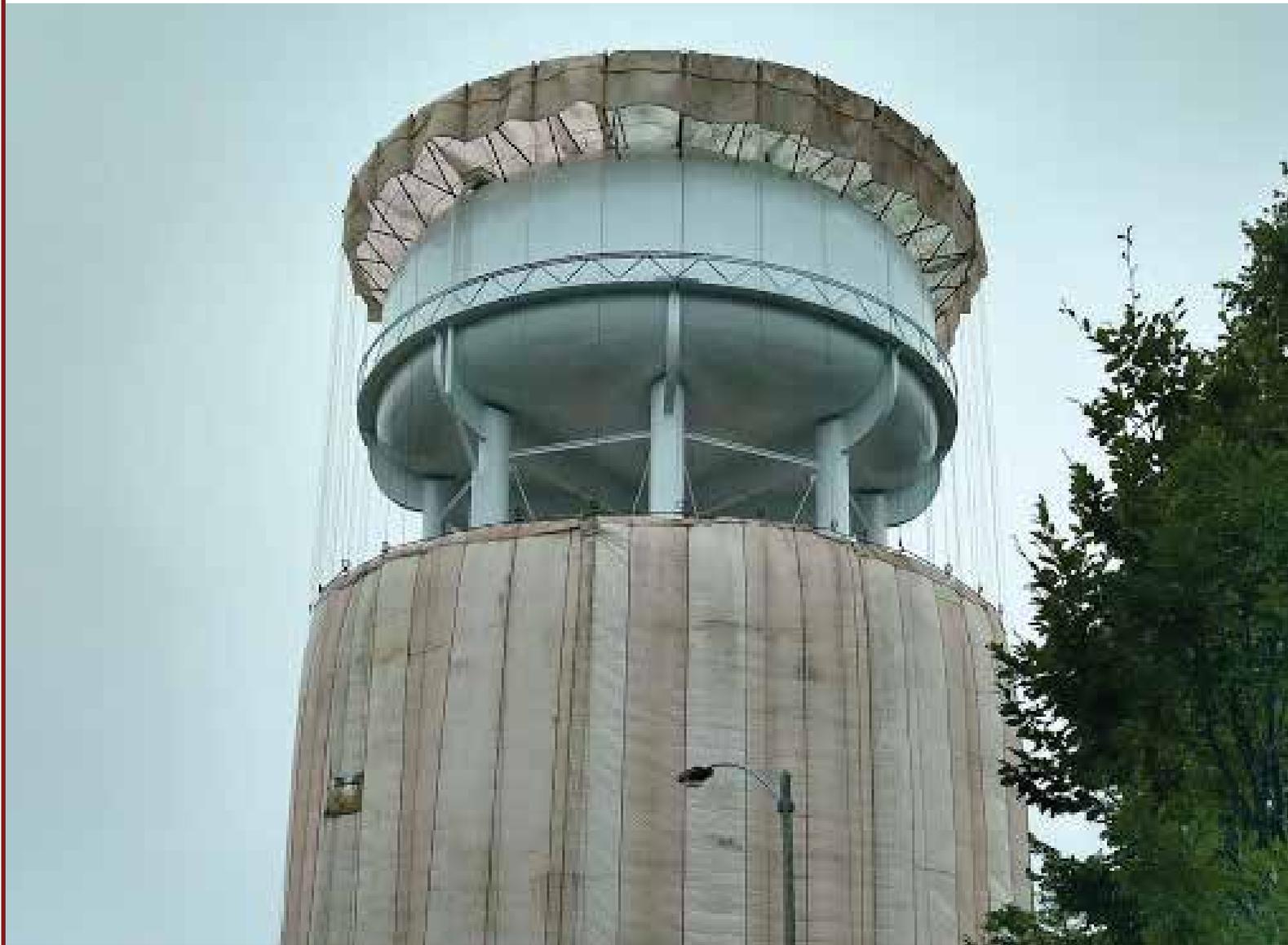
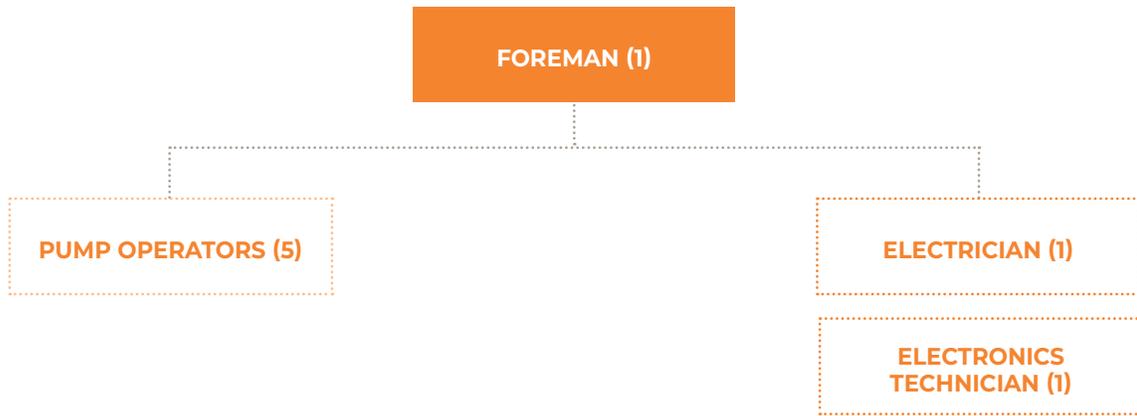


THE UNIT IS RESPONSIBLE FOR MAINTAINING AND READING OVER 21,125 WATER METERS. THE WATER METER SERVICES UNIT OBTAINS HUNDREDS OF FINAL METER READINGS DURING THE YEAR, WHICH ARE RELATED TO REAL ESTATE SALES AND FACILITY CLOSINGS.



WATER PRODUCTION UNIT

The Water Production Unit responsible for the operations and maintenance of all the potable water, sanitary and storm water pumping stations. They are also responsible for operating and maintaining the emergency wells and generators located throughout all Village facilities. Their duties also include all water sampling and water quality. This Unit is responsible as First Responder to all Village Public Works related emergency after-hours callouts. This Unit has a permanent staffing level of eight (8) full-time employees.



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 21 water, storm and sewage lift stations.
- Timely response to citizen inquiries regarding water quality.
- Maintenance, troubleshooting and weekly exercise of twenty-four emergency backup generators.
- First responders for Public Works “after-hours” emergency service requests.

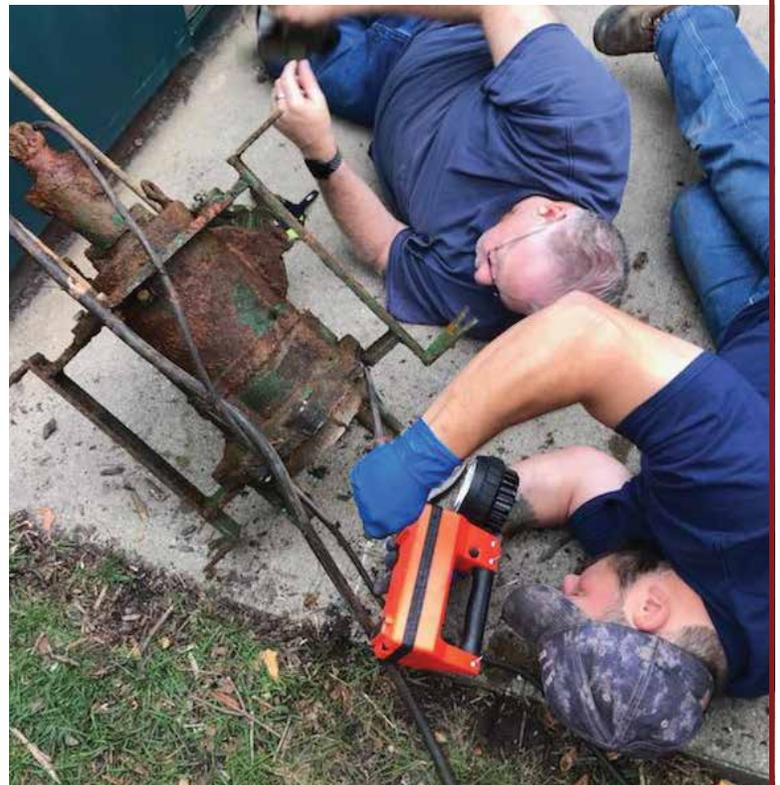
Water Pump Operators are State-Certified Class “C” Water Operators. Water samples are collected weekly and within IEPA ordered periods throughout the Village and analyzed at an Illinois Department of Public Health (IDPH) certified laboratory. Reports are then forwarded to the IEPA as required by law.

ADDITIONAL RESPONSIBILITIES INCLUDE INSTALLATION, OPERATION, MAINTENANCE AND REPAIR OF THE FOLLOWING:

- The municipal telephone and voice mail systems. This includes seven phone systems, two voice-mail systems and two 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, (4) Fire Stations and (3) parking garages.
- Audio/video, CATV, computer, surveillance camera, door access, alarm, master antenna, and other electronic systems throughout the Municipal Buildings.
- Twenty emergency electrical generators at the municipal buildings, pump stations and Fire 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.
- Additional communication systems used by Public Works including 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.
- Evergreen Parking Garage emergency backup generator system, CO detection and exhaust ventilation system, and security alerts.

Responsibilities include the installation and maintenance of all low and high voltage electrical and electronic equipment in the following facilities:

- Potable Water Pump Stations (6)
- Storm Water Pump Stations (6)
- Sewage Lift Stations (7)
- Elevated Water Tanks (2)
- Storm Water Monitoring Stations (3)





WATER PRODUCTION UNIT— 2019 ACCOMPLISHMENTS INCLUDE:

- Twenty-one water, sewer and storm stations were maintained and inspected each day of the year to ensure proper operation of equipment.
- Sewage Lift Stations were inspected and filters serviced each week.
- Water Production crew with help from the Sewer Department removed significant debris that entered the wet wells at twelve of our sewage and storm stations. Cleaning is performed two to three times a year depending on the amount of flow encountered. This ensures that the systems will be working properly when needed. The storm water pumping facility's "wing-wells" and intake grates were cleared of debris on a regular basis to allow unobstructed flow into the station.
- Crew members washed the one-million gallon ground storage tank at Station 9 along with six-million gallon ground storage tanks at Stations 13 and 16. Tank washing is a very physical, time consuming job. Normally due to time constraints, only one tank gets cleaned each summer. The weather cooperated this year and three tank washings were completed.
- The ground storage tanks at Station 9 and Station 13 South were emptied, inspected and the cathodic protection systems repaired. Upon completion they were sanitized, tested and put back into the system.
- Crews assisted Era Valdivia Contractors with various tasks related to the emptying and refinishing of our Thomas elevated tank. Construction was completed and the tank was sanitized and put back into service in mid-October.
- Pump Operators scraped, sanded, primed and painted several control cabinets, pumps, pipes and doors.
- Team members continued a hatch replacement program. The old cast iron hatches that cover valve vaults and wet wells are very heavy and have become a safety issue. Many of them have broken or missing hinges making it very difficult to safely open them. Several of these hatches are being replaced with aluminum retrofits.
- The microbiology laboratory at Public Works was completed, certified and put into service. One lab supervisor and five analysts were certified by the Illinois Department of Public Health (IDPH). There have been forty-nine water samples analyzed in the new lab since certification.
- The outdated programmable logic controllers (PLCs) and affiliated radios at Station 16 and 17 were updated in preparation for modifying the water system from a tank level control scenario to a local pressure control system.
- Defective electric unit heaters were repaired or replaced at seven locations.
- Defective rooftop ventilators were replaced at Station 16.

PUMPING COMPONENTS REPAIRED OR REPLACED BY THE WATER PRODUCTION UNIT

- Air release valves, quarter-turn isolation valves and associated plumbing were removed, cleaned and reinstalled on all thirteen potable water booster pumps.
- Defective submersible pumps were replaced at our Happ Farm sanitary and Hickory Meadows storm water pumping stations. The defective pumps were repaired by a vendor and put back in stock for emergency standby use.
- A defective motor and coupling were replaced on potable water pump number 13-1.
- In response to damage following a utility power spike, the motor, breaker and starter were replaced on pump number two at our Salt Creek storm water pumping station.
- A sump pump, check valve and piping were replaced in the basement pipe gallery at potable water pump Station 16.
- A defective air pump was replaced at our Hasbrook storm water monitoring station.
- Team members assisted technicians from Xylem Inc. during the installation of a new vertical turbine pump at our Mount Prospect storm water pumping station.
- The packing was replaced on two potable water pumps at Station 17.
- Sixteen temporary pump failures were investigated and repaired at our various sanitary pumping stations. The failures were caused by waste material getting stuck in the pump check valves preventing them from closing.
- A Variable Frequency Drive (VFD) was installed on pump number 9-1. This was the fourth VFD to be installed in the potable water pumping system. It is the beginning of a large project that will continue in 2020.

ADDITIONAL WATER PRODUCTION TASKS COMPLETED

- | | | |
|---|---|---|
| 12 Backup UPS repairs | 12 Repairs to permanent and hand-held emergency light fixtures | 31 Water quality complaints investigated |
| 134 SCADA updates and repairs | 3 Fire Station Alerting repairs | 53 Chlorine feed system maintenance, repair or calibration |
| 27 Respond to pump failures and SCADA alarms | 6 Data Cable installations | 20 Pump station LED lighting individual fixture retrofits |
| 31 Motor and pump evaluations and/or replacement | 1 Test Equipment repairs (equipment belonging to other Units) | 150 Creating new databases or writing new code for SCADA system |
| 21 Water system repairs/ replacement (pipes, valves, pumps, starters etc.) | 10 Events required setup and operation of the sound system | 7 Items that received fresh paint (doors, pumps, valves, and cabinets) |
| 9 Generator repairs | 127 Cell phones were repaired, replaced or reprogrammed | 144 Keyscan Door Access programming, installation, repair or card issuance |
| 8 Generators – Batteries replaced | 240 Phone or voice mail repairs, additions, deletions or programming changes | 8 Buildings cleaned |
| 11 Generators – Preventative maintenance & oil changes performed on | 50 Emergency phone repairs | 22 Senior Center A/V |
| 6 Generators cleaned | 11 Repair/rebuild outdoor security light fixtures | 12 Senior Center surveillance |
| 5 HVAC installation and repairs | 6 Various other telecommunications jobs | 19 Locate phone and fiber cables |
| 46 Audio/Video installations and repairs | 9 Repairs performed on pressure points and level controls | 267 Executime time-keeping software add and edit sessions |
| 15 Cable television tuner repairs or replacements | 47 Various training opportunities attended | 66 Laboratory setup and maintenance. |
| 46 Camera and Security System repairs | | |
| 4 Repairs to 2-way radio systems | | |

REPAIRS AND UPGRADES TO CHLORINATION SYSTEMS

- The chlorination systems were checked daily during rounds. The chlorine analyzers were tested and calibrated on a weekly basis.
- New chlorine controllers and automatic valves were installed at Stations 9 and 16.
- New chlorine supply tubing was installed at all stations.
- Replacement chlorine and pH sensors were installed in three existing chlorine analyzers.
- Two defective chlorine vacuum regulators were disassembled, repaired and reinstalled. The sight glass was replaced on one of the regulators.
- The chlorine leak detectors were tested on a monthly basis. The sensors were replaced when the existing sensors fell out of tolerance.

GENERATOR MAINTENANCE AND REPAIRS PERFORMED BY WATER PRODUCTION

- Weekly maintenance and exercise was performed on twenty four emergency standby power generators.
- Biennial preventative maintenance was performed on eleven of our emergency standby power generators.
- Triennial battery replacements were performed on seven of our emergency generators.
- Eight generators received a thorough cleaning and inspection.
- Dry rotted block heater and leaking coolant hoses were replaced with high performance silicone hoses on the main generator at Public Works.
- Troubleshooting and repairs were performed on the generator automatic transfer switches at Public Works and our Happ Farm sanitary pumping station.

STORM WATER AND SEWAGE LIFT STATION MAINTENANCE

Water Production personnel maintain seven sanitary lift stations and six storm water pumping stations that 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 and always followed to ensure crews safety when shoveling and vacuuming out the debris from the wet wells 20-40 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.

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 31,000,000 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.

WATER SAMPLES AND DUTY MAN RESPONSES

1,874*

Water Samples Collected

746**

After Hours "Duty Calls"

49

Water Samples Analyzed in the Public Works Water Quality Laboratory

*This is a 1.0% increase from the number of water samples collected in 2018.

**This is a 20.7% decrease from the number of "Duty Calls" responded to in 2018.



2019 RAINFALL TOTALS

NORTH SIDE (Well 13)	67.02 inches
CENTRAL (Public Works)	57.52 inches
SOUTH SIDE (Lost Creek)	51.30 inches
Overall Average	58.61 inches

(Average rainfall total is up by 6.5% from 2018)

WATER STORAGE FACILITIES FOR ARLINGTON HEIGHTS:

Four	6,000,000 gallon ground level storage tanks
One	2,000,000 gallon ground level storage tanks
Three	1,000,000 gallon ground level storage tanks
Two	1,000,000 gallon elevated storage tanks

Total of 10 tanks that can store up to 31,000,000 gallons

ANNUAL STATISTICS OF POTABLE WATER PUMPED IN 2019

THE ANNUAL TOTAL NUMBER OF GALLONS PUMPED IN 2019:

2,706,162,800 GALLONS

(TOTAL GALLONS PUMPED WAS 0.1% LESS THAN IN 2017)

THE AVERAGE NUMBER OF GALLONS PUMPED DAILY:

7,414,400 GALLONS

PER 24-HOUR DAY

THE MAXIMUM NUMBER OF GALLONS PUMPED DAILY:

**JULY 28, 2019 –
19,363,900 GALLONS**

THE MINIMUM NUMBER OF GALLONS PUMPED DAILY:

**APRIL 20, 2019 –
5,713,300 GALLONS**

THE AVERAGE NUMBER OF GALLONS PUMPED MONTHLY:

225,513,000 GALLONS

THE MAXIMUM NUMBER OF GALLONS PUMPED MONTHLY:

**JULY 2019 –
299,700,300 GALLON**

THE MINIMUM NUMBER OF GALLONS PUMPED MONTHLY:

**FEBRUARY 2019 –
198,610,600 GALLONS**





HALL EIGHTS ROAD

ACKNOWLEDGMENTS

The Public Works Department would like to thank the Village Manager, the Mayor, the Village Board, Village staff, and the residents of Arlington Heights. We believe that the cooperation and patience of the residents, and the support of the Village Board result in a team approach that benefits the Village as a whole. Thanks to all the people at Public Works for their dedication and commitment to the community, as they strive to maintain the exemplary quality of life that makes our residents proud.

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