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To: Dan Quick, Village Administrator

From: David Geary, Director of Public Works and Building and Zoning
Jackie Soccorso, Director of Environmental Quality and Public Works Supt. of Admin.
Alex Pryde, Public Works Superintendent of Operations
Joe Schwarz, Fire Prevention Division Chief and Building Commissioner

Date: July 28, 2010

Public Works, Building and Zoning, and Environmental Quality Department
Administrative Report for July 15th through July 28th, 2010

Public Works

Road Construction

Immediately after resolution of the three-week road construction strike, work began in earnest on Osage Street and Slocum Lake Road with our general contractor, Orange Crush. Since arriving on the job, the project has been progressing quite quickly as all parties are



working to have the area near the Grade School and Middle School completed (or nearly completed) before the beginning of the school year on August 18th. Seeing this large and involved road construction project in the middle of town has prompted many residents to contact the Village to inquire about road work in their neighborhoods that they perceive to be equally necessary. These requests are being compiled on a list that will be presented to the Village Engineer for his evaluation and possible inclusion in next year's projects. While many roads in the Village still need work, available funding for the road reconstruction (through the voter approved bond) will be depleted before all of these streets can be addressed. The Department and the Village Engineer have worked closely to address roads based on condition, daily traffic count, cost of the specific reconstruction, and to make sure that work was spread through all areas of the Village.

Roadside Memorial Policy

The Board recently passed a Village policy regarding roadside memorials placed by residents marking the site of a fatal traffic accident. The policy allows impromptu roadside memorials to be temporarily placed in the right of way until a formal funeral or memorial service is held for the crash victim(s) or for 7 days after the crash, whichever comes first. These memorials must follow specific guidelines or they will be removed immediately. In lieu of allowing long standing roadside memorials to be erected in the right of way at the site of a human traffic fatality, the Village will allow family members to participate in an Alternative Roadside Memorial Program. Through this program, family members can request that a tree be planted in the memory of a loved one who was lost in a crash on or at a Village roadway. Trees can be located within established parkways (if appropriate and allowable) or on Village owned property.

Street Division

Vehicle Certification

As required by OSHA, the Department had the new crane truck, the old crane truck, and the boom truck inspected and certified by an OSHA compliance officer. After the inspection, performed by Hills Crane Inspection Service, the Department was given a list of deficiencies for the trucks that were required to be addressed before the vehicles could be certified. All needed repairs were made, and the trucks have been certified for the coming year.

Arborist Activity

The lower alleyway in the Lake View Villa subdivision was cleared of all branches and growth over the roadway for proper clearance. Subdivision tree pruning was completed on parkway trees in Apple Country I (66 trees) and Apple Country II (198 trees). During this work, four medium sized trees were removed and stumped.

Pruning began in the Liberty Lakes Subdivision (111 trees). Because of tree growth, drastic pruning may be needed on some trees to allow for proper sightlines near street signs. (see photo)

A storm came through the area overnight on Friday July 23rd. On Saturday morning it was reported that a very large tree limb had fallen on Northwood Drive. Street Department staff was called in to cut and remove the limb.



Training

The Street Department conducted two short in-house workshops for all field employees on the use and operation of the Department's wood chipper and boom truck. Proper use of the equipment and truck and safety procedures specific to these two pieces of equipment were covered.

Two Street Department representatives attended training at Metropolitan Pump in Romeoville on how to make basic repairs to the pumps we have at many of our lift stations. We were able to bring a broken pump from Lift Station #2 to work on during class as a teaching tool. The seal fail on the pump was repaired in class and the pump is back in service.

Bangs Lake Weed Harvesting

The harvester broke down while cutting weeds on the lake in anticipation of the upcoming triathlon on July 25th. The conveyor had worn and rusted from normal wear of operations and required repair and replacement of parts. The harvester was removed from the water on the 15th and the maintenance crew from the Wauconda Park District assisted in the repairs. The boat was re-launched on the 21st. During this reporting period, 45 cubic yards of weeds were removed from the lake.

Street Signs

Two representatives from the Street Department attended an APWA sponsored webcast at our GIS provider Ruckert Mielke in Kenosha. The webcast focused on the recent changes to the *Manual on Uniform Traffic Control Devices* (MUTCD). The MUTCD is a document issued by the Federal Highway Administration (FHWA) of the United States Department of Transportation (USDOT) to specify the standards by which traffic signs, road surface markings, and signals are designed, installed, and used. These specifications include the shapes, colors, and fonts used in road markings and signs. All traffic control devices on public streets must conform to these standards. Major changes to the MUTCD were announced in 2009, requiring compliance by 1/15/2012. Some of the new requirements will require the Village to replace existing signs. The Department is working on a plan to meet these requirements. During this period, signs were added or replaced on Main Street, Foster Road, Gossell Road, Roosevelt Rd., Grant Pl., Park Pl. and Lakeshore Blvd. (In support of Strategic Goal D Task 1.)

Street Light Repairs

Five street lights that were reported out were repaired during this period. Heads were replaced on the lights at Route 59 and 176, Route 176 and Maple Ave., Osage Street and Slocum Lake Road, Osage Street and Maple Ave. and along Saddlewood Drive.

Water Division

Water Meter Service Records

The Department maintains service records for approximately 5,800 water meters. Beginning last winter, with the assistance of personnel from the Street and Reclamation Departments, these paper files were scanned, named and cataloged in electronic versions. This allows for file redundancy, saves office space, allows convenient access for multiple personnel, and serves as a more secure long-term storage option.

Main Valve Replacements

With the assistance of Bartnick Construction, we replaced two water main valves in the road construction zone on July 14th. The first valve, at Osage and Maple St., would not properly close. The other valve, located at Church and Osage, was broken while attempting a repair to the old equipment. The upper operating stem broke at the operating nut.



Separation of the Valve Bonnet from the Valve Body

Main Valve Repair July 20th

After utilizing this valve on Osage Street to shut down the water main for the July 14th valve replacements, it started to leak. We were able to excavate the area with the vactor truck and discovered a leaking test plug which we were able to replace under pressure without a water main shutdown.

Main Valve Replacement on July 26th

This valve at the intersection of Church and Bangs also developed a severe leak during the July 14th water main shutdown, and thus was replaced with the assistance of Bartnick Construction. We discovered the bonnet actually was pulling away from the valve body due to the stress on corroded bolts caused by merely closing the valve.



Broken Service Connection

Water Main Repair on July 17th

After receiving a call regarding water running up out of the road from the Wauconda Police Department during the early morning hours on Saturday July 17th, we discovered that the service connection saddle for Clark gas station at Osage and Rt. 176 had corroded away from the main. After the repair was complete, we were able to make weekend arrangements with our lab, and the boil order, which involved a nearby restaurant, was only in effect for one day.

Water Reclamation Division

Sludge Pressing

Our contractor, Syngro, began pressing and removing sludge from facility. A total of 250,754 gallons of sludge was pressed into cake form. The cake was later hauled away for land application. An estimated 600,000 gallons of sludge will be pressed during this application. Syngro will have to return at a later date to complete digester and tank cleanings.

Stream Sampling

On July 14th reclamation staff conducted stream sampling on six points along Fiddle Creek. Sampling is part of the Reclamation Facility Special Condition #17. This study is needed to see the impacts prior to and after completion of the plant expansion and the how it impacts nutrients on the stream.



Reclamation staff was also involved in sampling (as part of Environmental Quality duties) on July 21 22, at three Significant Industrial Users - PMI Sports, Synergy Flavors, and Stack-On Products. Annual sampling is completed to ensure that the industrial local limits are being achieved. Grab samples were also taken from Wauconda Sand & Gravel. On July 23rd, seven grease trap/triple basin inspections were completed. This is to ensure proper grease removal from facilities. Data was tracked in the computer database.



During this reporting period, reclamation staff:

- On July 14th, removed and discarded damaged sampler enclosures at Secondary Clarifier #3 and Excess Flow Clarifier. Replaced sampler enclosure at Secondary Clarifier #3 with enclosure from Secondary Clarifier #2.



- On July 15th the non-potable hydrant at chlorine contact tanks was excavated. There were multiple leaks before and after shut off valve. All piping was replaced and the hydrant was put back in service.

- On July 15 and 20, Maxim Construction helped repair Secondary Clarifier #2. The bottom sludge skimming manifold was out of alignment. The seals that connect to the manifold allow for proper skimming of sludge from the bottom of the clarifier. The seals were leaking sludge and causing short circuiting within

the tank. A new stainless steel plate was welded to the manifold and a new seal was attached to the manifold. The clarifier was put back into service and appears to working properly.

- On July 16, ADT conducted annual testing on the smoke and fire detection system on equipped buildings.
- On July 20, replaced o-rings and plunger on non-potable hydrant located next to the south primary effluent wet well. Hydrant had been leaking water at the base of the hydrant.
- On July 23, installed a second dechlorination line in the sandfilter/UV building. The line is used for a second pump if dechlorinization is needed.

- Safety discussion included a refresher session on chain saws and the chipper and boom truck. Weekly safety topic discussions included hard hats and safe work practices when moving 55-gallon drums.
- There were two off hour call outs in monitoring period. One was for the wet & dry liftstation going into float backup control mode. The other was for high flows due to heavy rains on July 23rd. A total of 3.50 inches of rain had fallen in the two day period. The excess flow clarifier and contact tanks were filled without any discharge of excess flows. Raw peak flows ranged from 8 – 9 MGD with effluent flows peaking at 8 MGD.
- There were two UV lamps that were replaced. One was sent back to Trojan Technologies for a replacement bulb. One of the bulbs had burned out prior to the 12,000 hour warranty.
- Grab samples were taken on Raw, Final, and Sludge for local limits study for industrial pretreatment. Work was completed as part of Environmental Quality Duties.
- Complete weekly, monthly and annual preventative maintenance package. A total of 346 valves were operated and exercised throughout facility.

Indicators for Water Reclamation (14 day reporting period)

Final Flow

Total pumpage for period: 19,955,000 gallons

Design flow of treatment: 1,900,000 gallons per day

Design maximum flow of Treatment works: 6,000,000 gallons per day

Average flow for reporting period: 1,425,000 gallons per day

High flow reporting period: 3,677,000 gallons

Low flow reporting period: 917,000 gallons

Performance Indicators for Water Produced

Total pumpage for period: 19,615,000 gallons

Dependable capacity of water works @ 24 hrs/day: 3,470,070 gallons per day

Dependable capacity of water works @ 18 hrs/day: 2,548,470 gallons per day

Average daily pumpage for reporting period: 1,401,000 gallons per day

High day for reporting period: 1,738,000 gallons per day

Low flow for reporting period: 1,004,000 gallons per day

- JULIE locates: 97
- Daily check of water facility: 14
- Daily water supply operational tests conducted: 242
- Daily water distribution operation test conducted: 70
- Non-daily bacteriological samples collected: 2
- Non-daily chemical samples collected: 20
- Repaired water meters: 8
- Red Tags delivered: 158
- Final readings: 37
- Backflow 1st notice: 31
- Backflow 3rd notice: 1

Building and Zoning

Building Department:

Site Inspections/Reviews:

1247 Water Stone Circle / Deck
Lake Point / Privacy Fences (16)
2400 Trailside Lane / Fence
1499 Sutton Drive / Retention Wall
2473 Dogwood Drive / Patio
1437 Roxbury Lane / Drive/sidewalk
1003 Highland / Deck
918 Jackson / Driveway/Pad

950 Jackson / Tree
2650 Water Lily Lane / Fence
2639 Water Lily Lane / Fence
1699 Napa Suwe / Fence
505 Bonner Rd. (Food Pantry)/Buildout
1036 Bonner Rd. Patio/Drainage
235 Kimball Driveway/Drainage
1687 Napa Suwe / Deck

Meetings:

- Small Town Brewery/ Site review with staff
- Dairy Queen site and IDOT review
- Maimans Shoreline Restoration / Devery Engineering
- Public Works/ Building Department Meeting

Inspectors:

- 115 building permit inspections
- 15 Residential Dwelling Inspections
- Inspectors completed inspections on a list of 257 open permits that had not been inspected and closed when the department was reorganized in October.

Permit Desk:

- 35 building permits for total revenue of \$18,624
- 12 new Real Estate Dwelling Inspection Applications for total revenue of \$900
- 16 electric and 13 plumbing inspections by sub-contractors
- 22 garage sale permits
- Processed 2 FOIA requests
- Prepared flyer regarding the codes that require a building permit and the fine for not obtaining a permit

Zoning Services

Rolf C. Campbell and Associates (RCCA) continues to work with Village staff on various planning and zoning questions including referrals and reviews with Village staff on potential economic development opportunities. Recent inquiries have been related to 616 W. Lakeshore Boulevard, a residence in Liberty Lakes, Main Street Building permits and 225 Maple Ave. RCCA continued preparation of initial draft amendments to the Village Sign Ordinance as reviewed with the Public Works and Building and Zoning Committee.

Zoning Administration Services – Specific Applications

421 W. Liberty Street: Conditional Use Permit (CUP) Application - RCCA continues to monitor the status of the application with the applicant.

Legion Court: RCCA continues to monitor progress of annexation agreement amendment and potential future CUP application.

26950-80 Rt. 12-Homer Tree Service: RCCA continues to monitor status and communicate with the applicant and Village Staff.

Environmental Quality

Wauconda Sand and Gravel Landfill-NPL Site

Work continues on the development of an NPL ordinance. Progress is slow due to USEPA delays. It is anticipated that this ordinance will be ready to go to COW in August. A conference call was held with the Village Attorney and the Village Engineer to identify the means possible to expedite this process.

Plan Review for Proposed Brewery

Director Soccorso has completed her review of the wastewater discharge from the proposed brewery. She worked with the owner to adjust his process so that the wastewater will likely meet ordinance discharge standards. As such, she has no objection to the issuance of a Certificate of Occupancy from the Building, Zoning, and Planning Department.

FOG Inspections

During the reporting period, seven grease interceptors/grease traps were inspected. These inspections help to ensure that food service facilities are not discharging excess amounts of grease to the sanitary sewer collection system. Excess grease can cause blockages in the collection system, possibly resulting in sanitary sewer overflows (SSOs). If the Village experiences an SSO, it must report it to the Illinois EPA and may incur enforcement actions up to and including fines.

Lake Level

During the reporting period, the water level of the lake decreased from + 3.75 inches to a low of + 2.50 inches, then rose to its current level of +6.50 inches. The amount of rain that fell during the reporting period was 3.53 inches. The lake will continue to be monitored closely to ensure the outlet remains unblocked and water exits freely, to reduce the likelihood of flooding. In addition, the Broberg Marsh culvert located on Lake Shore Blvd is being monitored on a daily basis. This area must remain clear of debris and free flowing in order to ensure proper drainage.

Environmental Committee

An Environmental Committee meeting was held on July 20, 2010. Items discussed were EQ Goals update, SWALCO update, weed harvester operation, and a proposed zero-phosphorus ordinance brought forward by the Bangs Lake Advisory Committee. The Environmental Committee decided that more information is required before they make a decision of whether or not to bring the proposed ordinance forward to a COW meeting. Village staff will contact other communities with similar ordinances to determine if phosphorus levels dropped after implementation. Staff will also gather information from other communities on how these ordinances are enforced. Another Environmental Committee meeting will be scheduled to continue discussion on the proposed ordinance.