

City of Wisconsin Rapids

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PW-2

Director of Public Works Report

Activity highlights of 2018

Airport:

- Completed reconstruction of Runway 12/30
- Completed construction of Taxiway B East
- Completed resurfacing of Runway 02/20
- Completed installation of new runway edge lights, threshold lights, runway end lights, signage, and taxiway lights
- Started construction on apron expansion: stormwater mitigation, lighting, base and paving, connective taxiway
 - Work to be completed in spring: completion of apron paving, runway and apron painting, signage, restoration, landscaping
- Planning and design for Taxiway A completed
- Taxiway A project bid and let, construction to commencing spring 2019
- Planning and design for hangar construction started
- Operations:
 - o Hosted nearly 800 transient aircraft during golf season
 - Exceeded budgeted net profit by approximately \$60K
 - Operating expenses were within budget
 - o Fuel sales nearly doubled from 2017

Buildings and Grounds:

- Planning and construction of new garden area-patio at Centralia Center
- Painting of entrances and sign at Centralia
- Preparation of old Human Services area for Community Theatre
- Exterior Sign Updating at Centralia Center
- Phase 1 development at Zoo
- Movement of existing Garage from Westside Lift station site to new Zoo location
- New siding and fence installation at Petting Zoo
- Generator installation projects at East & West Fire Stations and City Hall
- Interior Bathroom refurbishment at Robinson Park
- Replacement of Exterior doors at City Garage
- Refurbishment of men's bathroom at Witter Field
- Painting of various locations within city hall
- Inventory of City Buildings for Capital Improvement Plan
- Extensive city wide Tree trimming

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- Removal of over 45 stumps
- Spring and Fall Tree plantings in areas were trees were removed for projects and age
- Water and power switch overs at Centralia Center due to construction of new YMCA and Boys and Girls Club
- Development of new mowing routes within Parks and Street right of ways

Engineering:

Most notable accomplishment

The initiative for designing projects 2 years in advance has been holding steady. The current status of projects is as follows:

- 5 reconstruction & sidewalk projects in 2019 All but one project is beyond 90% completion and most designs are complete with only one remaining permit to obtain.
- 4 reconstruction projects in 2020 2 projects are at 30%, 1 at 50% and 1 at 75%

Our goal would be to have all 2020 projects at 75% completion at this point in time, but we are getting closer to where we want to be with project designs. Also, an upcoming retirement and replacement of two seasonal technicians, coupled with construction operation changes in 2019, may cause some temporary delays in meeting this goal. However, some operational changes and restructuring are anticipated to prove effective in meeting long range design goals.

- East River Bank Phase I Construction is substantially complete and ~\$200,000 under bid
- East River Bank Phase II is on track for early bid opening in February
- E Grand Ave design is completed and contractor is selected
- A 2-year project to update the City's Storm Water Management Plan was completed in Dec.

Reconstruction Project statistics

- 1531 LF of sanitary pipe
- 1637 LF of storm sewer
- 38 catch basins
- 2693 LF of water main
- 0.63 miles of roadway reconstruction
- 2.12 miles of sidewalk
- 3000 LF of sewer lining

Survey Statistics

- Established City Benchmarks to Wisconsin DOT datum (Adjusted 2012).
- 226 Benchmarks set, 16.23 mile bench loops, 0.007 of a foot average closure (3/32 of an inch).
- Performed construction staking and on site assistance.
- Performed Preliminary Surveys and As-Built plans, obtaining 9,269 survey points.
- Performed Line and Grade for Driveways (22 Drives).
- Marked Right-Of-Ways for brushing purposes.
- Scanned Permanent Limit Easements on file in City Clerk's Office.

Permits

• 12 DNR permits for City projects (ch. 30, dewatering, NOI, sewer extension, and water extension)

- 2 Army Corp permits for City projects
- 131 Excavating Permits
- 75 concrete permits
- 19 Asphalt Permits
- 5 Right-of-Way Occupancy Permits
- 2 Testing Well Permits
- 3 Storm Water Permits
- 5 Storm Water Connection Permits
- 25 Permit Parking Permits

Diggers Hotline Tickets

• 1,925

Concrete Statistics (Maintenance, quality control, contractor oversight & Project Related)

- 9330 LF of curb & gutter replaced
- 1,692 LF of joints were ground as part of the sidewalk maintenance program.
- 63,200 LF of concrete pavement joints sealed

Streets:

- 145, 241 sq yds of chip seal maintenance performed on approximately 7.8 miles of roadway. The process of seal coating required the use of 55,200 gallons of oil and 1,743 tons of fractured chips.
- Completed approx. 180 hot patches and paver patches totaling nearly 1300 tons of asphalt.
- Completed 39 Full Depth Concrete repairs. Replacing 400' of roadway and 150 cubic yards of concrete
- Approximately 56 catch basins repaired, including 5 complete rebuilds, and 51 maintenance repairs consisting of replacement of rings, castings, backs, tuck-pointed pipe/joints, pipe repairs, curb pours, and site restoration.
- Replacement or adjustment of 30 Sanitary or Storm Manhole Castings
- 1,193.4 tons of recycling collected with the automated recycling collection process a slight increase from previous year 1164 tons
- Consistent, dedicated enforcement of recycling rules has greatly enhanced cleanliness and aesthetic appeal of the City
- Worked with Harvard University research group to come up with behavioral solutions to encourage recycling ordinance compliance
- 5,634.6 tons of refuse collected from residents
- 2,075 tons of street sweepings collected
- 9,500 tons of yard waste collected and processed
- Managed 25 different snow events in 2018, using 1,660 tons of salt
- Crushed 12,000 yds of asphalt using city staff instead of contracted services
- Provided street closures for multiple events within the city: City parade, 4th of July, Rekindle the Sprit Parade, Run with the Cops, Trunk or Treat, Royal Event, Run the Rapids, Grand Affair, etc.
- Razed 4 condemned buildings for the Planning and Economic Development department
- Removed Carpet and interior walls and ceiling in East Town plaza building downtown
- Replaced 125 Stop Signs that no longer meet the requirements of the MUTCD
- Replaced Banners in downtown district 12 times

- Reconfigured driving lanes and turn lanes on 16th Street from Expressway to Huntington Ave for the High School
- Worked on redevelopment of City Ordinance in preparation to convert over to automated refuse pickup in 2019
- Received 6800 automated collection garbage cans
- Installed donated exercise equipment in Demitz Park

Wastewater:

- Plant:
 - o 1.17 Billion Gallons of Wastewater treated
 - o 4.1 Million Pounds of BOD treated
 - 1.2 Million Pounds of TSS treated
 - o 35,000 Pounds of Phosphorus treated
 - 45.5 Million Cubic Feet of Biogas produced from our TPAD digestion system (All biogas was used to fuel our CHP generator and produce in house KW)
 - 6.9 Million kilowatts (KWH) generated and used by our CHP generator saving the Utility over 65% on electric bills
 - o 5.5 Million Pounds of Class A biosolids produced and land applied as commercial grade fertilizer
 - o 9.6 Million Gallons of hauled in waste treated
 - \$150,000+ in tipping fees for hauled in waste which serves the dual purpose of extra revenue and nutrient balancing for optimal plant performance
- Collections System
 - 1000+ Catch Basin cleanings/maintenance work performed
 - Televised 12+ miles of sanitary and storm sewers to assist engineering in design work, plan for capital improvement, assess conditions, and monitor the systems
 - Flushed 500+ dead end sanitary sewers to maintain proper flow and conveyance
 - Hydro cut roots in over 5 miles of sanitary sewers for maintenance and longevity of pipes
 - o Assisted street department crews in catch basin repair, street construction, and maintenance
- Additional Highlights
 - Near completion of \$6.5M west side lift station and force main project which will be a brand new state of the art pumping station to serve the west side of the City
 - o 7 lift stations upgraded to radio telemetry to improve communications with remote sites
 - 6 lift stations upgraded with pressurized transducer systems and controllers for improved reliability and functionality
 - Nitrification initiative has improved biological SVI (solids volume index), current monthly average is
 <300 which is greatly improved over past performance
 - Switching from Ferric Chloride for phosphorus control to Poly Aluminum Chloride has also aided settling and overall clarity
 - Improved settlability has also improved rotating drum thickener performance, we have seen a 30% reduction in overall polymer used on the RDTs in the last 3 months
 - Improved settlability has allowed staff to take an entire final clarifier offline, saving approx. \$3,000 annually on operational costs
 - Improved settlability has created additional (usable) BOD treatment capacity, allowing staff to take in more hauled waste or save capacity for local growth/industries

Other highlights:

- Completed concepts, designs, and construction plans and specifications for the aquatic and park complex at Witter Field
- Attended various community meetings to discuss recycling operations, city street projects, and aquatics design
- Developed the approved the 2019-2023 Capital Improvement Plan, guiding public works engineering, maintenance, and construction projects into the future
- Worked on organizational planning with public works staff to improve efficiencies and anticipate future needs
- Work with public works depart heads to improve communication, working relationships, trust, and confidence.