



**MANAGER'S REPORT FOR NOVEMBER 2, 2012
GENERAL INFORMATION AND RESPONSES TO MAYOR & COMMISSIONER REQUESTS**

Places to be this Week...

Village Council Meeting – The Village Council meeting will be held on **Tuesday, November 6 at 7 p.m. in the Council Chambers** at Village Hall.

Future Calendar Reminders...

Village Council Meeting – The Village Council meeting will be held on **Tuesday, November 13 at 7 p.m.** in the Council Chambers at Village Hall.

Presentation at National APWA Sustainability Conference Featured - Kevin Bobikiewicz's presentation this year at the National APWA Sustainability Conference was recently featured in the Sustainable City Network Magazine. Kevin made a presentation about the Village's hybrid streetlights in the Prentiss Creek subdivision that received a lot of attention at the conference. The article also noted the Village's Innovation Committee and the many sustainable practices that have been implemented. A copy of the article is attached.

STREET MAINTENANCE

2012 Roadway Maintenance Program, Street Resurfacing (B) Phase 2

Awarded Amount: \$1,734,912.38

Contract Completion Date: 11/16/12

Work Performed This Week:

- Asphalt base patching completed in 68th / Carpenter area and small amount on Powell.
- Remaining concrete base patching completed on Montgomery, Wallbank and Seeley.
- Remaining minor concrete sidewalk repair work completed in the 68th St area and Concord area. Some punch list sidewalk work also completed in the Cumnor / Grant area.
- Final base preparation and placement of first course of new asphalt completed throughout all Montgomery to Stonewall area, Palmer / Powell area, 68th area and Concord area.
- Surface course paving completed on 68th St and Concord Drive.
- Some parkway restoration preparation started in the Palmer area.

Work Anticipated Next Week:

- Adjustment of structure frames in the pavement will be completed throughout Montgomery to Stonewall area and Palmer / Powell areas.
- Surface course paving may be completed throughout Montgomery to Stonewall area, Palmer/Powell area, Carpenter, Concord Ct and Concord Pl.
- Stone shoulder repair / replacement work may begin throughout Cumnor/Grant/Sheldon area and Stonewall/ Cornell area.
- Parkway restoration prep may continue throughout affected streets.

Percent Complete 85%

Valley View Estates Reconstruction and Water Main Replacement

Awarded Amount: \$3,552,453.00

Contract Completion Date: November 16, 2012

Work Performed This Week:

The contractor cleaned up parkways and completed installing topsoil and sod on all of the streets within the subdivision. The contractor also installed the final layer of asphalt on the entire subdivision.

Work Anticipated Next Week:

The contractor is scheduled to complete pavement markings within the subdivision and may begin work on punchlist items.

Percent Complete: 96%

Knottingham Reconstruction and Water Main Replacement

Awarded Amount: \$5,489,847.76

Contract Completion Date: November 16, 2012

Work Performed This Week:

The contractor completed the installation of asphalt up to the binder level along south Queens Court and Sherwood. The contractor is adjusting manholes. The contractor is continuing to place sod throughout the project area.

Work Anticipated Next Week:

The contractor will work towards placing the final level of asphalt starting at the north end of Queens Court. The contractor will continue to place topsoil and sod throughout the project area.

Percent Complete: 90%

Grove Street Reconstruction

Contract Amount: \$1,002,026.83

Contract Completion Date: November 20th (revised schedule shows work extending into mid December due to delays caused by Clean Construction Demolition Debris regulation changes)

Work performed this week

All watermain and storm sewer work have been completed in Grove Street. Removal of sidewalk and remaining curb and gutter have begun.

Work to be performed next week

New sidewalk and curb and gutter will be installed in Carpenter Street and portions of Grove Street. Brick installation will follow shortly thereafter in these areas. Carpenter Street is planned to be reopened to traffic on November 15th.

Percent Complete: 40%

WATER IMPROVEMENT PROJECTS

Maple Avenue Water Tower Repainting Project

Awarded Amount: \$954,210

Contract Completion Date: November 26, 2012

Work Performed This Week:

- Interior sand blasting and priming of the bowl.
- Exterior sand blasting and priming.

Work Anticipated Next Week:

- Continue interior sand blasting and priming of bowl.
- Continue exterior sand blasting and priming.

Percent Complete 35%

2012 Water Main Improvements – Contract B

Awarded Amount: \$1,312,022.56

Contract Completion date: October 5th

Work Performed This Week:

Water service connections for businesses on Curtiss Street between Belmont Road and St. Joseph Creek were completed. Parkway restoration work (sod) completed on Florence Avenue & Curtiss Street. Blodgett Avenue milled within work zone.

Work Anticipated Next Week:

Blodgett Avenue to be patched and paved with HMA Level Binder & Surface. Curtiss, Cumnor and Florence to be paved with HMA Level Binder and Surface. Finish parkway restoration on Curtiss Street.

Percent Complete: 90%

STORMWATER/DRAINAGE IMPROVEMENTS

2nd and Cumnor – Basin Planting

Contract Amount: \$39,515.00

Contract Completion Date: June, 2013

Maintenance and monitoring for 2012 has been completed. The contractor will resume with maintenance and monitoring of the plants in the spring of 2013.

Ongoing Work:

Maintenance and monitoring of plantings.

- Percent Complete: 95%

Prentiss Creek (Sub E) – Kensington Place

Contract Amount: \$330,644.58

This is a design/build contract and the project is in the design phase.

Contract Completion Date: Anticipated Summer 2013

Work Performed This Week:

The contractor continues to coordinate with the Illinois Department of Natural Resources for a determination on the permitting requirements for future improvements to the weir structure.

Work Anticipated Next Week:

Begin design after determination of the weir structure by the Illinois Department of Natural Resources. Staff is coordinating with the contractor to schedule a public meeting after determination by Illinois Department of Natural Resources.

Lacey Creek (Sub G) Stormwater Improvements - 35th St between Saratoga and Venard

Final plans and specifications have been delivered. Regional permit approved by Army Corp of Engineers and Kane DuPage Soil and Water Conservation District. Village to approve stormwater permit. Project will be constructed in spring 2013.

Wisconsin and Janes Stormwater Improvements

Current Contract Amount: \$279,505.78

Contract Completion Date: November 10, 2012

Work performed this week

No work

Work to be performed next week

Installation of inlets at Wisconsin and Janes and 24" diameter storm pipe

Grading of turf area and installation of rip rap for stormwater overflow

- Percent Complete: 60%

Existing Drainage Investigation

Phase I and Phase II are complete for 40th and Glendenning and for Maple and Carpenter. Reports have been delivered. Staff is reviewing options for improving the drainage at both locations.

Road Reconstruction, Oak Grove Unit III

90% plans to be delivered next week.

Elm St Storm Sewer Improvements

Current Contract Amount: \$346,280.00

Contract Completion Date: November 12, 2012

Work performed this week

Completed west-side driveway replacements, road patching, manhole adjustments, and placement of surface

Work to be performed next week

Begin parkway grading and sod restoration

Percent Complete: 90%

St. Joseph Creek (South Branch) Streambank Stabilization

Contract Amount: \$387,750

Contract Completion Date: October 15th (w/ 3 year vegetative maintenance and monitoring to follow)

Work performed this week

None.

Work to be performed next week

Native seed installation will be completed depending on acceptable weather conditions.

Percent Complete: 95%

St. Joseph Creek (North Branch) Streambank Stabilization

Contract Amount: \$269,219

Contract Completion Date: December 1st (w/ 3 year vegetative maintenance and monitoring to follow)

Work performed this week

The first two areas of the project have been completed and restored.

Work to be performed next week

Construction activities will begin on the portion of the creek between Rogers Street and Austin Street.

Percent Complete: 40%

Drainage Improvements at Fire Station #3

Contract Amount: \$103,030

Contract Completion Date: November 1st (revised schedule shows work extending into mid November due to delays caused by Clean Construction Demolition Debris regulation changes)

Work performed this week

Removal of asphalt and curb and gutter have begun. The light pole has been relocated and fence installation has begun.

Work to be performed next week

Site grading activities will begin, followed by the import of amended soil and stone sub-base.

Percent Complete: 5%

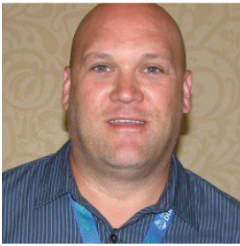
ATTACHMENT

Article on Hybrid Street Lights

Hybrid Street Lights Take Security 'Off the Grid'

Chicago Suburb Lights Neighborhood with Solar and Wind Power

BY F. ALAN SHIRK



KEVIN BOBIKIEWICZ

Hybrid street lighting, an off-the-grid system using solar panels, wind turbines and an LED luminaire, is yet another sustainability-driven solution for overstretched municipal budgets.

Downers Grove, Ill., a suburb west of Chicago, became the first U.S. community to turn on hybrid lighting in a residential subdivision in March 2010. Today, not only is the 25-light system saving about \$100,000 in electric and maintenance costs over its life cycle, but it's also contributing to reduced carbon emissions and enhanced neighborhood safety.

"This is a great example of staff responding to the needs of our residents with a highly innovative and cost-effective solution," said Downers Grove Mayor Ron Sandack, shortly after the hybrid system in the Prentiss Creek subdivision became operational after nearly two years of planning and construction.

The \$282,500 project, sole-sourced to the [StressCrete/King Luminaire Group](#) location at Jefferson, Ohio, was partially funded through a 2009 Community Development Block Grant (CDBG) from the Dupage County Neighborhood Investment Program. It covered 45

percent of the total cost, which was slightly higher than that for conventional lighting.

The new hybrid streetlights are designed to last for 100,000 hours, as opposed to those used in traditional systems that need replacing after just 10,000 hours. Over a period of 30 years, the hybrid streetlights will save more than 500,000 kilowatts of electricity and reduce CO2 emissions by almost 350 tons.

Kevin Bobikiewicz, public services coordinator for Downers Grove, generated a lot of interest in the city's hybrid lighting project at the American Public Works Association's recent sustainability conference in Pittsburgh.

Downers Grove received the Technical Innovation Award for the Hybrid Street Light Project from the APWA's Chicago Metro Chapter and

Suburban Branch. This award category recognizes new and innovative applications of technology.

According to Bobikiewicz, sustainability has become a way of life in Downers Grove.

"We have a village innovation committee that works on sustainability ideas, as well as operating efficiencies and improvements. Downers Grove has completed several dozen sustainability projects including energy efficient lighting upgrades on several buildings, and heating efficiency projects with solar panels. We have a sustainable initiatives program for our fleet, using natural gas and E85 fuels for vehicles, as well as collecting used cooking oil for bio diesel fuels. We also have a furnace that burns

used motor oil dropped off by residents to help heat our fleet maintenance garage," he said regarding the community's commitment to sustainability.

In August of 2008, the Prentiss Creek Homeowner's Association (HOA) asked the committee to bring streetlights to its area. After meeting with residents and hearing their hopes and concerns, the committee decided to look into a system powered by alternative energy.

Hybrid lighting has many advantages if it can work for your community. Finding grants make it even more attractive. And everyone has to have input.

Bobikiewicz said there were a lot of options available and the choices were a bit overwhelming. "We had to see if alternative energy could work here. While we found there was not enough sun day-to-day, there was plenty of wind in Chicago, which led us to a hybrid solution."

He added that there were a lot of equipment choices, for example, poles, and the sizes and kinds of solar panels and turbines. "We settled on a Gemini Grid-Free spun concrete streetlight (now Enlighten Solar & Wind (<http://enlightenhybrid.com/>) based on aesthetics and functionality and equipped with a sealed bearing wind turbine and a 175-watt solar panel on an articulated arm."

At first people were apprehensive because of the look of some of the options, but the response to the final product has been overwhelmingly positive," said Jack Reidy, president of the Prentiss Creek HOA.

Installation was quick and easy, said Bobikiewicz. “Each 25-foot pole weighing 4,200 pounds had to be placed five feet in the ground in a 24-inch hole. The ones we used have no control boxes hanging on them and all of the components are at the top of the pole. The batteries are installed in an easily accessible, locked bottom compartment. The pole coating is graffiti-proof. And their height takes maximum advantage of the sun and wind.”

Since Prentiss Creek contains numerous, 30-year-old mature trees, residents did not want them disturbed. Conventional street lighting is spaced every 150 feet to assure enough coverage. “Since the hybrid poles are direct bury and self-contained, we had the flexibility of spacing them as close as 120 feet or as far apart as 160 feet. No trees had to be taken down.

“Overall impact to the neighborhood during installation,” Bobikiewicz continued, “was minimal, as no trenching was necessary to install in-ground wiring. We did not need to interfere with hydrants, signs, underground lines and were able to place lights at all intersections.”

LED lights are one of the things that make off-the-grid lighting more possible and efficient, said Bobikiewicz. “They have a very low voltage draw. We run a 56-watt fixture on 24 volts that has a warranty and longevity of up to 100,000 hours. Plus we can direct our luminaires to shine on the street rather than on front yards, which the residents prefer. You need to pick a quality LED fixture.”

Battery capacity and storage is very important. For example, explained Bobikiewicz, no matter how much capacity, you have to be able to charge batteries with the solar and wind capacity available. “Again, LED is an advantage because it draws on batteries a

lot less. And we can add larger batteries if we have to.” It cost Downers Grove \$300 per pole for deep cycle solar-powered batteries, which have a 10-year life.

Since the system was installed, technology has advanced so that the 25 lights in Prentiss Creek are now “smart” poles. “We have switched to a web-based controller, which makes them easy to program. We can log on from anywhere around the globe to monitor each pole and make adjustments, for example, if we want to turn lights on earlier, or redirect them. Controllers, too, are one of our only replaceables.”

How has Downers Grove hybrid lighting performed?

Bobikiewicz said as advertised. “The system is very durable and reliable and has gone through two winters. The solar side has performed best. We face the panels southwest for the best winter sun and tilt them so ice and snow slide off. On rare occasions, one or two poles may not get enough of a charge to stay lit all day. And, being in

Chicago, wind turbines are a good thing. When we get blizzards and 40-mile-an-hour winds, they really spin.”

Hybrid lighting has a lot of applications, said Bobikiewicz. They include parks, parking lots, highways, unlit remote areas where it may be too costly to use conventional street lighting. “It is especially good for new developments. Municipalities can require developers to include it.

“Solar lighting is not new. But hybrid technology now offers cities like Chicago the option to use more alternative energy. This combination scored very well for us in getting our grant.”

“That’s why we decided on hybrid lighting based on our region and to use the combination of solar and wind power to get the best results for year-round dusk-to-dawn operation for the new lights,” he added.



related youtube video:
<http://youtu.be/Yofqp2H1wvA>



- Powered by a dedicated solar panel and a small wind turbine, this hybrid street light is similar to those installed by Downers Grove, Ill., in 2010. The lights are designed to last for 100,000 hours, as opposed to those used in traditional systems that need replacing after just 10,000 hours. Over a period of 30 years, the hybrid streetlights will save more than 500,000 kilowatts of electricity and reduce CO2 emissions by almost 350 tons.