



June 2021

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APWA Chicago Metro Chapter

Letter from the Chapter President

[Michael Hall](#), Director of Public Works, Village of Schaumburg



Michael Hall
Chapter President

Greetings everyone! As we enter into summer there are more opportunities to get out and see people again, rather than on a computer screen. I have been able to have lunch with a group of public works directors and discuss work issues we all have in common and to catch up on the stuff outside of work to building relationships that are valuable, for the future, when we are in a jam. I hope you take advantage of the many upcoming events to do the same.

The Chapter has been busy over the past few months rolling out some new programming, pre-

paring for upcoming in-person events and getting ready to celebrate accomplishments of our members. Our Membership Committee has hosted a few "new member orientation over coffee" events and which had over 20 people in attendance along with several Chapter Executive Committee members. These events are good if you are just starting with the Chapter and Branches and want to become a more active member. Thank you to [Dan Dinges](#), Membership Committee Chair, for coordinating these events!

In addition to the Membership Committee, our Expo Committee has been busy planning for this year's Expo at the Odeum in Villa Park which is scheduled on **July 28th and 29th**. Booth Space and Sponsorships are available and registration is open on the Chapter's website! <http://chicago.apwa.net/> It will be good to get back together

again. There will be plenty of good vendors and of course the ROADeo! Also, the winner of the backhoe competition will get to represent the Chapter at PWX courtesy of the Chapter! Other in-person events are also available on the website. Sign up for golf outings and get your operating staff signed up for Roads Scholar, planned for August 23-27!

Another important event that is back on is PWX in St. Louis, which will be held August 29 through September 1. Whether you sign up to attend in-person or virtually, registration is open for the best show in public works. PWX provides a first-class multimodal learning experience designed for professionals at all levels and across the entire spectrum of public works. The Chapter will also be hosting a dinner event for our members in St. Louis. We are in the planning stages of that so more is still to come!

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Southwest Branch Recap

By: [Arlan Schattke](#), Village of Plainfield

The Southwest Branch had a great spring lineup of topics presented at our monthly virtual lunch meetings. On April 7th, **James Ford** with the Cybersecurity and Infrastructure Security Agency presented on the agency's mission and resources that are available. On May 5th, **John Baczek** with IDOT presented an update on the Rebuild Illinois Program

giving an overview of the current District 1 projects and a preview of what is in the works.

The Southwest Branch Officers have set a goal to offer in person lunch meetings starting fall of 2021 with the option to view the presentation remotely on Zoom for those that choose to participate remotely. We will

have a great lineup of presenters for lunch meetings starting again in September and we look forward to in-person meetings once again.

The Southwest Branch Golf outing was June 8th and the sold out event was a blast as usual. The Southwest Branch

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Chapter Newsletter

Chicago Metro Newsletter is emailed to Chicago Metro members three times per year.

The December issue is mailed.

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Chicago Metro Expo and ROADeo 2021

by [Catherine Case](#), Civil & Environmental Consultants, Inc.

The APWA Chicago Metro Chapter is excited to announce that planning is underway for the 2021 Expo and Roadeo conference! With many unknowns due to the pandemic, the dates for the show are scheduled this year for **July 28 and 29, 2021**, and will once again be held at the Odeum in Villa Park. Booth sales are currently underway. There are many unique sponsorship opportunities available! Sponsor the directional arrow floor stickers, a water station, an outdoor sign, and many other options! The layout has been revamped to mostly outdoors. Now you can visit vendors without missing the ROADeo! The committee is also working on incorporating an app for participants to use during the show which will include vendor contact information, schedule of events, and more! 



July 28 & 29, 2021

**The Odeum Expo Center
1033 North Villa Ave.
Villa Park, IL 60181**

Oak Park Avenue Construction—The ‘Thursday Three’

by: [Byron Kutz](#), P.E., M.P.A, is the Assistant Village Engineer at the Village of Oak Park

The 'Friday Five' e-blast became an anticipated communication-tool for residents and business-owners in Oak Park. People that had subscribed for construction updates for the 2020 Lake Street Project, would look forward to every Friday e-blast. This e-blast provided five facts summarizing the Lake Street construction activities of the past week, and provided a preview of what to expect over the next week. The concept was the brain-child of the public affairs firm that was a part of the prime-consultant's construction/inspection team. For such a large project, this approach proved an effective communication tool through witty, but informative messag-



Social Media Post

ing. The updates were generally non-technical and geared more towards providing more information about construction progress, vehicle and pedestrian access through the site, and parking availability in the business districts. This use of a public affairs firm helped give the one-on-one communication and outreach that the business districts needed, especially during the unprecedented COVID-19 pandemic, for which most of the project was constructed. Although not every project needs a 'Friday Five', the village has found it very useful and now uses this approach on several large construction projects, especially projects encompassing business districts. The village is now using a similar but different formula for this year's largest construction project on Oak Park Avenue, called the 'Thursday Three'.

The 'Thursday Three' email updates (see Sample 'Thursday Three' graphic) are a highlight of the communication and outreach plan for the Oak Park Avenue project. The updates are only one element of a larger strategy. Strategies include project branding, a customized project website

(<https://opaveanew.com/>), traditional mailings, door-to-door outreach to all businesses, project fact-sheets and maps, media advisories, project signage, and a virtual open-house. Additional outreach throughout the business district was added during the project pursuant to board-action approval to further support impacted businesses. The scope for these additional items includes:

- Increased social media content (see Social Media Post graphic)
- Customized business district light-pole banners
- Window clings
- Paid advertisements in local newspapers
- Reporter briefings

Communication and outreach are not necessarily a 'one size fits all' and needs to be tailored to the specific construction project, and the needs of the community and businesses being affected. Smaller projects or those that don't impact a business district may not require the same level of outreach. During initial planning though, it is worthwhile to

(Continued on page 4)

We've been really busy on Oak Park Avenue but wanted to make sure we get out this week's edition of Thursday 3. Because it is Thursday, right?

(Checks calendar.)

Yes, it is.

Tomorrow, it's TGIF.

Here you go, here's this week's update.

1. South Utility Phase – Water and sewer service installations wrap up this week between Harrison and Van Buren streets as crews begin to prepare for roadway patching and restoration. They will begin excavating the temporary stone trenches this week and prepare for pouring the concrete patches next week. Vehicle traffic will be limited at times in the Southtown Business District, and the parking lot east of Fifth Third Bank on Harrison Street (Lot 1) remains open for customers.

2. North Utility Phase – Crews are finishing the installation of the water service lines in the 600 block of north Oak Park Avenue this week and will begin the installation of new valves in the intersection at Augusta Street early next week. Traffic at Oak Park and Augusta Street will be detoured during work hours to facilitate the installation of the new water main and valves.

3. Southtown Business District – Southtown Business District – It doesn't matter what day it is, it's always a good day to stop in at one of the many establishments in the Southtown Business District. We've worked with them to install signs and banners to promote the area during construction. Hope to see you there any day of the week.


HAVE A QUESTION?

Email us at info@OPaveAnew.com

Sample "Thursday Three" content


President (Continued from page 1)

We are also planning two Top Ten award celebrations this year. One for the Chapter's very own Brigitte Berger-Raish and the second for Howard Killian. Brigitte is receiving the award this year and we will be finally able to celebrate Howard's award from last year. Both are incredibly deserving individuals who have contributed towards the advancement of public works and are being recognized for their dedication to improving the quality of life in our communities.

I am looking forward to seeing everyone in-person at our events this summer, it will be a busy time as we make up for a challenging year of virtual connections. See you soon! 

Southwest (Cont'd from page 1)

Golf Committee led by **Don Cassier** with SEECO puts in a lot of hard work planning and executing a great event that helps fundraise for Southwest Branch scholarships. Also in June, the YP Committee is hosting a river tubing social event on **June 26th**. Attendees will enjoy a three-hour float trip down the DuPage River thru Plainfield while getting some much needed in-person networking.

The recipient of the Southwest Branch Student Scholarship has been announced. We would like to congratulate **Allison Hefner** from Tinley Park, IL. Allison is attending the University of Illinois as a Civil Engineer major. Congratulations! 

Thursday Three (Cont'd from page 3)

evaluate the communication needs of a project to determine if a public affairs team can help add value, especially for high-profile projects that can benefit from increased communication and outreach.

Byron Kutz, P.E., M.P.A, is the Assistant Village Engineer at the Village of Oak Park and can be reached at bkutz@oak-park.us. 





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Public Works Parade in Buffalo Grove

By: [Darren T. Monico, PE](#), Village Engineer, Village of Buffalo Grove


The Village of Buffalo Grove put a lot of effort into our annual Public Works Open House which was held during the week of National Public Works Week. Our 2019 event had over 500 people in attendance and recieved great compliments from our residents and staff. Who wouldn't love seeing our forestry department use chainsaws on logs, our sewer department flushing out a main with a clear section to see the water rushing, or the chance for the kids to climb into the department's vehicles including the big bucket loader and the large "bread van" used by our water department!

Then came Covid-19. Our 2020 event was cancelled and in 2021 we still weren't ready for an in person event. So in times like this, we do what Public Works always does. We adapt.

The 2021 Public Works Open House was transformed into a Public Works Parade! We wanted to give the school kids who are stuck wearing masks all day and the teachers who have been working hard during this pandemic, a chance to get outside and see the trucks and the sunshine. We selected ten trucks and received a police escort as we visited seven grade schools. It was a great way to give the kids and teachers a break and to have an opportunity to highlight Public Works in the process. We also made videos that

highlighted all of the departments in Public Works and showed the many ways that Public Works is involved with our resident's lives for social media. We wanted people to see how hard we work and how important public works is to everyday life. When people realize how many things Public Works is involved with, they can turn into supporters and not online detractors. When you can successfully show the human side of the workers and the staff, the community support only gets larger. Sure people aren't always happy but they know that the crews are working hard every day to help them and their neighbors.

The parade was a smash hit! The kids loved it! The best comment was "this was the highlight of our day" and the smiles on the kid's faces were priceless. The last school made trucks out of boxes and a few of the kids wore construction vests.

Next year we hope to be able to have another successful and in-person Public Works Open House where we can shake the hands of our residents and where we can smile at our neighbors without a mask. But for now we will still be proud of whatever we can do to show what Public Works means to the community in any way we can. 



Longfellow

The best comment was "this was the highlight of our day"



Photo credit: District 96 Media



Meridian

"What I love about working in the public works field is that we touch everyone's life every day." - Nan Newlon

Remembering Nan Newlon – One of Our Best, Gone Too Soon

By: John Heinz, Steve Magnusen & Andy Sikich

In January of this year, the Chicago Metro Chapter and the public works community as a whole, lost one of our best. After less than a year of retirement, Nan Newlon passed away after fighting a two-year battle with brain cancer. Nan had recently retired in February of 2020, after serving as the Public Works Director for the Village of Downers Grove since 2009.

Nan's involvement in APWA was extensive, and without her influence many of us may not ever have become active in the Chicago Metro Chapter. Among the roles she held were Past President of the Chapter, Past President of the Suburban Branch, 20-year member of the Chapter Executive Board, Conference & Expo Chair – Leadership Breakfast Committee and Special Services Committee, Chair – Directory Committee, 75th Anniversary Committee, and the Congress Planning Committee. Nan was dedicated to APWA in many ways, and never wavered from her commitment to give back to her profession.



Nan was integral in establishing the Max Whitman Memorial Scholarship at the University of Illinois, in honor of her "Uncle Max." Max was a respected member and past chair of the APWA Institute for Administrative Management from 1979 to 1984, was selected as one of APWA's Top 10 leaders in 1981, became APWA National President in 1993, and was Nan's mentor until he passed suddenly in 2000. Through the scholarship, Nan helped many promising young Civil Engineers to achieve their maximum potential, which is a legacy that will last for decades to come. Below are some thoughts from close friends:

Andy Sikich

Nan wore many hats, and was a dedicated professional in every sense of the word. As was likely the case with many of you, Nan was my friend, my colleague, my mentor, and even my conscience on more than one occasion. She didn't seek out accolades, and in fact often shied away from them, but they inevitably found her. In 2018 Nan was awarded one of APWA's highest honors – the Top 10 Public Works Leaders of the Year award. I was part of that nominating committee, and I recall that Nan was a reluctant participant at first. While she worked tirelessly to champion the role of women in public works, she didn't want to be known for just being the first female Top 10 winner from the Chicago Metro Chapter. She was more interested in being a dedicated public works professional who would have a significant impact on our industry, and whose legacy would be some of the great young leaders of the future. Well Nan, I think you succeeded, on both accounts.

John Heinz

I knew Max Whitman before I even met Nan and when I met her and found out she was Max's niece I knew she was going to be a Star. Nan was relatively quiet and unassuming, however those that knew her saw a great drive and determination in her approach to everything. I spent a great deal of time working in the Chicago Metro Chapter with Nan. Everything she did for the Chapter, including her numerous leadership roles, was done with complete dedication and detail. She took her "volunteer" work as seriously as she took her professional work and it always showed.

Many people do not know, with a few exceptions, that to become Chapter President you commit to over nine years of being an Officer; four at the Branch level and five at the Chapter level. Not only did Nan do that, but she continued to remain very active in the Chapter after her nine years of officer-ship. Truly selfless in so many ways, she never stopped trying to improve the Chapter and

(Continued on page 7)

Nan Newlon (Continued from page 6)

advance our profession.

The pinnacle of her career was being selected as one of the 2018 Top Ten Public Works Leaders of the Year Nationally. Nan was incredibly humble in accepting her award and gave numerous people that she worked with and also worked for, credit for her success, a team player through and through.

Nan was a great friend and colleague and I know she was a fabulous mom as well. She has been sorely missed since her passing. The world is truly a better place since Nan Newlon graced this earth. God bless her and her family.

Steve Magnusen

It is sad and sobering to think of Nan in the past tense. Still, it is comforting to recall her with utmost respect and fondness as a dear friend. She shared the same qualities displayed by her uncle and aunt, Max and Sandy Whitman, my mentors and friends while serving under Max's tutelage in Winnetka. From a professional standpoint, my lasting impression of Nan is a person of composure and quiet competence. She was an exemplary leader, always exhibiting clear vision and the drive to accomplish significant goals for the benefit of her community. From a personal perspective, Nan will always be remembered with a smile. Her charm, grace, attention to others, and calming presence simply radiated goodness. As noted, Nan is "one of our best".

Due to the COVID-19 pandemic, no public services were held for Nan. However, there are plans in the works to have a long-lasting memorial dedicated in Nan's name in the future. More to come on that. For now, Nan will live in our hearts and memories, and in all of the great work that she did to help move our profession forward. 🏠



Nan attending a career fair in 2017



Laura Dehaan receiving the Max Whitman APWA Memorial Scholarship, April 2, 2011



Nan accepting the Governors Award for the Village of Downers Grove in 2013

Building Smart Cities with 5G Technology

By: Ed Barrett, Practice Leader – Fiber & Broadband Services

Technology has always been linked to the evolution of cities. As governments consider opportunities for Smart City deployments, 5G networks are creating both challenges and incredible opportunities. Progressive communities are evaluating what the connected city of the future will look like and how 5G and smart infrastructure can help them thrive.

What is 5G?

Offering a significant step-up from 4G networks, 5G delivers speeds more than 100 times faster than LTE networks, reducing latency to near real-time. As a result, the communication industry and futurists expect 5G to impact nearly every sector of the economy by automating factory operations, enabling autonomous vehicles,

and even powering remote healthcare.

This technology base is foundational to powering the upcoming **Internet of Things (IoT)**, in which sensors and devices will become smarter and drive innovative solutions. On the ground, telecommunications companies will need almost a



million tower locations to meet the 5G demand in just the next seven years. To put that number in perspective, a typical city may soon have nearly twice the number of small cell towers as they have streetlights.

Closing the digital divide

One of the challenges of rapid urbanization is ensuring all residents have access to the same opportunities and access to services like broadband, education, and healthcare. In municipal areas, 5G services will give people access to education and rapid healthcare no matter their location.

Traffic and Transportation

Low-latency 5G will enable seamless communication to the sensors and devices that

(Continued on page 9)

celebrating 75 years



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5G Technologies (Cont'd from page 8)

power transportation and traffic systems, automatically redirecting traffic and alerting autonomous vehicle systems about current problems on the road. This will ultimately make streets safer and less congested for both drivers and pedestrians.

Economic Development

Communities are taking steps to manage the deployment of infrastructure and proactively advancing 5G to differentiate their cities and attract technology-dependent businesses. This represents a real opportunity to change perspective and achieve an advantage by relying less on expensive tax incentives to attract those firms.

Becoming a Smart City

Becoming a connected city is the first step toward becoming a Smart City. This requires cooperation between local governments, utilities, businesses, and incumbent communication providers to implement solutions that benefit the community.

As the demand for data grows exponentially, finding solutions to deliver this data requires leveraging existing infrastructure and finding sensible, cost-effective solutions. City assets including traffic signals, streetlights and utility systems can be used to support the rollout of 5G and form a network "backbone".

The convergence of 5G will create new challenges that need to be addressed, such as public right-of-way management and network densification caused by a myriad of small cell towers. Communi-

ties must create a multi-faceted strategy to focus on controlling their broadband and wireless future.



Your community can become a Smarter City by:

1. Collaborating with telecommunication providers, stakeholder agencies, and community groups to revisit permitting practices and obtain buy-in.
2. Updating zoning, design standards, ordinances, and cell tower and other regulations.
3. Standardizing aesthetic requirements, including pre-approval of antenna, equipment cabinet and street furniture designs. This is especially crucial as small cell and 5G updates become mandated, as the plethora of small cell antennas will likely cause aesthetic concerns.
4. A fiber master plan could capitalize on the opportunity to co-locate community fiber assets alongside incoming deployments. Communities

need to be fiber dense to help drive AMR/AMI utility meters and public infrastructure, while helping providers keep up with new demands for small cell and 5G deployments.

Get your community ready and be ahead of this technology. You need to quantify your community's needs, establish a vision to guide a path forward, and create a master plan that achieves your future goals.

We encourage you to take the first step to get your policies and programs in place now, so your community can be proactive rather than reactive.

If you have any questions regarding 5G technologies, you can reach out to HR Green.

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The study involved identifying a bicycle and pedestrian corridor to connect the Pullman neighborhood and the Illinois International Port District (IIPD) to Big Marsh Park

Filling the Gaps: Lake Calumet Trail Feasibility Study

by: [Tim Gustafson](#), AICP, Associate Vice President, Epstein

Getting to and around Lake Calumet could get easier, thanks to a proposed trail that would connect to existing and planned facilities within Illinois and Indiana.

Lake Calumet, the largest body of water within Chicago, situated at the very southeast end of the city, is a physical barrier between the Pullman National Monument, Big Marsh Park and other destinations to the east. Improved pedestrian and bicycle access across the lake would connect these two destinations, while simultaneously providing new access and recreational opportunities along Lake Calumet. This trail connection was identified by the **Active Transportation Alliance** and **Chicago Metropolitan Agency for Planning** as a key connection in making a regional trail network. As an initial step in developing a Lake Calumet to the Pullman Trail Connection, a feasibility study was conducted to assess existing conditions, define project objectives, develop design criteria, gather public input, determine potential alignments, and produce cost estimates for the suggested connection, which included a combination of trail, boardwalk and bridge structures.

Epstein, a Chicago-based architecture, engineering and construction firm, was selected to prepare the feasibility study, as well as provide conceptual design services, for this connection along the shore of Lake Calumet. According to Epstein's **Tim Gustafson**, AICP, Senior Planner, the study involved identifying a bicycle and pedestrian corridor to connect the Pullman neighborhood and the Illinois International Port District (IIPD) to Big Marsh Park. Natural resources and environmental studies included a review of bathymetric information on



the lake, identification of potential habitat and species, and coordination with project development procedures with the Canadian National (CN) Railroad and the U.S. Army Corps of Engineers. Additionally, as part of the project, Epstein prepared conceptual designs for a bicycle and pedestrian overpass of the CN Railroad and Stony Island Avenue within the project study area, which is a dynamic space comprised of beautiful, high quality natural resources nestled among urban surroundings. A steering committee assembled for the project included representatives from the Illinois Department of Transportation, Chicago Department of Transportation, Cook County, Chicago Park District, and other interested stakeholders.

Key Project Destinations:

- **Pullman Historic District:** The site of the first planned and industrial community in the United States. The district had its origins support-

ing the manufacturing components and organizations of the Pullman Company. In 2015, the district was named a National Monument, making it a part of the National Park System.

- **Lake Calumet Facility:** The Illinois International Port District (IIPD) moves more general cargo than any other port on the Great Lakes, with an annual total (waterborne) tonnage of more than 19 million tons, maintaining Chicago's place among the top ports in the nation.
- **Big Marsh Park:** A 280-acre property on the southeast side of Chicago in the area, Big Marsh Park is also known as the Calumet Area Reserve and is under the jurisdiction of the Chicago Park District. The vision of Big Marsh is to provide a new type of recreation in Chicago that marries habitat restoration with public use. Roughly 45 acres are devel-

(Continued on page 12)

Lake Calumet (Cont'd from page 11)

oped for eco-recreation opportunities including hiking, adventure courses, and off-road biking.

Stakeholders for this trail envision a high-quality, low-stress transportation and recreation facility for walking, bicycling and sightseeing, and improving access to open space, natural resources, and the scenic beauty of the Lake Calumet area.

“With Lake Calumet, as well as the other critical gaps in trail networks, IIPD is interested in creating exciting, memorable places that are accessible to residents and visitors, and increase opportunities for outdoor recreation,” said Gustafson, who is serving as the project manager for this program. “The aim of the Port District and project stakeholders is to provide an improved connection and stewardship for natural resources, species and habitat.”

While the existing transportation network is unparalleled, the constant necessity for improvements allows for a unique location-specific strategy, which, when implemented, will contribute towards increasing overall mobility. Lake Calumet is a body of water that has long played an important role in the history of the area. It now has the oppor-

tunity to connect local neighborhoods to several destinations on the south side of Chicago, thus becoming a critical connector for citizens throughout the region.

Tim Gustafson can be reached at (312) 429-8054 or

TGustafson@epsteinglobal.com.



Conceptual Trail Layout Map



Conceptual dock seating area, northwest corner of Lake Calumet.



Aerial imagery of Harborside International Golf Course at Lake Calumet.



Trail bridge concept over Stony Island Avenue, facing west.

**Lake Branch
Golf Outing
is July 16th
at the
Arboretum
Club in
Buffalo
Grove.**

2021 APWA Lake Branch Spring Update

by: [Marie Hansen](#), Director of Development Services, Village of Barrington

The Lake Branch has been staying busy this spring! Following our annual awards meeting this March, our Education Committee co-chaired by **Mike Brown** (Lake Zurich) and **Greg Ellwanger** (BLA, Inc.) hosted an informative virtual session which included EPA Lead & Copper Water Service updates from **Bill Nelson** (HLR) as well as discussion regarding cybersecurity for SCADA (Supervisory control and data acquisition) with **Chris Sosnowski** (Waterly). Over 14 organiza-


tions joined the call and participants left with some great resources and tips on improving resiliency within their water systems. A big thanks to **Mike Skibbe** (Buffalo Grove) for moderating the session!

The Branch held an executive meeting on April 20th to coordinate planning for the next few months and was thrilled to schedule our May membership meeting in-person! With some great assistance from **Mike Brown** and Lake Zurich, an outdoor afternoon member-



ship meeting took place at the Sunset Pavilion in Breezewald Park followed by refreshing beverages and some much needed social interaction!

We are looking forward to our June Meeting where we can honor our scholarship recipients, which include 4 full-time students and 2 part-time students!


Save the Date: Lake Branch Golf Outing is **July 16th** at the Arboretum Club in Buffalo Grove. 

Illinois Roads Scholar Program Update

by: [Steve Ludwig](#), Ludwig Speaks

It's been a very long year for all of us. You and your families are in our thoughts consistently. I am proud to announce that the Illinois Roads Scholar Program is scheduled to occur this year from August 23-27, 2021. We welcome back those who are already in the program, and those new registrants who are about to have a great event impact their careers. The program is designed for your active and positive frontline road Right-of-Way teammates. The Illinois Roads Scholar Program is a three year program, one week per year, where we offer plenty of quality training to bring your team to the next level. In a world where good training is difficult to find, your training budget will be well spent on this powerful training event.

Taking place in Effingham, IL., our program this year will include trailer safety training, mower operations and safety, trenching and shoring, work

zone safety, snow and ice control, flagger training, and traffic incident management. A teammate who completes all three years of our content is designated as an APWA Illinois Roads Scholar. When it comes to training, and supporting your best employees, encouraging attending the Illinois Roads Scholar Program shows that your organization is committed to the success of the team and your community. Only 40 new registrants will be accepted. Register today! 



Details:

Who: Front line and supervisory road right of way workers

Where: Thelma Keller Convention Center, Effingham, IL.

When: August 23-27, 2021

How to register:
www.illinoisroadsscholarprogram.com

Questions: Steve Ludwig at:
steve@ludwigspeaks.com

[Program Tracks]

2021 Program:

- Trailer safety training
- Mower operations and safety,
- Trenching and shoring,
- Work zone safety,
- Snow and ice control, Flagger training
- Traffic incident management

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Kings Road and Rodeo Roundabout

by: Tom Pawlowicz, P.E., Rempe Sharpe & Associates, Inc.

The Village of Bolingbrook, a fast-growing southwest suburb of Chicago, long desired to build a missing link in their grid of arterial roadways. This link, a one-mile stretch of Kings Road, shown on the Village's trans-

road) with a new traffic signal, and ended at Rodeo Drive with a new roundabout. The roundabout, prepared by The Upchurch Group, was designed as part of a contiguous project to expand Rodeo Road.

At the midpoint of the project, Kings Road intersected with 115th Street and running directly through this intersection, at a 45° angle, is the Lily Cache Creek. This necessitated the construction of a very large triple span 180' long culvert. Floodway construction permit by IDNR, CLOMR issued by FEMA, and wetland impact review / approval by the USACE permit requirements were fast-tracked for approval to meet Village expectations. Designing this culvert required the relocation of a 42" sanitary interceptor sewer that ran along the creek and conveyed flows for over 30,000 residents. The culvert was constructed six feet into the bedrock, which presented even further complication.

Other Phase 1 requirements

included:

- Coordination with IDOT, FHWA, and the Will County Governmental League
- Preparation of an Environmental Survey Request
- Preparation of Intersection Design Studies
- Complete a Project Development Report, including supporting exhibits
- Review and revision of the NFIP Flood Insurance Study hydraulic model
- Landscaping and culvert plans
- Estimate of Probable Cost

Starting in the spring of 2019, when the Kings Road and Rodeo Drive / roundabout projects began construction, Rempe-Sharpe & Associates and The Upchurch Group teamed up to provide construction engineering services, with material testing being

(Continued on page 24)



Kings Road Bridge

portation plan, connected two major roadways. In the early 2000s, as the adjacent farmland was developed with single-family housing, the right-of-way needed to construct said extension was acquired. However, due to lack of funding caused by the Great Recession of 2008, the physical construction of the road itself was delayed.

In order to complete the project, the Village retained Rempe-Sharpe & Associates to pick up where earlier preliminary work had left off a decade earlier. The Village directed the consultant to proceed with Phase 1 design in mid-2017, for the one-mile long minor arterial roadway, which included a raised landscaped median, as well as bike lanes on both sides of the road. The project started at Hassert Boulevard (a four-lane



Rodeo Drive Roundabout

Illinois Tollway's Mile Long Bridge Project Benefits Local Waterways

by: Mike Zorn, PE, PMP & Andy McKenna, PE, CFM, CPESC - Lochner

Every drop of water that falls on the new bridges will undergo treatment before draining into the

Have you had a chance to drive across the Illinois Tollway's new northbound Mile Long Bridge since Thanksgiving? Located on the Central Tri-State Tollway (I-294) just south of the I-55 interchange, the new bridge opened to traffic before the holiday weekend. The original dual structures for northbound and southbound were constructed in 1958 and carry approximately 150,000 vehicles daily. The new bridges will increase capacity from four lanes to five lanes in each direction. The replacement of the Mile Long Bridge structures is part of Illinois Tollway's Move Illinois Program and I-294 Project.

The bridge is referred to as the Mile Long Bridge since it is nearly that length. While driving across you may notice the beams and piers, but less visible are the many elements that lie under the bridge. The bridge spans the Illinois & Michigan Canal, two Canadian National Railway lines, the Chicago Sanitary & Ship Canal, Metropolitan Water Reclamation District of Greater Chi-

cago's LASMA Island, the Des Plaines River, a Burlington Northern Santa Fe intermodal yard and the 75th Street Interchange ramps. The massive structural elements of the new bridge are eye-catching and include the longest span on the Tollway's system at 410 feet and the longest precast prestressed concrete beams in the Midwest at 187 feet. These elements allow the new bridge to have half the number of piers as the existing bridge, which benefits the operations for stakeholders underneath the bridge and minimizes future bridge maintenance.

Elements that are less visible but provide significant benefits are the storm water conveyance, detention and water quality treatments that were added or improved as part of the project. The profile of the bridges crest over LASMA Island and the bridge drainage systems collect the surface storm water runoff via inlets called scuppers that are located along the inside and outside edge of the bridges. The placement of the scuppers

was optimized to capture storm water per Tollway spread criteria and the project scuppers were specialized to fit within the wide flange bridge beam configurations. The storm water would then drain within pipes that are hung to the underside of the bridge deck and eventually down pipes located on selected piers. Every drop of water that falls on the new bridges will undergo treatment before draining into the waterways. Storm water best management practices will filter out pollutants via detention basins with native plantings or shallow pools and hydrodynamic separators in areas with limited space.

Three new basins were constructed and two existing basins were enhanced to provide additional water quality and detention benefits. One of the enhanced basins is located within the northbound exit ramp for the 75th Street Interchange. Increasing basin detention by nearly 7 acre/feet enabled proposed flow rates to be decreased from existing

(Continued on page 24)



Aerial Image of Mile Long Bridge Site in March 2021



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Suburban Branch 2021 Spring Update

by [Kristin L. Mehl](#), P.E., Assistant Director of Public Works/Village Engineer, Village of Roselle & [Mike Waldron](#), Strand Associates




The Suburban Branch started the spring off with several virtual education events. On March 25th, the Branch hosted an on-line seminar covering various emerging drinking water topics with a large focus on the revised Lead and Copper Rule. **Carolyn Grieves** with Baxter and Woodman presented to approximately 35 attendees. The seminar also included information on water funding opportunities, other contaminant concerns in water distribution systems, PFAS, and Risk/Resiliency Reporting. Registration fees and sponsorships went to fund the Suburban Branch Scholarship Fund.

On April 8th, the Branch co-hosted the morning session of Illinois Association of Management Assistants (IAMMA) Annual Conference. The session focused on Public Works Management in a roundtable discussion format. The discussion was led by four excellent Public Works Directors: **Mike Hall** with the Village of Schaumburg, **John Brunke** with the Village of Flossmoor, **T.J. Moore** with Village of Hanover Park, and **Dan Kaup** with the Village of Wheeling. This event was free to all APWA members and greatly received. The discussion covered how Public Works agencies are leveraging technology to improve the

maintenance of their infrastructure. The group also discussed how communities were working to effectively managing a Capital Improvement Program in today's environment. Discussion closed with dialogue on managing a public works department with dwindling resources which is an issue that many organizations are currently facing.

The Branch closed out April with a virtual education session on April 22nd. This session was called Subsurface Utility Engineering (SUE): Utility Locating. This online seminar covered the increasingly critical issue of underground utility locating. **Bethany Turk** and

Bob Kolar with HBK Engineering provided this information packed seminar to 26 attendees. Registration fees and sponsorships went to fund the Suburban Branch Scholarship Fund.

We look forward to the Summer and getting back to seeing everyone at our events in person. We will have our annual Construction Site Tour/Scholarship Celebration (July 8th) as well as the Expo Extra and Annual Scholarship Golf Outing (August 20th). Registration is now open for the Golf Outing and Sponsorships are still available. Watch for registration coming soon for other events. 



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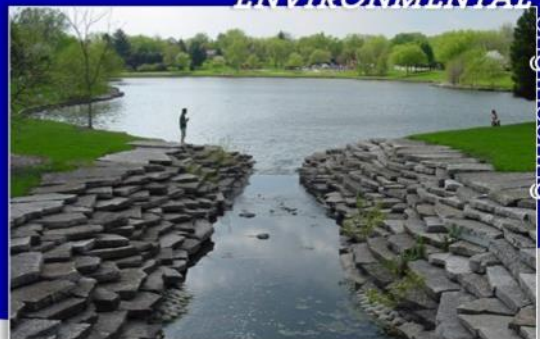
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Citywide Quality Assurance Material Program Benefits

By: [Sanjeev Bandi](#), President, INTERRA, Inc.

Quality Assurance (QA) engineering involves determining the soil, concrete, aggregate, and asphalt requirements for a project. Responsibilities can include on-site material testing and material QA for various community streets and road projects. Duties can include plant, field, and laboratory inspection/testing on soil, asphalt, aggregate, and concrete. Projects can involve overall QA and reporting. QA and quality engineers are vital to a successful project, team, and the community in which they serve.

The QA program should be such that it is developed to ensure quality is achieved on each project conforming to the expectations of the stakeholders. The laboratory is an integral part of the QA program along with testing which is performed to explore a system to find defects and to provide necessary corrective action as needed. Also, each year there are improvements made to the QA program which incorporates new specifications, new technologies, and lessons learned.

There are many goals for each project which include identifying and reporting the areas that need improvement to meeting agency standards. Other goals include ensuring the project utilizes a smooth process to complete work successfully from implementation to closeout and to finish the project within the allotted schedule and budget. However, with every new project, usually new personnel and/or consulting firms are selected

to deliver the improvements and services. This means establishing new communication protocols, and service expectations. This can lead to additional time devoted to training new team members, project issues, cost overruns, and coordination problems.

Taking a different approach to providing these services across numerous improvements can solve some of these challenges. Establishing a Quality Assurance Material Program that provides services on many/all of the local agency's projects, provides a cohesive team that can develop and foster trust throughout all phases of a project.

Many communities have established programs of this nature, specifically the City of Evanston, who has a rich his-

tory which includes embracing diversity and a continued commitment to promoting the highest quality of life to its residents. Since 2005, INTERRA, Inc., a Minority Business Enterprise, has provided Construction Material Testing, Geotechnical Services, and Environmental Services for the City of Evanston's QA Material Program. In that time, the work of the quality engineering team has evolved and remains vital to project delivery.

"Over the past several years, the City of Evanston has contracted with INTERRA to manage our material testing, geotechnical, and environmental service needs," said Chris Venatta, City of Evanston Project Manager. "As a municipality we have a wide range of

(Continued on page 23)



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My 2019 PWX Experience — PWX Seattle 2019

by Vince Kilcullen

APWA PWX Scholarship recipients were required to submit an article describing their PWX experience. The following is one of these articles...

I would like to take a minuet to thank the Fox Valley Branch of the APWA for the scholarship opportunity to attend the 2019 APWA PWX show in Seattle. The classes offered at the PWX were endless. A couple of the classes I found most amazing and useful where the class on middle management, and improving culture in the work place, these sessions were a perfect fit for me and my organization at this point. It was also nice to network with folks from other communities smaller and larger than us that have the same issues and complications. The networking after a couple of the sessions was

very reassuring to me, knowing that I'm not the only one dealing with these types of issues and problems. I got to hear some of their solutions and ideas, and also share some of what I have done that I feel has been a success to my staff, organization, and myself. The other session I really enjoyed was improving organizational culture, we have been doing a lot of that here and the culture has been changing and improving. Again this was another class that was near and dear to me being that we are going through a bunch of changes in our organization and this was very fitting. There were also a couple GIS and pavement maintenance/management classes that I went to. Cityworks which is our work order system did some classes on the new pavement management soft-



ware they have as well. It was nice to see that and see how it works and talk with them so I have a little bit of a head start before we get it. Outside of the classes the vendor floor was great and never ending. I made some new contacts for snow equipment and some cold patch that I want to try. The amount of people you meet walking through the show, and after sessions was just mind blowing to me. I talked to people from all over the US and had a great conversation with a group from Australia. This conversation was one of the most interesting conversations, to hear how they do the same work but also so different. Everything from the equipment and the

(Continued on page 37)

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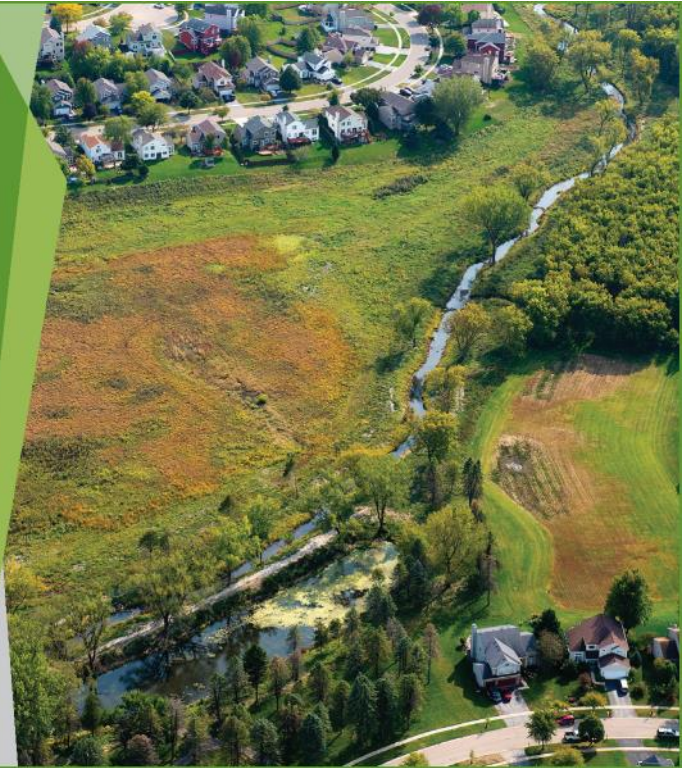


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QA Material (Continued from page 19)

projects each year of varying sizes, so having one firm handle all of these services creates a very efficient project management approach.”

INTERRA has become an extension to the City, providing quality engineers who are proficient in identifying where issues live within a complex system. Optimizing the testing and inspection approach and identifying the tools needed helps produce accurate results in an efficient manner which saves time and money.

“Having a dependable company like INTERRA manage all of our material testing has streamlined the process and ultimately led to better quality control oversight during construction,” said Venatta. “By including the geotechnical and environmental services as well, INTERRA is able to share their expertise over the whole life cycle of a project. We are very lucky to be working with a high-quality firm like INTERRA.”


In addition to the services and benefits mentioned previously, general advantages of a program like this include:

- Streamlined communication throughout all phases of a project for these services
- Quick and reliable decisions during the construction phase due to previous history on the project
- Reduction in failed test results due to focus on quality throughout the project
- One point of contact for materials engineering across all projects



City of Evanston, 2019 Watermain Project

- Standardized scheduling portals and test result access and local agency specific requirements
- Cross project coordination for excess material re-usage
- On-site investigation and testing service hour and cost savings by visiting multiple projects per trip
- Review, recommendation, and usage oversight of new types of materials that may lead to improvements in durability and life cycle of materials within the community
- Unified materials approach across all projects
- Standardization of specifications, special provisions,

Ultimately, as the case with the City of Evanston and INTERRA, Inc.’s ongoing program, an approach like this delivers high-quality materials to the local agency and leads to the QA firm becoming an extension of the municipality’s staff while always representing the community’s best interests. 

Mile Long Bridge (Cont'd from page 15)

conditions even after accommodating additional corridor and project impervious areas. This basin eventually outlets into the Des Plaines River and also benefits adjacent stakeholders by providing additional detention.

One of the new basins constructed is located adjacent to the south bridge abutment. This residential area located outside of Tollway right-of-way was a natural low spot for the area and experienced flooding in the previous condition. The Tollway and design team collaborated with Canadian National Railway and the Village of Willow Springs to convert the area into a new basin with a new outfall into the Illinois & Michigan Canal. This new basin provides project and regional detention benefits and relieves this local flooding issue. In addition to these basins, a bioswale with a check dam for detention has been constructed along the northbound Tollway with na-

Increasing basin detention by nearly 7 acre/feet enabled proposed flow rates to be decreased from existing conditions



75th Street Interchange Basin looking south

tive plantings, sand, compost and a special topsoil to enhance infiltration and filtration of pollutants.

The next steps in the project construction are demolition of the original northbound bridge, followed by construction of the new southbound bridge and then demolition of the existing southbound bridge. The overall construction and demolition of the bridges is anticipated to be completed in 2023. Lochner Inc. is the lead firm in a joint venture with HDR and Quigg Engineering Inc. that per-

formed project master planning and design. The project planning and design were developed in collaboration with the Tollway and Tollway team. If you would be interested in more information about the project please visit the Tollway's website <https://www.illinoistollway.com/projects/tri-state/mile-long-bridge-project>

By: Mike Zorn, PE, PMP - Lochner, Andy McKenna, PE, CFM, CPESC - Lochner

Kings Road (Continued from page 14)

provide by Interra, Inc. The contractor for the Kings Road project was a joint venture between K-5 Construction Corporation and Herlihy Mid-Continent Company, while K-5 Construction Corporation was the sole contractor for the Rodeo Drive / roundabout project. Therefore, coordination between the two projects was eased by having the same engineering team and the same contractor on both.

The roundabout project faced

scheduling challenges, due to utility relocation challenges from both ComEd and a high-pressure gas pipeline, which ran through the middle of the roundabout. The Kings Road project also faced scheduling challenges, due primarily to May 2019 being the wettest May on record, and challenges in relocating the interceptor sewer in hard bedrock.

Construction Summary

Total Estimated Cost = \$9.5 M

Final Construction Cost =

\$9.2M

Village Public Works Director: Lucas Rickelman, P.E.

Village Engineer: Tom Pawlowicz, P.E.

Consultant Project Manager: James Bibby, P.E.

Consultant Resident Engineer: Stefan Stoica

Phase I Began August 2017, Phase II Began July 2018, March 2019 IDOT Letting, Open to Traffic, July 2020



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The Village of Huntley Pedestrian Access Route (PAR) Inspection and Repair Program.

by Jason Irvin, Assistant Director of Public Works & Engineering, Village of Huntley

In 2018, the Village of Huntley implemented VUEWorks; an asset management solution that allowed the Village to create a sidewalk maintenance program now known as the Pedestrian Access Route (PAR) Inspection & Repair Program. The innovative process provides a higher quality of service to citizens, increases efficiency for staff, and reduces liability exposures that Municipalities have to navigate. The Village accomplished the goals of the PAR by leveraging multiple modules, including Service Requests, Work Orders, Projects, and Reporting. The program relies heavily on the scheduling, prioritizing, and time stamp function for tasks, comments, and photos.

PROGRAM HISTORY

The Village of Huntley is a vibrant, growing community home to a large retirement population. While it's important for all municipalities to maintain public sidewalks and other pedestrian access routes, the unique needs of the Village's demographic demand exceptional walkway management.



Before VUEWorks, the Village of Huntley managed its resident sidewalk service requests with a municipal based financial software solution. This system had limited capabilities and could not effectively support a robust sidewalk maintenance program. To track and manage service requests, the Village relied on emails, paper inspection reports, and Excel spreadsheets. The program had limited flexibility and offered few options to address and maintain the sidewalks. This was mostly due to the difficulty of managing such a program through software not designed to han-

dle the demanding and complex maintenance responsibilities of the pedestrian access routes in the Village.

PROJECT UPDATES AND VUEWORKS IMPLEMENTATION

VUEWorks provided the framework to consider:

- Past practices
- Subdivision ordinances
- Risk Management and legal advice
- The Illinois Department of Transportation (IDOT) Acces-

(Continued on page 29)

Condition Rating	Vertical Displacement	Recommended Treatment
Red	1.5" and Greater	REMOVE & REPLACE
Yellow	Between 0.25" – 1.5"	SAW CUT or GRIND
Green	0.25" and Less	NO TREATMENT

Condition Rating	Horizontal Opening	Recommended Treatment
Red	Greater than 0.5"	REMOVE & REPLACE or CRACK FILL
Green	0.5" or less	NO TREATMENT

PAR conditions are evaluated based on criteria

Huntley PAR (Continued from page 28)

sible Public ROW Field Guide

- United States Access Board Technical Requirements and Proposed Accessibility Guidelines for Pedestrian Facilities in the Public Right-of-Way
- Funding and other resources necessary to balance pedestrian safety needs with other Public Works priorities, within the purpose and scope of the PAR Policy

VUEWorks allowed the Village to create a customized detail form to model the pedestrian access route repair policy. This system provided necessary program guidance and offered the flexibility to add multiple inspection criteria fields for the evaluation and the maintenance of the PAR.

The VUEWorks inspection criteria fields include the following:

1. Four (4) location priorities
2. Four (4) general issue types
3. Six (6) issue areas
4. Vertical Displacement Measurement Fields
5. Vertical Displacement Criteria
6. Horizontal Opening Measurement Fields
7. Horizontal Opening Criteria
8. Condition Rating Types
9. Twelve (12) recommended Treatments for repair
10. Seven (7) Temporary Treatments

11. General Description of the area

12. Notes Field

13. Number of Panels replaced

The MobileVUE App allows for further flexibility and streamlines the inspection process for real-time evaluation from office staff and connects all stakeholders to the inspection process.

All Public Works employees use the PAR Evaluation form in VUEWorks to document sidewalk, curb ramp, and multi-use path conditions. When an issue is presented by a resident, staff captures the concerns through a service request. A work order is created with all timeline and con-

tact information documented in one record. The custom detail form is then used to gather necessary information about the sidewalk conditions. Once this assessment is complete and treatment determination is established, the work order is assigned to the appropriate project group for prioritization and scheduling.

All reports are investigated and assigned the appropriate corresponding treatment. The Village may elect to designate a PAR condition for "removal and replacement" using its own resources or, budgetary constraints permitting, those of an outside contractor. Should the condition be so

(Continued on page 31)



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Huntley PAR (Cont'd from page 29)

designated, the Village would schedule the contemplated work for the same calendar year that the condition was identified or for a future calendar year.

COMMUNITY SATISFACTION

The PAR Inspection and Repair Program has allowed the Village to make significant improvements to public walkways. Residents have expressed particular satisfaction with the Village's recent initiative to install yard drains adjacent to low stretches of sidewalk, preventing dangerous walkway conditions as a result of water pooling (with increased risk of injury from ice

formation in the winter).

One resident wrote to the Village, "I want to thank you for making sure this issue was satisfactorily resolved. With all of the rain we have had this spring, especially the 4" rainfall this past weekend, all of the water drained properly and there was never a problem with water pooling. Thank you, thank you." 



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SIDEWALK
INSPECTED**



Details	Costs	Tasks	Labor	Equipment	Inventory	Assets	Documents	Work Orders	Comments
Location Priority <input type="text"/>					Condition Type <input type="text"/>				
Issue Type <input type="text"/>					Recommended Treatment <input type="text"/>				
Issue Area <input type="text"/>					Temporary Treatment <input type="text"/>				
Vertical Displacement Measure <input type="text"/> inches					General Description of Area <input type="text"/>				
Vertical Displacement Criteria <input type="text"/>					Notes <input type="text"/>				
Horizontal Opening Measure <input type="text"/> inches					Number of Panels Replaced <input type="text"/> count				
Horizontal Opening Criteria <input type="text"/>									

The VUEWorks detail form



Developing Public Works Employees

By: [Tom Ellis](#), Village of Lombard

Between March 2013 and March 2014, the Village of Lombard Public Works lost 22 of the 53 department wide employees due to an Early Retirement Incentive (ERI) program. Losing that many senior employees left a large gap to be filled with new employees. Some of the challenges that it created were training new employees with relative new employees and promoting employees with limited experience to leadership positions. At the time of the ERI our collective bargaining agreement had a relatively low starting wage and made it difficult to attract new hires with some experience, let alone some public works experience.

Having said that, we were very fortunate to recruit some applicants from other municipalities and, in some cases, the new hires were willing to accept reduced pay to come to Lombard. Experiencing this hiring challenge of having to hire new, minimally experienced employees and, most importantly, retaining them, we had to adjust our old way of training and developing employees.

Traditionally, we would issue a new employee our employee handbook with our personnel policy and was full of policies for the employee to read on their own time (which we believe no

one reviewed in detail) and pair them up with a seasoned employee for training for a few weeks. The goal was that new employees would learn most of what they needed to know from our veteran employees. However, we found that this method wasn't as effective as we had hoped and that most of the information being given to the new employees was very opinionated and biased versus factual. Because of this, it became clear we needed a better way to develop our employees. We found that we didn't have to look at the ERI as if it created a void in employee training and development opportunities and instead, it could be a way to redefine how we train and develop our employees. Our revised process is as follows:

- First, we looked at what we wanted our new hires to know, when we wanted them to know it and how we were going to measure what they were learning. This led us to developing our Public Works Employee training manual.

Our goal for this training manual was to give new employees, regardless of experience, a path to success

by outlining training and job knowledge expectations and a timeframe for which these expectations should be met. We didn't want to throw too much information at the employees at once thus allowing a successful progression through the training manual.

- We broke down the manual into manageable segments that paralleled probationary check reviews such as 3 months, 6 months and 9 months. Coincidentally, 9 months is our decision point on whether to keep an employee or consider separation.
- At each check review the employees are required to demonstrate that they comprehend the information identified in the manual for the segment for which they are being reviewed. Each segment of the manual has a mixture of Policies and SOP's, training opportunities (external and internal) and equipment operation. The employee progresses through the manual and again the employee continues to demonstrate their knowledge of the segments at their annual reviews.
- So far, the employee has been focusing on information

(Continued on page 34)

Our goal for this training manual was to give new employees, regardless of experience, a path to success



“Water is Life” Teamwork through Education, Empowerment and Transparency!

By: Maxwell Geib, Utilities Superintendent, Village of Lincolnshire

What does water mean to you? When is the last time you went without using water? Every morning after you wake up one of the first things used is water. Whether it be brushing your teeth, making coffee or showering, everyone uses water every day. We have come to a point in our lives where water is expected to be there every time we demand it to be. Water is the center of life. I not only work to ensure that water is there when my community demands it to be but also strive to educate people on how I do just that. In the past I would have talked with resi-



Maxwell Geib

Concerns, I was receiving more buy-in. Now my residents and water customers better understand the means and methods in which we implement to ensure we are delivering safe quality drinking water.

Education is one part of my strategy of teambuilding, there are two other parts to bring it 360 degrees. I, by myself cannot accomplish all the tasks and goals of a Utilities Division. I rely on my staff to help complete our objectives. Through my staff we achieve our goal of delivering safe quality drinking water, fire protection and essential water necessities every day, with communication, dedication and empowerment. I like to use the term “empowering delegation” when I am communicating to my team. We are a team, and I remind myself of this every day. When we start the day, we all start on the same playing field and whatever the day brings us, we tackle it and succeed together. When my division is tasked with a project, I turn to my team and I explain to them the objective and ask how were going to accomplish it, at the same time I empower my team to be the owners of the project, not just me. I remind them in the

process of developing a solution, they are the water authority, take ownership in this process and strive for accomplishment with pride. Without my team and their buy-in, Lincolnshire does not have a Utilities Division and that is not an option. It is truly amazing to watch a team come together, motivate each other and accomplish their goal together. By empowering my team, they now empower each other every day and with this, morale stays high.

Lastly, but maybe most important, is transparency. Transparency has many different levels, depending how you look at it. I look at transparency as a 360 degree circle, where if the transparency starts with me, than it should come back to me. Honesty and respect can be seen as the pillars of transparency, because without them, there is a break in the circle. Practicing transparency builds trust and with trust, a team can overcome staggering obstacles. With transparency everyone is heard and appreciation can be handed to one another. Early in my Public Works career, it didn't take long for me to want to understand exactly how everything operated, from the top down, bottom up and both sides. I wanted to know why we were doing what we were doing. Why were we working on this area, when I know of another area, which may need more attention? So I dug in, and followed my leadership and asked the questions and learned where the projects originate and where the money has to come from and why some projects are harder than others to get off the ground. Then a spark ignited, and drove me to become a leader myself and accomplish the goals of a community while educating, em-

(Continued on page 34)




Lincolnshire Utilities Division

dents about water and given them a one line answer and gone about my day. I would answer their question, but did I take the time to educate them on the subject? Putting myself in their shoes, knowing that my residents and water customers are shareholders of the community's infrastructure, and the fact that 90% of what I do is underground and can't be shown or explained with one line answers, I needed to adjust my response method. After making adjustments to the method in which I addressed


Developing PW (Cont'd from page 32)

and training that is directly related to their job assignment. As the employee reaches year three of the manual, new SOP's and policies are introduced from other departments and this is also where we begin to include supervisor training. This program continues until the employee reaches 5 years. At the 5 year mark our employees should have completed all necessary training and experience levels to qualify for advancement into the Crew Leader program.

- In the Crew Leader program, we continue to build the employee by introducing administrative policies and SOP's and having them complete supervisor training classes such as IPSI and College of DuPage course work.

Our success for this program can only be measured by the success of our employees. We have had at least 8 employees promoted to higher positions within the Village of Lombard or other agencies. Our investment into our employees has provided quality and efficient work for our community and produced some highly trained, professional, public works employees. 

Water is Life (Continued from page 33)

powering and being completely transparent with the process. There are many levels of transparency and as a Utilities Superintendent, I choose to operate on the same level as my staff, residents and community. I have gone a day without water in my life and I devote myself to make sure no one else has to. "Water is Life" 

**Operations Division
Training Program**

Objectives for employees with 4-6 months of employment. Employees will be evaluated on the completion of the following items at the completion of the second evaluation period. Reviews shall be conducted by the employee's supervisor.

Employee Orientation,

Employees shall demonstrate the completion of the following items.

1. Employees shall understand the basic principles of the Village of Lombard's system of government. Employees should be able to identify the number and location of Village Trustee Districts. The employee will demonstrate an understanding of the Village President, Village Manager and Village Trustee relationship.
2. Employees shall understand the Village command structure beginning with the Village Manager and ending with Maintenance worker 1 position.

Public Works Policies and SOP's

Employees shall demonstrate comprehension of departmental policies and SOP's prior to the conclusion of the second evaluation period.

1. Conservation of materials and use of Recycled or reclaimed products. PW-04
2. Contractor safety enforcement PW-5
3. Facility management and maintenance PW-08
4. Facility security PW-09
5. Fall prevention and protection program PW-10
6. Electrical locates SFE-05
7. Street sweeping SFE-17
8. Downtown Clean-up SFE-04

Employee Training

Employees shall be able to demonstrate the completion of the following training requirements prior to the conclusion of the second evaluation period.

1. Driver training course- NIPSTA or similar(as available)
2. Flagger Training Certification- IDOT or similar(as available)
3. Work Zone safety/ road / lane closures
4. NIMS ICS-632
5. Street light electrical control panels
6. Electrical Safety and Demo(Arch Flash) NIPSTA

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Take Advantage of Opportunity: Perspectives from a Maintenance Worker II

By: Joe Perri, P.E., Village of Wilmette

Beginning in 2019, the Village of Wilmette embarked on its largest ever capital infrastructure project. The Village has had a long history of flooding events, particularly on the west side of the community, for which this stormwater optimization project looks to address and remedy. In total, the multi-year Neighborhood Storage Project (i.e. Phases 1A, I, II & III) tops out at nearly \$68 million. The project's final completion (Phase III) is slated for YR 2022.

The project's premise, design

improvements and site restoration efforts.

More specific, Phase I (completed in 2020) entailed excavation of the first underground storage facility at Community Playfield (20-acre site) and assembly of approximately 2,250 pieces of modular, precast concrete interlocking structures (Storm Trap System). It also included installation of over one mile of storm sewer ranging in size from 12" to 60" diameter.

Construction activity ramped up

YR 2022 as part of Phase III. The principle design team consisted of consulting civil engineers with **Christopher B. Burke Engineering, Ltd.**, Rosemont, IL and **Baxter & Woodman Consulting Engineers, Inc.**, Chicago, IL. The construction firms working the project include **Berger Excavating Contractors, Inc.**, Wauconda, IL, **V3 Companies Ltd.**, Chicago, IL and **Bolder Contractors, Inc.**, Deerfield, IL.

Considering the scale and scope of the project, the Village's leadership team did not want to



Delivery of Storm Trap System modular system

and intent was to achieve a 98% reduction in vulnerable structures for a 10-year return interval storm event. The scope of

over a six-week period over summer break (of the Wilmette schools) where 150-200 semi-trucks hauled away excavated material each day combined with receipt of up to 26 truck-load deliveries each day (of Storm Trap System modules). The expanse and intensity of construction activity was trailblazing and immeasurable from the Village's perspective. Likewise, construction crews, worked tirelessly and continuously throughout the pandemic (following CDC safety protocols) to adhere to the work schedule.

As of summer (2021), Phase II work remains ongoing with the second underground storage facility being constructed at Hibbard Park. The final underground storage facility will be installed at Thornwood Park in

waste this opportunity of a lifetime for Public Works maintenance workers to play an active role in the process, especially when considering staff will eventually take over maintenance responsibilities of the new facilities.

My role with the project was to serve as liaison between the various construction contractors and supervisory staff within the Engineering and Public Works Department. The daily routine included reviewing plans, utility locating -including potholing to verify asset locations, and condition assessment of existing infrastructure (i.e. sewer structures, water valves, etc.). I was also given the opportunity to participate in weekly meetings

(Continued on page 37)



work includes construction of massive underground storage facilities at three locations (i.e. Park District property), along with associated storm sewer

Oak Park Ave Construction—"in Sync"

By: [Byron Kutz](#), P.E., M.P.A., Assistant Village Engineer, Village of Oak Park

No, not the boy band 'N Sync', the project is 'in sync' with two different underground utility contractors and a resurfacing contractor working in concert on the corridor throughout 2021 to complete all work in one construction-season. Oak Park Ave is a locally owned major-collector and runs north-south for three miles from one end of the village to the other. The avenue needed improvements last being resurfaced over 15 years ago with existing water mains from the early 1900s.

This project includes water and sewer main improvements on several different blocks throughout the corridor followed by resurfacing Oak Park Avenue from Roosevelt Road to North Avenue. The Village received \$2.56M in Federal Surface Transportation funds for the street resurfacing portion of the project which was required to be obligated by 2021 so there was some urgency to take advantage of the federal funding. A project of this size would typically be constructed over two construction-seasons with a single utility contractor starting the underground work last fall until winter weather no longer allowed, with the remaining work resuming in April and completed in the summer prior to the resurfacing getting under way. Benefits to a two construction-season approach would have been spreading the work over a longer timeframe which would reduce staff resources associated with the coordination efforts of two contractors working concurrently. The project



Team picture with masks!

runs through or touches five different business districts so there was much concern for impacts to businesses especially given the ongoing COVID-19 pandemic. In addition to that, the Lake Street Streetscape project in 2020 was one of the larger projects in Oak Park in many years so it was ultimately decided instead to compress the Oak Park Ave construction projects into the 2021 construction season to avoid overlaps between the two projects.

To meet the June start date for the state bid resurfacing of Oak Park Avenue, it was necessary to be creative with the sequencing of the advanced utility work, therefore performing all the underground utility work in a one construction-season approach requiring two underground utility contracts being constructed concurrently starting in early March. The utility contracts were split more or less in half geographically consisting of south and north underground utility contracts (see construction schedule

graphic below). At that point in design, it was realized the likelihood of having a different contractors for each of the two underground utility contracts would complicate scheduling and coordination between the two different contracts. This required tight schedule requirements in the specifications for both underground utility contracts to ensure both utility contractors cooperate together to meet their early-June construction deadlines. Contract language was also added in the specifications of the resurfacing contract stipulating construction start no earlier than early-June, as well as allowing some overlap with the utility contractors wrapping up their work for a few weeks during the beginning of the resurfacing work. Some of the underground utility work required full road closures which necessitated the detour limits being coordinated during design to avoid impacts between the two underground projects

(Continued on page 37)



Graphic: Oak Park Ave 2021 Project- Construction Schedule

The project runs through or touches five different business districts

PWX 2019 (Continued from page 21)

way they classify it, to the types of issues they deal with. With what I have learned from the networking at the PWX I have brought back to my community. My crew leader and I sat down and discussed some of the culture related topics. This came at a great time as we had two new employees starting in my division in a couple weeks. This was really the time to stress to the staff in the streets division make sure we come alongside our new team members and teach them all we know, as they will be the next to take over for us and I want this place to stay running in an efficient manner and continue to be a fun happy career place to work. Thank you Fox Valley this was a great experience and I will continue to add this show to my budget to attend.



Perspectives (Continued from page 35)

to gain perspective on the levels of communications and coordination amongst Village staff, consulting engineers, project managers and construction firms.

The primary objective was to be proactive, identify and address areas of deficiency (i.e. irregularities, spot repairs, etc.) ahead of the contractor and avoid setbacks/delays as much as possible. Direct participation (and engagement) also produced a sense of ownership and

Oak Park (Continued from page 36)

during construction. The team tried to not leave any stones unturned with several other miscellaneous provisions being added. This included adding specifications for

the contractor to be responsible for snow removal due to the risk of snow in March with the project starting earlier than April which is typical for construction in Oak Park. Also, as all three projects would utilize the same field-office during construction it was necessary during design to decide which project to include the field-office item as well as including a note requiring the contractor to allow all three projects to utilize the office.

The work is still ongoing and like any project there are still adjustments and much coordination between the three projects during construction. A recommendation for those planning a similar project with




concurrent contractors is to have a single designer or project manager for all projects or at least collaborate extensively during design to ensure that the specifications match in terms of schedule requirements, detour limits, and general coordination-between-contractor requirements. This project surely was a balancing act but thorough planning efforts and attention to specifications during design have allowed for the three projects to be in concert with each other and ultimately 'in sync'.

Byron Kutz, P.E., M.P.A, is the Assistant Village Engineer at the Village of Oak Park and can be reached at bkutz@oak-park.us

better understanding of how the project will impact future maintenance operations.

This is not your everyday project, the value from seeing a civil engineering construction project of this magnitude come to fruition from start to end has been profound. Being able to witness firsthand what it takes for all parties to complete a project (i.e. communications, coordination, project management and troubleshooting) cannot be replicated in the classroom. Difficulties and mistakes happen instantaneously and seeing how they're over-

come has been a great learning experience.

I'm currently finishing up my secondary degree in construction management, with aspirations of moving into a leadership/managerial role in Public Works. I'm incredibly grateful the leadership team afforded me this opportunity. The learning experiences and takeaways have been invaluable to my professional development and will be meaningful and lasting for many years to come. 

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Jul 16, Lake Branch Scholarship Golf Outing
Jul 22, City Branch Scholarship Riverwalk Tour
Jul 28-29, Chicago Metro Chapter Expo - The Odeum Expo Center, Villa Park, IL

Aug 4, Southwest Branch: Demo & Product Fair 2021
Aug 20, Suburban Branch Scholarship Golf Outing

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