



June 2022

## APWA Chicago Metro Chapter

Volume 54, Issue 2

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### Letter from the Chapter President

[Marc Grigas](#), Strand Associates, Inc.

Welcome to the summer! After a few challenging years, the Chicago Metro Chapter and our Branches are back hosting our regular events and a few surprises along the way. Playing off of the 2022 PWX theme of "Ready and Resilient", the Chapter has positioned itself to deliver great educational events and networking opportunities for our members in the coming months. We are fresh off of celebrating National Public Works week May 15-21. Since 1960, the 3rd week in May has been celebrated recognizing the public works professionals and their contributions as essential workers and first responders to assist and better our society. The APWA Illinois and Chicago Metro Chapters received proclamations from Governor Pritzker and other communities for public works week which can

be viewed on our website. I want to express my deepest gratitude to all of our public works professionals for your tireless efforts for the public!

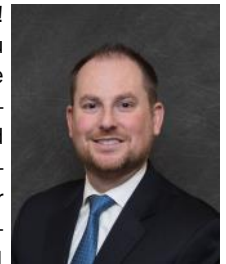
After a three year hiatus, we were again able to host our annual Expo at the Odeum Exposition Center in Villa Park, during public works week, on May 18th & 19th. Over a thousand attendees participated in our various events at the Expo including twenty-three educational sessions offering CEU's and PDH's, the Rodeo competitions, and many exhibitors filling the Odeum! Congratulations to the backhoe, loader, and snowplow winners of **Ben Andermann**, Wheatland Township Road District, **Omer Torlo**, Village of Glenview, and **C.R. Jones/Brian Calderon**, Village of Bolingbrook, respectively. The Expo is our foundational fundraising event in the year to raise money to support our strategic plan and it was a

success!

Thank you to the Expo, Rodeo, and 5K committees for your detailed planning and significant effort to organize these events. And thank you to the volunteers, sponsors, and exhibitors.

Our diversity committee has organized a lunch on **June 24th** in Wheaton for a roundtable discussion on Women in Public Works. The discussion will center around how women have evolved in the public works industry and how they can continue to advocate for change in the years to come. Please plan to attend and support our women in public works.

(Continued on page 12)



Marc Grigas  
Chapter President

### 2022 APWA Chicago Metro Expo Recap

by: [Robert Kolar](#), Senior Project Manager, HBK Engineering, LLC

The 2022 APWA Chicago Metro Expo Committee would like to thank you all for coming out to/ participating in the return to the Odeum Exposition Center in Villa Park for this year's 2022 APWA Chicago Metro Expo (May 18 - 19). We couldn't do this event without all of you (competitors, attendees, event/Rodeo volunteers, vendors, sponsors, committees' members, Executive Committee and education presenters).

After the cancellation of the 2020 and minimal attendance

at the 2021 Expos, we weren't quite back to our 2019 weight (numbers) for this year but, with larger than expected day-of registrations, attendance brought us very close. Snowplow/end loader/backhoe competitors were almost the same total as 2019. There was an excitement for the event again this year that was well overdue.

The weather was not as favorable as hoped with rain most of Day 1 (Wednesday) but that didn't stop the fierce competition between the backhoe and end loader Rodeo participants



eager to get back out on the course and win the coveted trophies (and bragging rights). Day 2 had a bit of poor weather to start but the snowplow competitions were completed as planned.

(Continued on page 4)

## 2022 Chapter Officers

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Marc Grigas  
Strand Associates, Inc.  
[marc.grigas@strand.com](mailto:marc.grigas@strand.com)

### President Elect

Allison Swisher  
City of Joliet  
[aswisher@joliet.gov](mailto:aswisher@joliet.gov)

### Vice President

Tiffany Engelhardt  
Engineering Resources Associates, Inc.  
[tengelhardt@eraconsultants.com](mailto:tengelhardt@eraconsultants.com)

### Treasurer

Jeremie Lukowicz  
Village of Barrington  
[jlukowicz@barrington-il.gov](mailto:jlukowicz@barrington-il.gov)

### Secretary

Scott Drabicki  
Clark Dietz, Inc.  
[Scott.Drabicki@clarkdietz.com](mailto:Scott.Drabicki@clarkdietz.com)

## Branch Presidents

### City Branch President

Eric Dean  
Alfred Benesch & Co.  
[EDean@benesch.com](mailto:EDean@benesch.com)

### Fox Valley Branch President

Karen Kase  
Hampton, Lenzini, and Renwick  
[kkase@hlreng.com](mailto:kkase@hlreng.com)

### Lake Branch President

John Clark  
Peralte-Clark  
[john.clark@peralte-clark.com](mailto:john.clark@peralte-clark.com)

### Southwest Branch President

Eric Neubauer  
HDR  
[Eric.Neubauer@hdrinc.com](mailto:Eric.Neubauer@hdrinc.com)

### Suburban Branch President

Jeff Maczko  
Village of Bensenville  
[jmaczko@bensenville.il.us](mailto:jmaczko@bensenville.il.us)

## Chapter Newsletter

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

The December issue is mailed.

Communications/Publicity Chair/  
Newsletter Editor:

Jorge Cruz  
Village of Wilmette  
1200 Wilmette Avenue  
Wilmette, IL 60091  
847.853.7623  
[cruzj@wilmette.com](mailto:cruzj@wilmette.com)

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## Lake Branch Updates!

By: Mike Brown, Pubic Works Director, Village of Lake Zurich



Drone!

The year is off to a great start! In April, Lake Branch hosted an appreciation luncheon for Administrative Professionals Day at Docks Bar and Grill in Wauconda, IL. Special Guest speaker for the luncheon was Mr. Darryl Harris from the Carroll-Keller Group. Darryl provided his expertise in communication and customer service.

The second stop for the year landed us in Grayslake in May for a demonstration and discussion on utilizing drones for project design and oversight at Gelatin Park. The guest speaker for the event was Mr. Tom Rychlik of Gewalt Hamilton Associates, and Mr. Steve Conroy from Berger Excavating. Both Tom, and Steve provided a brief flight demonstration while leading a discussion on the advancements of utilizing drones on construction projects. A social event was held after the demonstration at First Draft for networking and further discussion on this interesting topic.




Drone Presentation, May 10, 2022

Next up.....

- June 2nd Lake Branch Awards at Mickey Finn's in Libertyville.
- June 16th Educational Event-Asset Management at Wild Onion Pub in Barrington.
- June 21st 2021 Top Ten Recipient-Bridget Berger-

Raisch at Sunset Pavilion in Lake Zurich.

- July 15TH Lake Branch Golf Outing at the Arboretum in Buffalo Grove.
- August 16th Educational Event-Intro to Survey and networking at Buffalo Creek Brewery in Long Grove. 

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Expo Recap (Cont'd from pg 1)

**Ben Andermann** from Wheatland Township Road District won the Rodeo backhoe competition and will be representing the Chicago Metro Chapter in the backhoe competition at this year's APWA PWX 8/28-8/31 in Charlotte, NC. Best of luck to Ben!

Top competitors for the Rodeo events included:

**Backhoe Competition:** 1st **Ben Andermann**, Wheatland Township Road District, 2nd **Julio Salas**, Village of Hoffman Estates and 3rd **Mike Varvodic**, Village of Elk Grove Village.

**Loader Competition:** 1st **Omer Torlo**, Village of Glenview, 2nd **John Lukaszewski**, Village of Streamwood and 3rd **T.J. Hogan**, Village of Bartlett.

**Snowplow Competition:** 1st **C.R. Jones/Brian Calderon**, Village of Bolingbrook, 2nd **Kevin DeLuca/Sean Eisen**, Village of Mt. Prospect and 3rd **John Cueller/Steve Fenton**, Village of Lake Zurich.

Complete Rodeo individual/team results can be found on the APWA website at: Expo

Rodeo Competitions (apwa.net).



*Backhoe Competition: 1st Ben Andermann, Wheatland Township Road District, 2nd Julio Salas, Village of Hoffman Estates and 3rd Mike Varvodic, Village of Elk Grove Village.*

With 23 education seminars over the 2-day event, they were well attended with knowledgeable presenters at each. Topics covered a wide range of items, including utility locating/coordination, watermain: cellular metering/GIS management/satellite leak detection, storm-water/drainage issues, safety topics, interviewing process, climate change, pavement management, tree inventories, and other subjects.

Finally, if you haven't heard already, the Odeum was sold to a trucking company for redevelopment and will be demolished in the coming months. The

2022 Expo was the last event held at the Odeum and this brought a lot of discussion on next year's event location and a lot of memories of Expos past held there. Jorge Cruz did a great job of recording a variety of participants' memories of the Odeum (look forward to him sharing such).

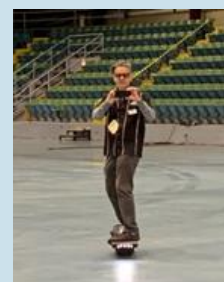


*One of 23 education sessions held.*

Next year's Expo will be held on **May 24-25 at the DuPage County Fairgrounds**, Manchester Road in Wheaton. This location will provide ample room for the outdoor Rodeo competition and vendor booths, and the Expo committee is navigating the site to make the best uses of this location. Hope to see you all out there again next year.



*Snowplow Competition winners: C.R. Jones/Brian Calderon w/ Village of Bolingbrook*



*Getting around Expo!*



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Retirement



Southwest Branch Awards

Southwest & Fox Valley Branch  
Joint education session

Start of the PWX5K Challenge. Rachel Lang, Marc Grigas and Alex Alejandro pictured in front

## Once Upon a Time in the (South)west

By: [Eric Neubauer](#), HDR

The Southwest Branch was finally able to honor our award winners at the **Patrick Haley Mansion** in-person on April 6th. Congratulations to all of our winners. We will continue our monthly award spotlights at upcoming meetings as well. We were also able to honor **Ryan Anderson**, our 2020 president, and **Arian Schattke**, our 2021 president, for their contributions to the branch. A special presentation was made for **Allen Persons**, who retired at the end of April 2022, for his contributions to APWA, the Southwest Branch as a past president, and the industry. Congratulations Allen and enjoy your retirement!

In a co-sponsored event with the Fox Valley Branch, our Education Committee coordinated a presentation and lab demonstration at Clarke Environmental in St. Charles about Mosquito Larvicide. This included certification for the use of mosquito larvicide tablets. Thanks to **Ben Fox** and **Mita Garasia** for planning this event. I know that they are already planning another educational event for the fall.

The Southwest Branch has filled out our calendar of events for the reminder of the year. Hope to see you at one of our events.

- June 6, 2022 – Southwest Branch Golf Outing (Silver Lakes Country Club)



Eric Neubauer recognizing branch presidents and officers



### 2022 Southwest Branch Award Winners


- **Transportation < \$5 Million** – Bridge Carrying Essington Road over Rock Run Creek (Joliet/Hutchison)
- **Transportation \$5 to \$25 Million** – 151<sup>st</sup> Street Improvements (Orland Park/CBBEL)
- **Structures < \$5 Million** – Romeoville Public Works Fleet Maintenance Building (Romeoville/RJA Architects)
- **Structures \$5 to \$25 Million** – New Lenox Rock Island Train Station (New Lenox/CBBEL)
- **Environment < \$5 Million** – Elwood Water System Improvements (Elwood/Baxter&Woodman)
- **Environment \$5 to \$25 Million** – Channahon's Strategic Master Planning Facilitated Cost-Effective Phased Improvements (Channahon/Strand)
- **Environment \$25 to \$75 Million** – City of Joliet Five Year Water Main Improvement Program (Joliet/Baxter&Woodman)

- August 3, 2022 – Demo Days
- September 7, 2022 – GIS Mapping for Tree Inventories (Great Lakes Urban Forestry Management)
- October 5, 2022 – Lift Station Assessments (Trotter)
- November 2, 2022 – Disaster Assessment and Partnerships (American Red Cross)
- December 2022 – SSWWA/Southwest Branch Holiday Party

As I noted last issue, a special goal of mine for 2022 is to increase our visibility and number of applications for the Southwest Branch full-time student scholarships. I am happy to report that we have indeed increased our scholarship recipients this year to four! Congratu-

lations to all of our scholarship winners!

- Matt Cerven – Marquette University
- Matt Flores – Iowa State University
- Ryan Francis – Milwaukee School of Engineering
- William Jennings – Purdue University Northwest – Hammond Campus

I will close by letting you all know that the Southwest Branch won the PWX 5k Branch Challenge on May 19th. Thanks to all those that participated! 





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## Climb for Healthy Lungs

By: [Jackie Dearborn](#), Manager—Grounds/Rigging/Transportation, Argonne National Laboratory

**M**embers of the Chicago Metro Chapter of APWA participated in the Climb for Healthy Lungs and Clean Air on Sunday, May 15, 2022 for the 25th Anniversary of the Hustle Chicago stair climb. This event, formerly known as Hustle Up the Hancock was held outdoors at Soldier Field due to COVID restrictions. This year, the APWA Climbers team had 6 participants including: **Alex Alejandro** (Hancock Engineering), **Jackie Dearborn** (Argonne National Laboratory), **Mason Dearborn** (University of Chicago), **Karol Giokas** (RJN), **Archana Kuchimanchi** (RJN), and **Rachel Lang** (Corrective Asphalt Materials).

This climb supports the Respiratory Health Association's mission to prevent lung disease,

promote clean air. Mason and Jackie were climbing in memory of Terry Dearborn. Karol was a Lung Health Champion who had committed to raising over \$1,000. Teams were assigned a 400-level seating section of the iconic Soldier Field and were allotted 20 minutes to climb as many stairs as possible. The APWA Climbers completed 9 laps this year exceeding the 8-lap equivalent of the 1,632 steps of the John Hancock. The Chicago Metro Chapter continues to support this cause every year and they are always looking for future team members.

Jackie Dearborn,

[idearborn@anl.gov](mailto:idearborn@anl.gov)

Manager - Grounds/Rigging/  
Transportation

Argonne National Laboratory



The participants at the 2022 Climb for Healthy Lungs

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### PWX CHAPTER DINNER



**AUGUST 30, 2022**  
**7:00PM - 9:00PM**

## Suburban Branch Expo Extra

By: Ryan LaDieu



It was a welcome site to see many colleagues and friends join the APWA Suburban Branch at Crazy Pour in Villa Park to enjoy camaraderie and a frosty beverage after the first day of the Expo. It was a great way to unwind after an eventful day one of Expo. Nearly 55 attendees were in attendance this year, and we would like to thank all of our sponsors who made the event a success. We hope you all will join us next year for Expo Extra at our new venue!

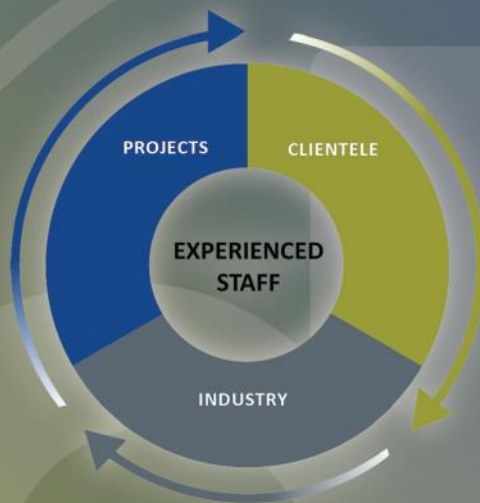
Ryan LaDieu, PR & Networking Committee Co-Chair, Suburban Branch



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## City of Elmhurst - Stormwater Management Success

By: [Kent Johnson](#), City of Elmhurst

The City of Elmhurst, much like many communities across Chicagoland, experienced severe flooding events in 2008, 2010, 2013, and 2015 that caused structural flooding to hundreds of homes. Being an urban community, that has almost been entirely built-out since the 1960's, the existing stormwater infrastructure was inadequate to handle these "100-year" rains. Of note, 2010 hit the City hard with 4.5 inches of rain in 30 minutes on June 23rd and nearly 7 inches of rain in 12 hours on July 23rd.

Since these severe events the City Council felt a lot of pressure from the community do to something to reduce or eliminate flooding. In 2010 Christopher B. Burke Engineering, LTD. (CBBEL) was hired to complete a Comprehensive Flooding Plan and Storm Sewer System Analysis for the entire City. Through CBBEL's efforts, both through an initial report in 2012 and an addendum in 2014, the City was able to come up with conceptual project ideas and cost estimates. These were then taken to the elected officials for consideration and discussions then began with other public agencies, such as the local school district and local park district; as they owned a majority of the open land that could be used for potential flood retention storage to fight the urban flooding. DuPage County was also contacted regarding the use of the Elmhurst Quarry Flood Control Facility as a way to alleviate flooding to almost 100 homes in a neighborhood adjacent to that site. Finally, IDOT was also contacted regarding parcels of land they owned that could be used for new detention sites.

Ultimately, over several years of

negotiations and public meetings

with the other agencies, the City was able to enter into agreements with School District 205, the Elmhurst Park District, IDOT and DuPage County to allow the City to create new flood relief projects. Additionally, the City also purchased private property (both residential and commercial) in certain neighborhoods that experienced flooding; thereby eliminating the individual flood risks (through house demolition) and also creating land for either under-ground and above-ground new flood retention volume.

In 2015 the City broke ground on the first new stormwater detention project, a \$5M project to the east of the Elmhurst Quarry. Since then, the City of Elmhurst has invested almost \$50M over the last 7 years to combat urban flooding. The City has completed 13 infrastructure projects throughout the town and has reduced or eliminated overland flooding for nearly 500 homes. In total, 128 ac-ft of new detention has been added to the City's stormwater system to safely store and release floodwater during extreme rain events.

The 13 projects the City has completed have highlighted what can be achieved with cooperative partnerships between public agencies. As agencies that rely on public tax dollars for revenue, working together to solve a community-wide problem like flooding can yield great benefits for the community as a whole. Additionally, the City has learned many lessons from the projects:

1. Public education and constant

communication to the residents and businesses is paramount for success. The City created a dedicated stormwater website to inform the residents and provide blog updates.

2. Large infrastructure projects need to be reviewed and coordinated among all City divisions/department. Having input on project design from IT, PW Operations, Engineering, Community Development, etc. can yield a better project and provide an opportunity for the inclusion of items within the project that wouldn't typically be included, but that can be a benefit in the future. In particular, PW Operations staff should be involved with infrastructure projects (especially new pump stations) as they will be the ones operating/maintaining these facilities in the future!

3. Landscape maintenance needs to be budgeted for project post-construction. A 3-year maintenance and monitoring provision should be in the specs for any stormwater project that has grass, native plantings, or any type of landscaping in the restoration design. The City has spent a lot of time and money post-projects on the initial landscaping maintenance, just to make sure everything is established, and a lot of those efforts were not included in the project design.

The City has won numerous APWA awards, 4 Suburban Branch and 2 Chicago Metro Chapter, for their efforts and individual project awards since

(Continued on page 14)



Kent Johnson in front of 9 ac-foot StormTrap installation at York High School, summer of 2021

## Chicago Metro Chapter - 2022 Project Excellence Award

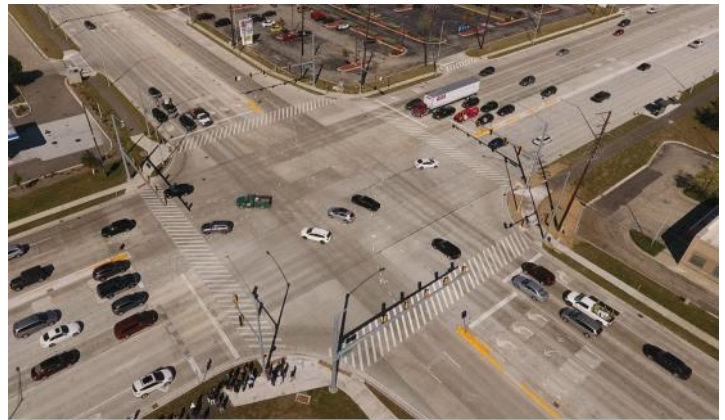
Chapter Awards Committee By: [Dan Strahan](#) - Gewalt Hamilton Associates, Inc., and [Darren Monico](#) - Village of Buffalo Grove

After a cancelled luncheon in 2020 and an abbreviated event as part of the Chapter Expo in 2021, the Awards Committee was thrilled to be back in person for a live Awards luncheon on March 18, 2022. The Awards luncheon is always one of the highlights of the chapter calendar, as it celebrates the best of what we do in public works. The Awards program recognizes outstanding projects, individuals, groups, and organizations representing the best in the public works profession.

The luncheon culminates with the announcement of the Project Excellence Award. This award selects the overall Project of the Year among all the award submittals that best defines excellence and the advancement of the public works profession. The Project Excellence Award is selected by a confidential vote of the Awards Committee members and is announced at the conclusion of the Awards Luncheon program. And for 2022, the winner is.....(drumroll please)....the McHenry County Division of Transportation for the Randall Road Corridor project!

The reconstruction of Randall Road in Lake in the Hills and Algonquin is the largest project the McHenry County Division of Transportation has undertaken. Planning studies began in 2007 to determine the types of changes needed to relieve congestion on this heavily traveled north-south corridor vital to neighboring municipalities and counties.

In 2018, ground was broken for the \$46 million project which upgraded 1.5 miles of Randall Road and one mile of Algonquin Road to the latest access standards, utilized efficient lighting



*Algonquin Road looking West at the Randall Road Intersection*



*Multi-use Path and Underpass*

and signals, increased safety and mobility, helped reduce accidents by providing protected turn lanes, and improved traffic flow by adding capacity. Randall Road was widened from a 5-lane cross section to an 11-lane section. Triple left-turn lanes were added on both legs of Algonquin Road to manage turning movements onto Randall Road. Traffic signals were added at two side street intersections and modernized at four others. Crosswalks and pedestrian signals were installed at key intersections. New sidewalks and multi-use paths were added. A 16-foot by 11-foot lighted underpass constructed under Randall Road and wetland boardwalk provide pedestrian and bicycle

connectivity between neighborhoods, commercial areas, and the high school.

A wide-reaching public outreach program kept business owners and the public informed about construction activities. The project involved extensive coordination with the Village of Lake in the Hills, the Village of Algonquin, and Illinois Department of Transportation – District One. The project team included HDR for Phase I engineering, Tran-Systems and Bollinger Lach & Associates, Inc. for Phase II engineering, Baxter & Woodman, Inc. for construction engineering, and the primary construction contractor was Plote Con-

*(Continued on page 14)*

Triple left  
-turn  
lanes  
were  
added on  
both legs



## 7th Avenue Creek Flood Mitigation and Rehabilitation

by: [Chris Gottlieb](#) - The City of St. Charles

**L**ocated on the east side of the City of St. Charles, 7th Avenue Creek is fed entirely by surface runoff. It is prone to flash flooding, going completely dry in the summer, and rising rapidly with even a small rain event. The creek was once a simple drainage ditch but has expanded significantly by scouring out its banks. Over the years, residents have tried to stop scour loss on their property with no success. The result was a creek that is choked with fallen trees and broken concrete debris.



View from Indiana Ave. Before Construction

In 2008, a 50-year storm hit St. Charles causing 7th Avenue Creek to overrun its bank, flooding multiple homes and roads. This event prompted FEMA to reevaluate the floodplain. The study determined that the creek flows were

250% greater, and the base flood elevation was three feet higher since their previous evaluation. As a result, the floodplain was increased on 69 properties and 49 properties were newly added to the floodplain.

In 2014 the City of St. Charles hired HR Green to create a watershed management plan for the creek to address the flooding and erosion issues. Phase 1 of the plan tackled the most impacted area using a combination of engineered and naturalized solutions. The design replaced three single 9'x4' culverts with double barreled 12'x6' culverts. It also removed a section of 9th Avenue, eliminating a culvert and creating an open green space. The debris-choked channel was replaced with a dual-stage channel using stone for stabilization at the bends and native prairie grasses on the benches. The City purchased and demolished 12 houses in preparation for these

improvements. Even so, the jobsite was tight and required the use of a specially designed curved culvert as well as relocation of over 1,000 feet of sanitary sewer to make it possible. Over 200 feet of the sewer was directionally bored to reduce impacts to a resident's property.

Since this project took place entirely in a residential area, the City desired not only to solve the flooding, but also to add something of value to the neighborhood. To that end, the north area of the project included a multi-use path with a pedestrian bridge and informational signs. City representatives also met with each resident adjacent to the project to discuss its purpose, the impacts to the area, and to address any concerns they had before finalizing the design. The City was able to work with the residents on details like privacy fencing, perma-

*(Continued on page 14)*



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*President (Cont'd from pg 1)*


Speaking of fundraising, the Chapter and PWX committee has been busy preparing our budget for the coming fiscal year. Like many of your organizations and municipalities have experienced, the restrictions from holding in person events during the pandemic has hindered our fundraising efforts. We need the support of our members, volunteers, and sponsors as we move into the summer. It is our association's most active time to fundraise. There are dozens of events to attend to support APWA. In addition to the Expo, our golf outings are also primary fundraising events for scholarships for continuing education and students and don't forget 2024 PWX! The Chapter golf outing will be held June 30th at the Bartlett Hills Golf Club and it is never too late to volunteer or sponsor. Please visit the APWA website for further details on the various branch golf outings.

Soon after our golf outing, we will be having a joint Chicago Metro and Wisconsin Chapters event organized by the Young Professionals on July 6th. The full day event includes tailgating at the Cubs versus Brewers game at Miller Stadium. This event will be an excellent way to make connections with the Wisconsin Chapter and grow your network. The Wisconsin Chapter will also be a strategic partner in assisting us with 2024 PWX.

The 2022 PWX will be held this year in Charlotte, North Carolina from August 28-31st. If you have not attended a PWX, I highly encourage you to do so to experience the educational sessions, workshops, networking, and North America's largest exhibitor floor for public works equipment and services. Join us as National recognizes our Chapter award winners and partake in our annual Chapter dinner on August 30th that will not disappoint. The Chapter's scholarship committee is offering stipends up to \$2,000 for

people to attend. Please submit your applications by June 17th.

Lastly, the Chapter gathered on May 12th to honor one of the National Top 10 Public Works Leaders of the Year, Mike Millette, Public Works Director, from the Village of South Elgin. APWA National is 30,000 members strong. However, only a select ten receive this prestigious award. Mike is the 42nd from the Chicago Metro Chapter to be crowned with the award. It is a tremendous accomplishment for a person who began his career in 1987 and continues to serve the public to this day. Mike has been a huge contributor to APWA at the Branch, Chapter, and National levels in addition to mentoring young professionals such as myself throughout his career. Thank you Mike and congratulations to you and your family on this award!

Enjoy your summer with your family, friends, and co-workers and I hope to see you soon! 



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## Waterway Restoration and Climate Resiliency

By: [David Kraft](#), Principal Engineer – Hey and Associates, Inc.

Climate change and urbanization are forcing us to look at waterway restoration in more creative and resilient manners. Increased runoff, its associated erosion, and changes to our suburban and urban waterways must be addressed to avoid infrastructure impacts and failures, as well as address growing water quality concerns. Creative and innovative design and regulatory approaches are key to staying in front of this problem, while also seeking to restore resources and improve function.

Hydrologic changes fueled by more intense and greater rainfall have exacerbated urbanization and increases in stormwater runoff and subsequent major flood events. This increased flooding results

in billions of dollars of annual flood loss in the US. Many Illinois communities have recently adopted the Illinois State Water Survey Bulletin 75. This study, published in 2019, includes the most recent 30 years of rainfall data, and results in design storms with increases approaching 30 percent for some events. The move to update regulations with more current empirical data is one step on a resilient path to address our water resources issues while pushing engineers and scientists to be creative about adapting historical approaches and developing new techniques.

Increased runoff taxes our water resources systems. Aging sewer and conveyance networks cannot handle the greater discharges, resulting in flooding and pollution. In

natural systems such as rivers, streams, and lakes, the increased intensity of the runoff results in geomorphic instability and perpetual inability to achieve equilibrium in confined urban watercourses. A primary symptom of this is severe bed and bank erosion. This erosion results in failures that damage infrastructure and put communities at risk. Erosion mobilizes sediments and pollutants that also impact the ecology and safety of our waterways through detrimental changes to water quality.

Addressing these issues requires an approach that focuses on overall system resilience, not just on conveyance and flood control. Where historic watercourse modifica-

*(Continued on page 20)*





View from Indiana Ave. Before Construction



Multi-Use Path at Former Location of 9th Ave.

*7th Ave Creek (Cont'd from pg 11)*

nent plantings, and even the path configuration to ensure the residents viewed the final project as a benefit to the area.

The project was constructed in 2021 with Martam Construction as the General Contractor. The City used their own staff to oversee construction with additional support from HR Green. City oversight allowed for quick approval for any necessary field changes. It also allowed for collaboration between the City's Public Works crews and the contractor, which helped keep the project on schedule. Public Works crews assisted with tree removal outside the original scope. They also installed overhead wire protection, without which it would have been almost impossible to place the new culverts. The tight work area provided no room for a bypass channel and the flash flood nature of the creek made bypass pumping impossible. As a result, the contractor stabilized the site and ceased channel work whenever it rained. After a couple of days, they were able to resume work in a dry creek bed. Initial testing showed one location on the project that had non-special waste, requiring

special disposal. During construction it was determined that this material could be reutilized onsite. This reduced haul times, which aided the project schedule and saved the City \$82k. The City was able to reinvest a portion of the cost savings into additional project improvements.


The project reached substantial completion on time and under budget. The end result was almost 1,900 feet of naturalized creek with 12 meanders, 18 rock riffles, 2.7 acres of prairie grass, and 47 new native trees. This project reduced the flood plain on 28 properties and prevents 314 tons of sediment from flowing into the Fox River each year. Finally, the community loves the end result. What had been an eyesore is now a greenspace where residents can be seen walking and riding their bikes every day. By every measure, this was a successful project that will add value to the area for years to come.

Chris Gottlieb works for The City of St. Charles and can be reached at:

[cgottlieb@stcharlesil.gov](mailto:cgottlieb@stcharlesil.gov)

*Elmhurst (Continued from page 9)*

2015. The City of Elmhurst has proven to be a leader in the Chicagoland area for fighting municipal urban flooding. We are happy to grab a cup of coffee and talk to any other municipality about our lessons learned and strategies to help fight urban flooding!


Kent Johnson is a PE and CFM and is currently the City Engineer for the City of Elmhurst. He is also the APWA Suburban Branch Treasurer. Kent can be reached at [kent.johnson@elmhurst.org](mailto:kent.johnson@elmhurst.org) or 630-530-3024 

*Award (Continued from page 10)*

struction, Inc.

Congratulations to the McHenry County Division of Transportation for the Project of the Year Award in the Category of Transportation - \$25 Million to \$75 Million as well as the Chicago Metro Chapter Project Excellence Award!

By: Dan Strahan [dstrahan@gha-engineers.com](mailto:dstrahan@gha-engineers.com) Gewalt Hamilton Associates, Inc.

Darren Monico [dmonico@vbg.org](mailto:dmonico@vbg.org) Village of Buffalo Grove 



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## Bipartisan Infrastructure Law: What's Your (Asset Management) Plan

By: [Kent Hartsfield](#), Cartegraph Business Development Manager – Midwest

While infrastructure is never far from the minds of public works teams, the passing of the [Bipartisan Infrastructure Law](#) (BIL) is shining a spotlight on the need for comprehensive, data-driven asset management. All local government applauded the once-in-a-generation investment in America's aging infrastructure, as evidenced by APWA CEO Scott Grayson's attendance at the bill signing.

The legislation provides over \$17.8 billion in funds directly to Illinois. This amount is increasing or maintaining existing programs and distribution of new programs via pre-determined formulas. The majority of the BIL will only be available via competitive grants, such as:

- Bridge Investment Program - \$12.2 billion
- Water & Groundwater Storage and Conveyance - \$1.15 billion
- Rural Surface Transportation Grant - \$1 billion

As a best practice, your organization should be preparing for both. You'll also want to make sure you develop a plan for spending the funds before they become available. Once funds are available and released, there will be people lining up who have a vested interest in spending that money. By proactively building your plan, you're creating a decision-making framework to defend the community and your infrastructure. This helps you spend the money wisely and resist the urge to appease some squeaky wheels. It also allows you to be thoughtful and combat some of the pressures that will come your way.

Make sure you are meeting with your engineers, finance depart-

ment, administration team, and elected officials to ensure the entire organization's goals are aligned and prioritized.

Asset management is the way to make that happen. Asset Management helps you maintain service levels, budget responsibly, and promotes efficiency. It addresses these challenges by helping you prioritize investments and operationalize intelligent decision-making.

What comes first? Lead line replacement? Road and bridge rehabilitation? Treatment plant updates? Sustainability efforts? If you aren't sure, this is where strategic asset management comes in. Having good asset management practices in place now will help you identify where and how your funding will work best. It will also help in creating the why for your spending. This "why" is valuable as you prepare grants, agenda items for your elected officials, apply changes in your department, and communicate with your residents.

Asset Management doesn't have to be difficult or overly complex. To get started you will need to Identify and Assess. Where are your assets? Do you have them in GIS, a spreadsheet, or some type of electronic format? Great! If not, collecting assets could be as simple as handing GPS-enabled tablets and phones to staff and asking them to create that inventory of assets as they do their day-to-day work in the field. You could also contract asset inventory and assessment providers to identify a variety of specific assets – Pavement, Signs, Facilities, etc.

Once you have an asset inventory, you must know what the condition of those assets is. This could be as simple as an inspec-

tion identifying - "good", "better", and "best" or as thorough as a USACE/ASTM standard pavement inspection. This usually depends on asset criticality or level of service, by identifying the critical nature of each asset or group of assets. Is this pavement segment used by thousands of vehicles every day? That is a critical asset. Where a park bench in the middle of a sparsely used park might not be.

The combination of asset Location, Condition, and Criticality will be the basis for your Preventative Maintenance Plans and developing data-driven planning.

Not sure where to start? Check out the [Asset Management Roadmap](#) (apwa.net).

The most important thing is to get started. You don't need a long-term consulting engagement. You don't need a plan for every contingency. You don't need perfection. You do need a willingness to do things differently.


"Perfection is the enemy of progress." - Winston Churchill

Kent Hartsfield works for Cartegraph and can be reached via email at: [kenthartsfield@cartegraph.com](mailto:kenthartsfield@cartegraph.com)

The attached article is similar in nature to a blog post I wrote recently for the APWA Education Blog.

<http://www3.apwa.net/education/Blog/Posts>

As part of that blog post, it was featured on the APWA's Infrastructure Law resources.

[U.S. Infrastructure Law](#) (apwa.net) 





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## Developing MWRD's Strategic Plan as a Utility of the Future

By: [Marcelino Garcia](#) - Commissioner and Chairman of Finance, MWRDGC

**T**he Metropolitan Water Reclamation District of Greater Chicago (MWRD) is a special-purpose district responsible for treating wastewater and providing stormwater management for residents and businesses in its 882-square-mile service area, which encompasses Chicago and 128 suburban communities throughout Cook County. The MWRD works diligently to protect Lake Michigan, the source of their drinking water, and to ensure the health and safety of residents and area waterways.

In 2020, the MWRD embarked upon a strategic planning process to establish the vision and goals that would guide its work over the next five years. The MWRD engaged Arup and Civic Consulting Alliance to conduct the strategic planning process in collaboration with its Board of Commissioners and Executive Team. MWRD specifically sought expertise on structuring comprehensive stakeholder engagement for water utilities along with experience working with institutions to embed an equity-focus across their work – two strategic priorities for the MWRD.

The Strategic Plan was formally effective on June 3, 2021. MWRD and consultants undertook a comprehensive, staged approach that consisted of four consecutive phases:

- Phase 1: Led an intensive and iterative engagement effort to assess the MWRD's current state and identify its desired

future state. That engagement effort included MWRD leadership and more than 500 MWRD staff, as well as approximately 50 stakeholder organizations that participated in a stakeholder workshop – including the Chicago Metropolitan Agency for Planning, the Metropolitan Planning Council, and a range of environmental and community-based organizations – and members of the general public who participated in public-facing surveys.

- Phase 2: Conducted a workshop with the MWRD's strategic planning Steering Committee, which identified five strategic goals: resource management; stormwater management; workforce excellence; community engagement; and enterprise resilience. The strategic goals were developed based on information and opinions collected during Phase 1.
- Phase 3: Facilitated working groups for each strategic goal and developed a Strategic Roadmap for the MWRD to implement, including 150+ sequenced initiatives and metrics to measure progress.
- Phase 4: Finalized the Five-Year Strategic Plan, which includes 5 overarching strategic goals, 32 strategies (that support the goals), and initiatives and a framework for the MWRD to update the plan annually.

Arup and Civic Consulting Alliance presented on global best practices and industry trends, and facilitated external stakeholder workshops to bring perspectives from environmental organizations, local communities, and regional planning groups into the planning process for the first time in the



*Commissioner and Chairman of Finance, Marcelino Garcia - Metropolitan Water Reclamation District of Greater Chicago*

MWRD's history. The Strategic Planning team leveraged industry frameworks from organizations such as the National Association of Clean Water Agencies (NACWA) and Water Environment Federation (WEF); and augmented with other trending research such as City Water Resilience Approach (by Rockefeller Foundation, Stockholm International Water Institute, Arup) and Circular Economy principles (Ellen MacArthur Foundation) to create a context-specific Strategic Plan for the MWRD. This resulted in a Strategic Plan that is innovative, responsive to key trends such as the growing threat of climate change, and the racial and social inequity in Cook County.

As a result of this process, the MWRD is equipped with a Strategic Plan guided by the principles of engagement, collaboration, innovation, equity, and resilience. The MWRD's vision for its future state has been updated – and given the racial and social inequity in the communities served by the MWRD – its core values have been expanded to include equity and diversity. Moreover, these values are reflected in the specific

*(Continued on page 27)*





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## **Chicago Metro Representatives Down Under**

By: Dan Kaup, MPA – Village of Wheeling, Tom Rickert, AICP - Kane County

**A**lthough the trip was postponed for two years due to the pandemic, **Dan Kaup, Tom Rickert and Jon Sfondillis** representing the Chicago Metro Chapter of APWA just completed their Australia study tour that focused on asset management, government amalgamation, and transportation infrastructure. Dan and Tom were fellowship recipients of the study tour through the **Municipal Engineers Foundation of Victoria (MEFV)** and the Chicago Metro Chapter to learn about topics for which Australia does very well. While this article only briefly hits on highlights of the study tour, look for upcoming presentations and information on how APWA members could participate in future study tours.

Their journey began in Adelaide, South Australia, where they attended the biennial International Public Works Conference. The four-day event gave the group an Australian perspective on what the biggest challenges facing the public works profession are today. They talked about a massive skills shortage, especially in the civil engineering field, and their ongoing difficulties recruiting new engineers to tackle the massive queue of projects awaiting planning, design, and construction oversight. They discussed inflation, a uniformly international challenge, coupled with skyrocketing materials costs due to the pandemic, playing havoc on their ability to complete projects in a cost effective manner. And, most of all, they focused on the efficient use of



**Dan Kaup feeding a red kangaroo on Phillip Island**

limited resources through accurate auditing and reporting, as well as proactive asset management.

After the conference was over, the Chicago representatives left Adelaide to begin their Victoria area study tour which consisted of visiting the Bass Coast Shire Council, the City of Port Phillips, the Council of White Horse, the State of Victoria's Northeast Link "Big Build" project, and the City of Stonnington. On their way to Melbourne, they



**The Twelve Apostles on the Great Ocean Road**

had an opportunity to see the southern coast of Australia while driving the Great Ocean Road which is considered one of the most scenic drives in the world. One of the highlights was an electric bike ride along the beautiful Melbourne coastline on Port Phillips' multi-modal facilities. These government agencies recognize asset management as part of their corporate framework and are diligently working to address sustainability and climate change. Our mates down under also prioritize Context Sensitive Design in

*(Continued on page 35)*

(Continued from page 13)

tions often favored hydraulic efficiency, modern practices factor in water quality, habitat, and system-wide impacts. In most instances suburban and urban waterway restoration solutions combine the need for stabilization with natural function. Very few of these impacted systems present the opportunities for fully naturalized restoration. Instead, multi-outcome solutions are often the best option to protect communities and improve waterways.

Multi-outcome approaches can be utilized to address a variety of project goals. On both a large and small scale, open spaces provide opportunity to create or enhance available flood storage, while also stabilizing intervening reaches. The Metropolitan Water Reclamation District of Greater Chicago employed this approach at the Buffalo Creek Reservoir where an existing impoundment was optimized for flood storage with largescale grading and outlet modifications to

natural wetland floodplain areas of an undeveloped system.

Similarly, restoration of impacted streams often requires an approach that must balance stability and natural geomorphic stream functions. In many instances the increasing high-energy flood discharges cannot be reduced with upstream practices. This creates a scenario where stream incision has left historic floodplains disconnected and the benefits of this connection on energy dissipation and riparian health are lost. Occasionally creation of a new floodplain area through costly excavation is possible, but this is often limited by budget and



*The Buffalo Creek Reservoir Expansion Accomplishes Flood Control, Water Quality Improvement, Natural Restoration, and Active Recreation Objectives Simultaneously*

reduce overall system discharges, and upstream and downstream reaches stabilized with natural stream stabilization measures. The impoundment has also been restored with wetland buffers and bays that serve as valuable habitat for ecologic function such as fish spawning and substrate for macroinvertebrate species to thrive in. This mimics the function of the

adjacent developed land use. In these cases, hybrid approaches to stabilization can match certain natural functions while improving reach stability. In place of dynamic natural riffle/pool complexes, static stone grade control structures can provide habitat and oxygenation like a natural system, but also use stone sized to arrest bed downcutting for calculated




*Stone Grade Control Improves Water Quality, Stabilizes the Stream Bed and Bank, and Provides In-Stream Habitat*

human-impacted forces. Similarly, the valuable role that natural wood debris in a healthy stream can be recreated where anchoring and placement of woody material is carefully considered by the engineer, and again designed to be stable in known reach hydraulic conditions.

The combination of these goals requires a deep understanding of the systems that make a healthy natural water course and also the specific understanding of the impacts of climate change and urbanization

on system hydraulics. By combining these two realities, progress can be made in building resilience in our waterways into the future.

David Kraft is a Principal Engineer at Hey and Associates, Inc. and can be reached at [dkraft@heyassoc.com](mailto:dkraft@heyassoc.com). 



## Executing Force Main Screening Level Assessments

By: [Yann Gallin](#) - Senior Project Manager, RJN Group, Inc.

**F**orce mains are a bit of an enigma in the municipal infrastructure landscape. They are critical system assets with a very high consequence of failure, comprising approximately 7.5 percent of all wastewater pipes (EPA, 2010). However, typically, only a few basic details are known about them. Many communities con-

duct "force mains?" The answer is screening level assessments (SLA), a phased, cost-effective way to identify defects and separate the good pipeline from the bad.

The first step to performing an SLA is conducting a desktop assessment by reviewing all known information about the force main such as — as-built records, maintenance and break history, and pumping data — to understand any operational anomalies. The system is then further reviewed to identify access options, prioritize inspection locations, and understand potential flows that will affect inspection planning.

Site visits and field reconnaissance are conducted to assess the lift station's performance, confirm insertion points, and inspect the discharge manhole (and subsequent manholes if the effect of hydrogen sulfide corrosion is visible). For most lift stations, existing check valves within the valve vault can be utilized for insertion. The downstream discharge manhole's inlet pipe determines the retrieval setup.

Selecting the appropriate screening device to perform an

Solutions' Pipers®, an in-pipe, free-floating, multi-sensor technology that is easily mobilized by our engineers. These devices can effectively assess up to 48-inch diameter pipelines of virtually any length. Pipers simultaneously collect acoustic data to identify leaks and air pockets; record pressure fluctuations due to flow restrictions or debris build-up; and conduct magnetic flux surveys to determine gross wall loss in metallic pipelines.

Pipers pressure monitoring surveys have been an extremely effective RJN tool for identifying pipeline debris and build-up.



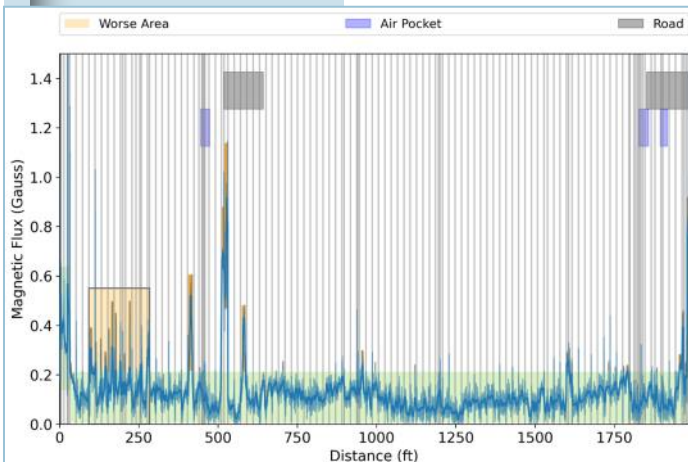
*bespoke Pipers retrieval basket after assessment*

These deposits limit the hydraulic capacity of pipes and risk the integrity of the pipeline due to abrasion.

During a recent 6-inch force main study, the magnetic flux survey identified two potentially corroded sections of the pipeline that were prioritized for replacement due to their location at a roadway crossing and a nearby inoperable air release

valve. In another 24-inch force main study, the Pipers identified a section of pipe with an air pocket and potential deterioration.

*(Continued on page 22)*



*Magnetic Flux Survey Readout Example*

structed their collection systems between the 1950s and 1980s with a designed service life of up to 70 years. So approximate pipeline ages can be established, but actual force main conditions are a mystery beyond that. With so many systems reaching the end of their anticipated service life, it is only a matter of time before failures occur.

To complicate matters, inspecting force mains can seem like an insurmountable challenge. Many pipelines traverse thousands of feet between access points, and traditional inspection methods call for complete pipeline shutdowns, which require costly bypass setups. So, the question is, "How can system owners cost-effectively evaluate the condition of their force



*Pipers device*

main assessment while keeping the force main in service is a major factor in controlling costs. RJN has had success using Ingu

*Force Main (Cont'd from 21)*

tion due to hydrogen sulfide corrosion. A broadband electromagnetic assessment was recommended to confirm any wall loss before replacement due to the larger size of the pipe.

However, before utilizing Pipers, there are a few considerations to be taken into account. Pipelines must be at least three inches in diameter, remain full for the duration of the assessment, and flow velocities ideally should be within two to six feet per second. In most cases, these requirements can be easily met with a little bit of planning.

Executing the assessment is relatively straightforward. After performing flow calculations to determine the Pipers' travel times, at least two Pipers will be inserted into the line. Consecutive runs through a pipeline deliver additional layers of information that enhance inspection quality and reliability. In addition, this vital information on a pipeline's performance can be delivered at a fraction of the cost by minimizing mobilization


costs.

Assessing a force main is a highly specialized service, but that does not mean it has to be a massive effort or an exorbitant budget hit. Using the appropriate pre-planning assessment strategies and coupling those efforts with the most advantageous technologies will deliver actionable intelligence. The results of a successful SLA provide system owners with three primary courses of action: targeted recommendations for follow-up studies; rehabilitation recommendations; or conditions warrant no further action.

By: Yann Gallin RJN Group, Inc.  
Senior Project Manager  
630.682.4700 x1320  
ygallin@rjnmail.com

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## Seeing Green: Reimagining the Village of Westmont

By: [Anthony Bryant](#) - Municipal Group Manager, Primera Engineers; and Mike Ramsey, PWDirector, Village of Westmont – Village of Cary

In celebration of their 100-year anniversary, the Village of Westmont, Illinois, wanted to dream big and reimagine their entire downtown area. Their multi-phased public works renovation called for innovative engineering and design that would modernize downtown for the future while honoring its past. The Village aspired to increase energy efficiency and harness best sustainability practices, while also giving special attention to ecological balance. Thoughtfully weaving in green installations that will benefit humans, plants, and wildlife alike, for years to come, was top priority. Naturally, we at Primera Engineers were thrilled to spearhead this exceptional and substantial public works renovation.

The James Addington Plaza project is the first piece of the Quincy Street streetscape plan, which runs from Cass Avenue down to Lincoln Street. Metra train passengers specifically, will greatly bene-



*The Village of Westmont's renovation progress is looking good as green touches are now coming in to play.*

fit from this first stage of downtown renovations in support of the Village's overall vision.

We teamed with landscape architect Design Workshop to develop a concept that would make the plaza more pedestrian and bike friendly, while also reducing congestion and emissions. Our collective goal was to transform the plaza into a meeting place filled

with restaurants, shops, and green space -- separate from the rest of the downtown area -- that overlooks the train tracks and train station. At the heart of our design, we had in mind the Village's history and creating green space for people to sit, relax, and take in the seasons and scenery.

Two items public works stressed within the scope of this project were plantings and attention to their Dark Skies Initiative. Westmont has a forester and landscaper on staff that ensures care and attention to the plantings that go into every square foot of the Village. Our team thoughtfully designed greenery provisions that will attract animals and insects, such as butterflies. Integrated planters, along with 3,000 square feet of plantings, trees, and shrubs will add significant touches of green to the urban sprawl. These ecological in-



*The James Addington Plaza project is the first piece of the Quincy Street streetscape plan, which runs from Cass Avenue down to Lincoln Street.*

*(Continued on page 24)*

*Seeing Green (Cont'd from page 23)*

stallations will enhance the public's enjoyment of the plaza while also providing space for the natural world to thrive in harmony with the urban infrastructure.

To align with the objectives of the Dark Skies Initiative, our team reused and relocated the existing pedestrian lighting and added aesthetic string lighting solutions that minimize light pollution. This project is the first step in the process of reducing the photometric footprint of the entire downtown area.



*The arch centerpiece of the plaza, a memorial to Former Mayor of Westmont, James Addington*


monolithic to the plaza floor. A section just adjacent to the plaza arch is made of permeable pavers. These pavers are unique to the Village of Westmont. The Village prides itself on being the highest point of the Burlington Northern Railroad and Westmont was the prime exporter of brick pavers. We infused the same type of red pavers to serve as a nod to the Village's history and point of pride. The pavers also provide stormwater runoff reduction, achieving best stormwater management practices.

Projects like this that incorporate substantial landscape architecture and green elements tend to be costly. Always mindful of cost-effectiveness for our clients, we continuously evaluated how we could keep these key green elements while also remaining under or on-point with the budget. Originally, we wanted to utilize factory-made, precast walls. To save on costs, the walls were cast-in-place and finished in the field. We value engineered a lot of the seatwall, footings, and the lighting foundations to ensure less concrete is

used and therefore, cuts down on costs. Additionally, we're reusing existing pressure lighting as opposed to proposing new fixtures.

In honor of the Village's Former Mayor of Westmont, James Addington, the design team proposed an arch as a centerpiece of the plaza. At the center of the arch is a keystone with the initials "J.A." to memorialize Mr. Addington as a keystone of the community.

A unique project in a quaint yet bustling whistle-stop such as Westmont is quite a pleasure to be part of--a crown jewel. It's been an honor to work with Mayor Ron Gunter, and the Village of Westmont to bring their vision to fruition.

Anthony Bryant, Transportation Engineer and Municipal Group Manager at Primera Engineers, Ltd. has been engineering for public works projects for 20 plus years. He can be reached by e-mail at [abryant@primeraeng.com](mailto:abryant@primeraeng.com) and phone at 630.324.5055. 



*The use of permeable pavers serves as a nod to the Village of Westmont's history while also achieving best stormwater management practices.*

Another particularly interesting aspect of the project is the inclusion of integrated seat walls and the use of permeable pavers. The plaza is about 8,000 square feet. We wanted to give it a feeling of being secluded from the rest of the downtown while also providing spaces for people to sit and enjoy the plaza. The integrated seat walls provide such space. They don a concrete washed finish and are



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## Barrington's Metra Access Drive

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

The Village of Barrington is serviced by the Union Pacific Northwest Line of Metra, which is heavily utilized by Village and Barrington Area residents. The Village has over 1,000 parking spaces dedicated for Metra commuters, with 782 of these spaces along the north side of the Union Pacific railroad tracks. These spaces are bounded by commercial property to the north which fronts minor arterial Main Street (Lake Cook Road) and commercial property to the east which fronts principal arterial Northwest Highway (Route 14). Prior to the Barrington Metra Access Drive project, egress from these northern 782 parking spaces was limited to three access roads, two which intersect with Main Street and one which intersects with Northwest Highway. None of these three intersections are signalized or



*"The project construction area, including the location of the new access drive is outlined in blue"*

all-way stop controlled. With heavy traffic on both Main Street and Northwest Highway and from these parking spaces, with the Barrington Metra Station being the 16th busiest Metra Station out of 236 total stations, significant

queues formed at all three access drives following Metra train arrivals and departures.

In order to address this traffic issue, the Village initiated a Phase 1 study with Gewalt Hamilton Associates, Inc. for the installation of a signalized access drive to these northern parking lots in 2011. In order to meet signalization warrants and best facilitate traffic flow, a new access drive was proposed to be constructed through Village property and intersect with Route 14 south of Main Street (Lake Cook Road). Modifications to the internal parking lot network were proposed to facilitate circulation to and from the proposed access drive and land acquisition was necessary to facilitate pedestrian improvements and the installation of a turn lane into the new access drive. Phase 1



*"The Metra Access Drive signal following construction"*



*"Modified internal drive aisles to accommodate the new circulation"*

*(Continued on page 27)*



*Barrington (Continued from page 26)*

design approval was received in October of 2014.


The Village was able to secure local surface transportation program (STP) funding through the Northwest Council of Mayors for Phase 2 and Phase 3 work and selected Gewalt Hamilton Associates, Inc. to compete the additional phases of work. Phase 2 work commenced in 2016 and detailed design included widening, pavement and access modification along approximately 1000 feet of US Route 14, installation of a new signalized access road for the existing Metra parking lots, internal parking lot modifications for circulation and modification to the intersection of US Route 14 and Klingenberg Lane to restrict turning movements. Sidewalk and crosswalk connections were designed to ADA standards and drainage improvement work was also included within the project scope. Unfortunately, land acquisition coordination delayed the

letting for this work, but following right-of-way certification in January of 2021, the project was placed on a March 2021 IDOT letting and construction work commenced in May of 2021.

While the land acquisition delay was unfortunate, it resulted in construction taking place while COVID-19 restrictions were in place, which significantly reduced the ridership on the Union Pacific Northwest Metra Line. While the project would have had a significant impact on Metra commuters via reduction of what are normally 1000 full parking spaces due to construction work, access, and staging, the considerable reduction in parked vehicles during this time allowed for expansion of the staging area without impacts to the reduced parking need.

Ahead of and during construction, Village Staff worked closely with Gewalt Hamilton's Resident Engineer to provide information regarding the project to the Village as a whole, via website and elec-

tronic newsletter updates, as well as specifically to impacted businesses and property owners via site meetings, letters and direct contact information for construction staff. Through thoughtful staging, communication and parking coordination, positive relationships were maintained with these impacted businesses and owners throughout the project.

While additional unsuitable material quantities and delays securing Union Pacific flaggers impacted the overall project schedule, the Village is excited to announce that as of April of 2022, the project is substantially complete! The Village Board and Village Staff are thrilled about this improvement and are so excited to continue to witness the positive impact of this signalized access on traffic throughout the area as ridership on Metra continues to grow. Many thanks to our project team! Marie at the Village of Barrington can be reached at [mhansen@barrington-il.gov](mailto:mhansen@barrington-il.gov) 

*Strategic Plan (Cont'd from pg 18)*

strategic initiatives outlined in the new Plan. For example, one key focus is to identify and eliminate barriers to participation for disproportionately impacted areas (DIAs) – low-to-moderate income areas that may be more susceptible to flooding, and that often have less capacity to partner with the MWRD to implement stormwater solutions and alleviate local flooding.


MWRD's 2021-2025 Strategic Plan not only articulates the mission, vision, and strategic goals for the next five years, but

MWRD is equipped with a robust, collaborative, and community-informed strategic planning process that will guide it to a path to a more sustainable future. MWRD plans on implementing, monitoring, and following through with the initiatives in the next 5 years with regular updates available to the public.

This article was co-authored by Commissioner and Chairman of Finance, Marcelino Garcia, of the Metropolitan Water Reclamation District of Greater Chicago ([Marcelino.garcia@mwr.org](mailto:Marcelino.garcia@mwr.org)); Vincent Lee, Civil + Water Engineering Team Leader at Arup, a global advisory, design, plan-

**ARUP**

ning, and engineering firm ([vincent.lee@arup.com](mailto:vincent.lee@arup.com)); Joanne So Young Dill, Metropolitan Water Reclamation District of Greater Chicago ([DillJ@mwr.org](mailto:DillJ@mwr.org)); with contributions by Kirsten Carroll, Associate Principal at the Civic Consulting Alliance ([kcarroll@ccachicago.org](mailto:kcarroll@ccachicago.org)).

Submitted by: Marcelino Garcia Commissioner and Chairman of Finance Metropolitan Water Reclamation District of Greater Chicago 

## Nutrient Removal at the New Century Town WRF, Lake County PW

By: [Jason Pieper](#), Chief Operator – New Century Town WRF (LCPW)

**T**he New Century Town (NCT) Water Reclamation Facility (WRF) serves the population of Vernon Hills, IL and surrounding areas. Originally constructed in 1973, the treatment facility has undergone several upgrades, and now has the capacity to treat a daily average of 6.0 MGD, and a daily maximum of 18.0 MGD.

Between 2014-2015, the NCT plant was redesigned to accommodate Biological Nutrient Removal (BNR), employing a modified Johannesburg system. Within this configuration, additional process paths were provided, allowing plant staff flexibility to modify the system and maximize phosphorus (P) removal.

In April of 2015, initial startup of the BNR process began. As the startup progressed, effluent (P) levels fluctuated greatly, becoming higher during the summer months. Several changes in the Johannesburg configuration were made, with little to no improvement in (P) removal efficiency. Moreover, as colder weather ensued, the effluent (P) levels improved. This cycle repeated during the following year of 2016. Ongoing discussions between the operation staff and design engineers, regarding the reason(s) for the fluctuations in BNR performance, yielded four areas of focus for process success: influent Biochemical Oxygen Demand (BOD) concentrations, Volatile Fatty Acids (VFA) production/fermentation, addition of aluminum sulfate, and proper operation of the aerobic treatment zones.

### Influent BOD Concentrations.

The influent BOD concentrations averaged 150-175 mg/L. We wanted some consistency with the loading as well as improve-

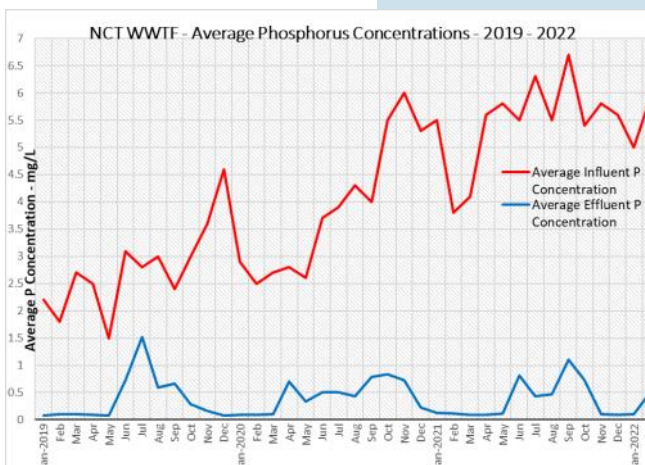
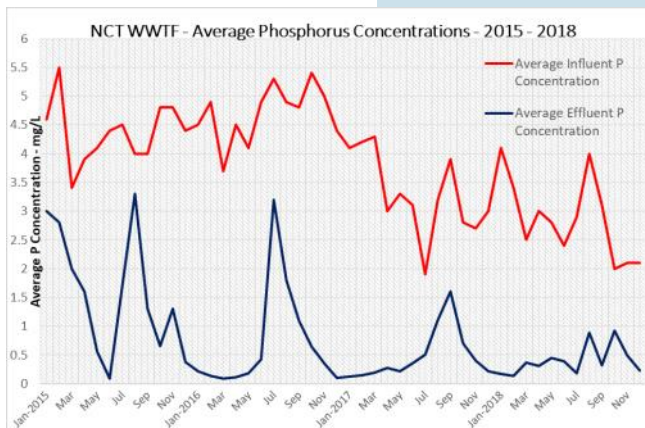
ment with the daily BOD concentration. To achieve this, we examined a few CBOD enhancement supplements including Methanol and Glycerin, but molasses was found to be the most compatible with our needs. This commodity is readily available, safe to handle, and is lower in cost than most supplements. By adding 25-35 gallons of concentrated molasses daily to the influent stream, the plant developed a consistent BOD value of over 210 mg/L.

### Acid Fermentation.

VFA production is an important component in the removal of phosphorus from wastewater. These compounds promote the growth and stability of the polyphosphate accumulating organisms (PAO's) within the process. To increase the VFA production for the system, two process modifications were employed. 1) an Aerobic zone was converted to an Anoxic zone. 2) The operation of the mixers, both the Anaerobic and Anoxic zones, were placed on timers and cycled on and off. This adjustment lowered the average ORP values to a consistent range between -225mV to -275mV.

### Addition of Aluminum Sulfate (Side Streams Treatment).

Aluminum sulfate is used primarily for chemical phosphorus removal or as a polishing agent in the treatment process by further removing any lingering amounts of (P) in the final effluent. At the NCT facility, a unique use for this chemical has been found. Alum is pumped directly to the NCT water recycle pumping station, to which all the plant's side streams, such as belt filter press filtrate, disc and sand filter backwash, and plant wastewater, flow. However, instead of pumping this recycle



directly back to the headworks of the plant, it is sent through two, off-line, aerobic digesters. Alum is added to the tanks containing the side streams with some contact time allowed. This additional 24-30 hours of sequestering, allows for more contact time of the alum, and more removal of (P) from these side streams. The removal of (P) from the side streams reduces the impact of phosphorus loading on the Johannesburg system.

### Proper Operation of the Aerobic Treatment Zones

Ensuring proper removal of BOD, suspended solids, and nitrogen-ammonia in the process was always considered. Paramount to the proper perfor-

(Continued on page 29)



## Wheeling Implements Hydro-Excavation

By: [Jeff Wolfgram](#), Utility Superintendent, Village of Wheeling

**T**he Village of Wheeling added a standalone hydro-excavation truck to its fleet in 2020. Prior to the purchase, it seemed that staff was utilizing the sewer combination truck to hydro-excavate on a regular basis. Although the combination truck can do the work, it was not designed nor intended to hydro-excavate. This was adding a lot of wear and tear to the truck and shortening its serviceable life span.

Each year, more underground utilities are getting installed which creates a situation where traditional backhoe excavation becomes more difficult. It seems that every time you put a bucket in the ground these days you are risking damaging a buried gas, electric or fiber optic line.

These are the reasons the Village of Wheeling Department of Public Works began to explore the option of a standalone hydro-excavation truck. Multiple trucks were tested before deciding on the Vac-Con Excavator model. Utility Division staff chose the Vac-Con model because of the suction power and performance. Also, ease of operation and control features were factored into the decision. A leader in the industry, Vac-Con

has been manufacturing equipment for over 35 years. The truck was purchased from EJ Equipment. The first step to purchasing the hydro-excavator was convincing the Village Manager that it was necessary. After numerous memorandums and conversations, he was convinced. The second step was to get Village Board approval. Wheeling has been very lucky to have a Village Board who gives us what we need to do the job properly.

Since taking delivery of the Hydro-Excavator, I estimate that 75% of our excavations are hydro-excavated versus backhoe excavation. Our excavation efficiency rate has been cut in half. A typical buffalo box excavation that took 5 hours to complete now takes 2.5 hours. Additionally, we complete excavation work with one less worker on the crew.

Years ago many of the operators were skilled in the art of backhoe operation. Now we have maybe a few operators who possess the skill to operate the backhoe safely. On the contrary, all of our operators can operate the hydro-excavator with precision.

Most importantly, the job sites



*Hydro-Excavator used to repair a water service leak. Village of Wheeling*

are safer. The Utility Division has basically eliminated the risk of damaging an underground utility. Staff has not damaged one single utility when utilizing the hydro-excavator. This is certainly the best piece of equipment the department has purchased.

Jeff Wolfgram is the Utility Superintendent for the Village of Wheeling. He has been with Wheeling for 27 years. He can be reached at [jwolfgram@wheelingil.gov](mailto:jwolfgram@wheelingil.gov).

*Nutrient Removal (Cont'd from page 28)*

mance of the carbonaceous, or aerobic, treatment is the status of the dissolved oxygen levels. At the NCT facility, air flow is controlled to each of the zones to produce a taper of the D.O. levels. In the first two aerobic zones, the D.O. levels are higher to remove the concentrations of BOD and TSS. In the final two aerobic zones, lower

D.O. levels are maintained to promote nitrification, while at the same time preventing over-oxidation of the mixed liquor suspended solids (MLSS) prior to final clarification.

Through the implementation of these process modifications, and the continuing understanding of the BNR process in general, the NCT plant is achieving consistent (P) removal and the

effluent concentration is well below the limit of 1.0 mg/L.

By: Jason Pieper, Chief Operator – New Century Town WRF (LCPW)

Contact information: (847-377-4852)

or [j.pieper@lakecountyil.gov](mailto:j.pieper@lakecountyil.gov)

## The Illinois Climate and Equitable Jobs Act

By: [Kristina Murphy](#), CC-P, CFM, Civil/Environmental Engineer, City of Naperville

**T**he Climate and Equitable Jobs Act (CEJA) passed the Illinois legislature on September 15, 2021. This 956 page bill promotes clean energy, an equitable workforce transition, electric vehicles, and energy efficiency in buildings. CEJA requires power generation in Illinois to be carbon free by 2050 and puts the state on the path to reach 40% renewable energy by 2030 and 50% by 2040.

This bill will impact municipal operations on multiple levels. Your community will likely receive an increased number of permit applications for solar panel installations because of the Solar For All incentives. If you are not a SolSmart<sup>1</sup> designated community, consider participating in the no-cost technical assistance program to streamline your solar permitting process.

Your community will likely see an increase to permit applications for electric vehicle (EV) chargers. The state set the goal of one million EVs registered in Illinois by 2030. CEJA will provide for an 80% cost-share to install publicly available EV chargers. CEJA encourages the purchase of electric vehicles by providing consumer rebates, up to \$4,000 beginning July 1, 2022, with \$8.5 million allocated for 2022. The state legislature is pursuing additional regulations to support CEJA. The proposed Electric Vehicle Charging Act (IL House bill 3125)<sup>6</sup>, recently revised in late March 2022, will require electric vehicle charging infrastructure for new single family and new or renovated multi-family buildings.

Another funding source for electric vehicle charging infrastructure will be the federal Infrastructure and Investment Act

(IIJA). IIJA will provide \$149 million to Illinois for EV infrastructure funding for fiscal years 2022-2026, to be distributed through Illinois Environmental Protection Agency.<sup>2</sup> These funds will be available to install new publicly available charging infrastructure within one mile of interchanges of approved Alternative Fuel Corridors<sup>3</sup> per the National Electric Vehicle Infrastructure (NEVI) Formula Program Guidance<sup>4</sup> and aims to build out a fast charging network for both local and long distance travel. The state must submit a plan for approval to the Federal Highway Authority (FHWA) by August 2022 to receive the funding.

CEJA also seeks to address transition issues that may ultimately affect municipalities. For example, it requires the Illinois Department of Transportation to study the impacts of electric vehicles on transportation infrastructure funds, such as Motor Fuel Tax (MFT). CEJA requires Commonwealth Edison (ComEd) to create a Beneficial Electrification Plan by July 2022 to assess the impacts of electric vehicles and electrification of buildings on the power grid. CEJA required updates to communities' renewable energy net metering policies by March 2022.

CEJA will improve the energy efficiency of buildings by expanding weatherization programs and through the creation of a building stretch code with specific energy efficiency targets<sup>5</sup>. Final language for the first stretch code will be available for adoption by December 31, 2023, with requirements available by July 31, 2023, for review by building department officials. Buildings waste approximately 30% of their energy consumption through leaks and

poor insulation and contribute 40% or more to greenhouse gas emissions. Retrofitting existing buildings and building more efficient new buildings will conserve energy, reduce energy cost burdens, and reduce emissions simultaneously for many years to come.

CEJA allows for the creation of a Climate Bank to provide financing for clean energy projects. CEJA created the Equitable Energy Upgrade Program, a "pay as you save" financing structure, available through utilities to lower the upfront costs of installing energy efficiency improvements, energy storage, and renewable energy generation systems. Because skilled workers will be needed in our region to install solar panels, weatherize buildings, and install and maintain electric vehicle chargers, CEJA created a Clean Jobs Workforce Network Program with training hubs in Aurora and Joliet. CEJA also created a clean energy contractor incubator program for small businesses and contractors.

CEJA created funding for Community, Energy, Climate, and Jobs Plans so that local governments can prepare for the transition of all the topics previously mentioned. Municipalities should become familiar with CEJA so that they can take advantage of funding opportunities, understand potential permitting demands, and provide information to residents and businesses. The Climate and Equitable Jobs Act provides the regulatory path for Illinois to reduce emissions, increase energy efficiency, and transition to clean energy.

The full text of the bill is available at <https://ilga.gov/>

(Continued on page 35)



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[ploete@hwlochner.com](mailto:ploete@hwlochner.com)  
309.230.0403



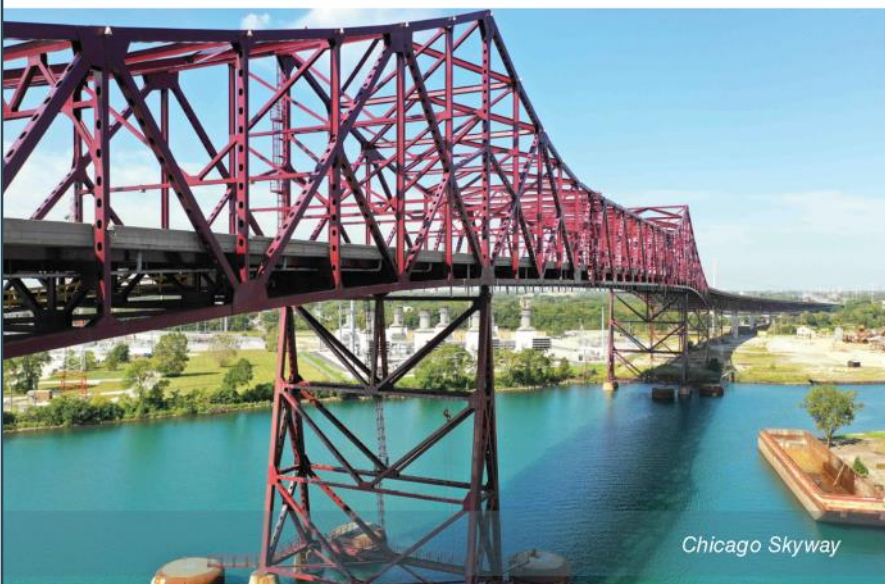
Lance Peterman, PE, SE  
[lpeterman@hwlochner.com](mailto:lpeterman@hwlochner.com)  
312.994.9714



John P. Kos, PE  
[jkos@hwlochner.com](mailto:jkos@hwlochner.com)  
312.994.9767



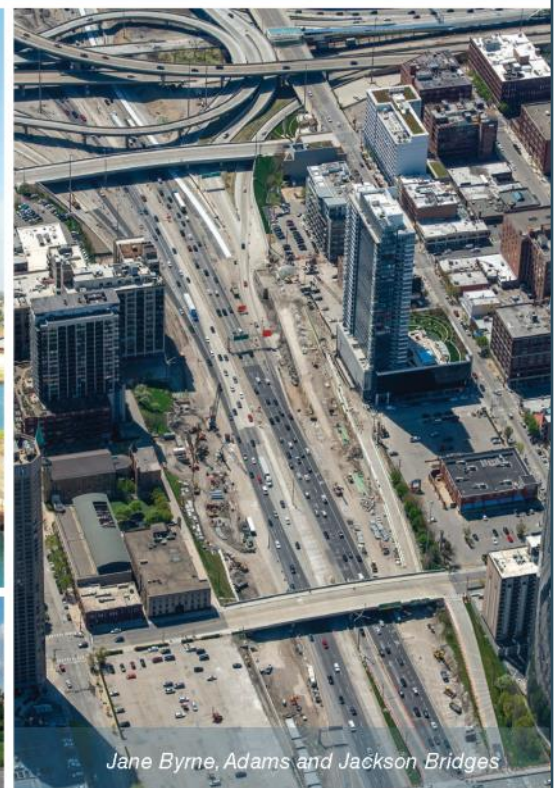
Alan Hasler, PE  
[ahasler@hwlochner.com](mailto:ahasler@hwlochner.com)  
630.210.6924



Chicago Skyway



59th Street Station Parking Lot



Jane Byrne, Adams and Jackson Bridges



## Public Works First Responder Training at NIPSTA

By: [Jill Ramaker](#), RN, MSc, MA, EMT-P - Executive Director, NIPSTA

**T**he Northeastern Illinois Public Safety Training Academy (NIPSTA) is an intergovernmental organization located in Glenview, IL. First created in 2001 as a training site for local first responders, NIPSTA has emerged as a national model for the intergovernmental consolidation of talent and resources along with state-of-the-art reality-based disaster response training. While NIPSTA has traditionally provided year-round training for fire service, law enforcement, hazardous materials, public works and other types of municipal response agencies, services have expanded to include a wide range of training to promote overall community resilience.

In 2003, George W. Bush, through a Homeland Security Presidential Directive (HSPD-8), declared that: *The term “first responder” refers to those individuals who in the early stages of an incident are responsible for the protection and preservation of life, property, evidence, and the environment, including emergency response providers... as well as emergency management, public health, clinical care, public works and other support personnel that provide immediate support services during prevention, response and recovery operations.* Subsequently, in 2017, the American Public Works Association (APWA) announced the **Public Works First Responder** symbol for use throughout North America to identify public works personnel and acknowledge their federally-mandated role as first responders.

In the early months of 2021, NIPSTA’s administrative team began the search for first responder training that was specifically developed for public works professionals. The search was futile; first responder training specifically developed for public works simply didn’t exist. In

response, NIPSTA has created a **Public Works First Responder Training Program** to assist public works professionals with becoming increasingly aware of and capable to serve within this vital community role, as well as to promote their inclusion in the first responder community. In fact, we believe it is the first one in the United States. This innovative professional development program consists of a series of short courses divided into three (3) separate levels which together seek to both train and educate public works professionals at all levels to not only embrace their valuable role, but to improve their first responder skills.

Level One is intended for those public works employees who serve in an elemental, field-based capacity or are new to the profession. This level consists of three (3) separate classes, each about three (3) hours in length. The first class, **Introduction to Public Works as a First Responder**, review the role of the public works employee as a first responder, along with the importance of the Incident Command System to manage events at the local level. This foundational course provides the student with a basic understanding of the materials required to successfully complete a series of important Federal Emergency Management Program (FEMA) independent study courses to be completed on their own. The second course in Level One is a basic medical training course called **“First on the Scene®”**, developed by the National Association of Emergency Medical Technicians (NAEMT). This course provides public works personnel with basic medical training in order to prepare for a medical or traumatic emergency in a field-based setting. Students learn the basics of emergency medical care, including the basics of bleeding control, hands-only CPR and the proper use of the Automatic External



NIPSTA Public Works First Responder students learn how to control bleeding during the basic medical training program

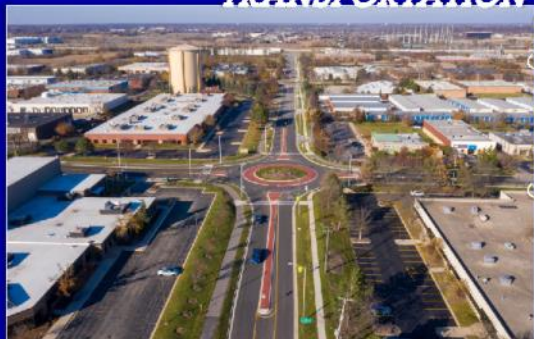
Defibrillator (AED). The final course in Level One is a partnership between NIPSTA and the National Weather Service Storm Spotter Program. Students learn the basics of severe weather safety and assessing local weather conditions, including hair size, wind speed, tornado development and local damage related to severe weather events.

Level Two of the Public Works First Responder Program is intended for the Field Supervisor or Crew Leader who is responsible for the direct oversight of other public works employees and may be required to make initial field-based decisions as a first responder leader during a crisis or emergency event. The first course in this level, **The Role of Public Works in Emergency Management**, provides a more in-depth overview of the role of public works in a crisis response. Included is the specific function of public works agencies prior to, during and after disasters, along with an explanation of the critical role of public works during the recovery period. The second course is an **Introduction to State and Federal Crisis Response Planning**, which reviews

(Continued on page 35)



**TRANSPORTATION**



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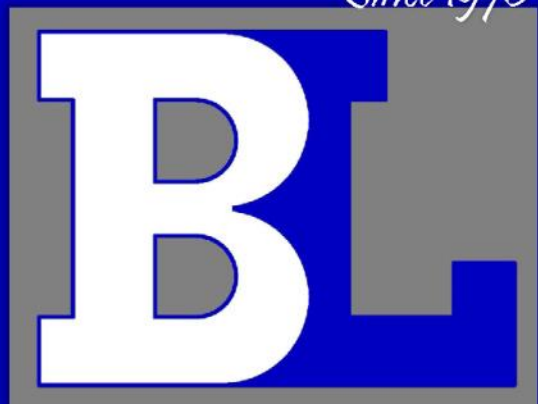
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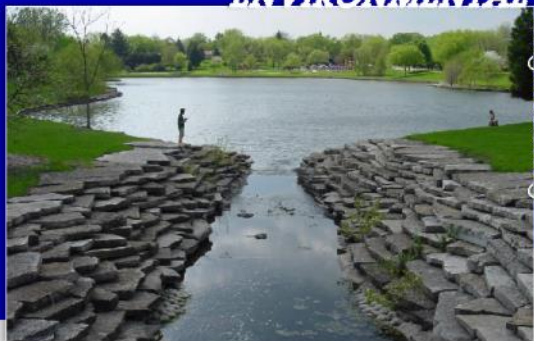
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## 2022 8th “Almost” Annual APWA Chicago Metro PW5K Run/Walk and George Schoeber Memorial Run

By: Rachel Lang - Corrective Asphalt Materials

After a two year hiatus, the APWA Chicago Metro PW5K returned Thursday, May 19th 2022. The race took place shortly after the Chicago Metro Expo's closing ceremonies. The event was held at DeMito's Saloon in Villa Park. The race course covers 3.1 miles over the Great Western Trail and Illinois Prairie Path trails.

Runners took off at 4 PM on the Great Western trail. It was **hot**, but that did not stop **Randy Kester** from crossing the finish at 18:42! Kester was our overall winner and received 1st place for the Men's Division. Chapter President **Marc Grigas** placed 2nd with a finish of 22:39 and

3rd place went to **Kent Johnson** with a time of 22:59. For the Women's Division, **Rachel Lang** hustled across for a 1st place finish at 26:08, **Heidi Voirol** placed 2nd with a time of 28:42 and **Sarah Sproule** crossed over at 32:00 placing 3rd.

Each year we have a Branch Challenge. Every runner is paired with their “home” Branch. The four top runners for each Branch are considered for the scoring. In 2019 the traveling trophy went home with the **Suburban Branch**. This year the **Southwest Branch** will take the trophy, and all the bragging rights. This is a first time win for the Branch.

There is also a Team Challenge. This year we had five teams participating, two teams from **RJN Group**, **V3 Companies**, **Southwest Branch** and **ERA**. Team **V3 Companies** took home the trophies for this challenge. It is a great win for **V3 Companies** as they dedicate their run to the late George Schoeber. Like past year's \$5 from each runner registration is put toward the George Schoeber Fund.

It was a hot afternoon and the runners, spectators, committee members and volunteers retired back to DeMito's for some food and beverages. This is the last year we will be at this location since the Expo will be moving next year. Stay tuned for a bigger, better event in 2023!

Huge thank you to our sponsors (**RJN Group**, **V3 Companies**, **Rubino Engineering** and **Corrective Asphalt Materials**), volunteers (**Tonya Wells**, **Dan Dinges**, **Tiffany Engelhart**) and committee members (**Zach Matyja**, **Rachel Lang**, **Chris Baker**, **Jackie Dearborn**, **Allison Swisher**) that make all of this possible. 🏃‍♂️

### Full Results:

1	18:42:10	Randy Kester (1 <sup>st</sup> Male)
2	22:39:82	Marc Grigas (2 <sup>nd</sup> Male)
3	22:57:24	Kent Johnson (3 <sup>rd</sup> Male)
4	23:44:09	Mike Rechterik
5	23:51:46	Alex Alejandro
6	24:33:01	Yann Gallin
7	25:06:05	Chris Hanchett
8	25:51:17	Marty Michalisko
9	26:06:10	Jorge Cruz
10	26:08:14	Rachel Lang (1 <sup>st</sup> Female)
11	26:09:11	John Mayer
12	26:44:19	Mike Hering
13	27:02:58	Jon Trent
14	28:17:59	Adam Woods
15	28:42:15	Heidi Voirol (2 <sup>nd</sup> Female)
16	30:18:15	Derrick Martin
17	31:16:47	Patrick Hulsebosch
18	32:00:45	Sarah Sproule (3 <sup>rd</sup> Female)
19	32:00:45	Robert Sproule
20	32:27:17	Jenny Lowenstein
21	32:27:40	Christina Kwiatt
22	33:33:28	Andrew Ico



Dan Dinges helping runners at a busy crossing!



Arlan Schattke & Michelle Lipinski walking the course!



Runners at the PW5K Run/Walk starting line.




NIPSTA (Continued from page 32)

the essential elements of the Illinois Emergency Operations Plan along with the National Response Framework. Student learn how both plans are built upon scalable, flexible and adaptable concepts identified within the National Incident Management System (NIMS). The final course in Level Two is a review of a wide-range of real-world crisis scenarios and case studies which reviews the use of

the Incident Command System for public works emergencies.

Level Three – ***The Executive's Role as a Leader for Public Works First Responders***, is currently under development and due to be launched in mid-2022.

Throughout 2021, NIPSTA held multiple sessions of both Level One and Level Two of this new program. Overall, we have trained nearly one hundred (100) public works professionals

from throughout northern Illinois during our initial rounds of training. We are extremely pleased with our efforts, but more importantly with the positive reactions of our students who overwhelming enjoy and appreciate this unique training opportunity. See [www.nipsta.org](http://www.nipsta.org) for additional information and registration details or contact Jill Ramaker at [jramaker@nipsta.org](mailto:jramaker@nipsta.org). 

Jobs Act (Continued from page 30)

[legislation/publicacts/102/PDF/102-0662.pdf](https://www.illinois.gov/news/press-release/23893.html) and the press release is at <https://www.illinois.gov/news/press-release/23893.html>. Kristina Murphy is an Illinois Clean Jobs Coalition (ICJC) CEJA Ambassador. She can be reached at [confluenceclimate@outlook.com](mailto:confluenceclimate@outlook.com) for questions, additional information, or presentations on CEJA.

#### Footnotes:


<sup>1</sup> <https://solsmart.org/>


<sup>2</sup> <https://highways.dot.gov/newsroom/president-biden-usdot-and-usdoe-announce-5-billion-over-five-years-national-ev-charging>

<sup>3</sup> [https://www.fhwa.dot.gov/environment/alternative\\_fuel\\_corridors/](https://www.fhwa.dot.gov/environment/alternative_fuel_corridors/)

<sup>4</sup> [https://www.fhwa.dot.gov/environment/alternative\\_fuel\\_corridors/nominations/90d\\_nevi\\_formula\\_program\\_guidance.pdf](https://www.fhwa.dot.gov/environment/alternative_fuel_corridors/nominations/90d_nevi_formula_program_guidance.pdf)

<sup>5</sup> <https://www.mwalliance.org/blog/creation-stretch-code-becomes-law-illinois>


<sup>6</sup> <https://www.ilga.gov/legislation/BillStatus.asp?DocID=3125&GAID=16&DocType=HB&SessionID=110&GA=102> 

<sup>7</sup> <https://www.ilga.gov/legislation/BillStatus.asp?DocID=3125&GAID=16&DocType=HB&SessionID=110&GA=102> 

Down Under (Cont'd from page 19)

infrastructure projects and showcased a number of creative design features that consider cultural, historic, scenic, environmental, and other values that define a community.

The journey was not all work related, as their MEFV host, Warren Roberts, also shared his home on Phillip Island just south of Melbourne for a couple days where the group saw Australian wildlife such as kangaroos, wallabies, koalas, kookaburras, and witnessed the nightly march of approximately 2,400 penguins up the beach to their nests. The visit wrapped up with a wonderful dinner on Friday night with MEFV Trustees and a Footy game (Australian rules football) on Saturday. The Australians

showed a commitment to the value of sharing ideas between our two nations, understanding that there is much to learn from each other. The bonus takeaway is the lifelong relationships gained in meeting these terrific public servants. Our Australian mates are looking forward to PWX in Charlotte and their Chicago visit in September. 

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### [Upcoming 2022 events](http://chicago.apwa.net/)

Jun 9, City Branch - Social Value Measurement in Infrastructure Projects  
Jun 9, Suburban Branch: Scholarship Awards Luncheon  
Jun 14, Fox Valley Branch Scholarship Lunch & Australia Study Tour Presentation  
Jun 21, Lake Branch Scholarship Presentation  
Jun 24, Women in Public Works Roundtable Luncheon  
Jun 29, Illinois Collection Systems and Stormwater Conference & Call for Abstracts  
Jun 30, Chapter Golf Outing  
  
Jul 15, Lake Branch Scholarship Golf Outing


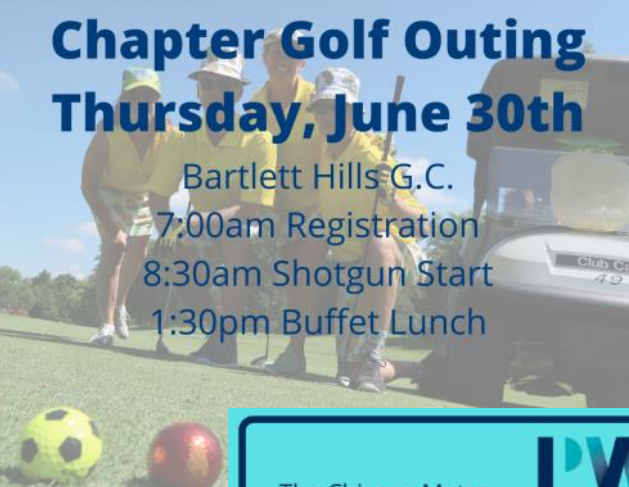
<http://chicago.apwa.net/>



## Chapter Golf Outing

### Thursday, June 30th


Bartlett Hills G.C.  
7:00am Registration  
8:30am Shotgun Start  
1:30pm Buffet Lunch



The Chicago Metro Chapter wants you to attend PWX!

**PWX**  
PUBLIC WORKS EXPO  
**CHARLOTTE**  
**August 28-31**

Application Deadline:  
June 17, 2022



## 2024 PWX Chicago

### Sponsorship and Support Opportunities

## Chicago, IL

August 18-21, 2024

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If you'd like to be a 2024 PWX Chapter sponsor, reach out to Arlan Schattke via email: [aschattke@tinleypark.org](mailto:aschattke@tinleypark.org) for info and a brochure.